

41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790

RESIDENTIAL SUBDIVISION

DEVELOPMENT APPLICATION

DRAWING LIST

DRG No.	DRAWING TITLE
250062-DA1-000-01	COVER SHEET, DRAWING LIST AND LOCALITY PLAN
250062-DA1-052-01	GENERAL ARRANGEMENT PLAN
250062-DA1-100-01	TYPICAL SECTIONS
250062-DA1-110-01	EROSION AND SEDIMENT CONTROL PLAN
250062-DA1-120-01	EROSION AND SEDIMENT CONTROL DETAILS
250062-DA1-200-01	BULK EARTHWORKS CUT AND FILL PLAN
250062-DA1-220-01	BULK EARTHWORKS CUT AND FILL SECTIONS - SHEET 01
250062-DA1-220-02	BULK EARTHWORKS CUT AND FILL SECTIONS - SHEET 02
250062-DA1-220-03	BULK EARTHWORKS CUT AND FILL SECTIONS - SHEET 03
250062-DA1-220-04	BULK EARTHWORKS CUT AND FILL SECTIONS - SHEET 04
250062-DA1-220-05	BULK EARTHWORKS CUT AND FILL SECTIONS - SHEET 05
250062-DA1-220-06	BULK EARTHWORKS CUT AND FILL SECTIONS - SHEET 06
250062-DA1-300-01	CIVIL WORKS OVERVIEW PLAN
250062-DA1-310-01	CIVIL WORKS PLAN - SHEET 01
250062-DA1-310-02	CIVIL WORKS PLAN - SHEET 02
250062-DA1-310-03	CIVIL WORKS PLAN - SHEET 03
250062-DA1-310-04	CIVIL WORKS PLAN - SHEET 04
250062-DA1-310-05	CIVIL WORKS PLAN - SHEET 05 MAGPIE HOLLOW ROAD INTERSECTION WORKS
250062-DA1-400-01	ALIGNMENT CONTROL PLAN
250062-DA1-420-01	ROAD LONGITUDINAL SECTIONS - SHEET 01
250062-DA1-420-02	ROAD LONGITUDINAL SECTIONS - SHEET 02
250062-DA1-420-03	ROAD LONGITUDINAL SECTIONS - SHEET 03
250062-DA1-420-04	ROAD LONGITUDINAL SECTIONS - SHEET 04
250062-DA1-420-05	ROAD LONGITUDINAL SECTIONS - SHEET 05
250062-DA1-420-06	ROAD LONGITUDINAL SECTIONS - SHEET 06
250062-DA1-420-07	ROAD LONGITUDINAL SECTIONS - SHEET 07
250062-DA1-420-08	ROAD LONGITUDINAL SECTIONS - SHEET 08
250062-DA1-420-09	ROAD LONGITUDINAL SECTIONS - SHEET 09
250062-DA1-420-10	ROAD LONGITUDINAL SECTIONS - SHEET 10
250062-DA1-420-11	ROAD LONGITUDINAL SECTIONS - SHEET 11
250062-DA1-420-12	ROAD LONGITUDINAL SECTIONS - SHEET 12
250062-DA1-420-13	ROAD LONGITUDINAL SECTIONS - SHEET 13
250062-DA1-420-14	ROAD LONGITUDINAL SECTIONS - SHEET 14
250062-DA1-651-01	CATCHMENT PLAN
250062-DA1-670-01	BIO-FILTRATION BASIN PLAN - SHEET 01
250062-DA1-670-02	BIO-FILTRATION BASIN PLAN - SHEET 02
250062-DA1-680-01	BIO-FILTRATION BASIN DETAILS



IMAGE SOURCE : NEARMAP

LOCALITY PLAN

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS		
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK	MAAS	THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIA. BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED	010203040m SCALE 1:1	SHEET SIZE A1 SETOUT TBD	GROUNDSWELL ENGINEERS 54 HUDSON STREET, HAMILTON NSW 2303	41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION	
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN						DRAWING TITLE COVER SHEET, DRAWING LIST AND LOCALITY PLAN	PROJECT - SET - DRAWING - SHEET 250062-DA1-000-01	REVISION B
					DRAFTED C. WALKER-HEALON								
					VERIFIED TBD								



LEGEND	
	PROPOSED LOT BOUNDARY LINE
	EXISTING BOUNDARY LINE
	EASEMENT LINE
	EXISTING ELECTRICITY (OVERHEAD)
	EXISTING SEWER
	ASSET PROTECTION ZONE
	EDGE OF EXISTING WOODLAND

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN
					DRAFTED C. WALKER-HEALON
					VERIFIED TBD

MAAS

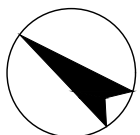
ARCHITECT

- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE.
- DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS.
- THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD.
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- ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIA. BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED.

SCALE

0 10 20 30 40m
1:1000

NORTH



SHEET SIZE A1
SETOUT TBD

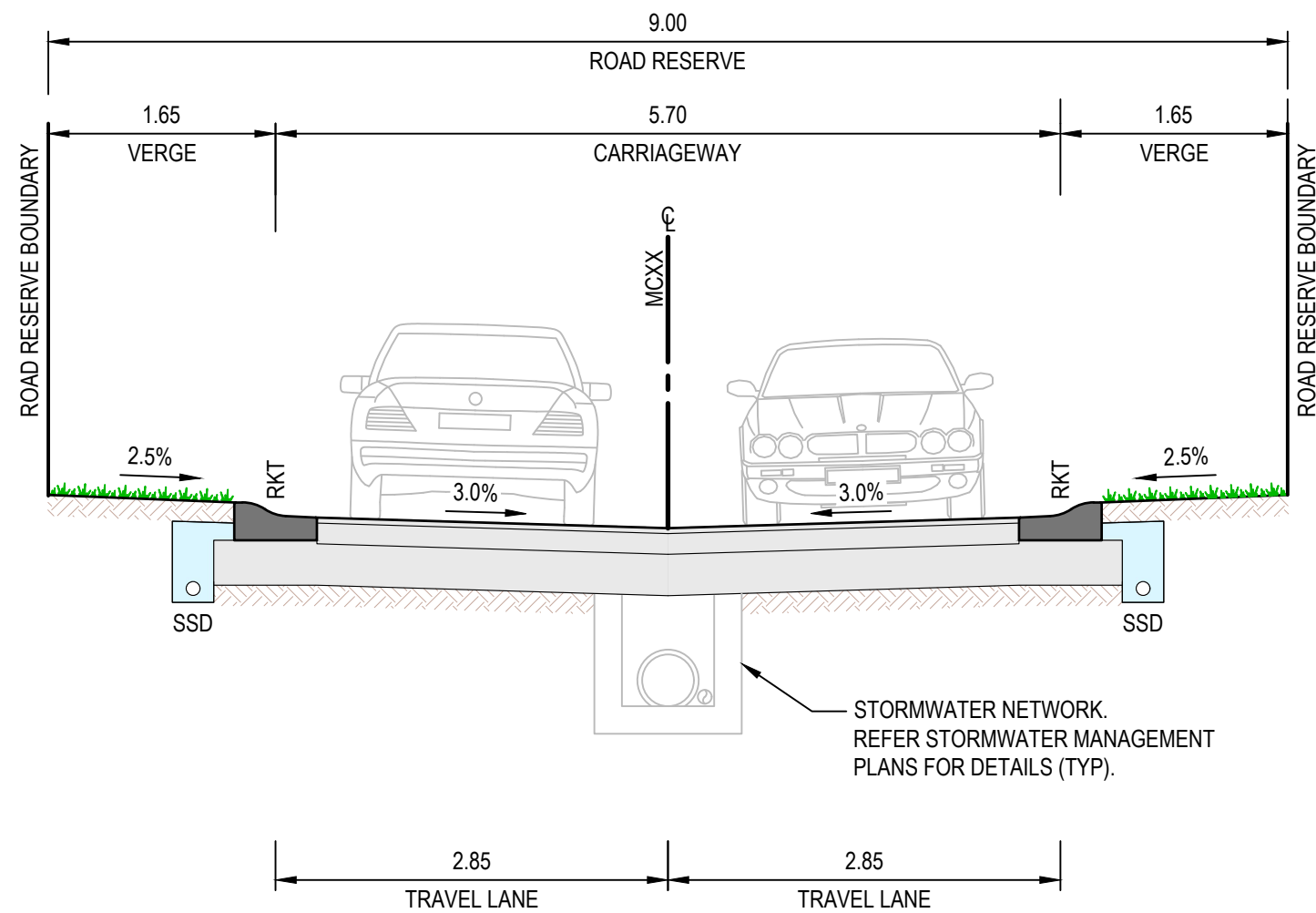
GROUNDSWELL
ENGINEERS
54 HUDSON STREET, HAMILTON NSW 2303

PROJECT TITLE
41 MAGPIE HOLLOW ROAD,
SOUTH BOWENFELS, NSW 2790

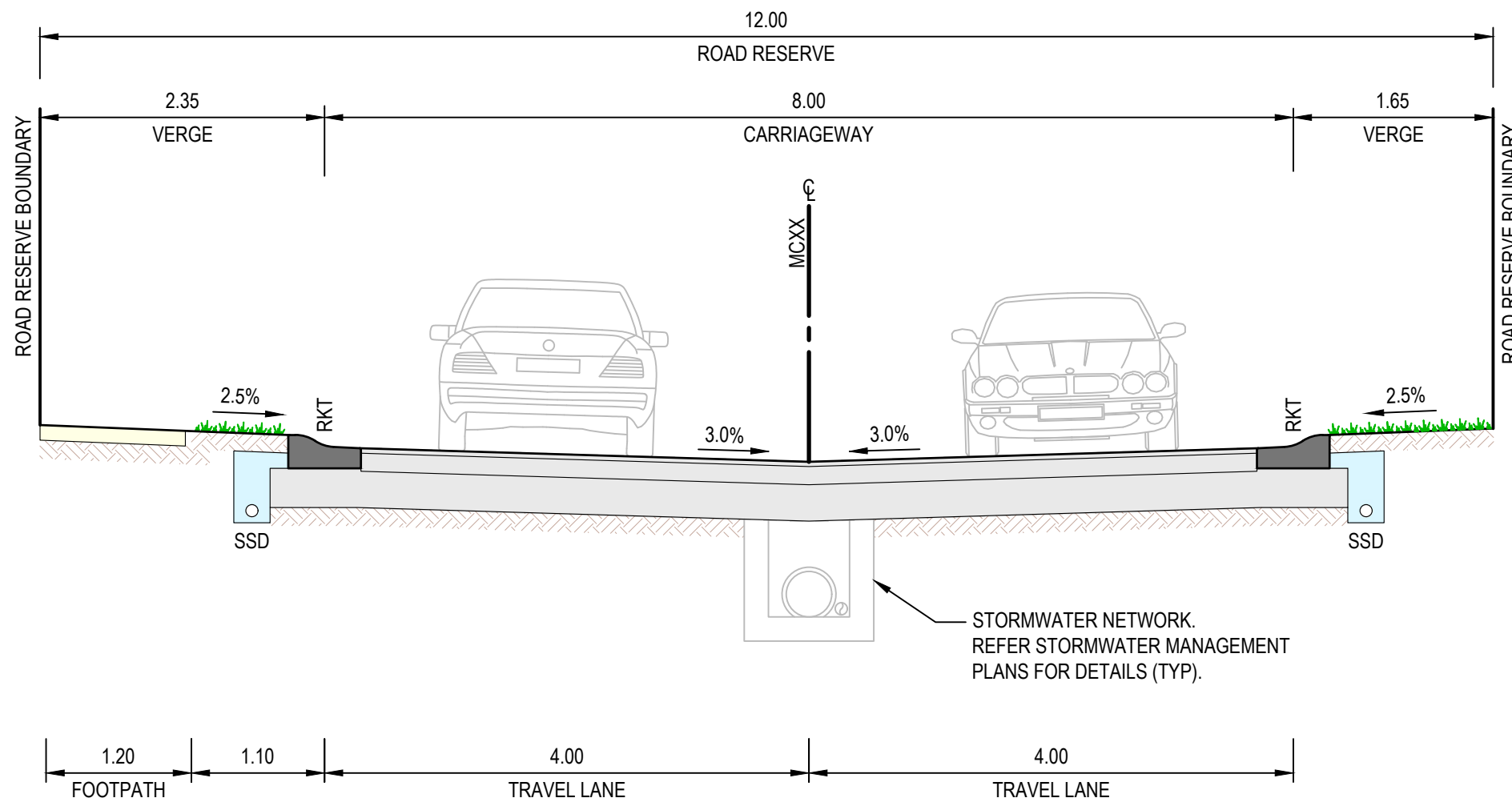
DRAWING TITLE
GENERAL ARRANGEMENT PLAN

STATUS
FOR APPROVAL ONLY
NOT TO BE USED FOR CONSTRUCTION

PROJECT - SET - DRAWING - SHEET
250062-DA1-052-01
REVISION
B

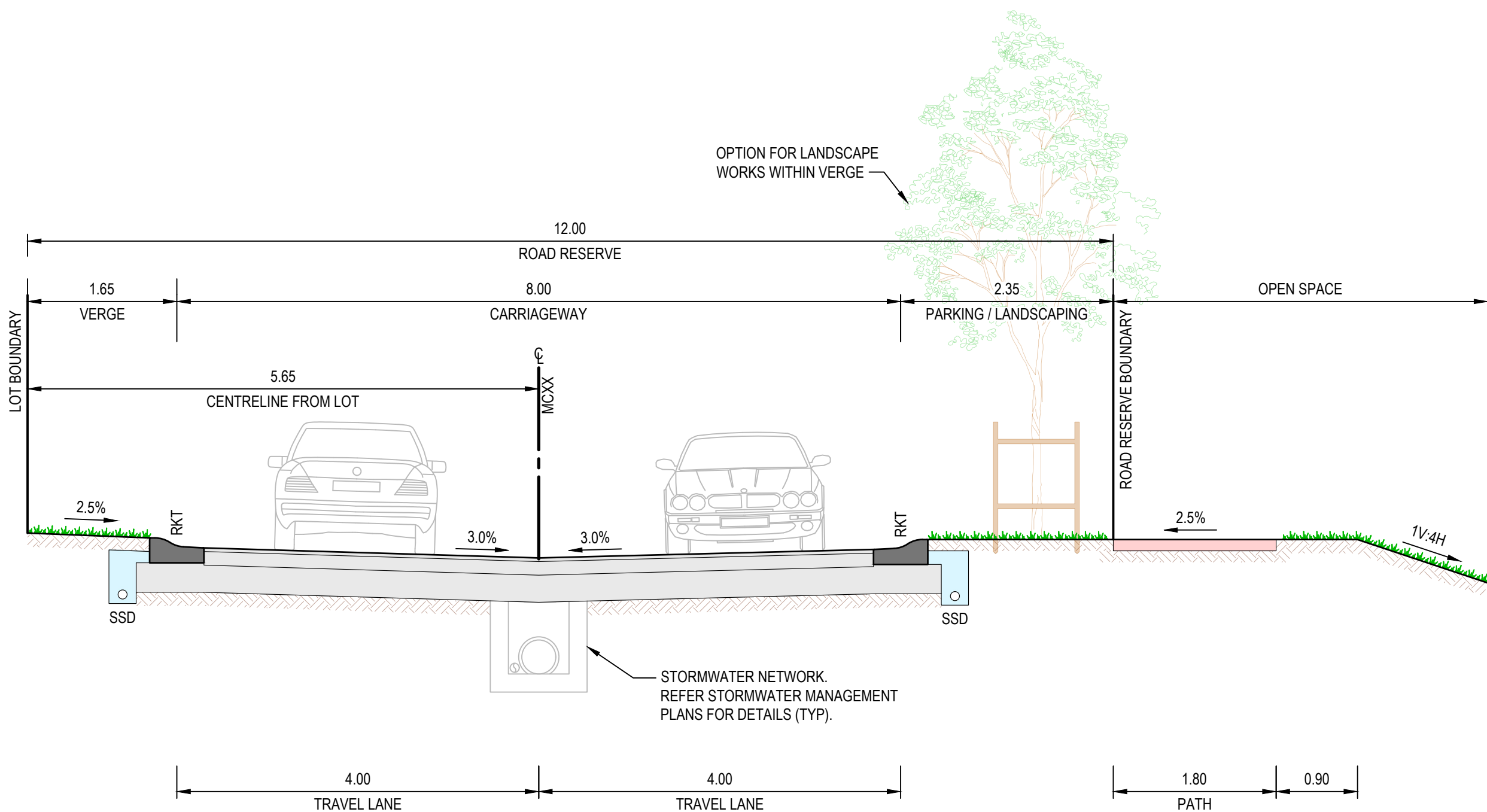


LOCAL ROAD - 9m ROAD RESERVE
SCALE 1:50
MC03, MC04, MC06, MC07, MC08, MC09, MC10

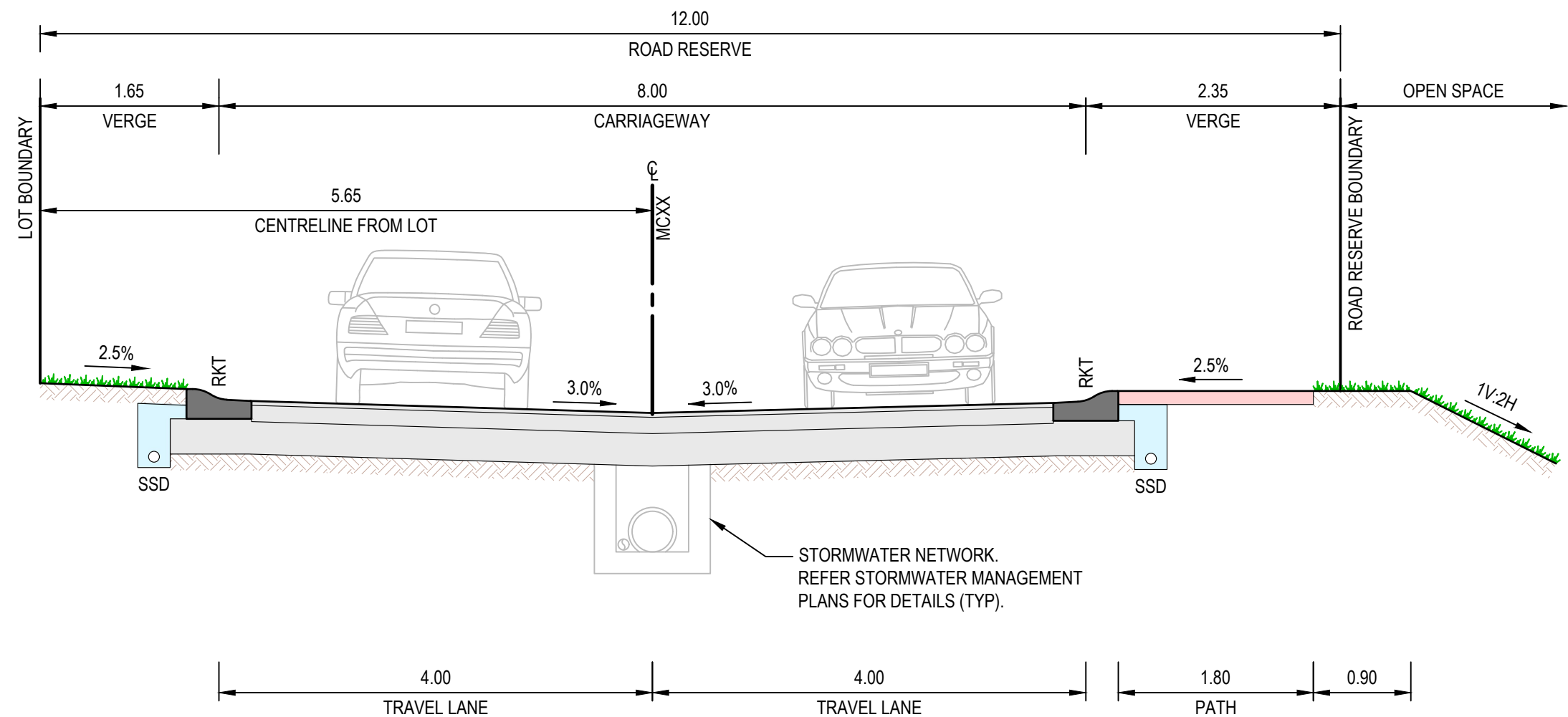


LOCAL ROAD - 12m ROAD RESERVE
SCALE 1:50
MC01, MC02 (CH0.00 - CH216, CH760 - END)

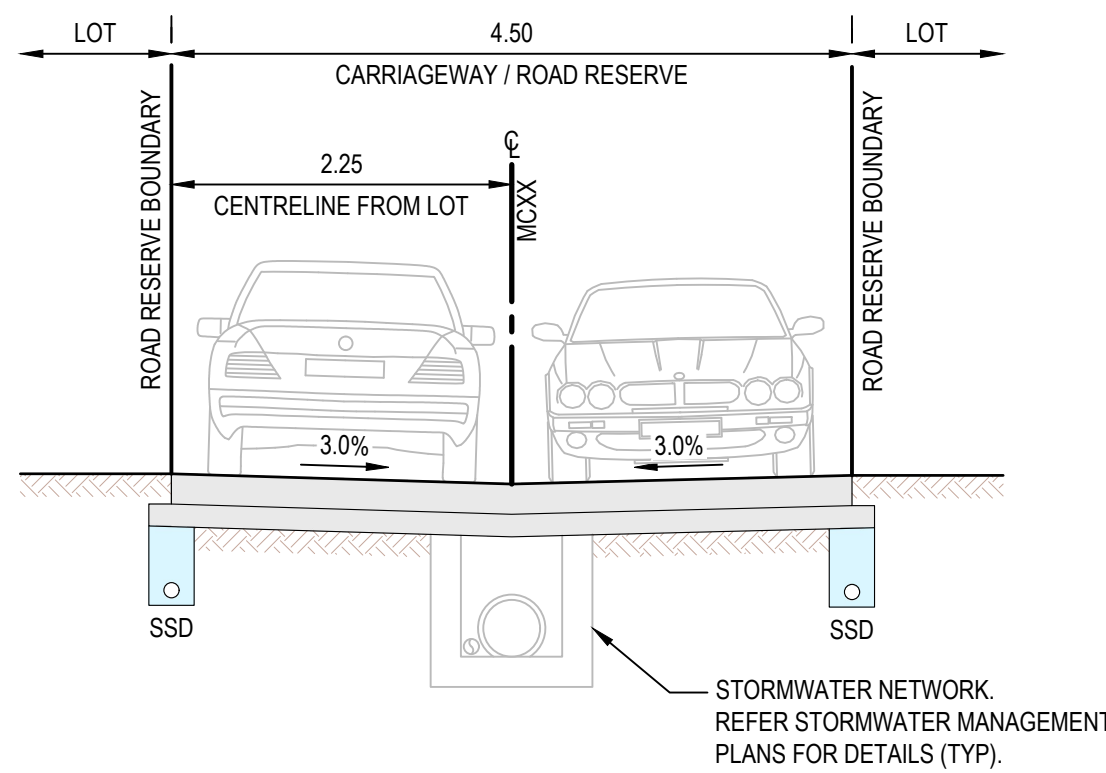
LEGEND	
	ROAD RESERVE BOUNDARY LINE
	ROAD CENTRELINE
	ROLL KERB AND TOE. REFER LITHGOW CITY COUNCIL'S STANDARD DRG: EN 1006.
	SUBSOIL DRAINAGE BEHIND KERB. REFER LITHGOW CITY COUNCIL'S STANDARD DRG: EN 1026.
	FLEXIBLE ROAD PAVEMENT.
	1.2m WIDE CONCRETE FOOTPATH PAVEMENT. REFER LITHGOW CITY COUNCIL'S STANDARD DRG: EN 1009.
	1.8m WIDE CONCRETE SHARED PATH PAVEMENT. REFER LITHGOW CITY COUNCIL'S STANDARD DRG: EN 1009.



