

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

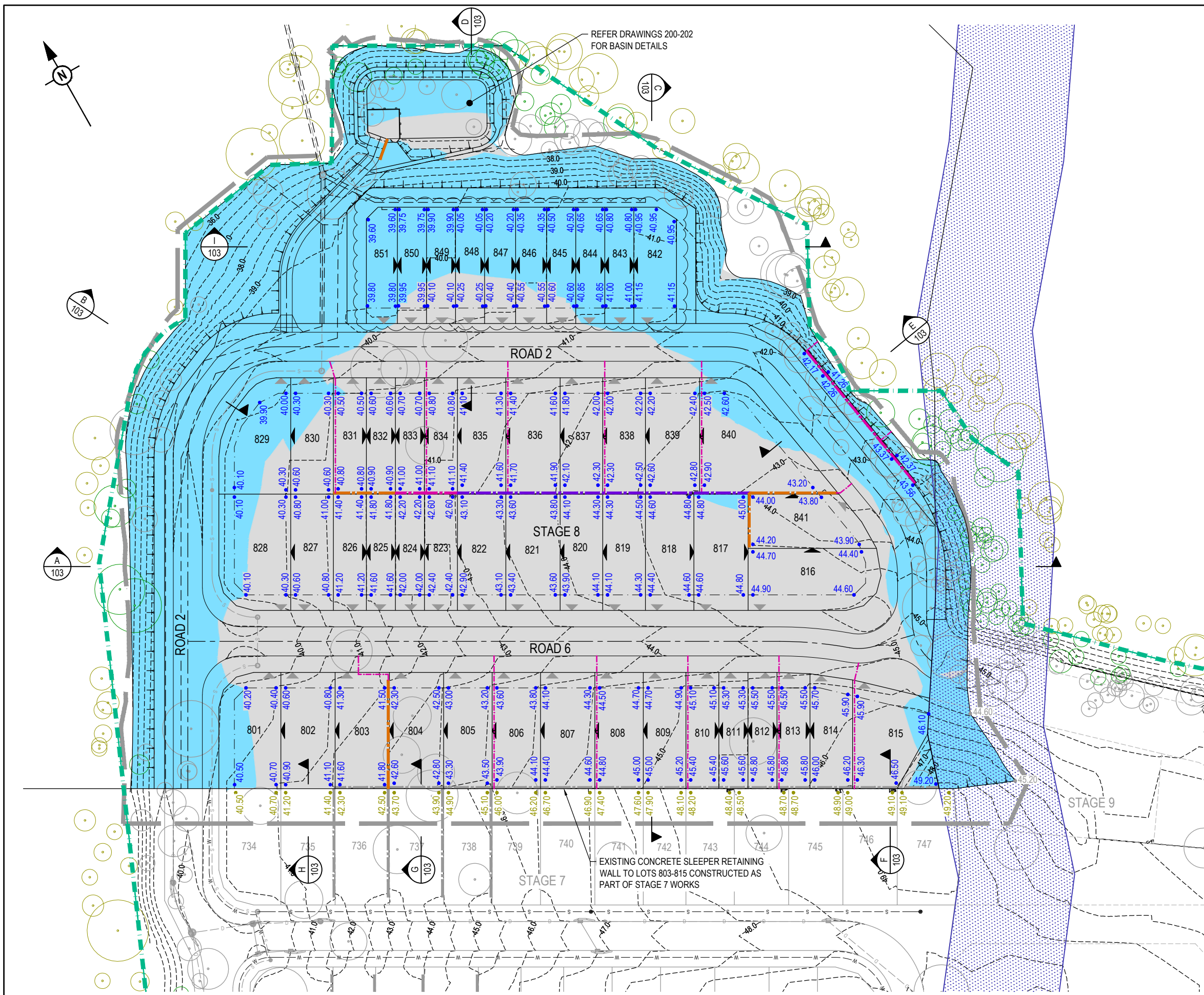
1. ALL WORKS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY'S STANDARD DRAWINGS, METHODS AND SPECIFICATIONS.
2. NOTWITHSTANDING THE EXTENTS OF CUTTING AND FILLING SHOWN ON DRAWINGS, THE SUPERINTENDENT RESERVES THE RIGHT TO ADJUST THE FINISHED SURFACE LEVELS AND EARTHWORKS EXTENTS THROUGH WRITTEN 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 OR STORMWATER DRAINAGE STRUCTURES. 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 D₅₀ 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 D₅₀ SIZE.

ROOFWATER NOTES

1. THE GEOMETRIC CENTRE SHALL BE TAKEN AS THE SETOUT POINT FOR ALL STRUCTURES, UNLESS DETAILED OTHERWISE.
2. ROOFWATER ALIGNMENT, COVER, MATERIALS, BEDDING, JOINTING AND STEP IRON REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY'S STANDARD DRAWINGS, METHODS AND SPECIFICATIONS.
3. ALL PVC PIPES ARE TO BE MINIMUM CLASS SN8.
4. END CAPS SHALL BE INSTALLED ON ENDS OF ALL PIPES AND STUBS.
5. WHERE ROOFWATER PIPES ARE ALIGNED BEHIND PROPOSED RETAINING WALLS, THE CONTRACTOR IS TO REFER TO THE SPECIFIC PROJECT DESIGN DETAILS AND CONFIRM CLEARANCES WITH THE SUPERINTENDENT PRIOR TO LAYING OF THE PIPES.
6. PROPERTY CONNECTIONS SHALL BE 1500 UNLESS SHOWN OTHERWISE. THE CONTRACTOR SHALL EXTEND CONNECTIONS A MINIMUM OF 1.0m BEYOND ADJACENT SEWER LINES, WHERE APPLICABLE.
7. IN INSTANCES WHERE REAR ALLOTMENT DRAINAGE IS NOT PROVIDED, THE CONTRACTOR SHALL INSTALL A ROOFWATER CONNECTION TO EACH PROPERTY BY ONE OF THE FOLLOWING METHODS, AS SHOWN ON THE LAYOUT PLAN:
 - TWO ROOFWATER KERB ADAPTORS, ONE ON A 500mm FROM THE DOWNSTREAM BOUNDARY, THE SECOND ON A 6.0m OFFSET FROM THE DOWNSTREAM BOUNDARY. WHERE THERE IS A CONCRETE FOOTPATH, A ROOFWATER PIPE SHALL BE INSTALLED FROM THE PROPERTY BOUNDARY CONNECTED TO THE KERB ADAPTOR AT 1.25% MINIMUM GRADE IN ACCORDANCE WITH COUNCIL'S STANDARDS.
 - ONE 1500 ROOFWATER PIPE CONNECTED TO PROPOSED STORMWATER GULLY PIT OR MANHOLE AT MINIMUM 1.0% GRADE WITH 1.0m COVER.

REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT NAME	DRAWING TITLE
A	28.10.22	KH	KH	ISSUED FOR CONSTRUCTION	KH	ISSUED FOR CONSTRUCTION		RIPLEY PROJECTS PTY LTD	HAYFIELD STAGE 8A	GENERAL NOTES
B	14.03.23	KH	DH	REVISED ISSUE - LOTS 842-851 ADDED						
					DESIGN	APPROVED DAN COLLINS RPEQ 18631		ASSOCIATED CONSULTANT	352 RIPLEY ROAD, RIPLEY QLD	PROJECT No. 21-0025
					DB					DRAWING No. 101
						FOR AND ON BEHALF OF COLLIERS ENGINEERING & DESIGN				REVISION B





REFER DRAWINGS 200-202 FOR BASIN DETAILS

LEGEND	
	PROPOSED AREA OF WORKS
	FELDSPAR ZONE
	EPBC REFERRAL AREA
	Q100 FLOOD LINE
	TOP OF BANK
	10m BUFFER TO TOP OF BANK
	25m BUFFER TO TOP OF BANK
	PROPOSED SURFACE CONTOUR
	EXISTING SURFACE CONTOUR
	PROPOSED EARTHWORKS PAD SETBACK LINE
	PROPOSED CONCRETE SLEEPER RETAINING WALL LESS THAN 1.0m HIGH
	PROPOSED CONCRETE SLEEPER RETAINING WALL HEIGHT RANGE 1.0-1.5m
	PROPOSED CONCRETE SLEEPER RETAINING WALL HEIGHT RANGE 1.5-3.0m
	EXISTING CONCRETE SLEEPER RETAINING WALL
	RETAINING WALL SUBSOIL PIPE EXTENSION
	PROPOSED FINISHED SURFACE LEVEL (FSL) (AFTER TOPSOIL PLACEMENT)
	FUTURE STAGE FINISHED SURFACE LEVEL (FSL)
	EXISTING SURFACE LEVEL (ESL)
	PROPOSED AREA OF CUT
	PROPOSED AREA OF FILL
	INDICATIVE DRIVEWAY LOCATIONS
	ZERO LOT BOUNDARY
	EXISTING TREE TO REMAIN - REFER VMP
	EXISTING TREE TO BE REMOVED - REFER VMP
	EXISTING TREE TBC - REFER VMP

NOTE:
STRUCTURAL DESIGN FOR BASIN WALL TO CONSIDER POTENTIAL STORMWATER INUNDATION

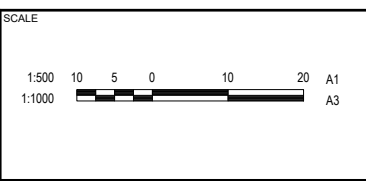
WARNING! - EXISTING SERVICES
EXTREME CARE SHOULD BE TAKEN WHEN EXCAVATING IN THIS AREA. THE FOLLOWING EXISTING SERVICES ARE LIKELY TO BE PRESENT IN THE VICINITY OF THE SITE:

- 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.

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	28.10.22	KH	KH	ISSUED FOR CONSTRUCTION
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DRAWN	STATUS
KH	ISSUED FOR CONSTRUCTION
DESIGN	APPROVED
DB	DAN COLLINS RPEQ 18631



CLIENT
RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT

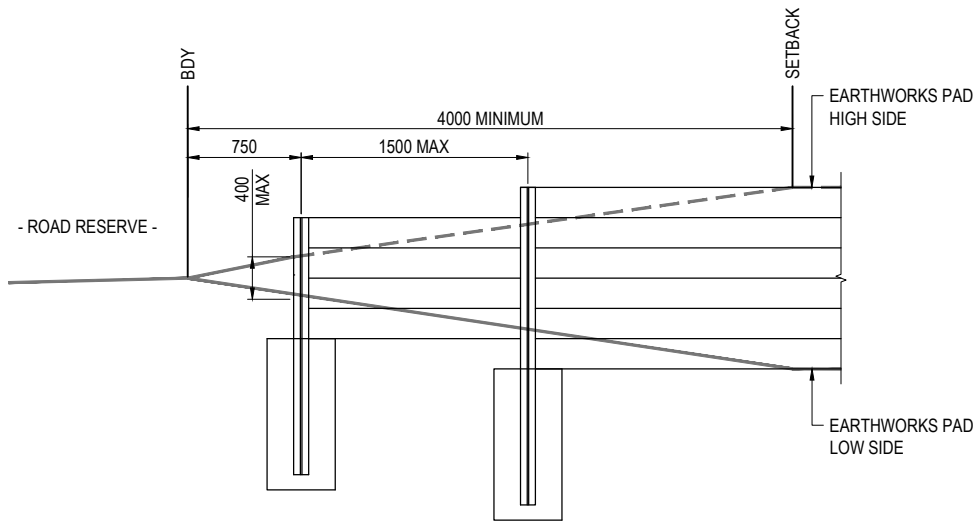
PROJECT NAME
HAYFIELD STAGE 8A

352 RIPLEY ROAD, RIPLEY QLD

DRAWING TITLE		
BULK EARTHWORKS LAYOUT PLAN		
PROJECT No.	DRAWING No.	REVISION
21-0025	102	B

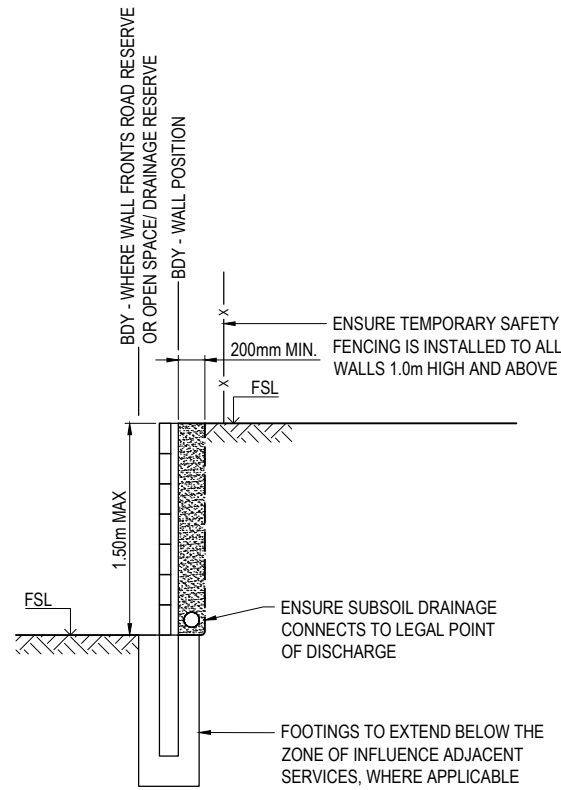
RETAINING WALL NOTES:

1. ALL RETAINING WALLS ARE TO BE DELIVERED UNDER DESIGN AND CONSTRUCTION ARRANGEMENT - FORMS 15 AND 16 CERTIFICATIONS ARE TO BE PROVIDED BY THE CONTRACTOR.
2. BUILDING APPROVAL TO BE OBTAINED FOR ALL RELEVANT RETAINING WALLS, PRIOR TO CONSTRUCTING RETAINING WALLS
3. DESIGN OF WALLS TO CONSIDER ALL LOADS (FENCES, DWELLINGS ETC) AND ASSOCIATED IMPACTS FROM ANY ADJACENT SERVICES - FOOTING DEPTHS TO BE EXTENDED AS REQUIRED.
4. GEOTECHNICAL CONDITIONS ARE TO BE CONFIRMED AND APPROPRIATELY CONSIDERED FOR ALL WALLS. REFER LANDSCAPE DRAWINGS FOR FURTHER INFORMATION ON RETAINING WALLS, PARTICULARLY RELATING TO FINISHES.
5. TEMPORARY SAFETY FENCING TO BE INSTALLED BEHIND ALL WALLS 1.0m HIGH AND GREATER.
6. CONCRETE SLEEPER RETAINING WALLS ON COMMON BOUNDARY OF ALLOTMENTS AND ROAD RESERVE / OPEN SPACE WHICH ARE VISIBLE FROM PUBLIC SPACE ARE TO BE FINISHED TO FULL DEPTH COLOUR (COFFEE BROWN, TERRACOTTA OR STORM GREY) AND TEXTURED TREATMENT (TIMBER, OR STONE PROFILE AND GRAIN)



TYPICAL RETAINING WALL TAPER DETAIL

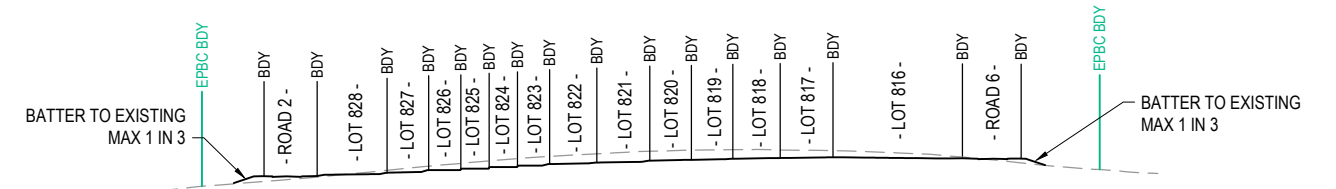
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CONCRETE SLEEPER RETAINING WALL

TYPICAL DETAIL

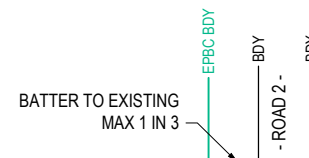
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RL 00.0

SECTION A

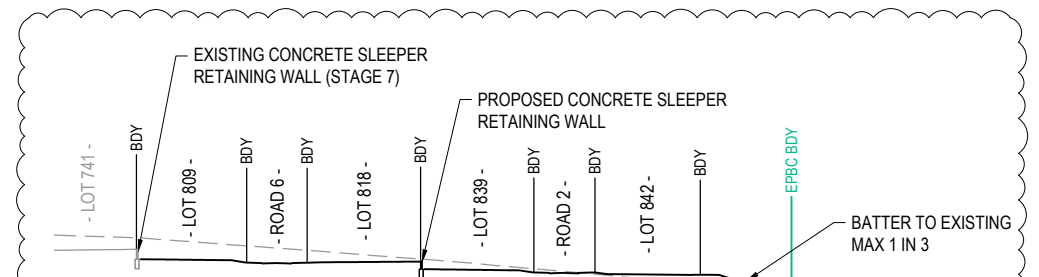
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RL 20.0

SECTION B

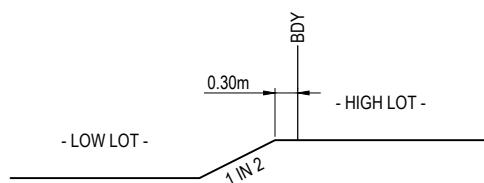
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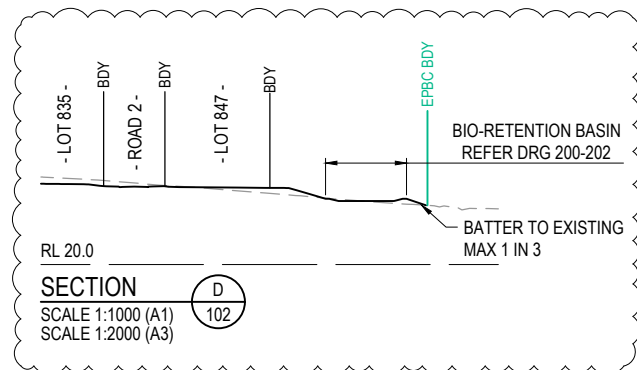
SECTION C

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TYPICAL STEP BETWEEN LOTS DETAIL

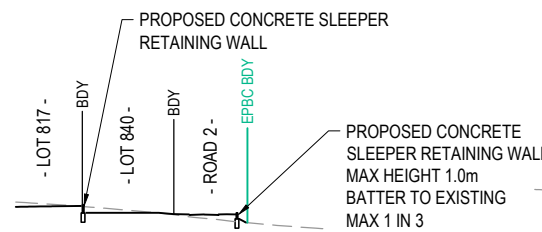
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RL 20.0

SECTION D

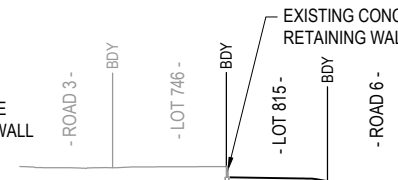
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RL 20.0

SECTION E

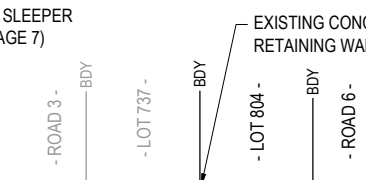
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RL 20.0

