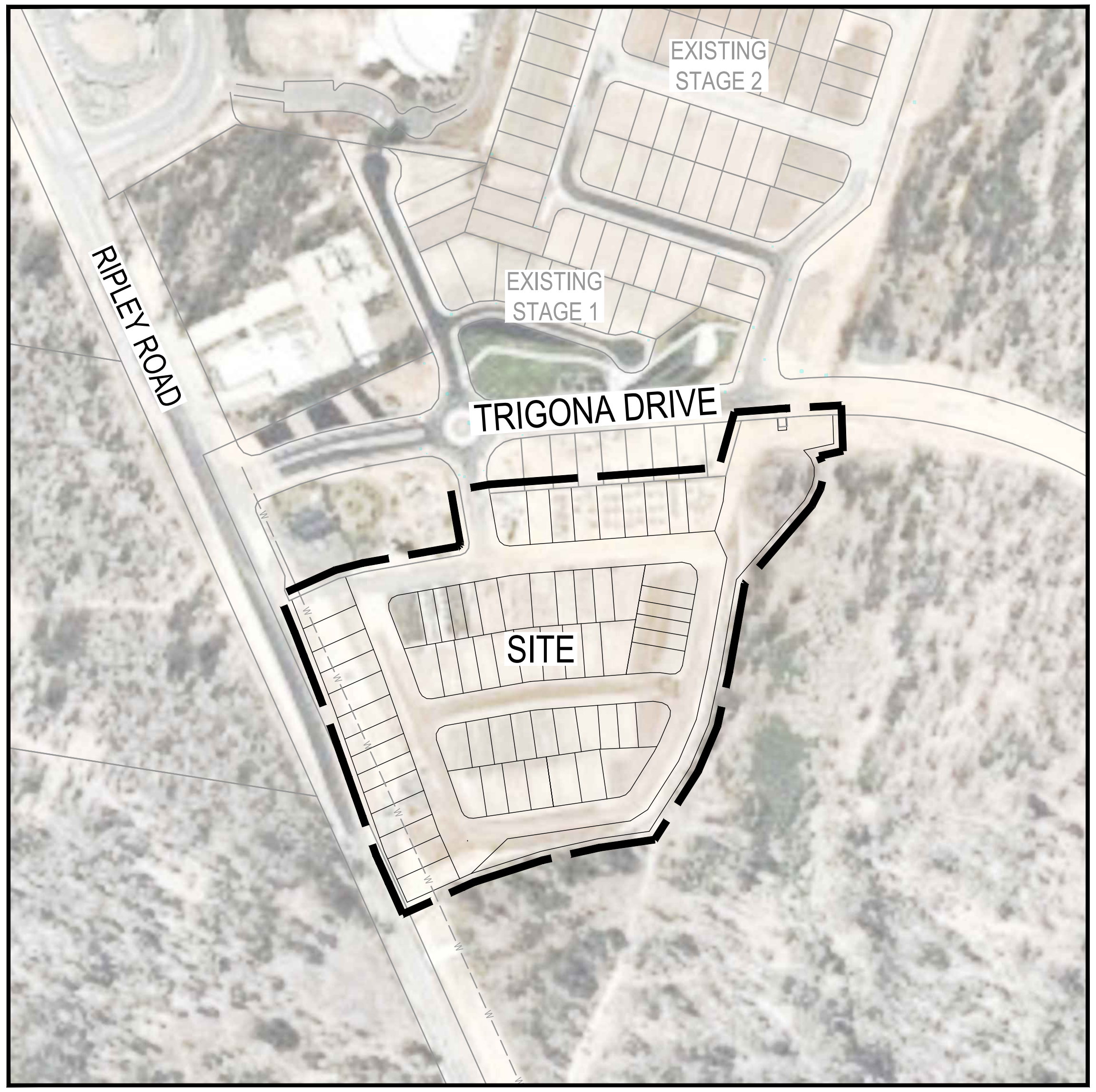
HAYFIELD STAGE 5

352 RIPLEY ROAD, RIPLEY

FOR ' RIPLEY PROJECTS PTY LTD'



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

PROJECT INFORMATION SUMMARY:
No. OF LOTS = 68
AREA OF SITE = 4.76 ha
RP DESCRIPTION LOT 3 ON SP 237241
DATUM LEVEL AND LOCATION PM 57629 RL 53.501 AHD
LOCAL AUTHORITY: IPSWICH CITY COUNCIL
COUNCIL REFERENCE NUMBER: 8736/2017/PDA

NOTE:
THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH:
- VEGETATION MANAGEMENT PLAN
- LANDSCAPE ARCHITECT'S PLANS
- ELECTRICAL, COMMUNICATIONS AND GAS CONSULTANT'S PLANS
- SEDIMENT AND EROSION HAZARD ASSESSMENT
- SAFETY IN DESIGN REPORT

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH
STATUS: NOT FOR CONSTRUCTION
APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE: 1:2000 20 0 20 40 60 80 100 A1
1:4000 A3

CLIENT: RIPLEY PROJECTS PTY LTD
ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: COVER PLAN

PROJECT No.	DRAWING No.	REVISION
17-0195	100	2

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.

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, KERB SUBSOIL DRAINS 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 AUTHORITIESS STANDARD DRAWINGS, METHODS AND SPECIFICATIONS.
11. THE STORMWATER PIPE CLASSES HAVE BEEN DESIGNED FOR SERVICE LOADS ONLY. THE CONTRACTOR SHALL ASSESS THE SUITABILITY OF MACHINERY USED ON SITE AND THE ANTICIPATED CONSTRUCTION LOADS, AND UPGRADE THE PIPE CLASSES IF NECESSARY IN ACCORDANCE WITH AS3725-2007.
12. THE TERM D_{50} DOCUMENTED ON THE DRAWINGS, IN RELATION TO ROCK ARMORING, CORRESPONDS TO THE REQUIRED MEDIAN DIAMETER OF THE PLACED ROCKS. THE ROCKS USED SHALL NOT VARY IN SIZE BY +/- 30% OF THE PROPOSED D_{50} SIZE.

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 150Ø 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 ADAPTOR 500mm FROM THE DOWNSTREAM BOUNDARY (UNLESS SHOWN ON A DIFFERENT ALIGNMENT). 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 150Ø ROOFWATER PIPE CONNECTED TO PROPOSED STORMWATER GULLY PIT OR MANHOLE AT MINIMUM 1.0% GRADE WITH 1.0m COVER.

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DESIGN: MH

STATUS: **NOT FOR CONSTRUCTION**

APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE

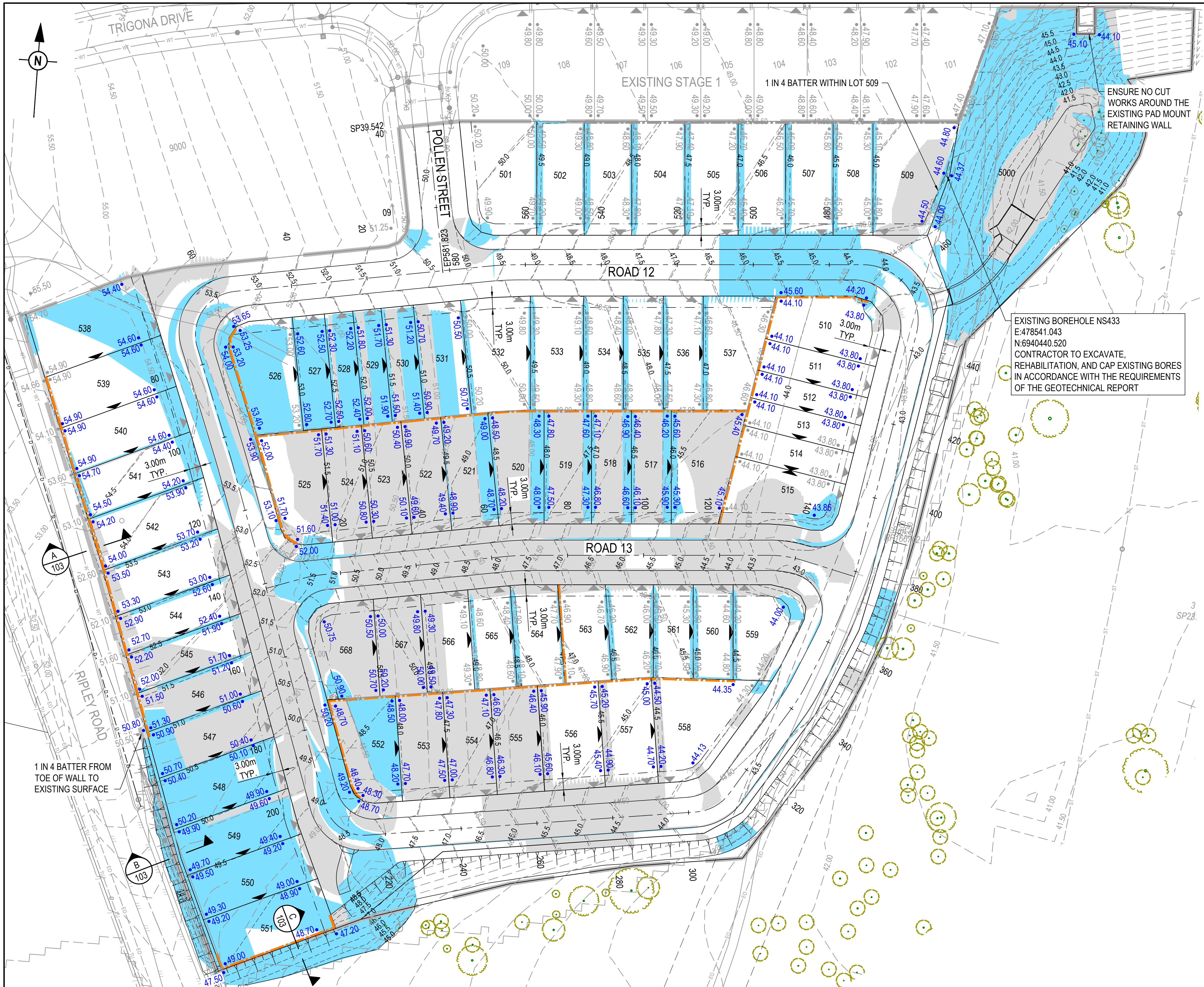
CLIENT: **RIPLEY PROJECTS PTY LTD**

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: **HAYFIELD STAGE 5**
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: **GENERAL NOTES**

PROJECT No.	DRAWING No.	REVISION
17-0195	101	2



LEGEND

- PROPOSED STAGE BOUNDARY
- 42.0 PROPOSED SURFACE CONTOUR
- 42.0 EXISTING SURFACE CONTOUR PREDEVELOPMENT
- PROPOSED EARTHWORKS PAD SETBACK LINE
- PROPOSED CONCRETE SLEEPER RETAINING WALL
- EXISTING CONCRETE SLEEPER RETAINING WALL
- 42.00 EXISTING SURFACE LEVEL (FSL)
- 42.00 PROPOSED FINISHED SURFACE LEVEL (FSL) (INCLUDES TOPSOIL PLACEMENT)
- PROPOSED AREA OF CUT GREATER THAN 25mm
- PROPOSED AREA OF FILL GREATER THAN 25mm
- INDICATIVE DRIVEWAY LOCATIONS
- ZERO LOT BOUNDARY
- D EXISTING STORMWATER DRAINAGE PIPE
- S EXISTING SEWERAGE MAIN
- W EXISTING WATER MAIN
- EU EXISTING ELECTRICAL CABLE U/G
- EO EXISTING ELECTRICAL CABLE O/H
- TU EXISTING TELECOMMUNICATION CABLE U/G
- G EXISTING GAS MAIN
- TO EXISTING TELECOMMUNICATION CABLE O/H
- EXISTING TREE TO REMAIN - REFER VMP
- EXISTING TREE TO BE REMOVED - REFER VMP

EXISTING SURFACE NOTE

EXISTING SURFACE BASED ON STAGE 1 BULK EARTHWORKS (17-0191) , RIPLEY ROAD STAGE 1 WORKS AND EXISTING SURVEY

WARNING! - EXISTING SERVICES

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

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

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

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SCALE: 1:500 A1, 1:1000 A3 (10 5 0 10 20)

CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5

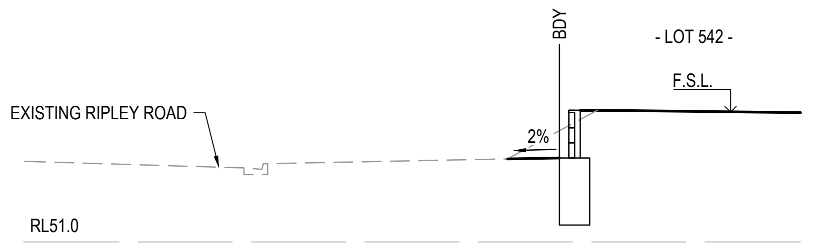
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: BULK EARTHWORKS LAYOUT PLAN

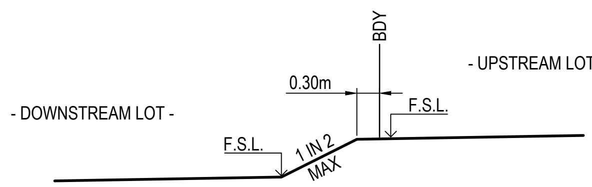
PROJECT No.: 17-0195

DRAWING No.: 102

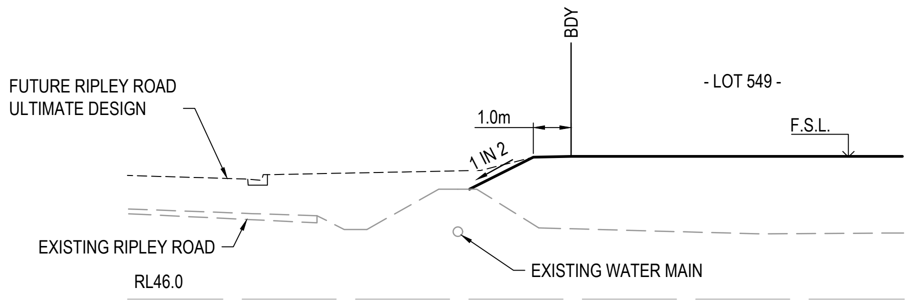
REVISION: 2



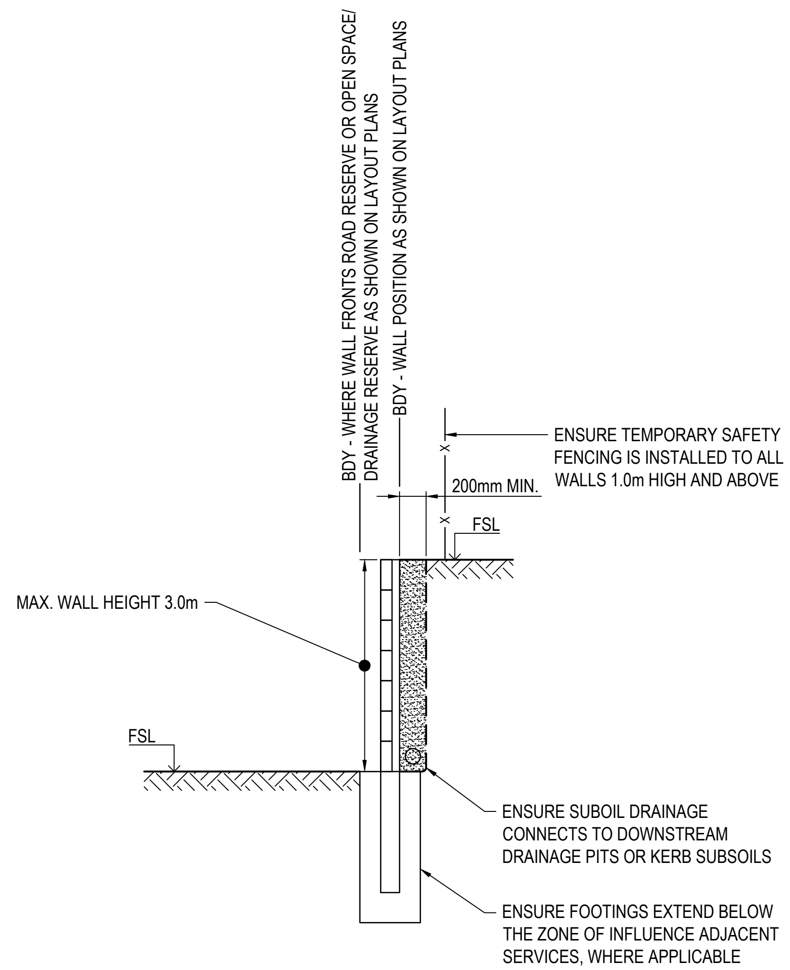
SECTION A 102
SCALE 1:100 (A1)
SCALE 1:200 (A3)



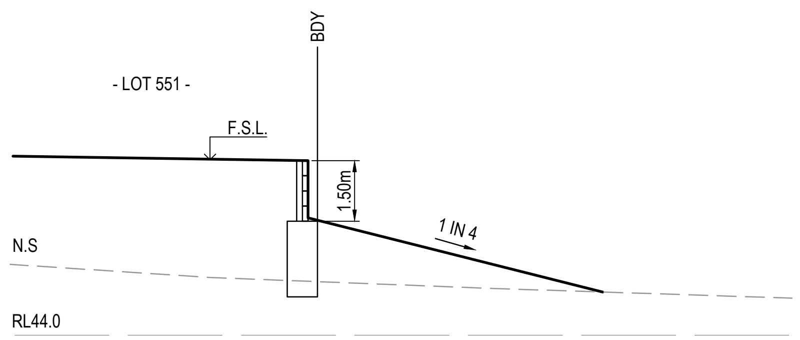
TYPICAL STEP BETWEEN LOTS
(0.00m - 0.50m MAX)
1:50 (A1)
1:100 (A3)



SECTION B 102
SCALE 1:100 (A1)
SCALE 1:200 (A3)



CONCRETE SLEEPER RETAINING WALL
TYPICAL DETAIL
SCALE 1:25 (A1)



SECTION C 102
SCALE 1:100 (A1)
SCALE 1:200 (A3)

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.
5. REFER LANDSCAPE DRAWINGS FOR FURTHER INFORMATION ON RETAINING WALLS, PARTICULARLY RELATING TO FINISHES.
6. TEMPORARY SAFETY FENCING TO BE INSTALLED BEHIND ALL WALLS 1.0m HIGH AND GREATER.
7. 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)

EXISTING BOLEHOLES NOTE:

CONTRACTOR TO EXCAVATE, REHABILITATE AND CAP EXISTING BOREHOLES WITH GEOMEMBRANE BARRIER IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

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SCALE
1:25 0.25 0 0.25 0.5 0.75 1.0 1.25 A1
1:50 A3
1:100 1 0 1 2 3 4 5 A1
1:200 A3

CLIENT: RIPLEY PROJECTS PTY LTD
ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: BULK EARTHWORKS TYPICAL SECTIONS

PROJECT No. 17-0195
DRAWING No. 103
REVISION 2

LEGEND

- PROPOSED AREA OF WORKS
- PROPOSED ROAD CONTROL LINE
- EXISTING ROAD CROWN
- PROPOSED KERB INVERT LINE
- PROPOSED EDGE OF BITUMEN
- EXISTING EDGE OF BITUMEN
- PROPOSED KERB TRANSITION LOCATION
- PROPOSED CONCRETE PATH AND PRAM RAMP
- PROPOSED NEW ROAD PAVEMENT
- INDICATIVE DRIVEWAY LOCATION
- ZERO LOT BOUNDARY
- PROPOSED SURFACE CONTOUR
- EXISTING SURFACE CONTOUR
- PROPOSED STORMWATER DRAINAGE PIPE
- EXISTING STORMWATER DRAINAGE PIPE
- PROPOSED DRAINAGE SWALE
- EXISTING DRAIN
- 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
- PROPOSED SEWERAGE MAIN
- EXISTING SEWERAGE MAIN
- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- PROPOSED WATER CONDUIT
- EXISTING WATER CONDUIT
- EXISTING ELECTRICAL CABLE U/G
- EXISTING ELECTRICAL CABLE O/H
- EXISTING TELECOMMUNICATION CABLE U/G
- EXISTING TELECOMMUNICATION CABLE O/H
- EXISTING FIBRE OPTIC CABLE U/G
- EXISTING GAS MAIN
- EXISTING TREE TO REMAIN - REFER VMP
- EXISTING TREE TO BE REMOVED - REFER VMP

KERB TYPES NOTE:

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

ROOFWATER CONNECTION NOTE:

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 ADAPTOR 500mm FROM THE DOWNSTREAM BOUNDARY (UNLESS SHOWN ON A DIFFERENT ALIGNMENT). 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 THE LOCAL AUTHORITY STANDARDS.
- ONE 150Ø ROOFWATER PIPE CONNECTED TO PROPOSED STORMWATER GULLY PIT OR MANHOLE AT MINIMUM 1.0% GRADE WITH 1.0m COVER.