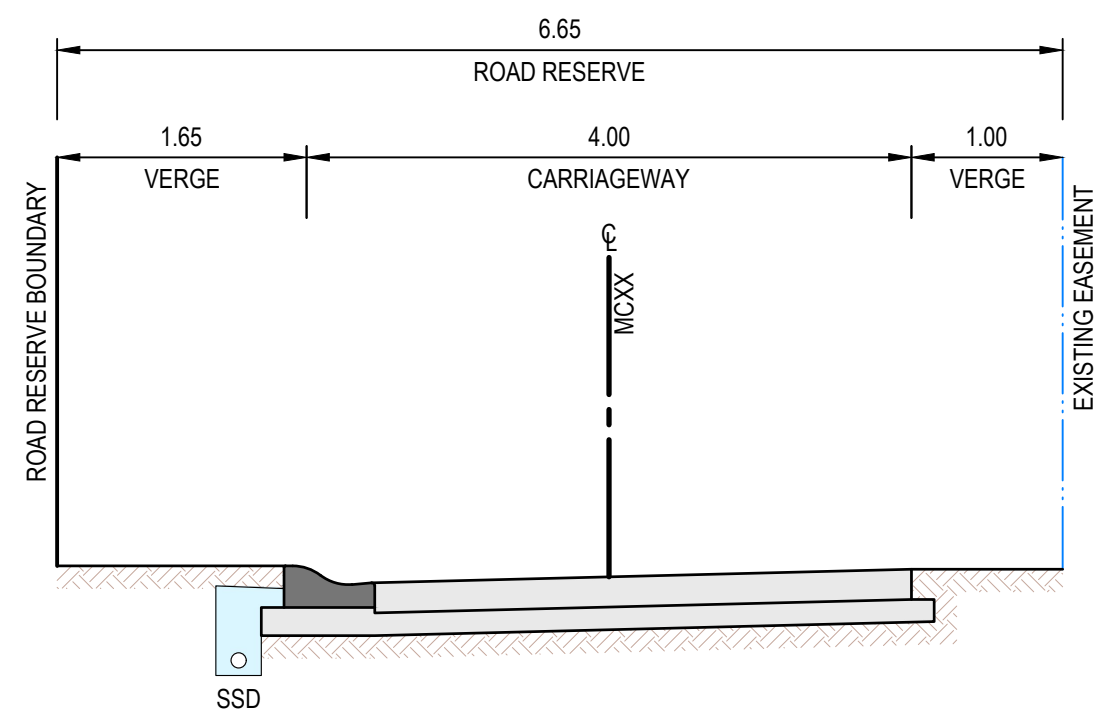
PERIMETER ROAD - 12m ROAD RESERVE
SCALE 1:50
MC02 (CH216 - CH554.40)



PERIMETER ROAD - 12m ROAD RESERVE
SCALE 1:50
MC02 - (CH554.40 - CH760)

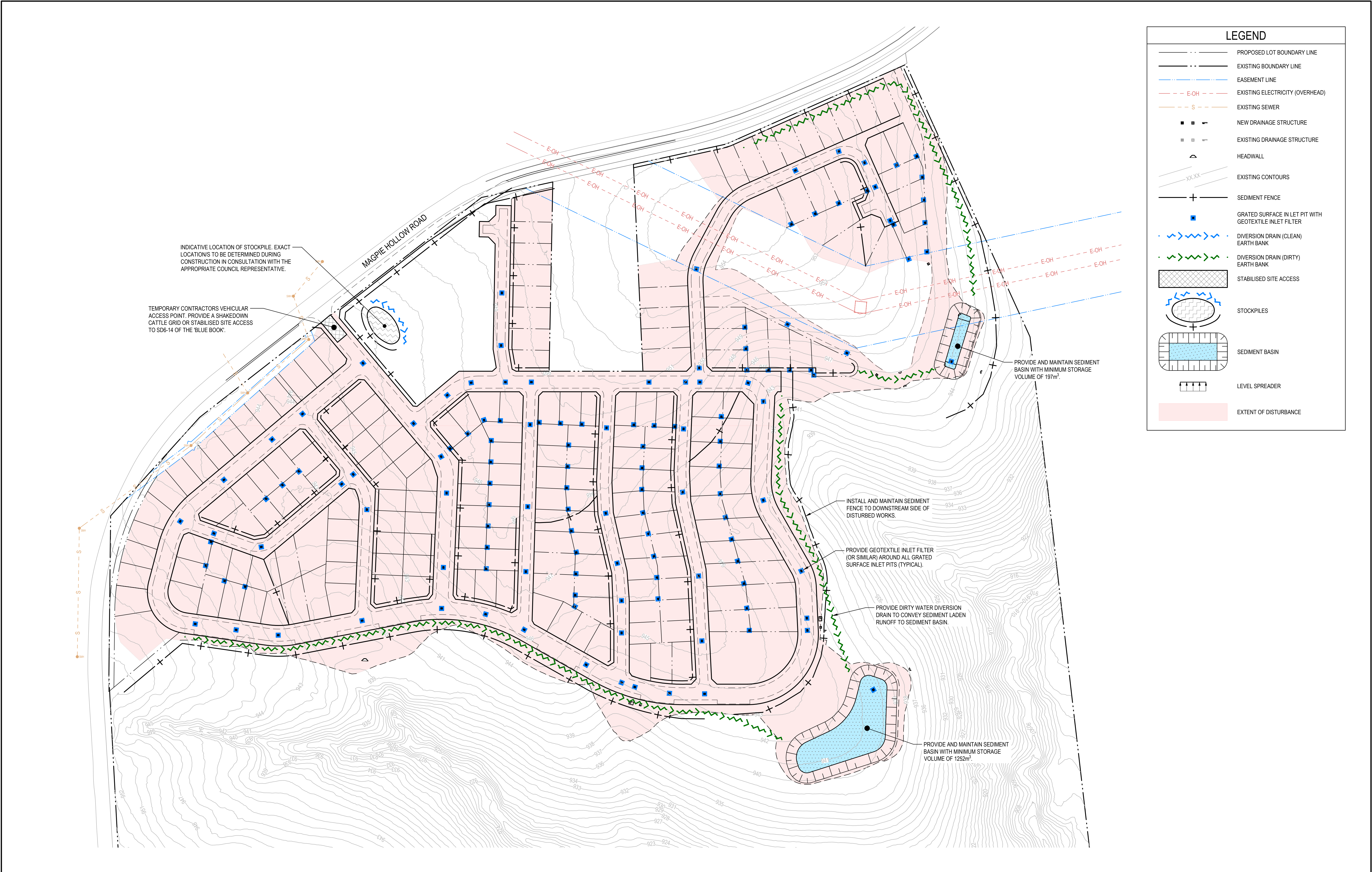


DRIVEWAY - 4.5m ROAD RESERVE
SCALE 1:50
MC12



DRIVEWAY - 4.5m ROAD RESERVE
SCALE 1:50
MC11

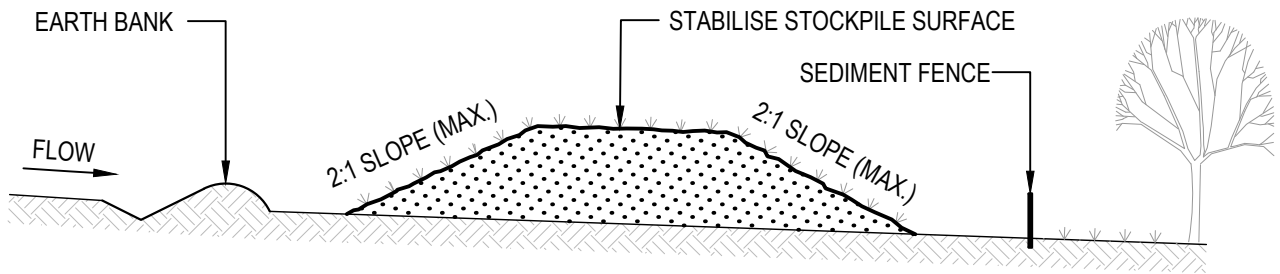
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					DRAFTED C. WALKER-HEALON						
					VERIFIED TBD						



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					DRAFTED C. WALKER-HEALON									
					VERIFIED TBD									
										DRAWING TITLE EROSION AND SEDIMENT CONTROL PLAN	PROJECT - SET - DRAWING - SHEET 250062-DA1-110-01	REVISION B		

SEDIMENT BASIN SIZING CALCULATION				
SITE PARAMETERS				
	BASIN 1		BASIN 2	
CONSTRAINT	VALUE		VALUE	
SEDIMENT TYPE	F (DISPERSIBLE SOILS)		F (DISPERSIBLE SOILS)	
SOIL HYDROLOGY GROUP	C, D		C, D	
K = SOIL ERODIBILITY (K-FACTOR)	0.037		0.037	
R = RAINFALL EROSIVITY (R-FACTOR)	1171		1171	
S = 2 YEAR, 6 HOUR STORM INTENSITY	6.65 mm/hr		6.65 mm/hr	
LS = SLOPE LENGTH / GRADIENT	2.04 (50m SLOPE @ 10% GRADE)		0.71 (50m SLOPE @ 4% GRADE)	
P = EROSION CONTROL PRACTICE (P-FACTOR)	1.3 (TYPICAL)		1.3 (TYPICAL)	
C = GROUND COVER (C-FACTOR)	1.0 (TYPICAL FOR STRIPPED SITE)		1.0 (TYPICAL FOR STRIPPED SITE)	
SOIL LOSS (RUSLE METHOD) (tonnes/ha/yr)	114		40	
EROSION HAZARD (TABLE 4.2 BLUE BOOK)	LOW		LOW	

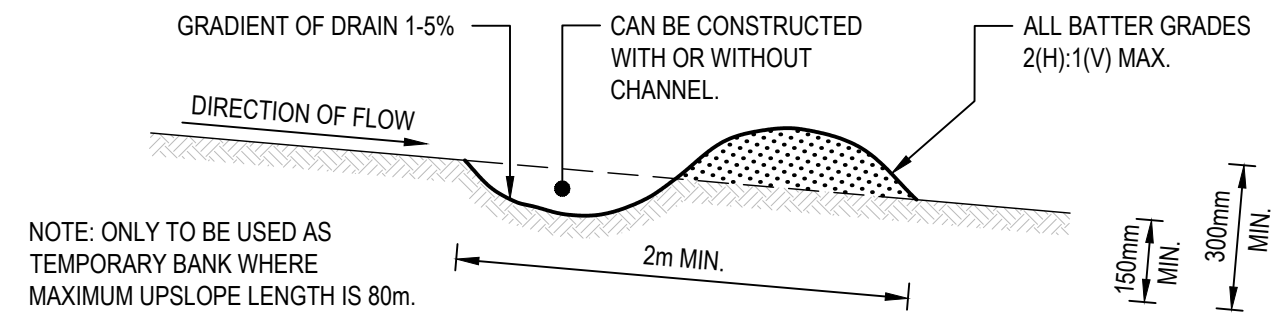
SEDIMENT BASIN SIZING				
	BASIN 1		BASIN 2	
CONSTRAINT	VALUE	UNITS	VALUE	UNITS
CV = VOLUMETRIC RUNOFF COEFFICIENT	0.50		0.50	
R = 5 DAY, 75 TH PERCENTILE RAINFALL	23.60	mm	23.60	mm
A = CATCHMENT AREA	9.42	ha	1.60	ha
SETTLING ZONE VOLUME (10xCVxRxA)	1112	m³	189	m³
SOIL LOSS (CALC ABOVE)	114	m³/ha/yr	58	m³/ha/yr
A2 = DISTURBED CATCHMENT AREA	9.42	ha	1.60	ha
SEDIMENT STORAGE VOLUME (0.17XSOIL LOSSxA2)	141	m³	8	m³
TOTAL BASIN VOLUME REQUIRED	1252	m³	197	m³



CONSTRUCTION NOTES

1. PLACE STOCKPILES MORE THAN 2m (PREFERABLY 5m) FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES (STANDARD DRAWING 6-8) 1 TO 2m DOWNSLOPE.

STOCKPILES (SD 4-1)

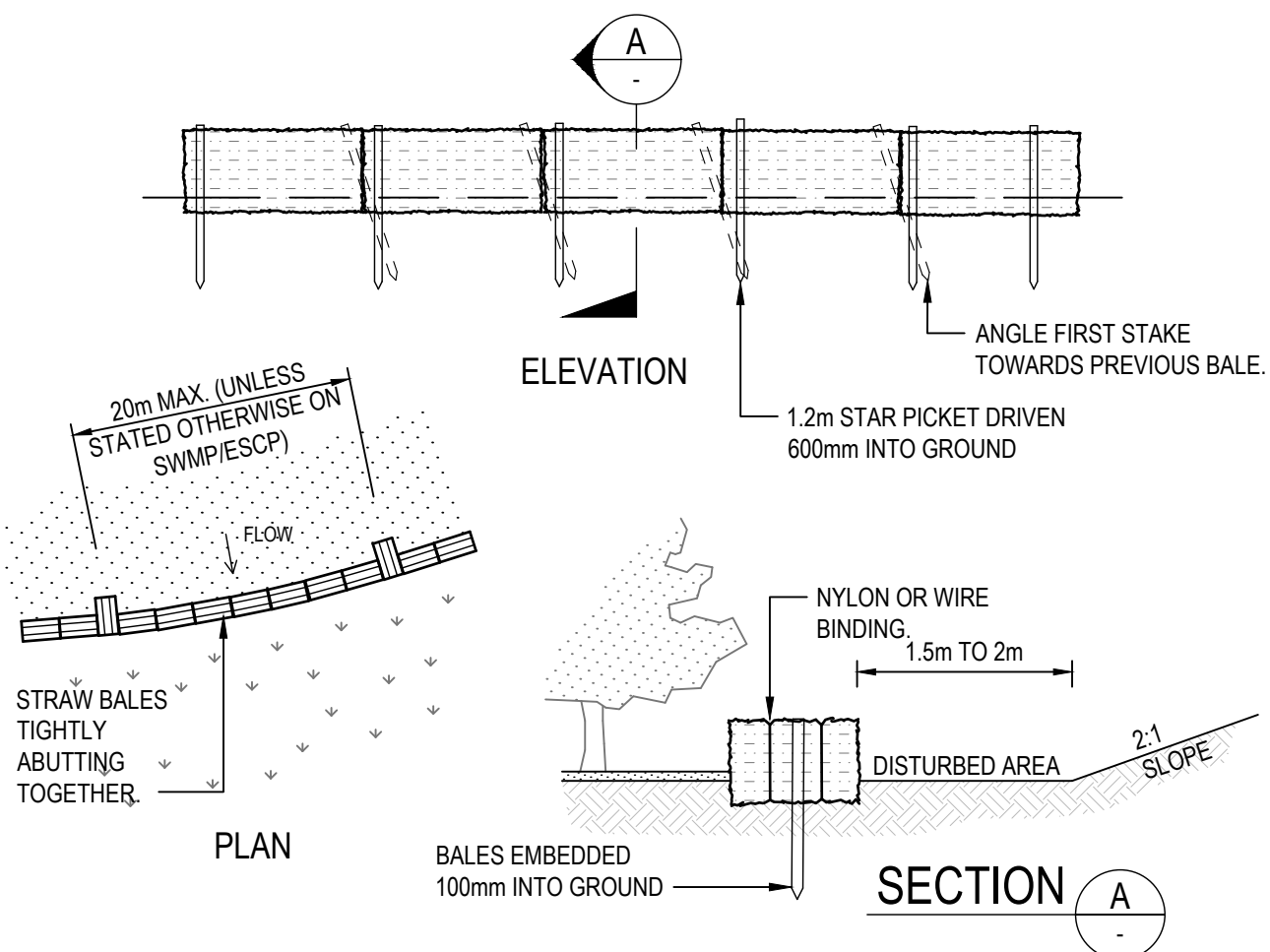


NOTE: ONLY TO BE USED AS TEMPORARY BANK WHERE MAXIMUM UPSLOPE LENGTH IS 80m.

CONSTRUCTION NOTES

1. BUILD WITH GRADIENTS BETWEEN 1 AND 5 PERCENT.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE - WORK AROUND THEM.
3. ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
4. BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTIONS, NOT V SHAPED.
5. ENSURE THE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.
6. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.

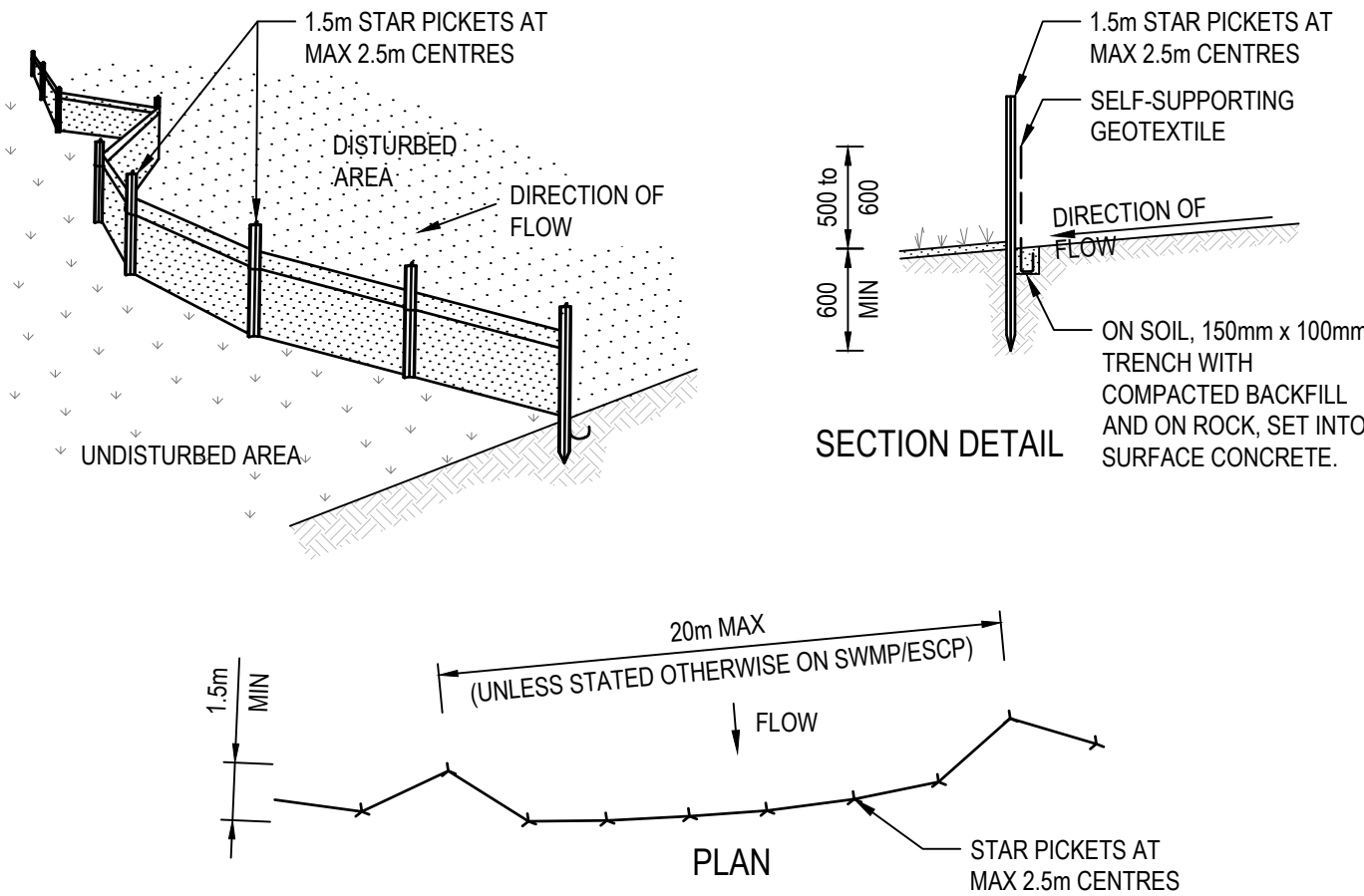
EARTH BANK - LOW FLOW (SD 5-5)



CONSTRUCTION NOTES

1. CONSTRUCT THE STRAW BALE FILTER AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE.
2. PLACE BALES LENGTHWISE IN A ROW WITH ENDS TIGHTLY ABUTTING. USE STRAW TO FILL ANY GAPS BETWEEN BALES. STRAWS ARE TO BE PLACED PARALLEL TO GROUND.
3. ENSURE THAT THE MAXIMUM HEIGHT OF THE FILTER IS ONE BALE.
4. EMBED EACH BALE IN THE GROUND 75mm TO 100mm AND ANCHOR WITH TWO 1.2 METRE STAR PICKETS OR STAKES. ANGLE THE FIRST STAR PICKET OR STAKE IN EACH BALE TOWARDS THE PREVIOUSLY LAID BALE. DRIVE THEM 600mm INTO THE GROUND AND, IF POSSIBLE, FLUSH WITH THE TOP OF THE BALES. WHERE STAR PICKETS ARE USED AND THEY PROTRUDE ABOVE THE BALES, ENSURE THEY ARE FITTED WITH SAFETY CAPS.
5. WHERE A STRAW BALE FILTER IS CONSTRUCTED DOWNSLOPE FROM A DISTURBED BATTER, ENSURE THE BALES ARE PLACED 1 TO 2 METRES DOWNSLOPE FROM THE TOE.
6. ESTABLISH A MAINTENANCE PROGRAM THAT ENSURES THE INTEGRITY OF THE BALES IS RETAINED - THEY COULD REQUIRE REPLACEMENT EACH TWO TO FOUR MONTHS.