SECTION F

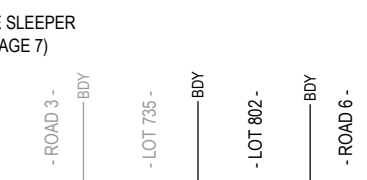
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RL 20.0

SECTION G

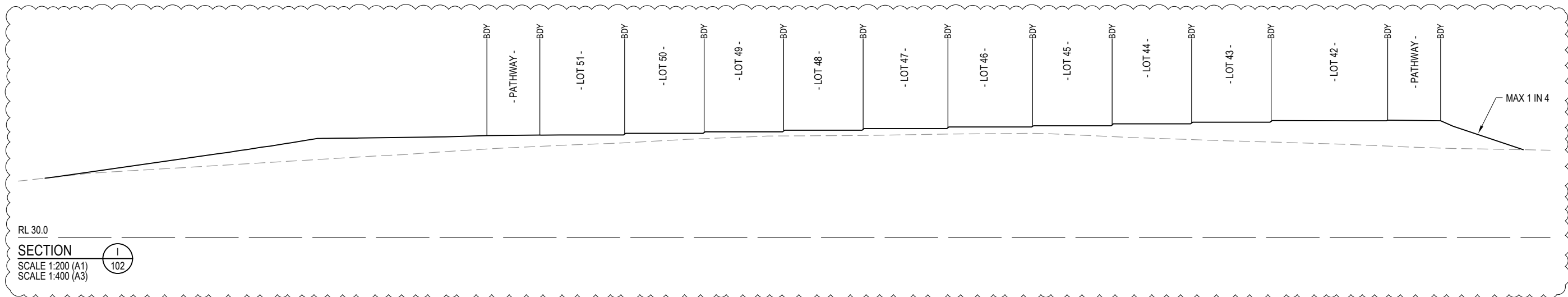
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RL 20.0

SECTION H

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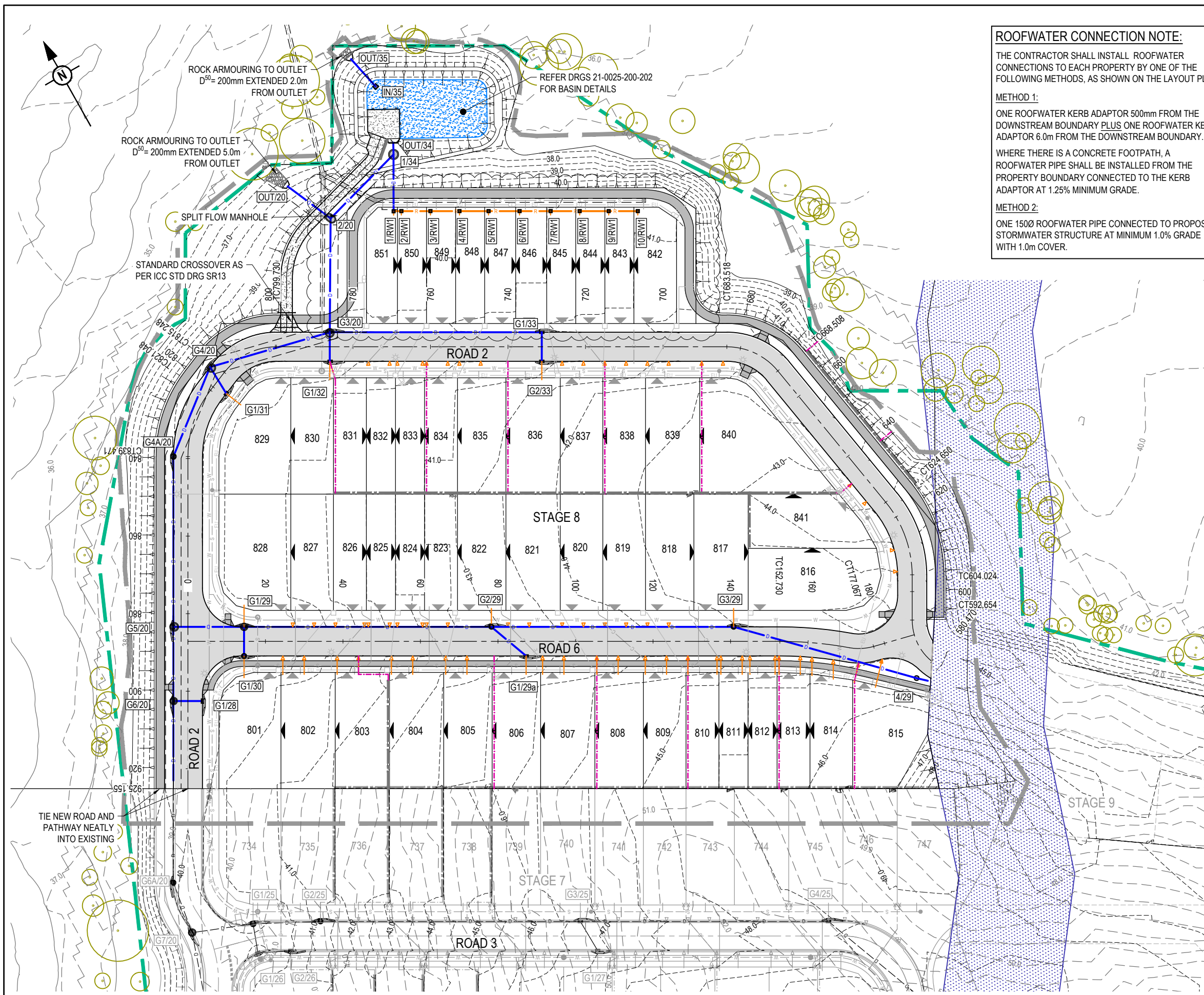


RL 30.0

SECTION I

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REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT NAME	DRAWING TITLE
A	28.10.22	KH	KH	ISSUED FOR CONSTRUCTION	KH	ISSUED FOR CONSTRUCTION	1:25 0 0.25 0.5 0.75 1.0 1.25 A1	RIPLEY PROJECTS PTY LTD	HAYFIELD STAGE 8A	BULK EARTHWORKS TYPICAL SECTIONS
B	14.03.23	KH	DH	REVISED ISSUE - LOTS 842-851 ADDED	DB	APPROVED DAN COLLINS RPEQ 18631	1:50 1 0.5 0 1 2 A1 1:100 10 0 10 20 30 40 50 A1 1:1000 10 0 10 20 30 40 50 A1 1:2000 10 0 10 20 30 40 50 A3	ASSOCIATED CONSULTANT	352 RIPLEY ROAD, RIPLEY QLD	PROJECT No. 21-0025 DRAWING No. 103 REVISION B



ROOFWATER CONNECTION NOTE:
 THE CONTRACTOR SHALL INSTALL ROOFWATER CONNECTIONS TO EACH PROPERTY BY ONE OF THE FOLLOWING METHODS, AS SHOWN ON THE LAYOUT PLAN:

METHOD 1:
 ONE ROOFWATER KERB ADAPTOR 500mm FROM THE DOWNSTREAM BOUNDARY PLUS ONE ROOFWATER KERB ADAPTOR 6.0m FROM THE DOWNSTREAM BOUNDARY.

WHERE THERE IS A CONCRETE FOOTPATH, A ROOFWATER PIPE SHALL BE INSTALLED FROM THE PROPERTY BOUNDARY CONNECTED TO THE KERB ADAPTOR AT 1.25% MINIMUM GRADE.

METHOD 2:
 ONE 150Ø ROOFWATER PIPE CONNECTED TO PROPOSED STORMWATER STRUCTURE AT MINIMUM 1.0% GRADE WITH 1.0m COVER.

- LEGEND**
- PROPOSED AREA OF WORKS
 - EPBC BOUNDARY
 - ▨ FELDSPAR ZONE
 - - - PROPOSED ROAD CONTROL LINE
 - - - EXISTING ROAD CROWN
 - - - PROPOSED KERB INVERT LINE
 - ▬ PROPOSED CONCRETE PATH AND PRAM RAMP
 - ▬ PROPOSED NEW ROAD PAVEMENT (REFER ASSUMED PAVEMENT DETAILS)
 - ▲ INDICATIVE DRIVEWAY LOCATION
 - - - ZERO LOT BOUNDARY
 - - - FINISHED SURFACE CONTOUR
 - PROPOSED STORMWATER DRAINAGE PIPE
 - - - EXISTING STORMWATER DRAINAGE PIPE
 - PROPOSED ROOFWATER DRAINAGE PIPE
 - ▽ PROPOSED ROOFWATER KERB ADAPTOR
 - ▽ PROPOSED ROOFWATER KERB ADAPTOR WITH PIPE CONNECTION TO ALLOTMENT
 - ▨ PROPOSED AREA OF FILTER MEDIA
 - ▬ PROPOSED CONCRETE SLEEPER RETAINING WALL
 - - - EXISTING CONCRETE SLEEPER RETAINING WALL
 - - - RETAINING WALL SUBSOIL PIPE EXTENSION
 - - - PROPOSED SEWERAGE MAIN
 - - - EXISTING SEWERAGE MAIN
 - - - PROPOSED WATER MAIN
 - - - EXISTING WATER MAIN
 - - - PROPOSED WATER CONDUIT
 - - - EXISTING WATER CONDUIT
 - - - EXISTING ELECTRICAL CABLE U/G
 - - - EXISTING TELECOMMUNICATION CABLE U/G
 - EXISTING TREE TO REMAIN - REFER VMP

FAULT ZONE PAVEMENT NOTE:
 REFER TO DRG 18-0073-600 FOR PAVEMENT DESIGN TREATMENT OF THE FELDSPAR ZONE.
 THE ROAD CROSSING TREATMENT MAY NOT BE LIMITED TO THE 30m EXCLUSION ZONE.

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

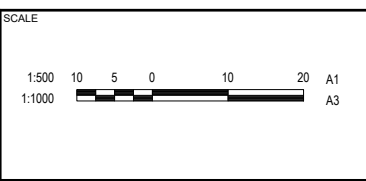
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- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

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B	14.03.23	KH	DH	REVISED ISSUE - LOTS 842-851 ADDED

DRAWN	STATUS
KH	ISSUED FOR CONSTRUCTION
DESIGN	APPROVED
DB	DAN COLLINS RPEQ 18631



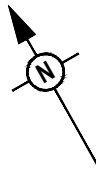
CLIENT
RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT

PROJECT NAME
HAYFIELD STAGE 8A

352 RIPLEY ROAD, RIPLEY QLD

DRAWING TITLE		
ROADWORKS AND DRAINAGE LAYOUT PLAN		
PROJECT No.	DRAWING No.	REVISION
21-0025	104	B



REFER TO BASIN DRG
21-0025-200 FOR BASIN
ACCESS SETOUT

LEGEND

- PROPOSED AREA OF WORKS
- FELDSPAR ZONE
- PROPOSED NEW ROAD PAVEMENT
(REFER ASSUMED PAVEMENT DETAILS)
- PROPOSED NEW ROAD PAVEMENT WITHIN FELDSPAR
(REFER DETAIL A)
- PROPOSED ROAD CONTROL LINE
- MKC
PROPOSED MOUNTABLE KERB AND CHANNEL 'TYPE M1'
- BKC
PROPOSED BARRIER KERB AND CHANNEL 'TYPE B1'
- PROPOSED KERB TRANSITION LOCATION
- PROPOSED CONCRETE PATH AND PRAM RAMP
- INDICATIVE DRIVEWAY LOCATION
- ZERO LOT BOUNDARY

ROAD 2 CONTROL LINE SETOUT

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 9	492.906	479094.080	6940678.075		R = -20.000	28.516	81°41'35.95"
CT	507.164	479081.357	6940689.786	312°37'43.24"			
TC	574.285	479031.973	6940735.243	312°37'43.24"			
IP 10	583.469	479023.991	6940742.590		R = 13.750	18.369	76°32'39.80"
CT	592.654	479029.279	6940752.062	29°10'23.04"			
TC	604.024	479034.822	6940761.989	29°10'23.04"			
IP 11	614.337	479040.057	6940771.367		R = -30.000	20.627	39°23'38.27"
CT	624.650	479038.151	6940781.936	349°46'44.77"			
TC	668.508	479030.369	6940825.098	349°46'44.77"			
IP 12	676.013	479028.943	6940833.005		R = -17.000	15.010	50°35'20.84"
CT	683.518	479021.929	6940836.923	299°11'23.94"			
TC	799.730	478920.476	6940893.600	299°11'23.94"			
IP 13	807.489	478913.189	6940897.671		R = -17.000	15.518	52°18'03.08"
CT	815.248	478905.512	6940894.394	246°53'20.86"			
TC	821.048	478900.177	6940892.118	246°53'20.86"			
IP 14	830.260	478891.386	6940888.366		R = -28.000	18.423	37°41'56.92"
CT	839.471	478886.723	6940880.021	209°11'23.93"			
TC	949.328	478833.146	6940784.115	209°11'23.93"			
IP 15	953.517	478831.039	6940780.345		R = -14.000	8.378	34°17'07.46"

ROAD 6 CONTROL LINE SETOUT

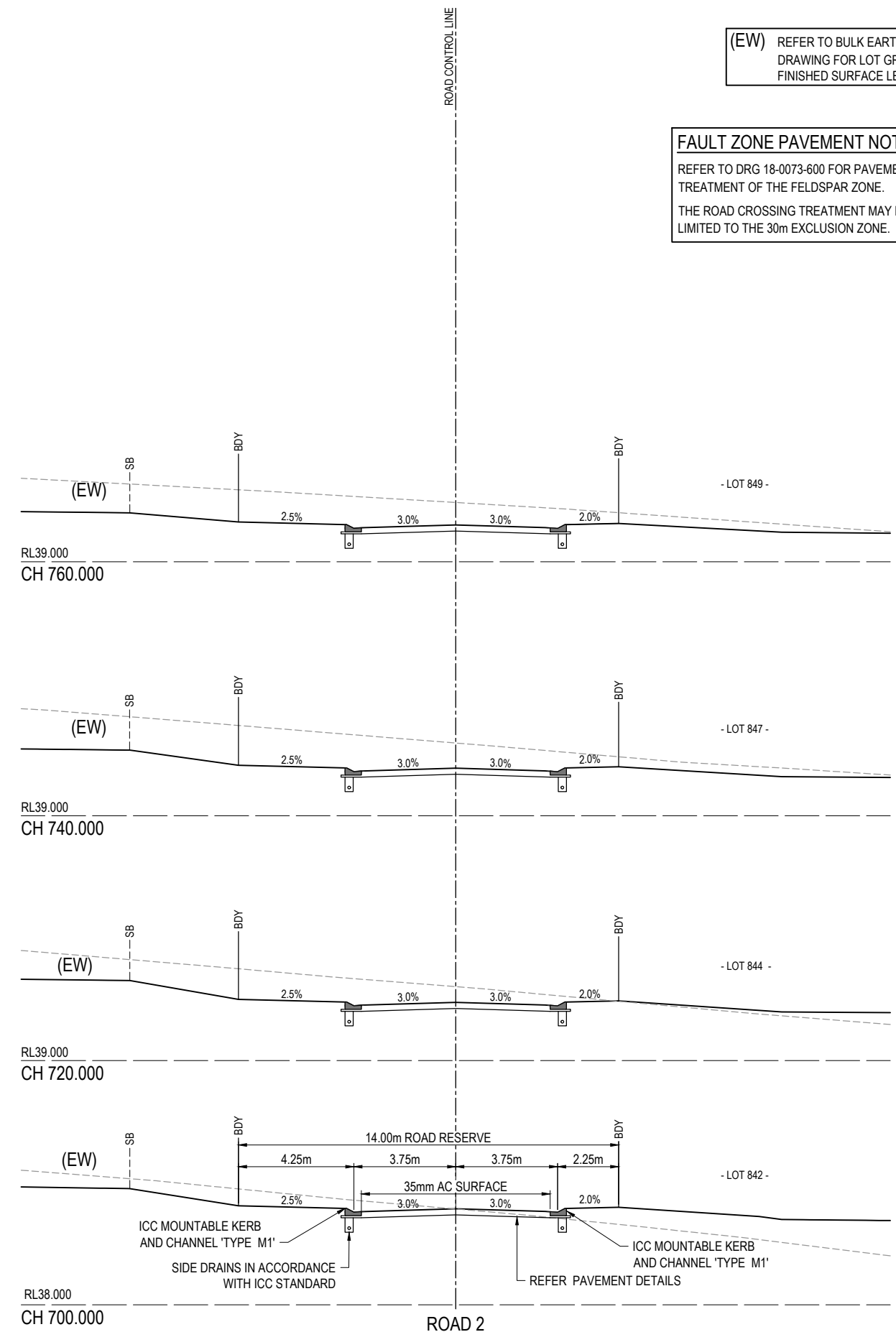
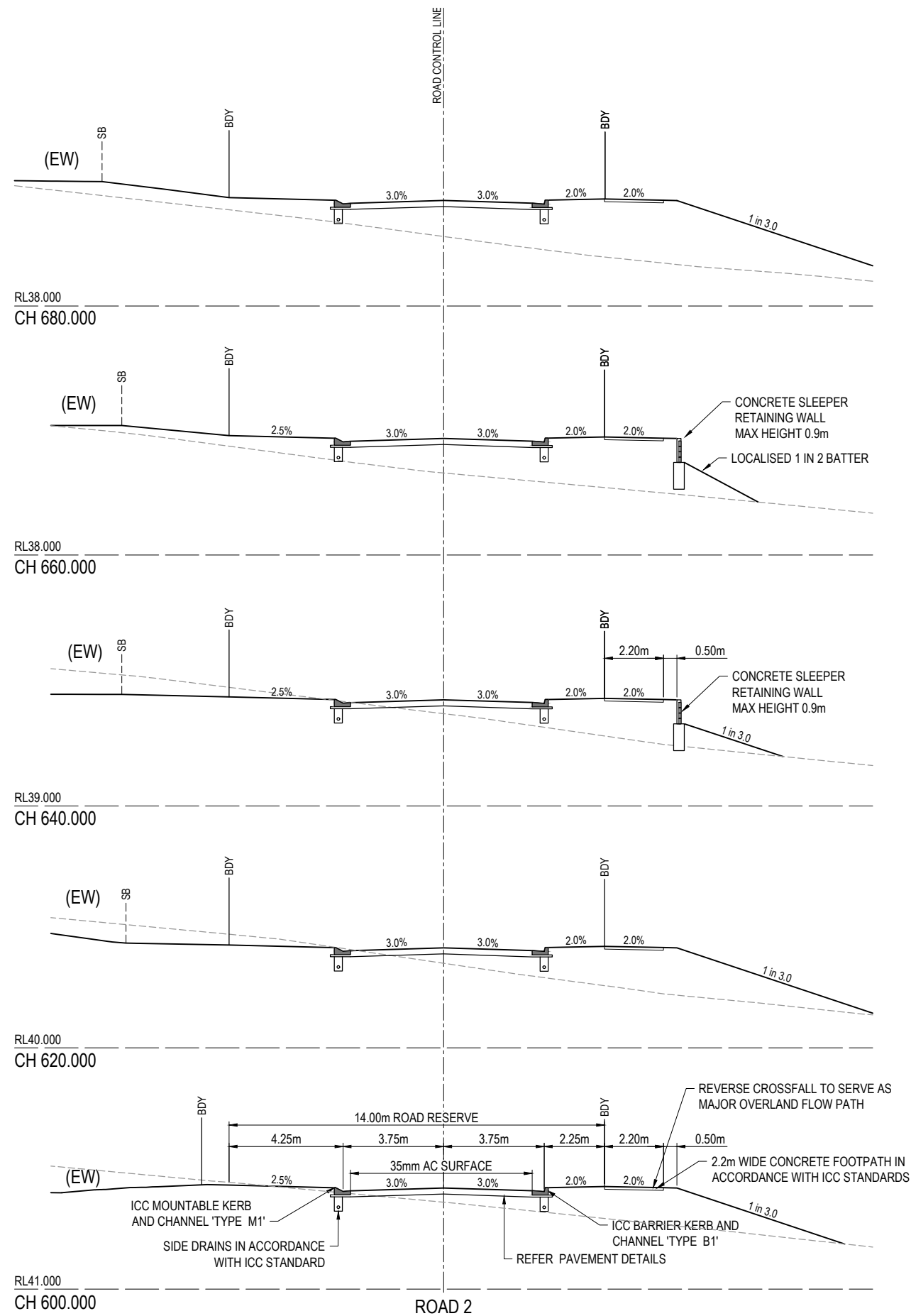
PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	478863.468	6940838.392	119°11'23.88"			
TC	152.730	478996.802	6940763.905	119°11'23.88"			
IP 2	161.733	479004.683	6940759.502		R = 99.750	18.006	10°20'33.57"
CC	170.736	479011.646	6940753.756	129°31'57.45"			
IP 3	173.901	479014.131	6940751.705		R = -13.750	6.331	26°22'49.36"
CT	177.067	479017.269	6940750.971	103°09'08.09"			
IP 4	187.980	479027.896	6940748.488	103°09'08.09"			

FAULT ZONE PAVEMENT NOTE:
REFER TO DRG 18-0073-600 FOR PAVEMENT DESIGN
TREATMENT OF THE FELDSPAR ZONE.
THE ROAD CROSSING TREATMENT MAY NOT BE
LIMITED TO THE 30m EXCLUSION ZONE.