WARNING! - EXISTING SERVICES

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

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

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

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SCALE: 1:500 A1, 1:1000 A3 (10 5 0 10 20)

CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: ROADWORKS AND DRAINAGE LAYOUT PLAN

PROJECT No. 17-0195
DRAWING No. 104
REVISION 2

LEGEND

- PROPOSED AREA OF WORKS/STAGE BOUNDARY
- PROPOSED NEW ROAD PAVEMENT
- PROPOSED ROAD CONTROL LINE
- MKC — PROPOSED MOUNTABLE KERB AND CHANNEL 'TYPE M1'
- BKC — PROPOSED MOUNTABLE KERB AND CHANNEL 'TYPE B1'
- PROPOSED CONCRETE PATH AND PRAM RAMP
- INDICATIVE DRIVEWAY LOCATION
- ZERO LOT BOUNDARY
- KERB TRANSITION

CONTROL LINE SETOUT - POLLEN STREET

PT	CHAINAGE	EASTING	NORTHING	BEARING
IP 1	0.000	478397.879	6940481.064	170°04'39.06"
IP 2	76.750	478411.104	6940405.462	170°04'39.06"

CONTROL LINE SETOUT - BASIN DRIVEWAY

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	478539.926	6940406.712	71°15'15.41"			
TC	3.090	478542.853	6940407.705	71°15'15.41"			
IP 2	12.206	478551.889	6940410.772		R = -25.000	18.231	41°46'58.79"
CT	21.322	478556.584	6940419.080	29°28'16.62"			
IP 3	27.458	478559.603	6940424.422	29°28'16.62"			

CONTROL LINE SETOUT - ROAD 12

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	478411.104	6940405.462	260°04'39.16"			
TC	54.998	478356.929	6940395.985	260°04'39.16"			
IP 2	65.155	478343.136	6940393.572		R = -11.500	20.314	101°12'29.30"
CT	75.311	478348.184	6940380.511	158°52'09.86"			
TC	104.778	478358.806	6940353.026	158°52'09.86"			
IP 3	106.270	478359.344	6940351.634		R = 100.000	2.984	1°42'35.25"
CT	107.762	478359.840	6940350.227	160°34'45.11"			
TC	200.593	478390.707	6940262.678	160°34'45.11"			
IP 4	207.818	478393.577	6940254.536		R = -10.500	14.451	78°51'10.37"
CT	215.044	478402.120	6940255.778	81°43'34.74"			
TC	301.899	478488.072	6940268.277	81°43'34.74"			
IP 5	307.112	478493.582	6940269.078		R = -12.000	10.427	49°47'12.51"
CT	312.326	478496.528	6940273.804	31°56'22.23"			
TC	339.891	478511.111	6940297.196	31°56'22.23"			
IP 6	343.591	478513.072	6940300.342		R = -48.250	7.400	8°47'12.64"
CT	347.291	478514.529	6940303.750	23°09'09.59"			
TC	359.585	478519.363	6940315.054	23°09'09.59"			
IP 7	371.070	478523.899	6940325.661		R = -100.000	22.970	13°09'39.05"
CT	382.555	478525.900	6940337.022	9°59'30.54"			
TC	444.727	478536.688	6940398.251	9°59'30.54"			
IP 8	457.917	478539.922	6940416.606		R = -14.500	26.379	104°14'03.26"
CT	471.106	478521.335	6940415.227	265°45'27.29"			
TC	561.615	478431.074	6940408.532	265°45'27.29"			
IP 9	565.828	478426.869	6940408.220		R = -85.000	8.426	5°40'47.87"
CT	570.041	478422.716	6940407.493	260°04'39.42"			
IP 10	581.829	478411.104	6940405.462	260°04'39.42"			

CONTROL LINE SETOUT - ROAD 13

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	478370.977	6940318.640	70°34'44.40"			
TC	10.289	478380.681	6940322.061	70°34'44.40"			
IP 2	12.776	478383.031	6940322.889		R = 30.000	4.973	9°29'54.76"
CT	15.263	478385.486	6940323.319	80°04'39.16"			
TC	63.389	478432.892	6940331.612	80°04'39.16"			
IP 3	66.858	478436.313	6940332.210		R = 70.000	6.939	5°40'48.20"
CT	70.328	478439.776	6940332.467	85°45'27.36"			
TC	133.032	478502.308	6940337.106	85°45'27.36"			
IP 4	137.591	478506.891	6940337.446		R = 30.000	9.119	17°25'00.74"
CT	142.151	478511.365	6940336.398	103°10'28.11"			
IP 5	156.291	478525.133	6940333.176	103°10'28.11"			

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: **NOT FOR CONSTRUCTION**

APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE: 1:500 / 1:1000 — 10 5 0 10 20 — A1 / A3

CLIENT: **RIPLEY PROJECTS PTY LTD**

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK
PH: (07) 3188 9020

PROJECT NAME: **HAYFIELD STAGE 5**
352 RIPLEY ROAD
RIPLEY

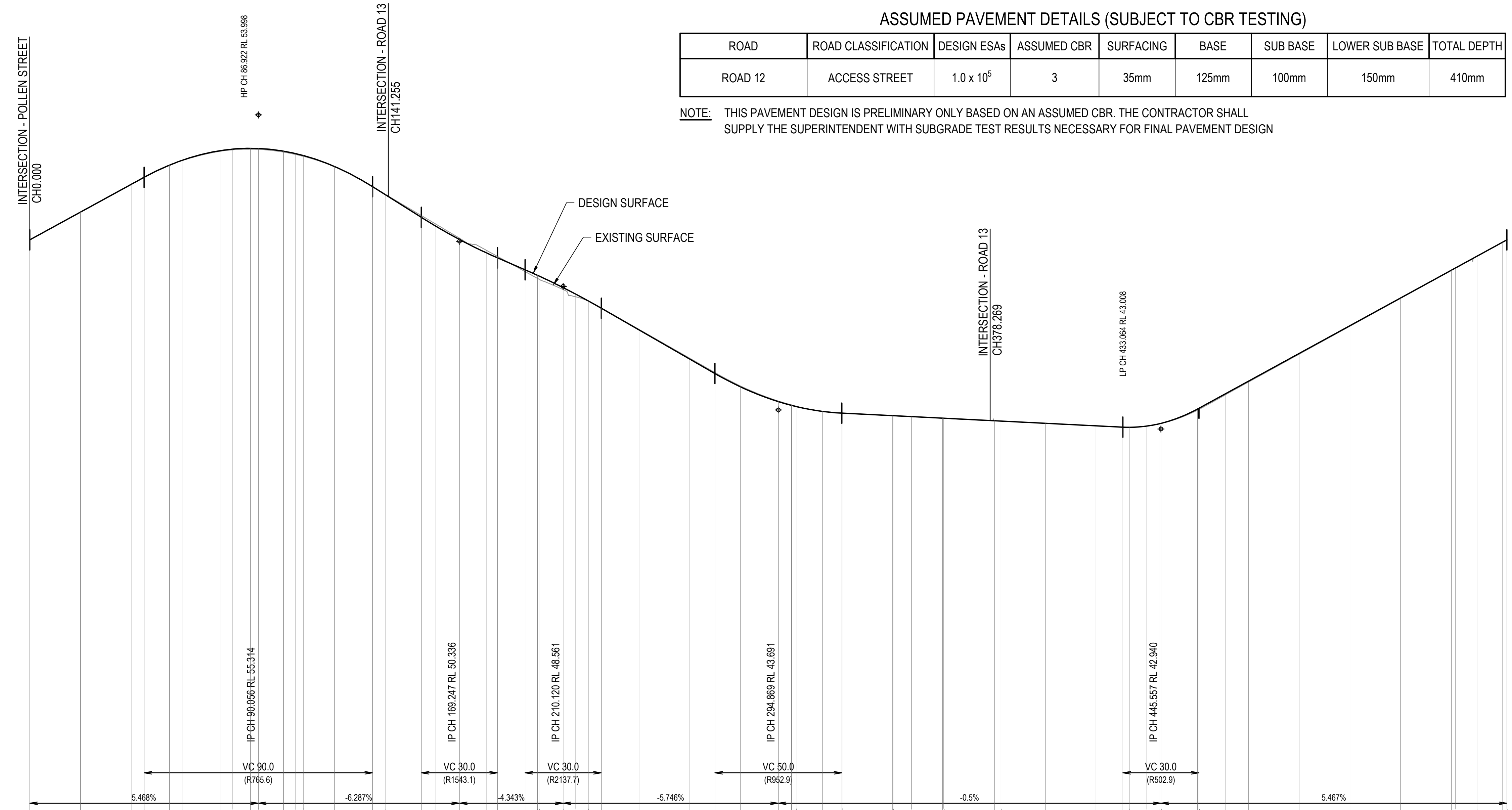
DRAWING TITLE: **SURVEY SETOUT AND KERB TYPES LAYOUT PLAN**

PROJECT No. 17-0195 | DRAWING No. 105 | REVISION 2

ASSUMED PAVEMENT DETAILS (SUBJECT TO CBR TESTING)

ROAD	ROAD CLASSIFICATION	DESIGN ESAs	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH
ROAD 12	ACCESS STREET	1.0×10^5	3	35mm	125mm	100mm	150mm	410mm

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 27.0

CHAINAGES	CUT (-) / FILL	LHS LIP LEVEL	RHS LIP LEVEL	DESIGN SURFACE	EXISTING SURFACE
0.000	0.000	50.278	#	50.390	50.390
20.000	-0.007	51.372	51.372	51.484	51.490
40.000	-0.013	52.465	52.465	52.577	52.591
45.056	-0.015	52.742	52.742	52.854	52.868
54.998	-0.011	53.205	53.221	53.333	53.344
60.000	0.009	53.374	53.413	53.525	53.516
75.311	0.026	53.782	53.799	53.910	53.884
80.000	0.030	53.855	53.855	53.967	53.937
86.922	0.036	53.887	53.887	53.998	53.962
90.056	0.038	53.880	53.880	53.992	53.954
100.000	0.039	53.775	53.775	53.887	53.847
104.778	0.037	53.678	53.678	53.790	53.753
107.762	0.034	53.603	53.603	53.715	53.681
120.000	0.008	53.172	53.172	53.284	53.276
135.056	0.002	#	52.373	52.485	52.483
140.000	-0.017		52.063	52.174	52.191
154.247	-0.070		51.167	51.279	51.348
160.000	-0.080		50.816	50.928	51.008
169.247	-0.053	50.297	50.297	50.409	50.461
180.000	-0.098	49.763	49.763	49.875	49.973
184.247	-0.055	49.573	49.573	49.684	49.739
195.120	0.070	49.100	49.100	49.212	49.142
200.000	0.121	48.874	48.883	48.995	48.874
200.593	0.126	48.842	48.856	48.967	48.841
210.120	0.074	48.365	48.396	48.508	48.435
215.044	0.107	48.128	48.142	48.254	48.147
220.000	0.006	47.875	47.875	47.987	47.981
225.120	-0.012	47.587	47.592	47.699	47.711
240.000	-0.021	46.732	46.737	46.844	46.865
260.000	-0.034	45.583	45.588	45.695	45.728
269.869	-0.040	45.016	45.021	45.128	45.167
280.000	-0.035	44.488	44.493	44.599	44.634
294.869	-0.025	43.907	43.913	44.019	44.044
300.000	-0.020	43.761	43.766	43.873	43.893
301.899	-0.015	43.709	43.719	43.825	43.841
312.326	-0.008	43.517	43.527	43.634	43.642
319.869	-0.001	43.455	43.460	43.566	43.567
320.000	-0.000	43.454	43.459	43.566	43.566
339.891	0.003	43.355	43.360	43.467	43.463
340.000	0.003	43.354	43.359	43.466	43.463
347.291	0.005	43.318	43.323	43.430	43.425
359.585	0.004	43.257	43.262	43.368	43.365
360.000	0.004	43.254	43.260	43.366	43.362
380.000	0.006	#	43.160	43.266	43.261
382.555	0.003		43.147	43.254	43.251
400.000	-0.000	43.055	43.060	43.167	43.167
420.000	-0.000	42.955	42.961	43.067	43.067
430.557	-0.000	42.903	42.908	43.014	43.014
433.064	-0.000	42.896	42.902	43.008	43.008
440.000	-0.001	42.944	42.949	43.056	43.057
444.727	0.001	43.024	43.037	43.143	43.143
445.557	0.003	43.040	43.057	43.163	43.160
460.000	0.042	43.581	43.623	43.730	43.688
460.557	0.046	43.611	43.648	43.760	43.714
471.106	0.040	44.217	44.225	44.336	44.296
480.000	0.035	44.711	44.711	44.823	44.788
500.000	0.028	45.804	45.804	45.916	45.888
520.000	0.021	46.898	46.898	47.010	46.988
540.000	0.014	47.991	47.991	48.103	48.089
560.000	0.007	49.085	49.085	49.197	49.189
561.615	0.007	49.173	#	49.285	49.278
570.041	0.004	49.634		49.746	49.741
580.000	0.001	50.178		50.290	50.289
581.829	-0.000	50.278		50.390	50.390

HORIZONTAL CURVES: R-11.500, R100.000, R-10.500, R-12.000, R-48.250, R-100.000, R-14.500, R-85.000

ROAD 12

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329

FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE
1:1000 A1 / 1:2000 A3 — HORIZONTAL (10 0 10 20 30 40 50)
1:100 A1 / 1:200 A3 — VERTICAL (2 1 0 2 4)

CLIENT: RIPLEY PROJECTS PTY LTD

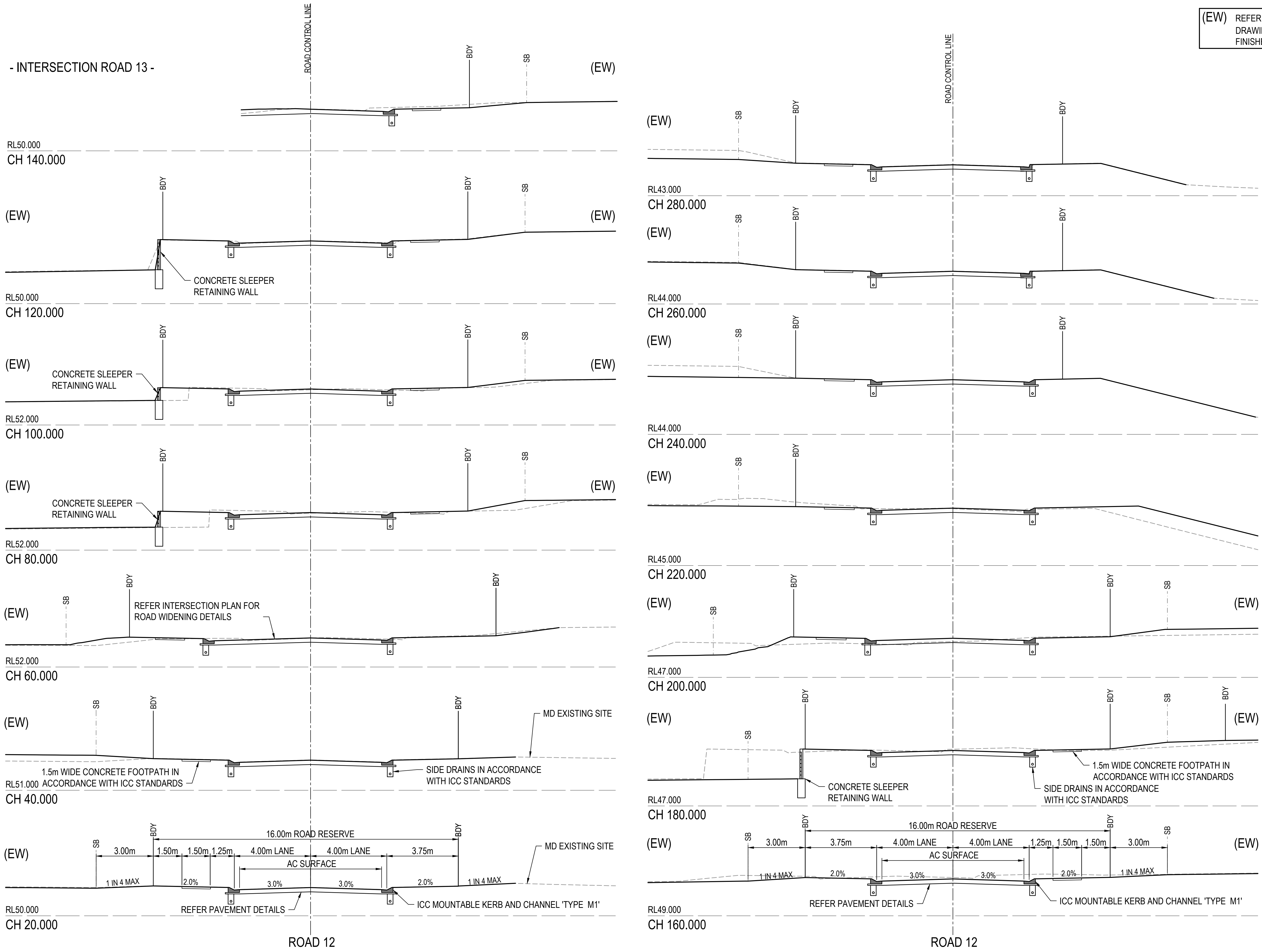
ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK
PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD
RIPLEY

DRAWING TITLE: ROAD 12 LONGITUDINAL SECTION

PROJECT No.	DRAWING No.	REVISION
17-0195	106	2

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



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: **NOT FOR CONSTRUCTION**

APPROVED: ANDREW NGO RPEQ 12329

FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE: 1:100 A1 / 1:200 A3 (1 0 1 2 3 4 5)

CLIENT: **RIPLEY PROJECTS PTY LTD**

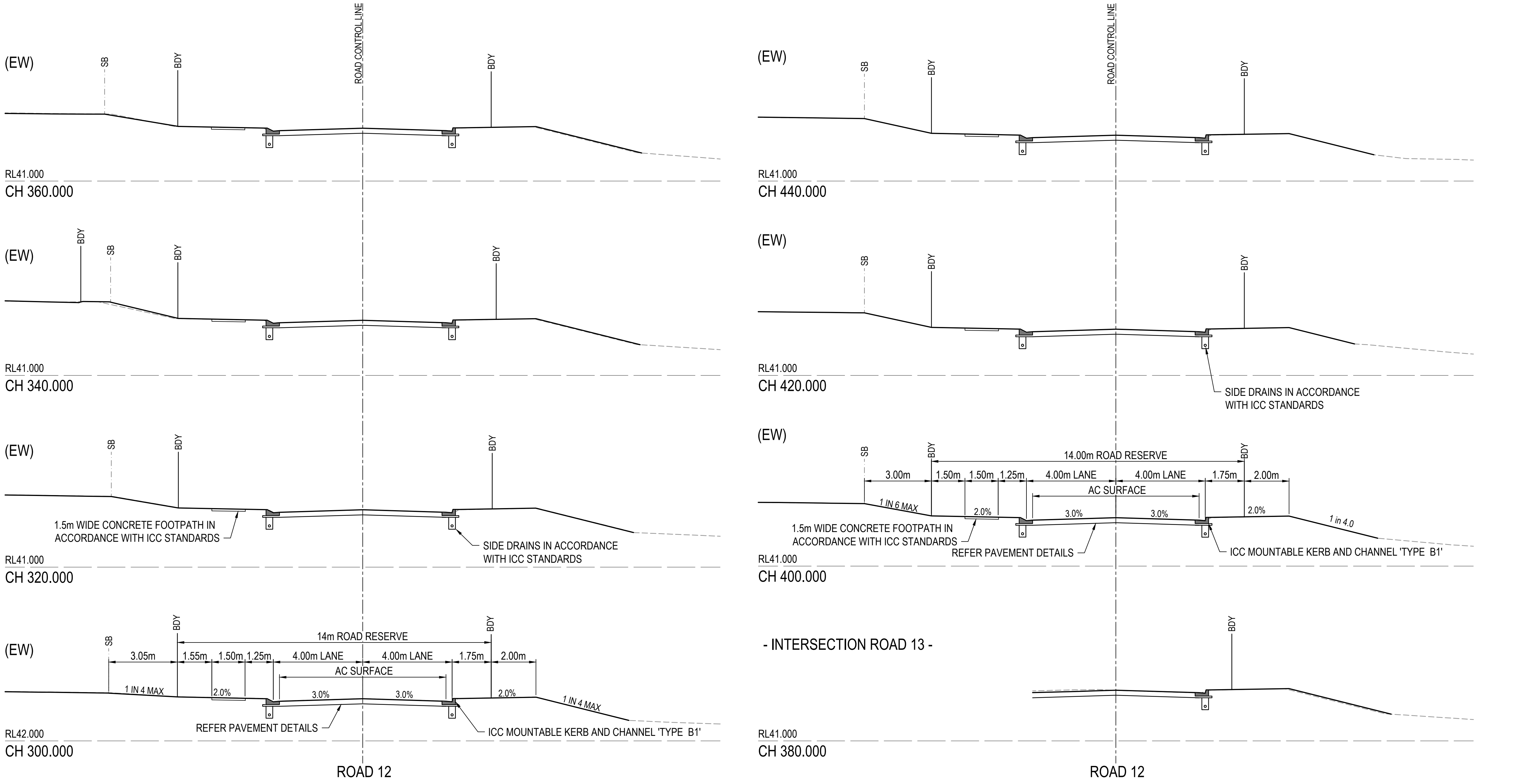
ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: **HAYFIELD STAGE 5**
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: **ROAD 12 CROSS SECTIONS SHEET 1 OF 3**

PROJECT No.	DRAWING No.	REVISION
17-0195	107	2

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



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS

DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329

FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN DEVELOPMENT ENGINEERS • ADVISORS

ENQUIRIES@PEAKURBAN.COM.AU

SCALE: 1:100 A1 / 1:200 A3 (1 0 1 2 3 4 5)

CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5

352 RIPLEY ROAD RIPLEY

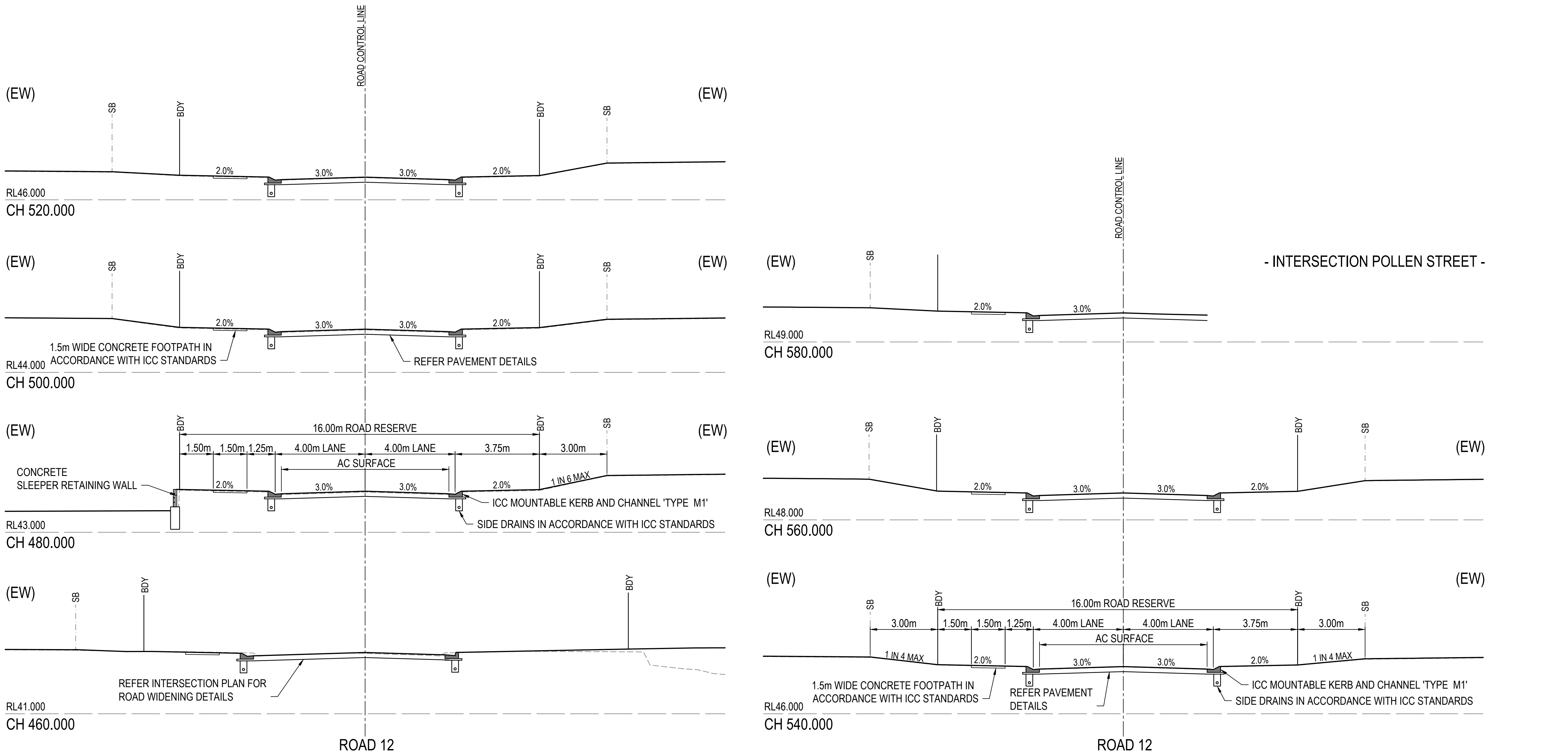
DRAWING TITLE: ROAD 12 CROSS SECTIONS SHEET 2 OF 3

PROJECT No. 17-0195

DRAWING No. 108

REVISION 2

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



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS

DESIGN: MH

STATUS: **NOT FOR CONSTRUCTION**

APPROVED: ANDREW NGO RPEQ 12329

FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN DEVELOPMENT ENGINEERS + ADVISORS

ENQUIRIES@PEAKURBAN.COM.AU

SCALE: 1:100 1 0 1 2 3 4 5 A1; 1:200 A3

CLIENT: **RIPLEY PROJECTS PTY LTD**

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: **HAYFIELD STAGE 5**

352 RIPLEY ROAD RIPLEY

DRAWING TITLE: **ROAD 12 CROSS SECTIONS SHEET 3 OF 3**

PROJECT No.: **17-0195**

DRAWING No.: **109**

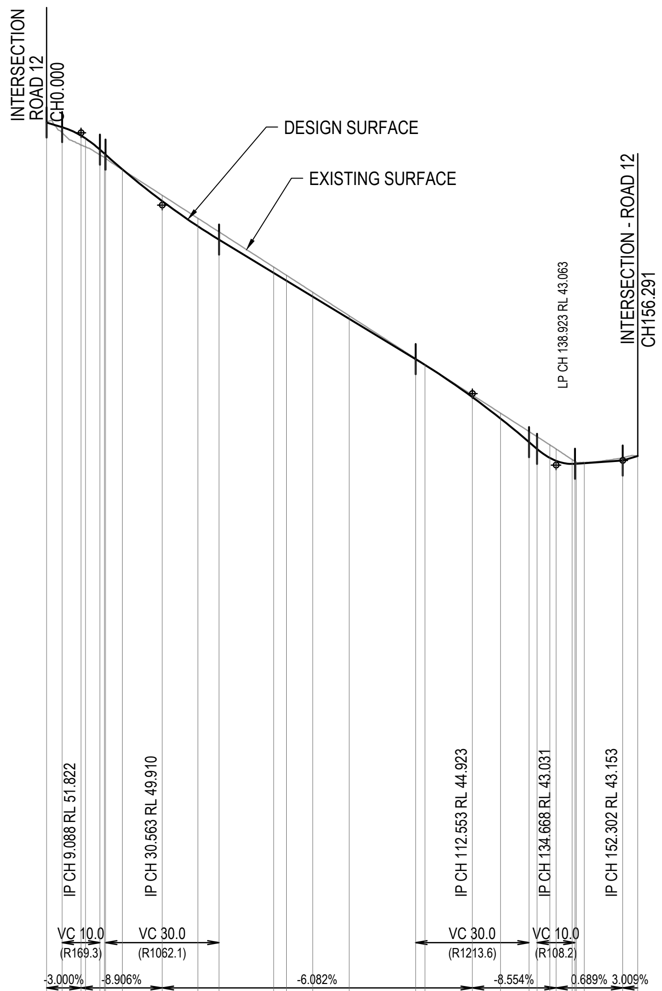
REVISION: **2**

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

ASSUMED PAVEMENT DETAILS (SUBJECT TO CBR TESTING)

ROAD	ROAD CLASSIFICATION	DESIGN ESAs	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH
ROAD 13	ACCESS STREET	1.0×10^5	3	35mm	125mm	100mm	150mm	410mm

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



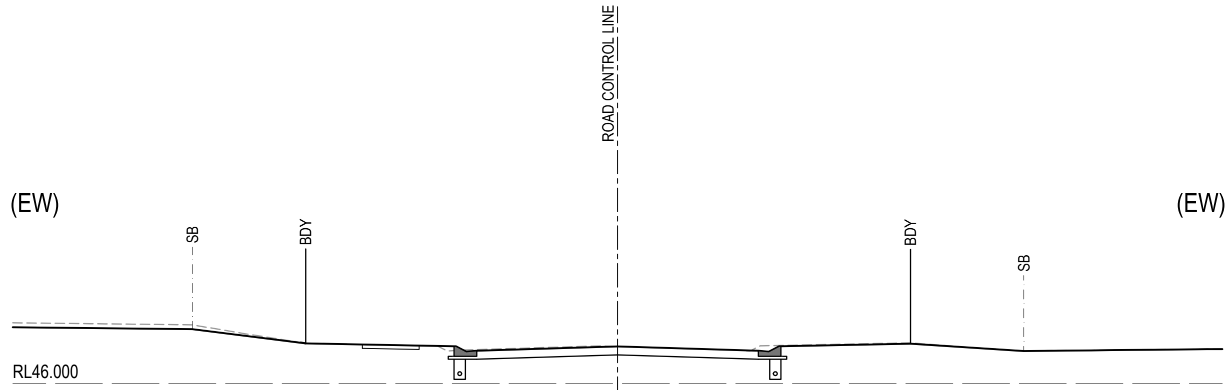
DATUM RL 28.0

CHAINAGES	CUT (-) / FILL	LHS LIP LEVEL	RHS LIP LEVEL	DESIGN SURFACE	EXISTING SURFACE
0.000	-0.022	#	#	52.095	52.117
4.088	0.149	#	#	51.972	51.824
9.088	0.249	#	#	51.749	51.499
10.289	0.218	#	#	51.673	51.455
14.088	0.138	#	#	51.377	51.239
15.263	0.100	#	#	51.272	51.172
15.563	0.096	#	#	51.246	51.150
20.000	0.010	50.748	50.748	50.860	50.850
30.563	-0.154	49.904	49.904	50.016	50.169
40.000	-0.211	49.239	49.239	49.350	49.562
45.563	-0.206	48.886	48.886	48.997	49.203
60.000	-0.154	48.008	48.008	48.119	48.274
63.389	-0.142	47.802	47.802	47.913	48.055
70.328	-0.115	47.380	47.380	47.491	47.606
80.000	-0.080	46.791	46.791	46.903	46.983
97.553	-0.017	45.724	45.724	45.835	45.852
100.000	-0.010	45.572	45.572	45.684	45.695
112.553	-0.056	44.719	44.719	44.830	44.886
120.000	-0.144	44.151	44.151	44.263	44.407
127.553	-0.280	43.528	43.528	43.640	43.920
129.668	-0.325	43.347	43.347	43.459	43.784
133.032	-0.344	43.112	43.112	43.224	43.567
134.668	-0.314	43.036	43.036	43.147	43.461
138.923	-0.115	42.952	42.952	43.063	43.178
139.668	-0.066	42.954	42.954	43.066	43.132
140.000	-0.042	42.956	42.956	43.068	43.110
142.151	-0.017	#	#	43.083	43.100
152.302	-0.075	#	#	43.153	43.228
156.291	0.006	#	#	43.273	43.267

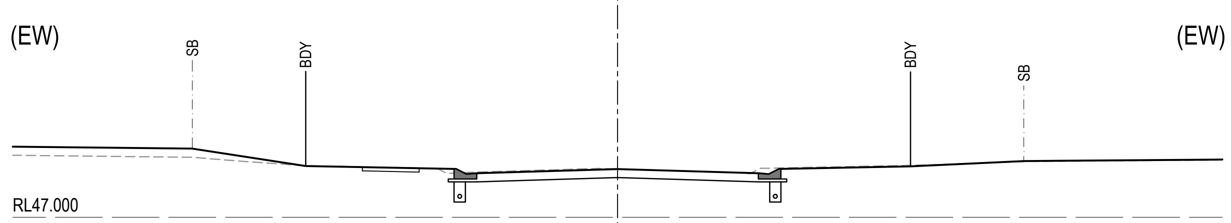
HORIZONTAL CURVES: R30.000, R70.000, R30.000

ROAD 13

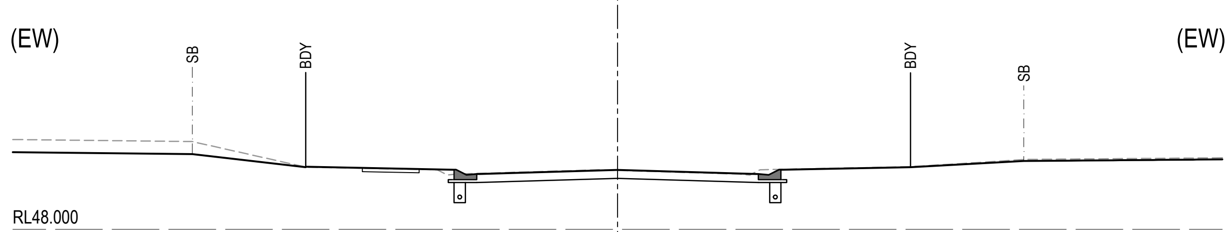
REFER INTERSECTION DRAWINGS FOR LIP LEVELS



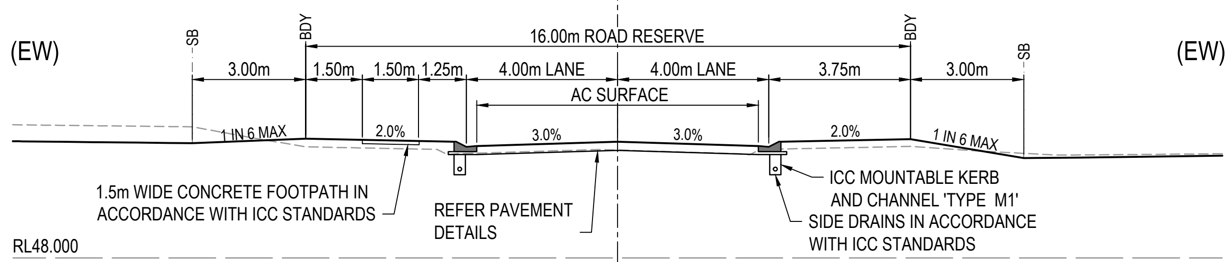
CH 80.000



CH 60.000



CH 40.000



CH 20.000

ROAD 13

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS

DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329

FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN DEVELOPMENT ENGINEERS + ADVISORS

ENQUIRIES@PEAKURBAN.COM.AU

SCALE: 1:100 A1 / 1:200 A3 CROSS SECTIONS; 1:1000 A1 / 1:2000 A3 HORIZONTAL; 1:100 A1 / 1:200 A3 VERTICAL

CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

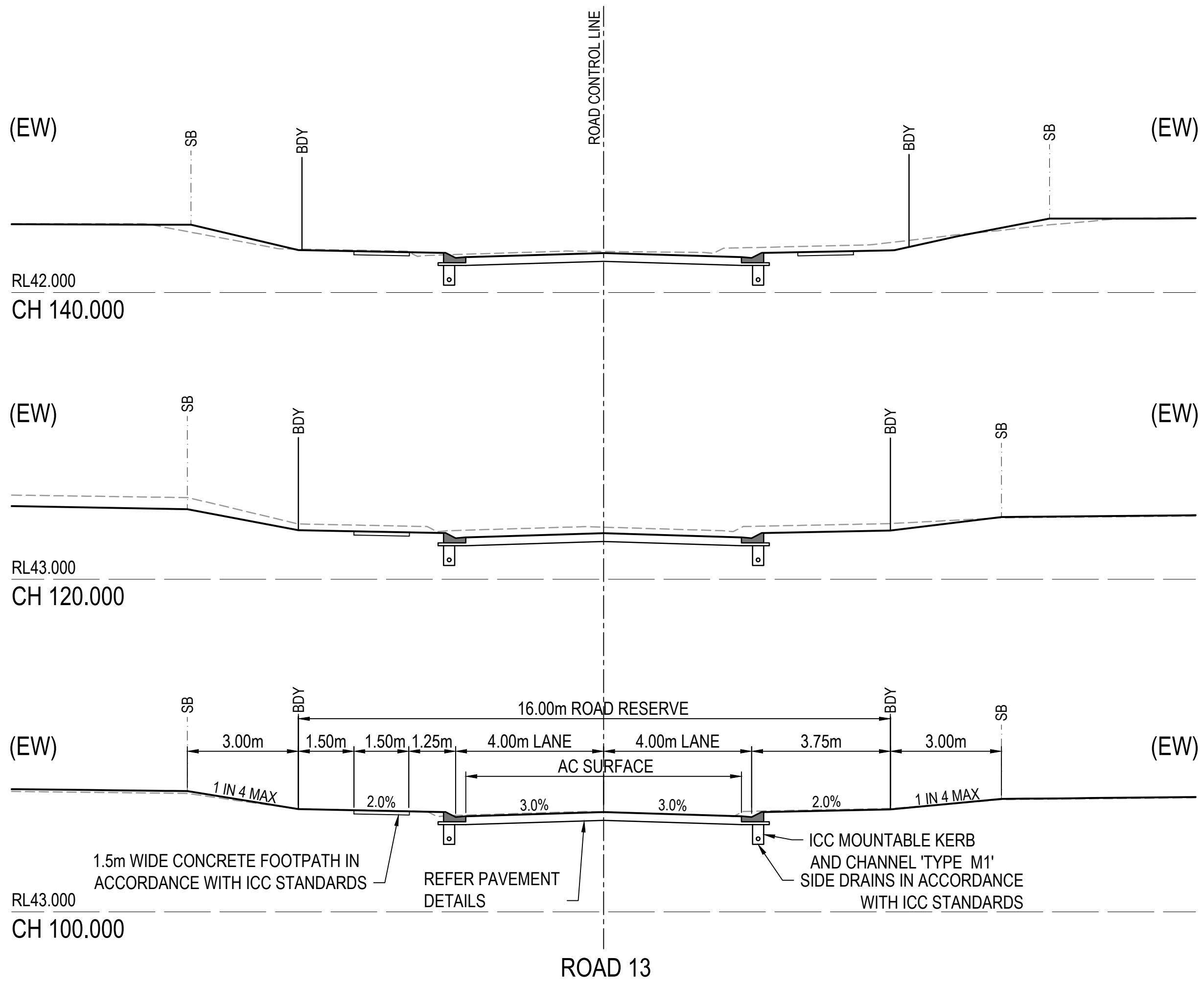
PROJECT NAME: HAYFIELD STAGE 5

352 RIPLEY ROAD RIPLEY

DRAWING TITLE: ROAD 13 LONGITUDINAL SECTION AND CROSS SECTIONS 1 OF 2

PROJECT No.	DRAWING No.	REVISION
17-0195	110	2

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



REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE: 1:100 A1, 1:200 A3 (0 1 2 3 4 5)

CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: ROAD 13 LONGITUDINAL SECTION AND CROSS SECTIONS 2 OF 2

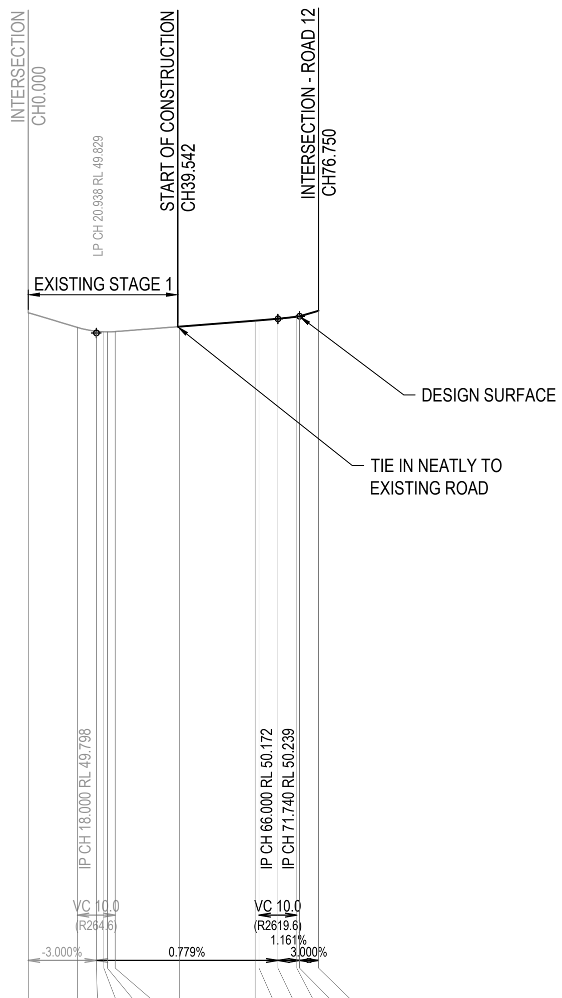
PROJECT No.	DRAWING No.	REVISION
17-0195	111	2

ASSUMED PAVEMENT DETAILS (SUBJECT TO CBR TESTING)

ROAD	ROAD CLASSIFICATION	DESIGN ESAs	ASSUMED CBR	SURFACING	BASE	SUB BASE	LOWER SUB BASE	TOTAL DEPTH
POLLEN STREET	ACCESS STREET	1.0×10^5	3	35mm	125mm	100mm	150	410mm

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

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

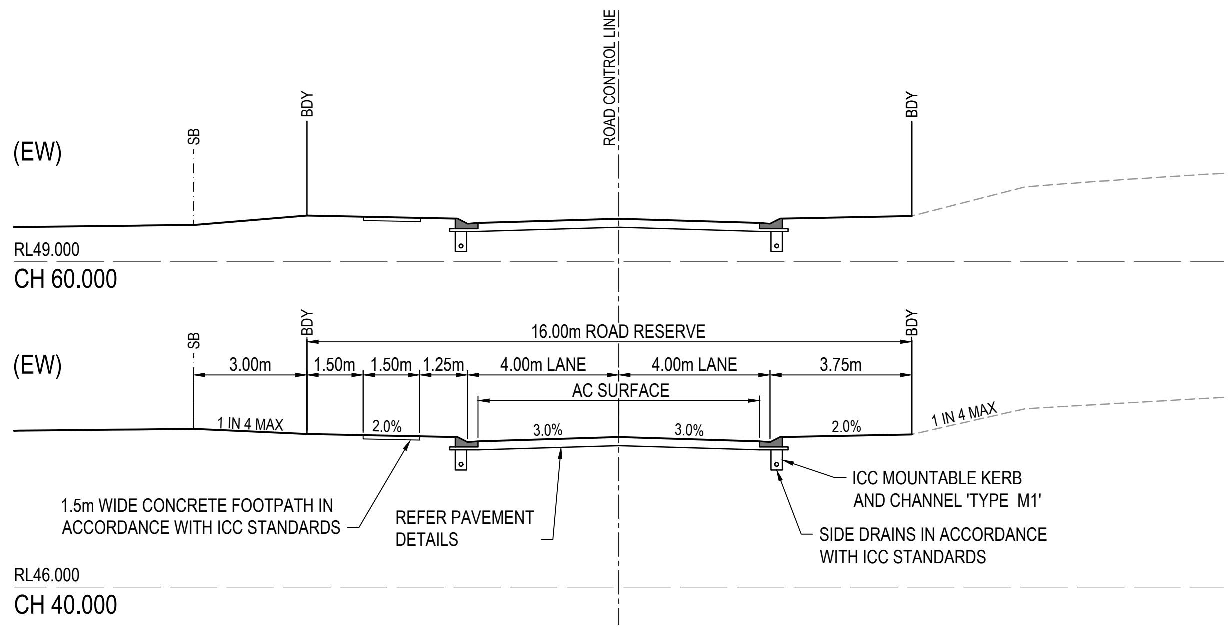


DATUM RL 32.0

CUT (-) / FILL	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	-0.011	-0.018	-0.001
LHS LIP LEVEL							49.858	50.014	#				
RHS LIP LEVEL							49.858	50.014					
DESIGN SURFACE	50.338	49.948	49.845	49.831	49.829	49.837	49.969	50.125	50.133	50.177	50.230	50.239	50.389
EXISTING SURFACE	50.334	49.948	49.845	49.831	49.829	49.837	49.969	50.125	50.133	50.172	50.242	50.257	50.390
CHAINAGES	0.000	13.000	18.000	20.000	20.938	23.000	40.000	60.000	61.000	66.000	71.000	71.740	76.750
HORIZONTAL CURVES													

