

Approval no: DEV-2026-WAR-4917
Date: 11 September 2026



Stockland

RIVERMONT PRECINCT 2 BIO BASIN 02



DRAWING NO.	DRAWING TITLE
24-284-100	LOCALITY PLAN, DRAWING INDEX
24-284-101	GENERAL - LAYOUT PLAN
24-284-102	BIO BASIN - SECTIONS
24-284-103	BIO BASIN - DETAILS
24-284-104	BIO BASIN - NOTES - SHEET 1
24-284-105	BIO BASIN - NOTES - SHEET 2
24-284-106	STORMWATER - CALCULATION AND GULLY TABLES
24-284-107	STORMWATER - LONGITUDINAL SECTIONS
24-284-108	SEDIMENT & EROSION - LAYOUT PLAN AND NOTES
24-284-109	SAFETY IN DESIGN

SCALE  1 : 500 (A1 UNREDUCED)

DO NOT SCALE THIS DRAWING
IF IN DOUBT - ASK!



LOCALITY PLAN

BIO 02



REVISIONS

[illegible]

Client	
--------	--



Project

RIVERMONT
PRECINCT 2
BIO BASIN 02



L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544

M. Shaw Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.06.15
16:24:13+10'00'

Drawing Title
LOCALITY PLAN,
DRAWING INDEX

Drawn DF	Designed JB	Checked MS	Date Mar' 26
Scale AS SHOWN			Sheet 01 of 10
A1	Drawing No 24-284-100		Revision B

	STAGE BOUNDARY
36.0	FINISHED SURFACE CONTOURS
~36.0~	NATURAL SURFACE CONTOURS
	BATTER LINE
	PROPOSED STORMWATER DRAINAGE
	STORMWATER MANHOLE NUMBER
	STORMWATER GULLY PIT NUMBER
	170mm THICK CEMENT TREATED RUBBLE 3.0m WIDE ACCESS AND SEDIMENT BASIN SIDES
	ROCK SCOUR PROTECTION $\phi_{50} = 300, 600\text{mm THICK}$
	GROUTED ROCK
	3.0m WIDE CONCRETE MAINTENANCE ACCESS N32 CONCRETE 175mm THICK MIN. SL82 MESH
	SAW CUT JOINT (C.J.)
	EXPANSION JOINT (E.J.)
	DOWEL JOINT (D.J.)



A map of the study area showing the location of the study site (black dot) relative to the Cabbot Ture River, Litherland Road, and MacGinley Road. The map includes labels for LITHERLAND, CABBOT TURE RIVER, ROAD, CABBOT TURE RIVER, ROAD, MACGINLEY ROAD, and MACKNEY ROAD.

[illegible]

