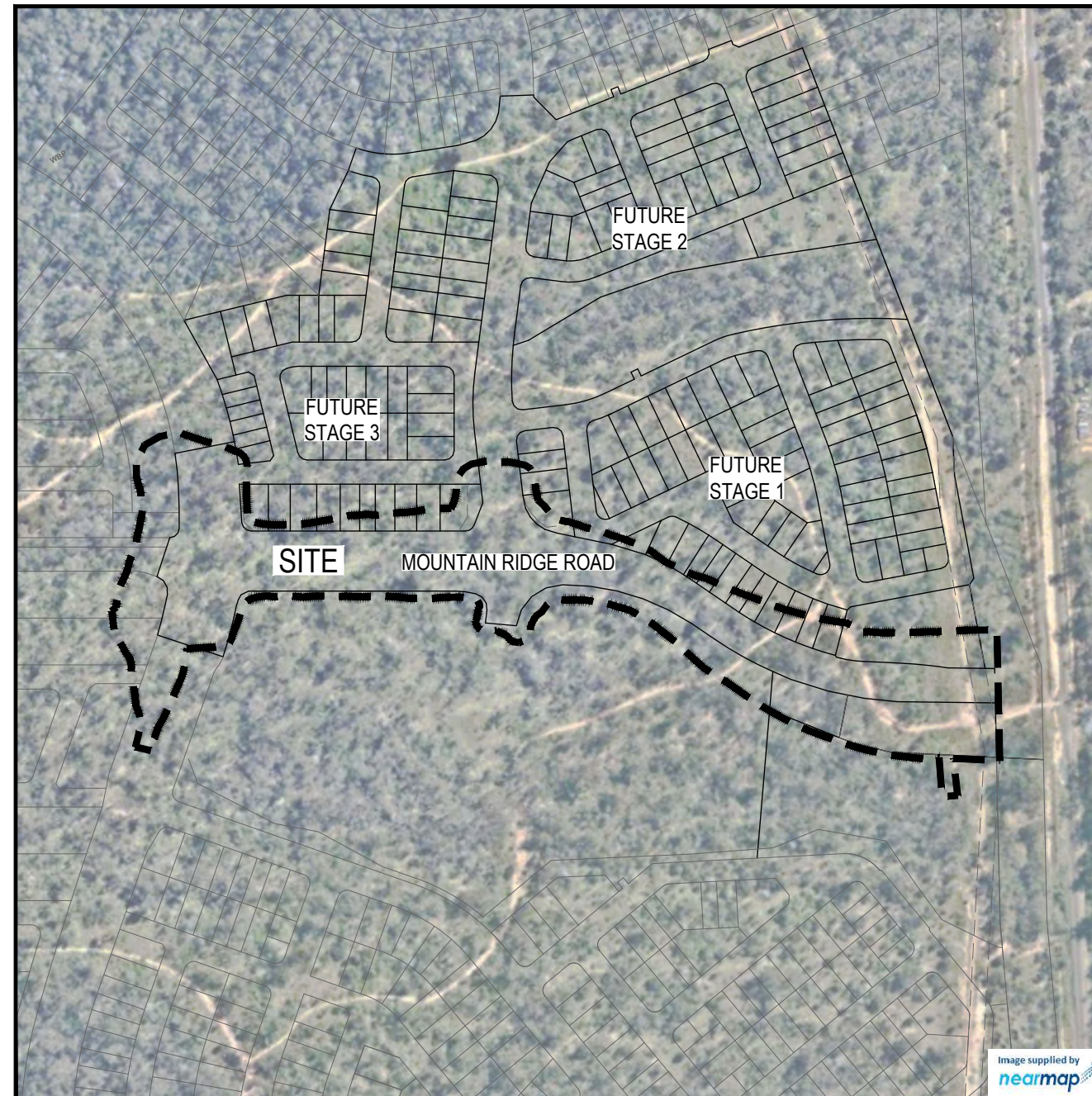


EARTHWORKS, ROADWORKS AND DRAINAGE

SEWERAGE AND WATER RETICULATION

23-0153-4500	WATER RETICULATION COVER PLAN
23-0153-4501	WATER RETICULATION GENERAL NOTES AND LIVE WORKS DETAILS
23-0153-4540	WATER RETICULATION LAYOUT PLAN SHEET 1 OF 2
23-0153-4541	WATER RETICULATION LAYOUT PLAN SHEET 2 OF 2
23-0153-4542	RIISING SEWER ENVELOPER PIPE DETAILS



SCALE 1:2000 (A1)
SCALE 1:4000 (A3)

PROJECT INFORMATION SUMMARY:
No. OF LOTS = N/A
AREA OF SITE = 4.27 ha
RP DESCRIPTION 
LOT 4 ON SP332712
LOCAL AUTHORITY: LOGAN CITY COUNCIL

REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS		SCALE	CLIENT	PROJECT NAME	DRAWING TITLE		
A	10.09.24	BR	DH	ORIGINAL ISSUE		TG	NOT FOR CONSTRUCTION		1:2000 20 0 20 40 60 80 100 A1	FRASERS PROPERTY AUSTRALIA	NEW BEITH - MOUNTAIN RIDGE ROAD	COVER PLAN		
B	30.05.25	BR	DH	RFI RESPONSE					1:4000  A3					
C	21.08.25	BR	TG	RFI RESPONSE										
						DESIGN	APPROVED DANIEL COLLINS  RREQ 18631 DATE 21.08.25		ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	MOUNTAIN RIDGE ROAD NEW BEITH	PROJECT No. 23-0153	DRAWING No. 4000	REVISION C	
						BR	FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD							

GENERAL NOTES:

1. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, PLANT AND EQUIPMENT TO CONSTRUCT THE WORKS AS DOCUMENTED AND STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARDS, SPECIFICATIONS AND REQUIREMENTS.
2. THE EXISTING SERVICES THAT ARE SHOWN ON THE DRAWINGS ARE PROVIDED FOR INFORMATION PURPOSES ONLY. NO RESPONSIBILITY IS TAKEN BY THE SUPERINTENDENT OR THE PRINCIPAL FOR INFORMATION THAT HAS BEEN SUPPLIED BY OTHERS, OR ANY EXISTING SERVICES THAT MAY BE PRESENT NOT SHOWN ON THE DRAWINGS. THE CONTRACTOR SHALL VERIFY THE POSITION OF ANY UNDERGROUND SERVICES WITHIN THE AREAS OF WORKS AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT ONLY BY THE SERVICE OWNER AUTHORITY UNLESS APPROVED OTHERWISE.
3. ALL CONSTRUCTION ACTIVITIES UNDERTAKEN SHALL COMPLY WITH CURRENT WORKPLACE HEALTH AND SAFETY REQUIREMENTS AND LEGISLATION.
4. PRIOR TO COMMENCING WORK, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL RELEVANT LOCAL AUTHORITY PERMITS.
5. THE CONTRACTOR SHALL NOT COMMENCE THE DEMOLITION OF ANY EXISTING BUILDINGS AND/OR STRUCTURES WITHOUT APPROVAL FROM THE SUPERINTENDENT.
6. THE CONTRACTOR SHALL APPLY INDUSTRY BEST PRACTICE SO WORKS SHALL NOT DISTURB OR AFFECT NEARBY RESIDENTS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES. CONTRACTOR TO ENSURE THAT ACCESS AND SERVICES TO EXISTING PROPERTIES ARE AVAILABLE AT ALL TIMES.
7. THE CONTRACTOR SHALL VERIFY LEVELS OF EXISTING SERVICE CROSSINGS AND CONNECTION POINTS PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY SUPERINTENDENT OF ANY DISCREPANCIES BETWEEN ACTUAL AND PROPOSED DESIGN LEVELS.
8. THESE ENGINEERING DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE APPROVED VEGETATION MANAGEMENT PLAN, WHERE APPLICABLE. WHEN IN DOUBT, ALL EXISTING TREES ARE TO REMAIN UNLESS DIRECTED OTHERWISE.
9. HOLD POINT: ONCE THE BASE OF MANHOLES, INSPECTION PITS, GULLIES AND FIELD INLETS FOR STORMWATER DRAINAGE AND SEWER RETICULATION HAVE BEEN POURED, CONSTRUCTION SHALL ONLY RE-COMMENCE ONCE THE SUPERINTENDENT AND/OR ENGINEER HAVE INSPECTED THE WORKS.
10. THE CONTRACTOR SHALL NOTE DURING THE COURSE OF THE WORKS WHEN JOINT INSPECTIONS WITH THE AUTHORITY AND THE SUPERINTENDENT ARE REQUIRED. THESE INCLUDE PRE-STARTS, SUBGRADES, PRE-SEALS, CLEARING, AND OTHER SUCH INSPECTIONS AS NOMINATED IN THE APPROVAL AND THE SPECIFICATIONS. THE CONTRACTOR SHALL ENSURE NO WORKS PROCEED PAST THE INSPECTION POINT UNTIL THE JOINT INSPECTION HAS BEEN SUCCESSFULLY COMPLETED.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SAFE MOVEMENT OF TRAFFIC AND THE PROTECTION OF PERSON AND PROPERTY THROUGH AND AROUND THE SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC MANAGEMENT INCLUDING THE DESIGN, CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ROADWAYS, DETOURS, SIGNS, LIGHTS AND BARRIER AS REQUIRED STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHORITY REQUIREMENTS.

BULK EARTHWORKS NOTES

1. NOTWITHSTANDING THE EXTENTS OF CUTTING AND FILLING SHOWN ON DRAWINGS, THE SUPERINTENDENT RESERVES THE RIGHT TO ADJUST THE FINISHED SURFACE LEVELS AND EARTHWORKS EXTENTS THROUGH WRITTEN DIRECTION.
2. THE CONTRACTOR SHALL UNDERTAKE ALL CLEARING USING INDUSTRY BEST PRACTICE INCLUDING CONSIDERATION OF FAUNA RELOCATION.
3. THE CONTRACTOR SHALL UNDERTAKE ALL EARTHWORKS IN ACCORDANCE WITH AS3798-2007 AND LOCAL AUTHORITY REQUIREMENTS. LEVEL 1 SUPERVISION IS REQUIRED.
4. THE CONTRACTOR SHALL CONSIDER LOADS GENERATED BY THE EARTHWORKS OPERATIONS SO AS TO AVOID DAMAGE TO ALL PIPES, SERVICES AND STRUCTURES.
5. THE EARTHWORKS DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PROJECT'S SEDIMENT AND EROSION CONTROL PLAN, WHERE APPLICABLE.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PLANNING, DESIGN, CERTIFICATION, IMPLEMENTATION AND MAINTENANCE OF AN EROSION AND SEDIMENT CONTROL PLAN THAT IS COMPLIANT WITH THE INTERNATIONAL EROSION CONTROL ASSOCIATION (IECA) GUIDELINE 'BEST PRACTICE EROSION AND SEDIMENT CONTROL' AND RELEVANT COUNCIL POLICIES.
7. ALLOTMENT FINISHED SURFACE LEVELS, SHOWN ON THE LAYOUT PLAN, INDICATE THE FINISHED SURFACE LEVEL AFTER TOPSOIL PLACEMENT.

ROADWORKS AND DRAINAGE NOTES

1. ALL WORKS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY'S STANDARD DRAWINGS, METHODS AND SPECIFICATIONS.
2. NOTWITHSTANDING THE EXTENTS OF CUTTING AND FILLING SHOWN ON DRAWINGS, THE SUPERINTENDENT RESERVES THE RIGHT TO ADJUST THE FINISHED SURFACE LEVELS AND EARTHWORKS EXTENTS THROUGH WRITTEN DIRECTION.
3. NEW CONSTRUCTION SHALL BE NEATLY JOINED TO EXISTING FORMATION. WHERE REQUIRED, THE EXISTING FORMATION SHALL BE SAW CUT IN ACCORDANCE WITH IPWEAQ STD DRG RS-170. LEVELS AND GRADIENTS AT CONNECTIONS WITH EXISTING WORKS MAY BE VARIED AS REQUIRED TO ACHIEVE A SMOOTH CONNECTION.
4. THE CONTRACTOR SHALL UNDERTAKE ALL EARTHWORKS IN ACCORDANCE WITH AS3798-2007 AND LOCAL AUTHORITY REQUIREMENTS. LEVEL 1 SUPERVISION IS REQUIRED.
5. THE CONTRACTOR SHALL SUPPLY THE SUPERINTENDENT WITH THE SUBGRADE TEST RESULTS NECESSARY FOR ALL PAVEMENT DESIGN.
6. THE CONTRACTOR SHALL ENSURE A MINIMUM OF 75mm TOPSOIL TO ALL VERGE AND BATTER AREAS (AND STABILISATION AS ORDERED)
7. THE CONTRACTOR SHALL INSTALL ALL FOOTPATH AND PRAM RAMPS IN COMPLIANCE WITH THE AUTHORITY'S STANDARD DRAWINGS. PRAM RAMPS ARE TO BE LOCATED CLEAR OF DRAINAGE GULLY PITS AND FUTURE DRIVEWAY POSITIONS INDICATED ON THE LAYOUT PLANS.
8. THE CONTRACTOR SHALL INSTALL SUBSOIL DRAINS UNDER ALL KERBS AS REQUIRED BY THE LOCAL AUTHORITY'S STANDARDS.
9. THE CONTRACTOR SHALL ENSURE THAT ALL RETAINING WALL SUBSOIL DRAINS ARE TO CONNECT TO EITHER KERB ADAPTORS, STORMWATER DRAINAGE STRUCTURES OR KERB SUBSOIL DRAINS. CONTRACTOR TO DEMONSTRATE TO SUPERINTENDENT THAT SUITABLE CONNECTIONS HAVE BEEN PROVIDED FOR ALL WALLS.
10. ALL STORMWATER DRAINAGE MATERIALS, BEDDING, JOINTING AND STEP IRON REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITIES STANDARD DRAWINGS, METHODS AND SPECIFICATIONS.
11. THE STORMWATER PIPE CLASSES HAVE BEEN DESIGNED FOR SERVICE LOADS ONLY. THE CONTRACTOR SHALL ASSESS THE SUITABILITY OF MACHINERY USED ON SITE AND THE ANTICIPATED CONSTRUCTION LOADS, AND UPGRADE THE PIPE CLASSES IF NECESSARY IN ACCORDANCE WITH AS3725-2007.
12. THE TERM D_{50} DOCUMENTED ON THE DRAWINGS, IN RELATION TO ROCK ARMORING, CORRESPONDS TO THE REQUIRED MEDIAN DIAMETER OF THE PLACED ROCKS. THE ROCKS USED SHALL NOT VARY IN SIZE BY +/- 30% OF THE PROPOSED D_{50} SIZE.

CYCLE TRACK NOTES

1. ALL WORKS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITIES STANDARD DRAWINGS, METHODS AND SPECIFICATIONS:
- LOGAN CITY COUNCIL CYCLEWAYS STANDARDS
 - DTMR 'SELECTION AND DESIGN OF CYCLE TRACKS' GUIDELINE.

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LEGEND

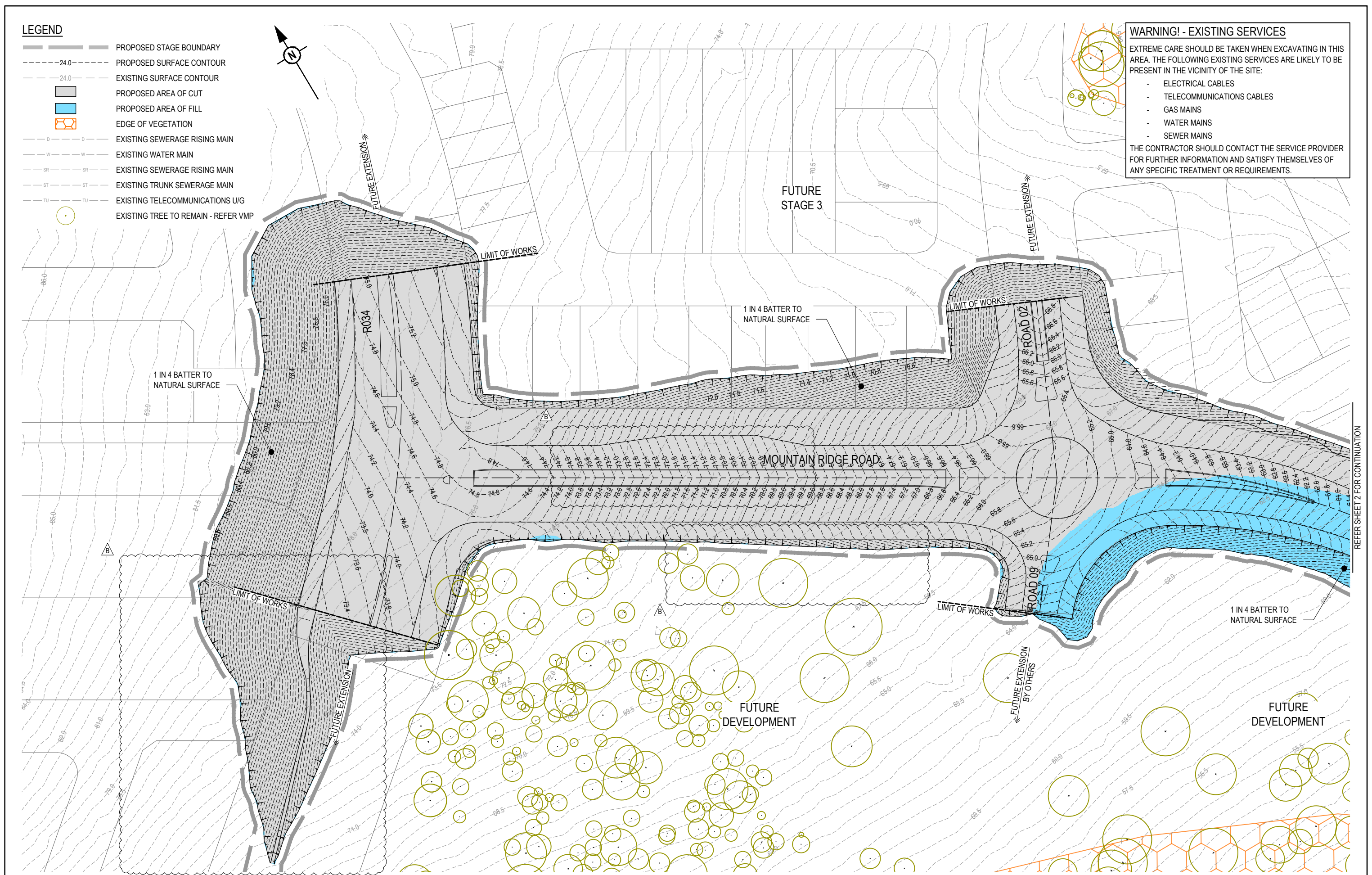
- PROPOSED STAGE BOUNDARY
- PROPOSED SURFACE CONTOUR
- EXISTING SURFACE CONTOUR
- PROPOSED AREA OF CUT
- PROPOSED AREA OF FILL
- EDGE OF VEGETATION
- EXISTING SEWERAGE RISING MAIN
- EXISTING WATER MAIN
- EXISTING SEWERAGE RISING MAIN
- EXISTING TRUNK SEWERAGE MAIN
- EXISTING TELECOMMUNICATIONS U/G
- EXISTING TREE TO REMAIN - REFER VMP

WARNING! - EXISTING SERVICES

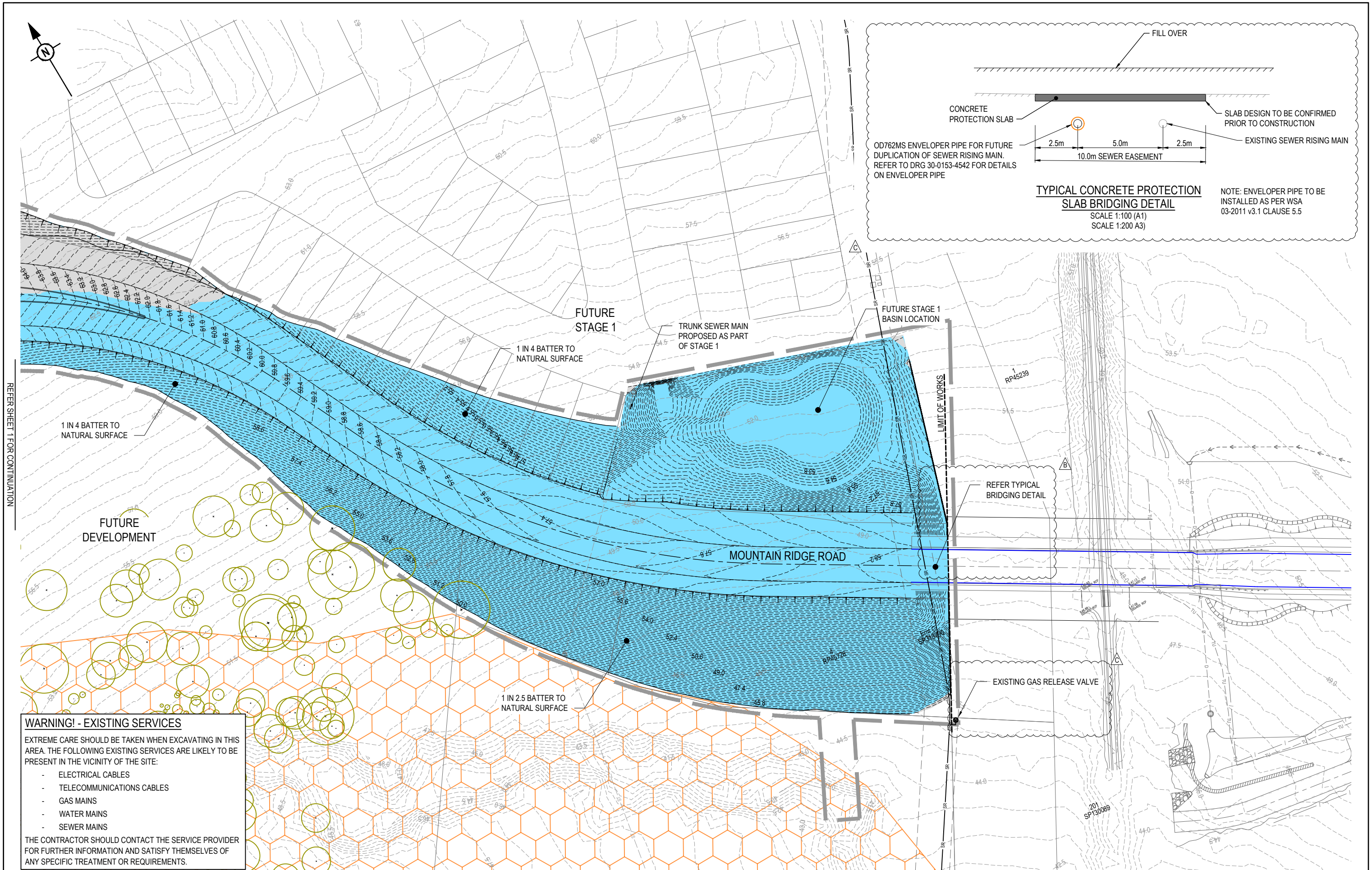
EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

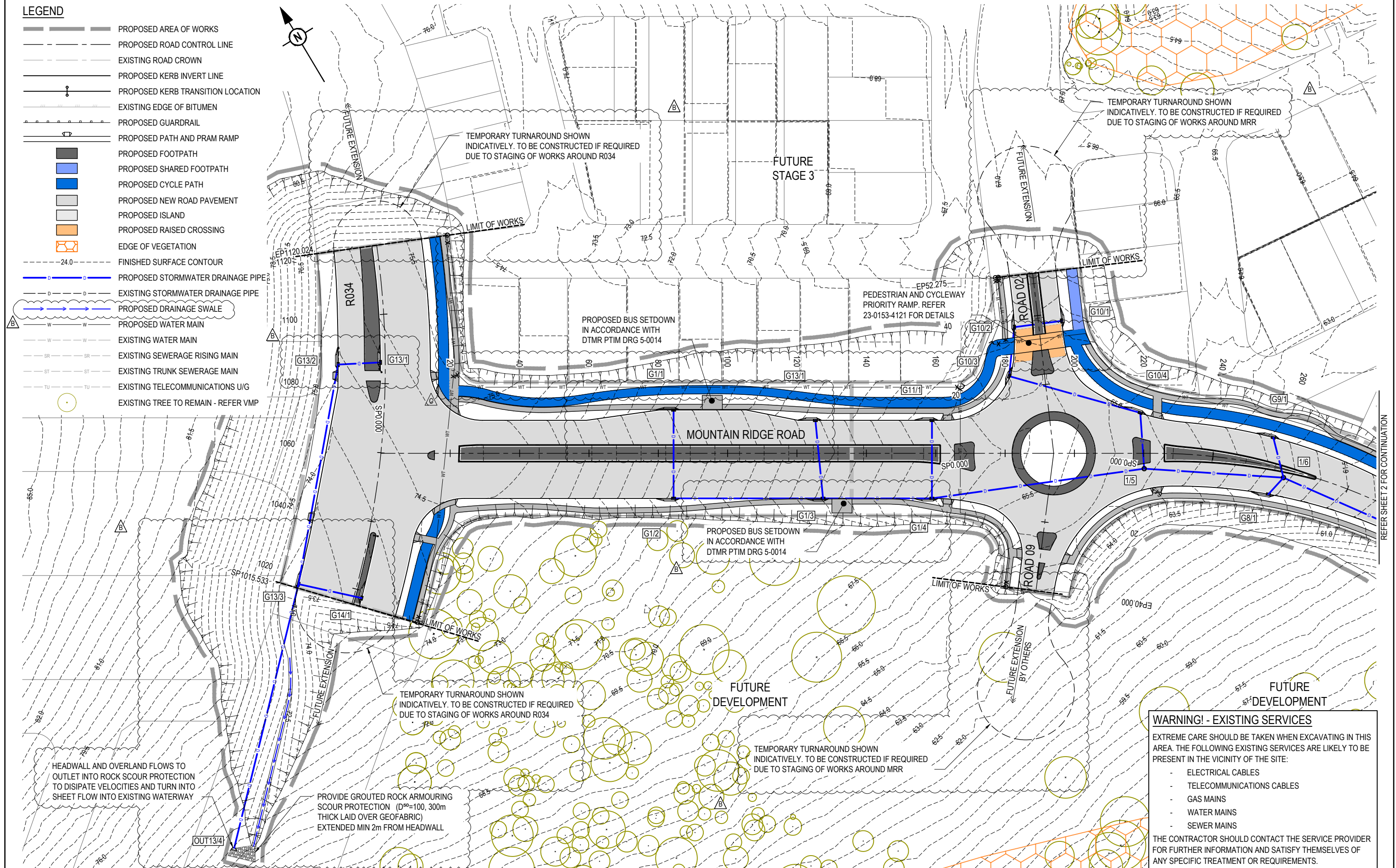


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B	30.05.25	BR	DH	RFI RESPONSE	BR	APPROVED DANIEL COLLINS		ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	MOUNTAIN RIDGE ROAD NEW BEITH	PROJECT No. 23-0153
C	21.08.25	BR	TG	RFI RESPONSE		RPEQ 18631 DATE 21.08.25				DRAWING No. 4100
						FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD				REVISION C



REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT NAME	DRAWING TITLE
A	10.09.24	BR	DH	ORIGINAL ISSUE	TG	NOT FOR CONSTRUCTION	1:500 1:1000	FRASERS PROPERTY AUSTRALIA	NEW BEITH - MOUNTAIN RIDGE ROAD	BULK EARTHWORKS LAYOUT PLAN SHEET 2 OF 2
B	30.05.25	BR	DH	RFI RESPONSE	DESIGN	APPROVED	10 5 0 10 20 A1	ASSOCIATED CONSULTANT	MOUNTAIN RIDGE ROAD NEW BEITH	PROJECT No. 23-0153
C	21.08.25	BR	TG	RFI RESPONSE	BR	DANIEL COLLINS RPEQ 18631 21.08.25	1:1000	RPS GROUP (07) 3539 9500		DRAWING No. 4101
						FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD				REVISION C

	PROPOSED AREA OF WORKS
	PROPOSED ROAD CONTROL LINE
	EXISTING ROAD CROWN
	PROPOSED KERB INVERT LINE
	PROPOSED KERB TRANSITION LOCATION
	EXISTING EDGE OF BITUMEN
	PROPOSED GUARDRAIL
	PROPOSED PATH AND PRAM RAMP
	PROPOSED FOOTPATH
	PROPOSED SHARED FOOTPATH
	PROPOSED CYCLE PATH
	PROPOSED NEW ROAD PAVEMENT
	PROPOSED ISLAND
	PROPOSED RAISED CROSSING
	EDGE OF VEGETATION
	FINISHED SURFACE CONTOUR
	PROPOSED STORMWATER DRAINAGE PIPE
	EXISTING STORMWATER DRAINAGE PIPE
	PROPOSED DRAINAGE SWALE
	PROPOSED WATER MAIN
	EXISTING WATER MAIN
	EXISTING SEWERAGE RISING MAIN
	EXISTING TRUNK SEWERAGE MAIN
	EXISTING TELECOMMUNICATIONS U/G
	EXISTING TREE TO REMAIN - REFER VMP



REFER SHEET 2 FOR CONTINUATION

EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

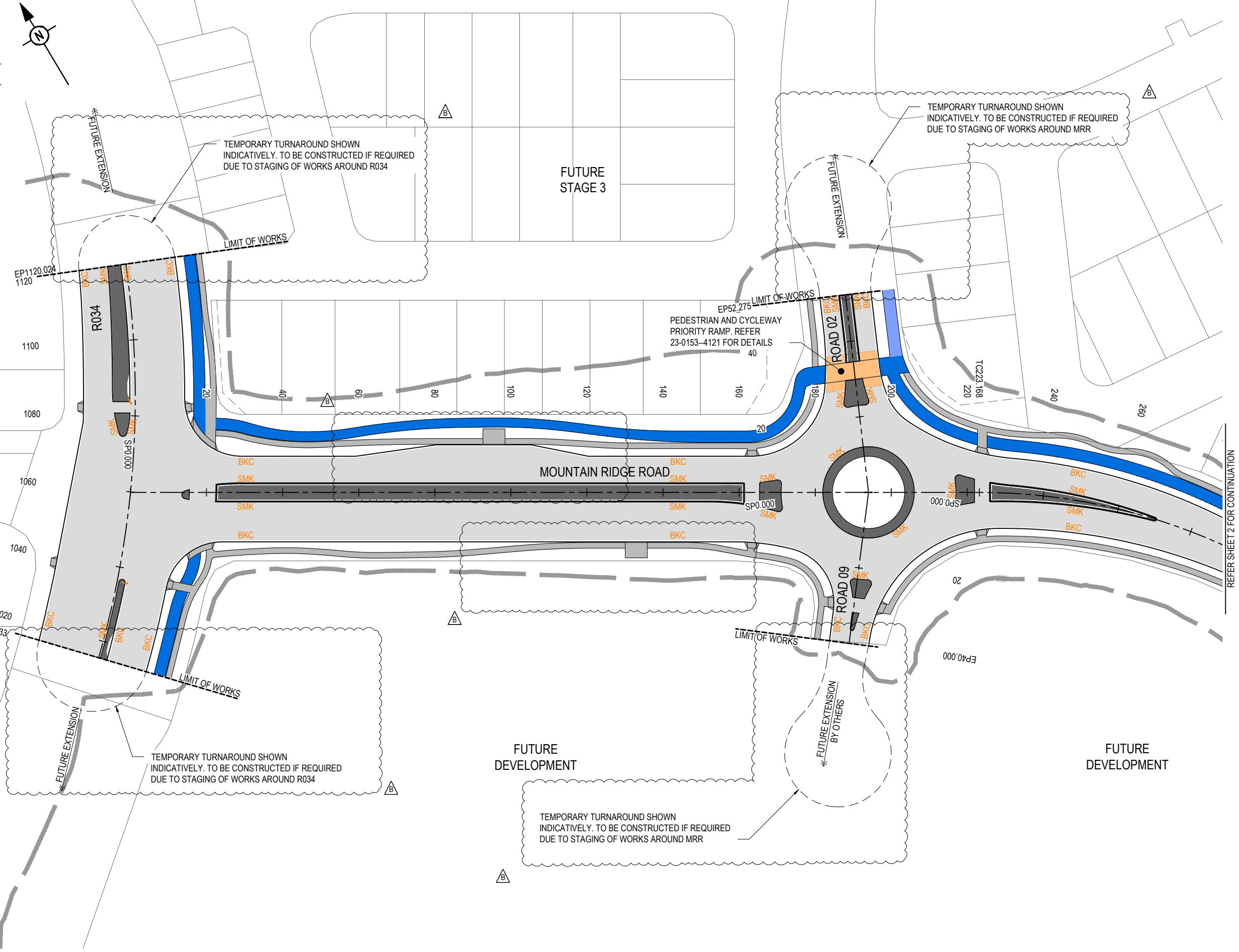
- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

THE CONTRACTOR SHOULD CONTACT THE SERVICE PROVIDER FOR FURTHER INFORMATION AND SATISFY THEMSELVES OF ANY SPECIFIC TREATMENT OR REQUIREMENTS.

REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS		SCALE	CLIENT	PROJECT NAME NEW BEITH - MOUNTAIN RIDGE ROAD MOUNTAIN RIDGE ROAD NEW BEITH	DRAWING TITLE ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 1 OF 2			
A	10.08.24	BR	DH	ORIGINAL ISSUE		TG	NOT FOR CONSTRUCTION		1:500 10 5 0 10 20 A1	FRASERS PROPERTY AUSTRALIA		PROJECT No.	DRAWING No.	REVISION	
B	30.05.25	BR	DH	RFI RESPONSE					1:1000  A3			ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	23-0153	4200	C
C	21.08.25	BR	TG	RFI RESPONSE											
						DESIGN	APPROVED  RPEQ 18631 DATE 21.08.25								
						BR	FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD								

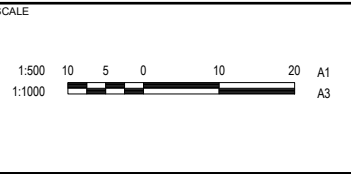
LEGEND

- PROPOSED AREA OF WORKS
- PROPOSED ROAD CONTROL LINE
- BKC PROPOSED BARRIER KERB AND CHANNEL 'TYPE B1'
- SMK PROPOSED BARRIER KERB AND CHANNEL 'TYPE SM4'
- PROPOSED KERB TRANSITION LOCATION
- EXISTING EDGE OF BITUMEN
- PROPOSED GUARDRAIL
- PROPOSED PATH AND PRAM RAMP
- PROPOSED FOOTPATH
- PROPOSED SHARED FOOTPATH
- PROPOSED CYCLE PATH
- PROPOSED NEW ROAD PAVEMENT
- PROPOSED ISLAND
- PROPOSED RAISED CROSSING



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	10.09.24	BR	DH	ORIGINAL ISSUE
B	30.05.25	BR	DH	RFI RESPONSE

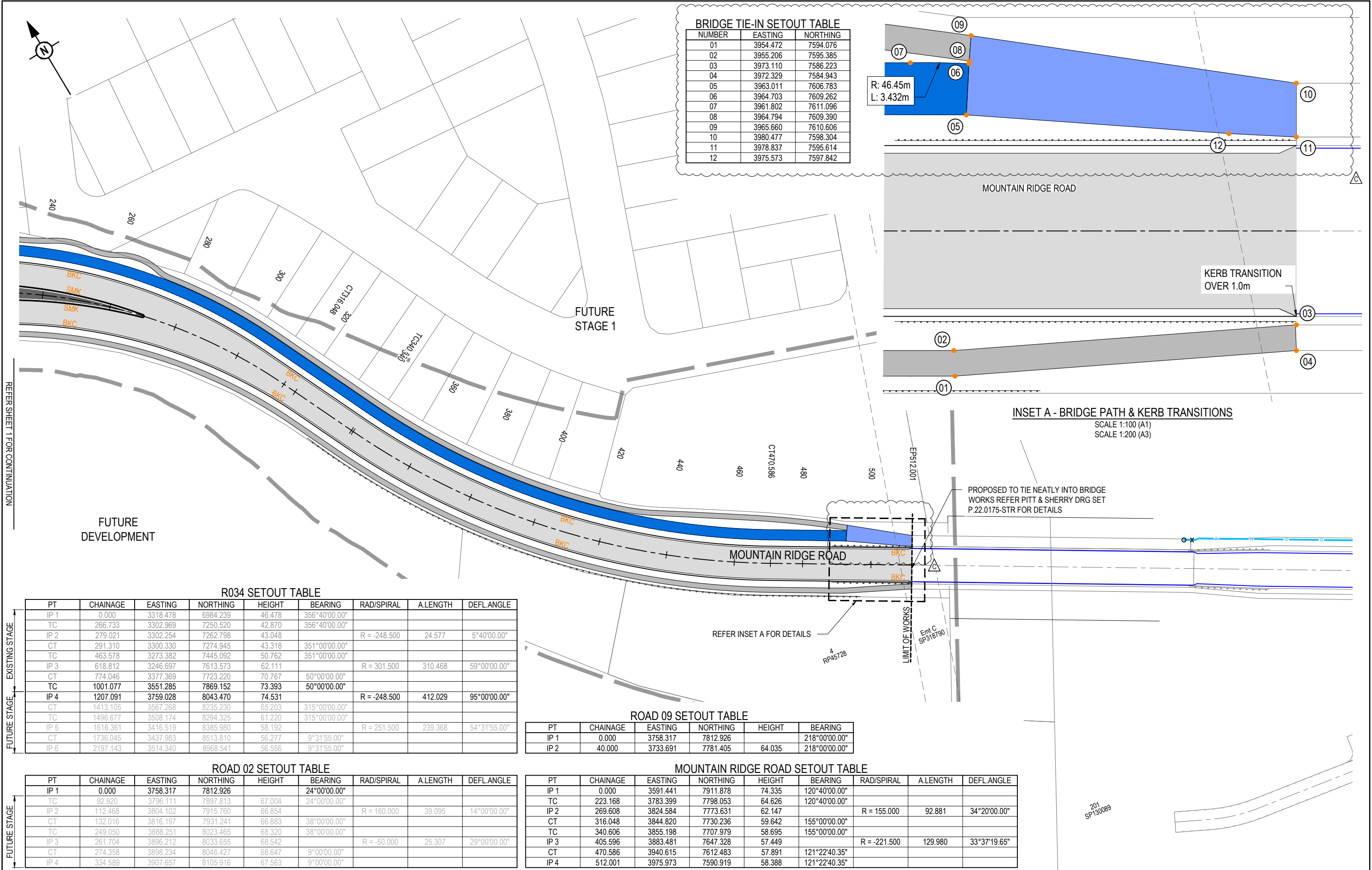
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DH	NOT FOR CONSTRUCTION
DESIGN	APPROVED
BR	DANIEL COLLINS RPEQ 18631 DATE 30.05.25

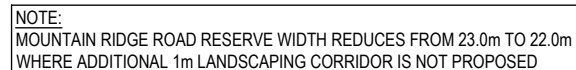
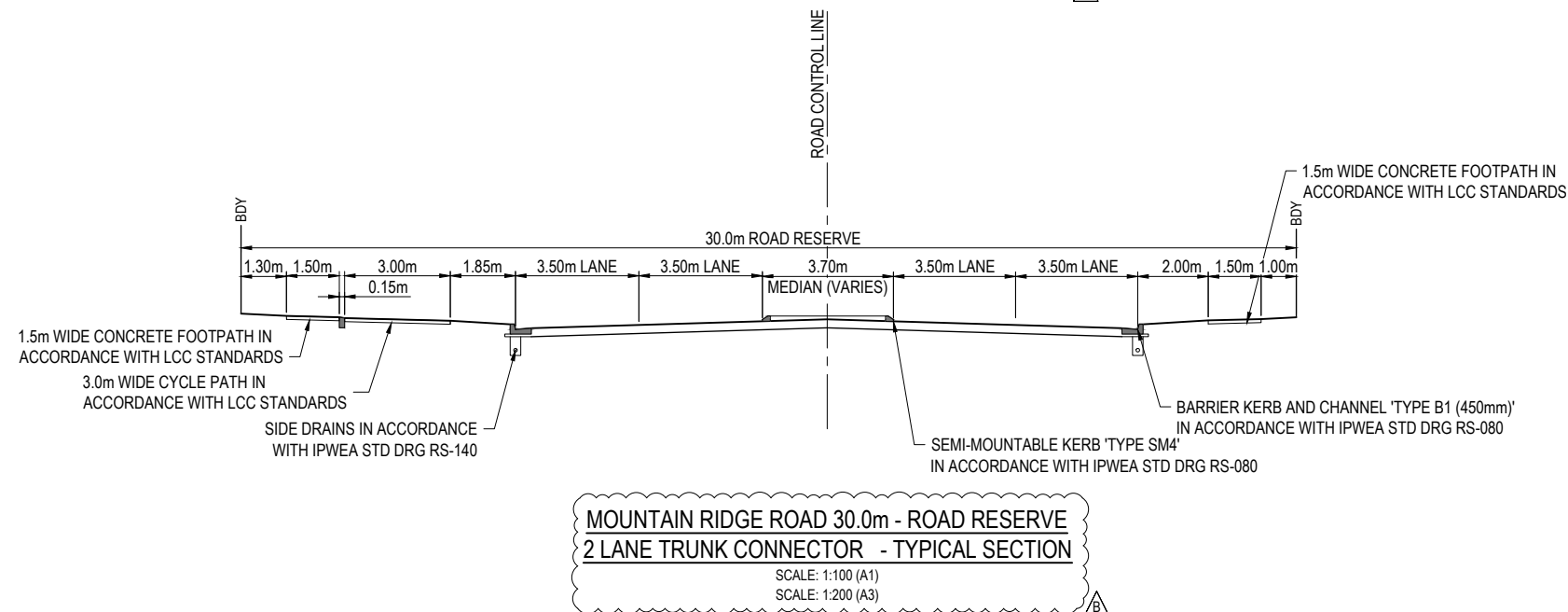


CLIENT
FRASERS PROPERTY AUSTRALIA
ASSOCIATED CONSULTANT
RPS GROUP (07) 3539 9500

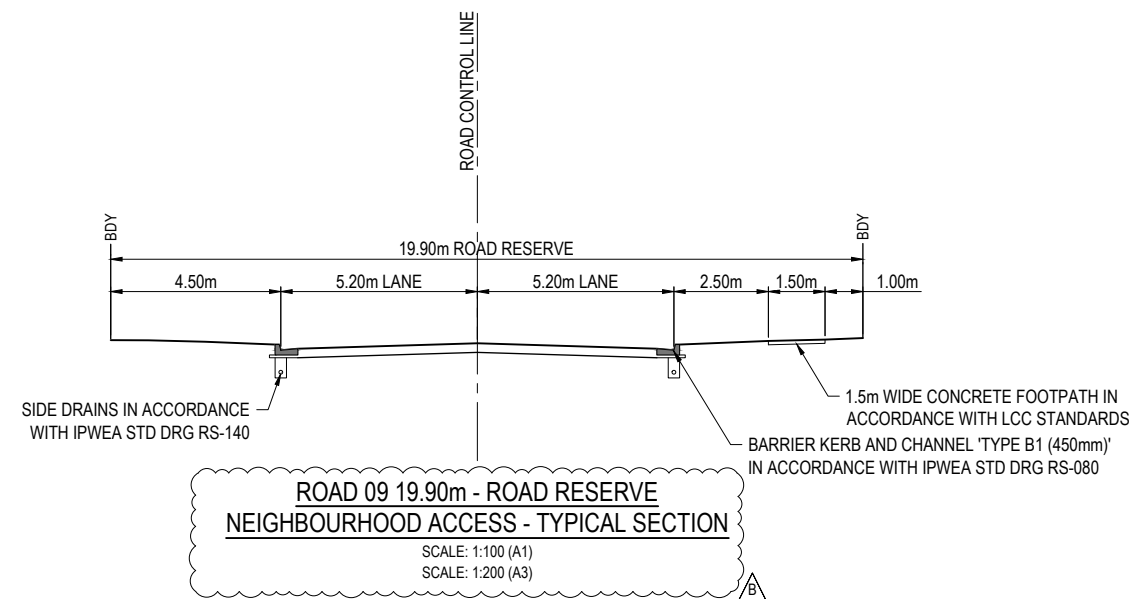
PROJECT NAME
NEW BEITH - MOUNTAIN RIDGE ROAD
MOUNTAIN RIDGE ROAD NEW BEITH

DRAWING TITLE
SURVEY SETOUT AND KERB TYPES LAYOUT PLAN SHEET 1 OF 2
PROJECT No.
23-0153
DRAWING No.
4210
REVISION
B



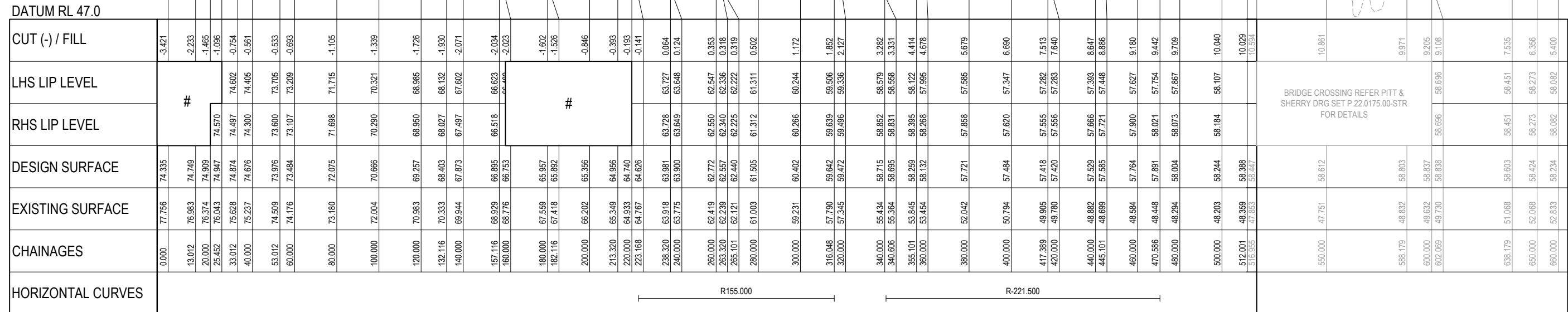


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B	30.05.25	BR	DH	RFI RESPONSE											
						DESIGN	APPROVED DANIEL COLLINS  RPEQ 18631 DATE 30.05.25 FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD	ROAD TYPICAL ROAD SECTIONS SHEET 1 OF 3							



REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS			SCALE 1:100 1 0 1 2 3 4 5 A1 1:200  A3	CLIENT FRASERS PROPERTY AUSTRALIA	PROJECT NAME NEW BEITH - MOUNTAIN RIDGE ROAD	DRAWING TITLE ROAD TYPICAL ROAD SECTIONS SHEET 3 OF 3		
A	10.08.24	BR	DH	ORIGINAL ISSUE	DH	NOT FOR CONSTRUCTION									
B	30.05.25	BR	DH	RFI RESPONSE											
						DESIGN	APPROVED	DATE							
					BR	DANIEL COLLINS RPEQ 18631 30.05.25									
															
						FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD									

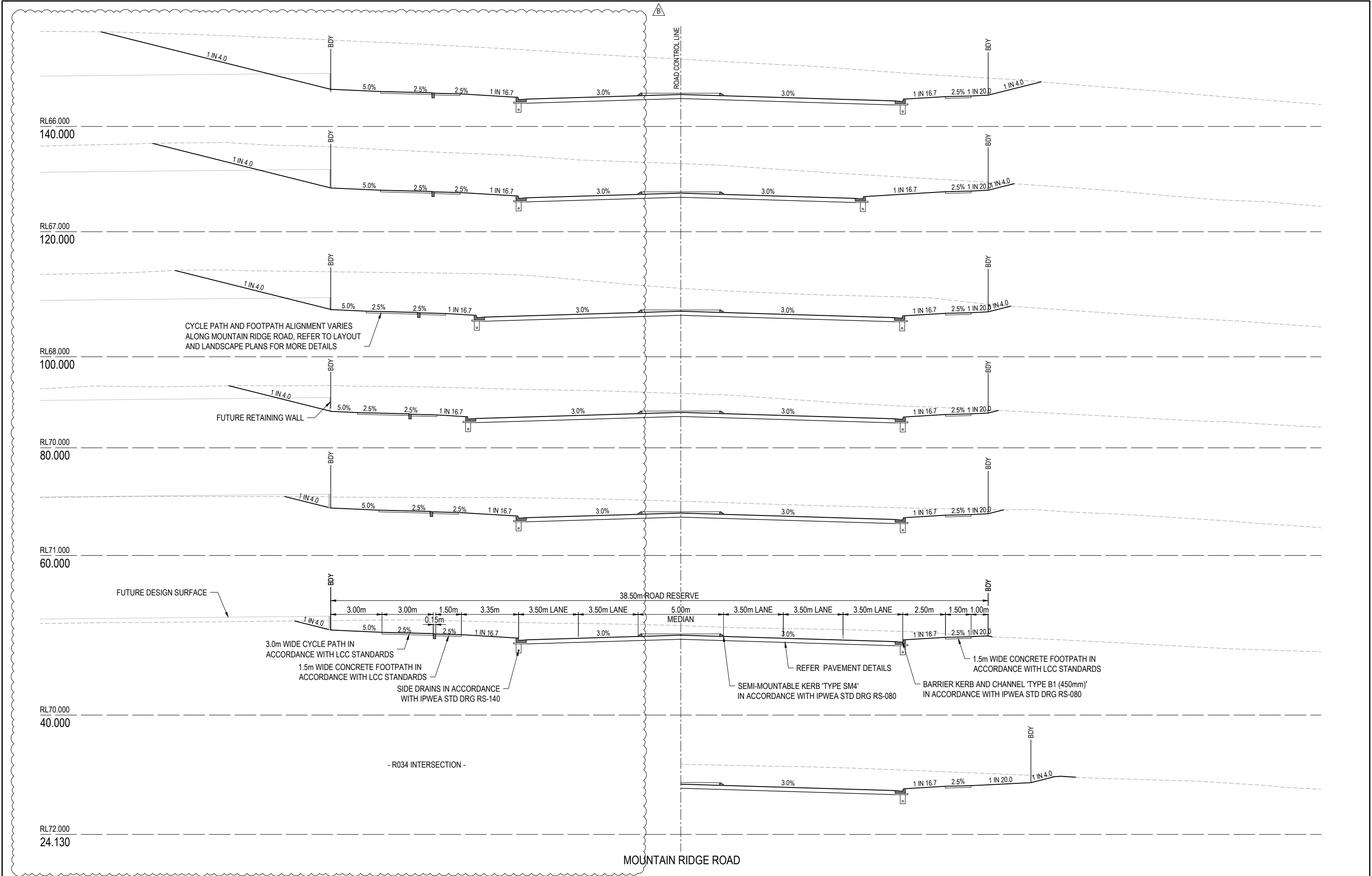
NOTE: THIS PAVEMENT DESIGN IS PRELIMINARY ONLY BASED ON AN ASSUMED CBR. THE CONTRACTOR SHALL SUPPLY THE SUPERINTENDENT WITH SUBGRADE TEST RESULTS NECESSARY FOR FINAL PAVEMENT DESIGN