POLLEN STREET

REFER INTERSECTION DRAWINGS FOR LIP LEVELS



POLLEN STREET

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE
1:100 A1 / 1:200 A3 — CROSS SECTIONS (0 1 2 3 4 5)
1:1000 A1 / 1:2000 A3 — HORIZONTAL (10 0 10 20 30 40 50)
1:100 A1 / 1:200 A3 — VERTICAL (1 0 1 2 3 4 5)

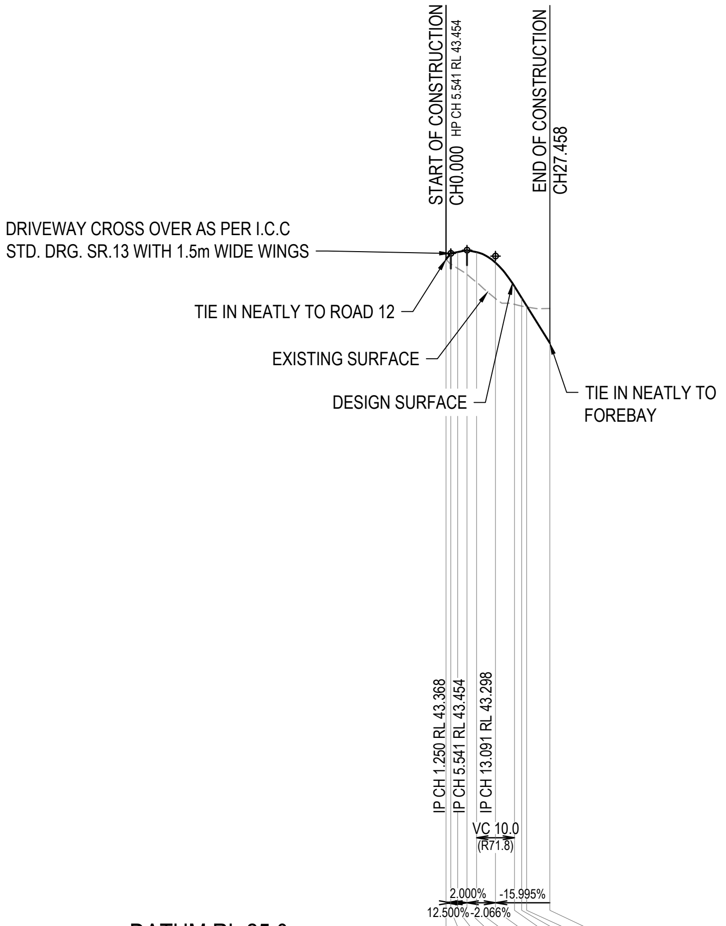
CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: POLLEN STREET LONGITUDINAL SECTION AND CROSS SECTIONS

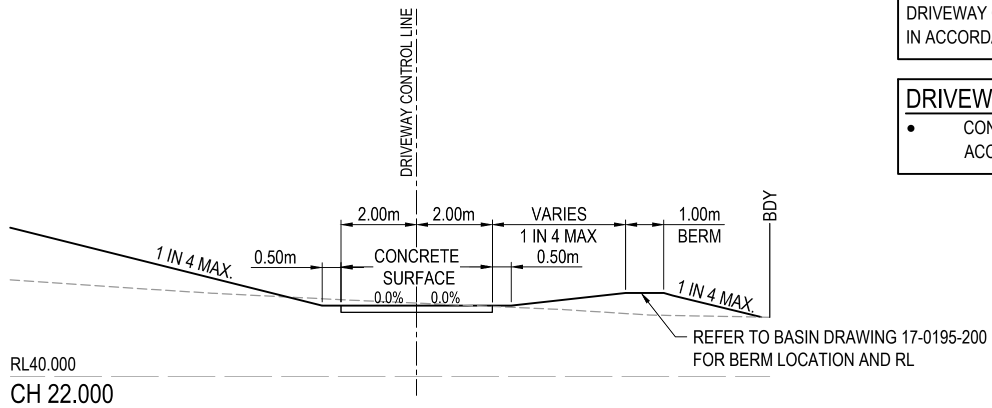
PROJECT No.	DRAWING No.	REVISION
17-0195	112	2



DATUM RL 25.0

CUT (-) / FILL	-0.010	0.278	0.433	0.641	0.799	0.952	0.478	0.216	0.028	-0.913
DESIGN SURFACE	43.212	43.368	43.405	43.454	43.401	43.124	42.498	42.193	41.982	41.000
EXISTING SURFACE	43.222	43.090	42.972	42.813	42.603	42.172	42.021	41.977	41.953	41.913
CHAINAGES	0.000	1.250	3.090	5.541	8.091	13.091	18.091	20.000	21.322	27.458
HORIZONTAL CURVES	R-25.000									

BASIN ACCESS DRIVEWAY



BASIN ACCESS DRIVEWAY

NOTE: #

DRIVEWAY CROSSOVER GRADES AND SETOUT TO BE IN ACCORDANCE WITH ICC STD DRG SR.13 (UNO)

DRIVEWAY CONCRETE NOTES:

- CONCRETE ASSESS RAMP GENERALLY IN ACCORDANCE WITH I.C.C STD. DRG. SR.17

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329

FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS • ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE
1:100 / 1:200 — CROSS SECTIONS — A1 / A3
1:1000 / 1:2000 — HORIZONTAL — A1 / A3
1:100 / 1:200 — VERTICAL — A1 / A3

CLIENT: RIPLEY PROJECTS PTY LTD

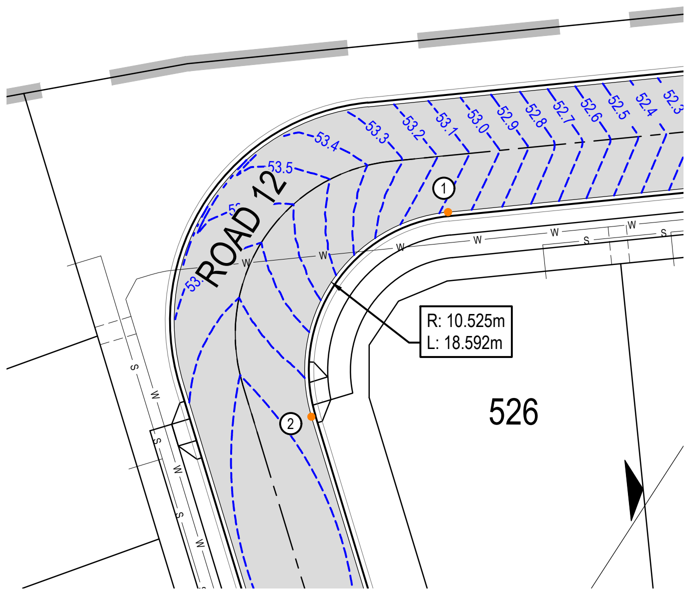
ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

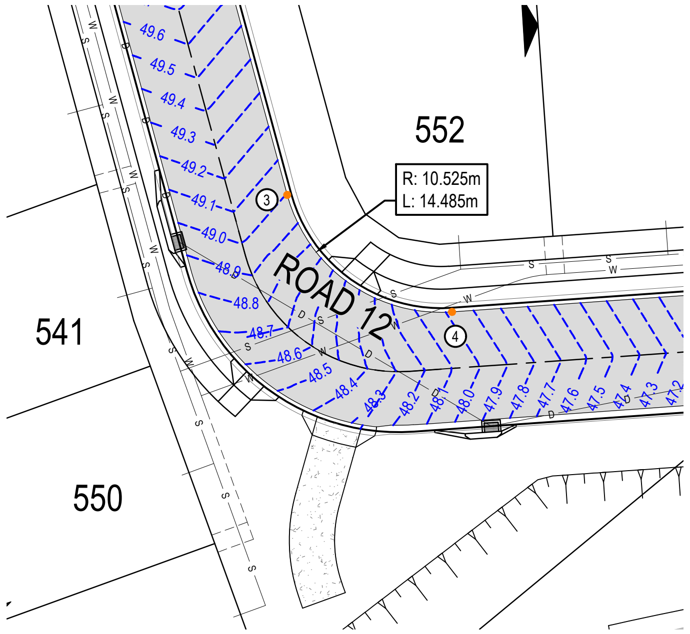
PROJECT NAME: HAYFIELD STAGE 5

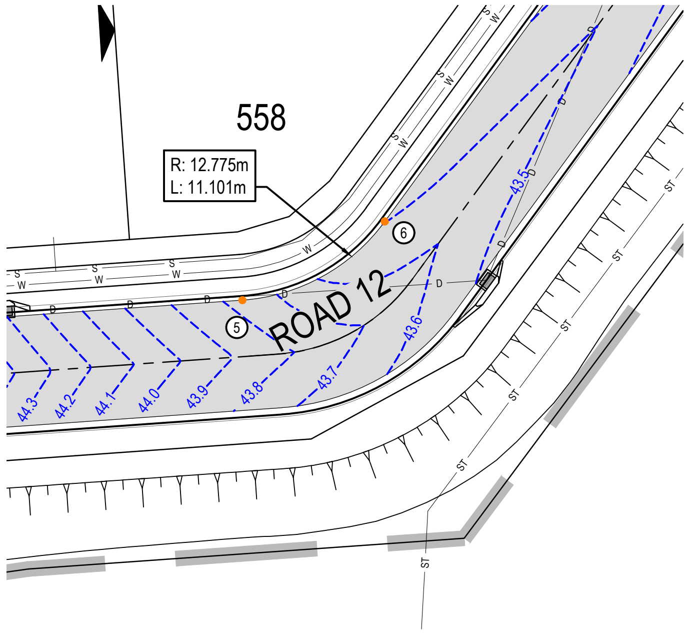
352 RIPLEY ROAD RIPLEY

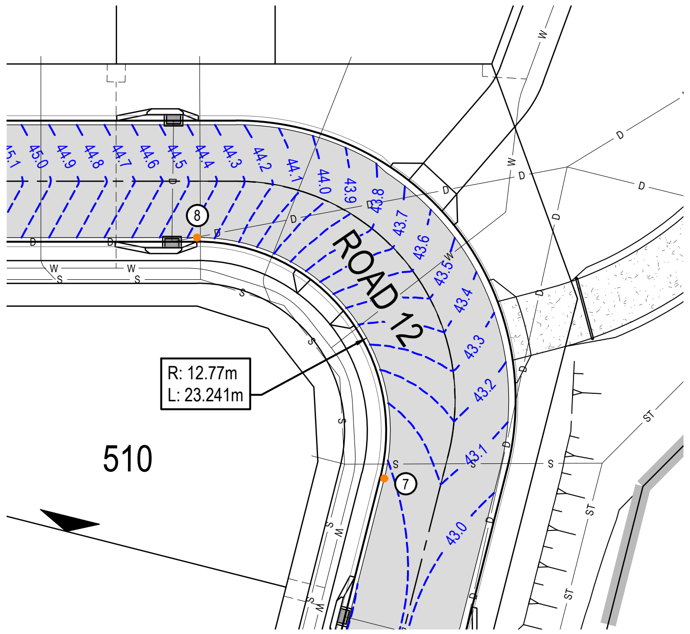
DRAWING TITLE: BASIN ACCESS DRIVEWAY LONGITUDINAL AND CROSS SECTIONS

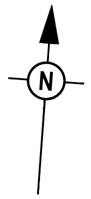
PROJECT No.	DRAWING No.	REVISION
17-0195	113	2











LEGEND

- PROPOSED ROAD CONTROL LINE
- PROPOSED KERB INVERT LINE
- PROPOSED KERB SETOUT NODE (01)
- PROPOSED CONCRETE PATH AND PRAM RAMP
- INDICATIVE DRIVEWAY LOCATION
- PROPOSED PAVEMENT CONTOUR (0.1m INTERVAL) (41.0)
- PROPOSED STORMWATER DRAINAGE PIPE (D)
- PROPOSED SEWER MAIN (S)
- PROPOSED WATER MAIN (W)
- EXISTING SEWER MAIN (S)
- EXISTING WATER MAIN (W)
- PROPOSED KERB SETOUT LINE
- SP — PROPOSED KERB SETOUT START POINT
- EP — PROPOSED KERB SETOUT END POINT
- PROPOSED ROAD CUTBACK LINE
- EXISTING EDGE OF BITUMEN

ALL KERB RETURN AND PAVEMENT WIDENING REFERENCE THE LIP OF KERB UNLESS NOTED OTHERWISE

ROAD WIDENING SETOUT

NUMBER	EASTING	NORTHING
1	478360.869	6940392.893
2	478352.865	6940378.731
3	478393.195	6940266.824
4	478404.636	6940259.908
5	478485.469	6940271.663
6	478494.472	6940277.547
7	478532.573	6940396.366
8	478519.047	6940411.322

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE: 1:250 A1, 1:500 A3 — 5 0 5 10

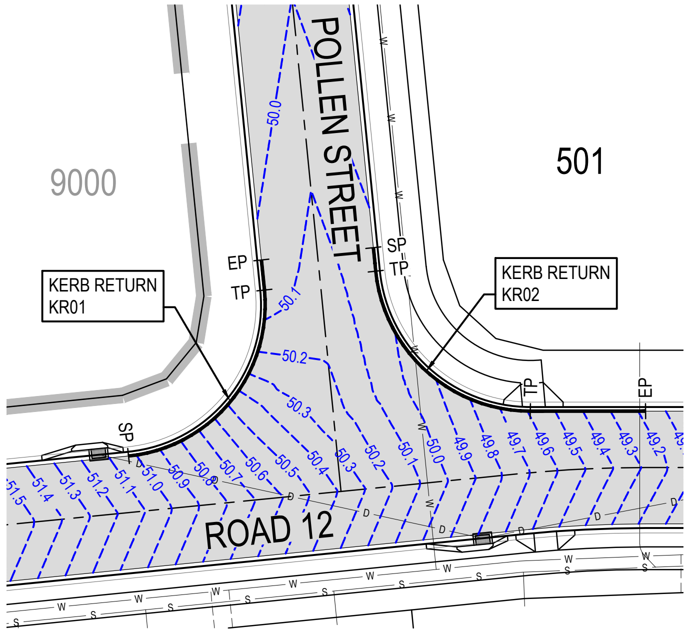
CLIENT: RIPLEY PROJECTS PTY LTD

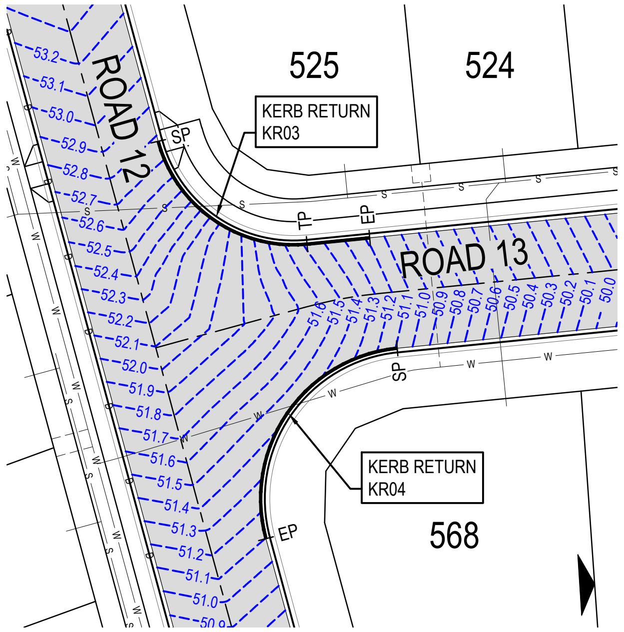
ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

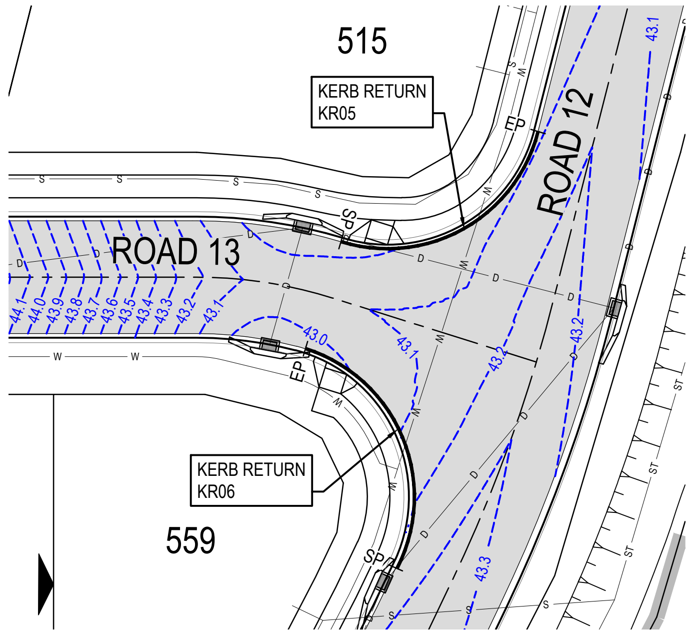
PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: INTERSECTION DETAILS LAYOUT PLAN SHEET 1 OF 2

PROJECT No.	DRAWING No.	REVISION
17-0195	114	2

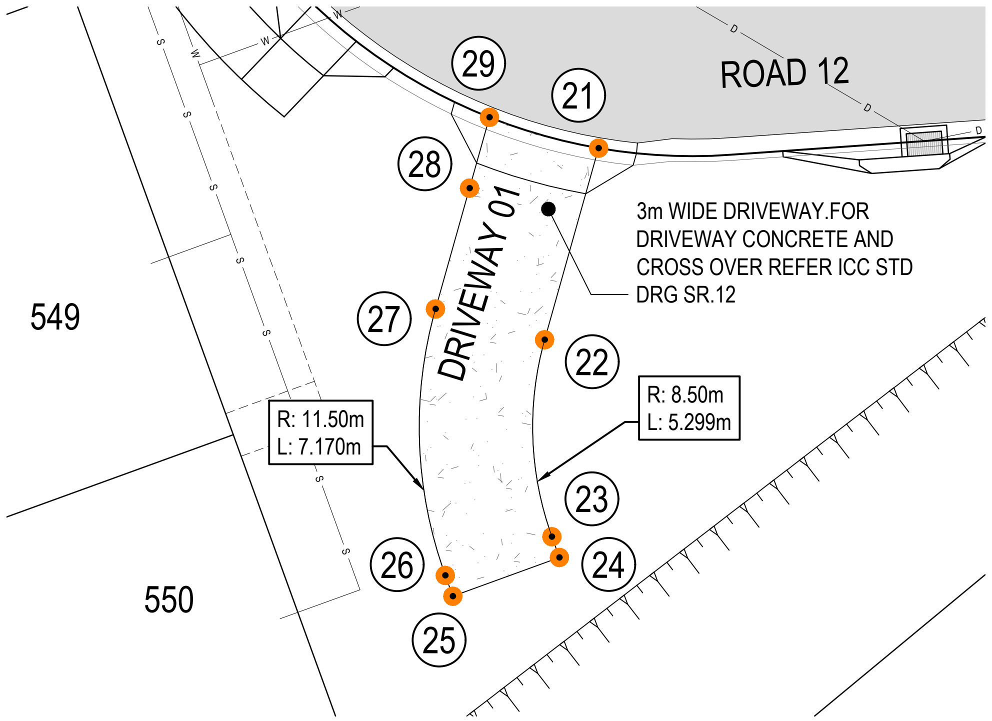






ALL KERB RETURN AND PAVEMENT WIDENING REFERENCE THE LIP OF KERB UNLESS NOTED OTHERWISE

REFER SHEET 114 FOR LEGEND



DRIVEWAY 01 DETAILS

SCALE 1:100 (A1)
SCALE 1:200 (A3)

DRIVEWAY 01 SETOUT

POINT	EASTING	NORTHING
21	478399.203	6940251.738
22	478398.152	6940246.575
23	478398.729	6940241.393
24	478398.969	6940240.861
25	478396.233	6940239.630
26	478395.993	6940240.163
27	478395.213	6940247.174
28	478395.875	6940250.429
29	478396.263	6940252.336

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE
1:250 / 1:500: 5 0 5 10 (A1 / A3)
1:100 / 1:200: 1 0 1 2 3 4 5 (A1 / A3)

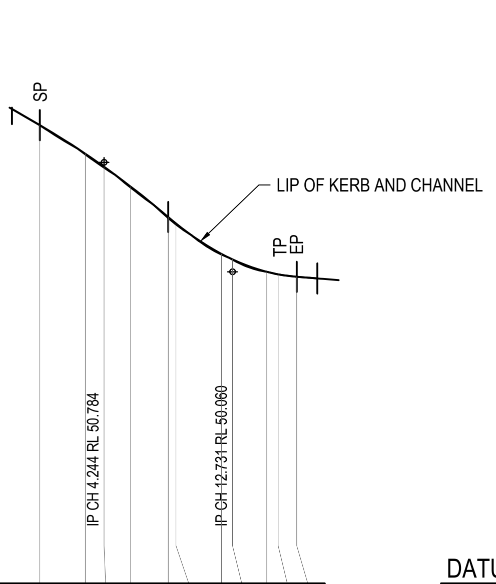
CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK
PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD
RIPLEY

DRAWING TITLE: INTERSECTION DETAILS LAYOUT PLAN SHEET 2 OF 2

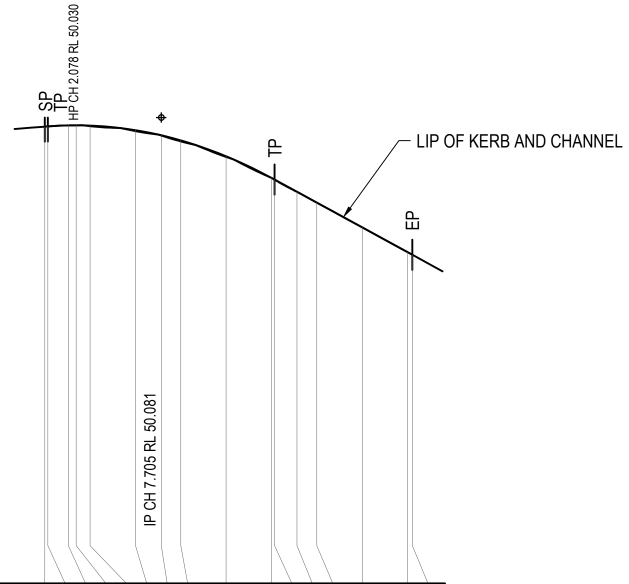
PROJECT No. 17-0195
DRAWING No. 115
REVISION 2