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th>REV</th><th>DATE</th><th>DESIGN</th><th>DRAWN</th><th>REVISION DETAILS</th></tr> </thead> <tbody> <tr><td>A</td><td>28.10.22</td><td>KH</td><td>KH</td><td>ISSUED FOR CONSTRUCTION</td></tr> <tr><td>B</td><td>14.03.23</td><td>KH</td><td>DH</td><td>REVISED ISSUE - LOTS 842-851 ADDED</td></tr> </tbody> </table>	REV	DATE	DESIGN	DRAWN	REVISION DETAILS	A	28.10.22	KH	KH	ISSUED FOR CONSTRUCTION	B	14.03.23	KH	DH	REVISED ISSUE - LOTS 842-851 ADDED	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th>DRAWN</th><th>STATUS</th></tr> </thead> <tbody> <tr><td>KH</td><td>ISSUED FOR CONSTRUCTION</td></tr> </tbody> </table>	DRAWN	STATUS	KH	ISSUED FOR CONSTRUCTION		<p>SCALE</p>	<p>CLIENT</p> <p>RIPLEY PROJECTS PTY LTD</p> <p>ASSOCIATED CONSULTANT</p>	<p>PROJECT NAME</p> <p>HAYFIELD STAGE 8A</p> <p>352 RIPLEY ROAD, RIPLEY QLD</p>	<p>DRAWING TITLE</p> <p>SURVEY SETOUT AND KERB TYPES LAYOUT PLAN</p>
REV	DATE	DESIGN	DRAWN	REVISION DETAILS																					
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21-0025	105	B																							

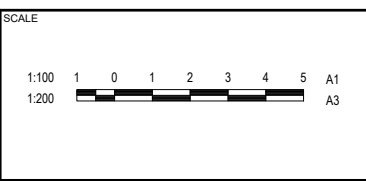
(EW) REFER TO BULK EARTHWORKS DRAWING FOR LOT GRADING AND FINISHED SURFACE LEVELS

FAULT ZONE PAVEMENT NOTE:
 REFER TO DRG 18-0073-600 FOR PAVEMENT DESIGN TREATMENT OF THE FELDSPAR ZONE.
 THE ROAD CROSSING TREATMENT MAY NOT BE LIMITED TO THE 30m EXCLUSION ZONE.



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KH	ISSUED FOR CONSTRUCTION
DESIGN	APPROVED
DB	DAN COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIER'S ENGINEERING & DESIGN	



CLIENT
RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT

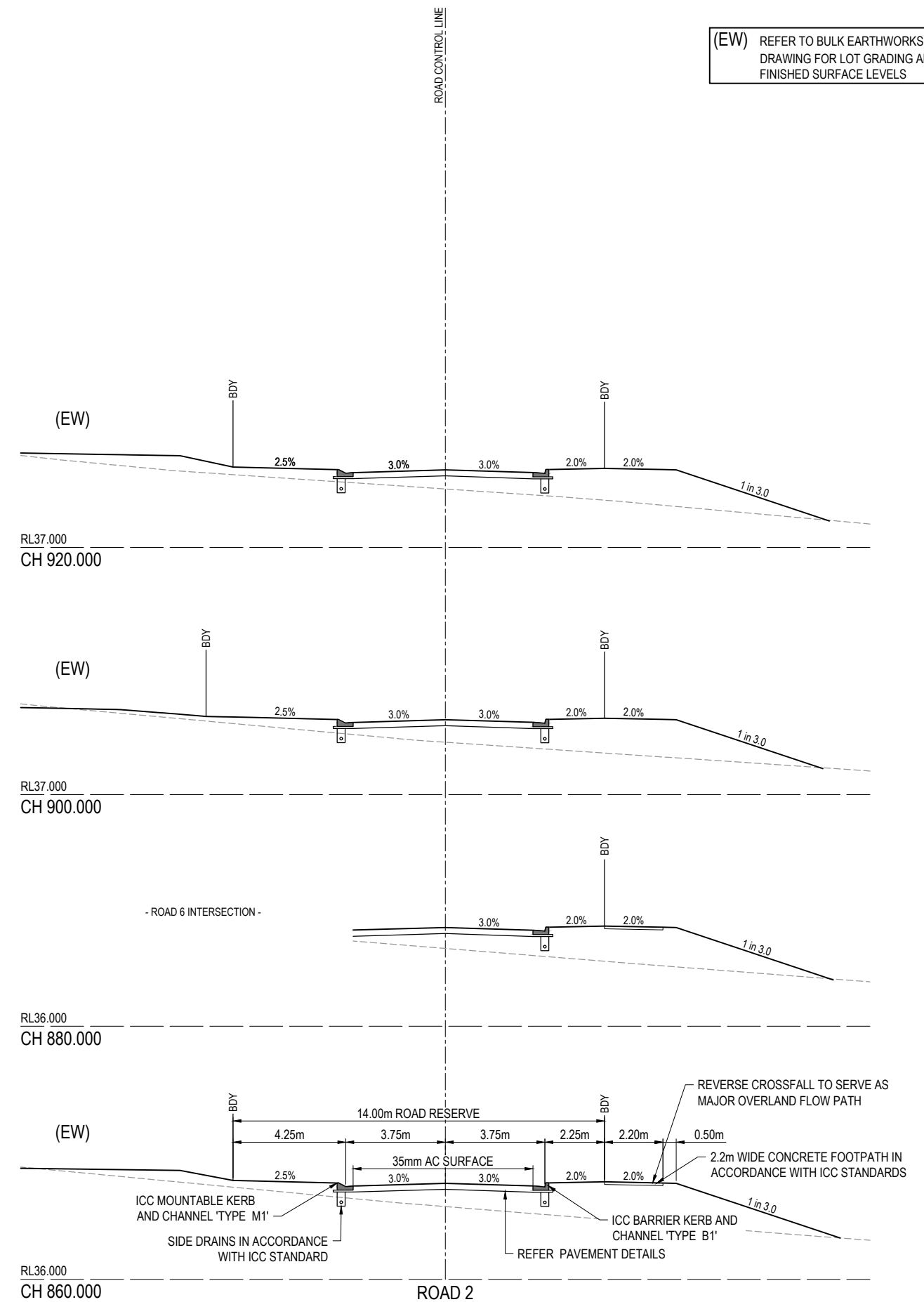
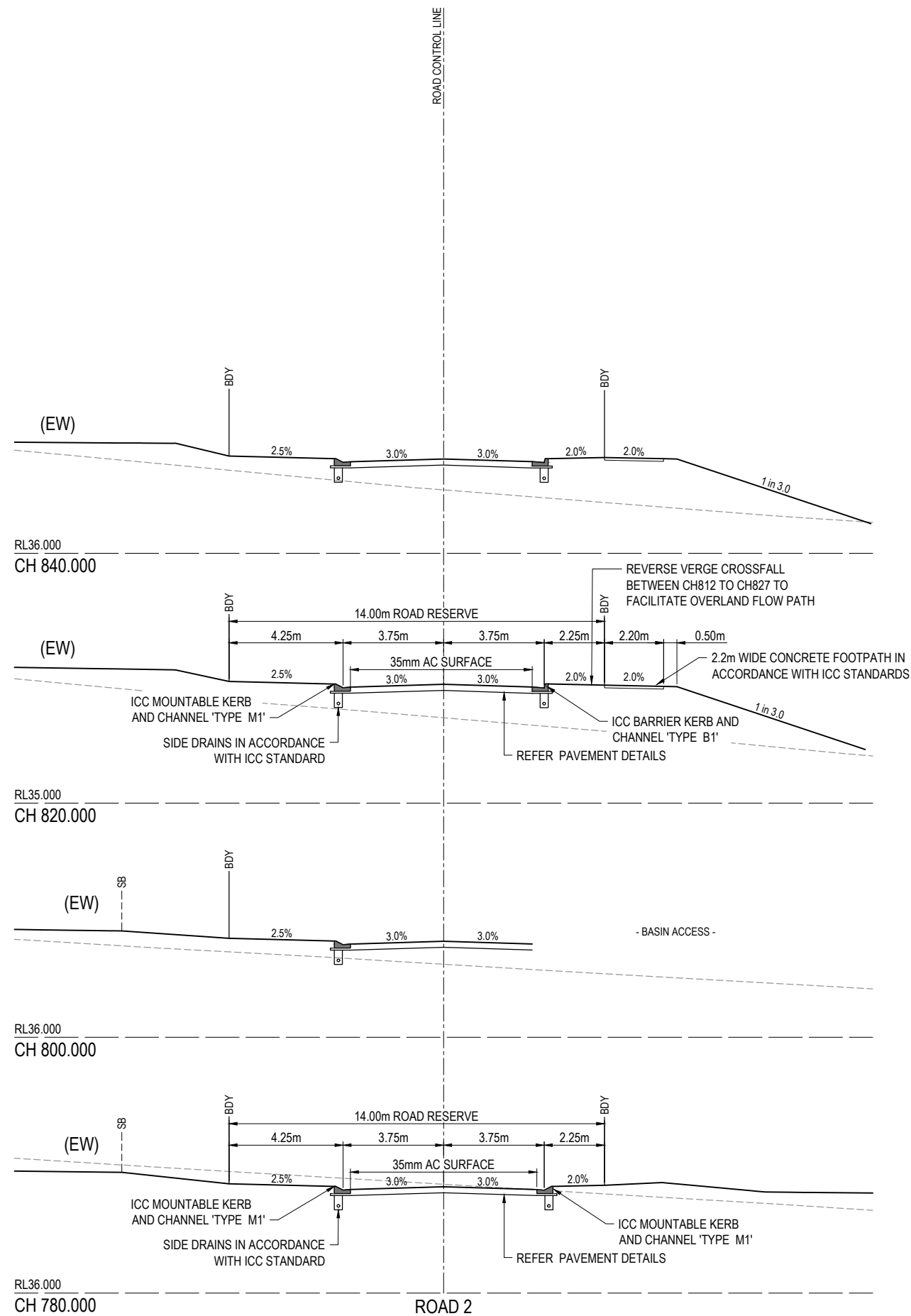
PROJECT NAME
HAYFIELD STAGE 8A

352 RIPLEY ROAD, RIPLEY QLD

DRAWING TITLE
ROAD 2 CROSS SECTIONS SHEET 1 OF 2

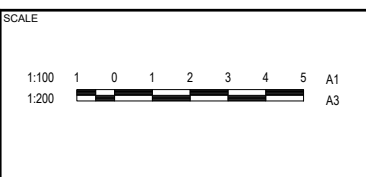
PROJECT No. **21-0025**
 DRAWING No. **107**
 REVISION **B**

(EW) REFER TO BULK EARTHWORKS DRAWING FOR LOT GRADING AND FINISHED SURFACE LEVELS



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
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DRAWN	STATUS
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DESIGN	APPROVED
DB	DAN COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIERS ENGINEERING & DESIGN	



CLIENT

RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT

PROJECT NAME

HAYFIELD STAGE 8A

352 RIPLEY ROAD, RIPLEY QLD

DRAWING TITLE

ROAD 2 CROSS SECTIONS SHEET 2 OF 2

PROJECT No. 21-0025

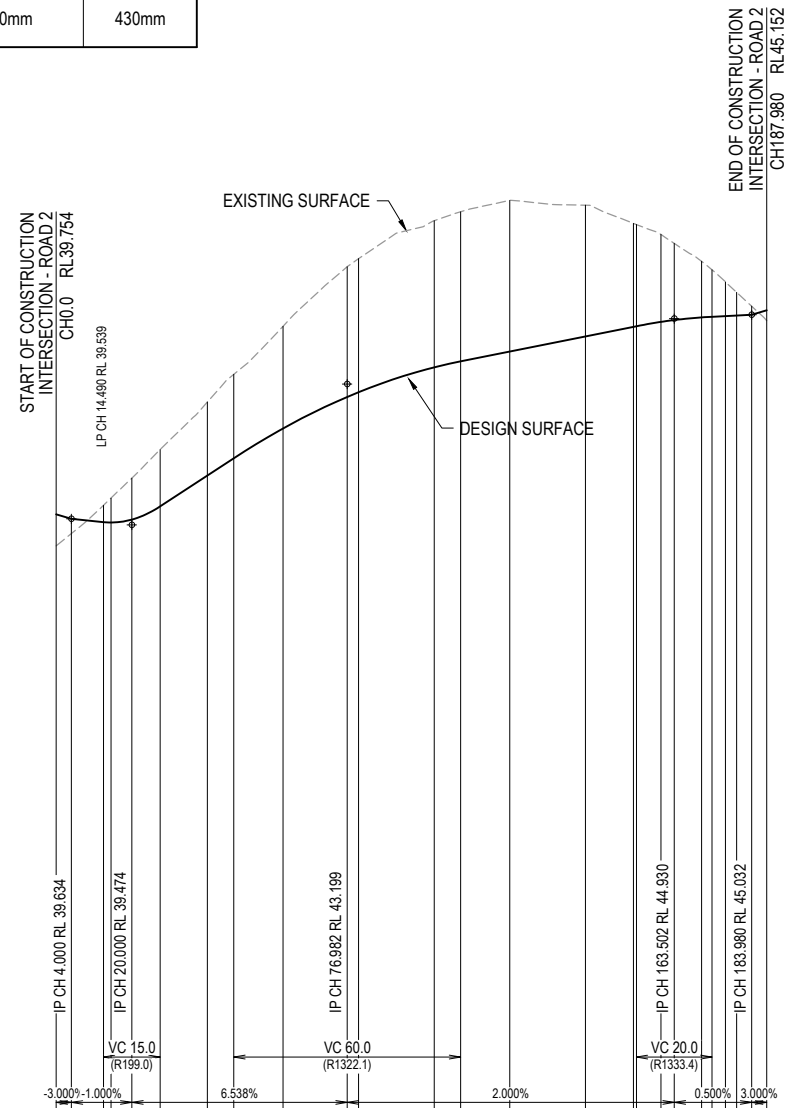
DRAWING No. 108

REVISION B

ASSUMED PAVEMENT DETAILS (SUBJECT TO CBR TESTING)

ROAD	ROAD CLASSIFICATION	DESIGN ESAs	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH
ROAD 6	ACCESS STREET	1.0 x 10 ⁵	3	35mm	125mm	100mm	170mm	430mm

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



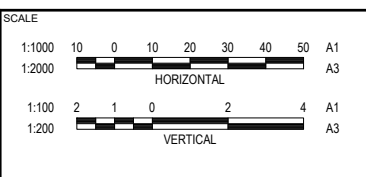
DATUM RL 23.0	
CUT (-) / FILL	0.832 0.388 -0.445 -0.645 -1.096 -1.504 -1.943 -2.219 -2.702 -3.443 -3.533 -3.879 -3.956 -3.996 -3.471 -2.736 -2.689 -2.313 -2.027 -1.483 -1.244 -0.905 -0.615 -0.228 0.274
LHS LIP LEVEL	#
RHS LIP LEVEL	#
DESIGN SURFACE	39.754 39.634 39.549 39.434 39.511 39.615 39.860 40.677 41.134 41.921 42.755 42.880 43.537 43.695 43.955 44.355 44.610 44.625 44.740 44.788 44.859 44.980 45.012 45.032 45.152
EXISTING SURFACE	38.922 39.245 39.993 40.784 40.711 41.468 42.724 43.457 44.727 46.302 46.518 47.520 47.755 48.056 47.931 47.450 47.419 47.157 46.919 46.446 46.224 45.902 45.627 45.261 44.878
CHAINAGES	0.000 4.000 12.500 14.490 20.000 27.500 40.000 46.982 60.000 76.982 80.000 100.000 106.982 120.000 140.000 152.730 153.502 160.000 163.502 170.736 173.502 177.067 180.000 183.980 187.980
HORIZONTAL CURVES	R99.750 R-13.750

REFER INTERSECTION DRAWINGS FOR LIP LEVELS

ROAD 6

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
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RIPLEY PROJECTS PTY LTD