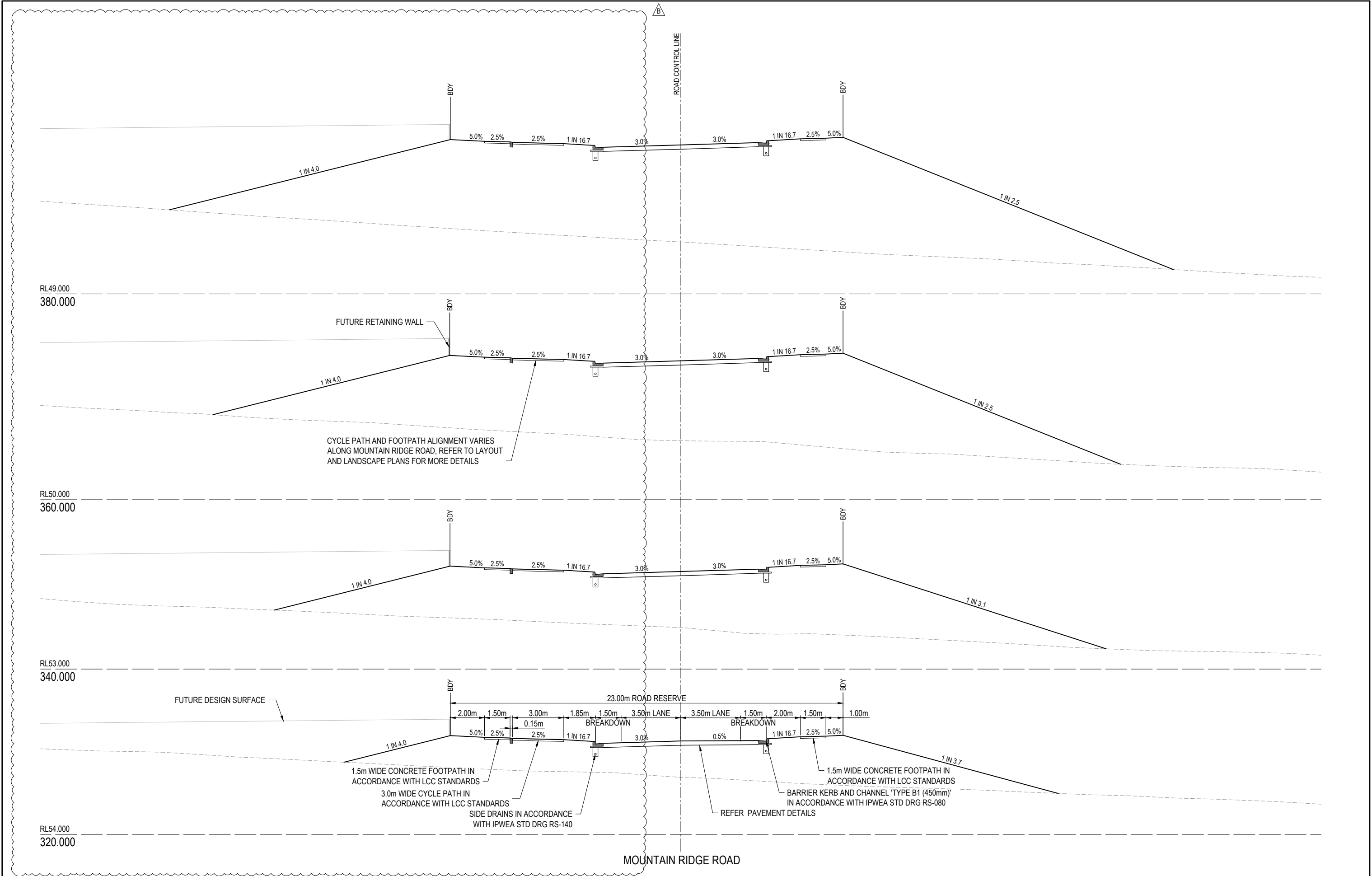
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MOUNTAIN RIDGE ROAD

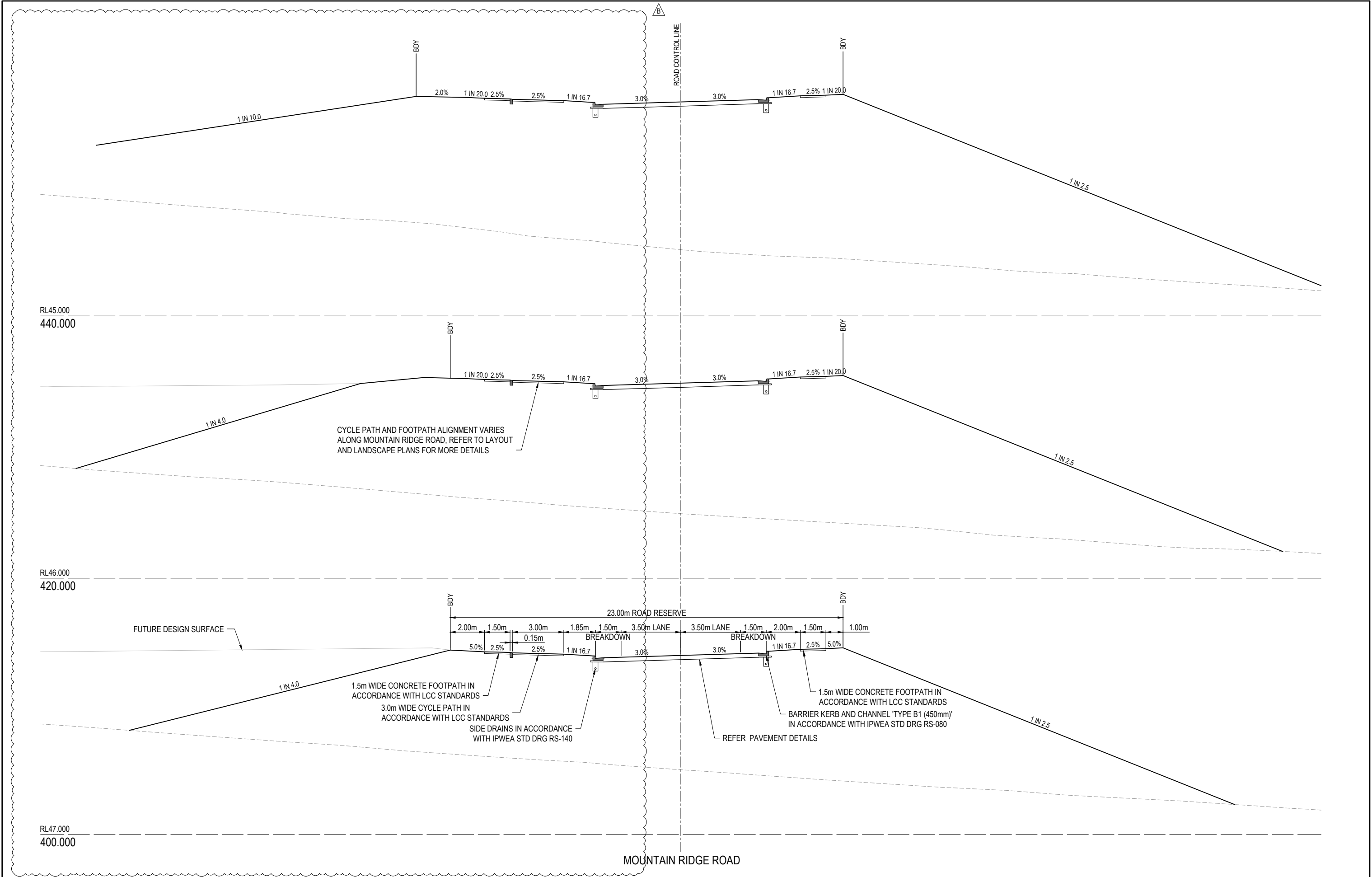
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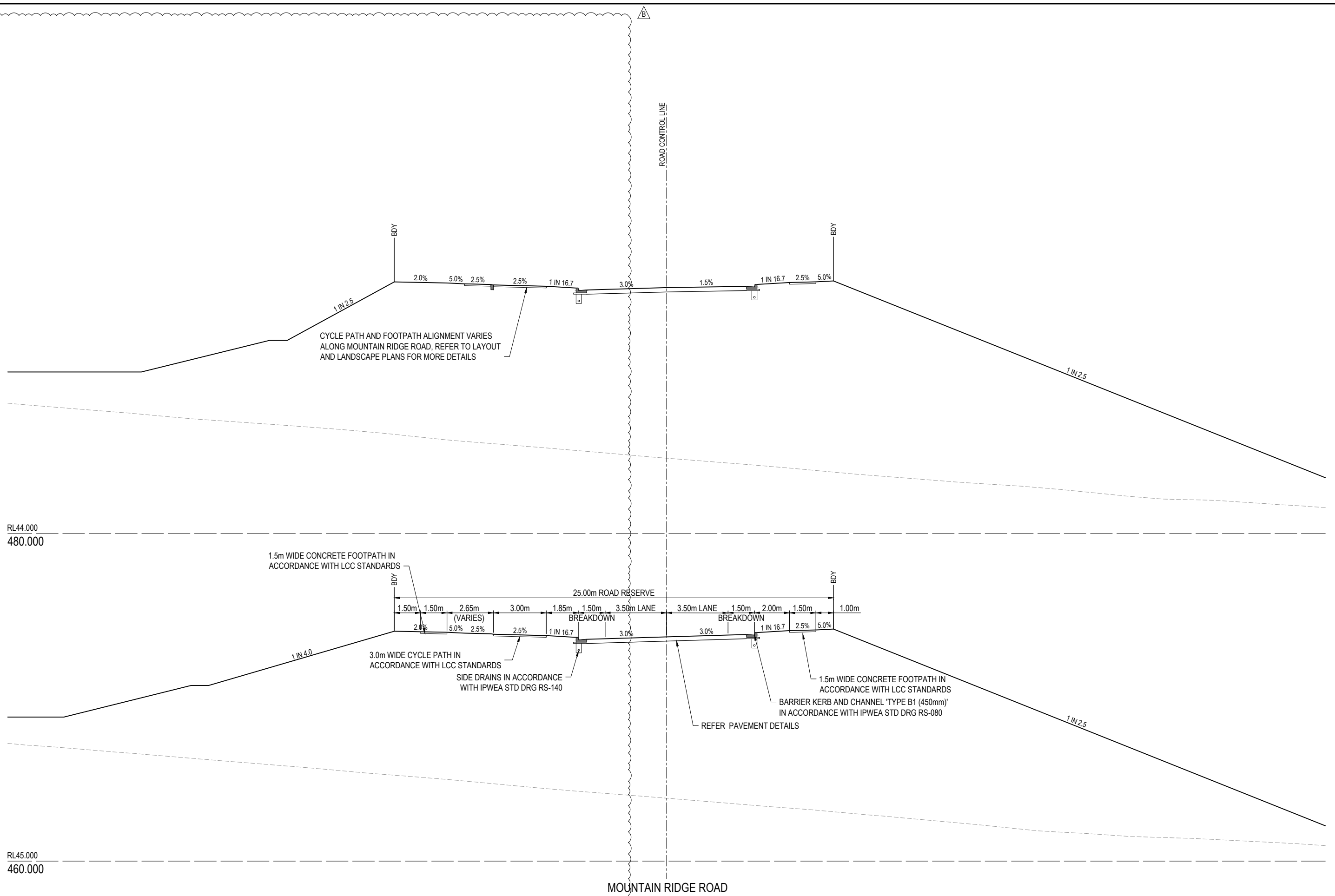
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A	10.09.24	BR	DH	ORIGINAL ISSUE			DH	NOT FOR CONSTRUCTION						PROJECT No. 23-0153		
B	30.05.25	BR	DH	RFI RESPONSE												

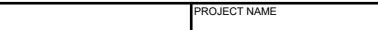


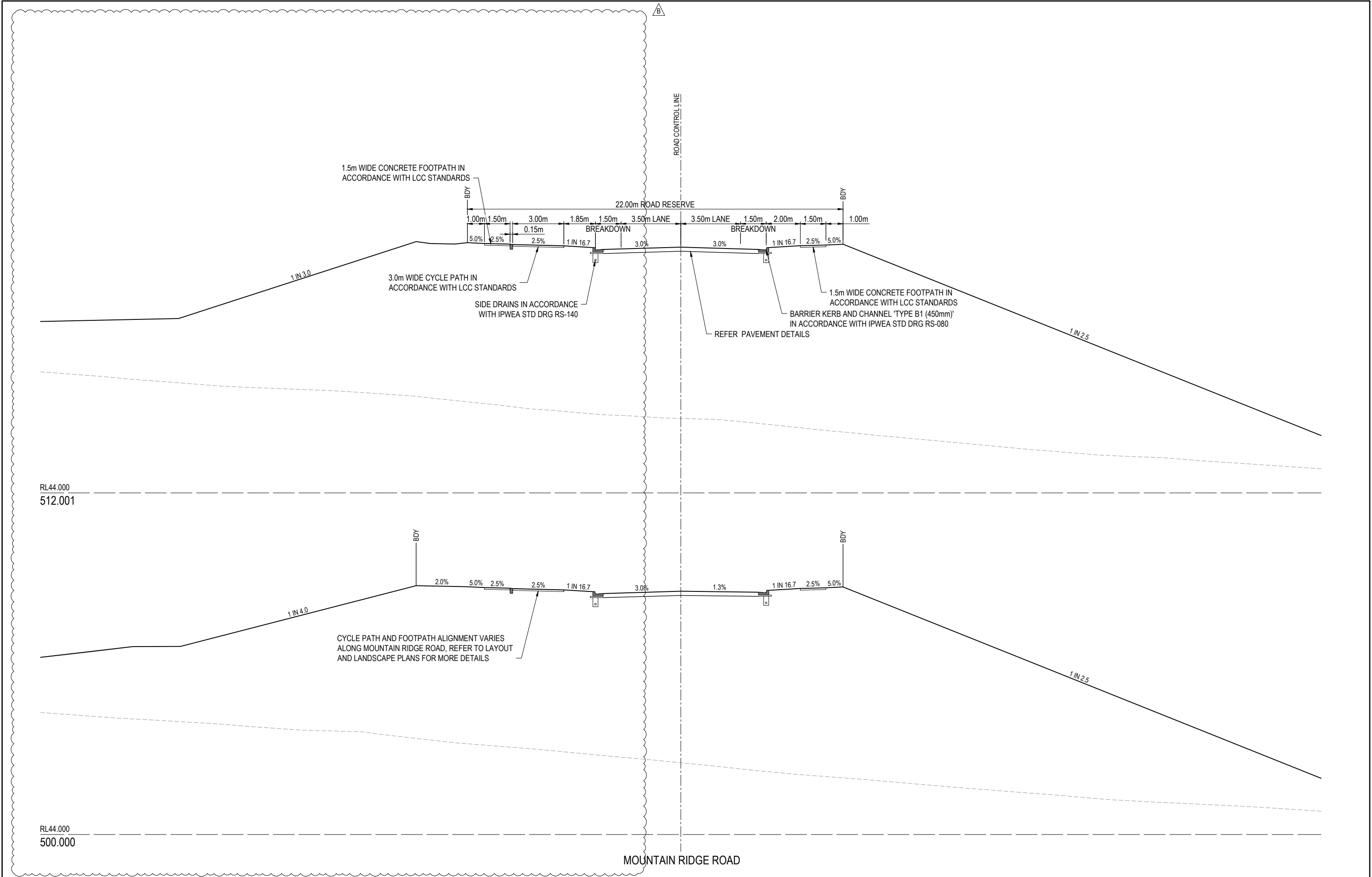
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A	10.09.24	BR	DH	ORIGINAL ISSUE				DH	NOT FOR CONSTRUCTION					FRASERS PROPERTY AUSTRALIA		NEW BEITH - MOUNTAIN RIDGE ROAD		MOUNTAIN RIDGE ROAD CROSS SECTIONS SHEET 3 OF 6			
B	30.05.25	BR	DH	RFI RESPONSE																	
								BR	APPROVED DANIEL COLLINS  RPEQ 18631 DATE 30.05.25					ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500		MOUNTAIN RIDGE ROAD NEW BEITH		PROJECT No.		DRAWING No.	REVISION
																		23-0153		4233	B
									FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD												

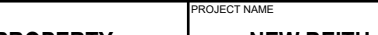


REV	DATE	DESIGN	DRAWN	REVISION DETAILS			DRAWN	STATUS				SCALE 1:100 1 0 1 2 3 4 5 A1 1:200  A3	CLIENT FRASERS PROPERTY AUSTRALIA	PROJECT NAME NEW BEITH - MOUNTAIN RIDGE ROAD	DRAWING TITLE MOUNTAIN RIDGE ROAD CROSS SECTIONS SHEET 4 OF 6		
A	10.09.24	BR	DH	ORIGINAL ISSUE			DH	NOT FOR CONSTRUCTION									
B	30.05.25	BR	DH	RFI RESPONSE													



REV	DATE	DESIGN	DRAWN	REVISION DETAILS			DRAWN	STATUS		SCALE		CLIENT	PROJECT NAME	DRAWING TITLE			
A	10.08.24	BR	DH	ORIGINAL ISSUE			DH	NOT FOR CONSTRUCTION		1:100 1:200			FRASERS PROPERTY AUSTRALIA	NEW BEITH - MOUNTAIN RIDGE ROAD	MOUNTAIN RIDGE ROAD CROSS SECTIONS SHEET 5 OF 6		
B	30.05.25	BR	DH	RFI RESPONSE													
							DESIGN	APPROVED							ASSOCIATED CONSULTANT	MOUNTAIN RIDGE ROAD NEW BEITH	PROJECT No.
							BR	DANIEL COLLINS	RPEQ 18631	DATE	30.05.25	RPS GROUP (07) 3539 9500	23-0153	4235	B		
																	
							FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD										

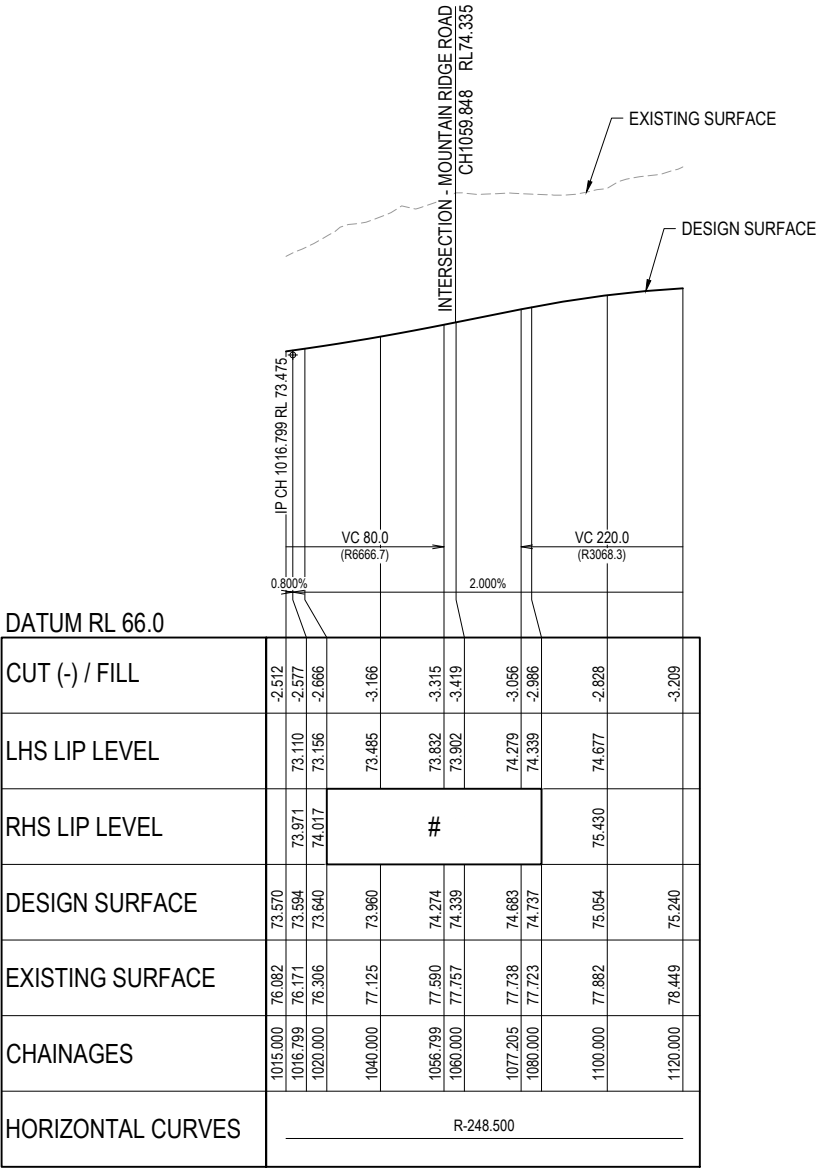


REV	DATE	DESIGN	DRAWN	REVISION DETAILS				DRAWN	STATUS					SCALE		CLIENT	PROJECT NAME	DRAWING TITLE									
A	10.09.24	BR	DH	ORIGINAL ISSUE				DH	NOT FOR CONSTRUCTION					1:100	1	0	1	2	3	4	5	A1	FRASERS PROPERTY AUSTRALIA	NEW BEITH - MOUNTAIN RIDGE ROAD	MOUNTAIN RIDGE ROAD CROSS SECTIONS SHEET 6 OF 6		
B	30.05.25	BR	DH	RFI RESPONSE										1:200						A3							
								DESIGN	APPROVED		RPEQ 18631	DATE		30.05.25	ASSOCIATED CONSULTANT		RPS GROUP (07) 3539 9500	MOUNTAIN RIDGE ROAD NEW BEITH	PROJECT No.	DRAWING No.	REVISION						
								BR								23-0153			4236	B							
									FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD																		

ASSUMED PAVEMENT DETAILS (SUBJECT TO CBR TESTING)

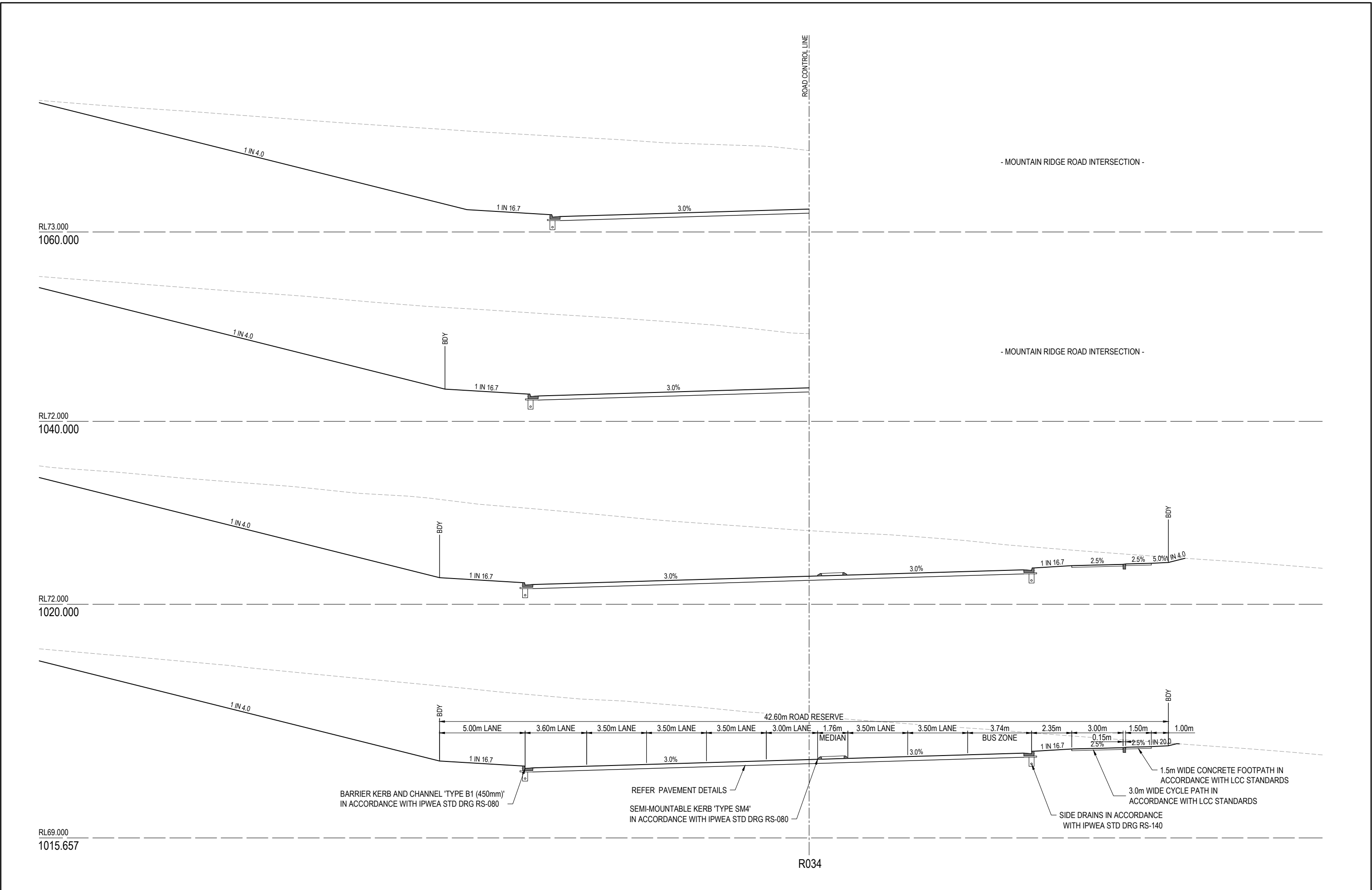
ROAD	ROAD CLASSIFICATION	DESIGN ESAs	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH
R034	TRUNK CONNECTOR	6.4x10 ⁶	4	50mm	300mm	150mm	150mm	650mm