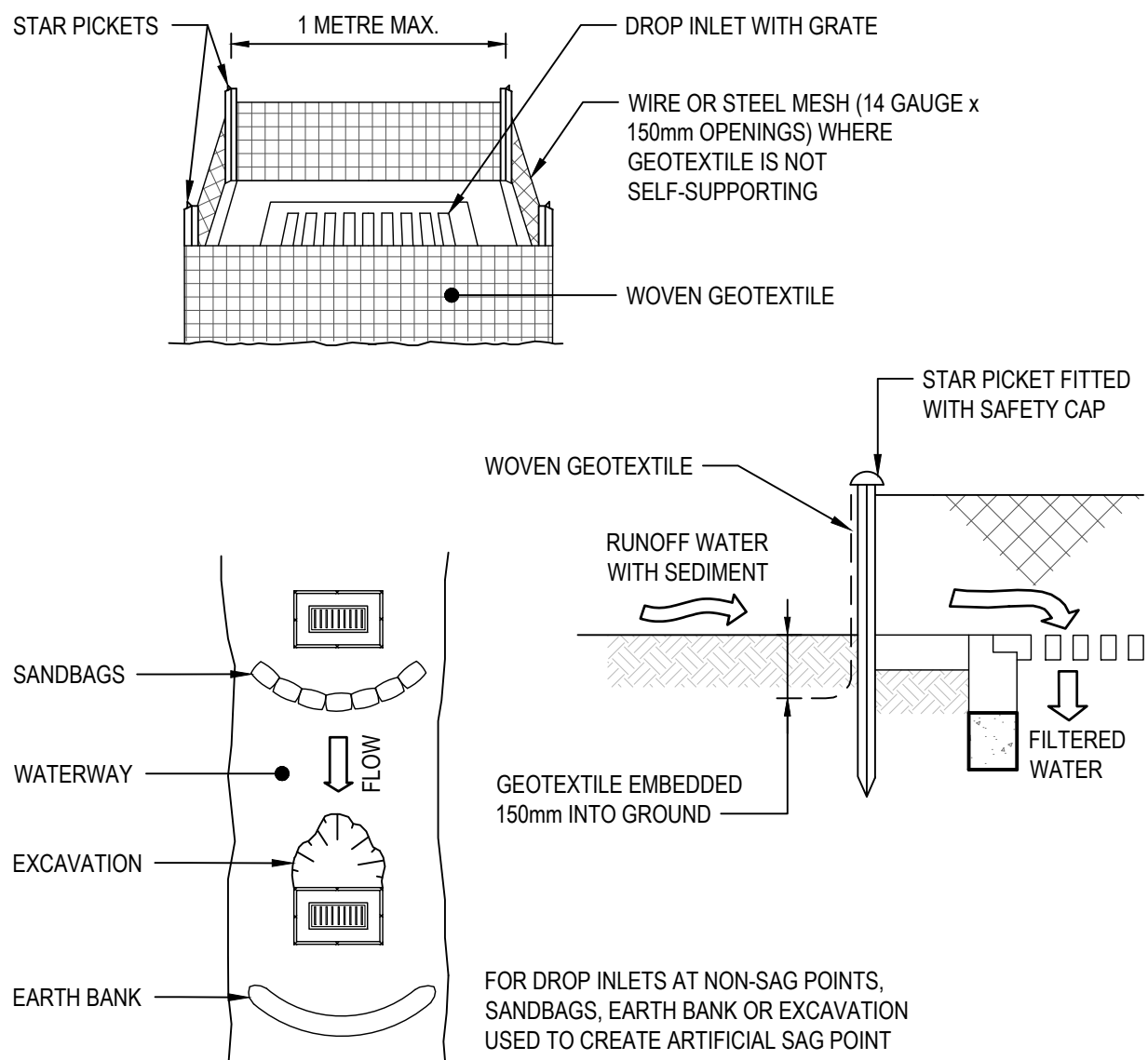
STRAW BALE FILTER (SD 6-7)



CONSTRUCTION NOTES

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

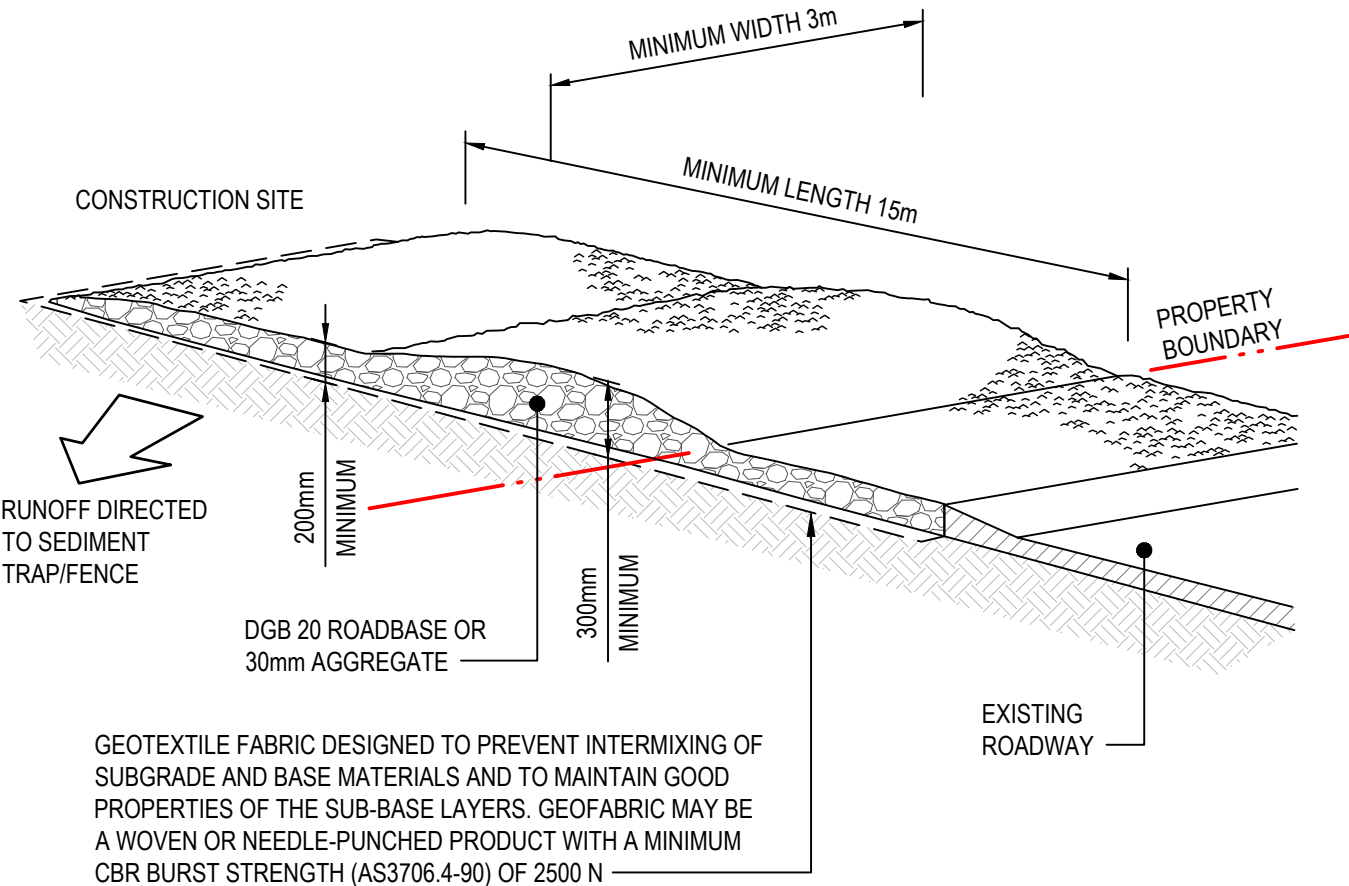
SEDIMENT FENCE (SD 6-8)



CONSTRUCTION NOTES

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. FOLLOW STANDARD DRAWING 6-7 AND STANDARD DRAWING 6-8 FOR INSTALLATION PROCEDURES FOR THE STRAW BALES OR GEOFABRIC. REDUCE THE PICKET SPACING TO 1 METRE CENTRES.
3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
4. DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

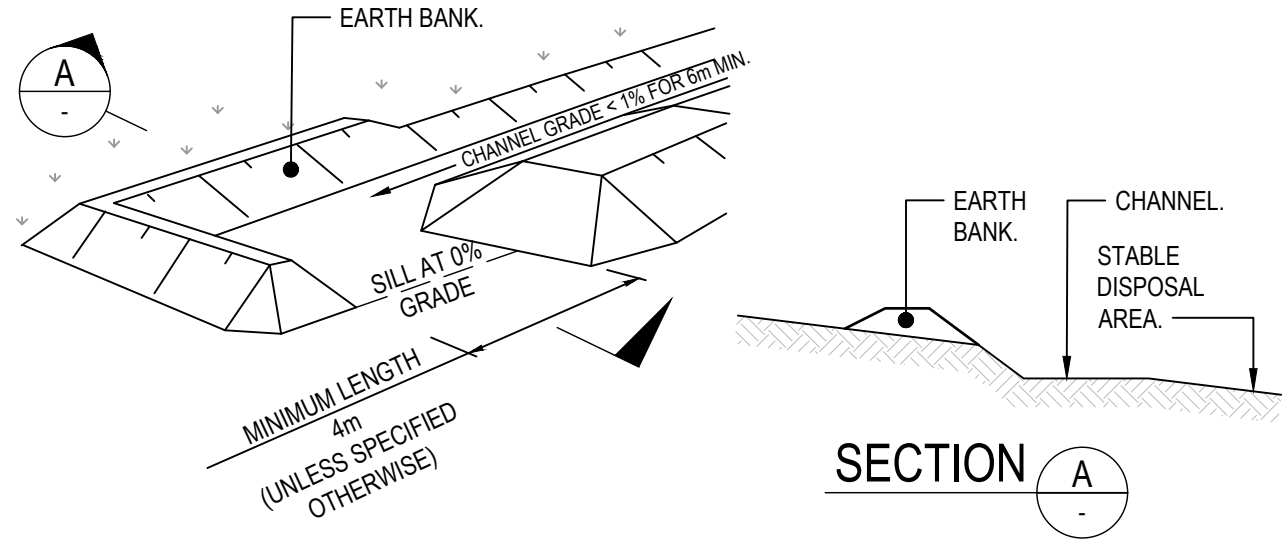
GEOTEXTILE INLET FILTER (SD 6-12)



CONSTRUCTION NOTES

1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
2. COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
3. CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
4. ENSURE THE STRUCTURE IS AT LEAST 15 METRES LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3 METRES WIDE.
5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

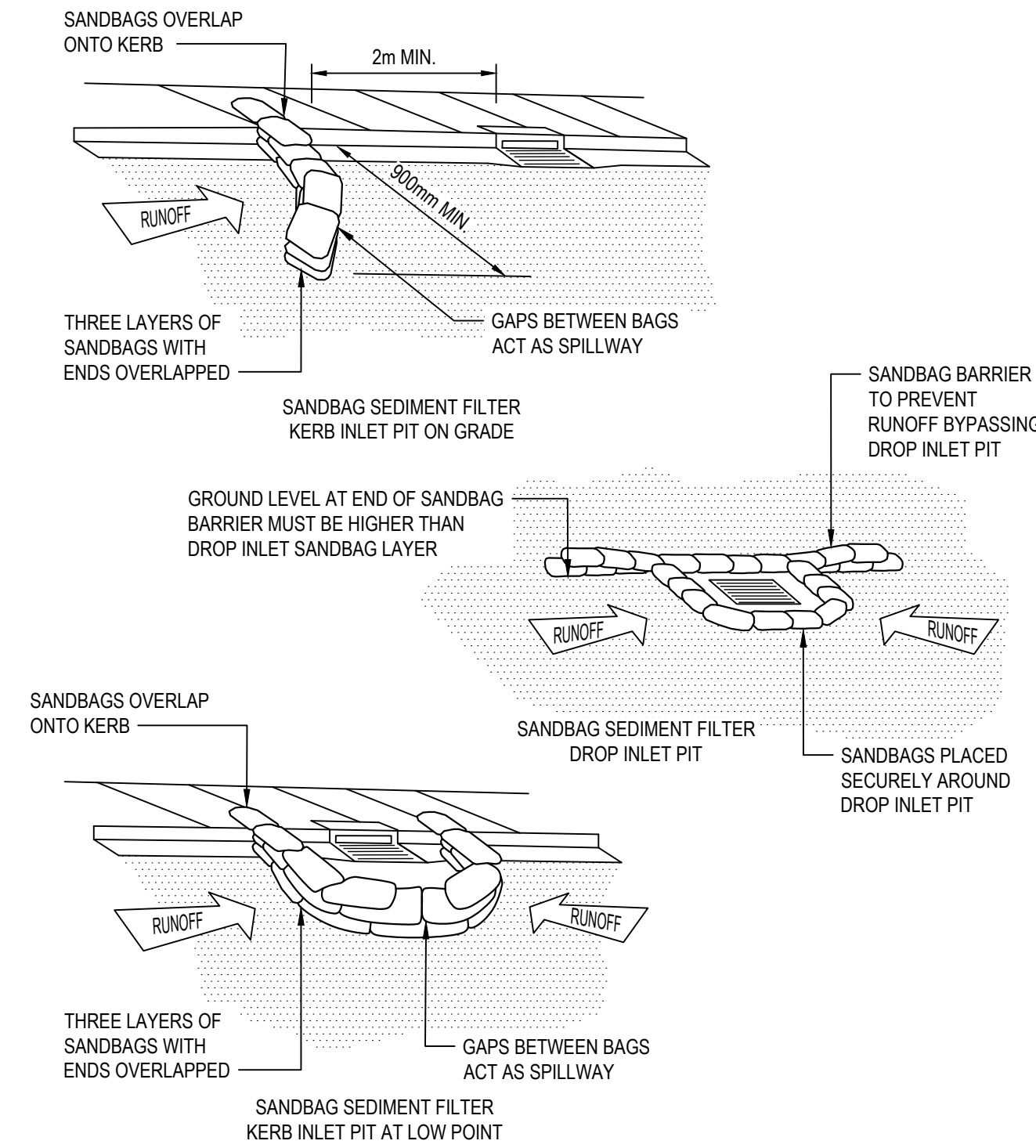
STABILISED SITE ACCESS (SD 6-14)



CONSTRUCTION NOTES

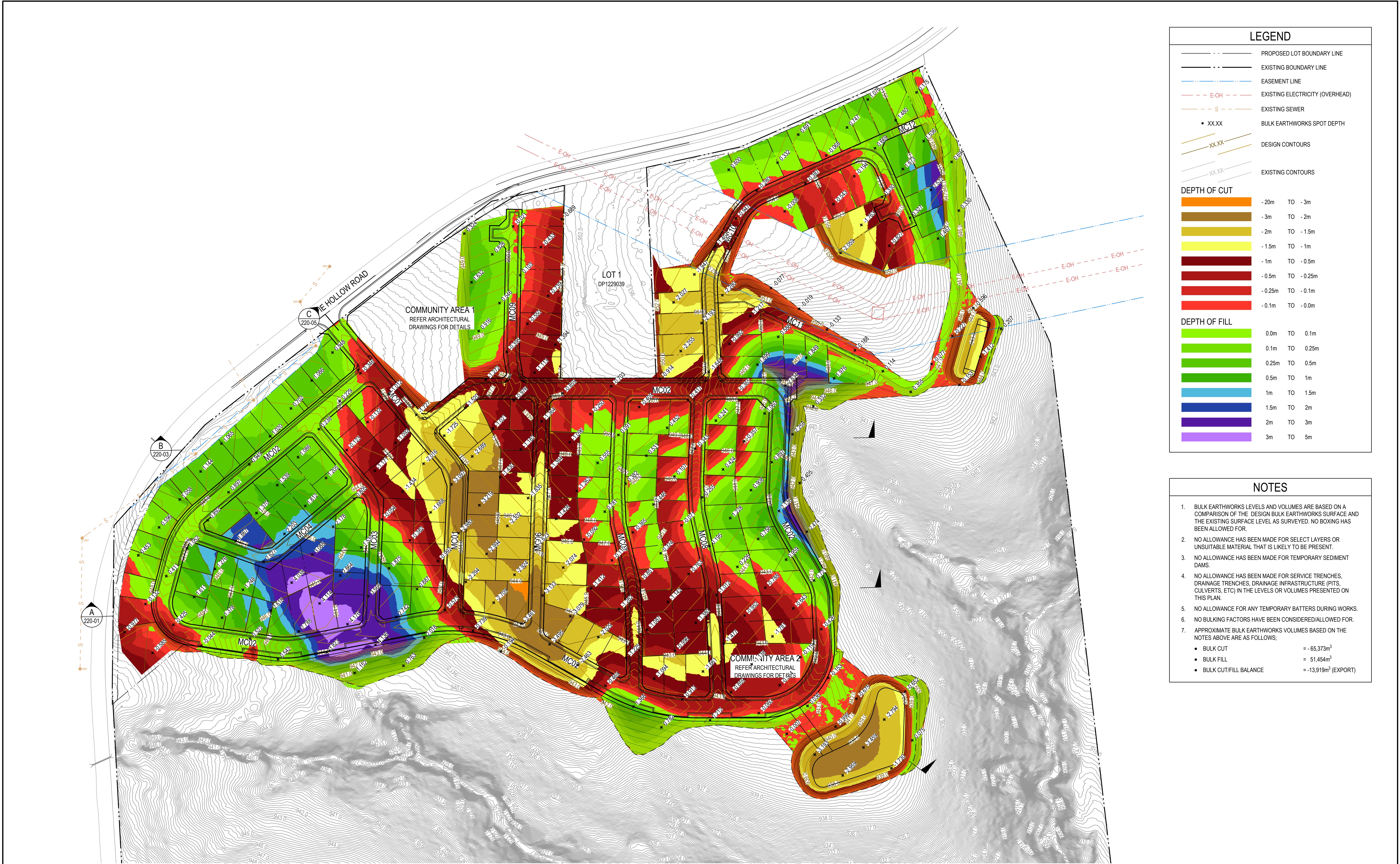
1. CONSTRUCT AT THE GRADIENT SPECIFIED ON THE ESCP OR SWMP, NORMALLY LESS THAN 1 PERCENT OR LEVEL.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE - WORK AROUND THEM.
3. ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
4. ENSURE THE STRUCTURES ARE PROPERLY COMPACTED TO PREVENT FAILURE.
5. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.
6. WHERE POSSIBLE, ENSURE THEY DISCHARGE WATERS ONTO EITHER STABILISED OR UNDISTURBED DISPOSAL SITES WITHIN THE SAME SUBCATCHMENT AREA FROM WHICH THE WATER ORIGINATED. APPROVAL MIGHT BE REQUIRED TO DISCHARGE INTO OTHER SUBCATCHMENTS.

LEVEL SPREADER



SANDBAG SEDIMENT FILTER

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LEGEND

PROPOSED LOT BOUNDARY LINE

EXISTING BOUNDARY LINE

EASEMENT LINE

EXISTING ELECTRICITY (OVERHEAD)

EXISTING SEWER

BULK EARTHWORKS SPOT DEPTH

DESIGN CONTOURS

EXISTING CONTOURS

DEPTH OF CUT

-20m TO -3m

-3m TO -2m

-2m TO -1.5m

-1.5m TO -1m

-1m TO -0.5m

-0.5m TO -0.25m

-0.25m TO -0.1m

-0.1m TO -0.0m

DEPTH OF FILL

0.0m TO 0.1m

0.1m TO 0.25m

0.25m TO 0.5m

0.5m TO 1m

1m TO 1.5m

1.5m TO 2m

2m TO 3m

3m TO 5m

NOTES

1.

BULK EARTHWORKS LEVELS AND VOLUMES ARE BASED ON A COMPARISON OF THE DESIGN BULK EARTHWORKS SURFACE AND THE EXISTING SURFACE LEVEL AS SURVEYED. NO BOXING HAS BEEN ALLOWED FOR.