DATUM RL 48.0

LIP LEVEL	51.030	50.842	50.755	50.625	50.422	50.380	50.179	50.143	50.061	50.044	50.027
NORTHING	6940406.762	6940407.710	6940408.343	6940409.452	6940411.388	6940411.832	6940414.639	6940415.360	6940417.624	6940418.364	6940419.573
EASTING	478396.918	478399.752	478400.822	478402.181	478403.731	478403.989	478405.014	478405.133	478405.166	478405.065	478404.854
CHAINAGES	0.000	3.000	4.244	6.000	8.487	9.000	12.000	12.731	15.000	15.747	16.975
HORIZONTAL CURVES	R-10.025										

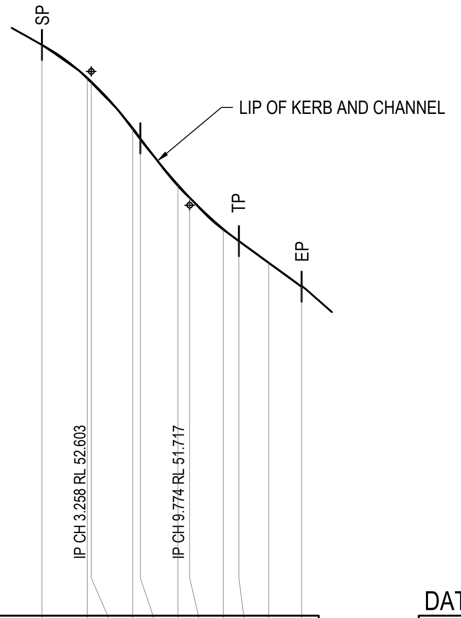
KR1



DATUM RL 47.0

LIP LEVEL	50.021	50.022	50.029	50.030	50.028	49.998	49.964	49.930	49.825	49.682	49.671	49.590	49.518	49.354	49.190	49.173
NORTHING	6940421.699	6940421.497	6940420.159	6940419.654	6940418.766	6940416.086	6940414.770	6940413.900	6940412.395	6940411.696	6940411.680	6940411.683	6940411.780	6940412.002	6940412.224	
EASTING	478412.045	478412.080	478412.314	478412.416	478412.660	478413.984	478415.066	478416.024	478418.606	478421.513	478421.717	478423.196	478424.507	478427.499	478430.491	
CHAINAGES	0.000	0.205	1.564	2.078	3.000	6.000	7.705	9.000	12.000	15.000	15.205	16.685	18.000	21.000	24.000	24.309
HORIZONTAL CURVES	R-10.275															

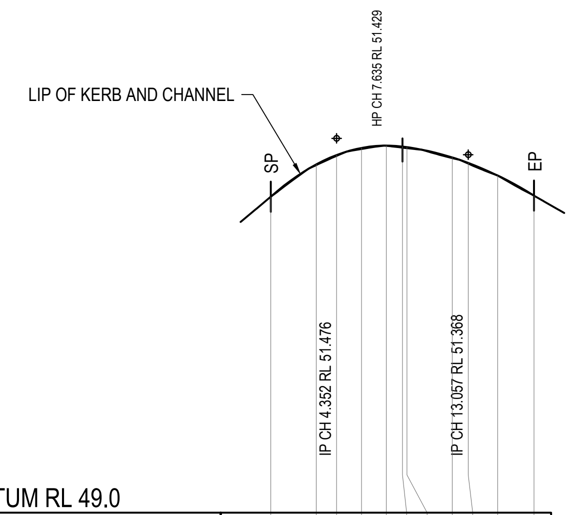
KR02



DATUM RL 49.0

LIP LEVEL	52.779	52.560	52.536	52.229	52.160	51.852	51.768	51.560	51.480	51.336	51.178
NORTHING	6940332.273	6940329.653	6940329.452	6940327.624	6940327.351	6940326.397	6940326.229	6940326.100	6940326.221	6940326.560	
EASTING	478370.120	478371.554	478371.715	478373.746	478374.184	478376.469	478377.224	478379.441	478380.465	478382.404	
CHAINAGES	0.000	3.000	3.258	6.000	6.516	9.000	9.774	12.000	13.032	15.000	17.182
HORIZONTAL CURVES	R-9.275										

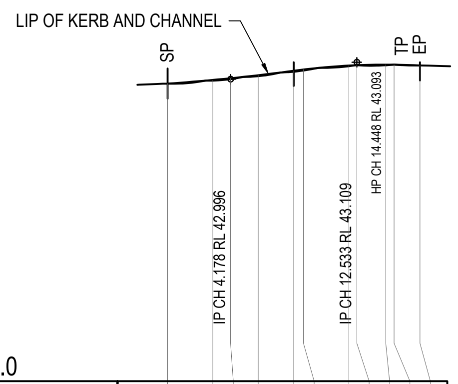
KR03



DATUM RL 49.0

LIP LEVEL	51.090	51.304	51.366	51.413	51.429	51.422	51.418	51.350	51.314	51.231	51.098
NORTHING	6940319.786	6940318.838	6940318.143	6940317.096	6940315.866	6940314.973	6940314.716	6940311.908	6940310.864	6940308.923	6940306.577
EASTING	478386.906	478384.072	478382.913	478381.643	478380.569	478379.981	478379.835	478378.810	478378.654	478378.658	478379.179
CHAINAGES	0.000	3.000	4.352	6.000	7.635	8.705	9.000	12.000	13.057	15.000	17.409
HORIZONTAL CURVES	R-10.025										

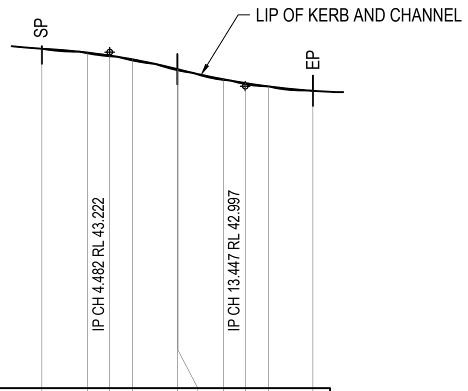
KR04



DATUM RL 41.0

LIP LEVEL	42.968	42.992	43.003	43.023	43.053	43.061	43.087	43.089	43.093	43.093	43.088
NORTHING	6940340.155	6940339.905	6940340.045	6940340.522	6940341.584	6940341.955	6940344.083	6940344.521	6940346.209	6940346.725	6940348.377
EASTING	478511.658	478514.636	478515.805	478517.561	478519.658	478520.185	478522.285	478522.589	478523.485	478523.683	478524.119
CHAINAGES	0.000	3.000	4.178	6.000	8.355	9.000	12.000	12.533	14.448	15.000	16.711
HORIZONTAL CURVES	R-10.275										

KR05



DATUM RL 41.0

LIP LEVEL	43.244	43.219	43.199	43.174	43.109	43.109	43.043	43.017	42.995	42.966
NORTHING	6940318.884	6940321.774	6940323.254	6940324.762	6940327.563	6940327.594	6940330.031	6940331.002	6940331.866	6940332.929
EASTING	478516.950	478517.713	478517.772	478517.611	478516.671	478516.655	478514.923	478513.852	478512.563	478509.844
CHAINAGES	0.000	3.000	4.482	6.000	8.965	9.000	12.000	13.447	15.000	17.929
HORIZONTAL CURVES	R-10.275									

KR06

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS

DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329

FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE
1:250 5 0 5 10 A1
1:500 A3
HORIZONTAL
1:25 0.25 0 0.25 0.5 0.75 1 1.25 A1
1:50 A3
VERTICAL

CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: INTERSECTION KERB RETURN LONGITUDINAL SECTIONS

PROJECT No.	DRAWING No.	REVISION
17-0195	116	2

LEGEND

- PROPOSED AREA OF WORKS
- PROPOSED SINGLE STREET NAME SIGN
- EXISTING SINGLE STREET NAME SIGN
- PROPOSED ROAD SIGN
- EXISTING ROAD SIGN
- UDL — PROPOSED UNBROKEN DIVIDING LINE
- PROPOSED RRPM - WHITE - BIDIRECTIONAL
- EXISTING LINEMARKING (LINETYPES AS PER PROPOSED)
- INDICATIVE DRIVEWAY LOCATION

GENERAL NOTES

1. ALL EXISTING SIGNAGE AND LINEMARKING TO REMAIN UNO.
2. ALL PROPOSED SIGNAGE AND LINEMARKING SHALL BE IN ACCORDANCE WITH I.C.C STANDARDS AND THE QUEENSLAND GOVERNMENT'S MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329

FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS • ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE: 1:500 A1; 1:1000 A3 (10 5 0 10 20)

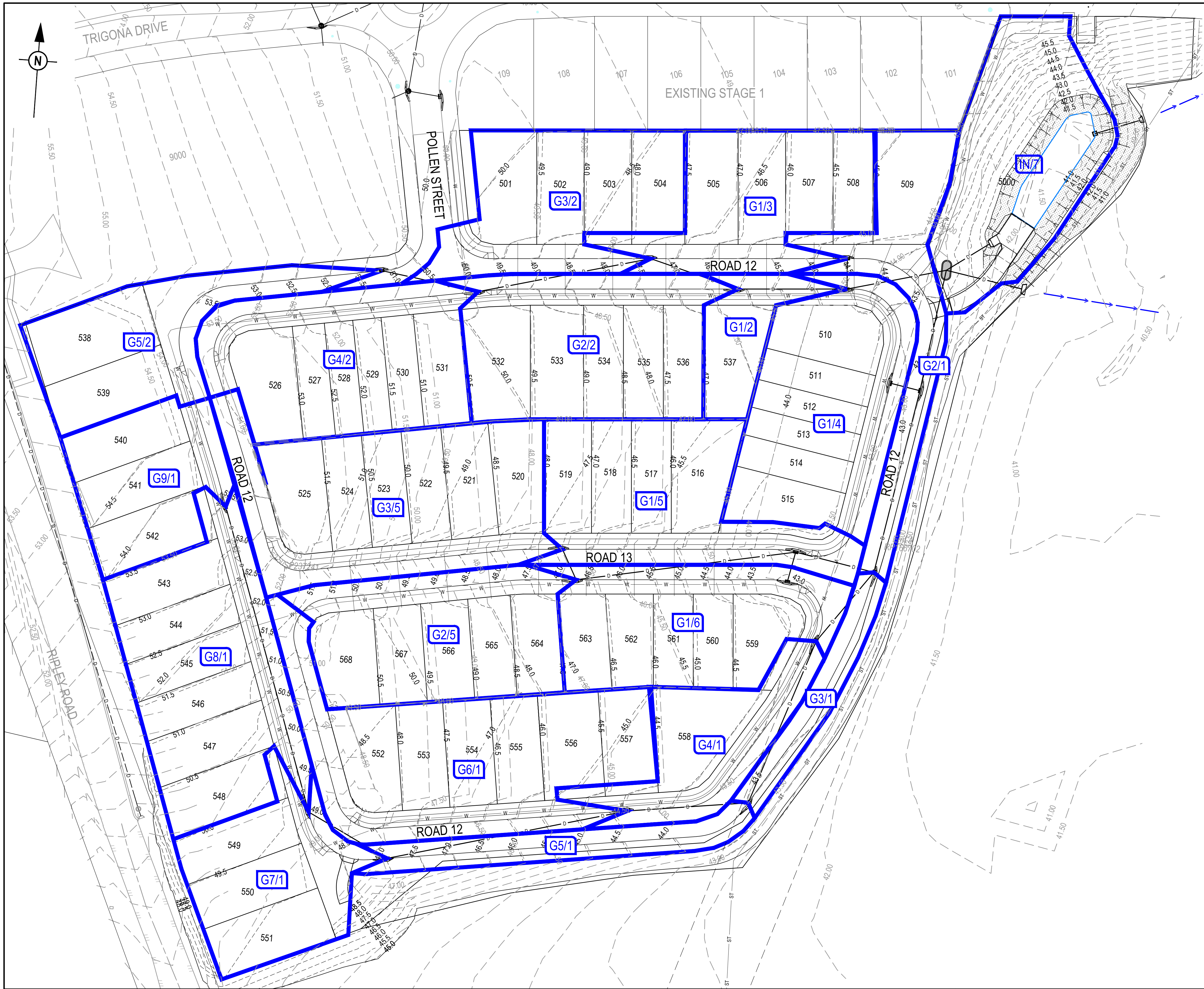
CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: SIGNS AND LINEMARKING LAYOUT PLAN

PROJECT No.: 17-0195
DRAWING No.: 117
REVISION: 2



LEGEND

- 1 — CATCHMENT NAME
- CATCHMENT BOUNDARY
- D — D — PROPOSED STORMWATER DRAINAGE PIPE
- D — D — EXISTING STORMWATER DRAINAGE PIPE
- R — R — PROPOSED ROOFWATER DRAINAGE PIPE
- PROPOSED SWALE DRAIN
- 24.0 — PROPOSED CONTOUR
- 24.0 — EXISTING CONTOUR

CATCHMENT AREAS

CATCHMENT	AREA (ha)
G9/1	0.143
G8/1	0.291
G7/1	0.169
G6/1	0.326
G5/1	0.079
G4/1	0.136
G3/1	0.054
G2/1	0.151
G5/2	0.171
G4/2	0.249
G3/2	0.206
G2/2	0.244
G1/2	0.066
G1/3	0.190
G1/4	0.247
G3/5	0.317
G2/5	0.222
G1/5	0.231
G1/6	0.217
IN/7	0.234

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329

FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS • ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE: 1:500 / 1:1000 — 10 5 0 10 20 — A1 / A3

CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK
PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD
RIPLEY

DRAWING TITLE: STORMWATER DRAINAGE CATCHMENT LAYOUT PLAN

PROJECT No. 17-0195
DRAWING No. 118
REVISION 2

STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 1 OF 2

STRUCTURE NAME / STRUCTURE DESCRIPTION

LINE	STRUCTURE NAME	STRUCTURE DESCRIPTION
1	G9/1	LIP IN LINE GULLY PIT 2.4m LINTEL, ON-GRADE
1	G8/1	STD GULLY PIT WITH 1050mm MANHOLE - LIP IN LINE 2.4m LINTEL, ON-GRADE
1	G7/1	STD GULLY PIT - LIP IN LINE 2.4m LINTEL, ON-GRADE
1	G6/1	STD GULLY PIT - LIP IN LINE 2.4m LINTEL, ON-GRADE
1	G5/1	STD GULLY PIT - LIP IN LINE 2.4m LINTEL, ON-GRADE
1	G4/1	STD GULLY PIT WITH 1050mm MANHOLE - LIP IN LINE 2.4m LINTEL, ON-GRADE
1	G3/1	STD GULLY PIT WITH 2100mm MANHOLE - LIP IN LINE 2.4m LINTEL, ON-GRADE REFER TO DETAIL ON 17-0195-122
1	G2/1	STD GULLY PIT WITH 1500mm MANHOLE- LIP IN LINE 2.4m LINTEL, SAG
1	1/1	CUSTOM MANHOLE REFER TO DETAIL ON 17-0195-122
1	OUT/1	CONCRETE HEADWALL
1A	1/1	CUSTOM MANHOLE REFER TO DETAIL ON 17-0195-122
1A	OUT/1A	CONCRETE HEADWALL
2	G5/2	LIP IN LINE GULLY PIT 2.4m LINTEL, ON-GRADE
2	G4/2	LIP IN LINE GULLY PIT 2.4m LINTEL, ON-GRADE
2	G3/2	LIP IN LINE GULLY PIT 2.4m LINTEL, ON-GRADE
2	G2/2	LIP IN LINE GULLY PIT 2.4m LINTEL, ON-GRADE
2	G1/2	STD GULLY PIT WITH 1050mm MANHOLE - LIP IN LINE 2.4m LINTEL, ON-GRADE
2	1/1	CUSTOM MANHOLE REFER TO DETAIL ON 17-0195-122

STORMWATER STRUCTURE NOTE:

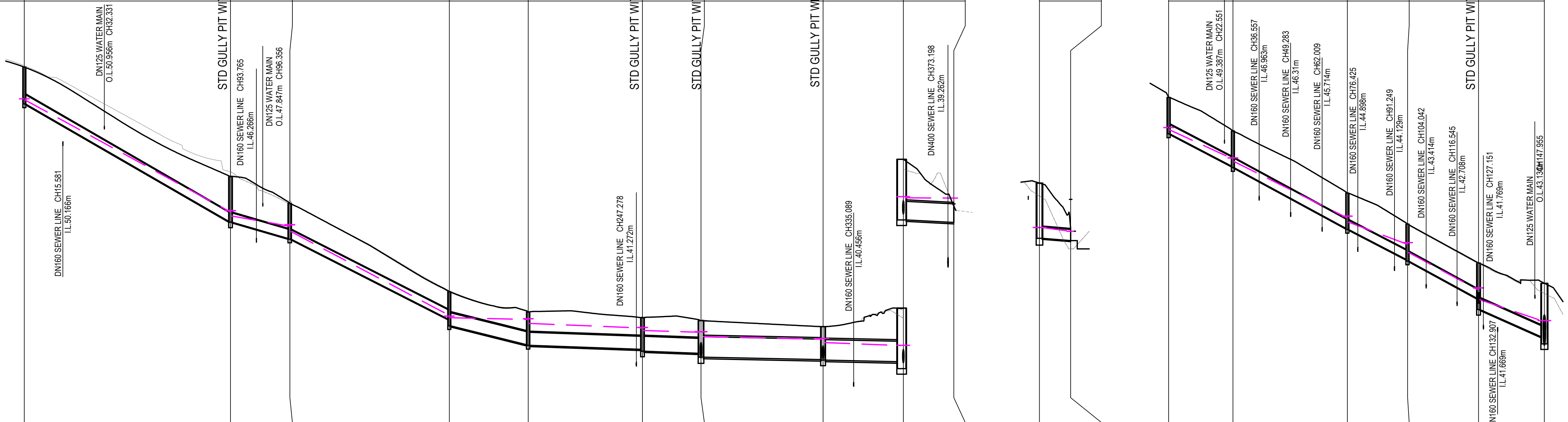
STANDARD ROUND MANHOLES LESS THAN 3.0m DEEP:
CONSTRUCT IN ACCORDANCE WITH THE LOCAL AUTHORITY STANDARDS.

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.