NOTE: THIS PAVEMENT DESIGN IS PRELIMINARY ONLY BASED ON AN ASSUMED CBR. THE CONTRACTOR SHALL
SUPPLY THE SUPERINTENDENT WITH SUBGRADE TEST RESULTS NECESSARY FOR FINAL PAVEMENT DESIGN



#. REFER INTERSECTION DETAILS PLAN FOR KERB RETURN LONGITUDINAL SECTIONS
R034

REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT NAME	DRAWING TITLE
A	10.09.24	BR	DH	ORIGINAL ISSUE	DH	NOT FOR CONSTRUCTION	1:1000 10 0 10 20 30 40 50 A1 1:2000 HORIZONTAL	FRASERS PROPERTY AUSTRALIA	NEW BEITH - MOUNTAIN RIDGE ROAD	R034 LONGITUDINAL SECTION
B	30.05.25	BR	DH	RFI RESPONSE	BR	APPROVED DANIEL COLLINS RPEQ 18631 DATE 30.05.25 FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD	1:100 2 1 0 2 4 A1 1:200 VERTICAL	ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	MOUNTAIN RIDGE ROAD NEW BEITH	PROJECT No. 23-0153 DRAWING No. 4237 REVISION B

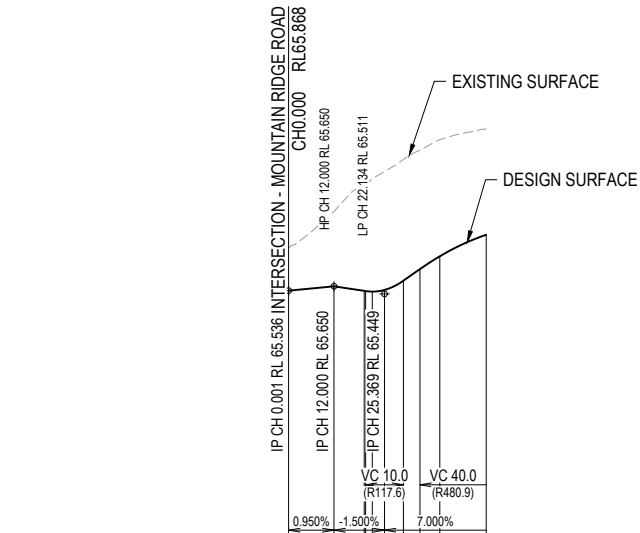


REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS			SCALE 1:100 1:200  A1 A3	CLIENT FRASERS PROPERTY AUSTRALIA ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	PROJECT NAME NEW BEITH - MOUNTAIN RIDGE ROAD MOUNTAIN RIDGE ROAD NEW BEITH	DRAWING TITLE R034 CROSS SECTIONS SHEET 1 OF 2		
A	10.09.24	BR	DH	ORIGINAL ISSUE		DH	NOT FOR CONSTRUCTION						PROJECT No. 23-0153		
B	30.05.25	BR	DH	RFI RESPONSE											
							</								

ASSUMED PAVEMENT DETAILS (SUBJECT TO CBR TESTING)

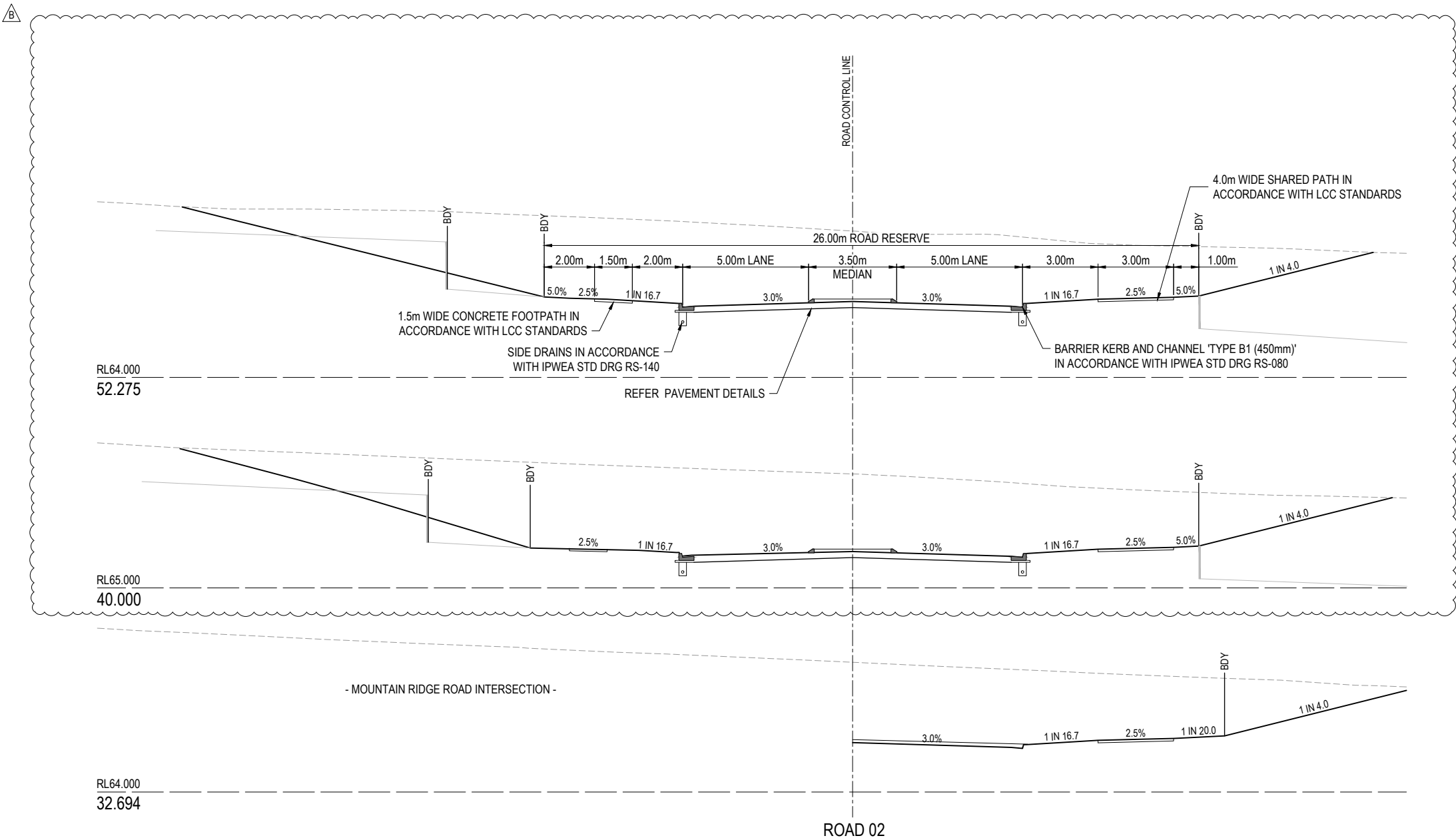
ROAD	ROAD CLASSIFICATION	DESIGN ESAs	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH
ROAD 02	NEIGHBOURHOOD CONNECTOR	6.4 x 10 ⁵	3	50mm	300mm	100mm	170mm	620mm

NOTE: THIS PAVEMENT DESIGN IS PRELIMINARY ONLY BASED ON AN ASSUMED CBR. THE CONTRACTOR SHALL SUPPLY THE SUPERINTENDENT WITH SUBGRADE TEST RESULTS NECESSARY FOR FINAL PAVEMENT DESIGN



DATUM RL 58.0	
CUT (-) / FILL	-1.124 -1.981 -2.801 -2.826 -2.976 -3.131 -3.206 -3.149 -3.082 -2.798
LHS LIP LEVEL	#
RHS LIP LEVEL	
DESIGN SURFACE	65.536 65.650 65.530 65.524 65.511 65.555 65.799 66.106 66.256 66.824
EXISTING SURFACE	66.680 67.630 68.330 68.350 68.487 68.686 69.005 69.255 69.526 69.811
CHAINAGES	0.000 12.000 20.000 20.369 22.134 25.369 30.369 34.754 40.000 52.275
HORIZONTAL CURVES	

#: REFER INTERSECTION DETAILS PLAN FOR KERB RETURN LONGITUDINAL SECTIONS
ROAD 02

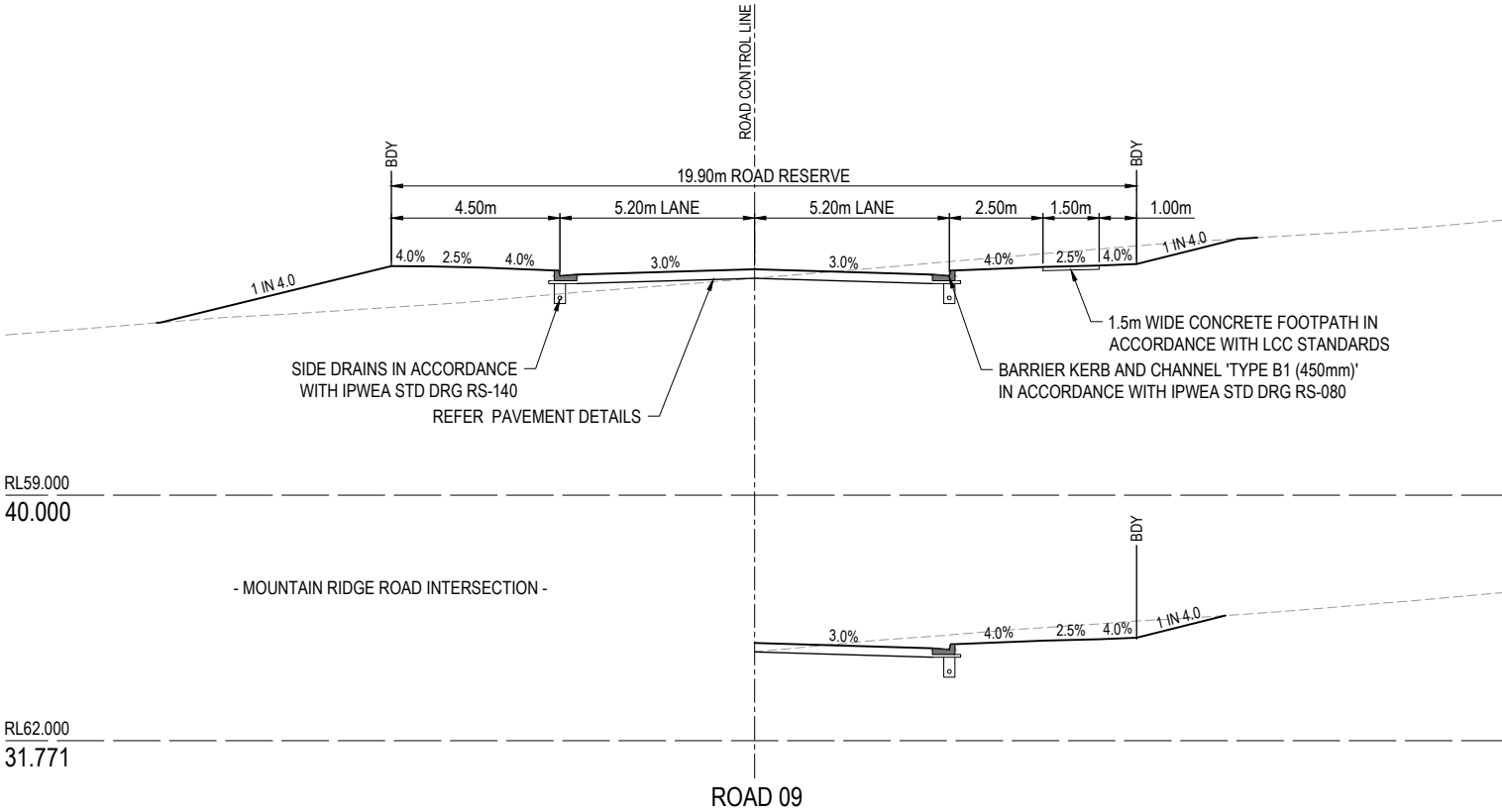
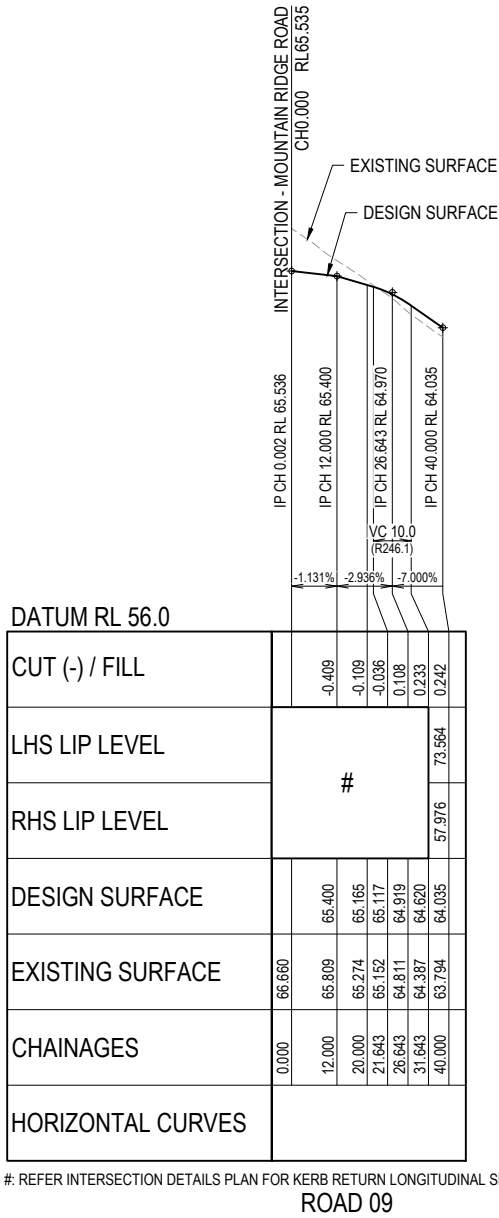


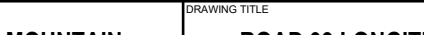
REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT NAME	DRAWING TITLE
A	10.09.24	BR	DH	ORIGINAL ISSUE	DH	NOT FOR CONSTRUCTION	1:100 1:200 1:1000 1:2000	FRASERS PROPERTY AUSTRALIA	NEW BEITH - MOUNTAIN RIDGE ROAD	ROAD 02 LONGITUDINAL SECTION AND CROSS SECTIONS
B	30.05.25	BR	DH	RFI RESPONSE	BR	DANIEL COLLINS RPEQ 18631 DATE 30.05.25	1:100 1:200 1:1000 1:2000	ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	MOUNTAIN RIDGE ROAD NEW BEITH	PROJECT No. 23-0153 DRAWING No. 4240 REVISION B
						FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD				

ASSUMED PAVEMENT DETAILS (SUBJECT TO CBR TESTING)

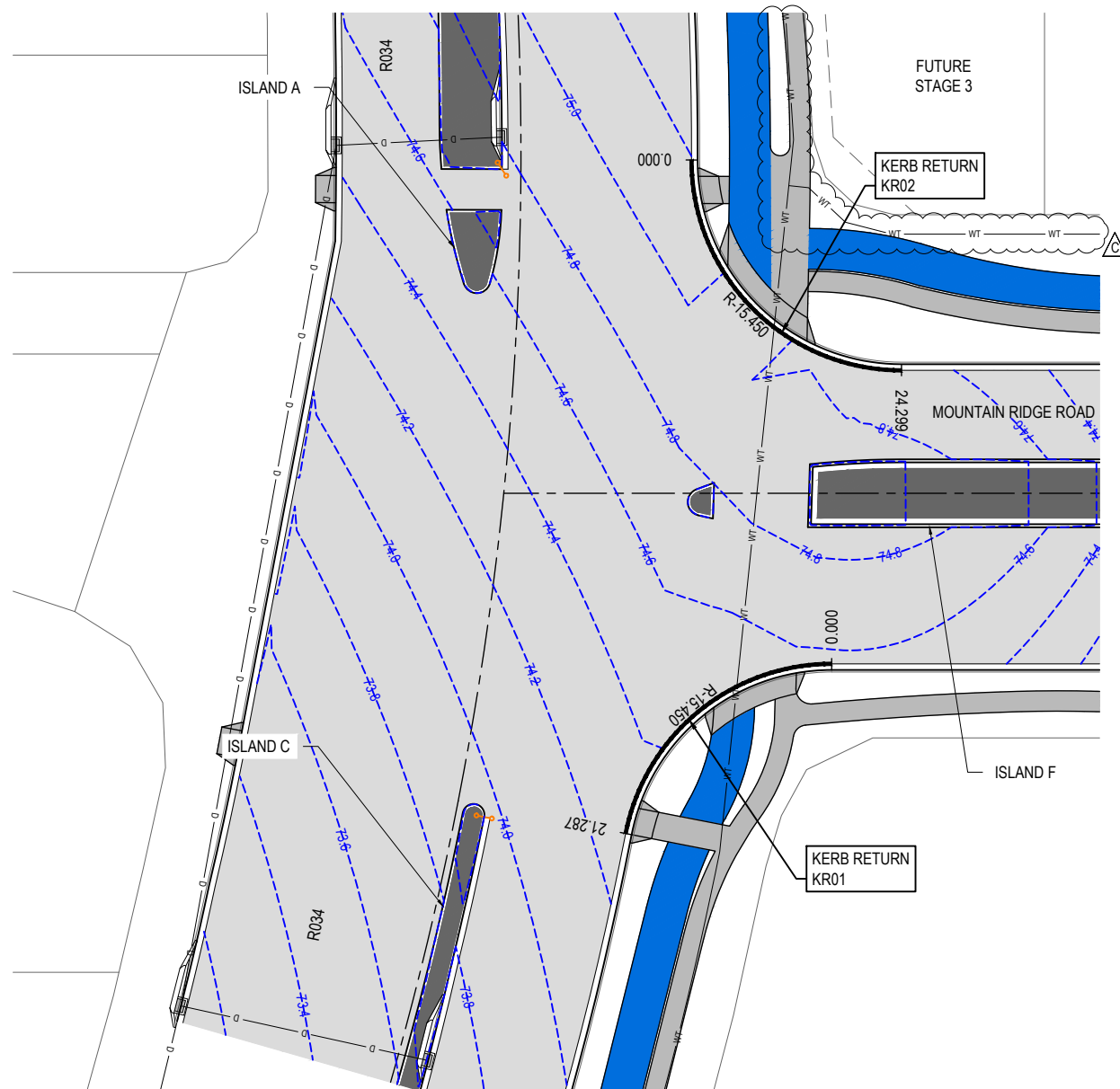
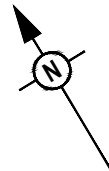
ROAD	ROAD CLASSIFICATION	DESIGN ESAs	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH
ROAD 09	NEIGHBOURHOOD ACCESS	6.4 x 10 ⁵	3	50mm	300mm	100mm	170mm	620mm

NOTE: THIS PAVEMENT DESIGN IS PRELIMINARY ONLY BASED ON AN ASSUMED CBR. THE CONTRACTOR SHALL SUPPLY THE SUPERINTENDENT WITH SUBGRADE TEST RESULTS NECESSARY FOR FINAL PAVEMENT DESIGN



REV	DATE	DESIGN	DRAWN	REVISION DETAILS			DRAWN	STATUS					CLIENT FRASERS PROPERTY AUSTRALIA	PROJECT NAME NEW BEITH - MOUNTAIN RIDGE ROAD	DRAWING TITLE					
A	10.09.24	BR	DH	ORIGINAL ISSUE			DH	NOT FOR CONSTRUCTION							ROAD 09 LONGITUDINAL SECTION AND CROSS SECTIONS					
B	30.05.25	BR	DH	RFI RESPONSE																

	PROPOSED ROAD CONTROL LINE
	PROPOSED KERB INVERT LINE
	PROPOSED KERB TRANSITION LOCATION
	PROPOSED KERB SETOUT NODE
	PROPOSED PATH AND PRAM RAMP
	PROPOSED FOOTPATH
	PROPOSED SHARED FOOTPATH
	PROPOSED CYCLE PATH
	PROPOSED NEW ROAD PAVEMENT
	PROPOSED ISLAND
	PROPOSED RAISED CROSSING
	PROPOSED PAVEMENT CONTOUR (0.2m INTERVAL)
	PROPOSED KERB SETOUT LINE
	PROPOSED STORMWATER DRAINAGE PIPE
	PROPOSED WATER MAIN

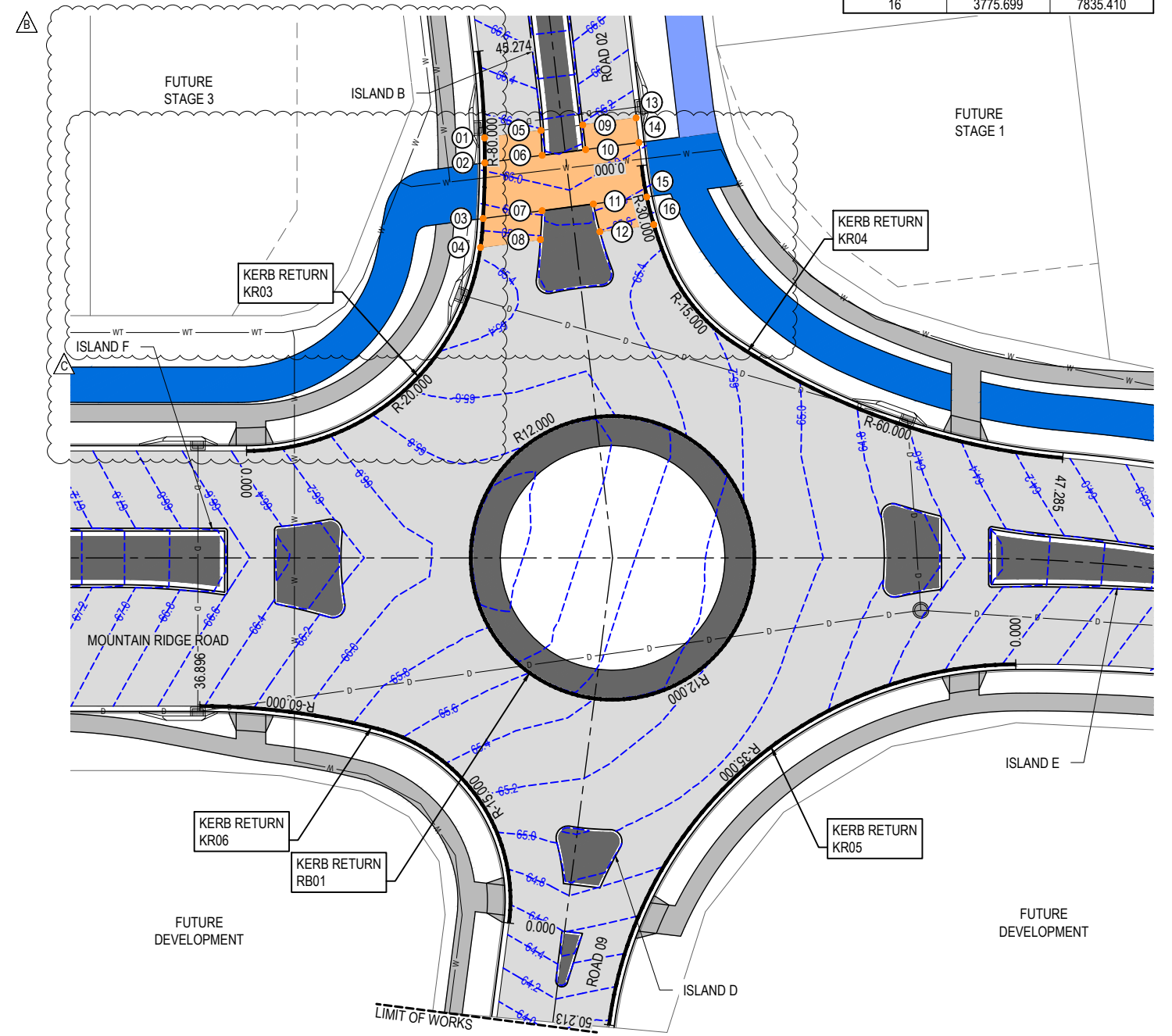


1:250 (A1)
1:500 (A3)