2.

NO ALLOWANCE HAS BEEN MADE FOR SELECT LAYERS OR UNSUITABLE MATERIAL THAT IS LIKELY TO BE PRESENT.

3.

NO ALLOWANCE HAS BEEN MADE FOR TEMPORARY SEDIMENT DAMS.

4.

NO ALLOWANCE HAS BEEN MADE FOR SERVICE TRENCHES, DRAINAGE TRENCHES, DRAINAGE INFRASTRUCTURE (PITS, CULVERTS, ETC) IN THE LEVELS OR VOLUMES PRESENTED ON THIS PLAN.

5.

NO ALLOWANCE FOR ANY TEMPORARY BATTERS DURING WORKS.

6.

NO BULKING FACTORS HAVE BEEN CONSIDERED/ALLOWED FOR.

7.

APPROXIMATE BULK EARTHWORKS VOLUMES BASED ON THE NOTES ABOVE ARE AS FOLLOWS;

• BULK CUT

= -65,373m³

• BULK FILL

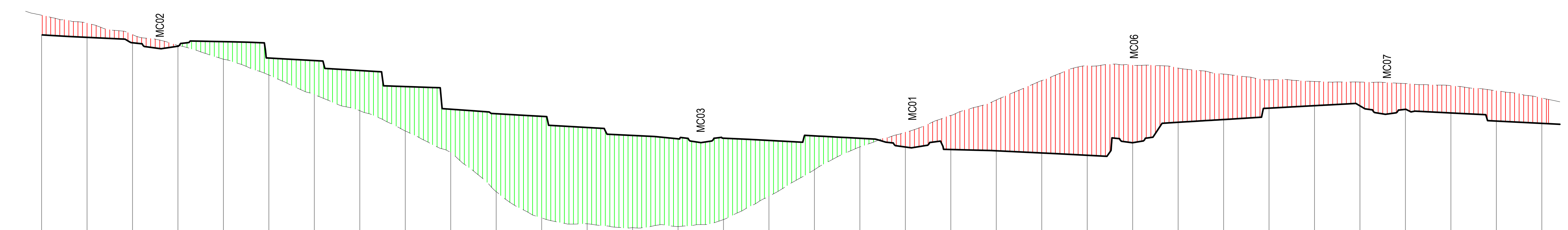
= 51,454m³

• BULK CUT/FILL BALANCE

= -13,919m³ (EXPORT)

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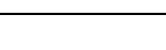
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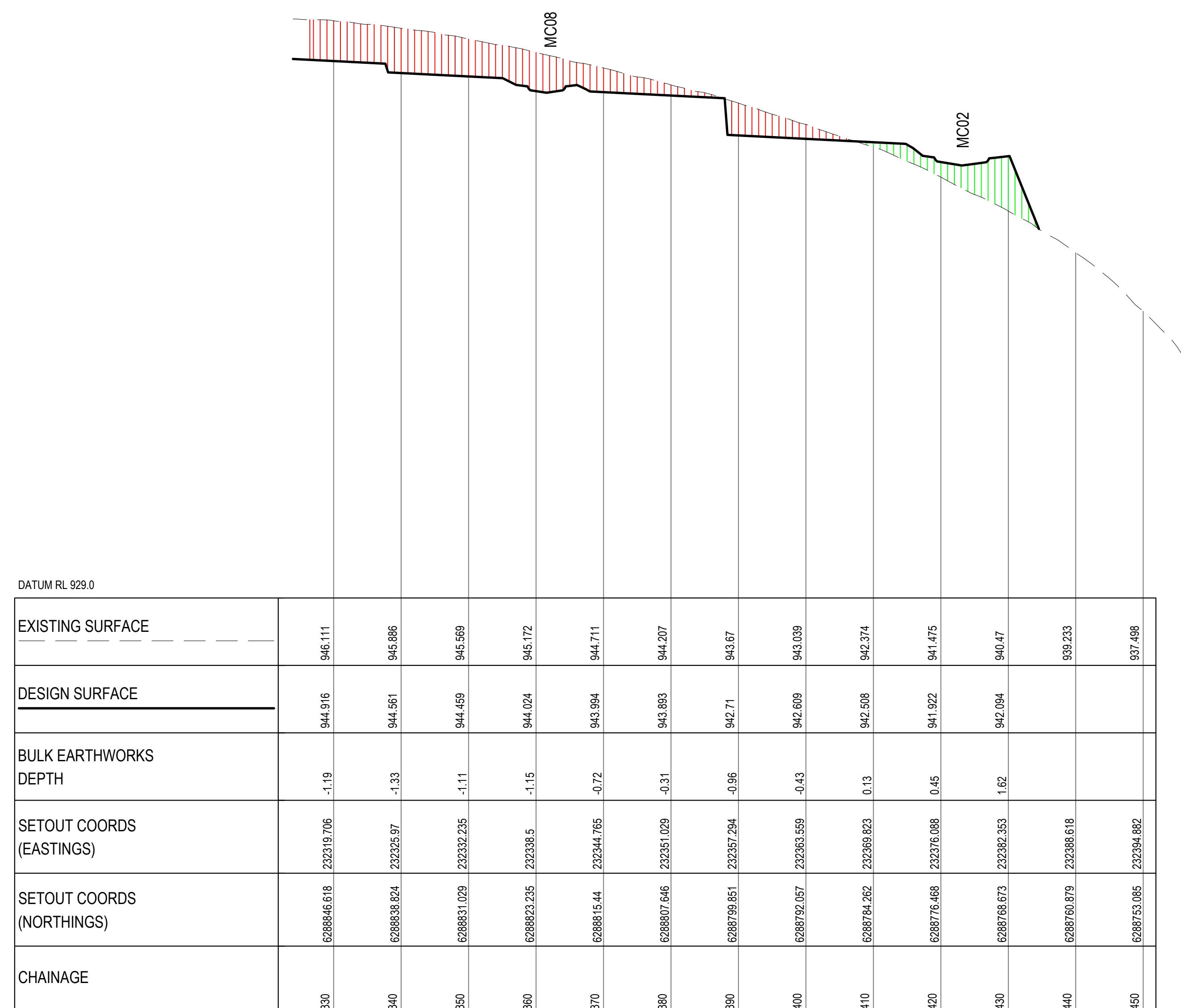
DATUM RL 933.0									
	EXISTING SURFACE								
	DESIGN SURFACE								
	BULK EARTHWORKS DEPTH								
	SETOUT COORDS (EASTINGS)								
	SETOUT COORDS (NORTHINGS)								
	CHAINAGE								
20		6289088.246	232125.5					949.299	
30		6289080.452	232131.765	-0.62				948.238	948.862
40		6289072.657	232138.029	-0.36				948.001	948.358
50		6289064.863	232144.294	-0.04				947.848	947.886
60		6289057.068	232150.559	0.77				948.05	947.277
70		6289049.274	232156.824	0.74				947.328	946.584
80		6289041.479	232163.088	1.49				947.218	945.724
90		6289033.685	232169.353	1.77				946.781	945.014
100		6289025.89	232175.618	1.95				946.076	944.125
110		6289018.096	232181.882	1.9				945.08	943.181
120		6289010.302	232188.147	3.42				944.881	941.457
130		6289002.507	232194.412	4.46				944.767	940.305
140		6288994.713	232200.676	4.23				944.277	940.045
150		6288986.918	232206.941	4.05				943.928	939.874
160		6288981.124	232213.206	3.86				943.78	939.924
170		6288971.329	232219.471	3.57				943.807	940.232
180		6288963.535	232225.735	2.46				943.708	941.252
190		6288955.74	232232	1.49				943.908	942.421
200		6288947.946	232238.265	0.38				943.804	943.425
210		6288940.151	232244.529	-0.65				943.42	944.071
220		6288932.357	232250.794	-1.5				943.31	944.806
230		6288924.563	232257.059	-2.23				943.254	945.485
240		6288916.768	232263.323	-3.18				943.158	946.339
250		6288908.974	232269.588	-3.93				943.056	946.989
260		6288901.179	232275.853	-3.4				943.608	947.011
270		6288893.385	232282.118	-2.38				944.506	946.886
280		6288885.59	232288.382	-2				944.627	946.624
290		6288877.796	232294.647	-1.25				945.127	946.373
300		6288870.001	232300.912	-1.06				945.236	946.299
310		6288862.207	232307.176	-1.05				945.227	946.274
320		6288854.412	232313.441	-1.13				945.075	946.208
330		6288846.516	232319.706	-1.19				944.916	946.111
340		6288838.624	232325.97	-1.33				944.561	945.886
350		6288831.029	232332.235	-1.11				944.459	945.569

HORIZONTAL SCALE 1:500@A1
VERTICAL SCALE 1:100@A1

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS	
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK	MAAS	- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. - DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. - THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD - GROUNDWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. - ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIAL BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED	H: 05101520m V: 01234m SCALE H: 1:500 V: 1:100	 GROUNDSWELL ENGINEERS 54 HUDSON STREET, HAMILTON NSW 2303	41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION	
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN					DRAWING TITLE	PROJECT - SET - DRAWING - SHEET	REVISION
					C. WALKER-HEALON					BULK EARTHWORKS CUT AND FILL SECTIONS - SHEET 01	250062-DA1-220-01	B
					TBD							

LEGEND	
	AREA OF CUT
	AREA OF FILL

CUT AND FILL HATCHES SHOWN REPRESENT DIFFERENCES BETWEEN STRIPPED NATURAL SURFACE (300mm) AND DESIGN BULK EARTHWORKS SURFACE.



LONGITUDINAL SECTION ALONG A
HORIZONTAL SCALE 1:500@A1
VERTICAL SCALE 1:100@A1

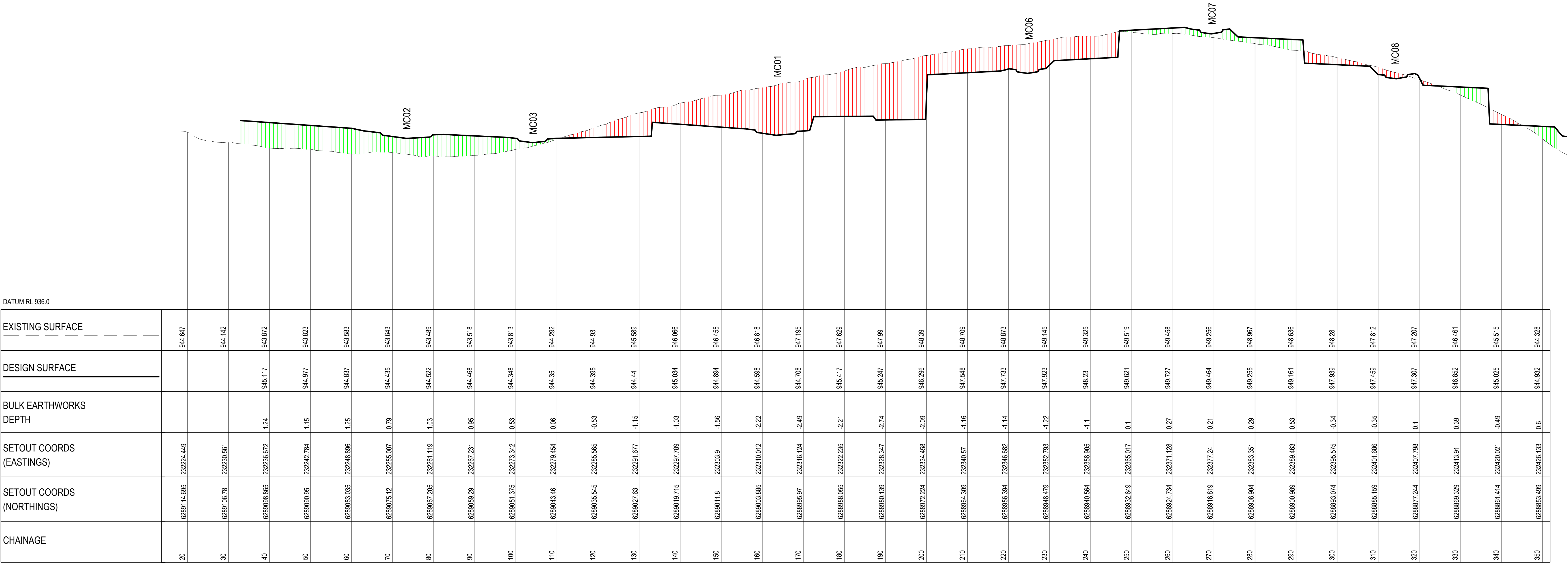
REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	</
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LEGEND

AREA OF CUT

AREA OF FILL

CUT AND FILL HATCHES SHOWN REPRESENT DIFFERENCES BETWEEN STRIPPED NATURAL SURFACE (300mm) AND DESIGN BULK EARTHWORKS SURFACE.



LONGITUDINAL SECTION ALONG B

HORIZONTAL SCALE 1:500@A1

VERTICAL SCALE 1:100@A1

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK					41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN						
					DRAFTED C. WALKER-HEALON					DRAWING TITLE BULK EARTHWORKS CUT AND FILL SECTIONS - SHEET 03	REVISION B
					VERIFIED TBD						

250062-DA1-220-03

54 HUDSON STREET, HAMILTON NSW 2303

MAAS

GROUNDWELL ENGINEERS

0 5 10 15 20m

0 1 2 3 4m

H: 1:500 V:1:100

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DATE: 19.08.2025 4:45 PM

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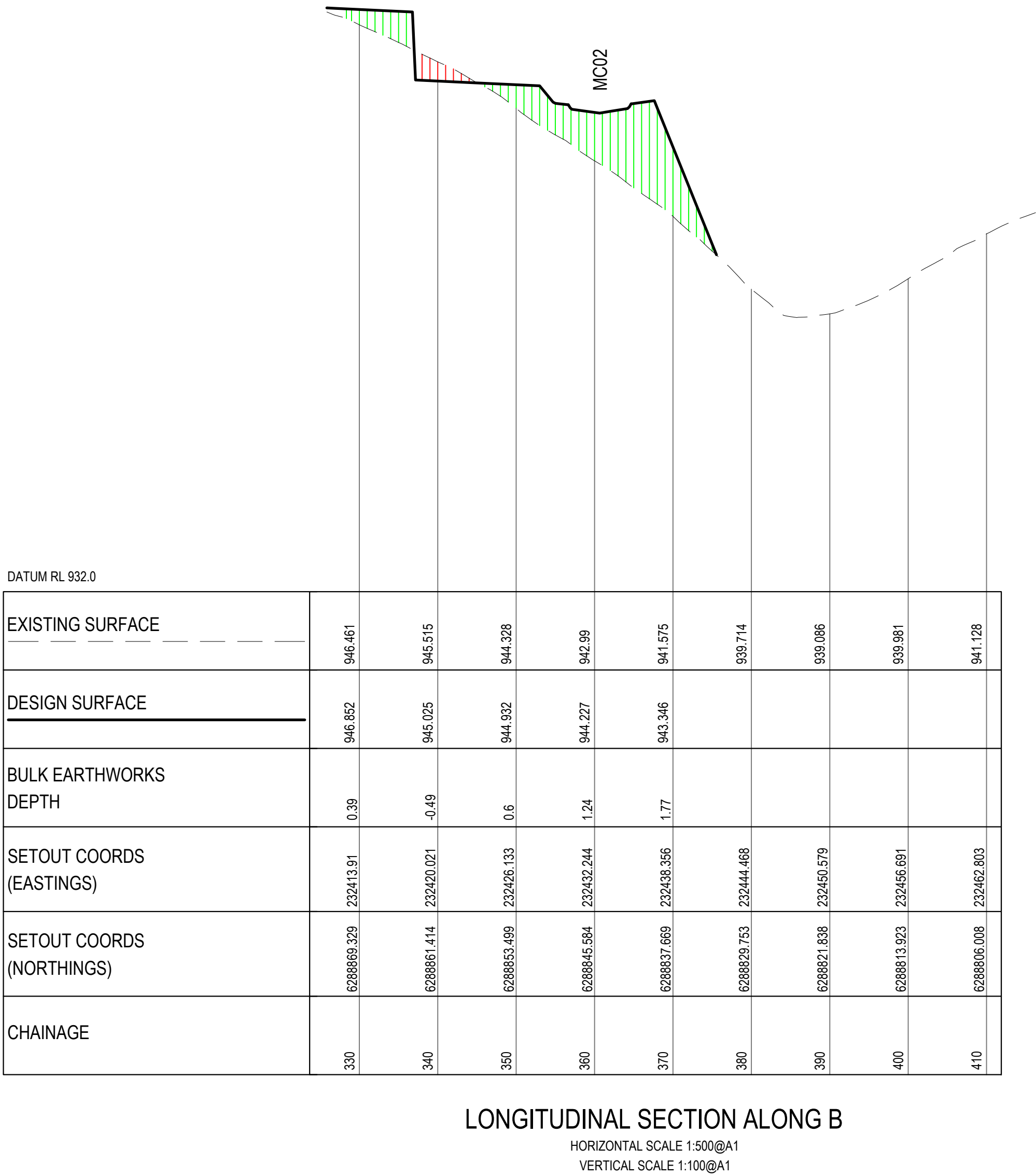
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LEGEND

AREA OF CUT

AREA OF FILL

CUT AND FILL HATCHES SHOWN REPRESENT DIFFERENCES BETWEEN STRIPPED NATURAL SURFACE (300mm) AND DESIGN BULK EARTHWORKS SURFACE.



REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT		SCALE	NORTH	PROJECT TITLE	STATUS	
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK	MAAS	- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. - DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. - THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD - GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. - ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIA. BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED	H: 05101520m V: 01234m SCALE H: 1:500 V: 1:100	GROUNDSWELL ENGINEERS 54 HUDSON STREET, HAMILTON NSW 2303	41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION		
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN								
					DRAFTED C. WALKER-HEALION					DRAWING TITLE BULK EARTHWORKS CUT AND FILL SECTIONS - SHEET 04			
					VERIFIED TBD								
SHEET SIZE A1 SETOUT TBD												PROJECT - SET - DRAWING - SHEET 250062-DA1-220-04	REVISION B

LEGEND

AREA OF CUT

AREA OF FILL

CUT AND FILL HATCHES SHOWN REPRESENT DIFFERENCES BETWEEN STRIPPED NATURAL SURFACE (300mm) AND DESIGN BULK EARTHWORKS SURFACE.

DATUM RL 936.0

EXISTING SURFACE	DESIGN SURFACE	BULK EARTHWORKS DEPTH	SETOUT COORDS (EASTINGS)	SETOUT COORDS (NORTHINGS)	CHAINAGE
945.462	945.844	0.38	232327.58	6288909.891	30
945.151	945.428	0.28	232327.622	62889079.891	40
945.447	945.225	-0.22	232327.664	62889069.891	50
945.693	945.153	-0.54	232327.705	62889059.892	60
945.964	945.223	-0.73	232327.747	62889049.892	70
946.18	945.191	-0.99	232327.789	62889039.892	80
946.43	945.677	-0.75	232327.831	62889029.892	90
946.766	946.169	-0.6	232327.873	62889019.892	100
947.088	945.319	-1.77	232327.915	62889009.892	110
947.424	945.582	-1.84	232327.957	62888999.892	120
947.776	945.505	-2.27	232327.999	62888989.892	130
947.983	945.242	-2.74	232328.041	62888979.892	140
948.211	945.193	-3.02	232328.083	62888969.892	150
948.419	947.154	-1.26	232328.125	62888959.892	160
948.441	946.914	-1.53	232328.167	62888949.892	170
948.547	946.762	-1.78	232328.209	62888939.893	180
948.441	947.082	-1.36	232328.251	62888929.893	190
948.398	946.991	-1.41	232328.292	62888919.893	200
948.123	947.721	-0.4	232328.334	62888909.893	210
947.739	947.695	-0.04	232328.376	62888899.893	220
947.42	947.712	0.29	232328.418	62888889.893	230
946.962	946.472	-0.49	232328.46	62888879.893	240
946.544	946.238	-0.31	232328.502	62888869.893	250
946.216	945.615	-0.6	232328.544	62888859.893	260
946.016	945.485	-0.53	232328.586	62888849.893	270
945.831	944.579	-1.25	232328.628	62888839.893	280
945.665	944.439	-1.23	232328.67	62888829.894	290
945.488	944.181	-1.31	232328.712	62888819.894	300
945.356	943.911	-1.45	232328.754	62888809.894	310
945.139	943.744	-1.4	232328.796	62888799.894	320
944.842	943.606	-1.24	232328.838	62888789.894	330
944.566	943.464	-1.1	232328.879	62888779.894	340
944.166	943.417	-0.75	232328.921	62888769.894	350
943.821	943.369	-0.45	232328.963	62888759.894	360