Stockland

RIVERMONT
PRECINCT 2
BIO BASIN 02

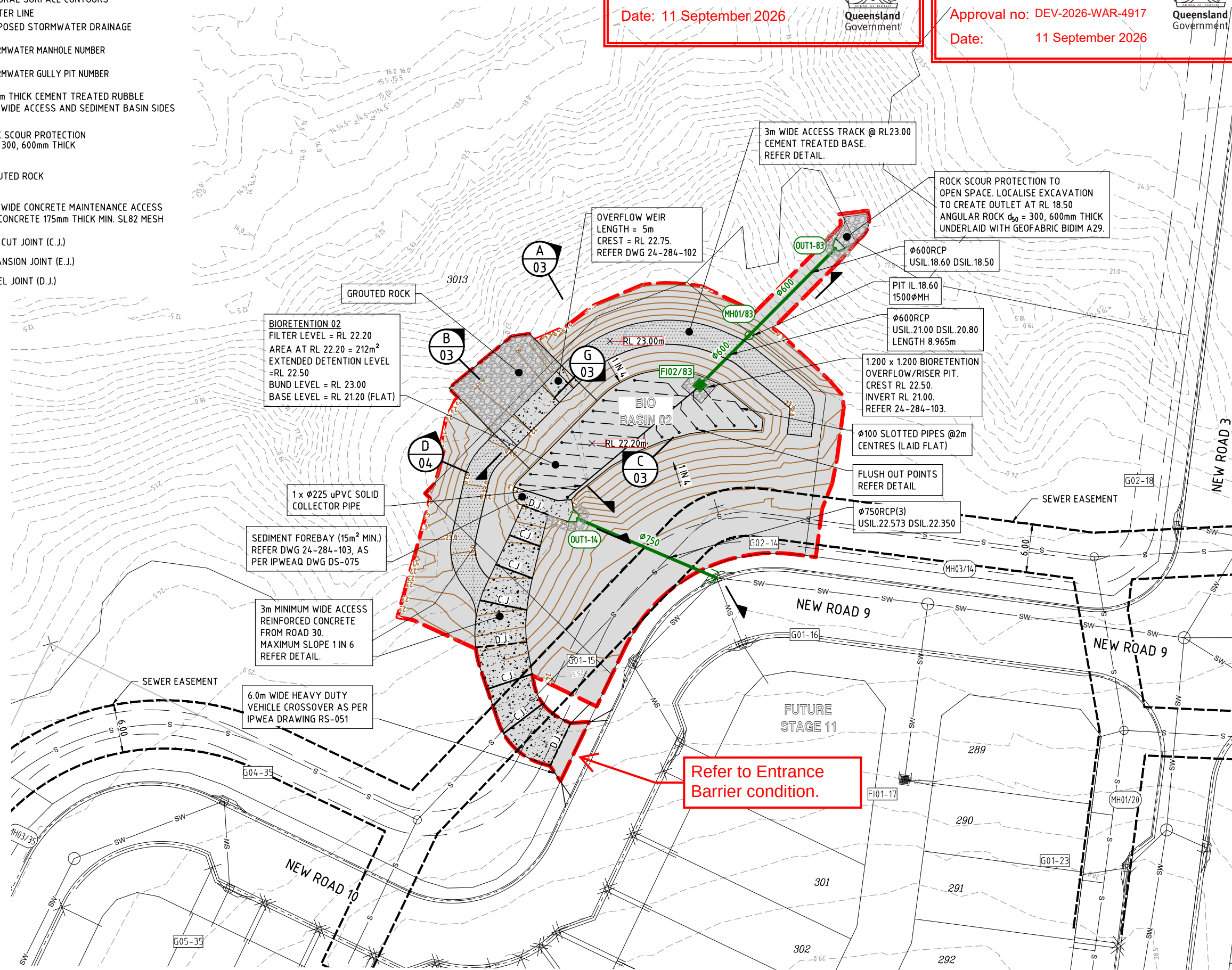


L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 17544
Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.06.15
16:24:14+1000'

Drawing Title
GENERAL
LAYOUT PLAN

Drawn DF	Designed JB	Checked MS	Date Mar' 26
Scale AS SHOWN			Sheet 02 of 10
A1	Drawing No 24-284-101		Revision B



BIO-RETENTION BASIN 02
LAYOUT PLAN
SCALE 1:250

SCALE  1 : 250 (A1 UNREDUCED)

A compass rose with a circle divided into four quadrants by a vertical and horizontal line. The top quadrant is labeled 'NORTH', the bottom 'SOUTH', the left 'WEST', and the right 'EAST'.

BIO 02

[illegible]

Stockland

RIVERMONT
PRECINCT 2
BIO BASIN 02

kn group

Approved Director - RPEQ 17544

Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.06.15
16:24:14+10'00'

Drawing Title
BIO BASIN
SECTIONS

Drawn DF	Designed JB	Checked MS	Date Mar' 26
Scale AS SHOWN			Sheet 03 of 1
A 1	Drawing No 24-284-102		Revision B

Diagram illustrating the cross-section of a bioretention basin, showing the following components and specifications:

- 170mm THICK CEMENT TREATED BASE** with **3.0m WIDE ACCESS**.
- 100mm GENERAL SITE MULCH SECURED IN PLACE** WITH OPEN WEAVE TEL MAT & PINNED DOWN AT 500 CENTRES TO TOP OF BUND.
- 200mm TOP SOIL**.
- 1 IN 4** slope on the left side.
- NATURAL SURFACE** indicated by a dashed line.
- BIORETENTION BASIN** with a water level marked **SL 22.20**.
- BASE RL 21.05** at the bottom of the basin.
- 300mm THICK CLAY LINER OR APPROVED EQUIVALENT** at the base.
- Ø100 SLOTTED PVC PIPE @2m NOM. CRS** for infiltration.
- Ø225 uPVC SOLID COLLECTOR PIPE** for collection.
- GEOFABRIC AND 25mm SAND OR FILTER MEDIA OVERLAD WITH TURF ACROSS FULL AREA OF FILTER MEDIA.** - GEOFABRIC TO BE TRIMMED TO TOE OF BATTER.
- 1 IN 4** slope on the right side.
- SECTION 02** SCALE 1:50.

PRE-CAST HEADWALL

FENCE REFER
LANDSCAPE DRAWING
FOR DETAILS

PIPE FLOW

ROCK SCOUR PROTECTION. ANGULAR
ROCK $d_{50} = 300, 600\text{mm}$ THICK UNDERLAID
WITH GEOFABRIC BIDIM A24.

1:5

MIN 1.0m WIDE ROCK PROTECTION
AROUND HEADWALL AND BATTERS.