LINE 1

	(G9/1)	G9/1 – G8/1	G8/1 – G7/1	G7/1 – G6/1	G6/1 – G5/1	G5/1 – G4/1	G4/1 – G3/1	G3/1 – G2/1	G2/1 – 1/1	1/1 – OUT/1	(OUT/1)
PIPE SIZE (mm)		375	375	375	525	525	600	825	825	(2x)750	
PIPE CLASS		3	3	3	3	3	3	4	4	3	
PIPE GRADE (%)		5.70%	2.77%	5.01%	2.41%	0.35%	0.35%	0.20%	0.20%	0.50%	
PIPE SLOPE (1 in X)		17.54	36.12	19.97	41.43	284.84	284.83	500.00	500.00	200.00	
FULL PIPE VELOCITY (m/s)		0.39	1.01	1.54	1.08	1.26	1.17	1.22	1.48	0.58	
PART FULL VELOCITY (m/s)		2.45	2.46	3.43	2.81	1.32	1.46	1.37	1.48	1.59	
DATUM RL		34.0								28.0	
H.G.L IN PIPE & W.S.E IN STRUCTURE	52.056	52.000 47.518 47.541	47.325 46.921 46.975	46.698 43.342 43.286	43.226 43.155 43.183	42.994 42.810 42.830	42.708 42.639 42.663	42.463 42.361 42.387	42.221 42.102 42.109	42.061 42.050 42.050	42.050
PIPE FLOW (Cumecs)		0.043	0.111	0.170	0.233	0.272	0.330	0.653	0.792	0.511	
PIPE CAPACITY AT GRADE (Cumecs)		0.419	0.292	0.393	0.668	0.255	0.364	0.642	0.642	1.581	
DEPTH TO INVERT		1.485 1.820	1.840 1.417	1.438 1.110	1.379 1.327	1.347 1.298	1.373 1.316	1.473 1.330	1.350 2.164	2.444 0.661	0.661
INVERT LEVEL OF DRAIN		51.850 47.100	47.080 46.416	46.395 43.169	42.900 42.130	42.110 41.948	41.873 41.790	41.634 41.535	41.515 41.450	41.170 41.068	41.068
DESIGN SURFACE LEVEL	53.335	48.920	47.833	44.279	43.457	43.246	43.106	42.865	43.614	41.729	
SETOUT COORDINATES	E 478358.583	N 6940341.764 E 478386.284	N 6940263.192 E 478407.781	N 6940252.560 E 478469.888	N 6940269.675 E 478501.472	N 6940274.173 E 478516.176	N 6940317.911 E 478529.977	N 6940337.105 E 478538.532	N 6940385.666 E 478543.113	N 6940417.783 E 478563.217	N 6940414.374
RUNNING CHAINAGE	0.000	83.313 83.313	23.983 107.295	64.422 171.717	31.902 203.619	46.144 249.763	23.641 273.404	49.309 322.712	32.442 355.154	20.390 375.544	

LINE 1A

	(1/1)	1/1 – OUT/1A	(OUT/1A)
PIPE SIZE (mm)		(2x)450	
PIPE CLASS		3	
PIPE GRADE (%)		0.75%	
PIPE SLOPE (1 in X)		132.64	
FULL PIPE VELOCITY (m/s)		1.82	
PART FULL VELOCITY (m/s)		1.82	
DATUM RL		29.0	
H.G.L IN PIPE & W.S.E IN STRUCTURE	41.865	41.865 41.711 41.711	41.711
PIPE FLOW (Cumecs)		0.580	
PIPE CAPACITY AT GRADE (Cumecs)		0.495	
DEPTH TO INVERT		2.226 0.918	0.918
INVERT LEVEL OF DRAIN		41.430 41.335	41.335
DESIGN SURFACE LEVEL	43.656	42.253	
SETOUT COORDINATES		E 478553.946	N 6940425.542
RUNNING CHAINAGE	0.000	12.601 12.601	

LINE 2

	(G5/2)	G5/2 – G4/2	G4/2 – G3/2	G3/2 – G2/2	G2/2 – G1/2	G1/2 – 1/1	(1/1)
PIPE SIZE (mm)		375	375	375	375	450	
PIPE CLASS		3	3	3	3	3	
PIPE GRADE (%)		5.02%	5.30%	4.97%	5.27%	4.16%	
PIPE SLOPE (1 in X)		19.94	18.86	20.14	18.98	24.05	
FULL PIPE VELOCITY (m/s)		0.44	1.00	1.45	2.06	2.05	
PART FULL VELOCITY (m/s)		2.42	3.11	3.36	3.76	3.76	
DATUM RL		33.0					
H.G.L IN PIPE & W.S.E IN STRUCTURE	49.896	49.800 48.647 48.673	48.522 46.271 46.321	46.078 45.201 45.254	44.852 43.363 43.426	42.950 42.102 42.109	42.061
PIPE FLOW (Cumecs)		0.049	0.110	0.160	0.228	0.325	
PIPE CAPACITY AT GRADE (Cumecs)		0.393	0.404	0.391	0.403	0.582	
DEPTH TO INVERT		1.472 1.424	1.483 1.428	1.472 1.424	1.487 1.432	1.877 2.164	2.444
INVERT LEVEL OF DRAIN		49.640 48.337	48.278 45.828	45.784 44.575	44.512 43.001	42.556 41.450	41.170
DESIGN SURFACE LEVEL	51.112	49.761	47.256	45.999	44.433	43.614	
SETOUT COORDINATES	E 478394.945	N 6940406.696 E 478420.670	N 6940403.075 E 478465.297	N 6940415.081 E 478488.818	N 6940408.804 E 478517.415	N 6940410.922 E 478543.113	N 6940417.783
RUNNING CHAINAGE	0.000	25.979 25.979	46.214 72.193	24.345 96.537	28.676 125.213	26.598 151.811	

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS • ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE
1:1000 1:2000 — HORIZONTAL — A1 A3
1:100 1:200 — VERTICAL — A1 A3

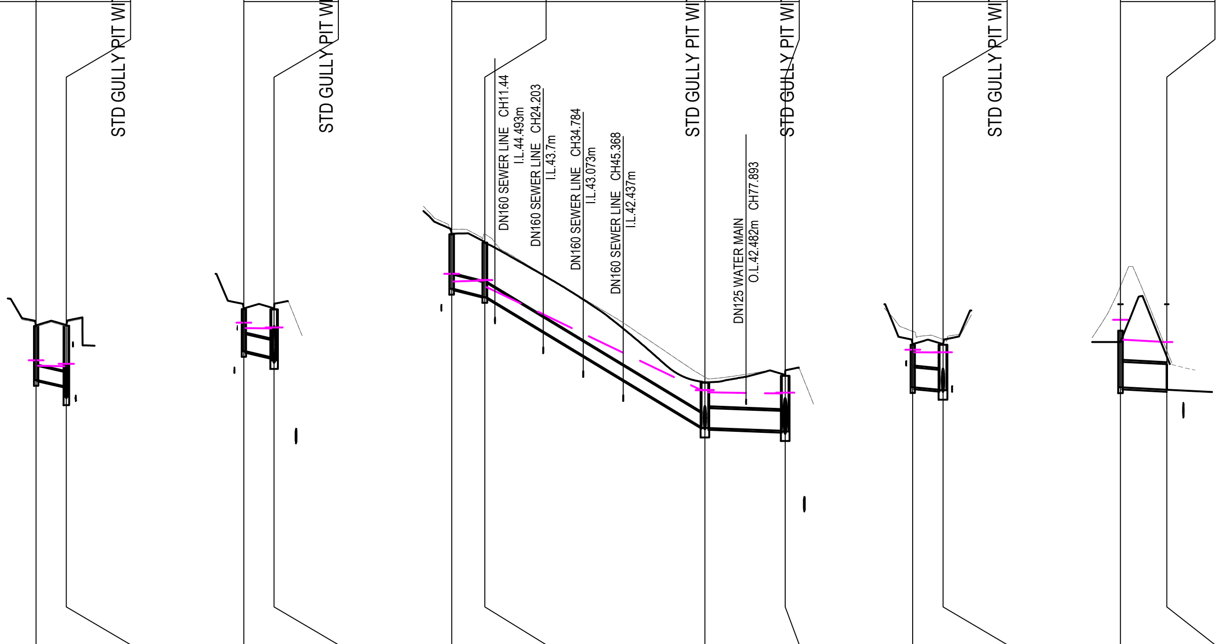
CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 1 OF 2

PROJECT No.	DRAWING No.	REVISION
17-0195	119	2



STRUCTURE NAME	G1/3	G1/2	G1/4	G2/1	G3/5	G2/5	G1/5	G3/1	G1/6	G1/5	IN/7	OUT/7
STRUCTURE DESCRIPTION	LIP IN LINE GULLY PIT 2.4m LINTEL, ON-GRADE	STD GULLY PIT WITH 1050mm MANHOLE - LIP IN LINE 2.4m LINTEL, ON-GRADE	STD GULLY PIT - LIP IN LINE 2.4m LINTEL, SAG	STD GULLY PIT WITH 1500mm MANHOLE- LIP IN LINE 2.4m LINTEL, SAG	LIP IN LINE GULLY PIT 2.4m LINTEL, ON-GRADE	LIP IN LINE GULLY PIT 2.4m LINTEL, ON-GRADE	STD GULLY PIT WITH 1800mm MANHOLE - LIP IN LINE 2.4m LINTEL, SAG REFER TO DETAIL ON 17-0195-122	STD GULLY PIT WITH 2100mm MANHOLE - LIP IN LINE 2.4m LINTEL, ON-GRADE REFER TO DETAIL ON 17-0195-122	STD GULLY PIT - LIP IN LINE 2.4m LINTEL, SAG	STD GULLY PIT WITH 1800mm MANHOLE - LIP IN LINE 2.4m LINTEL, SAG REFER TO DETAIL ON 17-0195-122	FIELD INLET TYPE 1 900x900	CONCRETE HEADWALL

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.

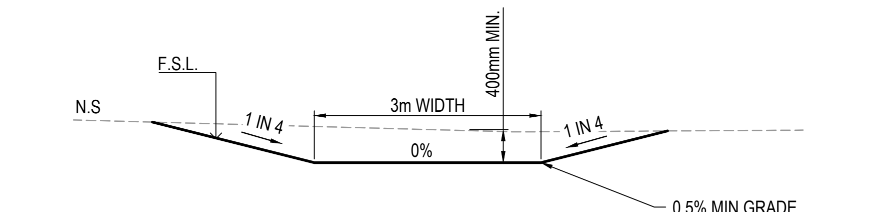
STANDARD ROUND MANHOLES GREATER THAN 5.3m DEEP:
SHALL BE STRUCTURALLY DESIGNED (CERTIFIED) AND CONSTRUCTED BY CONTRACTOR ON A CASE BY CASE BASIS.

ROUND EXTENDED (900mm MAX) MANHOLES:
CONSTRUCT IN ACCORDANCE WITH PEAK URBAN STD DRAWINGS S-101 & S-102.

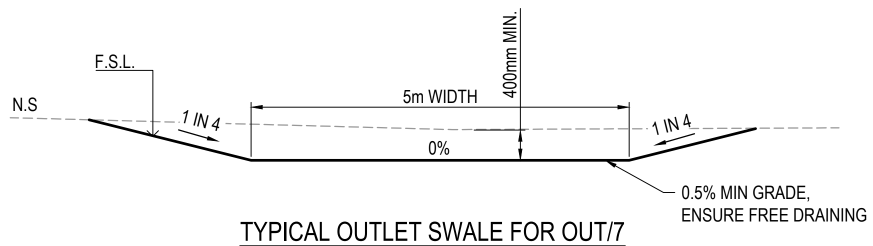
RECTANGULAR STRUCTURE (SPECIAL):
SHALL BE STRUCTURALLY DESIGNED (CERTIFIED) AND CONSTRUCTED BY CONTRACTOR ON A CASE BY CASE BASIS.

LINE	3	4	5	5	5	6	7
PIPE SIZE (mm)	375	450	375	375	(2x)525	525	675
PIPE CLASS	3	3	3	3	3	3	3
PIPE GRADE (%)	2.01%	2.00%	2.23%	5.91%	0.35%	0.81%	0.25%
PIPE SLOPE (1 in X)	49.72	50.00	44.77	16.91	285.71	123.45	200.00
FULL PIPE VELOCITY (m/s)	0.54	0.57	0.65	1.16	0.74	0.42	1.70
PART FULL VELOCITY (m/s)	1.85	2.04	2.02	3.37	1.24	1.47	1.89
DATUM RL	31.0	29.0	31.0			30.0	28.0
PIPE FLOW (Cumecs)	0.060	0.090	0.072	0.128	0.322	0.092	0.608
PIPE CAPACITY AT GRADE (Cumecs)	0.249	0.403	0.262	0.427	0.509	0.387	0.595

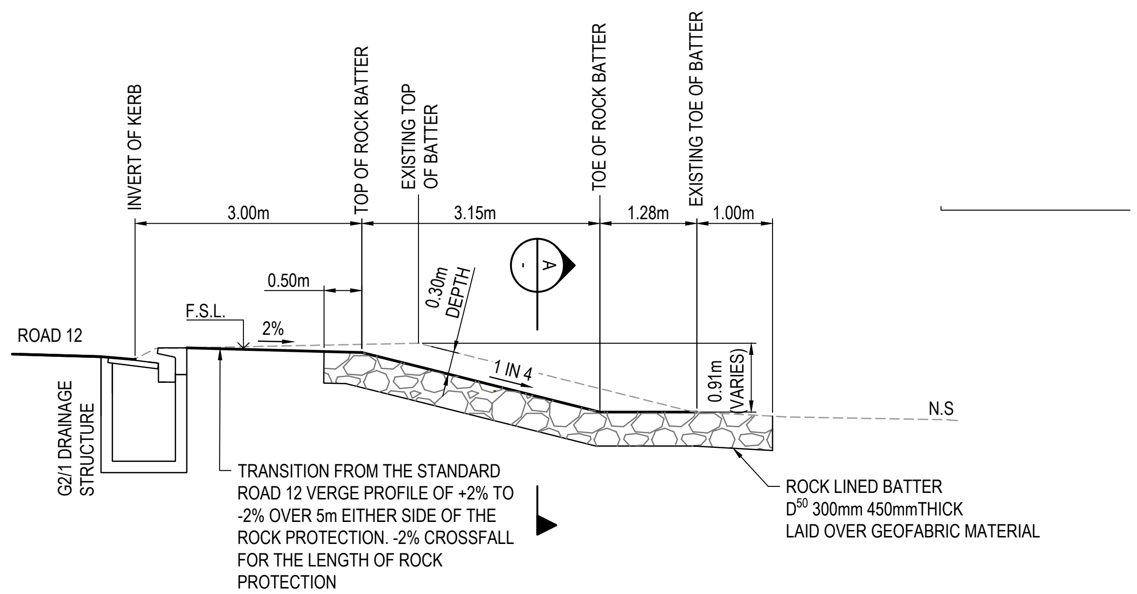
STRUCTURE	G1/3	G1/2	G1/4	G2/1	G3/5	G2/5	G1/5	G3/1	G1/6	G1/5	IN/7	OUT/7
H.G.L IN PIPE & W.S.E IN STRUCTURE	43.518 / 43.372	43.363 / 43.426 / 42.950	42.513 / 42.369	42.361 / 42.387 / 42.221	45.805 / 45.600	45.625 / 45.640 / 45.451	42.726 / 42.730 / 42.669	42.639 / 42.663 / 42.463	42.799 / 42.729	42.726 / 42.730 / 42.669	41.589 / 41.064	41.000 / 41.000 / 41.000
DEPTH TO INVERT	1.431	1.600 / 1.877	1.113	1.266 / 1.350	1.444	1.420 / 1.441	1.185 / 1.201	1.453 / 1.473	1.126	1.192 / 1.201	1.301	0.953 / 0.953
INVERT LEVEL OF DRAIN	42.994	42.833 / 42.556	41.759	41.599 / 41.515	45.404	45.208 / 45.187	41.744 / 41.728	41.654 / 41.634	41.802	41.737 / 41.728	39.700	39.670 / 39.670
DESIGN SURFACE LEVEL	44.425	44.433	42.872	42.865	46.848	46.628	42.929	43.106	42.928	42.929	41.300	40.623
SETOUT COORDINATES	E 478516.927 N 6940418.911	E 478517.415 N 6940410.922	E 478530.653 N 6940387.054	E 478538.532 N 6940385.666	E 478447.793 N 6940337.073	E 478451.982 N 6940329.362	E 478509.065 N 6940340.884	E 478529.977 N 6940337.105	E 478507.457 N 6940333.022	E 478509.065 N 6940340.884	E 478579.477 N 6940456.531	E 478590.920 N 6940460.874
RUNNING CHAINAGE	0.000	8.004 (8.004)	0.000	8.000 (8.000)	0.000	8.776 (8.776)	58.234 (67.010)	21.250 (88.260)	0.000	8.024 (8.024)	0.000	12.240 (12.240)



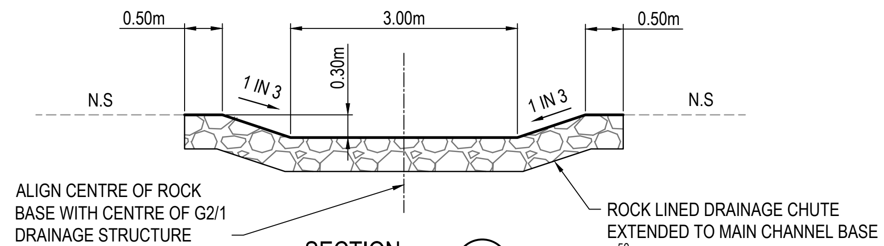
TYPICAL OUTLET SWALE FOR OUT/1
NOT TO SCALE



TYPICAL OUTLET SWALE FOR OUT/7
NOT TO SCALE



TYPICAL BATTER PROTECTION FOR G2/1 DETAIL
SCALE 1:50 (A1)
SCALE 1:100 (A3)



SECTION A
SCALE 1:50 (A1)
SCALE 1:100 (A3)

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH
STATUS: NOT FOR CONSTRUCTION
APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE 1:1000 (A1) 1:2000 (A3) HORIZONTAL; 1:100 (A1) 1:200 (A3) VERTICAL; 1:50 (A1) 1:100 (A3)

CLIENT: RIPLEY PROJECTS PTY LTD
ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020
PROJECT NAME: HAYFIELD STAGE 5, 352 RIPLEY ROAD RIPLEY
DRAWING TITLE: STORMWATER DRAINAGE LONGITUDINAL SECTIONS SHEET 2 OF 2
PROJECT No. 17-0195 | DRAWING No. 120 | REVISION 2

LOCATION		SUB-CATCHMENT RUNOFF					INLET DESIGN											DRAIN DESIGN												HEAD LOSSES								PART FULL		DESIGN LEVELS							
		Tc	I	A	CA	Qc	Qa								Qg	Qb		Tc	I	CA	Qrat	Q	L	S			Qcap	Vcap	Vt		V2/2g	Ku	hu	Kw	hw	Sf	hf	dn	Vn								
STRUCTURE No.	DRAIN SECTION	SUB-CATCHMENTS CONTRIBUTING	SUB-CATCHMENT TIME OF CONC.	RAINFALL INTENSITY	SUB-CATCHMENT AREA	EQUIVALENT AREA	SUB-CATCHMENT DISCHARGE	FLOW IN K&C (INC. BYPASS)	HALF ROAD CAPACITY	FLOW WIDTH	FLOW DEPTH	ROAD GRADE AT INLET	ROAD XFALL AT INLET	INLET TYPE	INLET CURVE	FLOW INTO INLET	BYPASS FLOW	BYPASS STRUCTURE No.	CRITICAL TIME OF CONC.	RAINFALL INTENSITY	TOTAL (C x A)	PEAK FLOW	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE SIZE	PIPE CLASS	CAPACITY FLOW	CAPACITY VELOCITY	TRAVEL VELOCITY	CHART(S) USED	VELOCITY HEAD	U/S HEAD LOSS COEFFICIENT	U/S HEAD LOSS	W.S.E COEFFICIENT	CHANGE IN W.S.E	PIPE FRICTION SLOPE	PIPE FRICTION HEAD LOSS	NORMAL DEPTH	NORMAL DEPTH VEL.	PIPE U/S I.L	PIPE D/S I.L	PIPE U/S H.G.L	PIPE D/S H.G.L	W.S.E	GRATE LEVEL	STRUCTURE No.
		min	mm/h	ha	ha	L/s	L/s	L/s	m	m	%	%			L/s	L/s		min	mm/hr	ha	L/s	L/s	m	%	mm		L/s	m/s	m/s		m		m		m	%	m	m	m/s	m	m	m	m	m	m		
G9/1	G9/1 to G8/1		10	116	0.143	0.125	40	48	518	1.702	0.064	3.6	3	L2M	4G,3.3X	43	5	G8/1	10	116	0.125	48	43	83.313	5.7	375	3	419	3.79	2	G1	0.008	7	0.055		0.055	5.38	4.531	0.082	2.45	51.85	47.1	52	47.518	52.056	53.334	G9/1
G8/1	G8/1 to G7/1	G9/1	10	116	0.291	0.254	82	103	569	2.217	0.079	4.47	3	L2M 1050	4G,3.3X	73	30	G7/1	10.69	113	0.38	141	111	23.983	2.77	375	3	292	2.64	2	G2/T6	0.052	3.73	0.193	4.19	0.216	1.69	0.46	0.16	2.46	47.08	46.416	47.325	46.921	47.541	48.919	G8/1
G7/1	G7/1 to G6/1	G9/1 G8/1	10	116	0.169	0.147	47	87	594	1.878	0.079	5.48	3	L2B	4G,3.3X	63	24	G5/1	10.89	112	0.527	195	170	64.422	5.01	375	3	393	3.55	2	T3/T6	0.121	1.84	0.223	2.28	0.276	5.21	2.919	0.173	3.43	46.395	43.169	46.698	43.342	46.975	47.833	G7/1
G6/1	G6/1 to G5/1	G9/1 G8/1 G7/1	10	116	0.326	0.285	92	110	550	2.302	0.081	4.32	3	L2B	4G,3.3X	74	37	G4/1	11.43	109	0.811	294	233	31.902	2.41	525	3	668	3.09	2	T1/T3	0.059	0.9	0.053	1.01	0.06	0.22	0.151	0.214	2.81	42.9	42.13	43.226	43.155	43.286	44.279	G6/1
G5/1	G5/1 to G4/1	G9/1 G8/1 G7/1 G6/1	10	116	0.079	0.069	22	51	247	2.164	0.088	1.09	3	L2B	1G,3.3X	46	5	G3/1	11.7	108	0.88	314	272	46.144	0.35	525	3	255	1.18	2	T6/T9	0.08	1.99	0.161	2.34	0.189	0.4	0.184	0.474	1.32	42.11	41.948	42.994	42.81	43.183	43.457	G5/1
G4/1	G4/1 to G3/1	G9/1 G8/1 G7/1 G6/1 G5/1	10	116	0.136	0.119	38	83	193	3.089	0.103	0.52	2.05	L2M 1050	0.5G,2.5X	68	14	LOST	12.08	107	0.999	350	330	23.641	0.35	600	3	364	1.29	2	T1/T3	0.07	1.47	0.102	1.75	0.122	0.29	0.068	0.448	1.46	41.873	41.79	42.708	42.639	42.83	43.224	G4/1
G3/1	G3/1 to G2/1	G1/6 G3/5 G2/5 G1/5 G9/1 G8/1 G7/1 G6/1 G5/1 G4/1	10	116	0.054	0.047	15	23	178	1.789	0.077	0.48	3	L2B 1800	0.5G,3.3X	21	2	G2/1	12.28	106	1.908	670	653	49.309	0.2	825	4	642	1.2	2	T6/T9	0.076	2.31	0.176	2.62	0.199	0.21	0.102	0.69	1.37	41.634	41.535	42.463	42.361	42.663	43.106	G3/1
G2/1	G2/1 to 1/1	G1/4 G1/6 G3/5 G2/5 G1/5 G9/1 G8/1 G7/1 G6/1 G5/1 G4/1 G3/1	10	116	0.151	0.132	42	71	295		0.044	0.31	3	SL2B 1500		71	0		12.69	105	2.255	781	792	32.442	0.2	825	4	642	1.2	2	T1/T3	0.112	1.25	0.14	1.48	0.166	0.37	0.098	0.825	1.48	41.515	41.45	42.221	42.102	42.387	42.865	G2/1
1/1	1/1 to OUT/1	G1/3 G5/2 G4/2 G3/2 G2/2 G1/2 G1/4 G1/6 G3/5 G2/5 G1/5 G9/1 G8/1 G7/1 G6/1 G5/1 G4/1 G3/1 G2/1												CHAMBER					12.96	104	3.238	534	511	20.39	0.5	(2x)750	3	1581	1.79	2	T9/T10	0.017	2.44	0.042	2.8	0.048	0.05	0.011	0.294	1.59	41.17	41.068	42.061	42.05	42.109	43.614	1/1
OUT/1		G1/3 G5/2 G4/2 G3/2 G2/2 G1/2 G1/4 G1/6 G3/5 G2/5 G1/5 G9/1 G8/1 G7/1 G6/1 G5/1 G4/1 G3/1 G2/1												HW OUT																															42.05	41.818	OUT/1
1/1A	1/1A to OUT/1A													MH2100					5	151	0	580	580	12.601	0.75	(2x)450	3	495	1.56	2		0.17	0	0		0	1.22	0.115	0.45	1.82	41.43	41.335	41.865	41.711	41.865	43.656	1/1A
OUT/1A														OUT																															41.711	43	OUT/1A
G5/2	G5/2 to G4/2		10	116	0.171	0.149	48	58	627	1.69	0.064	5.47	3	L2M	4G,3.3X	49	9	2/zBP3	10	116	0.149	58	49	25.979	5.02	375	3	393	3.56	2	G2	0.01	9.7	0.096		0.096	4.43	1.2	0.089	2.42	49.64	48.337	49.8	48.647	49.896	51.112	G5/2
G4/2	G4/2 to G3/2	G5/2	10	116	0.249	0.217	70	84	627	1.966	0.072	5.47	3	L2M	4G,3.3X	63	21	G2/2	10.22	115	0.366	140	110	46.214	5.3	375	3	404	3.66	2	G1/T3	0.051	2.46	0.125	2.97	0.151	4.87	2.307	0.134	3.11	48.278	45.828	48.522	46.271	48.673	49.76	G4/2
G3/2	G3/2 to G2/2	G5/2 G4/2	10	116	0.206	0.18	58	70	627	1.822	0.067	5.47	3	L2M	4G,3.3X	56	14	G1/3	10.6	113	0.546	204	160	24.345	4.97	375	3	391	3.54	2	T3/T6	0.107	1.8	0.193	2.27	0.243	3.6	0.921	0.167	3.36	45.784	44.575	46.078	45.201	46.321	47.255	G3/2
G2/2	G2/2 to G1/2	G5/2 G4/2 G3/2	10	116	0.244	0.213	69	103	627	2.133	0.076	5.47	3	L2M	4G,3.3X	73	30	G1/2	10.8	112	0.759	281	228	28.676	5.27	375	3	403	3.65	2	T1/T3	0.217	1.61	0.35	1.85	0.403	5.19	1.506	0.202	3.76	44.512	43.001	44.852	43.363	45.254	45.998	G2/2
G1/2	G1/2 to 1/1	G1/3 G5/2 G4/2 G3/2 G2/2	10	116	0.066	0.058	19	53	627	1.628	0.062	5.47	3	L2M 1050	4G,3.3X	46	7	G1/4	11.04	111	0.982	359	325	26.598	4.16	450	3	582	3.66	2	T6/T9	0.214	1.93	0.413	2.23	0.476	3.19	0.882	0.241	3.76	42.556	41.45	42.95	42.102	43.426	44.43	G1/2
G1/3	G1/3 to G1/2		10	116	0.19	0.166	53	78	627	1.909	0.07	5.47	3	L2M	4G,3.3X	60	18	G2/1	10	116	0.166	64	60	8.004	2.01	375	3	249	2.25	2	G2	0.015	9.7	0.146		0.146	0.12	0.009	0.125	1.85	42.994	42.833	43.372	43.363	43.518	44.425	G1/3
G1/4	G1/4 to G2/1		10	116	0.247	0.216	69	90	391		0.067	0.31	3	SL2M	SAG	90	0	G2/1	10	116	0.216	83	90	8	2	450	3	403	2.54	2	G2	0.016	8.76	0.144		0.144	0.1	0.008	0.145	2.04	41.759	41.599	42.369	42.361	42.513	42.871	G1/4
G3/5	G3/5 to G2/5		10	116	0.317	0.277	89	107	661	2.118	0.076	6.08	3	L2M	8G,3.3X	72	35	G1/5	10	116	0.277	107	72	8.776	2.23	375	3	262	2.37	2	G2	0.022	9.45	0.205		0.205	-0.28	0.031	0.134	2.02	45.404	45.208	45.6	45.625	45.805	46.847	G3/5
G2/5	G2/5 to G1/5	G3/5	10	116	0.222	0.194	63	75	661	1.84	0.068	6.08	3	L2M	8G,3.3X	57	19	G1/6	10.07	116	0.471	181	128	58.234	5.91	375	3	427	3.86	2	T9/T10	0.068	2.55	0.174	2.78	0.189	4.68	2.778	0.141	3.37	45.187	41.744	45.451	42.726	45.64	46.628	G2/5
G1/5	G1/5 to G3/1	G1/6 G3/5 G2/5	10	116	0.231	0.201	65	113	260		0.082	0.61	1.3	SL2M 1800	SAG	113	0	G1/4	10.56	113	0.862	322	322	21.25	0.35	(2x)525	3	509	1.18	2	T6/T9	0.028	1.99	0.056	2.15	0.061	0.14	0.03	0.303	1.24	41.728	41.654	42.669	42.639	42.73	42.927	G1/5
G1/6	G1/6 to G1/5		10	116	0.217	0.189	61	92	282		0.068	1.52	0.03	SL2M	SAG	92	0	G1/5	10	116	0.189	73	92	8.024	0.81	525	3	387	1.79	2	G2	0.009	7.55	0.07		0.07	0.05	0.004	0.174	1.47	41.802	41.737	42.729	42.726	42.799	42.927	G1/6
IN/7	IN/7 to OUT/7		10	116	0.234	0.179	58	608	310		0.5			F99T1		608	0		10	116	0.179	608	608	12.24	0.5	675	3	595	1.66	2	G1	0.147	3.57	0.525		0.525	0.52	0.064	0.568	1.89	39.8	39.739	41.064	41	41.589	42	IN/7
OUT/7		IN/7												HW OUT																															41	42	OUT/7