LONGITUDINAL SECTION ALONG C
HORIZONTAL SCALE 1:500@A1
VERTICAL SCALE 1:100@A1

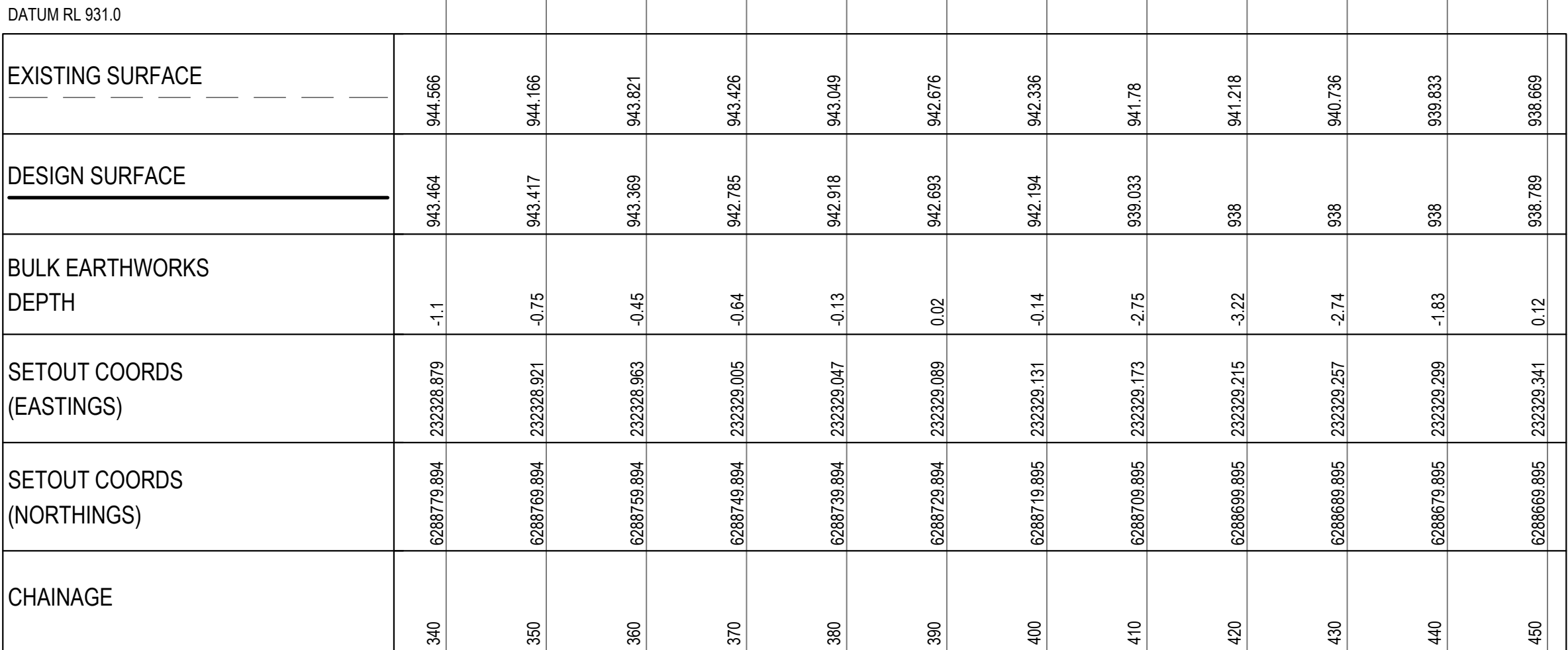
REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS	
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK	MAAS	THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIA BEFORE YOU DO SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED	05 0 1 2 3 4 5 20m V: 0 1 2 3 4m SCALE H: 1:500 V:1:100	NORTH	41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790 GROUNDSWELL ENGINEERS 54 HUDSON STREET, HAMILTON NSW 2303	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION	
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN							
					DRAFTED C. WALKER-HEALON							
					VERIFIED TBD							
										DRAWING TITLE BULK EARTHWORKS CUT AND FILL SECTIONS - SHEET 05	PROJECT - SET - DRAWING - SHEET 250062-DA1-220-05	REVISION B

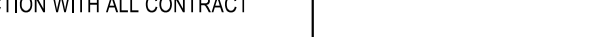
Date : 19.08.2025 4:45 PM Plotted By : CARAN WALKER-HEALON
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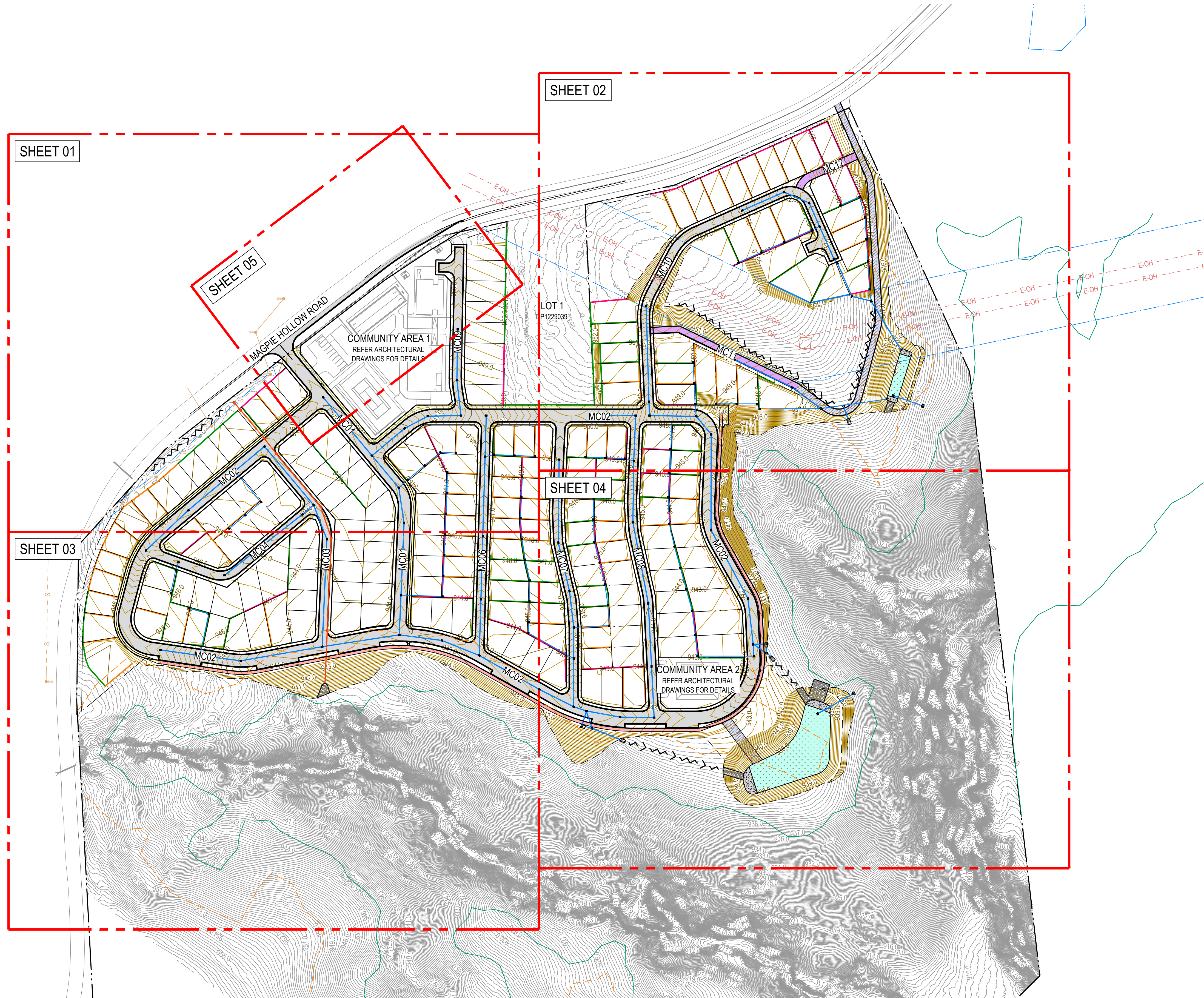
LEGEND

	AREA OF CUT
	AREA OF FILL

CUT AND FILL HATCHES SHOWN REPRESENT DIFFERENCES BETWEEN STRIPPED NATURAL SURFACE (300mm) AND DESIGN BULK EARTHWORKS SURFACE.



REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. - DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. - THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD - GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. - ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIAL BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED	SCALE H: 0 5 10 15 20m V: 0 1 2 3 4m SCALE H: 1:500 V: 1:100	NORTH	 GROUNDSWELL ENGINEERS 54 HUDSON STREET, HAMILTON NSW 2303	PROJECT TITLE		STATUS			
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK							41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790		FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION			
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN												
					DRAFTED C. WALKER-HEALON												
					VERIFIED TBD												
												DRAWING TITLE		PROJECT - SET - DRAWING - SHEET		REVISION	
												BULK EARTHWORKS CUT AND FILL SECTIONS - SHEET 06		250062-DA1-220-06		B	



LEGEND	
	EXISTING SEWER
	PROPOSED SEWER
	EXISTING BOUNDARY LINE
	EXISTING BOUNDARY LINE
	EASEMENT LINE
	EXISTING ELECTRICITY (OVERHEAD)
	EXISTING SEWER
	ASSET PROTECTION ZONE
	EDGE OF EXISTING WOODLAND
	NEW DRAINAGE STRUCTURE
	EXISTING DRAINAGE STRUCTURE
	STORMWATER PIPE
	EXISTING STORMWATER PIPE
	PIPE CAP
	HEADWALL
	RIP RAP ENERGY DISSIPATER
	DESIGN CONTOURS
	EXISTING CONTOURS
	RETAINING WALL
	LIMIT OF WORKS
	PROPOSED KERB
	EXISTING KERB

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN
					DRAFTED C. WALKER-HEALON
					VERIFIED TBD

CLIENT	ARCHITECT
MAAS	

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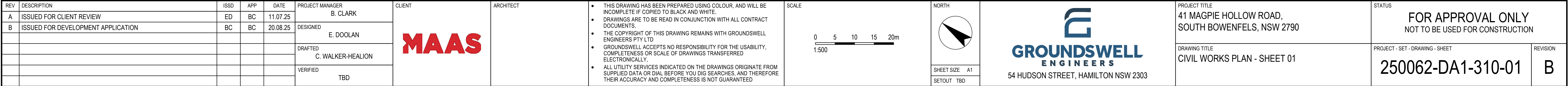
NORTH
SHEET SIZE A1
SETOUT TBD

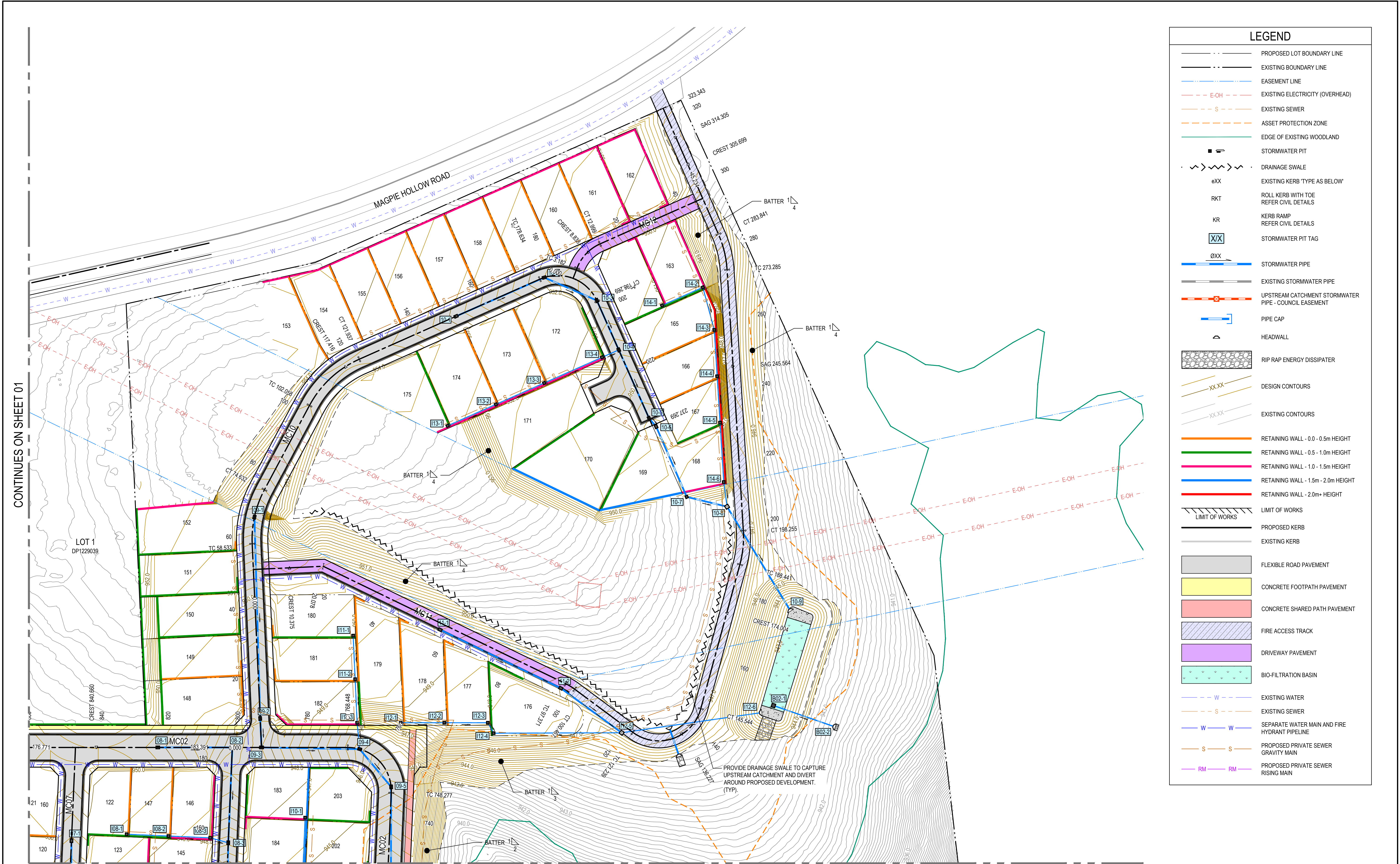
GROUNDSWELL ENGINEERS
54 HUDSON STREET, HAMILTON NSW 2303

PROJECT TITLE
41 MAGPIE HOLLOW ROAD,
SOUTH BOWENFELS, NSW 2790

DRAWING TITLE
CIVIL WORKS OVERVIEW PLAN

STATUS	
FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION	
PROJECT - SET - DRAWING - SHEET	REVISION
250062-DA1-300-01	B



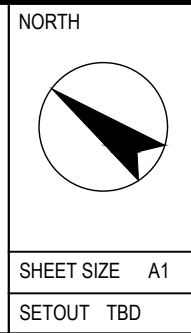
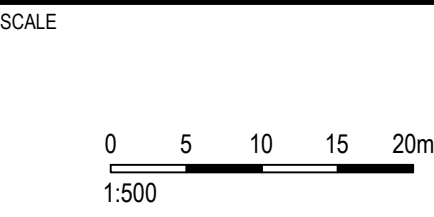


LEGEND	
	PROPOSED LOT BOUNDARY LINE
	EXISTING BOUNDARY LINE
	EASEMENT LINE
	EXISTING ELECTRICITY (OVERHEAD)
	EXISTING SEWER
	ASSET PROTECTION ZONE
	EDGE OF EXISTING WOODLAND
	STORMWATER PIT
	DRAINAGE SWALE
	EXISTING KERB 'TYPE AS BELOW'
	ROLL KERB WITH TOE REFER CIVIL DETAILS
	KERB RAMP REFER CIVIL DETAILS
	STORMWATER PIT TAG
	STORMWATER PIPE
	EXISTING STORMWATER PIPE
	UPSTREAM CATCHMENT STORMWATER PIPE - COUNCIL EASEMENT
	PIPE CAP
	HEADWALL
	RIP RAP ENERGY DISSIPATER
	DESIGN CONTOURS
	EXISTING CONTOURS
	RETAINING WALL - 0.0 - 0.5m HEIGHT
	RETAINING WALL - 0.5 - 1.0m HEIGHT
	RETAINING WALL - 1.0 - 1.5m HEIGHT
	RETAINING WALL - 1.5m - 2.0m HEIGHT
	RETAINING WALL - 2.0m+ HEIGHT
	LIMIT OF WORKS
	PROPOSED KERB
	EXISTING KERB
	FLEXIBLE ROAD PAVEMENT
	CONCRETE FOOTPATH PAVEMENT
	CONCRETE SHARED PATH PAVEMENT
	FIRE ACCESS TRACK
	DRIVEWAY PAVEMENT
	BIO-FILTRATION BASIN
	EXISTING WATER
	EXISTING SEWER
	SEPARATE WATER MAIN AND FIRE HYDRANT PIPELINE
	PROPOSED PRIVATE SEWER GRAVITY MAIN
	PROPOSED PRIVATE SEWER RISING MAIN

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN
					DRAFTED C. WALKER-HEALON
					VERIFIED TBD

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GROUNDWELL ENGINEERS
54 HUDSON STREET, HAMILTON NSW 2303

PROJECT TITLE
41 MAGPIE HOLLOW ROAD,
SOUTH BOWENFELS, NSW 2790

DRAWING TITLE
CIVIL WORKS PLAN - SHEET 02

STATUS FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION	
PROJECT - SET - DRAWING - SHEET 250062-DA1-310-02	REVISION B

CONTINUES ON SHEET 01

LEGEND

- PROPOSED LOT BOUNDARY LINE
EXISTING BOUNDARY LINE
EASEMENT LINE
EXISTING ELECTRICITY (OVERHEAD)
EXISTING SEWER
ASSET PROTECTION ZONE
EDGE OF EXISTING WOODLAND
STORMWATER PIT
DRAINAGE SWALE
EXISTING KERB TYPE AS BELOW
ROLL KERB WITH TOE
REFER CIVIL DETAILS
KERB RAMP
REFER CIVIL DETAILS
STORMWATER PIT TAG
STORMWATER PIPE
EXISTING STORMWATER PIPE
UPSTREAM CATCHMENT STORMWATER
PIPE - COUNCIL EASEMENT
PIPE CAP
HEADWALL
RIP RAP ENERGY DISSIPATER
DESIGN CONTOURS
EXISTING CONTOURS
RETAINING WALL - 0.0 - 0.5m HEIGHT
RETAINING WALL - 0.5 - 1.0m HEIGHT
RETAINING WALL - 1.0 - 1.5m HEIGHT
RETAINING WALL - 1.5m - 2.0m HEIGHT
RETAINING WALL - 2.0m+ HEIGHT
LIMIT OF WORKS
LIMIT OF WORKS
PROPOSED KERB
EXISTING KERB
FLEXIBLE ROAD PAVEMENT
CONCRETE FOOTPATH PAVEMENT
CONCRETE SHARED PATH PAVEMENT
FIRE ACCESS TRACK
DRIVEWAY PAVEMENT
BIO-FILTRATION BASIN
EXISTING WATER
EXISTING SEWER
SEPARATE WATER MAIN AND FIRE
HYDRANT PIPELINE
PROPOSED PRIVATE SEWER
GRAVITY MAIN
PROPOSED PRIVATE SEWER
RISING MAIN

CONTINUES ON SHEET 04

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK					41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN					DRAWING TITLE CIVIL WORKS PLAN - SHEET 03	REVISION B
					DRAFTED C. WALKER-HEALON						
					VERIFIED TBD						

20.08.2025 11:14 AM Plotted By: CIARAN WALKER HEALON

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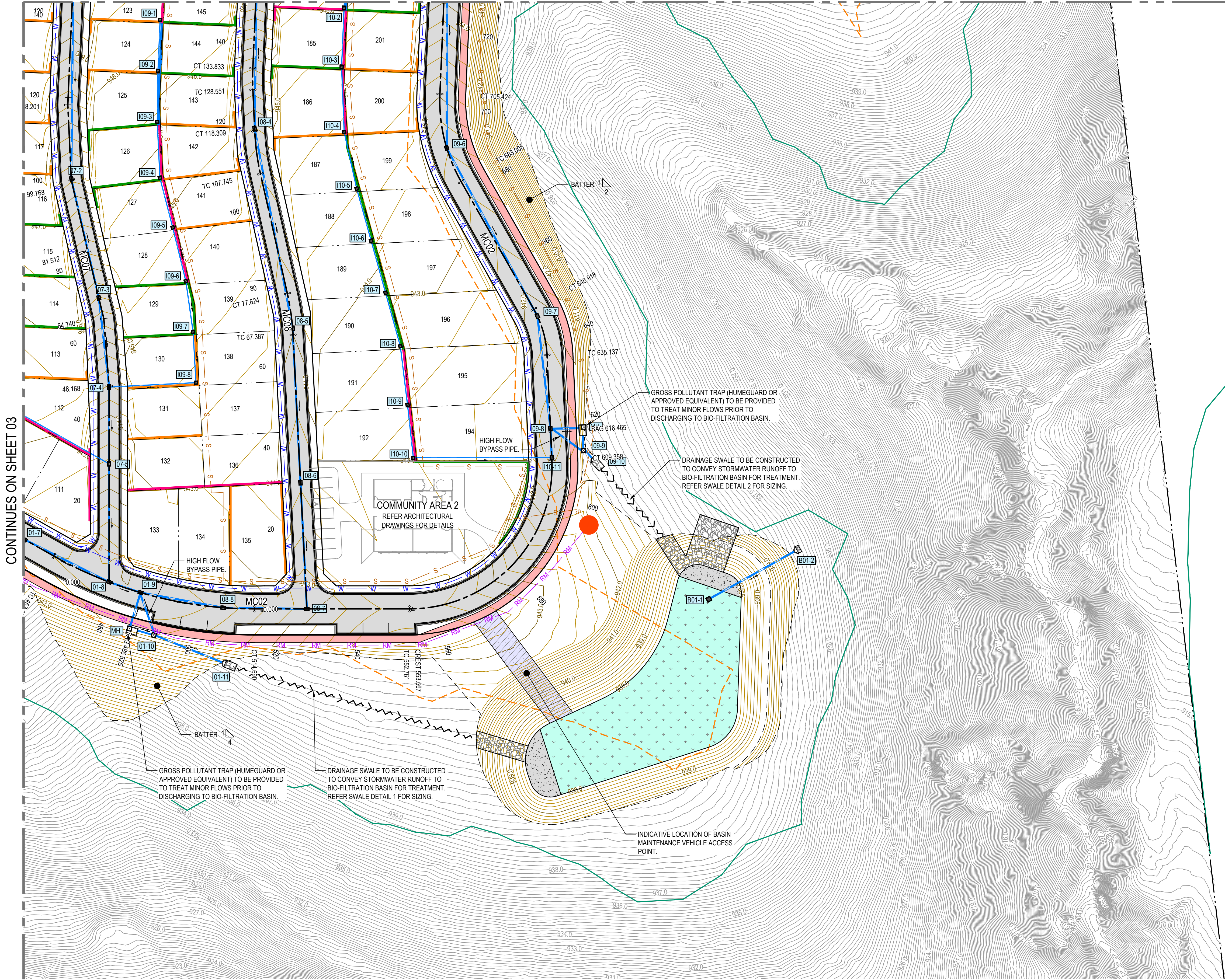
GROUNDSWELL ENGINEERS