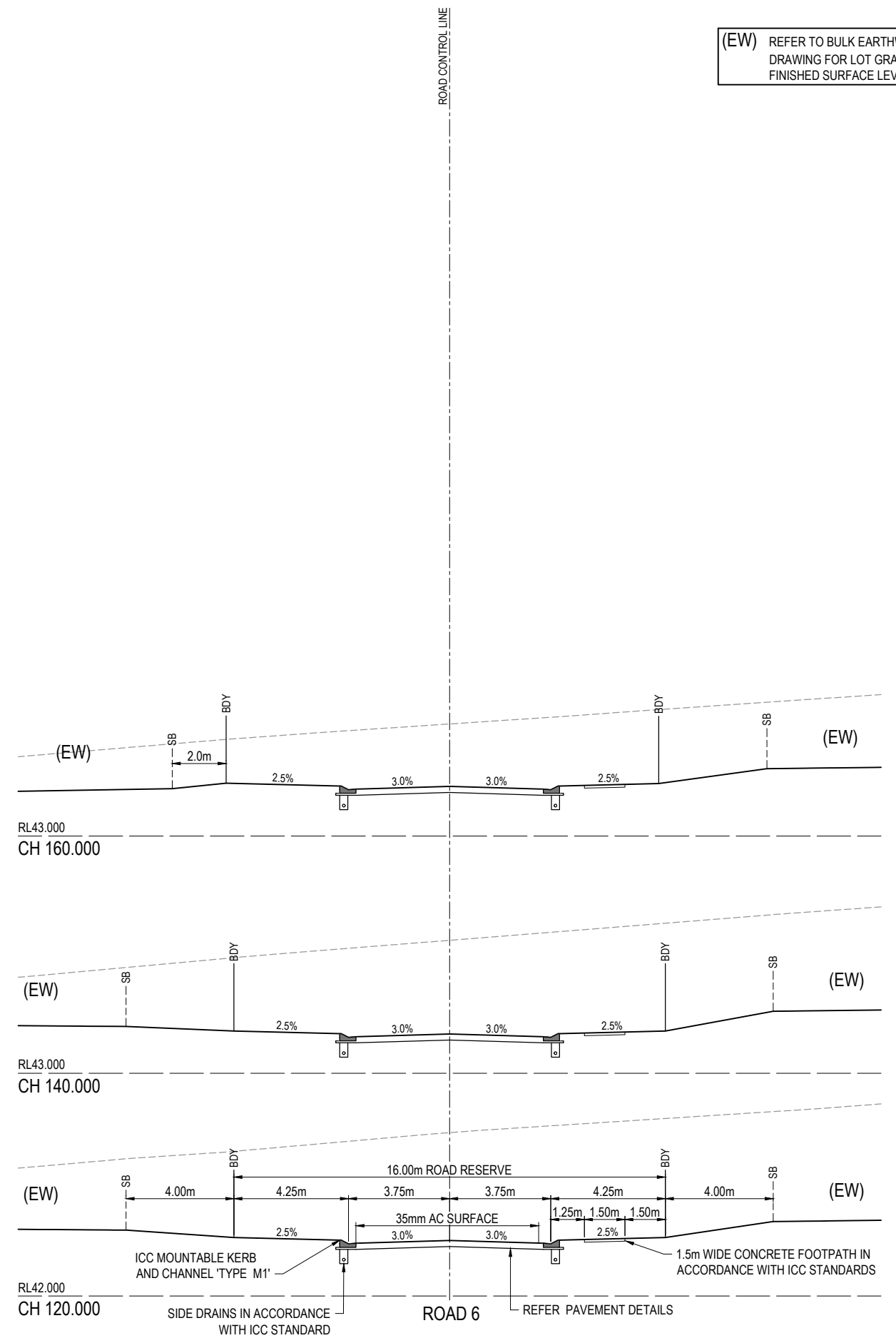
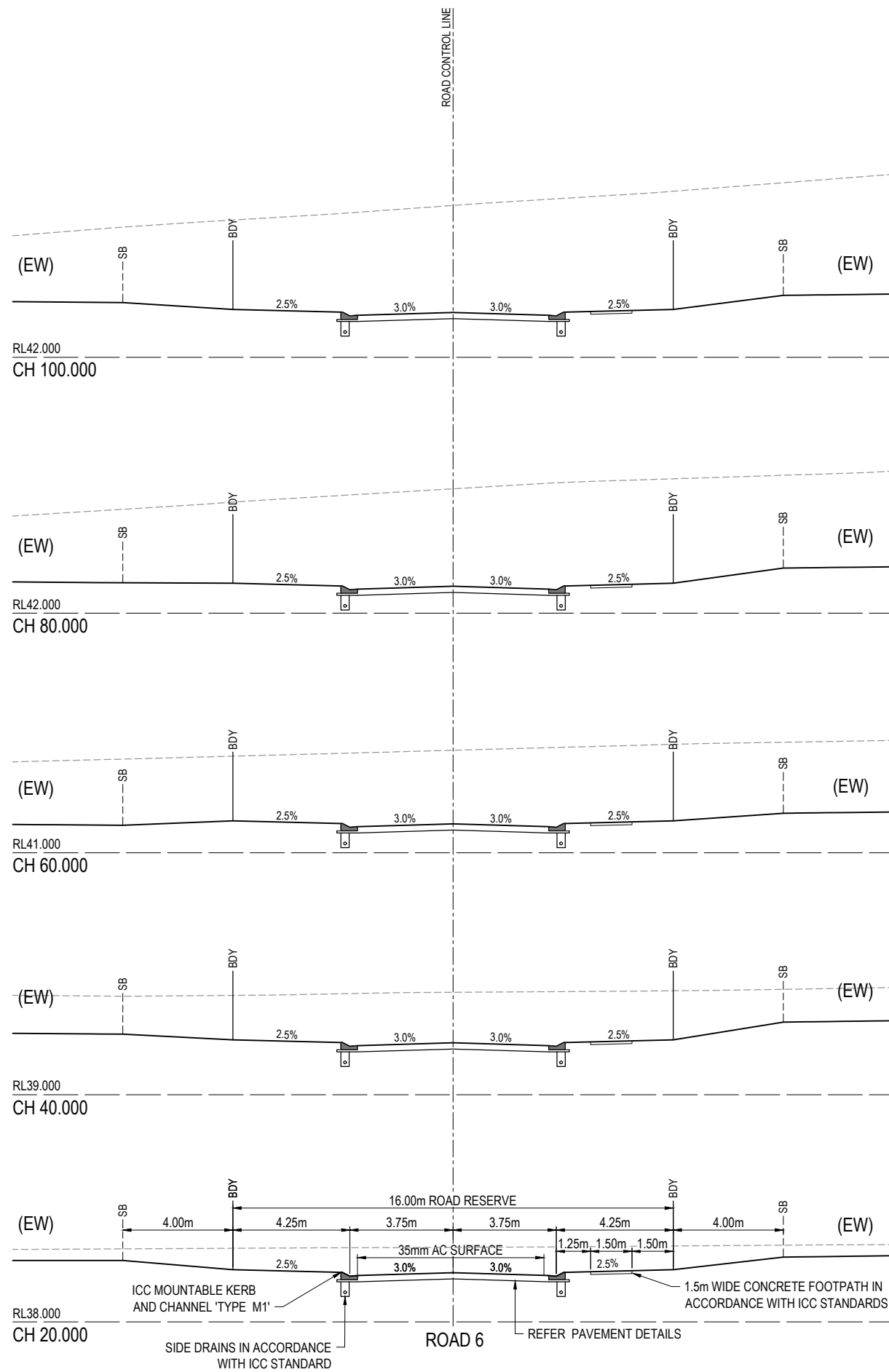
ASSOCIATED CONSULTANT

PROJECT NAME
HAYFIELD STAGE 8A

352 RIPLEY ROAD, RIPLEY QLD

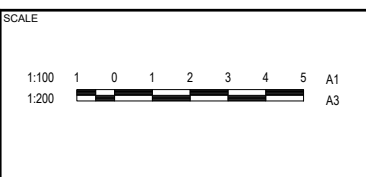
DRAWING TITLE		
ROAD 6 LONGITUDINAL SECTION		
PROJECT No.	DRAWING No.	REVISION
21-0025	109	B

(EW) REFER TO BULK EARTHWORKS DRAWING FOR LOT GRADING AND FINISHED SURFACE LEVELS



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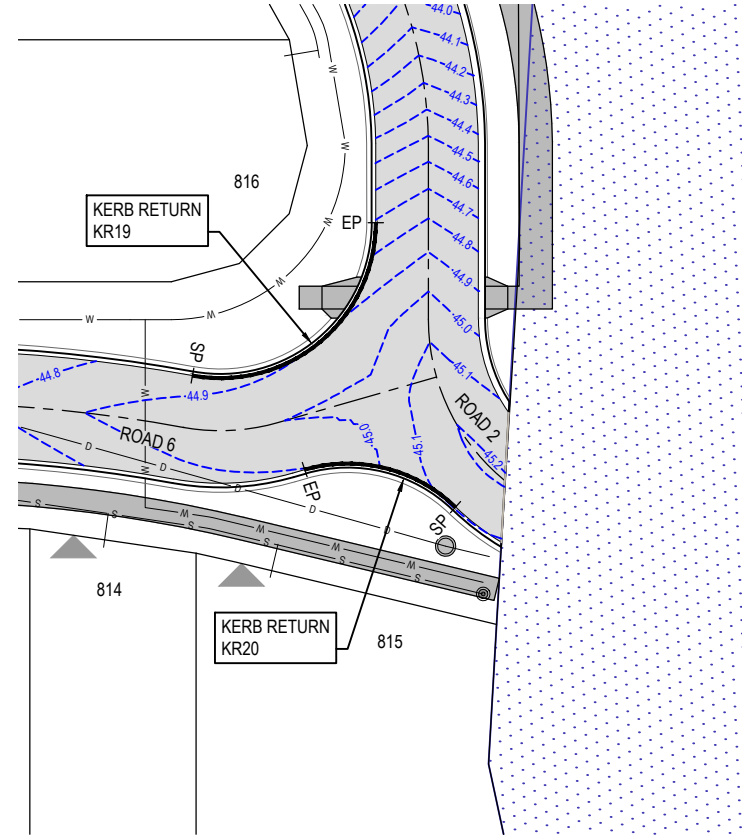
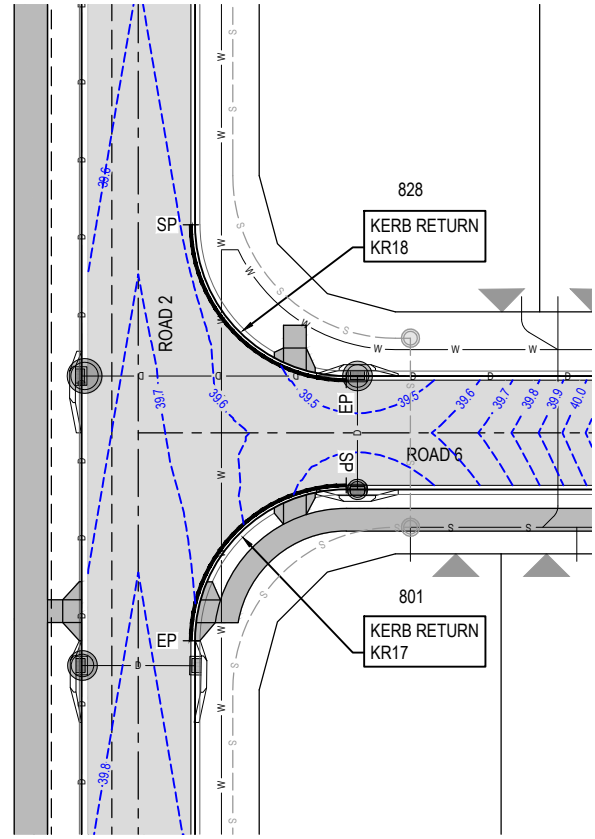
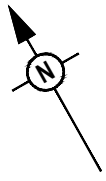
CLIENT
RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT

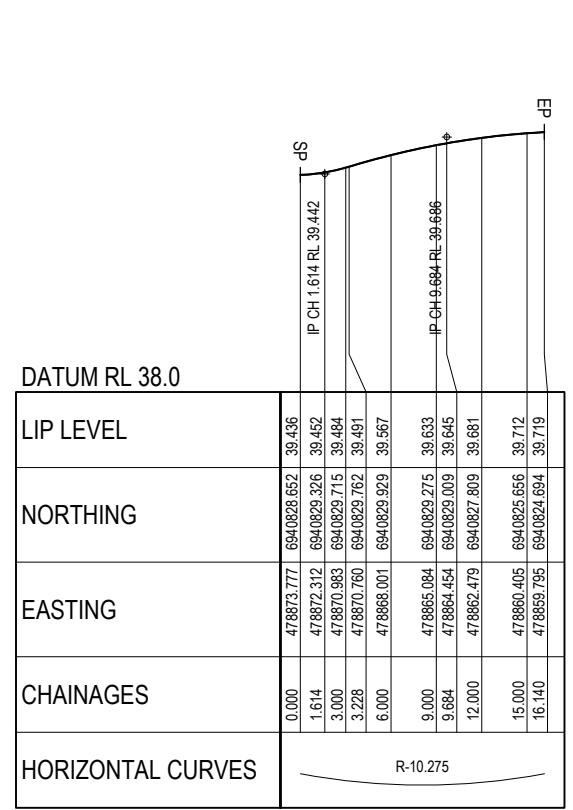
PROJECT NAME
HAYFIELD STAGE 8A

352 RIPLEY ROAD, RIPLEY QLD

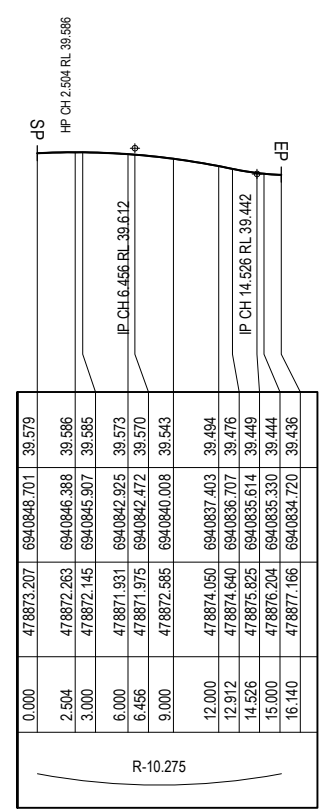
DRAWING TITLE		
ROAD 6 CROSS SECTIONS		
PROJECT No.	DRAWING No.	REVISION
21-0025	110	B



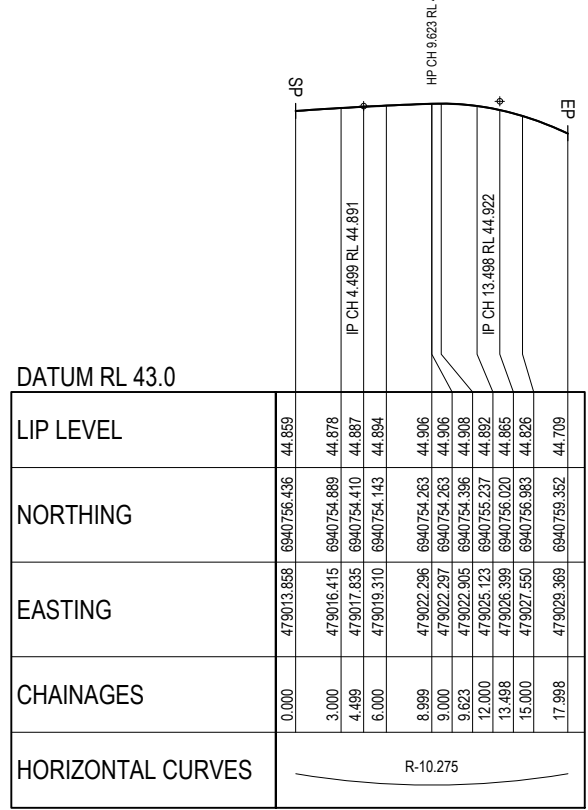
LEGEND	
	PROPOSED ROAD CONTROL LINE
	PROPOSED KERB INVERT LINE
	PROPOSED CONCRETE PATH AND PRAM RAMP
	PROPOSED NEW ROAD PAVEMENT
	PROPOSED NEW ROAD PAVEMENT WITHIN FELSPAR
	INDICATIVE DRIVEWAY LOCATION
	PROPOSED PAVEMENT CONTOUR (0.2m INTERVAL)
	PROPOSED KERB SETOUT LINE
	PROPOSED KERB SETOUT START POINT
	PROPOSED KERB SETOUT TANGENT POINT
	PROPOSED KERB SETOUT END POINT
	PROPOSED SLEEPER RETAINING WALL
	PROPOSED STORMWATER DRAINAGE PIPE
	EXISTING STORMWATER DRAINAGE PIPE
	PROPOSED SEWERAGE MAIN
	EXISTING SEWERAGE MAIN
	PROPOSED WATER MAIN
	EXISTING WATER MAIN
	PROPOSED WATER CONDUIT



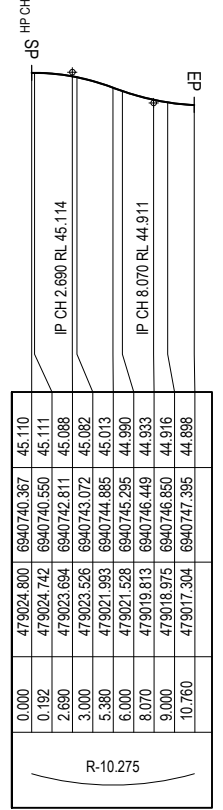
KR17



KR18



KR19



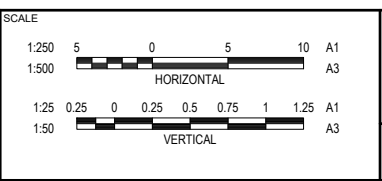
KR20

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

FAULT ZONE PAVEMENT NOTE:
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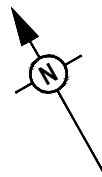
DRAWN	STATUS
KH	ISSUED FOR CONSTRUCTION
DESIGN	APPROVED
DB	DAN COLLINS RPEQ 18631



CLIENT
RIPLEY PROJECTS PTY LTD
ASSOCIATED CONSULTANT

PROJECT NAME
HAYFIELD STAGE 8A
352 RIPLEY ROAD, RIPLEY QLD

DRAWING TITLE		
INTERSECTION DETAILS LAYOUT PLAN		
PROJECT No.	DRAWING No.	REVISION
21-0025	111	B



INSTALL BASIN WARNING SIGNAGE



WHITE BI-DIRECTIONAL RRPMS (12.0m NOMINAL SPACING) IN ACCORDANCE WITH MUTCD

WHITE BI-DIRECTIONAL RRPMS (12.0m NOMINAL SPACING) IN ACCORDANCE WITH MUTCD

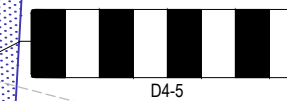
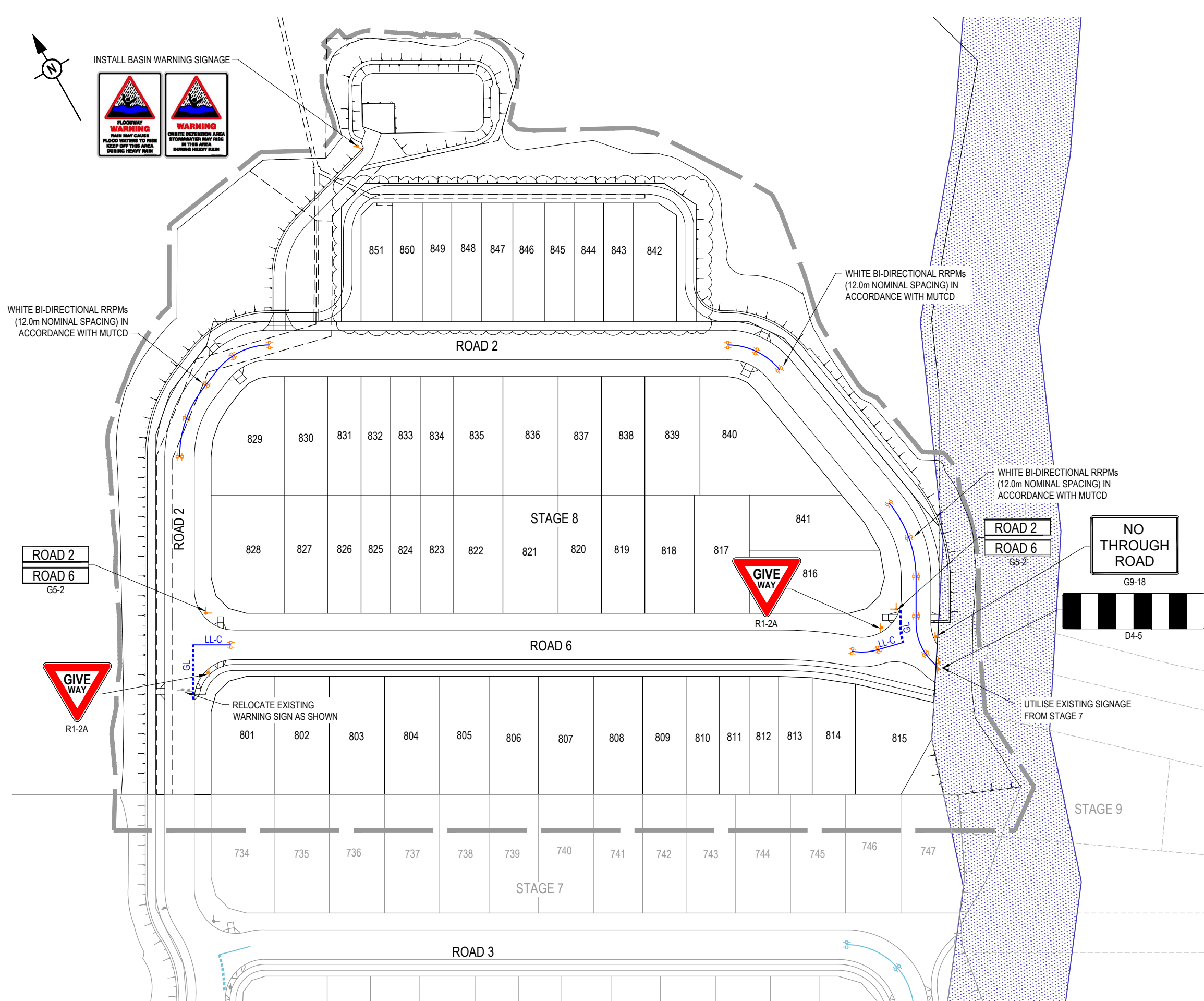
WHITE BI-DIRECTIONAL RRPMS (12.0m NOMINAL SPACING) IN ACCORDANCE WITH MUTCD