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS

DESIGN: MH

STATUS: **NOT FOR CONSTRUCTION**

APPROVED: ANDREW NGO RPEQ 12329

FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS • ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE

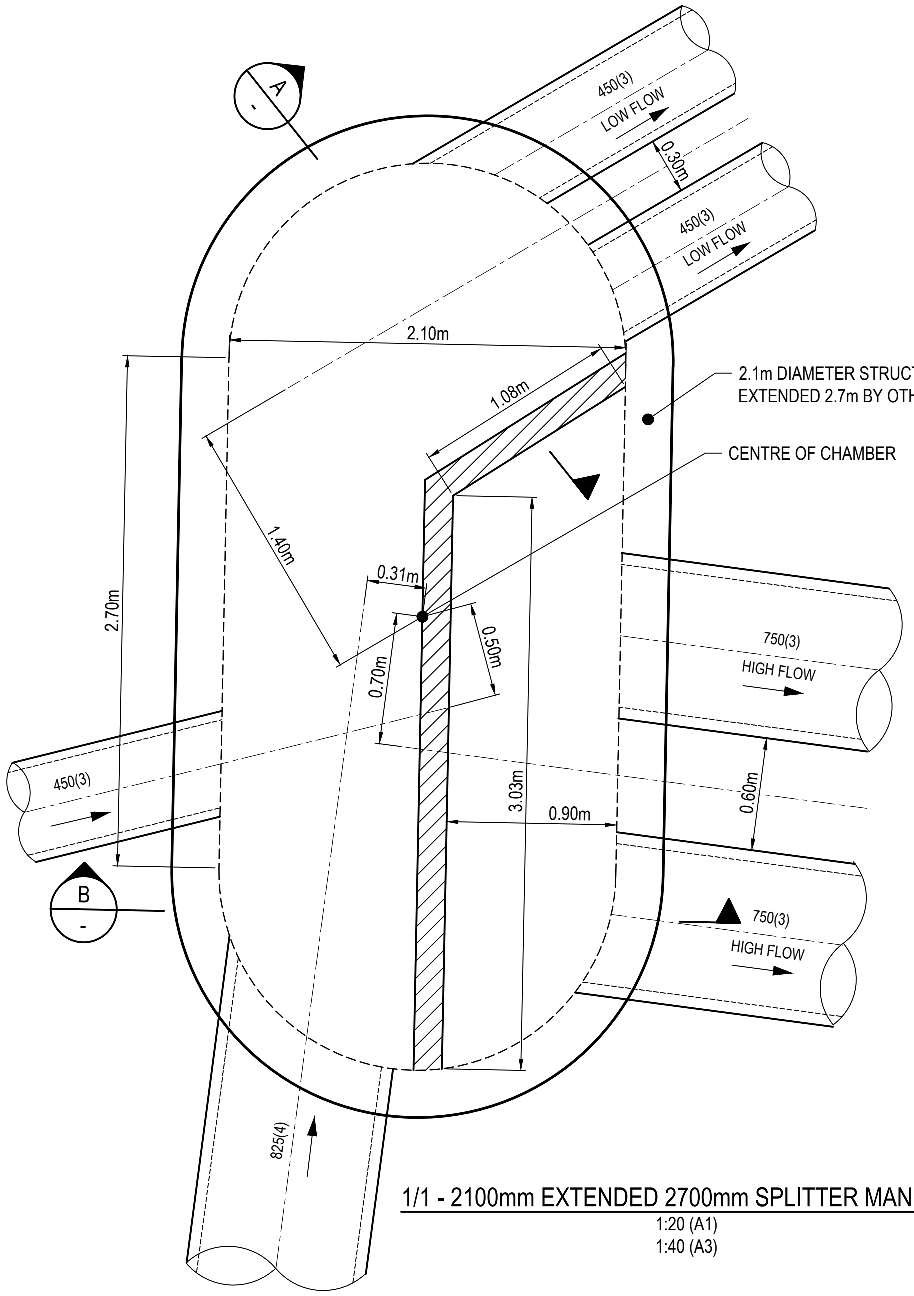
CLIENT: **RIPLEY PROJECTS PTY LTD**

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

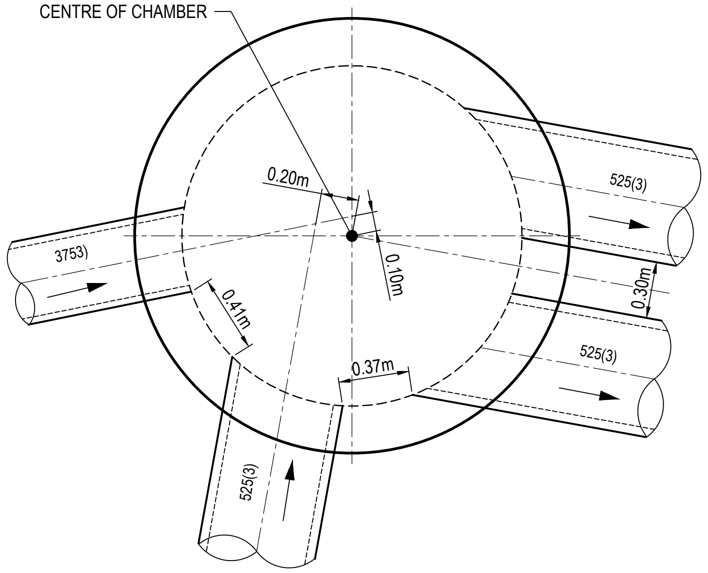
PROJECT NAME: **HAYFIELD STAGE 5**
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: **STORMWATER DRAINAGE CALCULATIONS TABLE SHEET 1 OF 1**

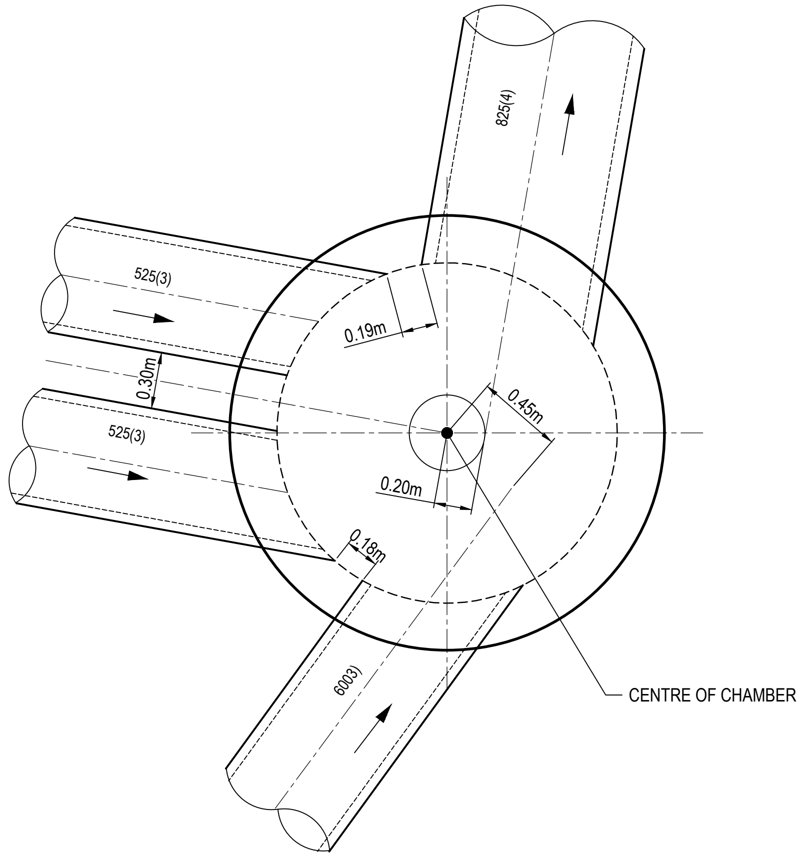
PROJECT No. 17-0195 | DRAWING No. 121 | REVISION 2



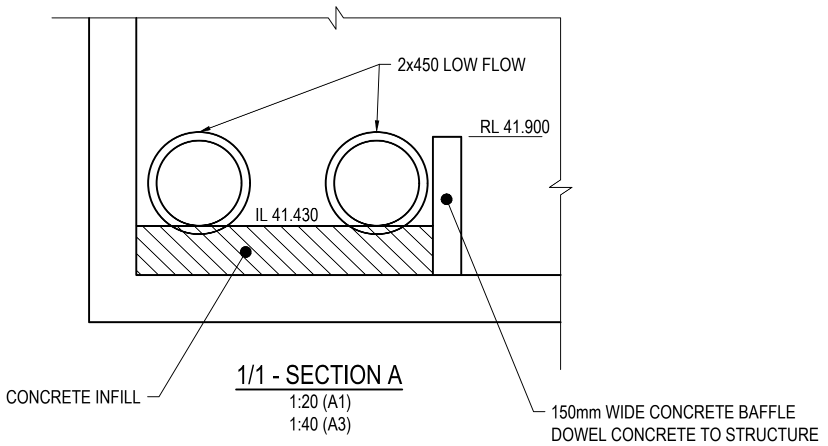
1/1 - 2100mm EXTENDED 2700mm SPLITTER MANHOLE
1:20 (A1)
1:40 (A3)



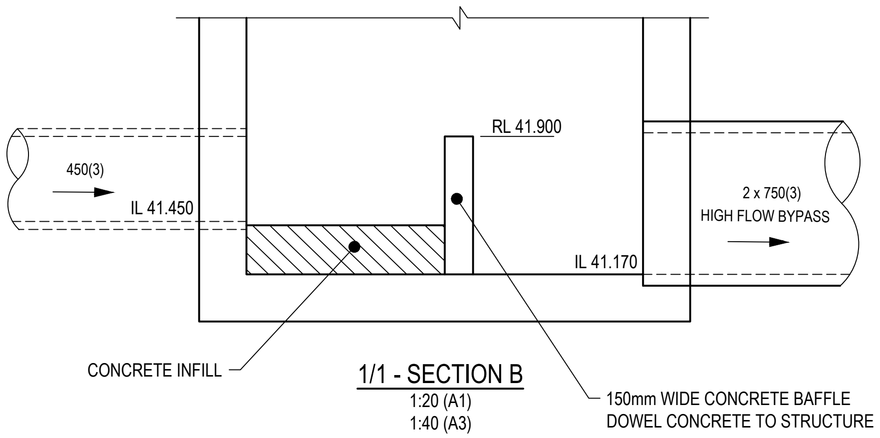
G1/5 - GULLY WITH 1800mm MANHOLE
1:20 (A1)
1:40 (A3)



G3/1 - GULLY WITH 1800mm MANHOLE
1:20 (A1)
1:40 (A3)



1/1 - SECTION A
1:20 (A1)
1:40 (A3)



1/1 - SECTION B
1:20 (A1)
1:40 (A3)

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: **NOT FOR CONSTRUCTION**

APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE
1:20 0.2 0 0.2 0.4 0.6 0.8 1 A1
1:40 A3

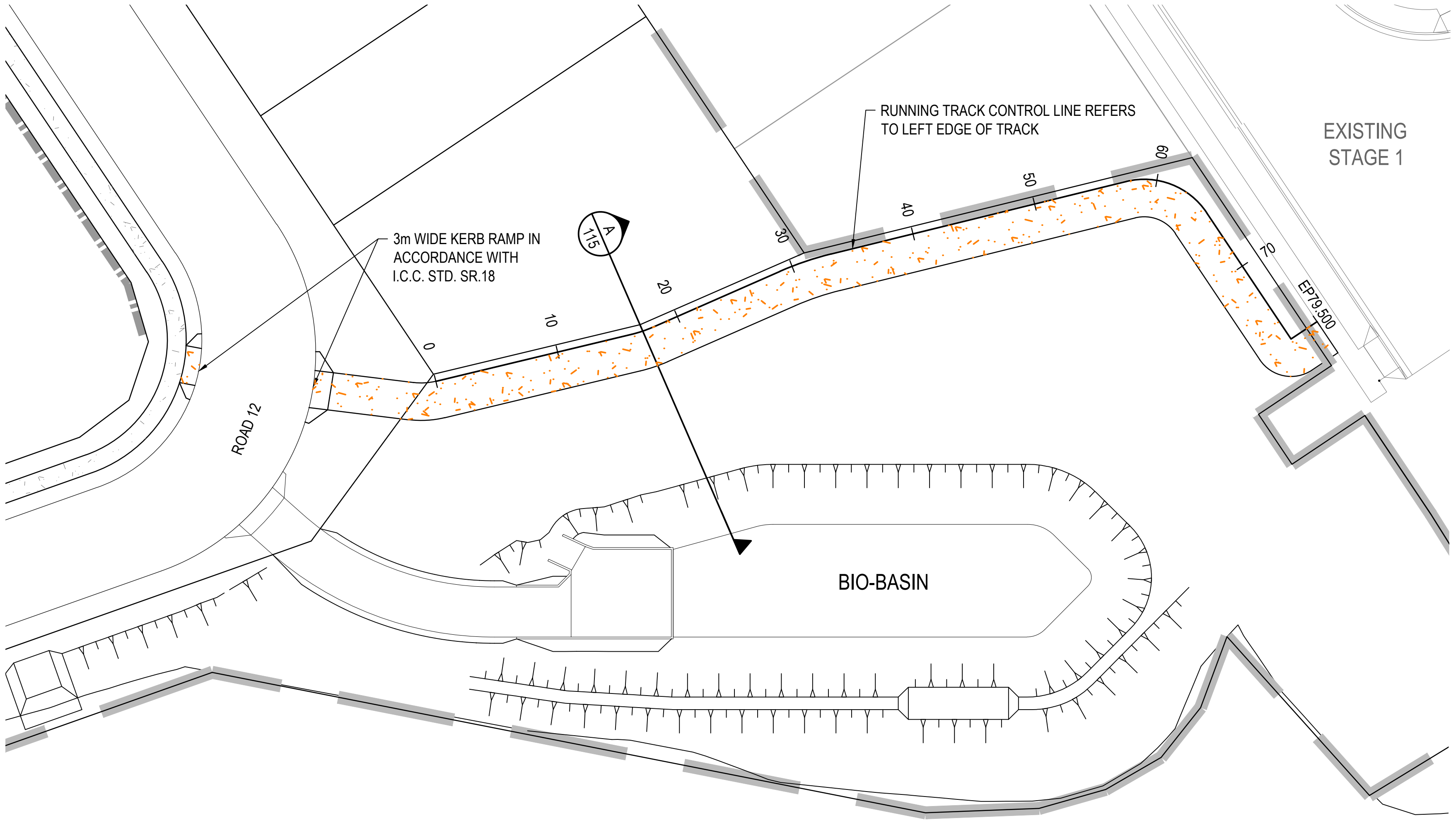
CLIENT: **RIPLEY PROJECTS PTY LTD**

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK
PH: (07) 3188 9020

PROJECT NAME: **HAYFIELD STAGE 5**
352 RIPLEY ROAD
RIPLEY

DRAWING TITLE: **STORMWATER DRAINAGE STRUCTURE DETAILS**

PROJECT No.	DRAWING No.	REVISION
17-0195	122	2



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:

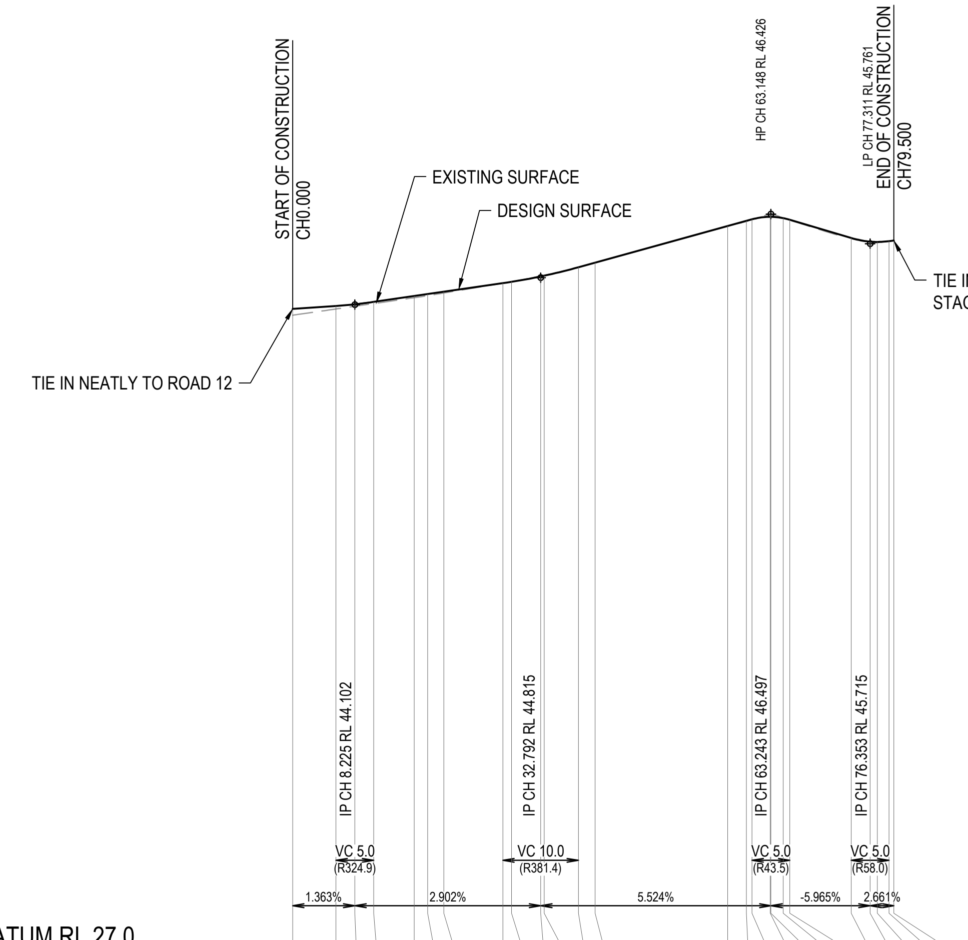
- ELECTRICAL CABLES
- TELECOMMUNICATIONS CABLES
- GAS MAINS
- WATER MAINS
- SEWER MAINS

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

LEGEND

- AREA OF WORKS
- FOOTPATH CONTROL LINE
- PROPOSED KERB INVERT LINE
- PROPOSED CONCRETE PATH AND PRAM RAMP
- PROPOSED BATTER LINE
- PROPOSED HAYFIELD RUNNING TRACK
- TREES TO BE RETAINED

N



DATUM RL 27.0

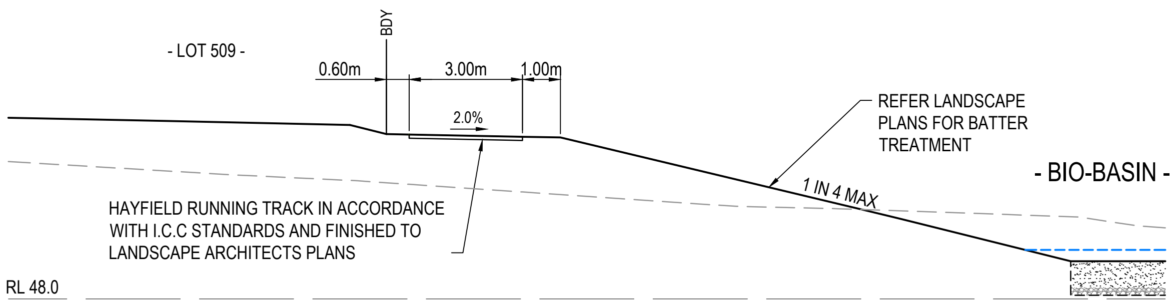
CHAINAGES	CUT (-) / FILL	DESIGN SURFACE	EXISTING SURFACE
0.000	0.168	43.990	43.822
5.725	0.081	44.068	43.987
8.225	0.053	44.112	44.059
10.725	0.044	44.175	44.131
16.065	0.045	44.330	44.285
17.850	0.041	44.381	44.340
20.000	0.032	44.444	44.412
27.792	-0.000	44.670	44.670
28.950	-0.004	44.705	44.709
32.792	-0.009	44.848	44.856
33.273	-0.008	44.868	44.877
37.792	-0.002	45.091	45.093
40.000	-0.000	45.213	45.213
57.528	0.004	46.182	46.178
60.000	0.012	46.318	46.306
60.743	0.008	46.359	46.351
63.148	-0.055	46.426	46.481
63.243	-0.055	46.425	46.480
64.866	0.000	46.392	46.392
65.743	0.012	46.348	46.337
73.853	-0.007	45.864	45.871
76.353	0.005	45.769	45.764
77.311	0.018	45.761	45.744
78.853	-0.001	45.782	45.783
79.500	0.000	45.799	45.799

HORIZONTAL CURVES: R-10.000, R25.000, R6.000

HAYFIELD RUNNING TRACK

CONTROL LINE SETOUT - HAYFIELD RUNNING TRACK

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	478538.238	6940424.101	16°00'40.29"			
TC	16.065	478542.669	6940439.543	16°00'40.29"			
IP 2	16.958	478542.916	6940440.404		R = -10.000	1.785	10°13'40.41"
CT	17.850	478543.006	6940441.294	5°46'59.88"			
TC	28.950	478544.124	6940452.338	5°46'59.88"			
IP 3	31.112	478544.343	6940454.493		R = 25.000	4.322	9°54'21.11"
CT	33.273	478544.929	6940456.579	15°41'20.99"			
TC	57.528	478551.488	6940479.931	15°41'20.99"			
IP 4	61.197	478552.625	6940483.980		R = 6.000	7.338	70°04'06.31"
CT	64.866	478556.820	6940484.292	85°45'27.30"			
IP 5	77.000	478568.921	6940485.189				
IP 6	79.500	478568.738	6940487.683	355°47'43.84"			



SECTION A/115
SCALE 1:100 (A1)
SCALE 1:200 (A3)

HAYFIELD RUNNING TRACK

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE
1:500 / 1:1000 — 10 5 0 10 20 — A1 / A3 — HORIZONTAL
1:100 / 1:200 — 2 1 0 2 4 — A1 / A3 — VERTICAL
1:250 / 1:500 — 5 0 5 10 — A1 / A3

CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: HAYFIELD RUNNING TRACK DETAIL AND LAYOUT PLAN

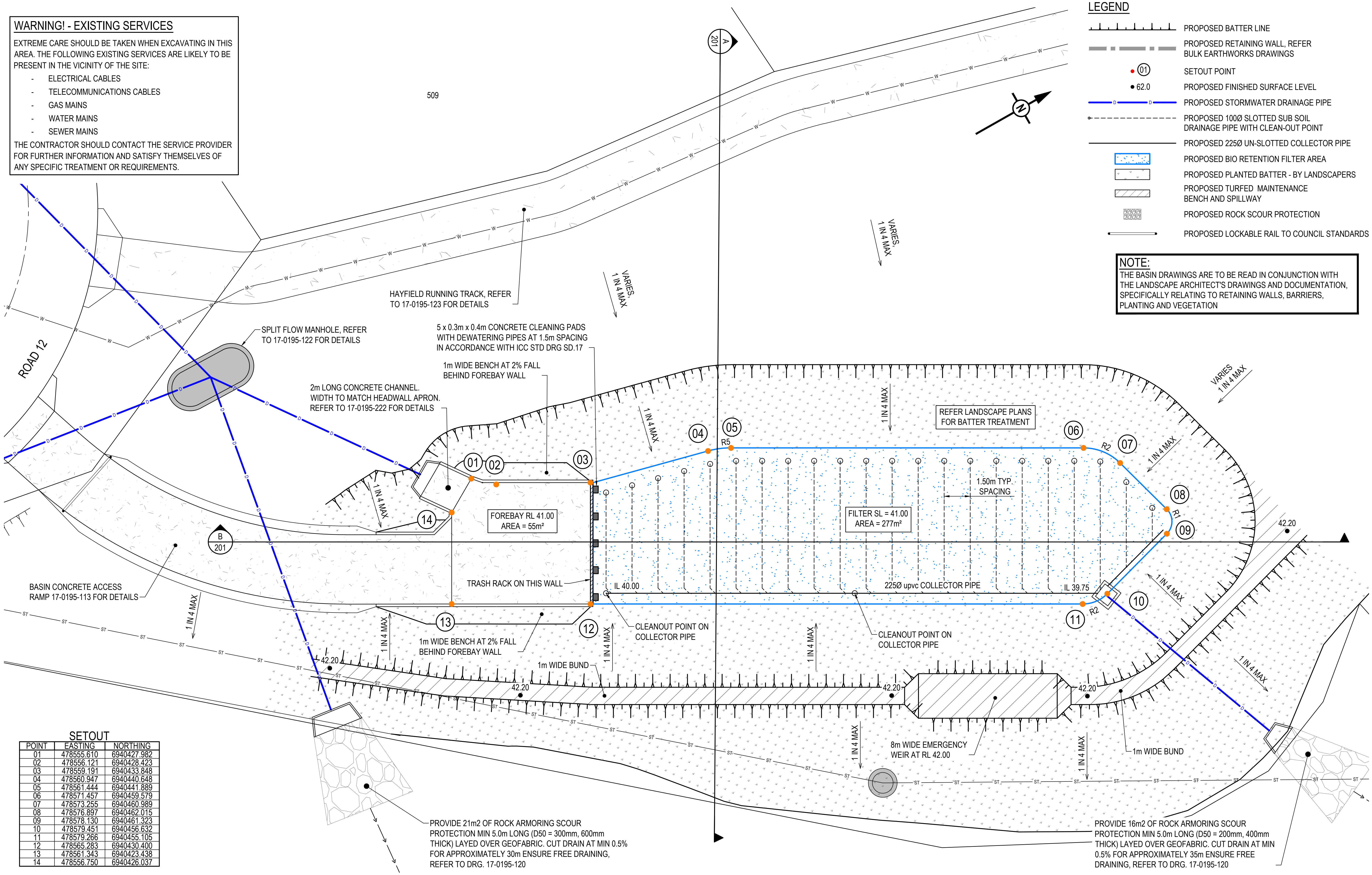
PROJECT No. 17-0195
DRAWING No. 123
REVISION 2

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.



LEGEND

- PROPOSED BATTER LINE
- PROPOSED RETAINING WALL, REFER BULK EARTHWORKS DRAWINGS
- 01 SETOUT POINT
- 62.0 PROPOSED FINISHED SURFACE LEVEL
- PROPOSED STORMWATER DRAINAGE PIPE
- PROPOSED 100Ø SLOTTED SUB SOIL DRAINAGE PIPE WITH CLEAN-OUT POINT
- PROPOSED 225Ø UN-SLOTTED COLLECTOR PIPE
- PROPOSED BIO RETENTION FILTER AREA
- PROPOSED PLANTED BATTER - BY LANDSCAPERS
- PROPOSED TURFED MAINTENANCE BENCH AND SPILLWAY
- PROPOSED ROCK SCOUR PROTECTION
- PROPOSED LOCKABLE RAIL TO COUNCIL STANDARDS

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

SETOUT

POINT	EASTING	NORTHING
01	478555.610	6940427.982
02	478556.121	6940428.423
03	478559.191	6940433.848
04	478560.947	6940440.648
05	478561.444	6940441.889
06	478571.457	6940459.579
07	478573.255	6940460.989
08	478576.897	6940462.015
09	478578.130	6940461.323
10	478579.451	6940456.632
11	478579.266	6940455.105
12	478565.283	6940430.400
13	478561.343	6940423.438
14	478556.750	6940426.037

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH
STATUS: NOT FOR CONSTRUCTION
APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

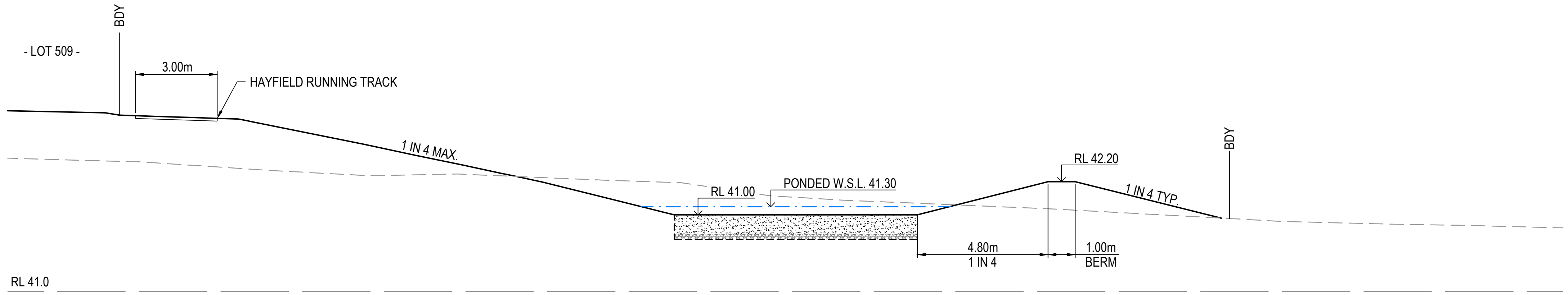
PEAKURBAN
DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE: 1:100 A1, 1:200 A3

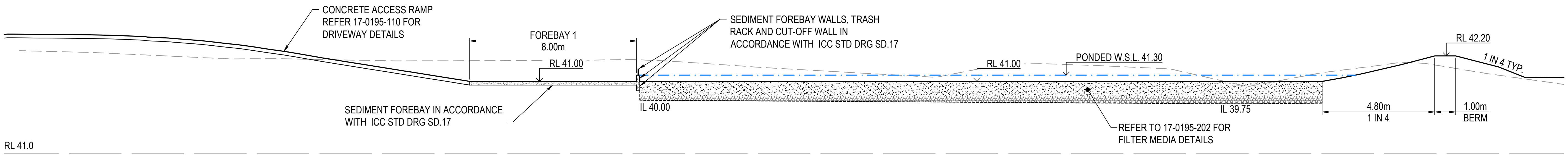
CLIENT: RIPLEY PROJECTS PTY LTD
ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: BIO RETENTION BASIN LAYOUT PLAN
PROJECT No. 17-0195
DRAWING No. 200
REVISION 2



SECTION A / 200
SCALE 1:100 (A1)
SCALE 1:200 (A3)



SECTION B / 200
SCALE 1:100 (A1)
SCALE 1:200 (A3)

REV	DATE	DESIGN	DRAWN	REVISION DETAILS
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH

STATUS: NOT FOR CONSTRUCTION

APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS + ADVISORS
ENQUIRIES@PEAKURBAN.COM.AU

SCALE: 1:100 (A1) 1:200 (A3) 1 0 1 2 3 4 5

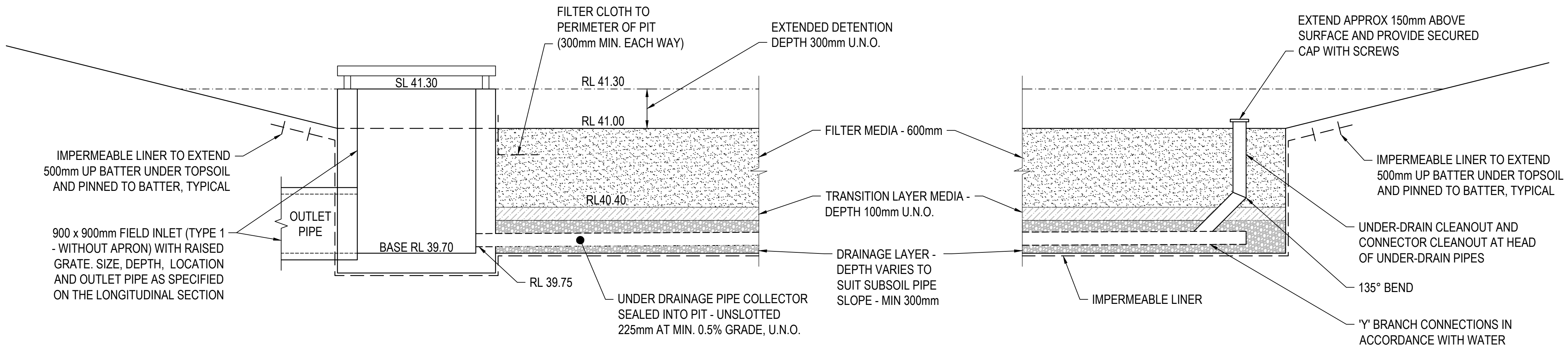
CLIENT: RIPLEY PROJECTS PTY LTD

ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK
PH: (07) 3188 9020

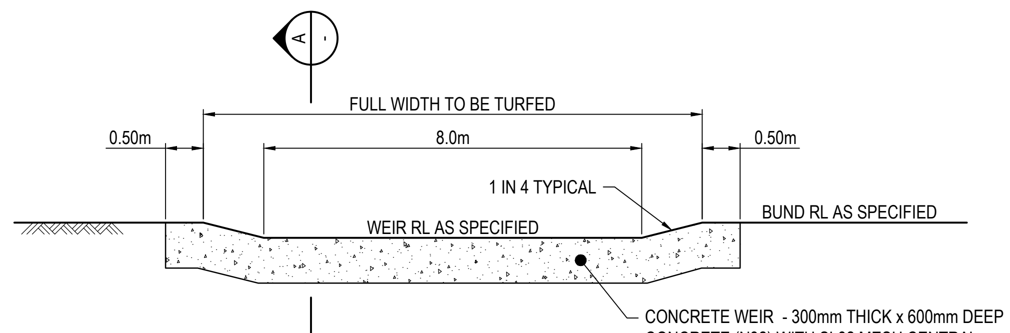
PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD
RIPLEY

DRAWING TITLE: BIO RETENTION BASIN TYPICAL SECTIONS

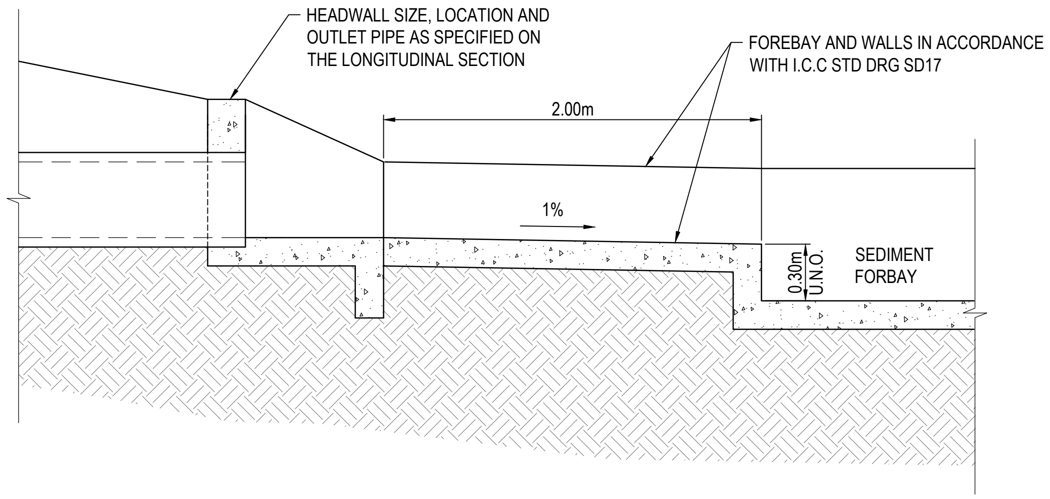
PROJECT No.	DRAWING No.	REVISION
17-0195	201	2



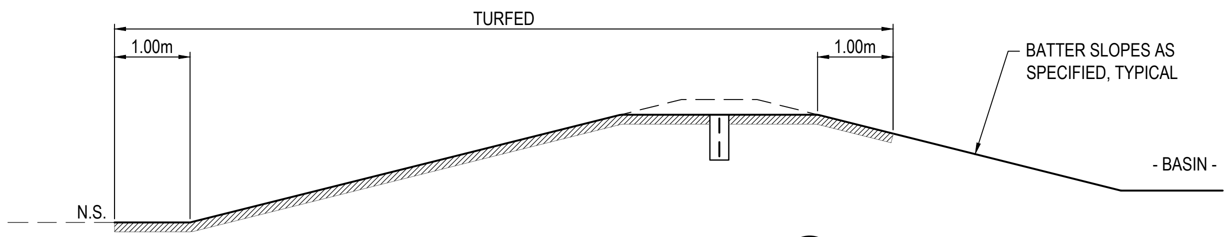
BIO RETENTION FILTER MEDIA AND SUBSOIL DRAINAGE DETAIL
REFERENCE: IPWEA STD DRG DS-073
SCALE 1:20 (A1) 1:40 (A3)



TYPICAL WEIR DETAIL
SCALE 1:50 (A1) 1:100 (A3)



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



SECTION A
SCALE 1:50 (A1)
SCALE 1:100 (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 X 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 FOR A 24 MONTH MAINTENANCE PERIOD TO ALLOW FOR SUBSTANTIAL CONSTRUCTION WORK.
2. PRIOR TO OFF MAINTENANCE INSPECTION, 3 IN-SITU FILTRATION TESTS ARE TO BE PROVED DEMONSTRATING THAT THE HYDRAULIC CONDUCTIVITY IS MET AT 200mm/hr.
3. PLANTING OF FILTER TO OCCUR ONLY AFTER SUCCESSFUL INFILTRATION TESTS AND COUNCIL ACCEPTANCE OF CIVIL WORKS 'OFF MAINTENANCE'. PLANTING ON FILTER SUBJECT TO FURTHER 12 MONTHS MAINTENANCE PERIOD.

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
1	27.04.20	AS	AS	FOR APPROVAL
2	16.06.20	AS	AS	FOR APPROVAL

DRAWN: AS
DESIGN: MH
STATUS: NOT FOR CONSTRUCTION
APPROVED: ANDREW NGO RPEQ 12329
FOR AND ON BEHALF OF PEAKURBAN PTY LTD

PEAKURBAN
DEVELOPMENT ENGINEERS + ADVISORS
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SCALE
1:20 0.2 0 0.2 0.4 0.6 0.8 1 A1
1:40 A3
1:50 1 0.5 0 1 2 A1
1:100 A3

CLIENT: RIPLEY PROJECTS PTY LTD
ASSOCIATED CONSULTANT: SURVEYOR: SURVEY MARK PH: (07) 3188 9020

PROJECT NAME: HAYFIELD STAGE 5
352 RIPLEY ROAD RIPLEY

DRAWING TITLE: BIO RETENTION TYPICAL NOTES, SECTIONS AND DETAILS

PROJECT No.	DRAWING No.	REVISION
17-0195	202	2