54 HUDSON STREET, HAMILTON NSW 2303

PROJECT - SET - DRAWING - SHEET

250062-DA1-310-03

CONTINUES ON SHEET 02



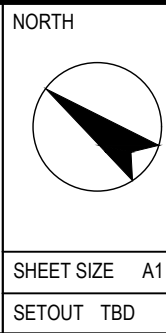
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	EXISTING BOUNDARY LINE
	EASEMENT LINE
	EXISTING ELECTRICITY (OVERHEAD)
	EXISTING SEWER
	ASSET PROTECTION ZONE
	EDGE OF EXISTING WOODLAND
	STORMWATER PIT
	DRAINAGE SWALE
	EXISTING KERB 'TYPE AS BELOW'
	ROLL KERB WITH TOE REFER CIVIL DETAILS
	KERB RAMP REFER CIVIL DETAILS
	STORMWATER PIT TAG
	STORMWATER PIPE
	EXISTING STORMWATER PIPE
	UPSTREAM CATCHMENT STORMWATER PIPE - COUNCIL EASEMENT
	PIPE CAP
	HEADWALL
	RIP RAP ENERGY DISSIPATER
	DESIGN CONTOURS
	EXISTING CONTOURS
	RETAINING WALL - 0.0 - 0.5m HEIGHT
	RETAINING WALL - 0.5 - 1.0m HEIGHT
	RETAINING WALL - 1.0 - 1.5m HEIGHT
	RETAINING WALL - 1.5m - 2.0m HEIGHT
	RETAINING WALL - 2.0m+ HEIGHT
	LIMIT OF WORKS
	PROPOSED KERB
	EXISTING KERB
	FLEXIBLE ROAD PAVEMENT
	CONCRETE FOOTPATH PAVEMENT
	CONCRETE SHARED PATH PAVEMENT
	FIRE ACCESS TRACK
	DRIVEWAY PAVEMENT
	BIO-FILTRATION BASIN
	EXISTING WATER
	EXISTING SEWER
	SEPARATE WATER MAIN AND FIRE HYDRANT PIPELINE
	PROPOSED PRIVATE SEWER GRAVITY MAIN
	PROPOSED PRIVATE SEWER RISING MAIN

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN
					DRAFTED C. WALKER-HEALON
					VERIFIED TBD

MAAS

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SCALE
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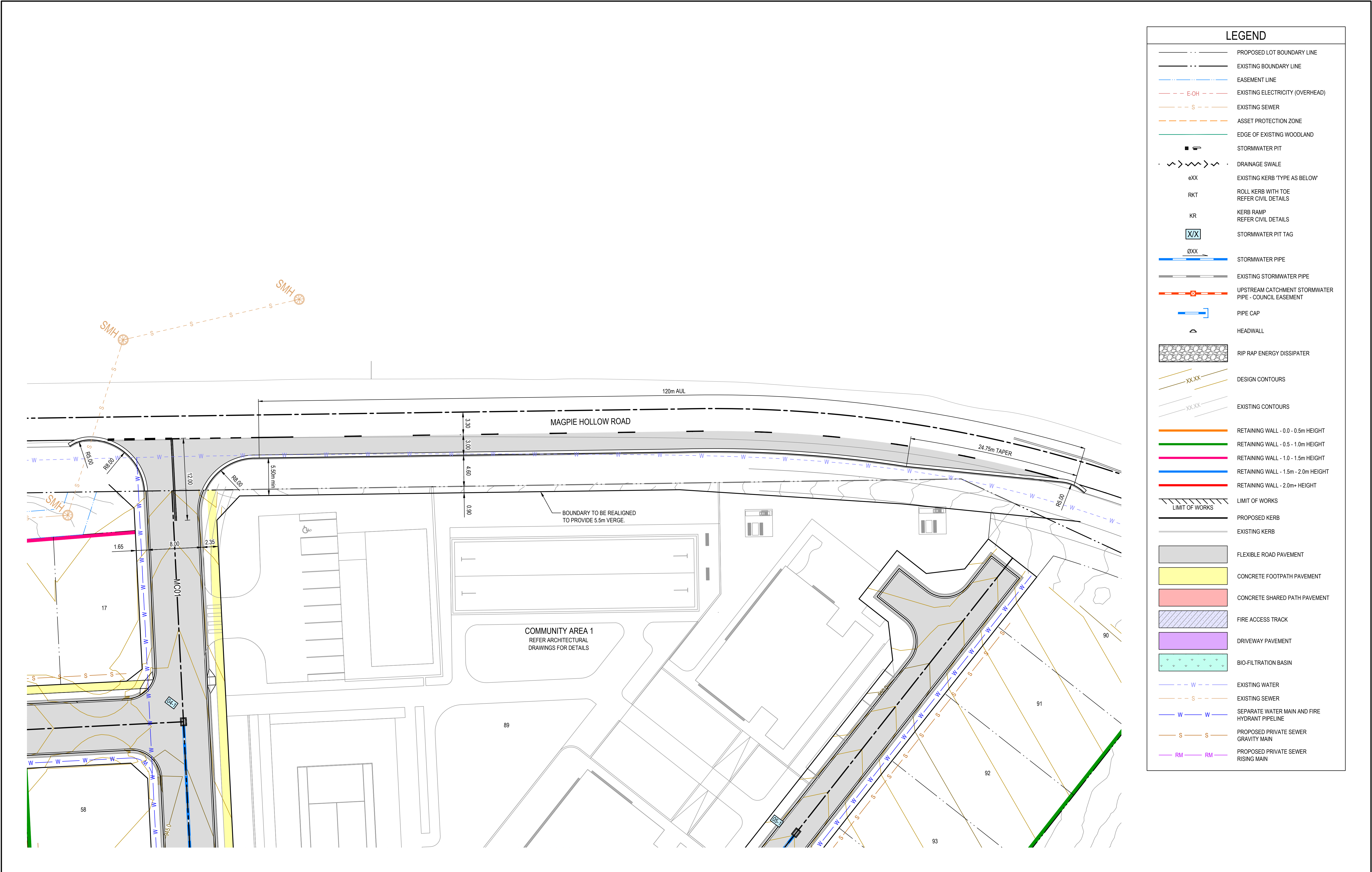
GROUNDWELL
ENGINEERS
54 HUDSON STREET, HAMILTON NSW 2303

PROJECT TITLE
41 MAGPIE HOLLOW ROAD,
SOUTH BOWENFELS, NSW 2790

DRAWING TITLE
CIVIL WORKS PLAN - SHEET 04

STATUS
FOR APPROVAL ONLY
NOT TO BE USED FOR CONSTRUCTION

PROJECT - SET - DRAWING - SHEET
250062-DA1-310-04
REVISION
B

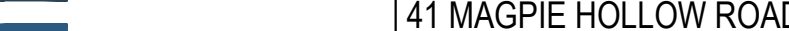


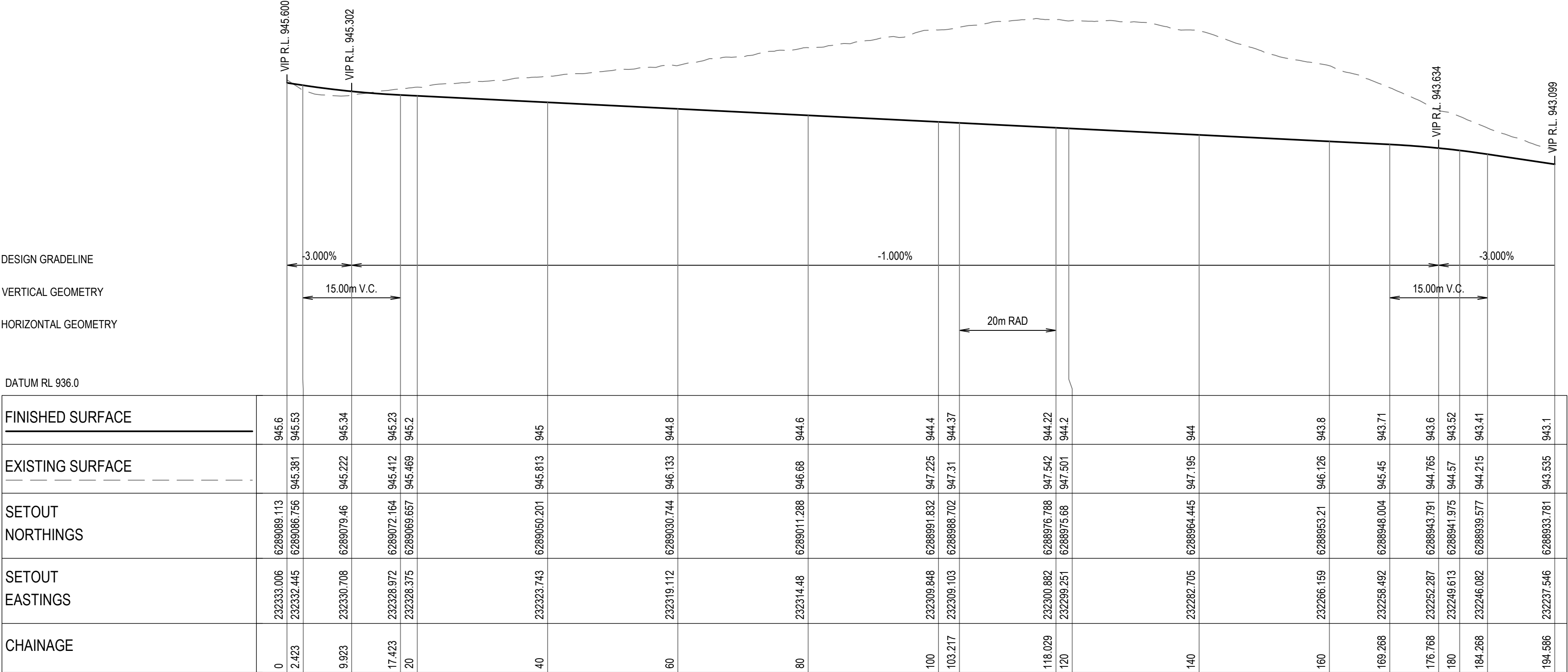
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	EXISTING ELECTRICITY (OVERHEAD)
	EXISTING SEWER
	ASSET PROTECTION ZONE
	EDGE OF EXISTING WOODLAND
	STORMWATER PIT
	DRAINAGE SWALE
	EXISTING KERB 'TYPE AS BELOW'
	ROLL KERB WITH TOE REFER CIVIL DETAILS
	KERB RAMP REFER CIVIL DETAILS
	STORMWATER PIT TAG
	STORMWATER PIPE
	EXISTING STORMWATER PIPE
	UPSTREAM CATCHMENT STORMWATER PIPE - COUNCIL EASEMENT
	PIPE CAP
	HEADWALL
	RIP RAP ENERGY DISSIPATER
	DESIGN CONTOURS
	EXISTING CONTOURS
	RETAINING WALL - 0.0 - 0.5m HEIGHT
	RETAINING WALL - 0.5 - 1.0m HEIGHT
	RETAINING WALL - 1.0 - 1.5m HEIGHT
	RETAINING WALL - 1.5m - 2.0m HEIGHT
	RETAINING WALL - 2.0m+ HEIGHT
	LIMIT OF WORKS
	PROPOSED KERB
	EXISTING KERB
	FLEXIBLE ROAD PAVEMENT
	CONCRETE FOOTPATH PAVEMENT
	CONCRETE SHARED PATH PAVEMENT
	FIRE ACCESS TRACK
	DRIVEWAY PAVEMENT
	BIO-FILTRATION BASIN
	EXISTING WATER
	EXISTING SEWER
	SEPARATE WATER MAIN AND FIRE HYDRANT PIPELINE
	PROPOSED PRIVATE SEWER GRAVITY MAIN
	PROPOSED PRIVATE SEWER RISING MAIN

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS		
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK		- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. - DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. - THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD - GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. - ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIA. BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED			 54 HUDSON STREET, HAMILTON NSW 2303	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION		
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN								
					DRAFTED C. WALKER-HEALON								
					VERIFIED TBD								
											PROJECT - SET - DRAWING - SHEET	REVISION	
											CIVIL WORKS PLAN - SHEET 05 - MAGPIE HOLLOW ROAD INTERSECTION WORKS	250062-DA1-310-05	B



LEGEND	
	PROPOSED LOT BOUNDARY LINE
	EXISTING BOUNDARY LINE
	EASEMENT LINE
	EXISTING ELECTRICITY (OVERHEAD)
	EXISTING SEWER
MC01	MASTER CONTROL LINE
	CHAINAGE
	CHAINAGE
	TANGENT POINT

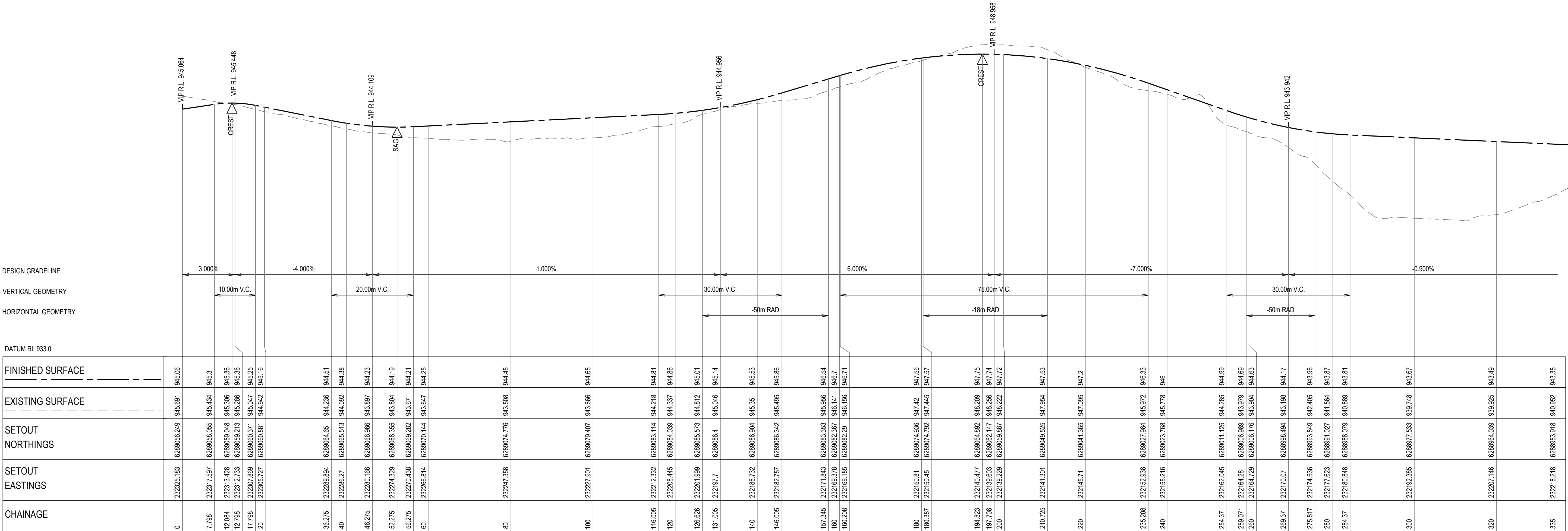
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B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN						
					DRAFTED C. WALKER-HEALON						
					VERIFIED TBD						
54 HUDSON STREET, HAMILTON NSW 2303											PROJECT - SET - DRAWING - SHEET
ALIGNMENT CONTROL PLAN											REVISION
											250062-DA1-400-01
											B



LONGITUDINAL SECTION ALONG MC01

HORIZONTAL SCALE 1:500@A1
VERTICAL SCALE 1:100@A1

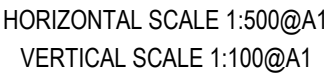
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B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN					DRAWING TITLE	
					DRAFTED C. WALKER-HEALON					ROAD LONGITUDINAL SECTIONS - SHEET 01	PROJECT - SET - DRAWING - SHEET
					VERIFIED TBD						REVISION

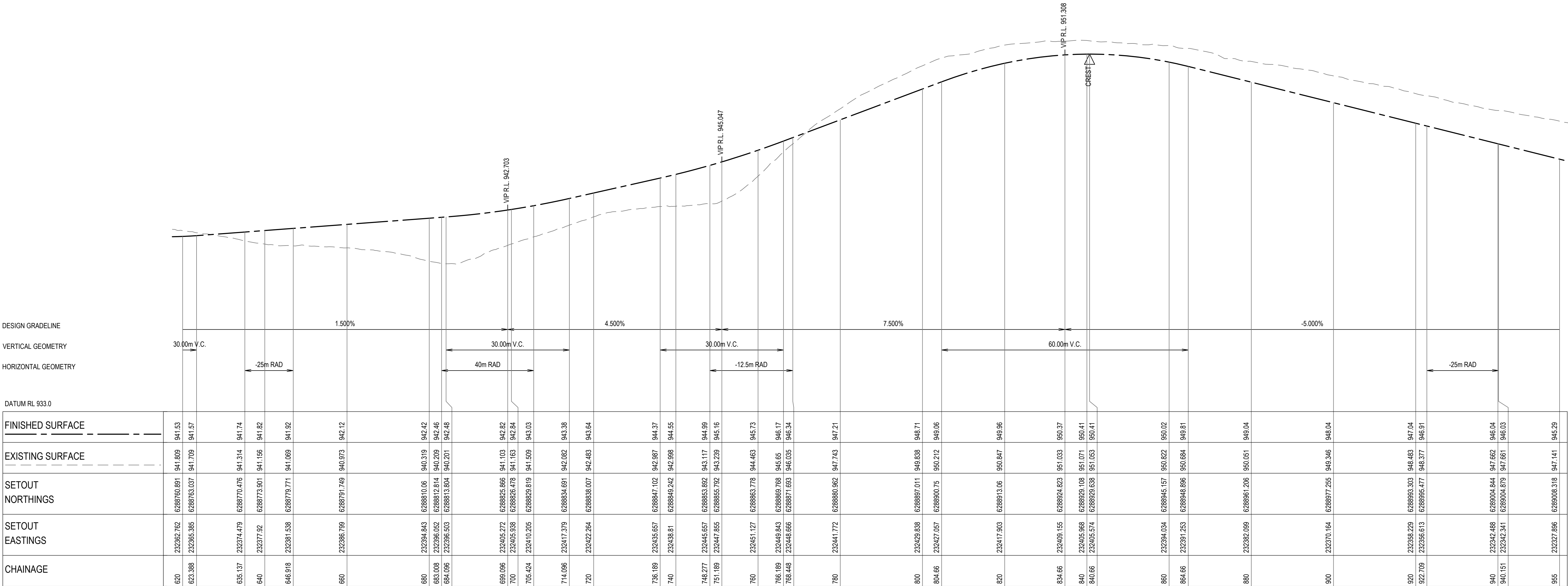


LONGITUDINAL SECTION ALONG MC02

HORIZONTAL SCALE 1:500@A1
VERTICAL SCALE 1:100@A1

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS			
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK	MAAS	- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. - DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. - THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD - GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. - ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DATA BEFORE YOU DO SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED	H: 0 5 10 15 20m V: 0 1 2 3 4m SCALE H: 1:500 V: 1:100		 GROUNDSWELL ENGINEERS 54 HUDSON STREET, HAMILTON NSW 2303	41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION		
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN						DRAWING TITLE		PROJECT - SET - DRAWING - SHEET	REVISION
					C. WALKER-HEALON						ROAD LONGITUDINAL SECTIONS - SHEET 02		250062-DA1-420-02	B
					TBD									