LEGEND

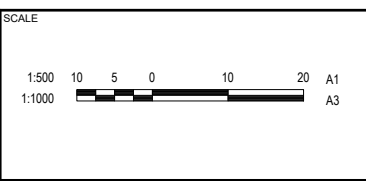
- PROPOSED AREA OF WORKS
- PROPOSED STREET NAME SIGN
- PROPOSED ROAD SIGN
- EXISTING STREET NAME SIGN
- EXISTING ROAD SIGN
- PROPOSED GIVE WAY LINE
- PROPOSED LANE LINE - CONTINUOUS
- EXISTING LINEMARKING

NOTES:

1. ALL EXISTING SIGNAGE AND LINEMARKING TO REMAIN UNO.
2. ALL SIGNS AND LINEMARKING SHALL BE IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND IPSWICH CITY COUNCIL STANDARDS.
3. CONTRACTOR TO ENSURE SIGN LOCATIONS ARE CLEAR OF FUTURE DRIVEWAY LOCATIONS - LOCATE ON PB OR MID BLOCK.



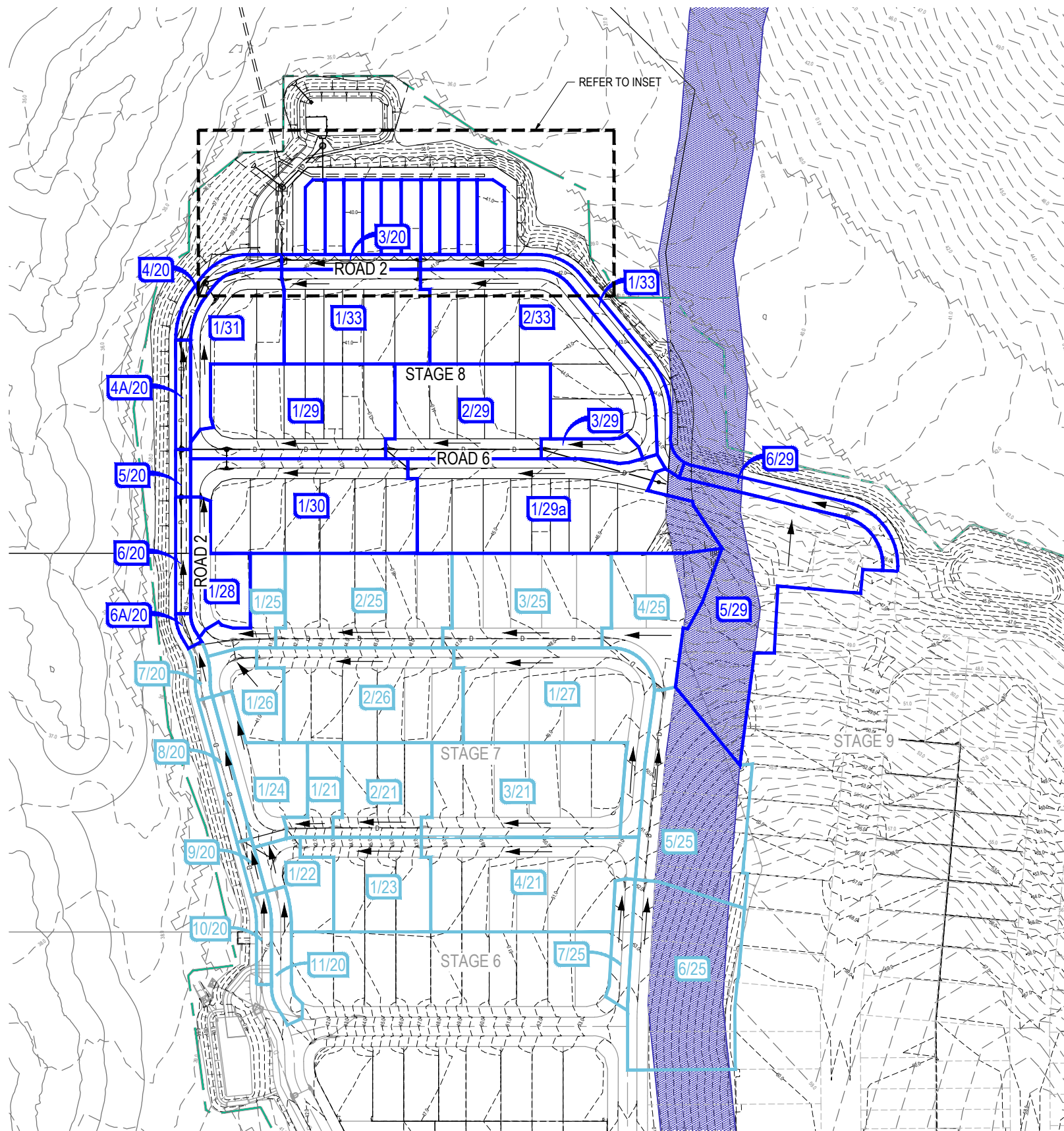
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B	14.03.23	KH	DH	REVISED ISSUE - LOTS 842-851 ADDED	DB	APPROVED DAN COLLINS RPEQ 18631			352 RIPLEY ROAD, RIPLEY QLD	PROJECT No. 21-0025 DRAWING No. 112 REVISION B



RIPLEY PROJECTS PTY LTD
ASSOCIATED CONSULTANT

HAYFIELD STAGE 8A
352 RIPLEY ROAD, RIPLEY QLD

SIGNS AND LINEMARKING LAYOUT PLAN
PROJECT No. 21-0025
DRAWING No. 112
REVISION B

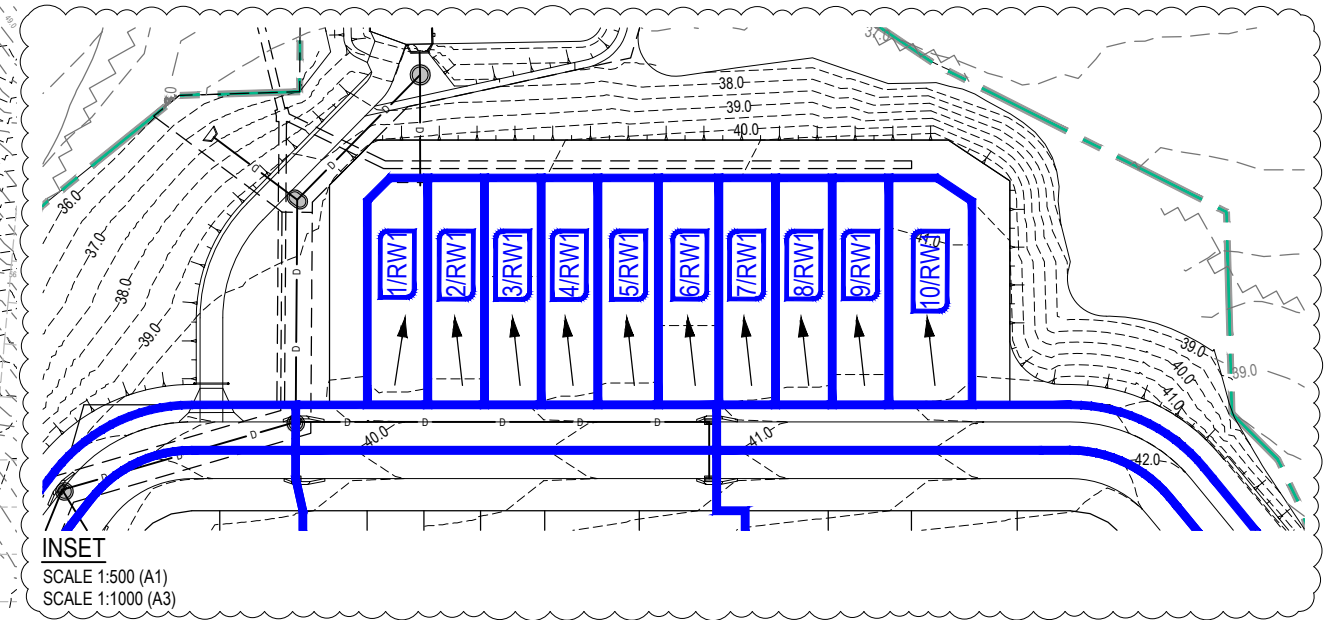


LEGEND

1	CATCHMENT NAME
	CATCHMENT BOUNDARY
	EXISTING CATCHMENT BOUNDARY
	PROPOSED STORMWATER DRAINAGE PIPE
	EXISTING STORMWATER DRAINAGE PIPE
 -24.0-	FINISHED SURFACE CONTOUR
	CATCHMENT FLOW DIRECTION ARROW

CATCHMENT AREAS

CATCHMENT	AREA (ha)	CATCHMENT	AREA (ha)
3/20	0.0334	7/20	0.0132
4/20	0.0349	8/20	0.0355
4A/20	0.0264	9/20	0.0133
5/20	0.0115	10/20	0.0220
6/20	0.0281	11/20	0.0444
6A/20	0.0082	1/21	0.0573
1/28	0.0895	2/21	0.1364
1/29	0.2876	3/21	0.2950
2/29	0.2375	4/21	0.2982
3/29	0.0340	1/22	0.0794
5/29	0.4162	1/23	0.1559
6/29	0.3886	1/24	0.1185
1/29a	0.4102	1/25	0.0690
1/30	0.3251	2/25	0.2546
1/31	0.1487	3/25	0.2432
1/32	0.2199	4/25	0.1358
1/33	0.0934	5/25	0.2626
2/33	0.3818	6/25	0.3121
1/RW1	0.024	7/25	0.0400
2/RW1	0.023	1/26	0.0794
3/RW1	0.023	2/26	0.2793
4/RW1	0.023	1/27	0.3162
5/RW1	0.024		
6/RW1	0.024		
7/RW1	0.023		
8/RW1	0.023		
9/RW1	0.023		
10/RW1	0.032		



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DB	DAN COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIER'S ENGINEERING & DESIGN



SCALE

1:250	0 5 10	A1
1:500	0 5 10 15 20	A3
1:1000	0 10 20 30 40 50	A1
1:2000	0 10 20 30 40 50	A3

CLIENT

RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT

PROJECT NAME

HAYFIELD
STAGE 8A

352 RIPLEY ROAD, RIPLEY QLD

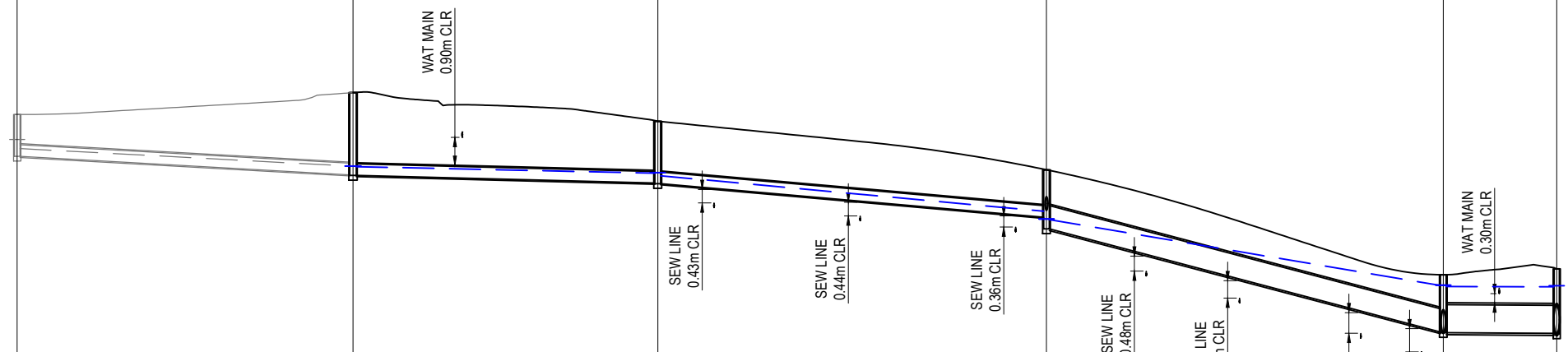
DRAWING TITLE

STORMWATER DRAINAGE
CATCHMENT LAYOUT PLAN

PROJECT No.	DRAWING No.	REVISION
21-0025	113	B

STRUCTURE NAME	G5/29	4/29	G3/29	G2/29	G1/29	G5/20	G1/29a	G2/29	G1/30	G1/29
STRUCTURE DESCRIPTION	STD TYPE A GULLY (SAG) LIL: 2.4m LINTEL; TYPE S	STD MANHOLE 1050mm DIA	STD TYPE A GULLY LIL: 2.4m LINTEL; TYPE S ON A 10500 MANHOLE	STD TYPE A GULLY LIL: 2.4m LINTEL; TYPE S ON A 12000 MANHOLE REFER DETAIL	STD TYPE A GULLY (SAG) LIL: 2.4m LINTEL; TYPE S ON A 15000 MANHOLE	STD TYPE A GULLY LIL: 2.4m LINTEL; TYPE S ON A 18000 MANHOLE	STD TYPE A GULLY LIL: 2.4m LINTEL; TYPE S ON A 15000 MANHOLE	STD TYPE A GULLY LIL: 2.4m LINTEL; TYPE S ON A 12000 MANHOLE REFER DETAIL	STD TYPE A GULLY (SAG) LIL: 2.4m LINTEL; TYPE S ON A 10500 MANHOLE	STD TYPE A GULLY (SAG) LIL: 2.4m LINTEL; TYPE S ON A 15000 MANHOLE
PIPE SIZE (mm)	375	375	375	375	750	825	375	375	675	675
PIPE CLASS	3	3	3	3	3	3	3	3	3	3
PIPE GRADE (%)	1.10%	0.50%	1.69%	5.20%	0.12%	2.70%	1.00%	36.99	100.00	1.00%
PIPE SLOPE (1 in X)	90.91	200.00	59.19	19.23	833.33	0.56	1.39	2.07	1.39	1.39
FULL PIPE VELOCITY (m/s)	0.73	0.72	0.76	0.40	0.54	0.56	0.18	0.56	0.18	0.18
PART FULL VELOCITY (m/s)	1.61	1.19	1.91	3.30	0.96	2.07	1.39	2.07	1.39	1.39
DATUM RL	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0	29.0
H.G.L IN PIPE & W.S.E IN STRUCTURE	43.570 43.574 43.425	42.831 42.832 42.822	42.593 42.601 42.550	41.440 41.172 41.160	38.758 38.765 38.731	38.724 38.757 38.552	42.163 42.010 41.632 41.172 41.160	38.773 38.758 38.765 38.731	38.773 38.758 38.765 38.731	38.773 38.758 38.765 38.731
PIPE FLOW (Cumecs)	0.081	0.080	0.084	0.176	0.288	0.061	0.065	0.061	0.065	0.065
DEPTH TO INVERT	1.327 1.347	2.644 2.664	1.988 2.008	1.503 1.878	1.820 1.840	2.051 2.071	1.298 1.271 1.878	1.745 1.820 1.840	1.745 1.820 1.840	1.745 1.820 1.840
INVERT LEVEL OF DRAIN	43.237 43.217	42.623 42.603	42.358 42.338	41.282 40.907	37.589 37.569	37.547 37.527	41.830 41.514 40.907	37.664 37.589 37.569	37.664 37.589 37.569	37.664 37.589 37.569
DESIGN SURFACE LEVEL	44.564	45.267	44.346	42.785	39.409	39.588	43.128 42.785	39.409	39.409	39.409
SETOUT COORDINATES	E 479062.700 N 6940701.863	E 479022.964 N 6940738.439	E 478988.210 N 6940773.000	E 478933.647 N 6940803.482	E 478877.946 N 6940834.599	E 478862.023 N 6940843.495	E 478937.804 N 6940792.568 E 478933.647 N 6940803.482	E 478874.289 N 6940828.052	E 478877.946 N 6940834.599	E 478877.946 N 6940834.599
RUNNING CHAINAGE	-161.074	54.007	-107.067	49.013	-58.054	62.500	4.446	63.804	68.250	18.240
LINE				29				29a		30

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 PEAK URBAN STD DRAWINGS S-101 & S-102.
 RECTANGULAR STRUCTURE (SPECIAL):
 SHALL BE STRUCTURALLY DESIGNED (CERTIFIED) AND CONSTRUCTED BY CONTRACTOR ON A CASE BY CASE BASIS.