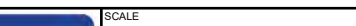
KERB TYPES NOTE:
REFER TO THE SURVEY SETOUT ENGINEERING DRAWING
FOR KERB TYPES AND TRANSITION LOCATIONS

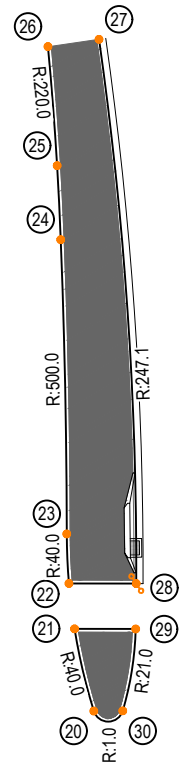
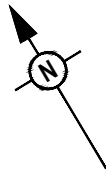
RAISED CROSSING SETOUT TABLE

NUMBER	EASTING	NORTHING
01	3767.126	7849.031
02	3766.068	7847.200
03	3763.539	7843.225
04	3762.102	7841.229
05	3771.550	7847.138
06	3770.570	7845.273
07	3768.172	7841.242
08	3766.809	7839.215
09	3774.839	7845.731
10	3773.984	7843.812
11	3772.196	7839.520
12	3771.473	7837.219
13	3779.022	7843.941
14	3778.168	7842.022
15	3776.387	7837.726
16	3775.699	7835.410

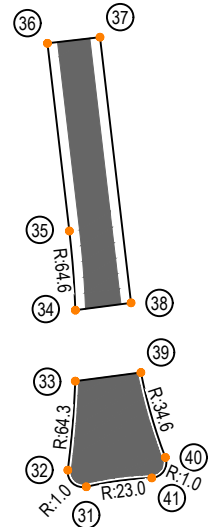


1:250 (A1)
1:500 (A3)

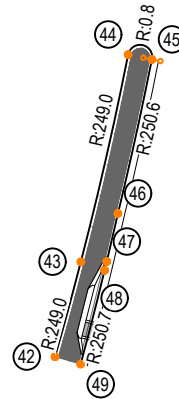
REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS		SCALE 1:250 5 0 5 10 A1 1:500  A3	CLIENT	PROJECT NAME	DRAWING TITLE		
A	10.09.24	BR	DH	ORIGINAL ISSUE	TG	NOT FOR CONSTRUCTION			FRASERS PROPERTY AUSTRALIA	NEW BEITH - MOUNTAIN RIDGE ROAD	INTERSECTION DETAILS LAYOUT PLAN		
B	30.05.25	BR	DH	RPI RESPONSE									
C	21.08.25	BR	TG	RPI RESPONSE									
					DESIGN	APPROVED DANIEL COLLINS  RPEQ 18631 DATE 21.08.25		ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	MOUNTAIN RIDGE ROAD NEW BEITH	PROJECT No. 23-0153	DRAWING No. 4260	REVISION C	
					BR	FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD							



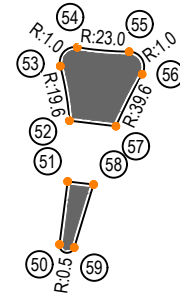
ISLAND A DETAIL
1:250 (A1)
1:500 (A3)



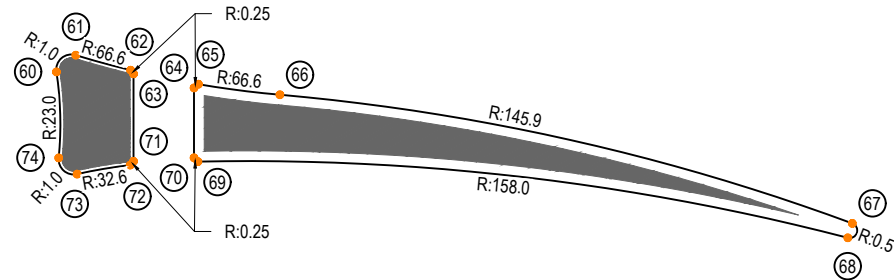
ISLAND B DETAIL
1:250 (A1)
1:500 (A3)



ISLAND C DETAIL
1:250 (A1)
1:500 (A3)



ISLAND D DETAIL
1:250 (A1)
1:500 (A3)



ISLAND E DETAIL
1:250 (A1)
1:500 (A3)



ISLAND F DETAIL
1:250 (A1)
1:500 (A3)

ISLAND SETOUT TABLE

NUMBER	EASTING	NORTHING
20	3596.780	7926.650
21	3598.456	7931.975
22	3599.668	7934.746
23	3601.214	7937.635
24	3610.795	7954.576
25	3613.087	7958.906
26	3616.580	7965.988
27	3619.729	7964.679
28	3603.490	7932.469
29	3601.931	7929.905
30	3598.433	7925.684
31	3765.233	7834.861
32	3764.747	7836.431
33	3768.172	7841.242
34	3770.570	7845.273
35	3772.899	7849.980
36	3777.981	7861.394
37	3781.178	7859.970
38	3773.984	7843.812
39	3772.196	7839.520
40	3770.723	7833.865
41	3769.262	7833.155
42	3562.516	7878.483
43	3567.184	7883.009
44	3576.859	7893.195
45	3578.050	7892.126
46	3570.925	7884.513
47	3568.667	7882.153
48	3568.252	7881.727
49	3563.727	7877.200
50	3735.954	7784.629
51	3738.540	7787.937
52	3740.693	7791.332
53	3742.010	7794.743
54	3743.612	7795.241
55	3746.413	7793.246
56	3746.392	7791.522
57	3743.148	7789.449
58	3739.913	7786.889
59	3736.688	7783.956
60	3779.636	7804.294
61	3781.301	7804.593
62	3783.917	7801.890
63	3783.957	7801.583
64	3786.923	7798.742
65	3787.300	7798.805
66	3791.579	7795.457
67	3819.805	7768.832
68	3819.062	7768.165
69	3784.658	7794.423
70	3784.566	7794.769
71	3781.007	7796.609
72	3780.690	7796.508
73	3777.367	7797.785
74	3776.867	7799.328
75	3603.772	7904.903
76	3605.140	7904.640
77	3611.909	7902.237
78	3617.828	7899.138
79	3731.326	7831.837
80	3731.413	7831.494
81	3734.921	7829.568
82	3735.245	7829.665
83	3739.252	7828.013
84	3739.734	7826.478
85	3736.831	7821.133
86	3735.169	7820.804
87	3731.882	7824.054
88	3731.837	7824.366
89	3728.799	7827.085
90	3728.428	7827.018
91	3721.031	7832.129
92	3610.195	7897.851
93	3609.416	7898.322
94	3603.732	7902.430
95	3602.909	7903.203

REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT NAME	DRAWING TITLE
A	10.09.24	BR	DH	ORIGINAL ISSUE	DH	NOT FOR CONSTRUCTION	1:250 5 0 5 10 A1	FRASERS PROPERTY AUSTRALIA	NEW BEITH - MOUNTAIN RIDGE ROAD	ISLAND SETOUT AND DETAIL PLAN
B	30.05.25	BR	DH	RFI RESPONSE	BR	DANIEL COLLINS RPEQ 18631 30.05.25	1:500	ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	MOUNTAIN RIDGE ROAD NEW BEITH	PROJECT No. 23-0153 DRAWING No. 4261 REVISION B
						FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD				

DATUM RL 72.0

LIP LEVEL	NORTHING	EASTING	CHAINAGES	HORIZONTAL CURVES
			0.000	
			3.000	
			5.322	
			6.000	
			9.000	
			10.643	
			12.000	
			15.000	
			15.965	
			18.000	
			21.000	
			21.287	

KR01

			0.000	
			3.000	
			6.000	
			6.075	
			9.000	
			12.000	
			12.149	
			15.000	
			18.000	
			18.224	
			21.000	
			24.000	
			24.299	

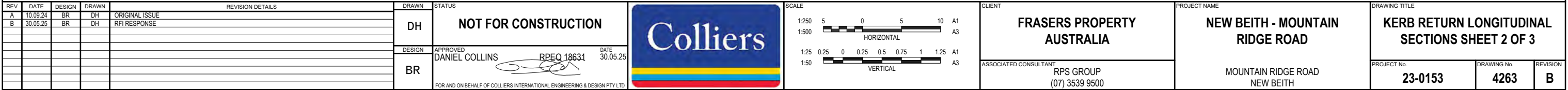
KR02

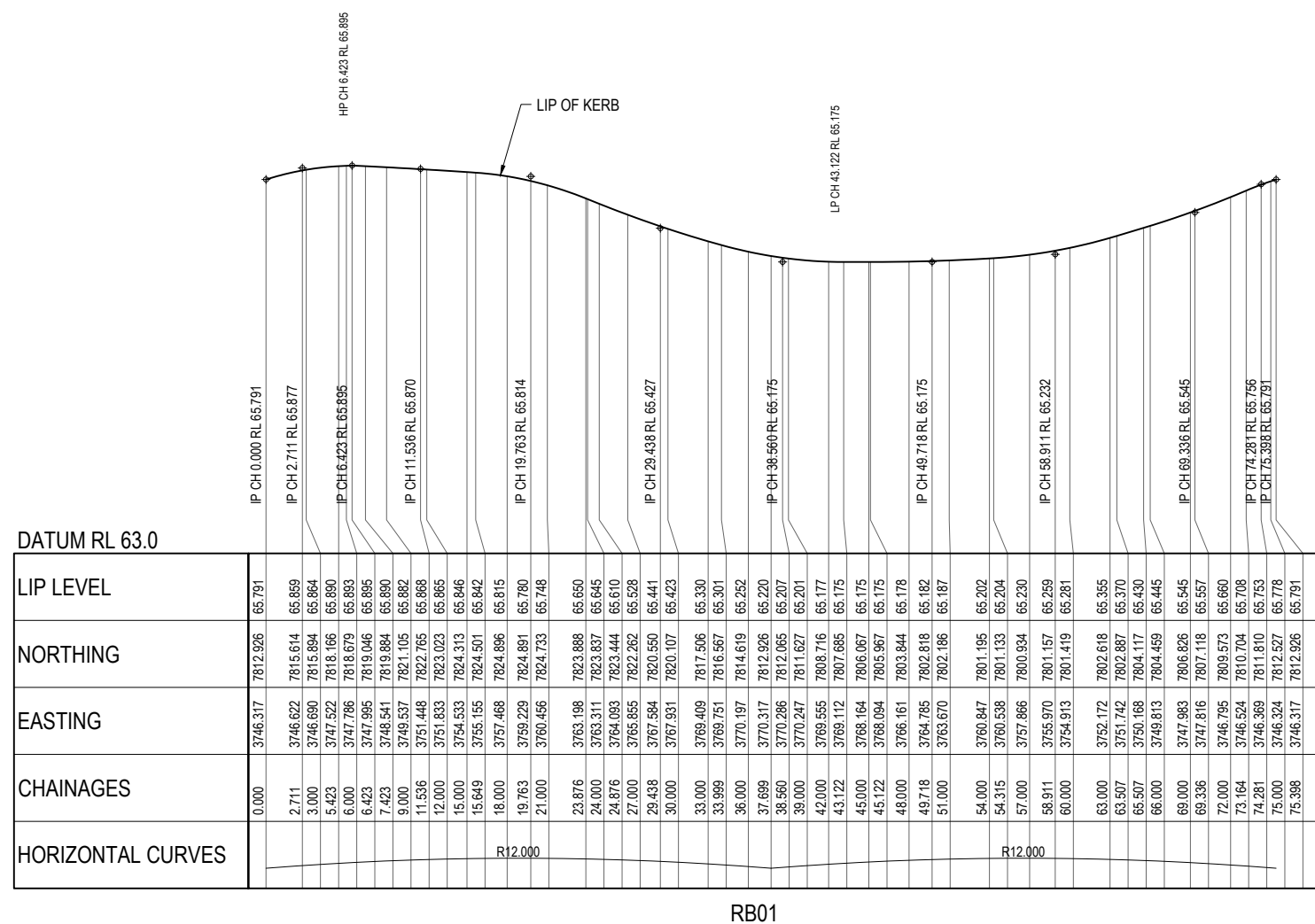
			0.000	
			3.000	
			6.000	
			9.000	
			12.000	
			15.000	
			18.000	
			18.840	
			21.000	
			22.680	
			24.789	
			26.520	
			27.000	
			29.900	
			30.000	
			30.359	
			33.000	
			36.000	
			37.959	
			40.459	
			42.000	
			42.959	
			45.000	
			45.274	

KR03

			0.000	
			3.000	
			6.000	
			7.321	
			8.762	
			9.000	
			12.000	
			14.642	
			15.000	
			17.413	
			18.000	
			21.000	
			21.963	
			24.000	
			27.000	
			29.285	
			30.000	
			33.000	
			36.000	
			39.000	
			42.000	
			45.000	
			47.285	

KR04

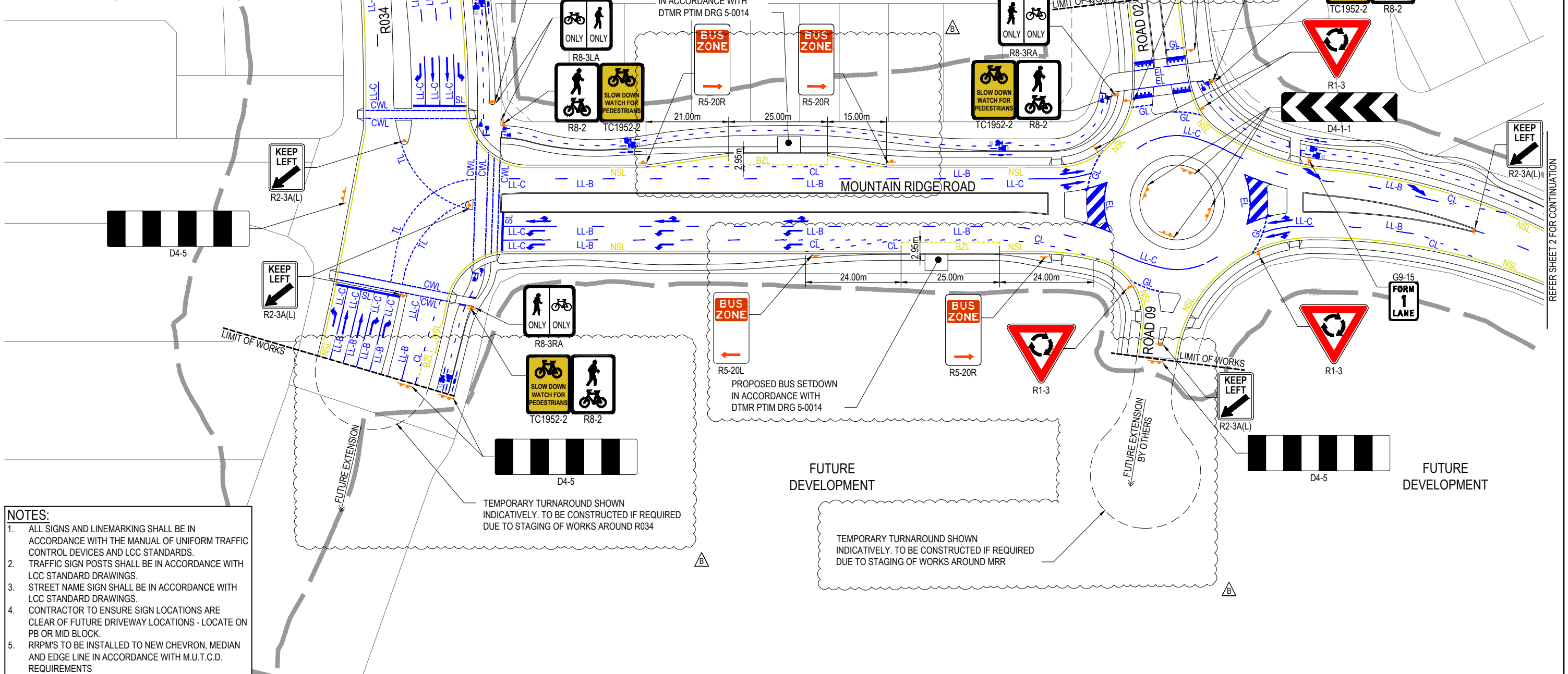




REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS			SCALE 1:250 5 0 5 10 A1 1:500 HORIZONTAL A3 1:25 0.25 0 0.25 0.5 0.75 1 1.25 A1 1:50 VERTICAL A3	CLIENT FRASERS PROPERTY AUSTRALIA ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	PROJECT NAME NEW BEITH - MOUNTAIN RIDGE ROAD MOUNTAIN RIDGE ROAD NEW BEITH	DRAWING TITLE		
A	10.09.24	BR	DH	ORIGINAL ISSUE		DH	NOT FOR CONSTRUCTION	Kerb Return Longitudinal Sections Sheet 3 of 3							
B	30.05.25	BR	DH	RFI RESPONSE				PROJECT No.					DRAWING No.	REVISION	
								23-0153					4264	B	
						DESIGN	APPROVED	DATE							
						BR	DANIEL COLLINS  RPEQ 18631 30.05.25								
							FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD								

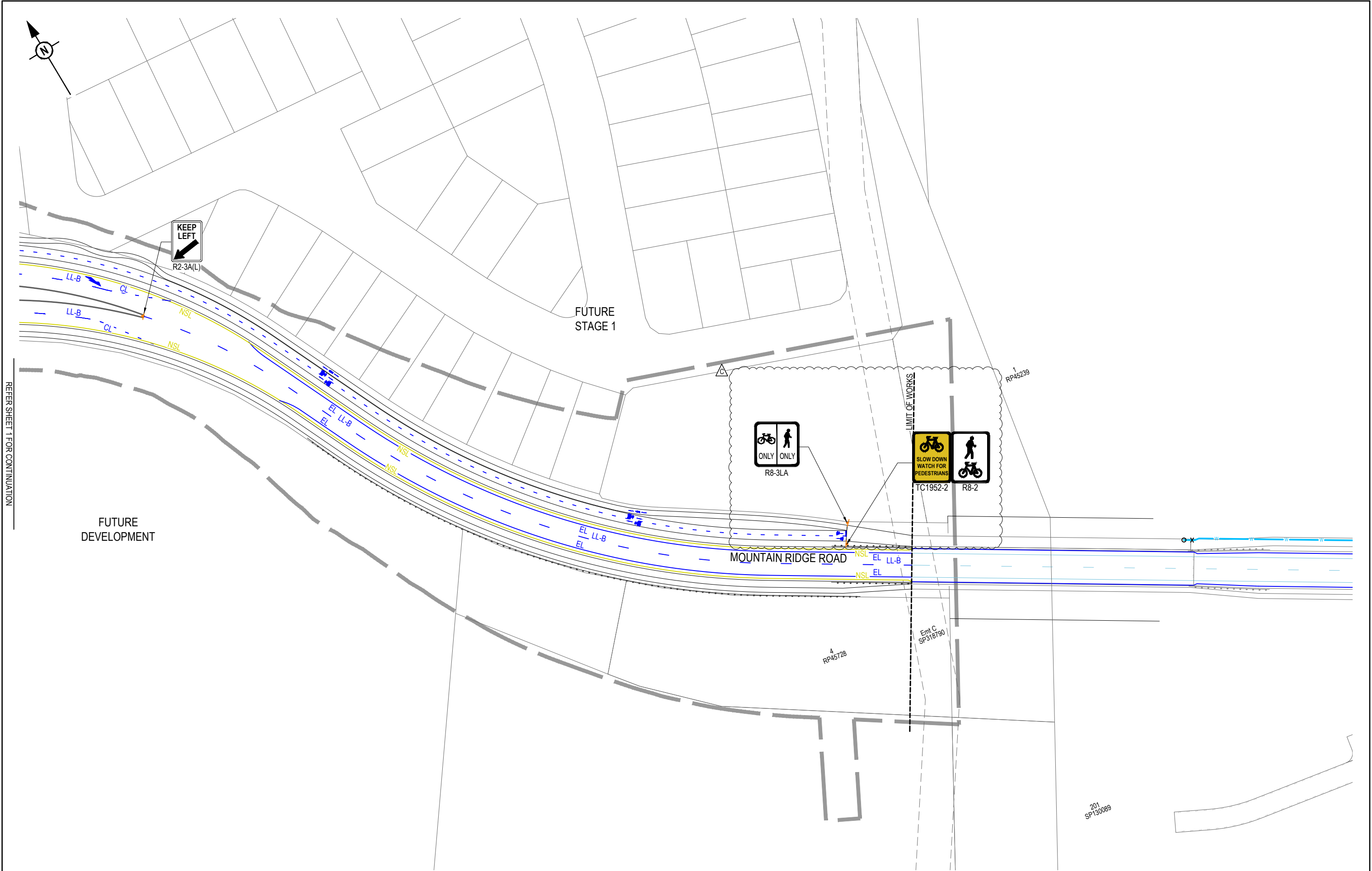
LEGEND

- | | |
|---|---|
|  | PROPOSED AREA OF WORKS |
|  | PROPOSED ROAD SIGN |
|  | PROPOSED END OF ROAD SIGN |
|  | PROPOSED GIVE WAY LINE |
|  | PROPOSED DIVIDING LINE |
|  | PROPOSED LANE LINE - BROKEN |
|  | PROPOSED LANE LINE - CONTINUOUS |
|  | PROPOSED EDGE LINE |
|  | PROPOSED CONTINUITY LINE |
|  | PROPOSED TURN LINE |
|  | PROPOSED CROSS WALK LINE |
|  | PROPOSED NO STOPPING LINE |
|  | PROPOSED BUS ZONE LINE |
|  | PROPOSED PEDESTRIAN PATHWAY |
|  | PROPOSED BICYCLE LANE |
|  | EXISTING LINEMARKING
(LINETYPES AS PER PROPOSED) |

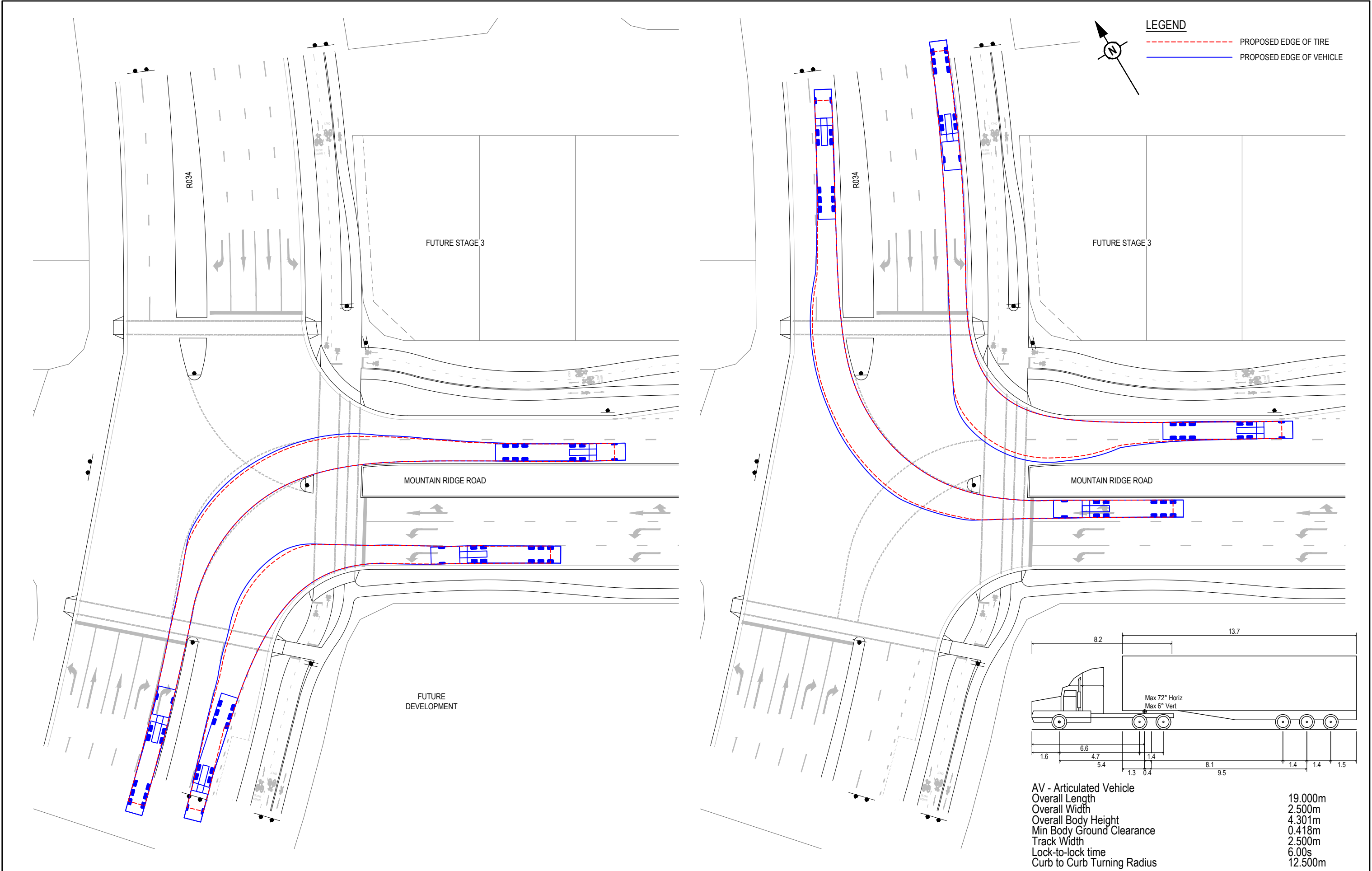


- NOTES:**
1. ALL SIGNS AND LINEMARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND LCC STANDARDS.
 2. TRAFFIC SIGN POSTS SHALL BE IN ACCORDANCE WITH LCC STANDARD DRAWINGS.
 3. STREET NAME SIGN SHALL BE IN ACCORDANCE WITH LCC STANDARD DRAWINGS.
 4. CONTRACTOR TO ENSURE SIGN LOCATIONS ARE CLEAR OF FUTURE DRIVEWAY LOCATIONS - LOCATE ON PB OR MID BLOCK.
 5. RRPM'S TO BE INSTALLED TO NEW CHEVRON, MEDIAN AND EDGE LINE IN ACCORDANCE WITH M.U.T.C.D. REQUIREMENTS