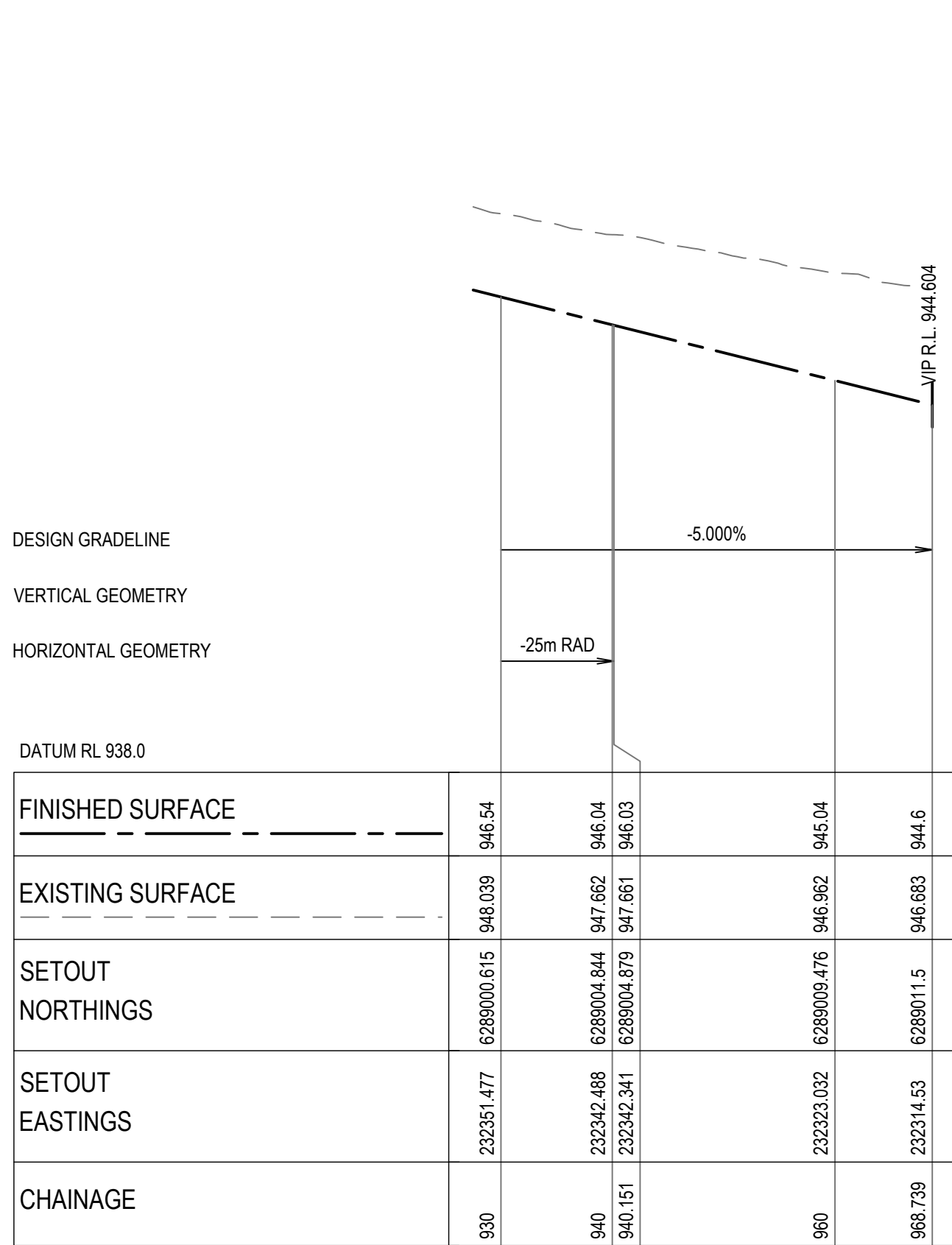




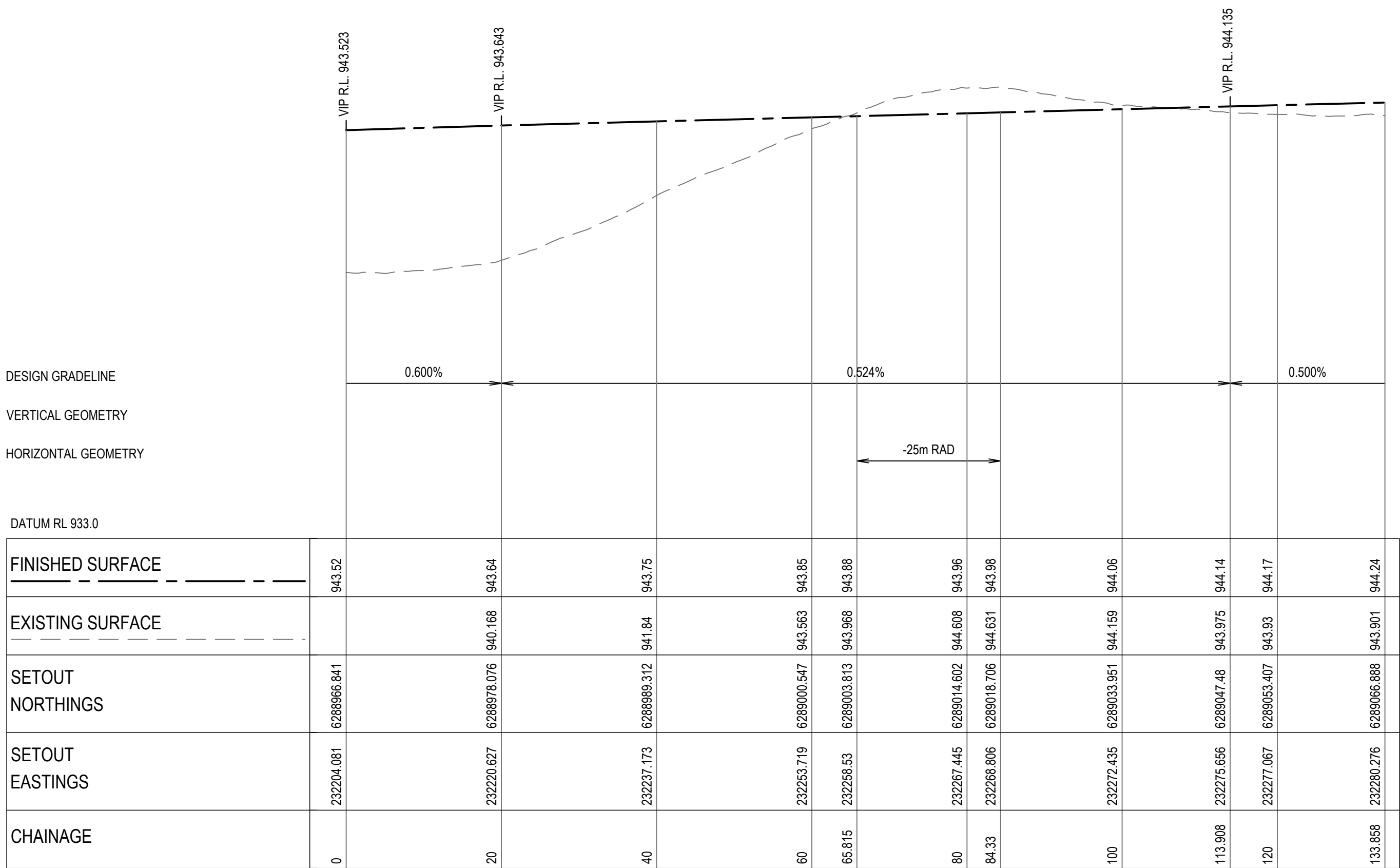
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VERTICAL SCALE 1:100@A1

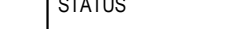
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A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK	MAAS	- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. - DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. - THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD - GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. - ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DATA BEFORE YOU DO SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED	H: 0 5 10 15 20m V: 0 1 2 3 4m SCALE H: 1:500 V: 1:100	 GROUNDSWELL ENGINEERS 54 HUDSON STREET, HAMILTON NSW 2303	41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN						
					C. WALKER-HEALON						
					TBD						
ROAD LONGITUDINAL SECTIONS - SHEET 04											REVISION
											B



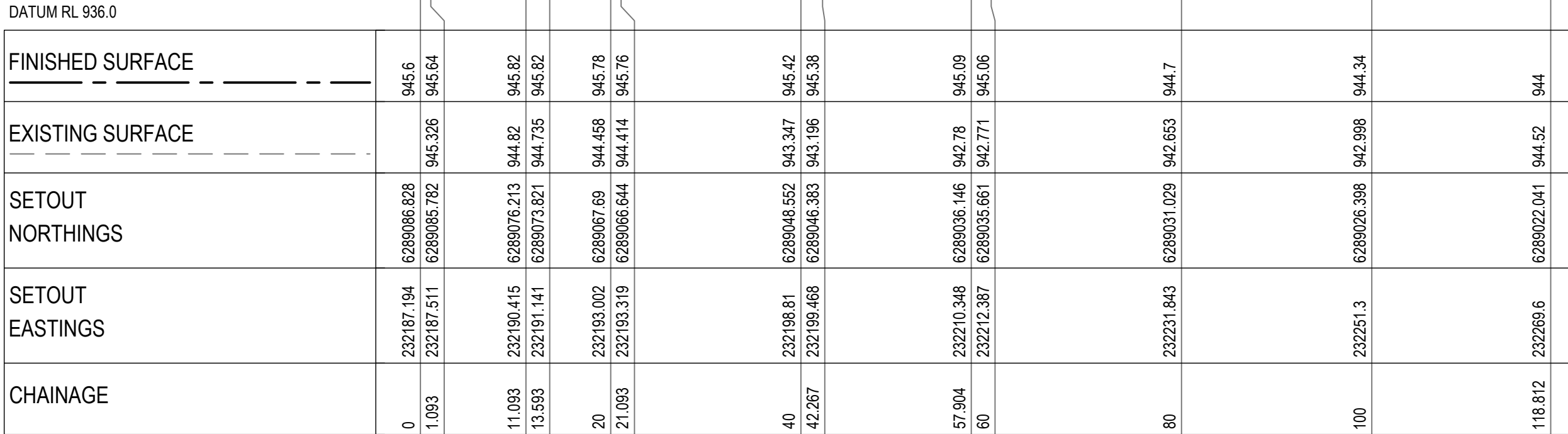
LONGITUDINAL SECTION ALONG MC02
HORIZONTAL SCALE 1:500@A1
VERTICAL SCALE 1:100@A1



LONGITUDINAL SECTION ALONG MC03
HORIZONTAL SCALE 1:500@A1
VERTICAL SCALE 1:100@A1

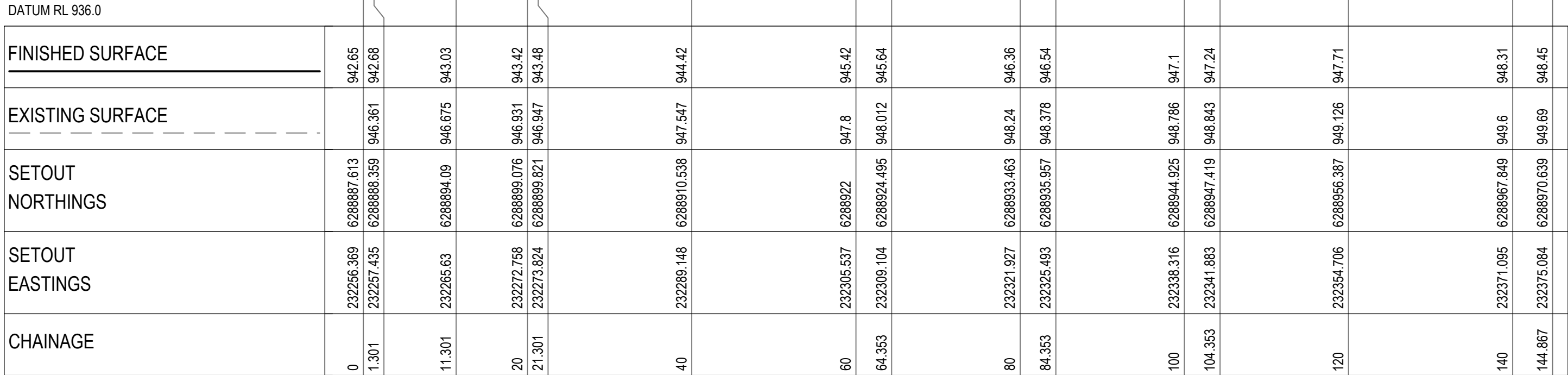
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B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN					DRAWING TITLE	PROJECT - SET - DRAWING - SHEET	REVISION
					DRAFTED C. WALKER-HEALON					ROAD LONGITUDINAL SECTIONS - SHEET 05	250062-DA1-420-05	B
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DESIGN GRADELINE
VERTICAL GEOMETRY
HORIZONTAL GEOMETRY



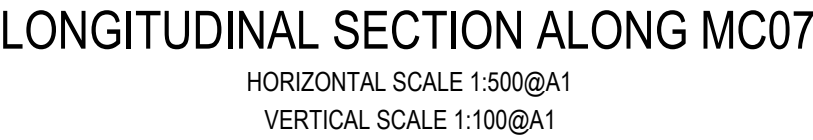
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VERTICAL SCALE 1:100@A1

DESIGN GRADELINE
VERTICAL GEOMETRY
HORIZONTAL GEOMETRY

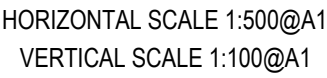


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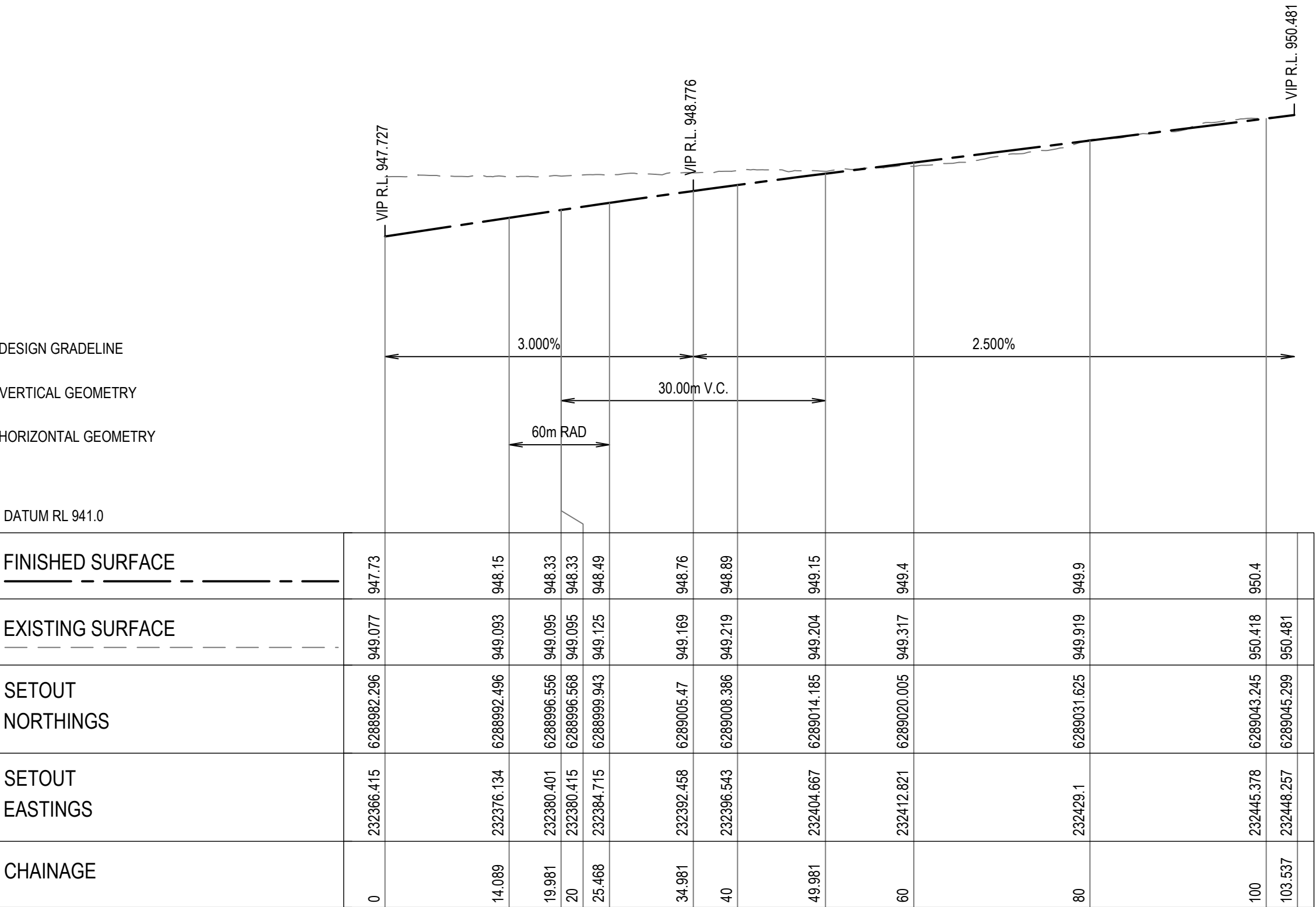
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B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN							
					C. WALKER-HEALION							
					TBD							
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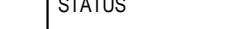
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B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN						
					DRAFTED C. WALKER-HEALON						
					VERIFIED TBD						
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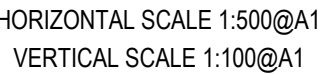


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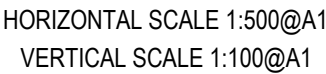


LONGITUDINAL SECTION ALONG MC09
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VERTICAL SCALE 1:100@A1

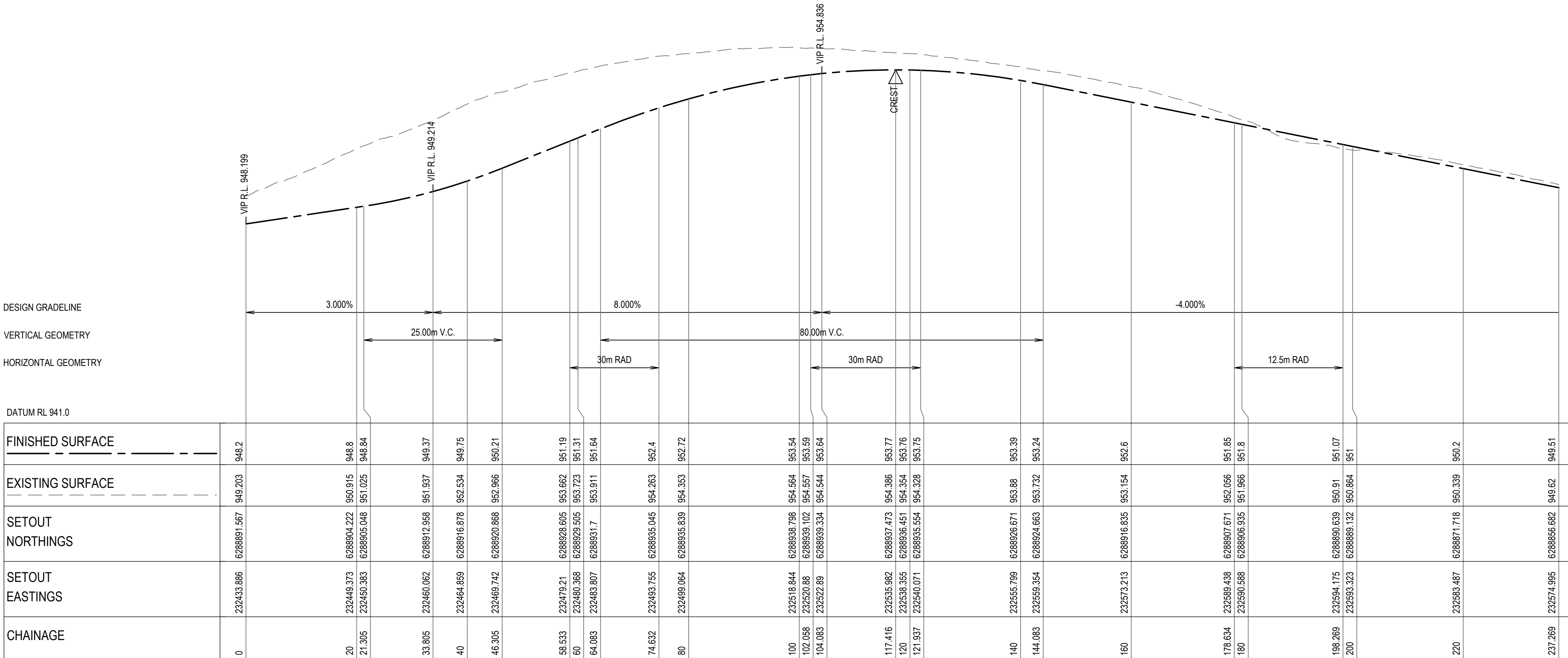
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B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN						DRAWING TITLE	REVISION
					C. WALKER-HEALON						ROAD LONGITUDINAL SECTIONS - SHEET 09	
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					TBD							



REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS
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B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN						
					DRAFTED C. WALKER-HEALON						
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							H: 0 5 10 15 20m V: 0 1 2 3 4m SCALE H: 1:500 V: 1:100	SHEET SIZE A1 SETOUT TBD	DRAWING TITLE ROAD LONGITUDINAL SECTIONS - SHEET 10	PROJECT - SET - DRAWING - SHEET 250062-DA1-420-10	REVISION B

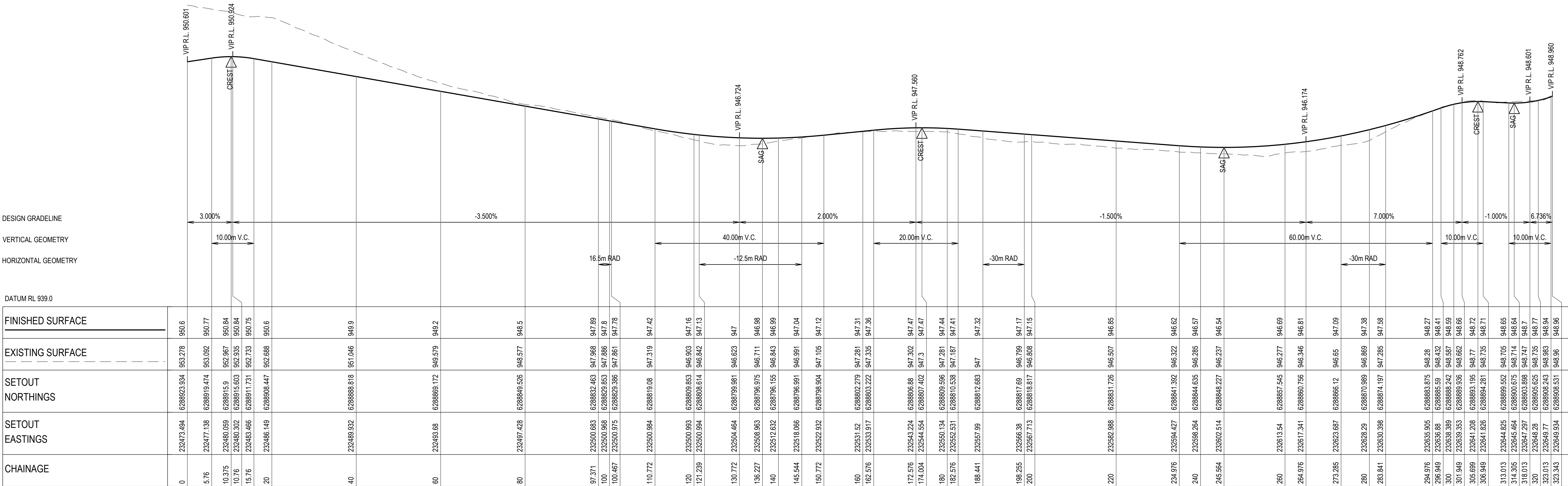


REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS	
A	ISSUED FOR CLIENT REVIEW		BC	11.07.25	B. CLARK		- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. - DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. - THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD - GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. - ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIAL BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED			 54 HUDSON STREET, HAMILTON NSW 2303	41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN							
					DRAFTED C. WALKER-HEALON							
					VERIFIED TBD							
										DRAWING TITLE ROAD LONGITUDINAL SECTIONS - SHEET 11	PROJECT - SET - DRAWING - SHEET 250062-DA1-420-11	REVISION B