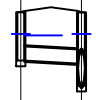


<table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>DESIGN</th> <th>DRAWN</th> <th>REVISION DETAILS</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>28.10.22</td> <td>KH</td> <td>KH</td> <td>ISSUED FOR CONSTRUCTION</td> </tr> <tr> <td>B</td> <td>29.11.22</td> <td>KH</td> <td>KH</td> <td>STRUCTURE G1/29a UPDATED</td> </tr> <tr> <td>C</td> <td>14.03.23</td> <td>KH</td> <td>DH</td> <td>REVISED ISSUE</td> </tr> </tbody> </table>	REV	DATE	DESIGN	DRAWN	REVISION DETAILS	A	28.10.22	KH	KH	ISSUED FOR CONSTRUCTION	B	29.11.22	KH	KH	STRUCTURE G1/29a UPDATED	C	14.03.23	KH	DH	REVISED ISSUE	<table border="1"> <thead> <tr> <th>DRAWN</th> <th>STATUS</th> </tr> </thead> <tbody> <tr> <td>KH</td> <td>ISSUED FOR CONSTRUCTION</td> </tr> </tbody> </table>	DRAWN	STATUS	KH	ISSUED FOR CONSTRUCTION		<table border="1"> <thead> <tr> <th>SCALE</th> </tr> </thead> <tbody> <tr> <td>1:1000 1:2000</td> <td> </td> <td>A1 A3</td> </tr> <tr> <td>1:100 1:200</td> <td> </td> <td>A1 A3</td> </tr> </tbody> </table>	SCALE	1:1000 1:2000		A1 A3	1:100 1:200		A1 A3	<table border="1"> <thead> <tr> <th>CLIENT</th> </tr> </thead> <tbody> <tr> <td>RIPLEY PROJECTS PTY LTD</td> </tr> </tbody> </table>	CLIENT	RIPLEY PROJECTS PTY LTD	<table border="1"> <thead> <tr> <th>PROJECT NAME</th> </tr> </thead> <tbody> <tr> <td>HAYFIELD STAGE 8A</td> </tr> </tbody> </table>	PROJECT NAME	HAYFIELD STAGE 8A	<table border="1"> <thead> <tr> <th>DRAWING TITLE</th> </tr> </thead> <tbody> <tr> <td>STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2 OF 3</td> </tr> </tbody> </table>	DRAWING TITLE	STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2 OF 3
REV	DATE	DESIGN	DRAWN	REVISION DETAILS																																							
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352 RIPLEY ROAD, RIPLEY QLD																																											

STRUCTURE NAME	G1/31	G4/20
STRUCTURE DESCRIPTION	STD TYPE A GULLY (SAG) LIL: 2.4m LINTEL; TYPE S	STD TYPE A GULLY (SAG) LIL: 2.4m LINTEL; TYPE S ON A 1800Ø MANHOLE REFER DETAIL

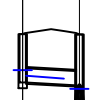
STORMWATER STRUCTURE NOTE:
 STANDARD ROUND MANHOLES LESS THAN 3.0m DEEP:
 CONSTRUCT IN ACCORDANCE WITH THE LOCAL AUTHORITY STANDARDS.
 STANDARD ROUND MANHOLES 3.0m > 5.3m DEEP:
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 STANDARD ROUND MANHOLES GREATER THAN 5.3m DEEP:
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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

PIPE SIZE (mm)	375
PIPE CLASS	3
PIPE GRADE (%)	1.00%
PIPE SLOPE (1 in X)	100.00
FULL PIPE VELOCITY (m/s)	0.28
PART FULL VELOCITY (m/s)	1.20
DATUM RL	25.0
H.G.L IN PIPE & W.S.E IN STRUCTURE	38.284 38.244 38.245 38.257 38.122
PIPE FLOW (Cumecs)	0.031
DEPTH TO INVERT	1.281 1.358 1.942
INVERT LEVEL OF DRAIN	38.014 37.934 37.349
DESIGN SURFACE LEVEL	39.295
SETOUT COORDINATES	E 478903.284 N 6940889.366 E 478902.970 N 6940897.387
RUNNING CHAINAGE	0.000 8.027 8.027



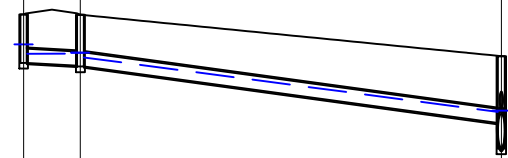
STRUCTURE NAME	G1/32	G3/20
STRUCTURE DESCRIPTION	STD TYPE A GULLY LIL: 2.4m LINTEL; TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL; TYPE S ON A 1800Ø MANHOLE REFER DETAIL

PIPE SIZE (mm)	375
PIPE CLASS	3
PIPE GRADE (%)	1.00%
PIPE SLOPE (1 in X)	100.00
FULL PIPE VELOCITY (m/s)	0.35
PART FULL VELOCITY (m/s)	1.28
DATUM RL	26.0
H.G.L IN PIPE & W.S.E IN STRUCTURE	38.639 38.577 38.480 38.114 37.929
PIPE FLOW (Cumecs)	0.039
DEPTH TO INVERT	1.281 1.356 2.450
INVERT LEVEL OF DRAIN	38.435 38.360 37.265
DESIGN SURFACE LEVEL	39.716
SETOUT COORDINATES	E 478930.655 N 6940883.618 E 478934.313 N 6940890.165
RUNNING CHAINAGE	0.000 7.500 7.500



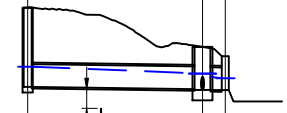
STRUCTURE NAME	G2/33	G1/33	G3/20
STRUCTURE DESCRIPTION	STD TYPE A GULLY LIL: 2.4m LINTEL; TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL; TYPE S	STD TYPE A GULLY LIL: 2.4m LINTEL; TYPE S ON A 1800Ø MANHOLE REFER DETAIL

PIPE SIZE (mm)	375	375
PIPE CLASS	3	3
PIPE GRADE (%)	1.00%	2.73%
PIPE SLOPE (1 in X)	100.00	36.63
FULL PIPE VELOCITY (m/s)	0.61	0.76
PART FULL VELOCITY (m/s)	1.49	2.26
DATUM RL	27.0	
H.G.L IN PIPE & W.S.E IN STRUCTURE	39.906 39.770 39.713 39.727 39.648	38.089 38.114 37.929
PIPE FLOW (Cumecs)	0.068	0.084
DEPTH TO INVERT	1.280 1.335 1.355	1.775 2.450
INVERT LEVEL OF DRAIN	39.531 39.456 39.436	37.940 37.265
DESIGN SURFACE LEVEL	40.791	
SETOUT COORDINATES	E 478978.404 N 6940866.943 E 478982.062 N 6940863.490	E 478934.313 N 6940890.165
RUNNING CHAINAGE	0.000 7.500 7.500	54.695 62.195



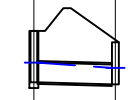
STRUCTURE NAME	2/20	1/34	OUT/34
STRUCTURE DESCRIPTION	STD MANHOLE 1500mm DIA 900mm EXT REFER DETAIL	STD MANHOLE 2100mm DIA	HEADWALL

PIPE SIZE (mm)	600	(2x)600
PIPE CLASS	3	3
PIPE GRADE (%)	0.26%	0.20%
PIPE SLOPE (1 in X)	390.00	500.08
FULL PIPE VELOCITY (m/s)	1.45	0.83
PART FULL VELOCITY (m/s)	1.45	1.09
DATUM RL	25.0	
H.G.L IN PIPE & W.S.E IN STRUCTURE	37.721 37.721 37.547 37.538 37.454	37.413 37.413 37.413 37.413 37.413
PIPE FLOW (Cumecs)	0.411	0.467
DEPTH TO INVERT	2.111 1.071 1.092	0.989 0.989
INVERT LEVEL OF DRAIN	37.186 37.127 37.106	37.100 37.100
DESIGN SURFACE LEVEL	39.298	
SETOUT COORDINATES	E 478948.839 N 6940915.703 E 478971.036 N 6940922.184	E 478972.460 N 6940924.842
RUNNING CHAINAGE	0.000 23.124 23.124 3.016 26.140	



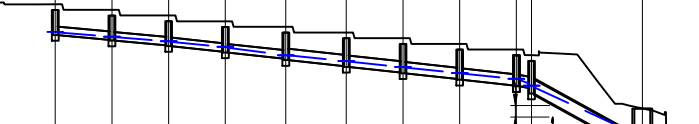
STRUCTURE NAME	IN/35	OUT/35
STRUCTURE DESCRIPTION	2 X STD FIELD INLET TYPE 1 900x800	HEADWALL

PIPE SIZE (mm)	2x525
PIPE CLASS	3
PIPE GRADE (%)	0.57%
PIPE SLOPE (1 in X)	175.44
FULL PIPE VELOCITY (m/s)	1.12
PART FULL VELOCITY (m/s)	1.56
DATUM RL	23.0
H.G.L IN PIPE & W.S.E IN STRUCTURE	35.792 35.792 35.718 35.718 35.718
PIPE FLOW (Cumecs)	0.484
DEPTH TO INVERT	1.361 0.825 0.825
INVERT LEVEL OF DRAIN	35.439 35.385 35.385
DESIGN SURFACE LEVEL	36.800
SETOUT COORDINATES	E 478975.554 N 6940939.734 E 478973.465 N 6940948.995
RUNNING CHAINAGE	0.000 9.944 10.782



STRUCTURE NAME	10/RW1	9/RW1	8/RW1	7/RW1	6/RW1	5/RW1	4/RW1	3/RW1	2/RW1	1/RW1	1/34
STRUCTURE DESCRIPTION	ROOFWATER INLET 600x600 GRATED INLET	ROOFWATER INLET 600x600 GRATED INLET	ROOFWATER INLET 600x600 GRATED INLET	ROOFWATER INLET 600x600 GRATED INLET	ROOFWATER INLET 600x600 GRATED INLET	ROOFWATER INLET 600x600 GRATED INLET	ROOFWATER INLET 600x600 GRATED INLET	ROOFWATER INLET 600x600 GRATED INLET	ROOFWATER INLET 600x600 GRATED INLET	ROOFWATER INLET 600x600 GRATED INLET	STD MANHOLE 2100mm DIA

PIPE SIZE (mm)	225	225	225	225	300	300	300	300	300	300	375
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	3
PIPE GRADE (%)	1.70%	1.66%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.50%	10.00%
PIPE SLOPE (1 in X)	58.84	60.41	50.00	50.00	50.00	50.00	50.00	50.00	50.00	40.00	10.00
FULL PIPE VELOCITY (m/s)	0.19	0.33	0.46	0.59	0.40	0.49	0.57	0.64	0.71	0.51	0.51
PART FULL VELOCITY (m/s)	1.02	1.17	1.38	1.48	1.53	1.62	1.68	1.74	1.94	3.22	3.22
DATUM RL	26.0									25.0	
H.G.L IN PIPE & W.S.E IN STRUCTURE	40.224 40.211 40.095 40.095 40.086	39.975 39.975 39.960 39.827 39.827	39.605 39.605 39.605 39.605 39.605	39.453 39.453 39.440 39.294 39.294	39.280 39.136 39.136 39.121 38.980	38.981 38.981 38.981 38.981 38.981	38.855 38.799 38.764 37.533 37.537	37.454			
PIPE FLOW (Cumecs)	0.008	0.013	0.018	0.024	0.028	0.035	0.040	0.045	0.050	0.056	
DEPTH TO INVERT	0.816 0.139 40.139	0.795 40.012 39.992	0.815 39.868 39.848	0.806 39.698 39.678	0.826 39.518 39.476	0.891 39.316 39.296	0.911 39.146 39.126	0.931 38.976 38.956	0.951 38.806 38.786	0.971 38.736 38.592	1.072 37.126 37.116
INVERT LEVEL OF DRAIN	40.139	40.012	39.868	39.698	39.476	39.316	39.146	38.976	38.806	38.736	37.126
DESIGN SURFACE LEVEL	40.955	40.807	40.657	40.503	40.357	40.207	40.057	39.907	39.757	39.607	38.198
SETOUT COORDINATES	E 479018.930 N 6940978.690 E 479012.382 N 6940882.348	E 479005.835 N 6940886.005 E 478999.287 N 6940889.663	E 478992.303 N 6940893.565 E 478985.319 N 6940897.466	E 478978.771 N 6940901.124 E 478972.224 N 6940904.782	E 478965.676 N 6940908.440 E 478963.906 N 6940909.372	E 478971.036 N 6940922.184					
RUNNING CHAINAGE	0.000 7.500 7.500 7.500	15.000 7.500 22.500 8.000	30.500 8.000 38.500 7.500	46.000 7.500 53.500 7.500	61.000 2.001 63.001 14.662	77.663					



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	28.10.22	KH	KH	ISSUED FOR CONSTRUCTION
B	29.11.22	KH	KH	STRUCTURES G1/33, G2/33 & OUT/35 UPDATED
C	14.03.23	KH	DH	REVISED ISSUE - LINE RW1

DRAWN	STATUS
KH	ISSUED FOR CONSTRUCTION
DESIGN	APPROVED
DB	DAN COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIERS ENGINEERING & DESIGN	

Colliers

SCALE

1:1000 10 0 10 20 30 40 50 A1
1:2000 HORIZONTAL A3

1:100 2 1 0 2 4 A1
1:200 VERTICAL A3

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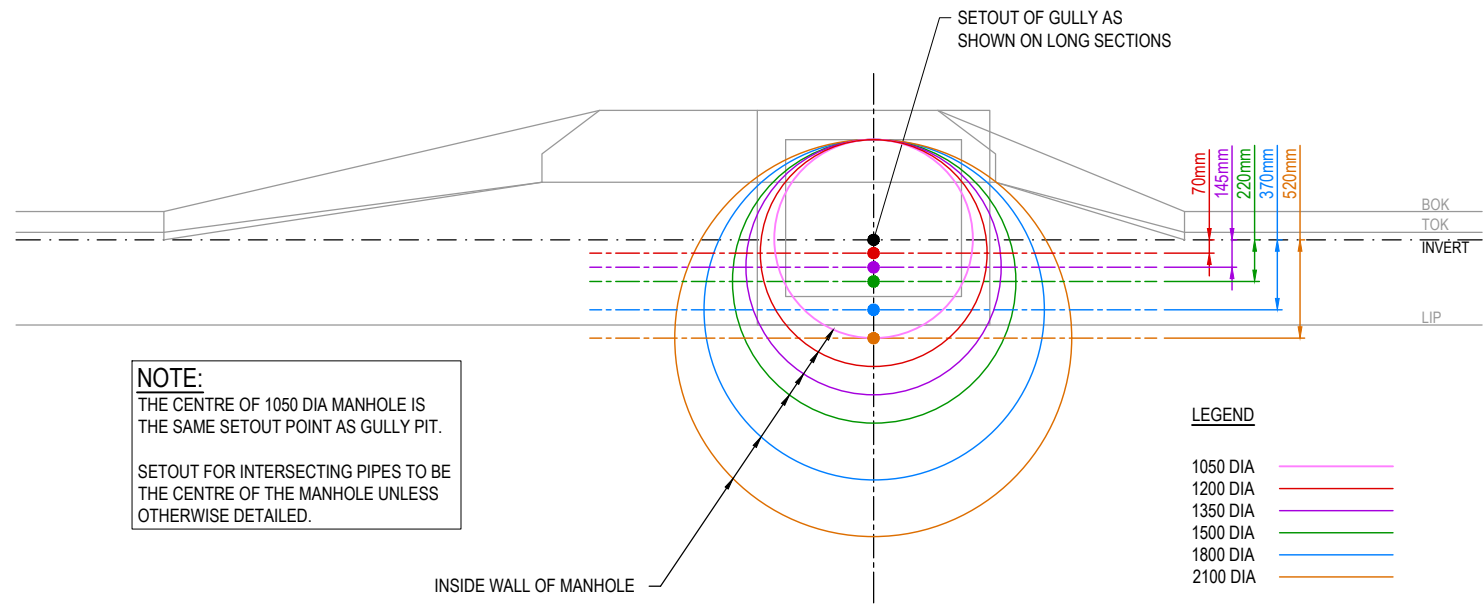
ASSOCIATED CONSULTANT

PROJECT NAME
HAYFIELD STAGE 8A

352 RIPLEY ROAD, RIPLEY QLD

DRAWING TITLE
STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 3 OF 3

PROJECT No. **21-0025** DRAWING No. **116** REVISION **C**



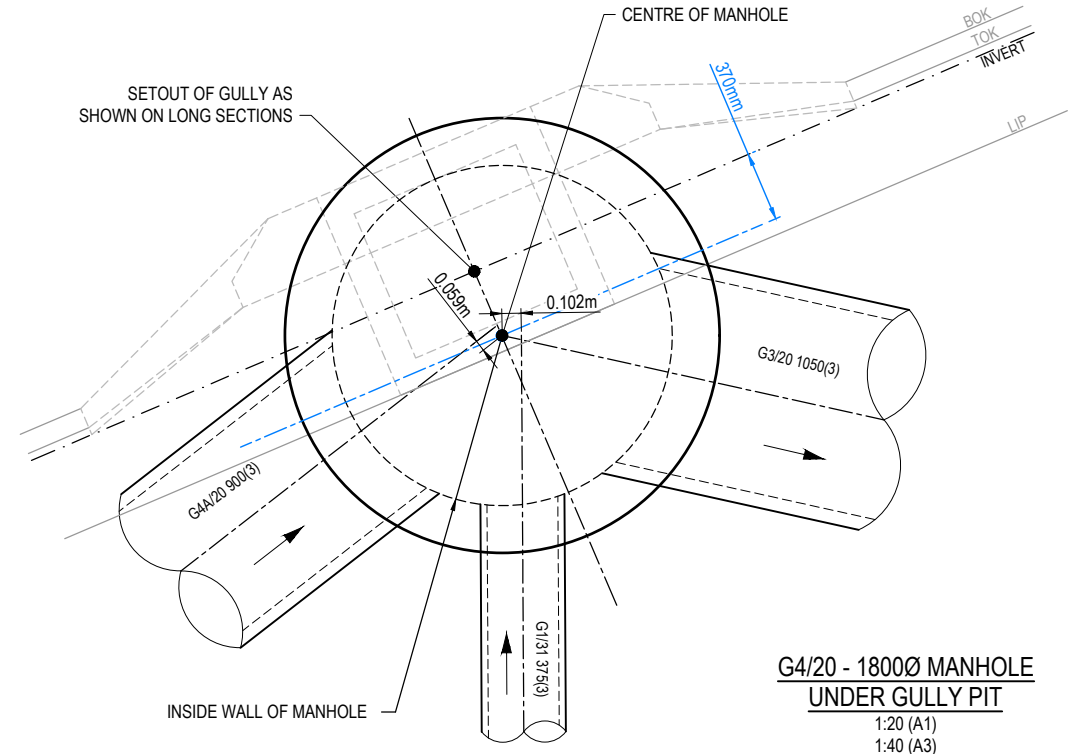
NOTE:
THE CENTRE OF 1050 DIA MANHOLE IS THE SAME SETOUT POINT AS GULLY PIT.

SETOUT FOR INTERSECTING PIPES TO BE THE CENTRE OF THE MANHOLE UNLESS OTHERWISE DETAILED.