[illegible]

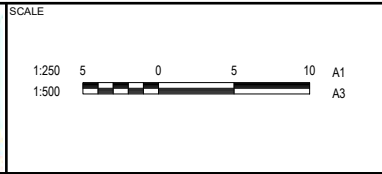


REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS			SCALE 1:500 10 5 0 10 20 A1 1:1000  A3	CLIENT	FRASERS PROPERTY AUSTRALIA	PROJECT NAME	NEW BEITH - MOUNTAIN RIDGE ROAD	DRAWING TITLE			SIGNS AND LINEMARKING SHEET 2 OF 2				
A	10.09.24	BR	DH	ORIGINAL ISSUE		TG	NOT FOR CONSTRUCTION															
B	30.05.25	BR	DH	RFI RESPONSE																		
C	21.08.25	BR	TG	RFI RESPONSE																		



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	30.05.25	BR	DH	ORIGINAL ISSUE

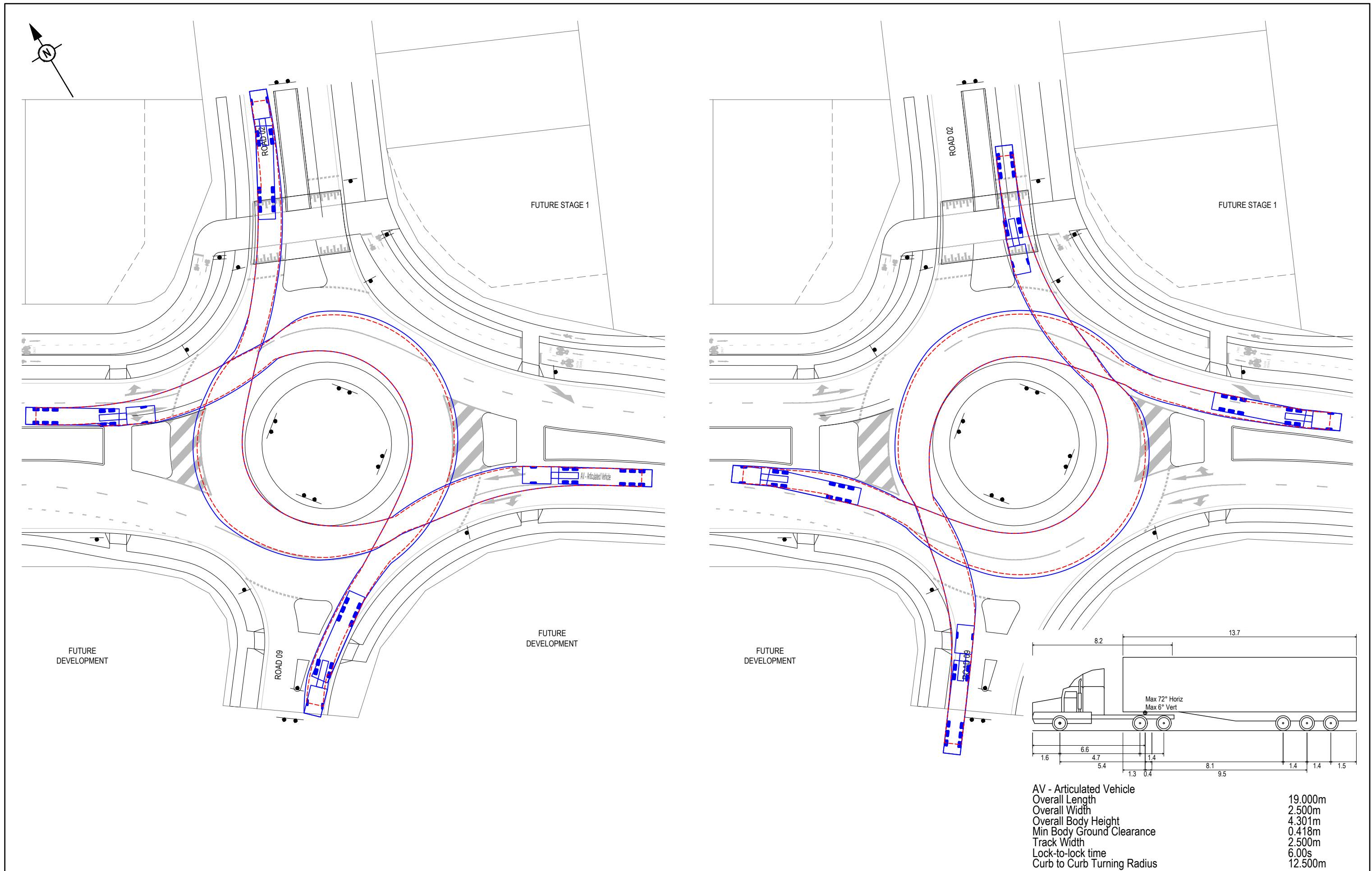
DRAWN	STATUS
DH	NOT FOR CONSTRUCTION
DESIGN	APPROVED
BR	DANIEL COLLINS RPEQ 18631 30.05.25
FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD	

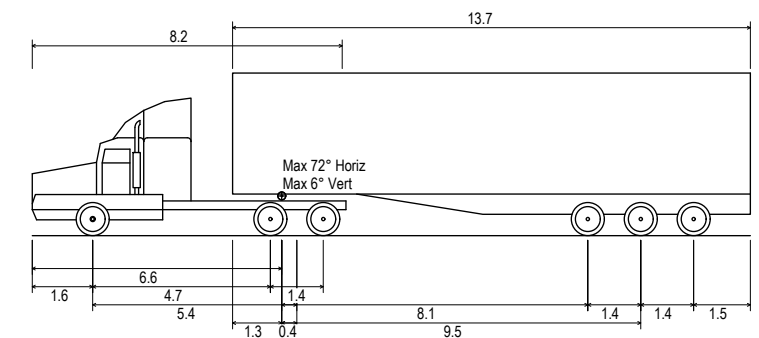
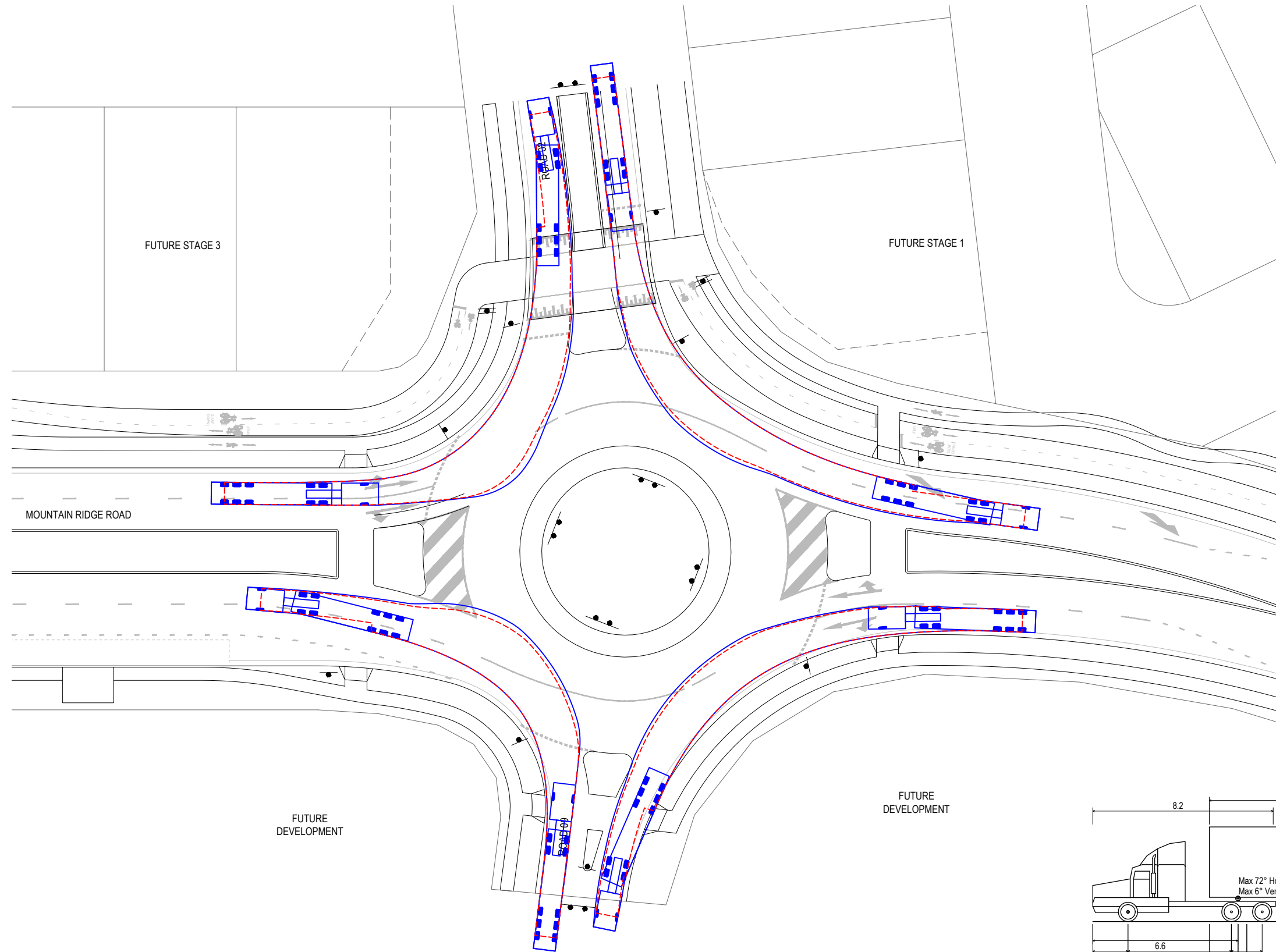
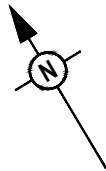


CLIENT
FRASERS PROPERTY AUSTRALIA
ASSOCIATED CONSULTANT
RPS GROUP (07) 3539 9500

PROJECT NAME
NEW BEITH - MOUNTAIN RIDGE ROAD
MOUNTAIN RIDGE ROAD NEW BEITH

DRAWING TITLE		
TURNPATH LAYOUT PLAN SHEET 1 OF 3		
PROJECT No.	DRAWING No.	REVISION
23-0153	4275	A





AV - Articulated Vehicle	
Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT NAME	DRAWING TITLE
A	30.05.25	BR	DH	ORIGINAL ISSUE	DH	NOT FOR CONSTRUCTION	1:250 1:500	FRASERS PROPERTY AUSTRALIA	NEW BEITH - MOUNTAIN RIDGE ROAD	TURNPATH LAYOUT PLAN SHEET 3 OF 3
					BR	APPROVED DANIEL COLLINS RPEQ 18634 FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD	5 0 5 10 A1 1:500	ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	MOUNTAIN RIDGE ROAD NEW BEITH	PROJECT No. 23-0153 DRAWING No. 4277 REVISION A

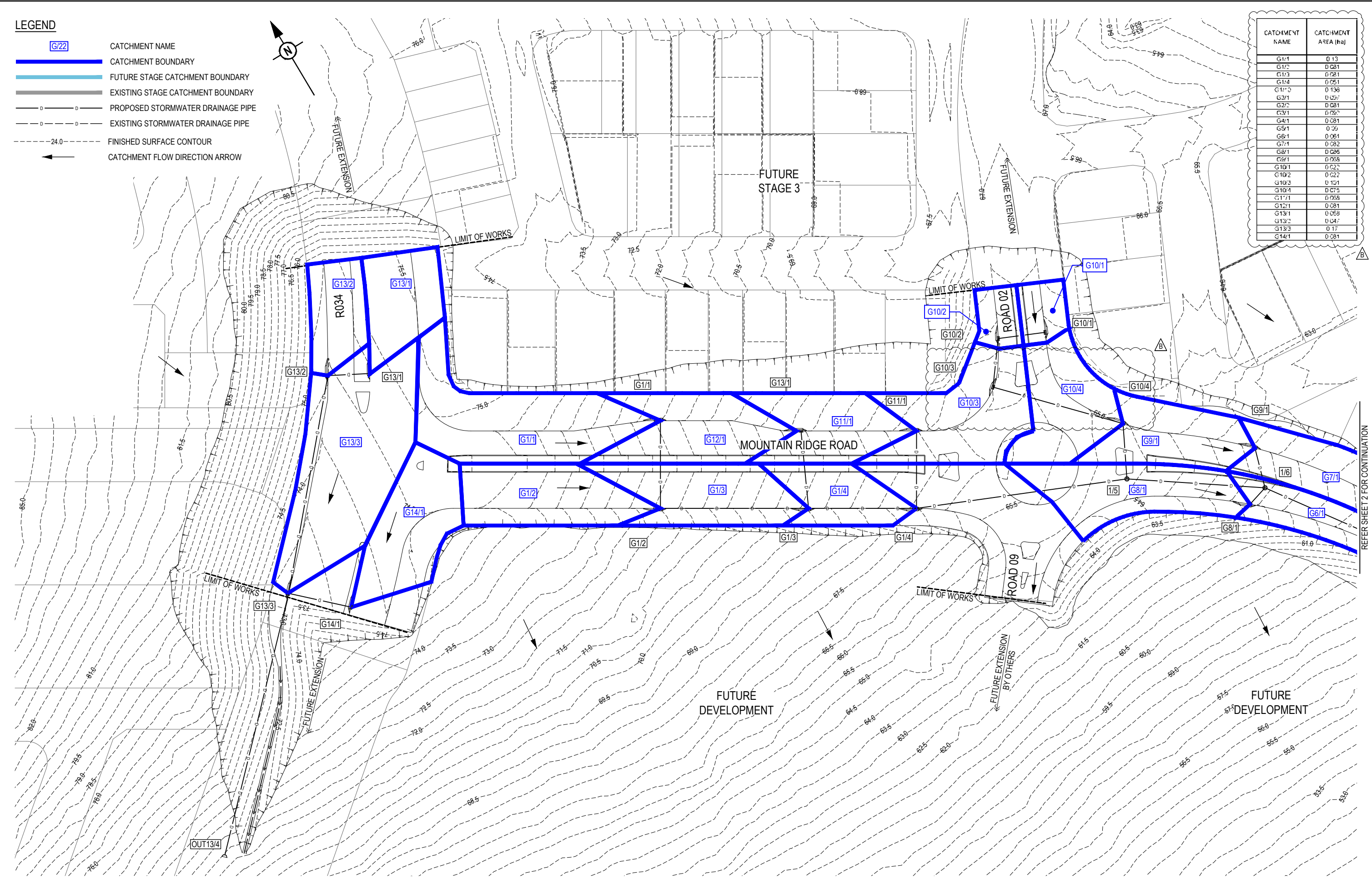
LEGEND

- G22

CATCHMENT NAME
- CATCHMENT BOUNDARY
- FUTURE STAGE CATCHMENT BOUNDARY
- EXISTING STAGE CATCHMENT BOUNDARY
- PROPOSED STORMWATER DRAINAGE PIPE
- EXISTING STORMWATER DRAINAGE PIPE
- 24.0

FINISHED SURFACE CONTOUR
- CATCHMENT FLOW DIRECTION ARROW

CATCHMENT NAME	CATCHMENT AREA (ha)
G1/1	0.13
G1/2	0.081
G1/3	0.021
G1/4	0.051
G1/1/1	0.136
G2/1	0.057
G2/2	0.081
G3/1	0.057
G4/1	0.081
G5/1	0.09
G6/1	0.061
G7/1	0.082
G8/1	0.026
G9/1	0.055
G10/1	0.022
G10/2	0.022
G10/3	0.121
G10/4	0.075
G11/1	0.055
G12/1	0.081
G13/1	0.058
G13/2	0.047
G13/3	0.17
G14/1	0.081



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	10.09.24	BR	DH	ORIGINAL ISSUE
B	30.05.25	BR	DH	RFI RESPONSE

DRAWN	STATUS
DH	NOT FOR CONSTRUCTION
DESIGN	APPROVED
BR	DANIEL COLLINS RPEQ 18631 30.05.25
FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD	

SCALE

1:500 10 5 0 10 20 A1

1:1000

CLIENT

FRASERS PROPERTY AUSTRALIA

ASSOCIATED CONSULTANT

RPS GROUP (07) 3539 9500

PROJECT NAME

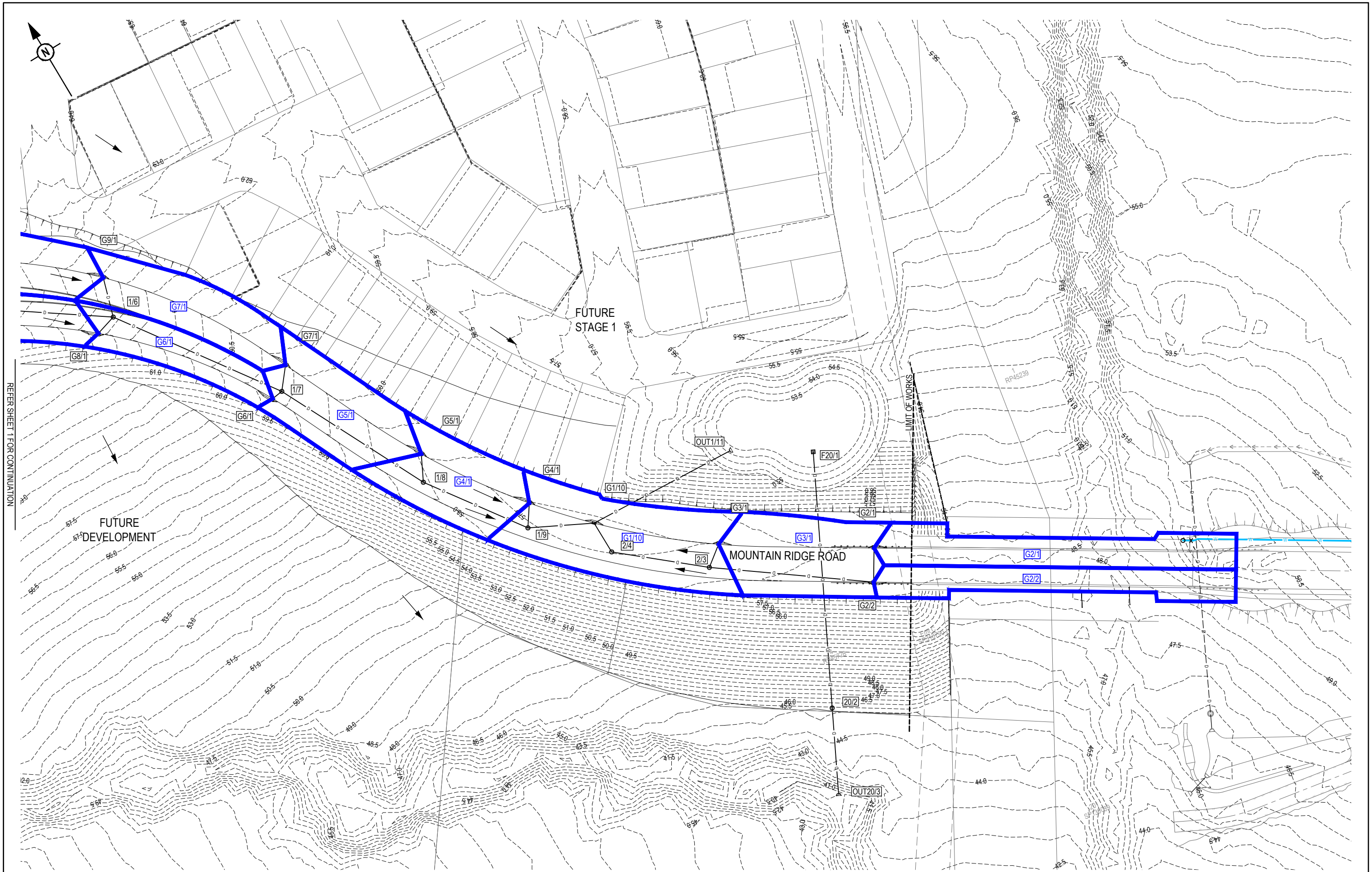
NEW BEITH - MOUNTAIN RIDGE ROAD

MOUNTAIN RIDGE ROAD NEW BEITH

DRAWING TITLE

STORMWATER DRAINAGE CATCHMENT LAYOUT PLAN SHEET 1 OF 2

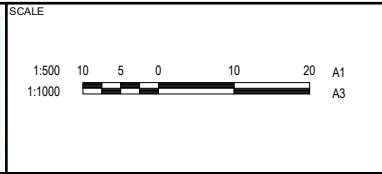
PROJECT No.	DRAWING No.	REVISION
23-0153	4310	B



REFER SHEET 1 FOR CONTINUATION

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	10.09.24	BR	DH	ORIGINAL ISSUE
B	30.05.25	BR	DH	RFI RESPONSE

DRAWN	STATUS
DH	NOT FOR CONSTRUCTION
DESIGN	APPROVED
BR	DANIEL COLLINS RPEQ 18631 DATE 30.05.25
FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD	



CLIENT	FRASERS PROPERTY AUSTRALIA
ASSOCIATED CONSULTANT	RPS GROUP (07) 3539 9500

PROJECT NAME	NEW BEITH - MOUNTAIN RIDGE ROAD
MOUNTAIN RIDGE ROAD NEW BEITH	

DRAWING TITLE	STORMWATER DRAINAGE CATCHMENT LAYOUT PLAN SHEET 2 OF 2
PROJECT No.	23-0153
DRAWING No.	4311
REVISION	B

STORMWATER
STRUCTURE NOTE:
STANDARD ROUND MANHOLES LESS
THAN 3.0m DEEP:
CONSTRUCT IN ACCORDANCE WITH THE
LOCAL AUTHORITY STANDARDS.
STANDARD ROUND MANHOLES 3.0m >
5.3m DEEP:
CONSTRUCT IN ACCORDANCE WITH TMR
STD DRAWINGS 1307 AND 1308.
STANDARD ROUND MANHOLES GREATER
THAN 5.3m DEEP:
SHALL BE STRUCTURALLY DESIGNED
(CERTIFIED) AND CONSTRUCTED BY
CONTRACTOR ON A CASE BY CASE BASIS.
ROUND EXTENDED (900mm MAX)
MANHOLES:
CONSTRUCT IN ACCORDANCE WITH
COLLIERS STD DRAWINGS S-101 & S-102.
NON-STANDARD STRUCTURE (SPECIAL):
SHALL BE STRUCTURALLY DESIGNED
(CERTIFIED) AND CONSTRUCTED BY
CONTRACTOR ON A CASE BY CASE BASIS.