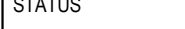
LONGITUDINAL SECTION ALONG MC10
HORIZONTAL SCALE 1:500@A1
VERTICAL SCALE 1:100@A1

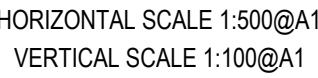
REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS		
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK	MAAS	- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. - DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. - THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD - GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. - ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIA BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED	H: 05101520m V: 01234m SCALE H: 1:500 V:1:100	  54 HUDSON STREET, HAMILTON NSW 2303	41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION		
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN					DRAFTED C. WALKER-HEALON	DRAWING TITLE ROAD LONGITUDINAL SECTIONS - SHEET 12	PROJECT - SET - DRAWING - SHEET 250062-DA1-420-12	REVISION B
					VERIFIED TBD								



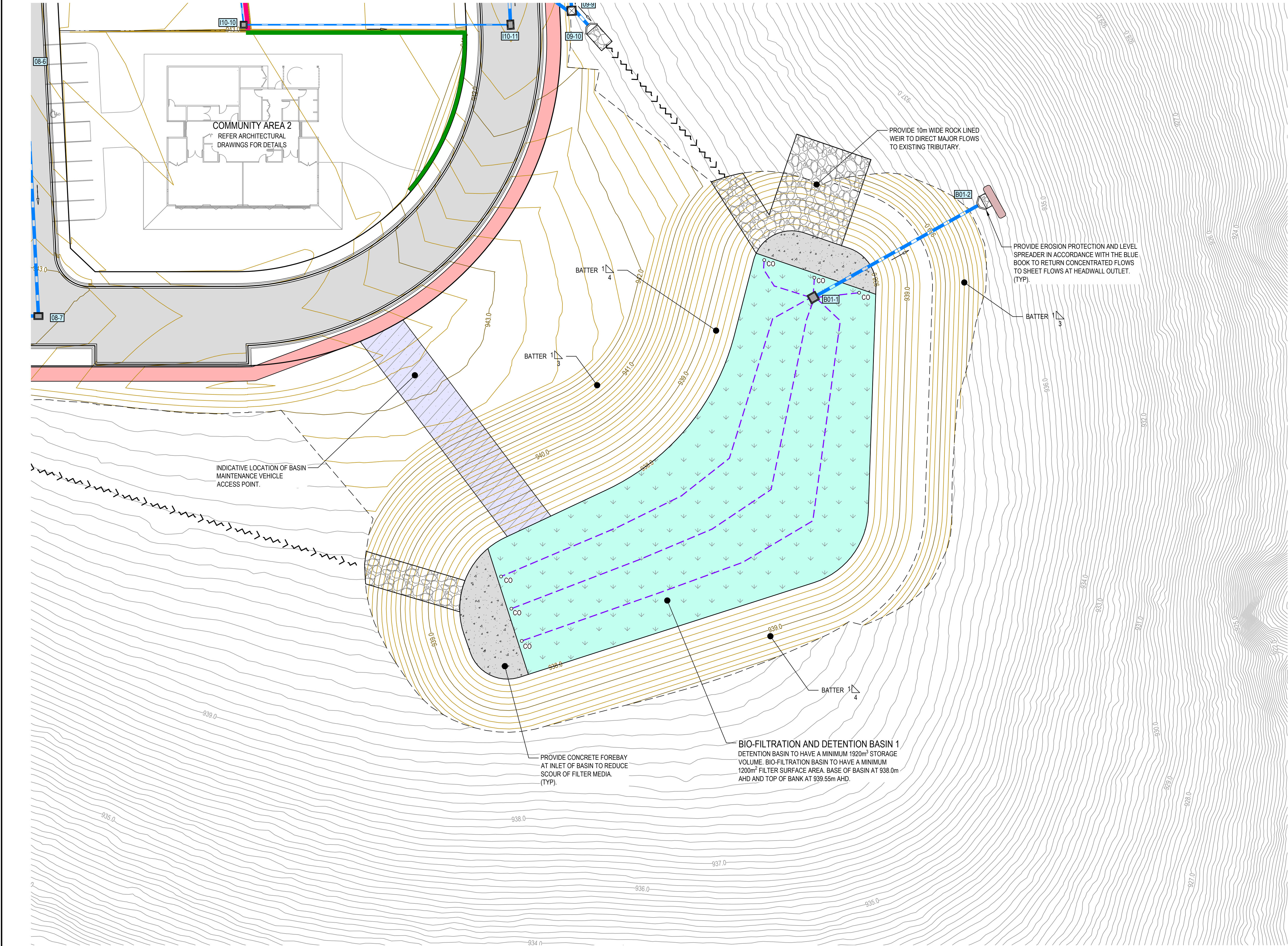
LONGITUDINAL SECTION ALONG MC11

HORIZONTAL SCALE 1:500@A1
VERTICAL SCALE 1:100@A1

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS		
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK	MAAS	- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. - DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. - THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD - GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. - ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIA BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED	H: 0 5 10 15 20m V: 0 1 2 3 4m SCALE H: 1:500 V:1:100	  54 HUDSON STREET, HAMILTON NSW 2303	41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION		
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	E. DOOLAN					DRAFTED C. WALKER-HEALON	DRAWING TITLE ROAD LONGITUDINAL SECTIONS - SHEET 13	PROJECT - SET - DRAWING - SHEET 250062-DA1-420-13	REVISION B
					VERIFIED TBD								

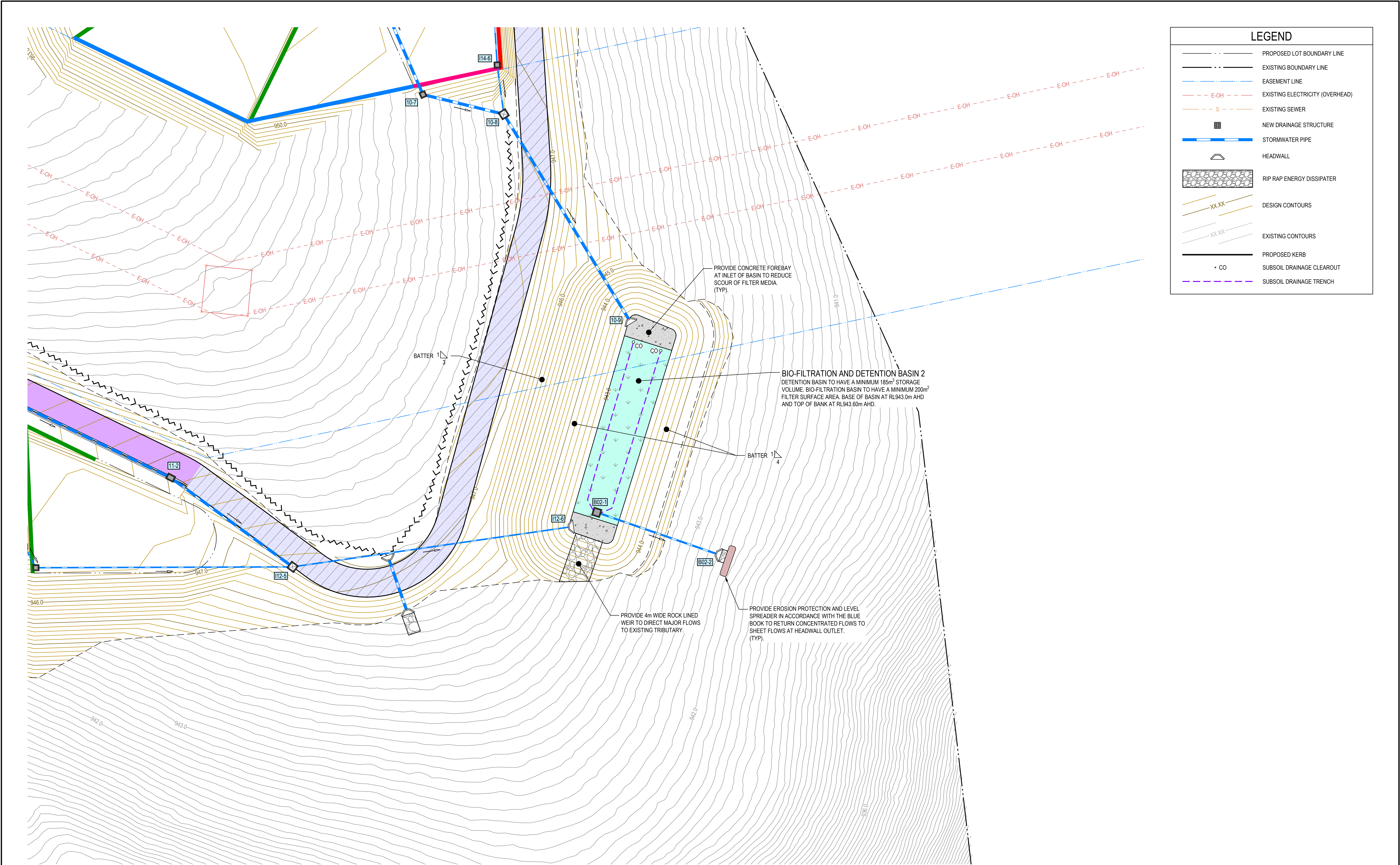


REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS
A	ISSUED FOR CLIENT REVIEW		BC	11.07.25	B. CLARK		- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. - DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. - THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD - GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. - ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIAL BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED	 GROUNDSWELL ENGINEERS 54 HUDSON STREET, HAMILTON NSW 2303		41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN						
					DRAFTED C. WALKER-HEALON						
					VERIFIED TBD						
							H: 0 5 10 15 20m V: 0 1 2 3 4m SCALE H: 1:500 V:1:100	SHEET SIZE A1 SETOUT TBD	DRAWING TITLE ROAD LONGITUDINAL SECTIONS - SHEET 14	PROJECT - SET - DRAWING - SHEET 250062-DA1-420-14	REVISION B



LEGEND	
	PROPOSED LOT BOUNDARY LINE
	EXISTING BOUNDARY LINE
	EASEMENT LINE
	EXISTING ELECTRICITY (OVERHEAD)
	EXISTING SEWER
	NEW DRAINAGE STRUCTURE
	STORMWATER PIPE
	HEADWALL
	RIP RAP ENERGY DISSIPATER
	DESIGN CONTOURS
	EXISTING CONTOURS
	PROPOSED KERB
	SUBSOIL DRAINAGE CLEAROUT
	SUBSOIL DRAINAGE TRENCH

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE	STATUS
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK	MAAS	- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. - DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. - THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD - GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. - ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIA. BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED	02.557.510m 1:250	SHEET SIZE A1 SETOUT TBD	41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790	FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN					DRAWING TITLE BIO-FILTRATION BASIN PLAN - SHEET 01	
					DRAFTED C. WALKER-HEALON					PROJECT - SET - DRAWING - SHEET	REVISION
					VERIFIED TBD					250062-DA1-670-01	B
54 HUDSON STREET, HAMILTON NSW 2303											



LEGEND	
	PROPOSED LOT BOUNDARY LINE
	EXISTING BOUNDARY LINE
	EASEMENT LINE
	EXISTING ELECTRICITY (OVERHEAD)
	EXISTING SEWER
	NEW DRAINAGE STRUCTURE
	STORMWATER PIPE
	HEADWALL
	RIP RAP ENERGY DISSIPATER
	DESIGN CONTOURS
	EXISTING CONTOURS
	PROPOSED KERB
	SUBSOIL DRAINAGE CLEAROUT
	SUBSOIL DRAINAGE TRENCH

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN
					DRAFTED C. WALKER-HEALON
					VERIFIED TBD

CLIENT

ARCHITECT

- THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE.
- DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS.
- THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD.
- GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY.
- ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIA. BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED.

SCALE

SHEET SIZE A1
SETOUT TBD

54 HUDSON STREET, HAMILTON NSW 2303

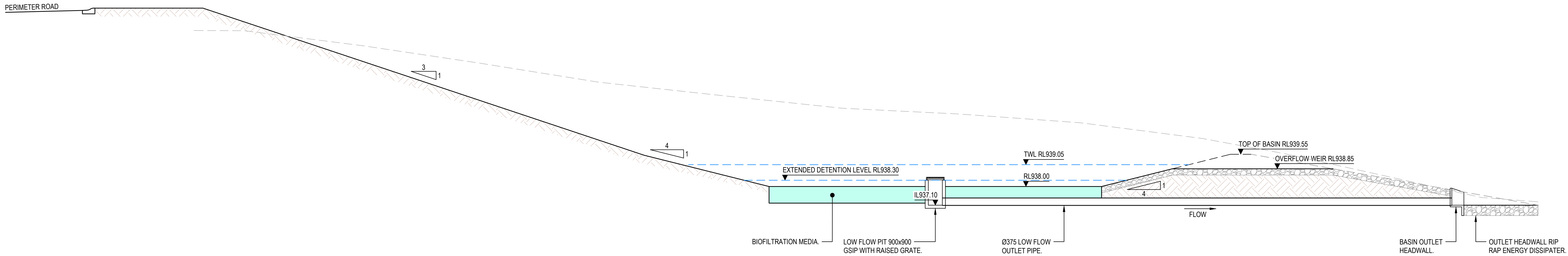
PROJECT TITLE
41 MAGPIE HOLLOW ROAD,
SOUTH BOWENFELS, NSW 2790

DRAWING TITLE
BIO-FILTRATION BASIN PLAN - SHEET 02

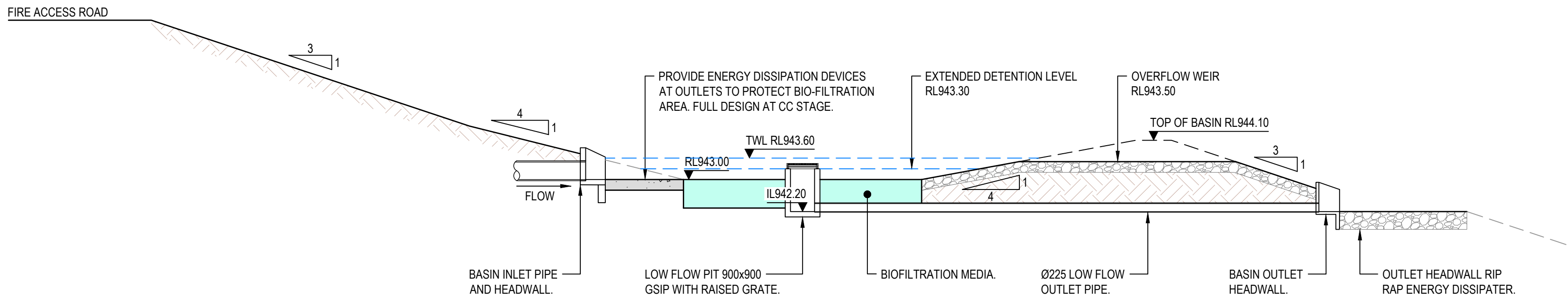
STATUS
FOR APPROVAL ONLY
NOT TO BE USED FOR CONSTRUCTION

PROJECT - SET - DRAWING - SHEET
250062-DA1-670-02

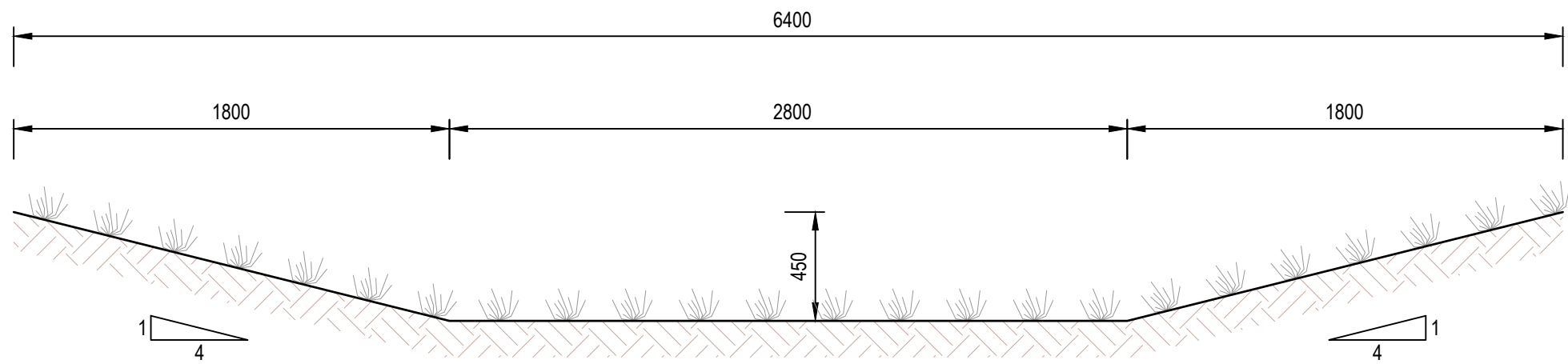
REVISION
B



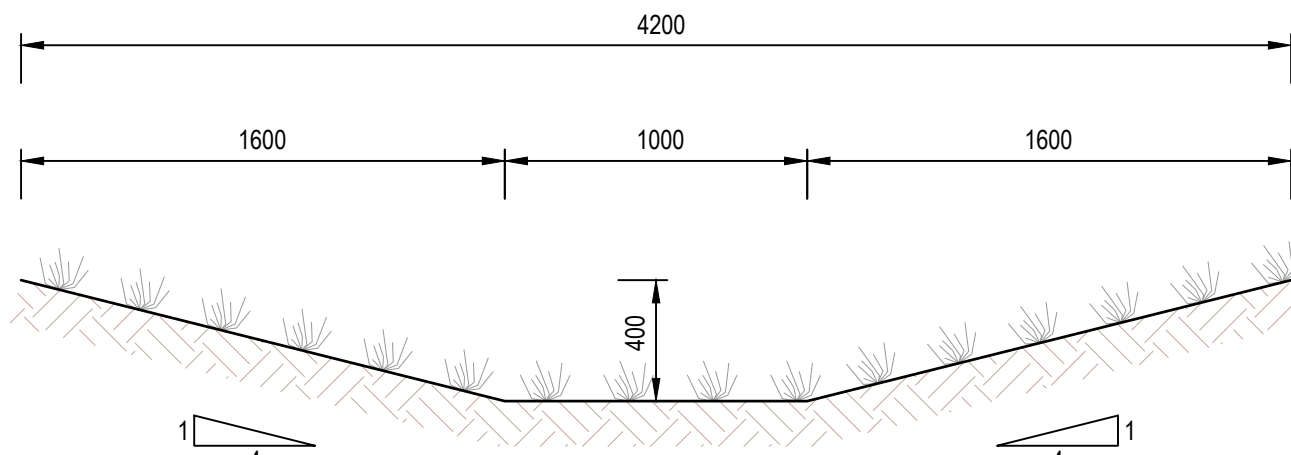
TYPICAL BIO-FILTRATION / DETENTION BASIN 1 DETAIL
AND LOW FLOW OUTLET CONFIGURATION
SCALE 1:100



TYPICAL BIO-FILTRATION / DETENTION BASIN 2 DETAIL
AND LOW FLOW OUTLET CONFIGURATION
SCALE 1:100



GRASS LINED SWALE TYPE 1
SCALE 1:25



GRASS LINED SWALE TYPE 2
SCALE 1:25

REV	DESCRIPTION	ISSD	APP	DATE	PROJECT MANAGER	CLIENT	ARCHITECT	SCALE	NORTH	PROJECT TITLE		STATUS	
A	ISSUED FOR CLIENT REVIEW	ED	BC	11.07.25	B. CLARK	MAAS	THIS DRAWING HAS BEEN PREPARED USING COLOUR, AND WILL BE INCOMPLETE IF COPIED TO BLACK AND WHITE. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. THE COPYRIGHT OF THIS DRAWING REMAINS WITH GROUNDSWELL ENGINEERS PTY LTD GROUNDSWELL ACCEPTS NO RESPONSIBILITY FOR THE USABILITY, COMPLETENESS OR SCALE OF DRAWINGS TRANSFERRED ELECTRONICALLY. ALL UTILITY SERVICES INDICATED ON THE DRAWINGS ORIGINATE FROM SUPPLIED DATA OR DIA. BEFORE YOU DIG SEARCHES, AND THEREFORE THEIR ACCURACY AND COMPLETENESS IS NOT GUARANTEED	SCALE VARIES USE FIGURED DIMENSIONS ONLY DO NOT SCALE FROM DRAWINGS	NORTH GROUNDSWELL ENGINEERS 54 HUDSON STREET, HAMILTON NSW 2303	41 MAGPIE HOLLOW ROAD, SOUTH BOWENFELS, NSW 2790		FOR APPROVAL ONLY NOT TO BE USED FOR CONSTRUCTION	
B	ISSUED FOR DEVELOPMENT APPLICATION	BC	BC	20.08.25	DESIGNED E. DOOLAN					DRAWING TITLE BIO-FILTRATION BASIN DETAILS			PROJECT - SET - DRAWING - SHEET 250062-DA1-680-01
					DRAFTED C. WALKER-HEALON								
					VERIFIED TBD								