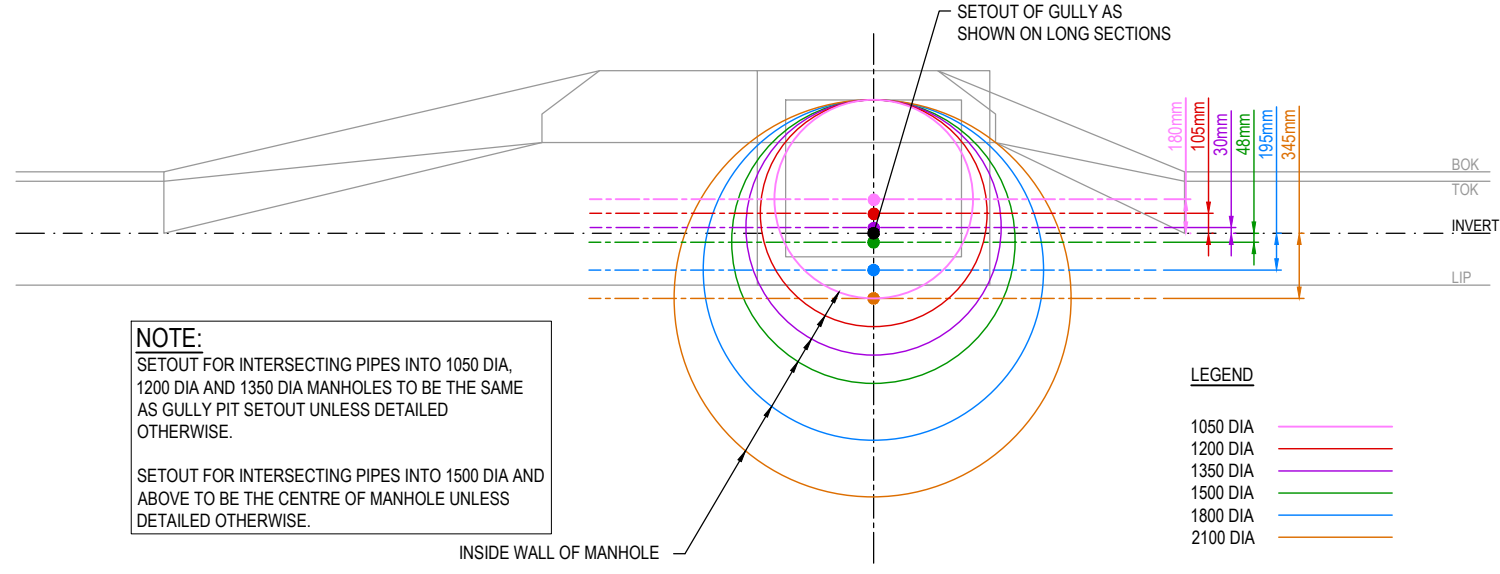
LEGEND

1050 DIA	—
1200 DIA	—
1350 DIA	—
1500 DIA	—
1800 DIA	—
2100 DIA	—

TYPICAL MANHOLE UNDER GULLY SETOUT - BARRIER K&C - STANDARD TYPE A GULLY
1:20 (A1)
1:40 (A3)



G4/20 - 1800Ø MANHOLE UNDER GULLY PIT
1:20 (A1)
1:40 (A3)



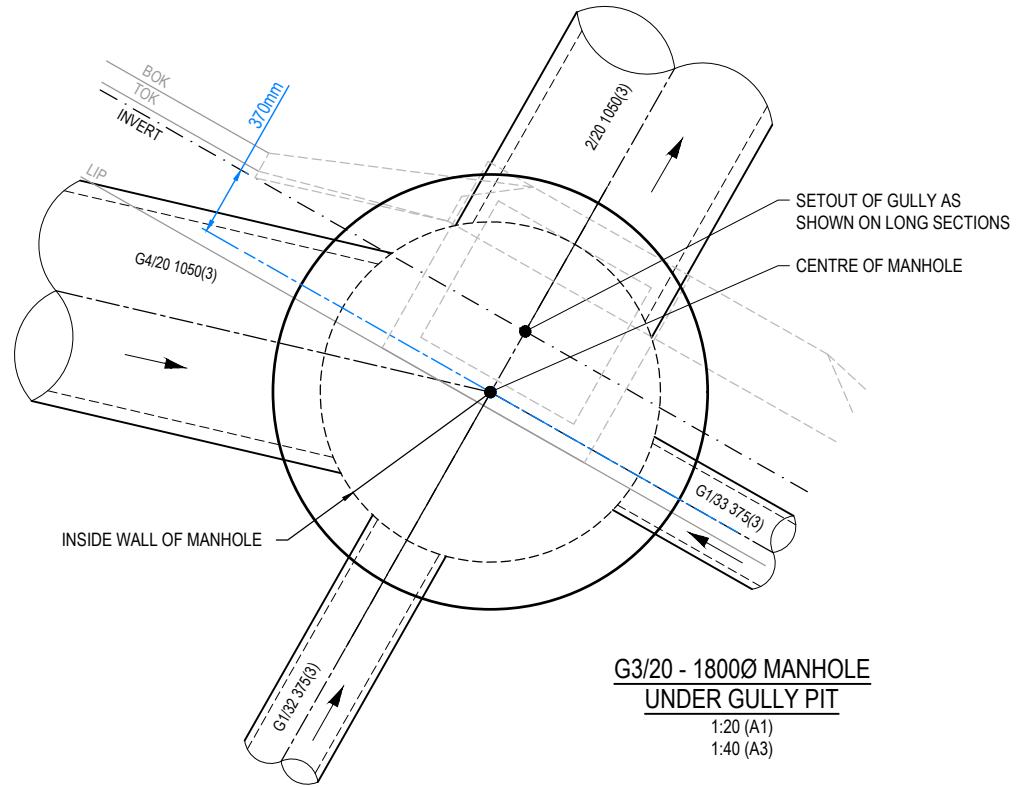
NOTE:
SETOUT FOR INTERSECTING PIPES INTO 1050 DIA, 1200 DIA AND 1350 DIA MANHOLES TO BE THE SAME AS GULLY PIT SETOUT UNLESS DETAILED OTHERWISE.

SETOUT FOR INTERSECTING PIPES INTO 1500 DIA AND ABOVE TO BE THE CENTRE OF MANHOLE UNLESS DETAILED OTHERWISE.

LEGEND

1050 DIA	—
1200 DIA	—
1350 DIA	—
1500 DIA	—
1800 DIA	—
2100 DIA	—

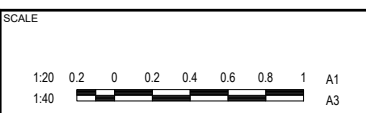
TYPICAL MANHOLE UNDER GULLY SETOUT - MOUNTABLE K&C - STANDARD TYPE A GULLY
1:20 (A1)
1:40 (A3)



G3/20 - 1800Ø MANHOLE UNDER GULLY PIT
1:20 (A1)
1:40 (A3)

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	28.10.22	KH	KH	ISSUED FOR CONSTRUCTION
B	29.11.22	KH	KH	STRUCTURE DETAILS UPDATED
C	14.03.23	KH	DH	REVISED ISSUE

DRAWN	STATUS
KH	ISSUED FOR CONSTRUCTION
DESIGN	APPROVED
DB	DAN COLLINS RPEQ 18631



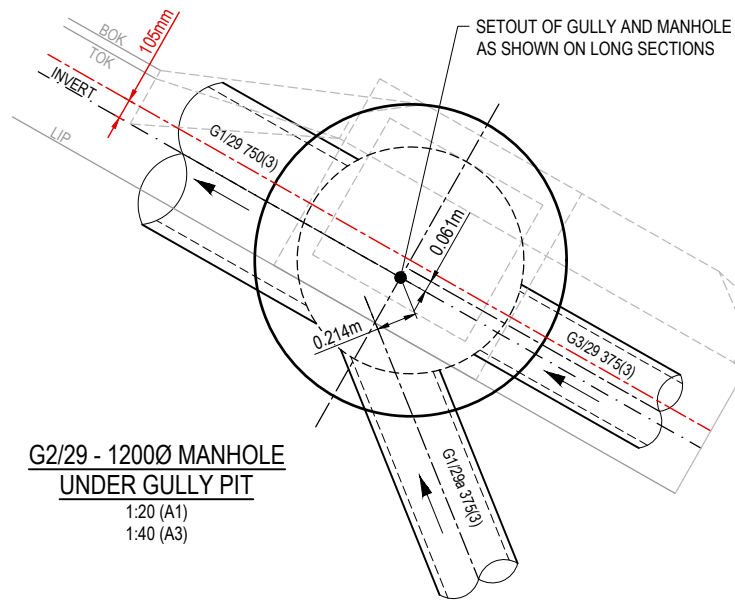
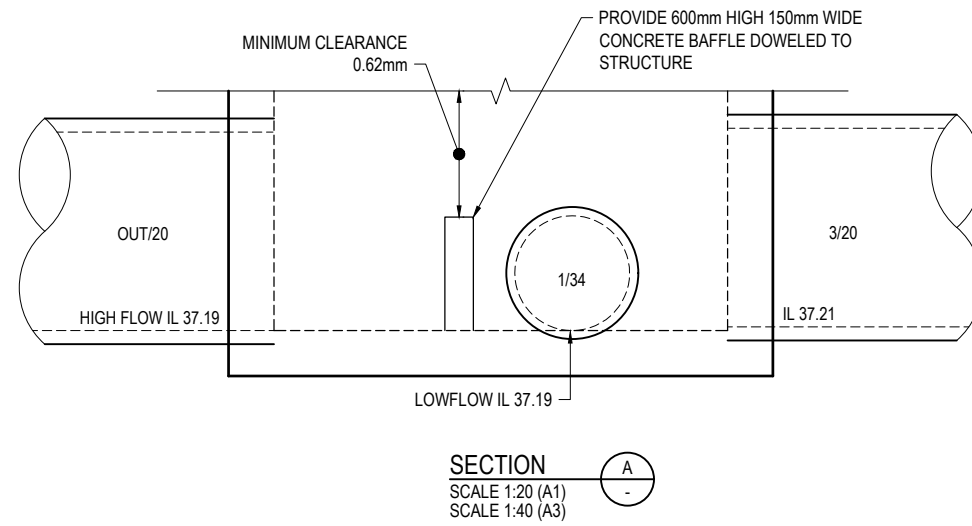
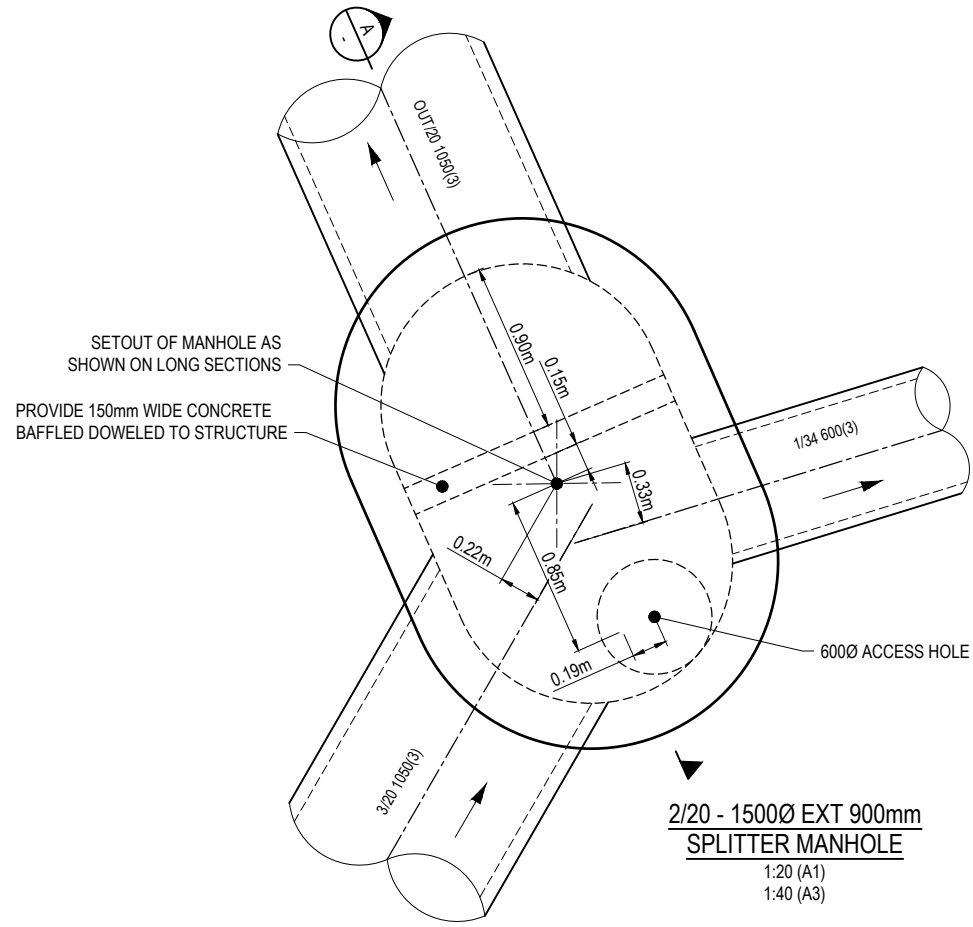
CLIENT
RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT

PROJECT NAME
HAYFIELD STAGE 8A

352 RIPLEY ROAD, RIPLEY QLD

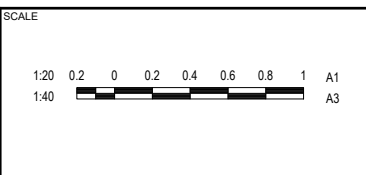
DRAWING TITLE		
STORMWATER DRAINAGE STRUCTURE DETAILS SHEET 1 OF 2		
PROJECT No.	DRAWING No.	REVISION
21-0025	119	C



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	28.10.22	KH	KH	ISSUED FOR CONSTRUCTION
B	29.11.22	KH	KH	STRUCTURE DETAILS UPDATED
C	15.01.23	KH	KH	ACCESS HOLE NOMINATED
D	14.03.23	KH	DH	REVISED ISSUE

DRAWN	STATUS
KH	ISSUED FOR CONSTRUCTION
DESIGN	APPROVED
DB	DAN COLLINS RPEQ 18631

FOR AND ON BEHALF OF COLLIERS ENGINEERING & DESIGN



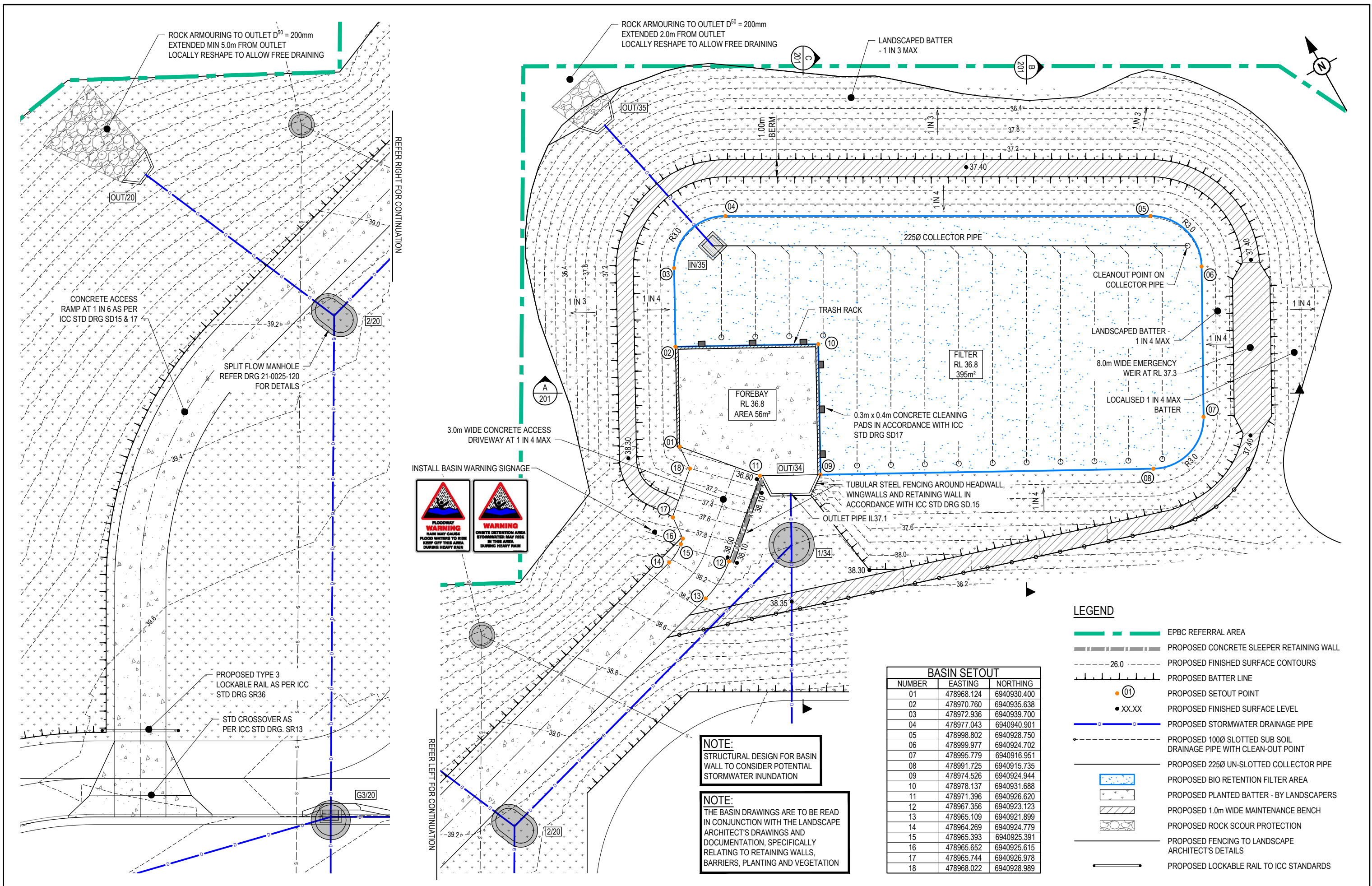
CLIENT
RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT

PROJECT NAME
**HAYFIELD
STAGE 8A**

352 RIPLEY ROAD, RIPLEY QLD

DRAWING TITLE		
STORMWATER DRAINAGE STRUCTURE DETAILS SHEET 2 OF 2		
PROJECT No.	DRAWING No.	REVISION
21-0025	120	D



NOTE:
STRUCTURAL DESIGN FOR BASIN WALL TO CONSIDER POTENTIAL STORMWATER INUNDATION

NOTE:
THE BASIN DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE LANDSCAPE ARCHITECT'S DRAWINGS AND DOCUMENTATION, SPECIFICALLY RELATING TO RETAINING WALLS, BARRIERS, PLANTING AND VEGETATION

BASIN SETOUT		
NUMBER	EASTING	NORTHING
01	478968.124	6940930.400
02	478970.760	6940935.638
03	478972.936	6940939.700
04	478977.043	6940940.901
05	478998.802	6940928.750
06	478999.977	6940924.702
07	478995.779	6940916.951
08	478991.725	6940915.735
09	478974.526	6940924.944
10	478978.137	6940931.688
11	478971.396	6940926.620
12	478967.356	6940923.123
13	478965.109	6940921.899
14	478964.269	6940924.779
15	478965.393	6940925.391
16	478965.652	6940925.615
17	478965.744	6940926.978
18	478968.022	6940928.989

LEGEND	
	EPBC REFERRAL AREA
	PROPOSED CONCRETE SLEEPER RETAINING WALL
	PROPOSED FINISHED SURFACE CONTOURS
	PROPOSED BATTER LINE
	PROPOSED SETOUT POINT
	PROPOSED FINISHED SURFACE LEVEL
	PROPOSED STORMWATER DRAINAGE PIPE
	PROPOSED 1000 SLOTTED SUB SOIL DRAINAGE PIPE WITH CLEAN-OUT POINT
	PROPOSED 2250 UN-SLOTTED COLLECTOR PIPE
	PROPOSED BIO RETENTION FILTER AREA
	PROPOSED PLANTED BATTER - BY LANDSCAPERS
	PROPOSED 1.0m WIDE MAINTENANCE BENCH
	PROPOSED ROCK SCOUR PROTECTION
	PROPOSED FENCING TO LANDSCAPE ARCHITECT'S DETAILS
	PROPOSED LOCKABLE RAIL TO ICC STANDARDS