LINE 5

6

7

8

9

10

11

12

13

DRAWN	STATUS	
DH	NOT FOR CONSTRUCTION	
DESIGN	APPROVED DANIEL COLLINS	DATE 30.05.25
BR	 FOR AND ON BEHALF OF COLLIERIES INTERNATIONAL ENGINEERING & DESIGN PTY LTD	



SCALE

1:1000	10	0	10	20	30	40	50	A1
1:2000								A3
	HORIZONTAL							
1:100	2	1	0	2	4			A1
1:200								A3
	VERTICAL							

CLIENT	FRASERS PROPERTY AUSTRALIA
ASSOCIATED CONSULTANT	RPS GROUP (07) 3539 9500

PROJECT NAME

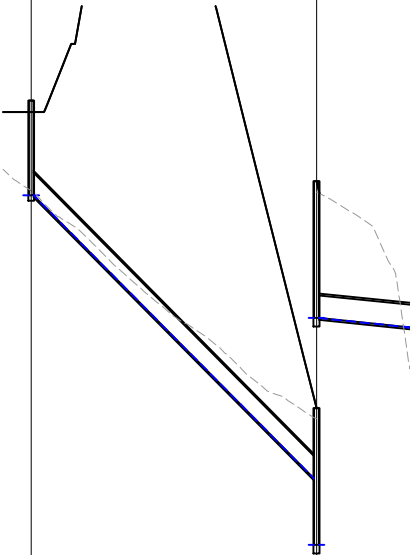
**NEW BEITH - MOUNTAIN
RIDGE ROAD**

MOUNTAIN RIDGE ROAD
NEW BEITH

DRAWING TITLE		
STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2 OF 3		
PROJECT No.	DRAWING No.	REVISION
23-0153	4321	B

STRUCTURE NAME	G14/1	G13/3
STRUCTURE DESCRIPTION	STD TYPE A GULLY L.I.L.: 2.4m Linel; TYPE B K&C	STD TYPE A GULLY L.I.L.: 2.4m Linel; TYPE B K&C

FIELD INLET F20/1	20/2	HEADWALL OUT 20/3
1200x1200 RAISED GRATE	STD MANHOLE 1200mm DIA	



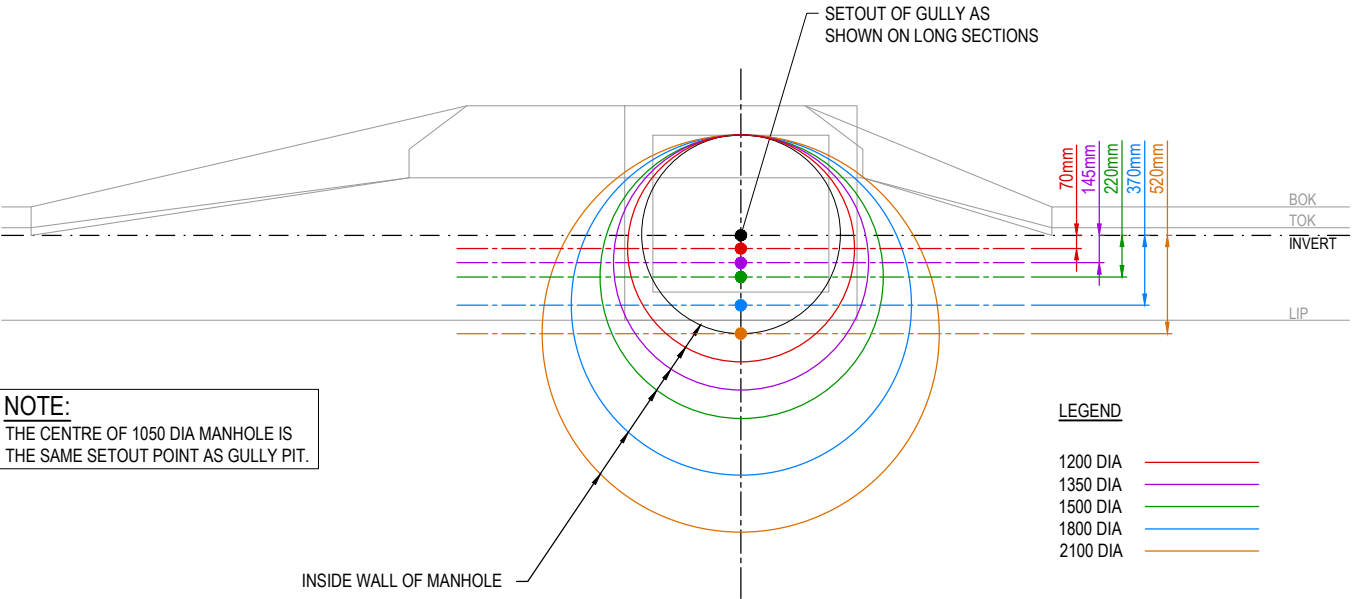
PIPE SIZE (mm)	375
PIPE CLASS	3
PIPE GRADE (%)	3.74%
PIPE SLOPE (1 in X)	26.73
FULL PIPE VELOCITY (m/s)	0.34
PART FULL VELOCITY (m/s)	2.02
DATUM RL	61.0
H.G.L IN PIPE & W.S.E IN STRUCTURE	72.544 72.503 72.086 72.086
PIPE FLOW (Cumecs)	0.037
PIPE CAPACITY AT GRADE (Cumecs)	0.339
DEPTH TO INVERT	1.313
INVERT LEVEL OF DRAIN	72.364
DESIGN SURFACE LEVEL	73.677
SETOUT COORDINATES	E 3565.363 N 7878.810 E 3551.603 N 7891.701
RUNNING CHAINAGE	0.000 18.855 18.855

600	600
3	3
9.94%	0.99%
10.06	100.64
0.00	0.00
0.00	0.00
35.0	29.0
51.000	43.500 41.750
51.000	41.750
0.000	0.000
0.553	0.175
2.500	1.868 3.618
51.000	43.500 41.750
53.500	45.368
E 3568.218 N 7634.322	E 3534.634 N 7566.743
0.000	E 3523.437 N 7544.212
75.464	75.464 25.160
100.624	

STRUCTURE SETOUT REFERENCE POINT

STRUCTURE TYPE	HORIZONTAL	VERTICAL
MANHOLE	MAIN SHAFT	FINISHED SURFACE LEVEL
GULLY PIT	INTERSECTION OF PIT AND KERB INVERT LNE # (INCLUDING MANHOLES UNDER GULLIES *)	KERB INVERT LEVEL
HEADWALL	INTERSECTION OF HEADWALL FACE & PIPE CENTRE LINE	TOP OF HEADWALL

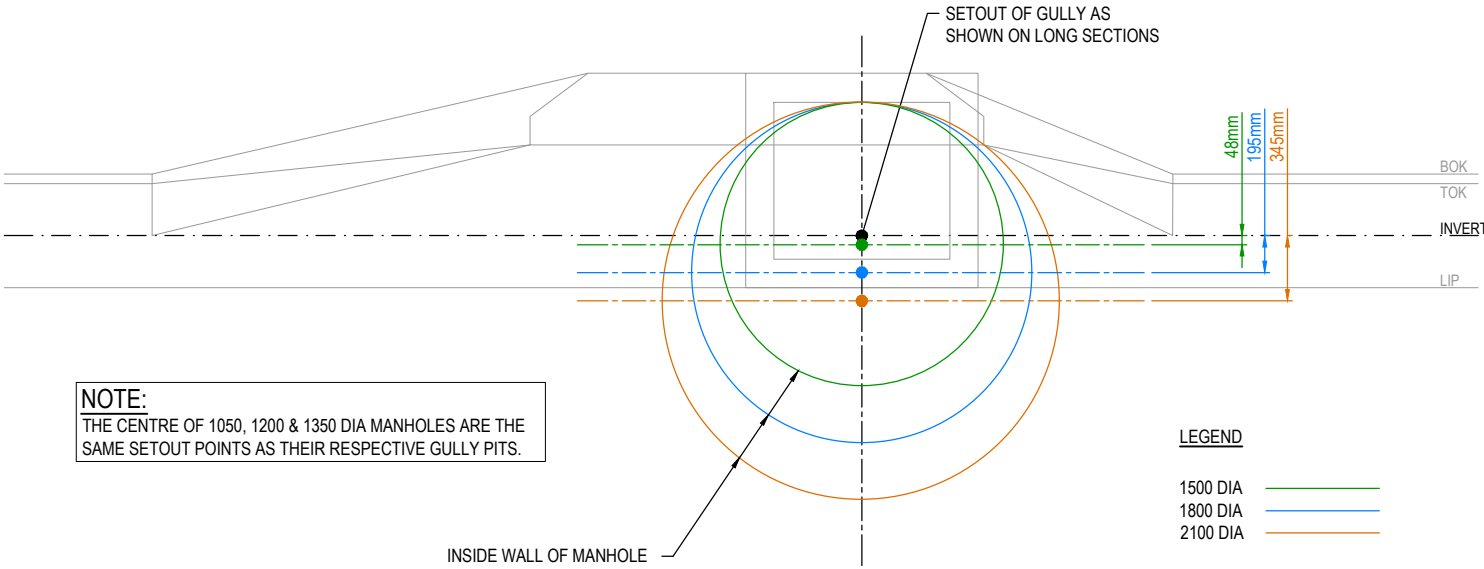
NOTE:
WITHIN GULLY PIT CHAMBER, CONTRACTOR TO ENSURE PIPES ARE OFFSET AS REQUIRED SO THAT PIPES ENTER WHOLLY WITHIN A SIDE WALL
* IN INSTANCES OF MANHOLES UNDER GULLIES, CONTRACTOR TO ENSURE PIPES ARE ALIGNED TO CENTRE OF MANHOLE, UNLESS SHOWN DIFFERENTLY IN A STRUCTURE DETAIL



NOTE:
THE CENTRE OF 1050 DIA MANHOLE IS THE SAME SETOUT POINT AS GULLY PIT.

TYPICAL MANHOLE UNDER GULLY SETOUT - BARRIER K&C - STANDARD TYPE A GULLY

1:20 (A1)
1:40 (A3)



NOTE:
THE CENTRE OF 1050, 1200 & 1350 DIA MANHOLES ARE THE SAME SETOUT POINTS AS THEIR RESPECTIVE GULLY PITS.

TYPICAL MANHOLE UNDER GULLY SETOUT - MOUNTABLE K&C - STANDARD TYPE A GULLY

1:20 (A1)
1:40 (A3)

REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT NAME	DRAWING TITLE
A	10.09.24	BR	DH	ORIGINAL ISSUE	DH	NOT FOR CONSTRUCTION	1:20 0.2 0 0.2 0.4 0.6 0.8 1 A1	FRASERS PROPERTY AUSTRALIA	NEW BEITH - MOUNTAIN RIDGE ROAD	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 3 OF 3
B	30.05.25	BR	DH	RFI RESPONSE	BR	APPROVED DANIEL COLLINS RPEQ 18631 DATE 30.05.25	1:40 10 0 10 20 30 40 50 A1	ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	MOUNTAIN RIDGE ROAD NEW BEITH	PROJECT No. 23-0153 DRAWING No. 4330 REVISION B
							1:1000 10 0 10 20 30 40 50 A1			
							1:2000 HORIZONTAL			
							1:100 2 1 0 2 4 A1			
							1:200 VERTICAL			

NEW BEITH - PRECINCT A

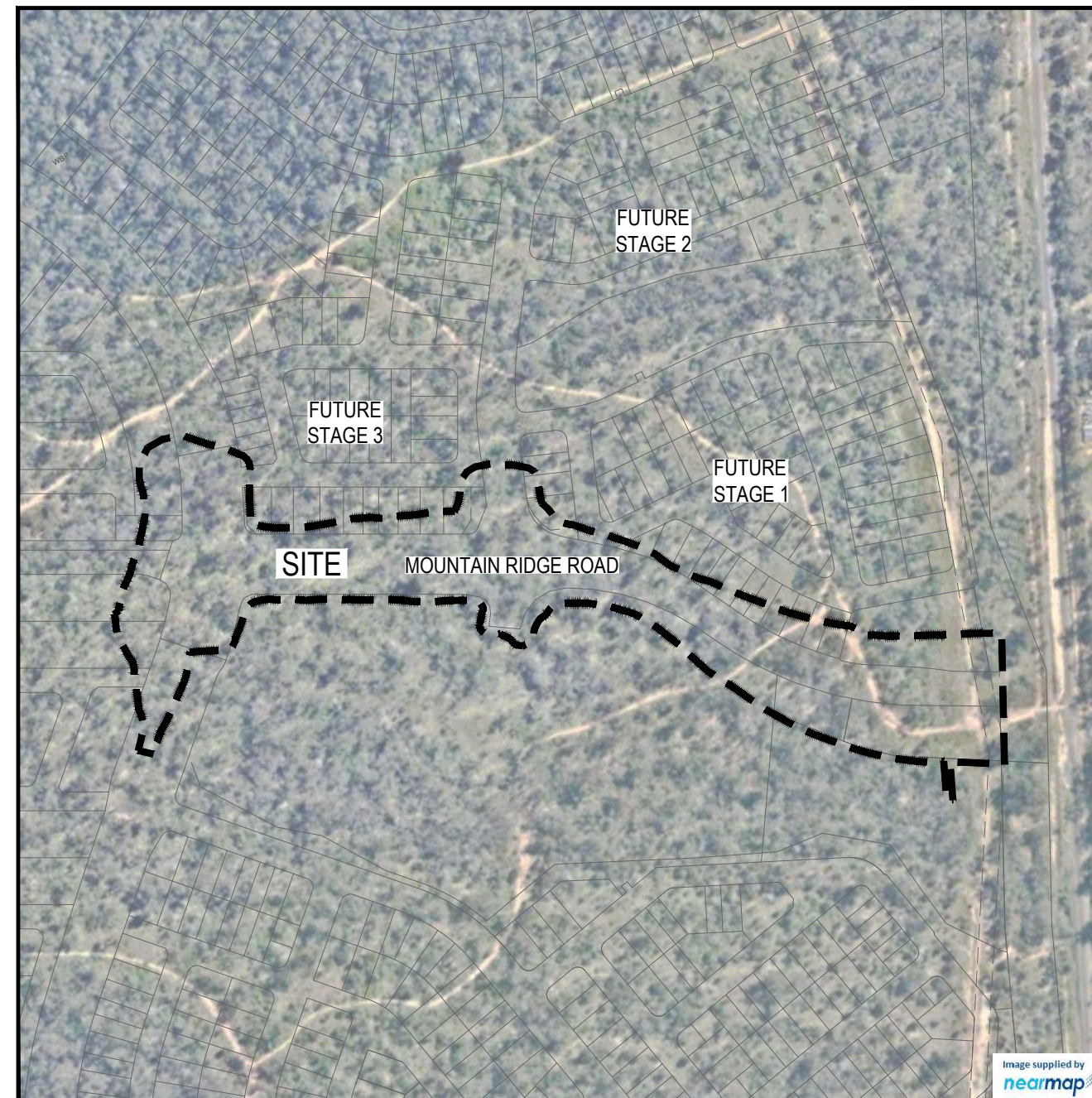
MOUNTAIN RIDGE ROAD, NEW BEITH

FOR 'FRASERS PROPERTY AUSTRALIA'

DRAWING LIST

SEWERAGE AND WATER RETICULATION

23-0153-4500 WATER RETICULATION COVER PLAN
23-0153-4501 WATER RETICULATION GENERAL NOTES AND LIVE WORKS DETAILS
23-0153-4540 WATER RETICULATION LAYOUT PLAN SHEET 1 OF 2
23-0153-4541 WATER RETICULATION LAYOUT PLAN SHEET 2 OF 2
23-0153-4542 RISING SEWER ENVELOPE PIPE DETAILS



LOCALITY PLAN
SCALE 1:2000 (A1)
SCALE 1:4000 (A3)

ESTATE/STAGE	NEW BEITH - MOUNTAIN RIDGE ROAD
CLIENT	FRASERS PROPERTY AUSTRALIA
SP APPLICATION No.	#
SP APPROVAL DATE	
No. OF ALLOTMENTS	N/A

REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS		SCALE		CLIENT	PROJECT NAME		DRAWING TITLE		
A	10.09.24	BR	DH	ORIGINAL ISSUE		TG	NOT FOR CONSTRUCTION			1:2000 20 0 20 40 60 80 100 A1 1:4000  A3	FRASERS PROPERTY AUSTRALIA	NEW BEITH - MOUNTAIN RIDGE ROAD		WATER RETICULATION COVER PLAN		
B	30.05.25	BR	DH	RFI RESPONSE												
C	21.08.25	BR	TG	RFI RESPONSE												
						DESIGN	APPROVED	DATE			ASSOCIATED CONSULTANT					
						BR	DANIEL COLLINS  RREQ 18631 21.08.25				RPS GROUP (07) 3539 9500	MOUNTAIN RIDGE ROAD NEW BEITH		PROJECT No. 23-0153	DRAWING No. 4500	REVISION C
FOR AND ON BEHALF OF COLLIERS INTERNATIONAL ENGINEERING & DESIGN PTY LTD																

1. THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIALS, PLANT AND EQUIPMENT TO CONSTRUCT THE WORKS AS DOCUMENTED AND STRICTLY IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARDS, SPECIFICATIONS AND REQUIREMENTS.
2. EXISTING SERVICES RELEVANT TO THE PROJECT HAVE BEEN CONSIDERED THROUGHOUT DESIGN AND IS BASED ON SURVEY INFORMATION PROVIDED BY THE SURVEYOR AND THE CONTRACTOR. THE RPEQ WHO CERTIFIED THE DESIGN OR THE PRINCIPAL'S CONSTRUCTION RPEQ HAVE RELIED UPON THIS INFORMATION TO INFORM THE DESIGN. THE CONTRACTOR SHALL VERIFY THE POSITION OF ANY UNDERGROUND SERVICES WITHIN THE AREAS OF WORKS AND SHALL BE RESPONSIBLE FOR MAKING GOOD ANY DAMAGE THERETO. ANY ALTERATION WORKS TO SERVICES WILL BE CARRIED OUT ONLY BY THE SERVICE OWNER AUTHORITY UNLESS APPROVED OTHERWISE.
3. ALL DESIGN AND CONSTRUCTION ACTIVITIES UNDERTAKEN SHALL COMPLY WITH CURRENT WORKPLACE HEALTH AND SAFETY REQUIREMENTS AND LEGISLATION.
4. PRIOR TO COMMENCING WORK, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL RELEVANT LOCAL AUTHORITY PERMITS.
5. THE CONTRACTOR SHALL NOT COMMENCE THE DEMOLITION OF ANY EXISTING BUILDINGS AND/OR STRUCTURES WITHOUT APPROVAL FROM THE SUPERINTENDENT.
6. THE CONTRACTOR SHALL APPLY INDUSTRY BEST PRACTICE SO WORKS SHALL NOT DISTURB OR AFFECT NEARBY RESIDENTS EITHER BY DUST, NOISE, FLOODING OR DISCONNECTION OF SERVICES. CONTRACTOR TO ENSURE THAT ACCESS AND SERVICES TO EXISTING PROPERTIES ARE AVAILABLE AT ALL TIMES.
7. THE CERTIFICATION OF THIS DESIGN IS BASED ON SURVEY AND POTHOLE INFORMATION PROVIDED BY THE SURVEYOR AND/OR CONTRACTOR AT THE TIME OF DESIGN. PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR SHALL VERIFY LEVELS OF EXISTING SERVICE CROSSINGS AND CONNECTION POINTS AND NOTIFY THE RPEQ WHO CERTIFIED THE DESIGN OR THE PRINCIPAL'S CONSTRUCTION RPEQ OF ANY DISCREPANCIES BETWEEN ACTUAL AND PROPOSED DESIGN LEVELS. THE CERTIFICATION OF THIS DESIGN IS BASED ON SURVEY AND POTHOLE INFORMATION PROVIDED BY THE SURVEYOR AND CONTRACTOR AT THE TIME OF DESIGN.
8. HOLD POINT: ONCE THE BASE OF MANHOLES HAVE BEEN POURED, CONSTRUCTION SHALL ONLY RE-COMMENCE ONCE THE SUPERINTENDENT AND/OR ENGINEER HAVE INSPECTED THE WORKS.
9. THE CONTRACTOR SHALL NOTE DURING THE COURSE OF THE WORKS WHEN JOINT INSPECTIONS WITH THE AUTHORITY AND THE SUPERINTENDENT ARE REQUIRED. THESE INCLUDE PRE-STARTS, SUBGRADES, PRE-SEALS, CLEARING, AND OTHER SUCH INSPECTIONS AS NOMINATED DURING THE PRE-START, IN THE APPROVAL AND THE SPECIFICATIONS. THE CONTRACTOR SHALL ENSURE NO WORKS PROCEED PAST THE INSPECTION POINT UNTIL THE JOINT INSPECTION HAS BEEN SUCCESSFULLY COMPLETED.
10. THE CONTRACTOR SHALL VERIFY LEVELS OF EXISTING SERVICE CROSSINGS AND CONNECTION POINTS PRIOR TO COMMENCEMENT OF WORKS AND NOTIFY THE RPEQ WHO CERTIFIED THE DESIGN OR THE PRINCIPAL'S CONSTRUCTION RPEQ OF ANY DISCREPANCIES BETWEEN ACTUAL AND PROPOSED DESIGN LEVELS. THE CERTIFICATION OF THIS DESIGN IS BASED ON SURVEY AND POTHOLE INFORMATION PROVIDED BY THE SURVEYOR AND CONTRACTOR AT THE TIME OF DESIGN.
11. THESE ENGINEERING DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE APPROVED VEGETATION MANAGEMENT PLAN, WHERE APPLICABLE. WHEN IN DOUBT, ALL EXISTING TREES ARE TO REMAIN UNLESS DIRECTED OTHERWISE.

VEGETATION PROTECTION

- A. TREES LOCATED ALONG THE FOOTPATH SHALL BE, TRANSPLANTED PRIOR TO CONSTRUCTION, OR REPLACED IF DESTROYED.
- B. WHEN WORKING WITHIN 4m OF TREES, RUBBER OR HARDWOOD GIRDLES SHALL BE CONSTRUCTED WITH 1.8m BATTENS CLOSELY SPACED AND ARRANGED VERTICALLY FROM GROUND LEVEL. GIRDLES SHALL BE STRAPPED TO TREES PRIOR TO CONSTRUCTION AND REMAIN UNTIL COMPLETION.
- C. TREE ROOTS SHALL BE TUNNELED UNDER, RATHER THAN SEVERED. IF ROOTS ARE SEVERED THE DAMAGED AREA SHALL BE TREATED WITH A SUITABLE FUNGICIDE. CONTACT RELEVANT COUNCIL ARBORIST FOR FURTHER ADVICE.
- D. ANY TREE LOPPING REQUIRED SHOULD BE UNDERTAKEN BY AN APPROVED ARBORIST.

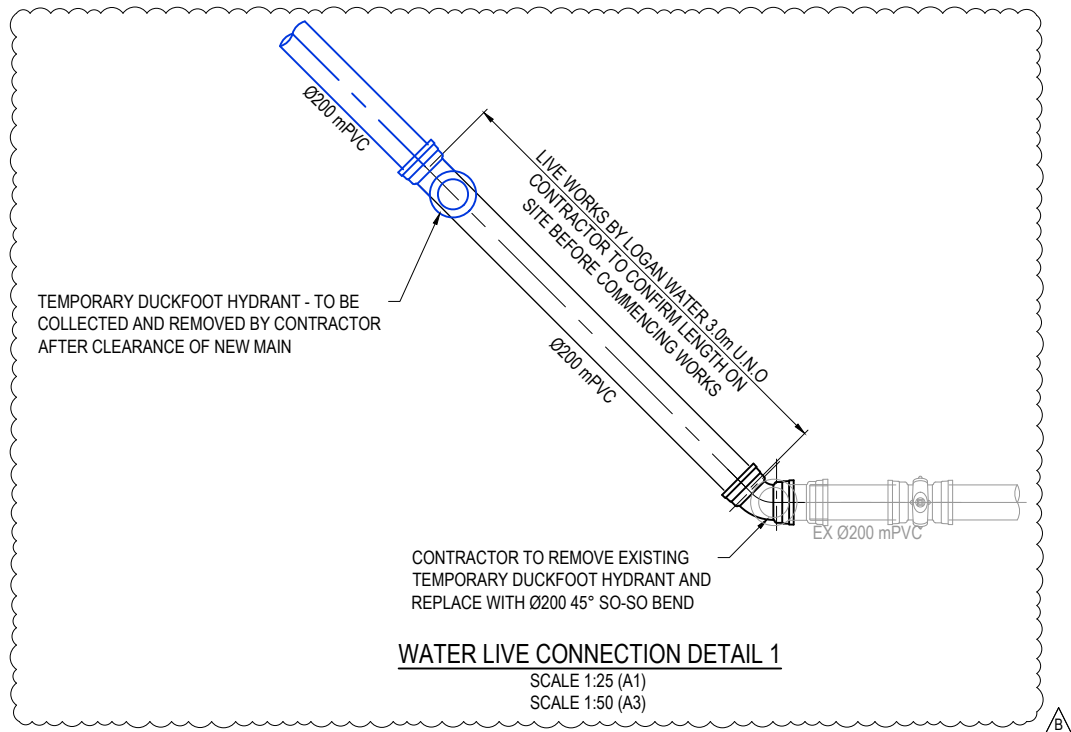
THIS DESIGN PACKAGE SHOWS CONNECTIONS TO INFRASTRUCTURE THAT HAS NOT BEEN ACCEPTED 'ON-MAINTENANCE' BY LOGAN WATER. LIVE WORKS CANNOT COMMENCE UNTIL THE PRECEDING WORKS HAVE BEEN ACCEPTED 'ON MAINTENANCE' BY LOGAN WATER.

DURING ANY CONSTRUCTION ACTIVITY AT LEAST ONE PERSON ON SITE MUST HAVE COMPLETED A PIPE LAYING TRAINING COURSE APPROVED BY THE PIPE SUPPLIER OR MANUFACTURER AND APPROPRIATE TO THE PIPELINE UNDER CONSTRUCTION. THE TRAINING COURSE MUST HAVE BEEN COMPLETED WITHIN THE LAST TEN YEARS.

ALL SITE AND FACTORY PE WELDING SHALL BE CARRIED OUT BY A PERSON WHO HAS COMPLETED RELEVANT NATIONALLY ACCREDITED COURSES FOR BUTT WELDING/ELECTROFUSION AND HOLD A VALID WELDING CERTIFICATE IN ACCORDANCE WITH AS/NZS 2033.

THE CONTRACTOR SHALL PROVIDE DOCUMENTED EVIDENCE OF ACCEPTABLE QUALIFICATIONS TO LOGAN WATER.