REV	DATE	DESIGN	DRAWN	ISSUED FOR CONSTRUCTION	REVISION DETAILS
A	28.10.22	KH	KH	ISSUED FOR CONSTRUCTION	
B	14.03.23	KH	DH	REVISED ISSUE	

DRAWN	STATUS
KH	ISSUED FOR CONSTRUCTION
DESIGN	APPROVED
DB	DAN COLLINS RPEQ 18631

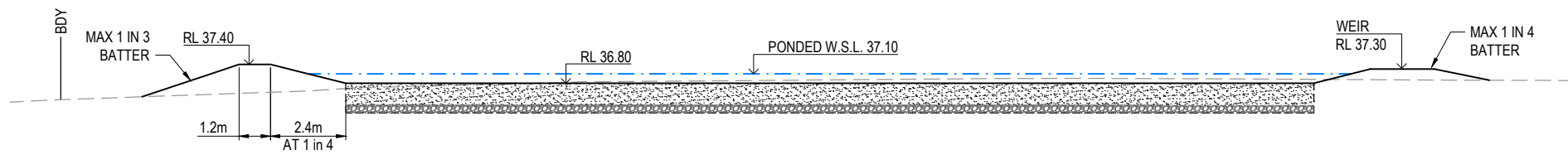


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1:200

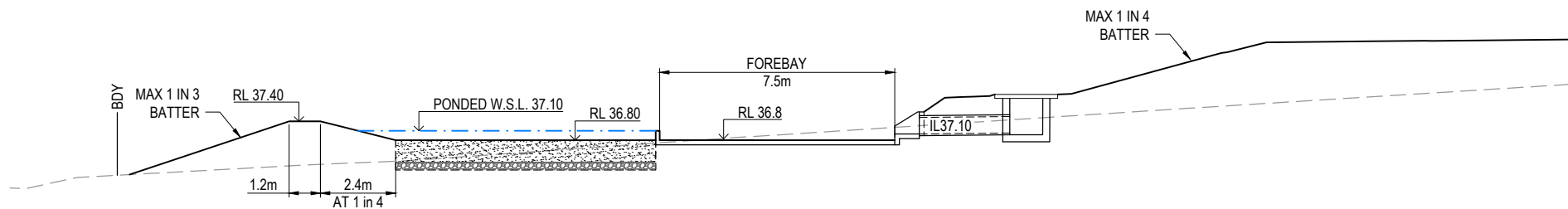
CLIENT
RIPLEY PROJECTS PTY LTD
ASSOCIATED CONSULTANT

PROJECT NAME
HAYFIELD STAGE 8A
352 RIPLEY ROAD, RIPLEY QLD

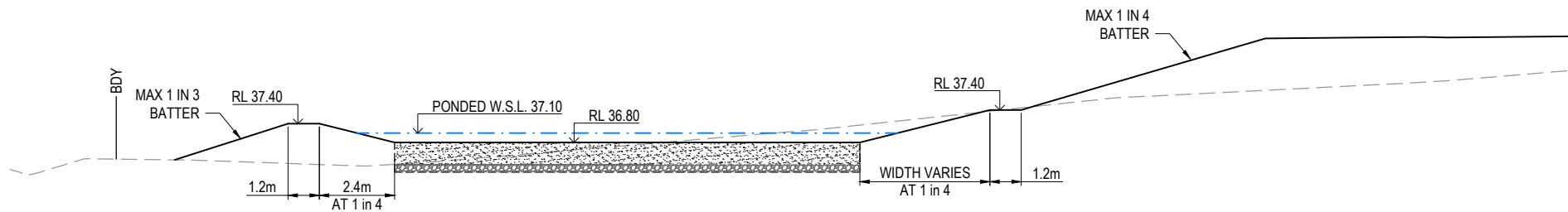
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BIO RETENTION BASIN LAYOUT PLAN		
PROJECT No.	DRAWING No.	REVISION
21-0025	200	B



RL 32.0
SECTION A
SCALE 1:100 (A1)
SCALE 1:200 (A3)



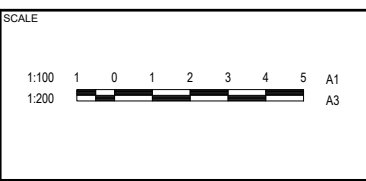
RL 32.0
SECTION B
SCALE 1:100 (A1)
SCALE 1:200 (A3)



RL 32.0
SECTION C
SCALE 1:100 (A1)
SCALE 1:200 (A3)

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
A	28.10.22	KH	KH	ISSUED FOR CONSTRUCTION
B	14.03.23	KH	DH	REVISED ISSUE

DRAWN	STATUS
KH	ISSUED FOR CONSTRUCTION
DESIGN	APPROVED
DB	DAN COLLINS RPEQ 18631
FOR AND ON BEHALF OF COLLIER'S ENGINEERING & DESIGN	



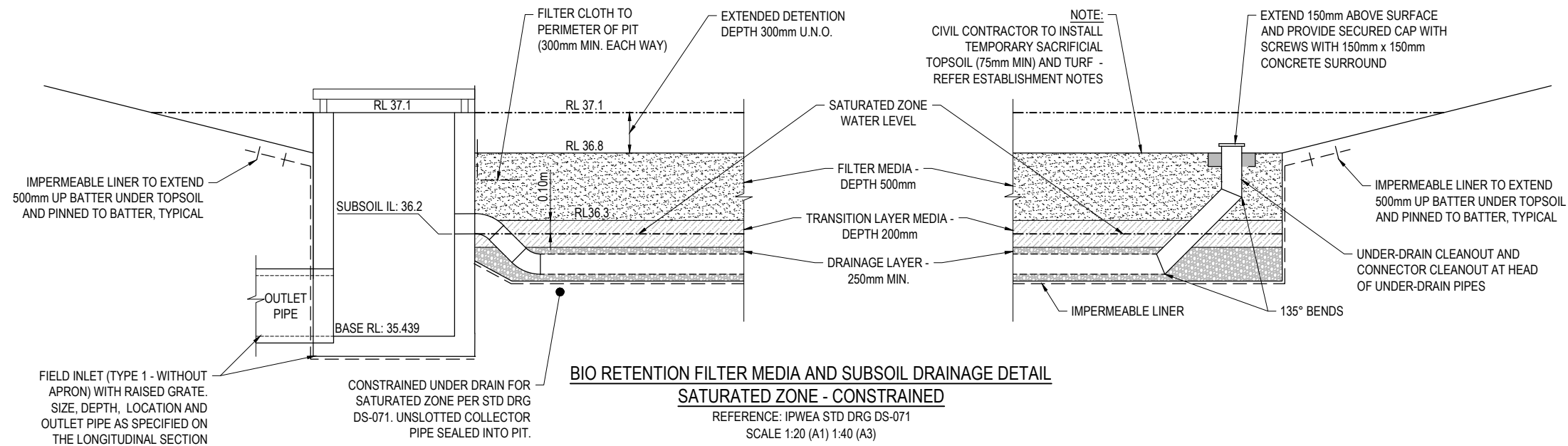
CLIENT
RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT

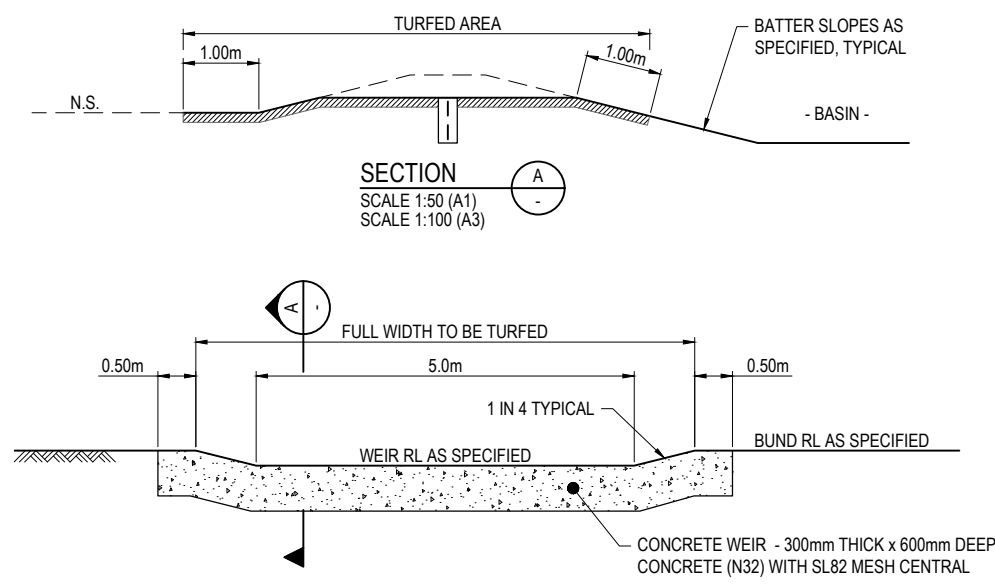
PROJECT NAME
HAYFIELD STAGE 8A

352 RIPLEY ROAD, RIPLEY QLD

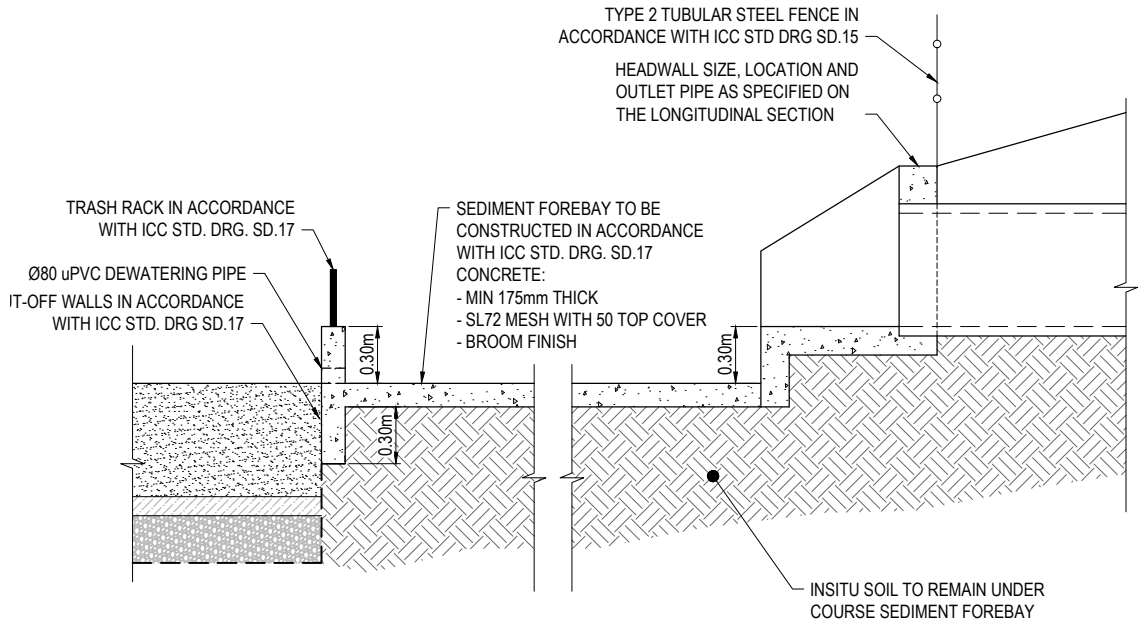
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BIO RETENTION BASIN TYPICAL SECTIONS		
PROJECT No.	DRAWING No.	REVISION
21-0025	201	B



BIO RETENTION FILTER MEDIA AND SUBSOIL DRAINAGE DETAIL
SATURATED ZONE - CONSTRAINED
 REFERENCE: IPWEA STD DRG DS-071
 SCALE 1:20 (A1) 1:40 (A3)



TYPICAL WEIR DETAIL
 REFERENCE: IPWEA STD DRG DS-076
 SCALE 1:50 (A1) 1:100 (A3)



SEDIMENT FOREBAY DETAIL
 SCALE 1:20 (A1) 1:40 (A3)

NOTES:

1. BIORETENTION SYSTEM SURFACE. SURFACE LEVEL IS TOP OF FILTER MEDIA. SURFACE TO BE MULCHED AND PLANTED AS PER PROJECT DRAWINGS AND THE 'BIORETENTION TECHNICAL DESIGN GUIDELINES' (WATER BY DESIGN).
2. FILTER MEDIA SPECIFICATION SHALL BE IN ACCORDANCE WITH THE 'ADOPTION GUIDELINES FOR STORMWATER BIOFILTRATION SYSTEMS (CRC FOR WATER SENSITIVE CITIES) AND THE BIORETENTION TECHNICAL DESIGN GUIDELINES (WATER BY DESIGN). BIORETENTION HYDRAULIC CONDUCTIVITY SHALL BE IN ACCORDANCE WITH PRACTICE NOTE 1: IN SITU MEASUREMENT OF HYDRAULIC CONDUCTIVITY' (FAWB). THE NUMBER OF SAMPLES TO BE TESTED SHALL BE IN ACCORDANCE WITH THE 'CONSTRUCTION AND ESTABLISHMENT GUIDELINES - SWALES, BIORETENTION SYSTEMS AND WETLANDS' (WATER BY DESIGN).
3. CONSTRUCTION TOLERANCES SHALL BE IN ACCORDANCE WITH THE 'CONSTRUCTION AND ESTABLISHMENT GUIDELINES - SWALES, BIORETENTION SYSTEMS AND WETLANDS' (WATER BY DESIGN)
4. TRANSITION LAYER AND DRAINAGE LAYER DEPTHS VARY WITH DESIGN. DEPTHS AND SPECIFICATION TO BE IN ACCORDANCE WITH PROJECT DRAWINGS AND THE 'BIORETENTION TECHNICAL DESIGN GUIDELINES' (WATER BY DESIGN)
5. UNDERDRAIN TO BE SLOTTED RIGID PIPE LAID AT 0.5% GRADE. REFER TO PROJECT DRAWINGS FOR DIAMETER AND PIPE INVERT. PIPE SHOULD NOT BE INSTALLED WITH A FILTER SOCK SURROUNDING PIPE. UNDERDRAIN PIPES SHALL BE SEALED INTO PITS USING GROUT OR OTHER APPROVED WATERTIGHT SEAL.
6. LINER (AS SPECIFIED ON THE PROJECT DRAWINGS):
 - 6.1. PERMEABLE LINER: NON-WOVEN GEOTEXTILE FILTER CLOTH TO BASE AND SIDES OF BIORETENTION SYSTEM. FILTER CLOTH NOT TO BE PLACED BETWEEN ANY FILTER LAYERS. REFER 'BIORETENTION TECHNICAL DESIGN GUIDELINES' (WATER BY DESIGN)
 - 6.2. IMPERMEABLE LINER: COMPACTED CLAY OR SYNTHETIC LINER WITH PERMEABILITY OF NO GREATER THAN 1×10^{-9} m/s. IMPERMEABLE LINER TO BE SEALED AROUND ALL PROTRUSIONS. SYNTHETIC LINERS TO BE INSTALLED AND SEALED IN ACCORDANCE WITH MANUFACTURERS REQUIREMENTS. REFER 'BIORETENTION TECHNICAL DESIGN GUIDELINES' (WATER BY DESIGN).
7. UNDERDRAIN OUTLET RISER ESTABLISHES MAX SATURATED ZONE WATER LEVEL. UNDERDRAIN OUTLET RISER AS PER PROJECT DRAWINGS AND 'BIORETENTION TECHNICAL DESIGN GUIDELINES' (WATER BY DESIGN)
8. VEGETATED BATTER. SLOPE AND PLANTING TO BE IN ACCORDANCE WITH PROJECT DRAWINGS AND 'BIORETENTION TECHNICAL DESIGN GUIDELINES' (WATER BY DESIGN).
9. INSPECTION/CLEANOUT POINT. VERTICAL SOLID PIPE SECTION ATTACHED TO THE END OF EACH UNDERDRAIN IN ACCORDANCE WITH PROJECT DRAWINGS AND THE 'BIORETENTION TECHNICAL DESIGN GUIDELINES' (WATER BY DESIGN)
10. FILTER CLOTH TO BE FIXED TO PERIMETER OF PIT TO AVOID RUNNELLING OF WATER BETWEEN PIT AND SOIL INTERFACE. BEGIN FILTER CLOTH 100 ABOVE SURFACE. EXTEND TO 100 BELOW SURFACE. CONTINUE 300 HORIZONTALLY INTO FILTER MEDIA.

ESTABLISHMENT NOTES:

1. BASIN DRAINAGE LAYERS AND FILTER TO BE CONSTRUCTED AND TEMPORARILY PROTECTED USING GEOTEXTILE PLACED OVER FILTER WITH 75mm TOPSOIL AND TURFED PRIOR TO CIVIL ON-MAINTENANCE. BASIN TO BE KEPT IN THIS PROTECTED STATE UNTIL 95% OF BUILDING WORKS HAVE BEEN COMPLETED IN THE CONTRIBUTING CATCHMENT.
2. PRIOR TO ON AND OFF MAINTENANCE INSPECTION, 3 IN-SITU FILTRATION TESTS ARE TO BE PROVIDED DEMONSTRATING THAT THE HYDRAULIC CONDUCTIVITY IS MET AT 200mm/hr.
3. PLANTING OF FILTER TO OCCUR ONLY AFTER CONSTRUCTION OF 95% OF THE CONTRIBUTING CATCHMENT HAS BEEN COMPLETED, AFTER SUCCESSFUL INFILTRATION TESTS. PLANTING ON FILTER SUBJECT TO FURTHER 12 MONTHS MAINTENANCE PERIOD.
4. THE MAINTENANCE PERIOD SHALL COMMENCE ONCE FORMAL NOTIFICATION HAS BEEN PROVIDED BY COUNCIL.

NOTE:

1. FOR DESIGN AND CONSTRUCTION NOTES REFER TO IPWEA STANDARD DRAWING DS-078.
2. DRAWINGS TO BE READ IN CONJUNCTION WITH SITE BASED STORMWATER MANAGEMENT PLAN AND LANDSCAPE ARCHITECT'S PLANS

REV	DATE	DESIGN	DRAWN	REVISION DETAILS	DRAWN	STATUS	SCALE	CLIENT	PROJECT NAME	DRAWING TITLE	
A	28.10.22	KH	KH	ISSUED FOR CONSTRUCTION	KH	ISSUED FOR CONSTRUCTION	1:20 0.2 0 0.2 0.4 0.6 0.8 1 A1	RIPLEY PROJECTS PTY LTD	HAYFIELD STAGE 8A	BIO RETENTION BASIN TYPICAL NOTES AND DETAILS	
B	14.03.23	KH	DH	REVISED ISSUE	DB	APPROVED DAN COLLINS RPEQ 18631	1:40 1 0.5 0 1 2 A1 1:100 A3	ASSOCIATED CONSULTANT	352 RIPLEY ROAD, RIPLEY QLD	PROJECT No. 21-0025 DRAWING No. 202 REVISION B	
FOR AND ON BEHALF OF COLLIER'S ENGINEERING & DESIGN											