1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE CURRENT WSAW WATER SUPPLY CODE OF AUSTRALIA SPECIFICATIONS AND STANDARD - SOUTH EAST QUEENSLAND SERVICE PROVIDERS EDITION.
2. UNLESS SPECIFIED OTHERWISE ALL MATERIALS AND WORK SHALL COMPLY WITH THE RELEVANT AUSTRALIAN STANDARDS.
3. THE DESIGN HAS BEEN UNDERTAKEN TO COMPLY WITH CURRENT SOUTH EAST QUEENSLAND WATER CODE AND LOGAN WATER STANDARDS.
4. THE CONSTRUCTION OF THE WATER RETICULATION WORK SHOWN ON THIS DRAWING MUST BE SUPERVISED BY AN ENGINEER WHO HAS RPEQ REGISTRATION. WORKS NOT COMPLYING WITH THIS REQUIREMENT WILL NOT BE PERMITTED TO CONNECT TO THE RETICULATION SYSTEM.
5. ALL MATERIALS USED IN THE WORKS SHALL COMPLY WITH LOGAN WATER ACCEPTED PRODUCTS AND MATERIALS LIST OR BE APPROPRIATELY SHOWN, LISTED AND DEFINED IN THE ENGINEERING SUBMISSION SO THAT THE ALTERNATIVE PRODUCT OR MATERIAL CAN BE ASSESSED AND IF APPROPRIATE, APPROVED BY LOGAN WATER.
6. ADOPT LIP OF KERB OR SHOULDER OF ROAD AS PERMANENT LEVEL.
7. COVER ON MAINS FROM PERMANENT LEVEL TO BE AS SHOWN IN SEQ-WAT-1200-2.
8. CONSTRUCT EMBEDMENT AND TRENCH FILL TO SEQ-WAT-1200-1 TO 1204-1 AND COUNCIL STANDARDS FOR ROADWAY CROSSINGS. TYPE D MINIMUM UNLESS GEOTECHNICAL INVESTIGATIONS INDICATE TYPE C IS ADEQUATE.
9. PROVIDE BULKHEADS / TRENCH STOPS IN ACCORDANCE WITH SEQ WATER SUPPLY CODE TABLE 7.5 AND SEQ-WAT-1209-1 AND 1210-1.
10. CONSTRUCT THRUST BLOCKS ON ALL UNRESTRAINED VALVES, BENDS, TEES, TAPERS, DEAD ENDS TO SEQ-WAT-1205-1, 1206-1 AND 1207-1 AND WHERE OTHER PIPES CONNECT TO PE PIPE.
11. INSTALL DETECTABLE MARKER TAPE ON ALL WATER MAINS AND PROPERTY SERVICES.
12. CONSTRUCT FIRE HYDRANTS AND STOP VALVES TO SEQ-WAT-1301-1, 1302-1, 1303-2, 1305-1, 1306-1 AND 1409-1.
13. CONSTRUCT SCOURS TO SEQ-WAT-1307-2 (ONLY MAINS DN315 AND LARGER), SCOURS MUST DISCHARGE INTO AN OPEN STORMWATER GULLY PIT. DISCHARGE TO THE FACE OF KERB AND CHANNEL IS NOT ACCEPTABLE TO LOGAN WATER.
14. INSTALL ROAD AND PAVEMENT MARKERS TO SEQ-WAT-1107-1, 1107-2, 1300-1 AND 1300-2.
15. CONSTRUCT HYDRANTS AT THE ENDS OF ALL NEW MAINS BEFORE THE SCOUR AND WHERE REQUIRED FOR COMMISSIONING PURPOSES. LOGAN WATER PREFERENCE IS TO AVOID TAPPING BANDS FOR TEST POINTS AND PROVIDE EITHER A TEMPORARY DUCKFOOT HYDRANT OR FLANGED SHORT PIPE WITH A TEMPORARY TAPPED BLANK FLANGE. TESTING AGAINST LIVE MAINS AND VALVES IS NOT PERMITTED.
16. TESTING LOCATIONS AND TEMPORARY FITTINGS ARE REQUIRED ON SERVICES OVER 10m LONG UNLESS APPROVED IN WRITING FOR WORKS TO BE UNDERTAKEN AS LIVE WORKS. TESTING AND AS -CONSTRUCTED REQUIREMENTS TO BE DOCUMENTED ON DRAWINGS.
17. 316SS BACKING RINGS SHALL BE USED WITH FULL-FACE PE FLANGES. PE STUB-FLANGES ARE NOT ACCEPTED. WHEN JOINING TO EXISTING UNRESTRAINED PIPELINES, PROVIDE A DICL SHORT PIPE WITH THRUST FLANGE AND THRUST BLOCK BOLT ON UNI FLANGES SHALL NOT BE USED AS THRUST FLANGES. THRUST (PUDDLE) FLANGES SHALL BE AN APPROVED PREFABRICATED DICL/MSCl SHORT PIPE WITH PREFABRICATED THRUST FLANGE.
18. ALL DISUSED SERVICES SHALL BE SEALED AT THE MAIN AND FERRULE CLOSED OR TAPPING BAND REMOVED AND SECTION OF MAIN SUBSTITUTED AS LIVE WORKS. LARGE DIAMETER SERVICES SHALL BE DISUSED BY REMOVING ANY PROPERTY SERVICE PIPEWORK AT THE POINT OF CONNECTION TO THE MAIN, AND INSTALLING A BLANK FLANGE DIRECTLY ON THE TEE.
19. AC MAINS SHALL BE REPLACED COLLAR-COLLAR.
20. CONSTRUCT PROPERTY SERVICES TO SEQ-WAT-1107-1 AND 1107-3.
21. PROVIDE DN40 PE100 WATER SERVICES FOR ROAD CROSSINGS SERVICING TWO DWELLINGS. PROVIDE DN32 PE100 WATER SERVICES FOR ROAD CROSSINGS SERVICING A SINGLE DWELLING. IF THE LONG TERM STATIC HEAD OF THE PROPERTY SERVICE IS LESS THAN 350 kPa (35m) OR IF PRIVATE BOOSTER IS REQUIRED, THE MINIMUM SIZE OF PROPERTY SERVICE SHALL BE DN40 PE100.
22. WATER SERVICE UNDER ROADS AND DRIVEWAYS MUST BE PLACED WITHIN 100mm DIA. CONDUITS, REFER SEW-WAT-1107-1.
23. A WATER METER SUPPLIED AT THE DEVELOPER'S COST, IS TO BE INSTALLED AT THE SERVICE POINT OF EACH LOT IN ACCORDANCE WITH THE LOGAN WATER STANDARD DRAWING.
24. WATER METER AND FIRE HYDRANTS MUST BE LOCATED MINIMUM 1.1m CLEAR OF ENERGEX PILLARS.



CONNECTION 1			
STREET	MOUNTAIN RIDGE ROAD		
LOCATION	LOT 4 RP45728		
LENGTH	3.00m	TYPE OF MAIN	Ø200 PN16
DATE COMMENCED	DATE	COMPLETED	
SIGNATURE			

1. ALL LIVE WORKS SHALL BE UNDERTAKEN BY THE CONTRACTOR IN ACCORDANCE WITH AN APPROVED NETWORKS ACCESS PERMIT, UNDER THE SUPERVISION OF LOGAN WATER, AT THE DEVELOPERS EXPENSE.
2. LIVE WORKS CANNOT COMMENCE UNTIL ALL RELEVANT TEST CERTIFICATES HAVE BEEN PROVIDED AND ACCEPTED BY LOGAN WATER.
3. PRE-CHLORINATED WATER FITTINGS SHALL BE USED FOR ALL DRINKING WATER LIVE WORKS CONNECTIONS.

[illegible]

PROPOSED AREA OF WORKS	
	PROPOSED WATER MAIN 1500
	PROPOSED WATER MAIN 2000
	PROPOSED WATER MAIN 2500
	PROPOSED WATER MAIN 3000
	FUTURE TRUNK WATER MAIN

— W — W —	EXISTING WATER MAIN
(HP) (LP)	HIGH POINT / LOW POINT
— D — D —	EXISTING STORMWATER DRAINAGE PIPE
— SR — SR —	EXISTING SEWERAGE RISING MAIN
— ST — ST —	EXISTING SEWERAGE RISING MAIN
— TU — TU —	EXISTING TELECOMMUNICATION CABLE U/G

	TEMPORARY FIRE HYDRANT
	REDUCER
	ISOLATION VALVE
	SCOUR VALVE
	AIR VALVE

	FIRE HYDRANT
	ISOLATION VALVE
	DEAD END
	REDUCER
	WATER SERVICE POINT

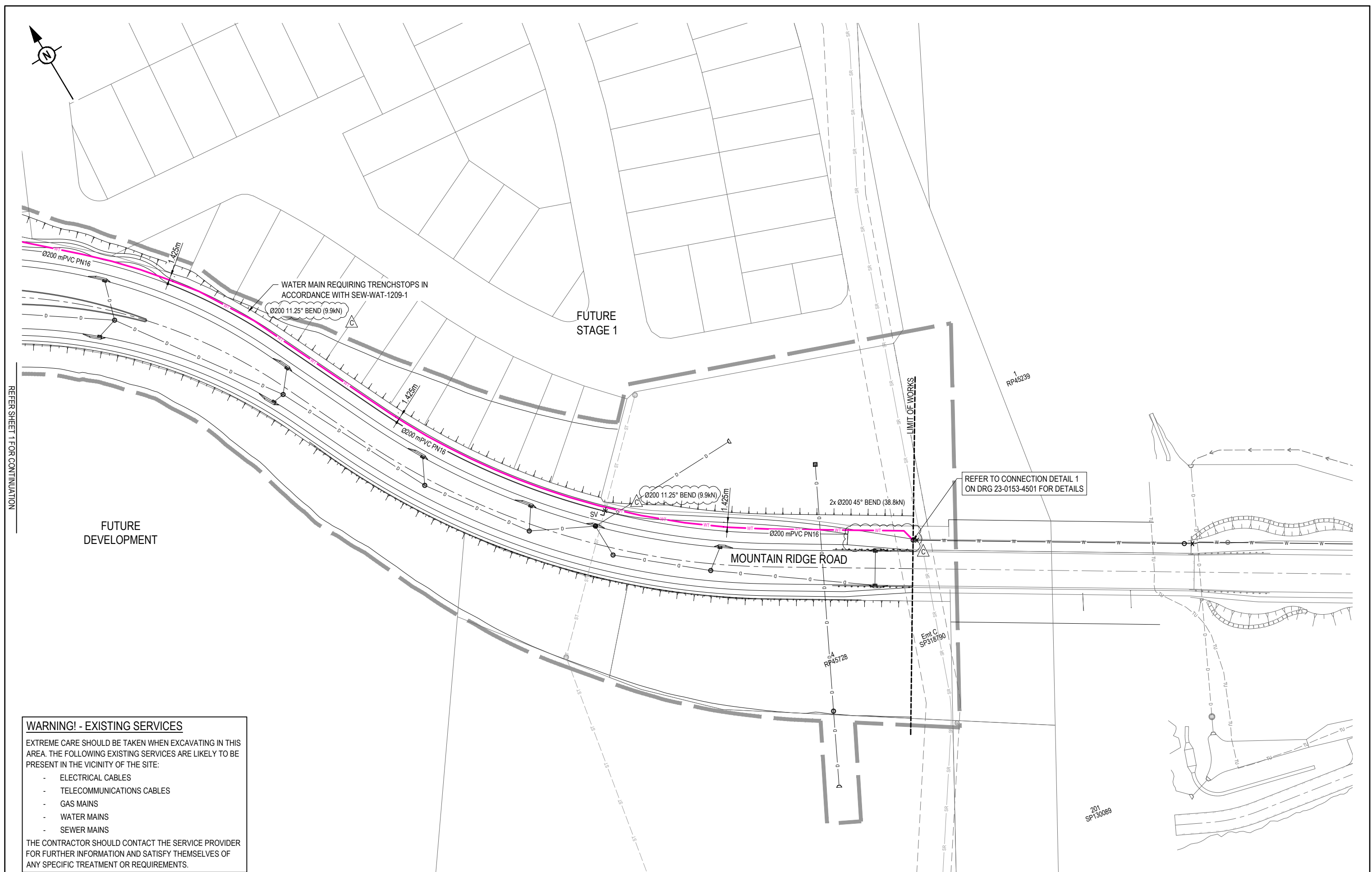
- WATER MAINS MUST CROSS OVER SERVICES WITH MINIMUM COVER PER SEQ CI. 7.4.2. AND CLEARANCES PER SEQ CODE TABLE 5.5.
- ALL VALVES TO BE FULLY RESTRAINED IN ACCORDANCE WITH THE SEQ CODE.
- MARKERS FOR PROPERTY SERVICES SHALL BE IN ACCORDANCE WITH SEQ-WAT-1106-1108. MARKERS FOR WATER MAIN CROSSINGS, HYDRANTS AND VALVES SHALL BE IN ACCORDANCE WITH SEQ-WAT-1300-1.
- ALL FITTINGS (HYDRANTS, VALVES, WATER SERVICE CONNECTIONS ETC) MUST BE INSTALLED ON STRAIGHT SECTIONS OF WATER MAIN.

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

RP DESCRIPTION
LOT 4 ON SP332712

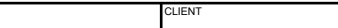
DATUM LEVEL AND LOCATION:
P.S.M. XXX RL XX.XXX AHD
LOCATED: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS			SCALE 1:50010501020A1 1:1000	CLIENT	PROJECT NAME NEW BEITH - MOUNTAIN RIDGE ROAD MOUNTAIN RIDGE ROAD NEW BEITH	DRAWING TITLE		
A	10.08.24	BR	DH	ORIGINAL ISSUE	TG	NOT FOR CONSTRUCTION	DATE 21.08.25	ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500			PROJECT No. 23-0153 DRAWING No. 4540 REVISION C				
B	30.05.25	BR	DH	RPI RESPONSE											
C	21.08.25	BR	TG	RPI RESPONSE											
					DESIGN	APPROVED DANIEL COLLINS	RPEQ 18631								
					BR	 FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD									

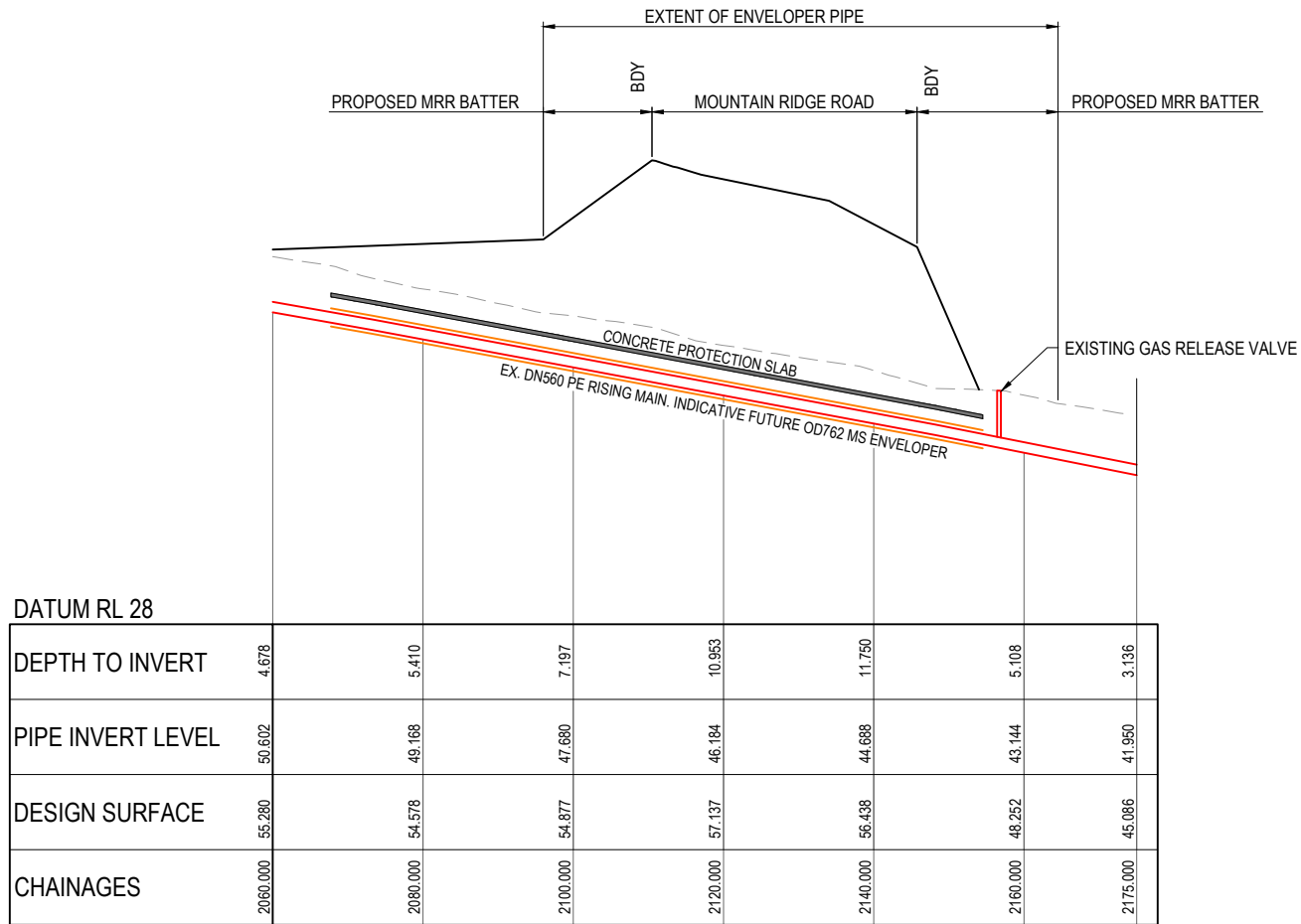


WARNING! - EXISTING SERVICES

- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

REV	DATE	DESIGN	DRAWN	REVISION DETAILS		DRAWN	STATUS			SCALE	1:500 10 5 0 10 20 A1 1:1000 	CLIENT	FRASERS PROPERTY AUSTRALIA ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	PROJECT NAME	NEW BEITH - MOUNTAIN RIDGE ROAD MOUNTAIN RIDGE ROAD NEW BEITH	DRAWING TITLE		
A	10.09.24	BR	DH	ORIGINAL ISSUE		TG	NOT FOR CONSTRUCTION			PROJECT No.		DRAWING No.				REVISION		
B	30.05.25	BR	DH	RFI RESPONSE														
C	21.08.25	BR	TG	RFI RESPONSE														
						BR	APPROVED DANIEL COLLINS RPEQ 18631 DATE 21.08.25  FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD											

REFER SHEET 1 FOR CONTINUATION

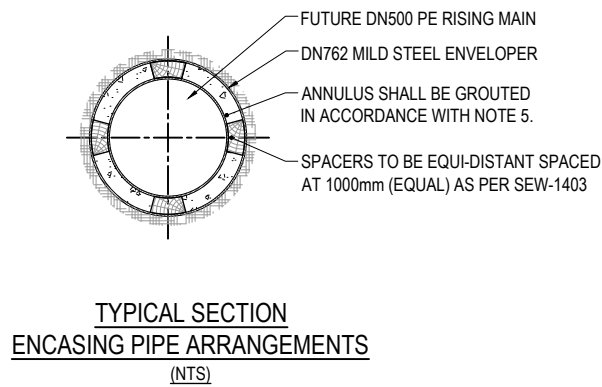


DATUM RL 28

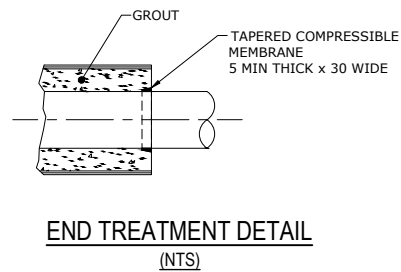
DEPTH TO INVERT	4.678	5.410	7.197	10.953	11.750	5.108	3.136
PIPE INVERT LEVEL	50.602	49.168	47.680	46.184	44.688	43.144	41.950
DESIGN SURFACE	55.280	54.578	54.877	57.137	56.438	48.252	45.086
CHAINAGES	2060.000	2080.000	2100.000	2120.000	2140.000	2160.000	2175.000

EXISTING SEWER RISING MAIN
LONGITUDINAL SECTION
(NTS)

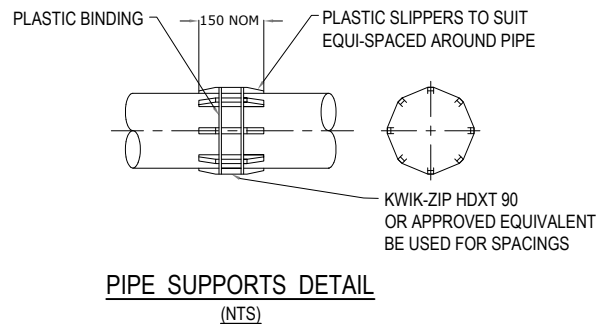
NOTE:
SEWER RISING MAIN AS-CON DATA PROVIDED
BY LOGAN WATER DRG. 05-09832



TYPICAL SECTION
ENCASING PIPE ARRANGEMENTS
(NTS)



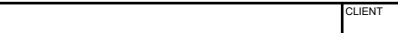
END TREATMENT DETAIL
(NTS)



PIPE SUPPORTS DETAIL
(NTS)

MICROTUNNELING DESIGN AND CONSTRUCTION REQUIREMENTS

- ENCASING PIPE
 - REINFORCING CONCRETE CLASS 4 BUTT JOINED WITH STEEL LOCATING BANDS, OR
 - WELDED MILD STEEL
 - GRP JACKING PIPE.
- STEEL PIPE JOINTS TO BE EITHER PLAIN OR PLAIN ENDS WITH WELDED COLLAR OR BUTT WELDED OR SLIP-IN TYPE WELDED JOINT. EXTERNAL COATING REQUIRED (SEE SEQ-WAT-1400-1).
- FILL VOIDS OUTSIDE OF ENCASING PIPE WITH PRESSURE GROUT DURING INSTALLATION
- BORED HOLE TO ENCASING PIPE GROUT MIX BY WEIGHT IS 0.67 WATER : 1.0 CEMENT : 1.0 SAND WITH THE SAND TO BE WELL ROUNDED SAND AND SEQ-SP APPROVED PLASTICISERS MAY BE USED.
- ENCASING PIPE TO WATER PIPE GROUT MIX IS A FLOWABLE 1MPa MINIMUM GROUT WITH A LOW HEAT OF HYDRATION WITH AGGREGATE BEING A FINE WELL ROUNDED SAND AND PLASTICISERS MAY BE USED. THE MIX DESIGN SHALL BE APPROPRIATE FOR THE SPECIFIC PIPE MATERIALS AND SITE CONDITIONS AND SHALL BE APPROVED BY THE SUPERINTENDENT.
- FULLY WRAP PE COATED SCL PIPE USING BITUMASTIC WRAPPING TAPE SYSTEM THAT EXTENDS AT LEAST
- 300 mm WITHIN CONCRETE ENCASEMENT TO AT LEAST 300 m BEYOND CONCRETE ENCASEMENT AND ENSURING TAPE OVERLAPS THE UNDAMAGED PE COATING BY AT LEAST 150 mm.
- PLACE MARKERS ABOVE BURIED PIPELINE AT THE POINTS WHERE IT ENTERS AND LEAVES THE PROPERTY.
- FINAL DESIGN TO BE IN ACCORDANCE WITH AS 4799.
- SEE SEQ- SEW-1402-1 FOR DETAILS PF ENCASING SEWERMAIN INSTALLATION.
- THE CONTRACTOR SHALL ENSURE THAT THE PE CARRIER PIPE IS NOT IMPACTED BY FLOATATION OR THERMAL REVERSION DURING THE GROUTING PROCESS. A METHODOLOGY SHALL BE SUBMITTED TO THE SUPERINTENDENT FOR APPROVAL PRIOR TO PROCEEDING WITH WORKS.
- DETAILS SHOWN ARE TYPICAL. THE CONTRACTOR SHALL PREPARE A SPECIFIC DESIGN FOR THE INSTALLATION AND OBTAIN APPROVAL FROM THE RELEVANT AUTHORITY FOR THE DESIGN. PRIOR TO CONSTRUCTION, THE CONTRACTOR MUST OBTAIN APPROVAL FROM THE RELEVANT AUTHORITY TO ACCESS THE SITE.

REV	DATE	DESIGN	DRAWN	REVISION DETAILS			DRAWN	STATUS				SCALE 1:50010501020A1 1:1000	CLIENT FRASERS PROPERTY AUSTRALIA ASSOCIATED CONSULTANT RPS GROUP (07) 3539 9500	PROJECT NAME NEW BEITH - MOUNTAIN RIDGE ROAD MOUNTAIN RIDGE ROAD NEW BEITH	DRAWING TITLE RISING SEWER ENVELOPER PIPE DETAILS		
A	21.08.25	BR	TG	ORIGINAL ISSUE			TG	NOT FOR CONSTRUCTION							PROJECT No. 23-0153	DRAWING No. 4542	REVISION A
							BR	DESIGN	APPROVED DANIEL COLLINS  RPEQ 18631 DATE 22.08.25								
FOR AND ON BEHALF OF COLLIER'S INTERNATIONAL ENGINEERING & DESIGN PTY LTD																	