L=5m

EQUIVALENT SPHERICAL DIAMETER	% BY WEIGHT OF ROCK SMALLER SIZE
1.5-2.0D50	100
D50	50
0.30-0.4D50	10-20



SECTION
SCALE 1:50

SECTION - WEIR
N.T.S.

SECTION
SCALE 1:50

C SECTION
02 SCALE 1:50

SCALE  1: 50 (A1 UNREDUCED)

A compass rose with a circle divided into four quadrants by a vertical and a horizontal line. The word "NORTH" is written below the circle, aligned with the top of the vertical line.

BIO 02

[illegible]

Stockland



RIVERMONT
PRECINCT 2
BIO BASIN 02

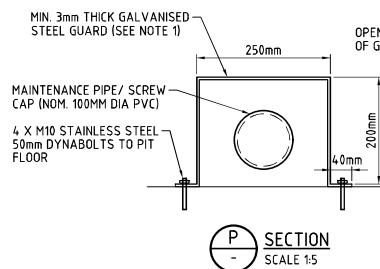


Approved Director - RPEQ 17544
Digitally signed by
Mark Shaw RPEQ
17544
Date: 2026.06.15
16:24:15+10'00'

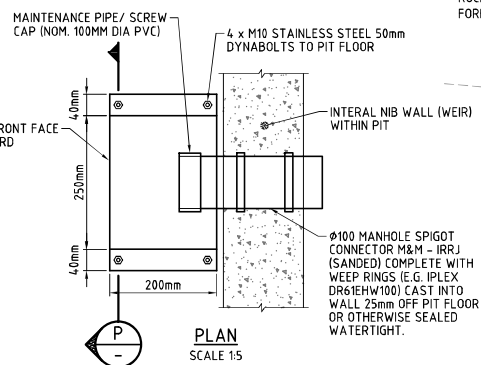
Drawing Title:
**BIO BASIN
DETAILS**

Drawn DF	Designed JB	Checked MS	Date Mar '26
Scale AS SHOWN			Sheet 04 of 1
A1	Drawing No 24-284-103	Revision B	

1. PVC PIPE GUARD TO BE FABRICATED
2. ALTERNATIVELY, SECTIONS MAY BE CUT FROM SUITABLE PROPRIETARY DOWN PIPE PROTECTOR FOLLOWING APPROVAL FROM SUPERINTENDANT AND BIOTENTION DESIGNER
3. ALL CUT EDGES TO BE SPRAYED IMMEDIATELY WITH CORROSION PROTECTION



PVC PIPE GUARD DETAIL
SCALE NTS

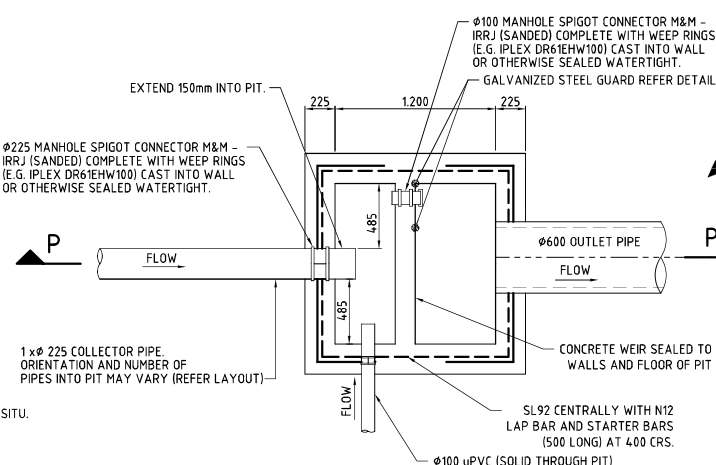
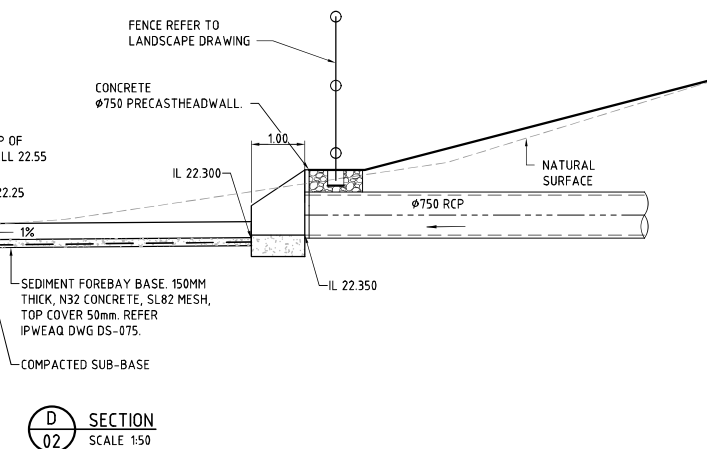


SEDIMENT FOREBAY EDGE DETAIL

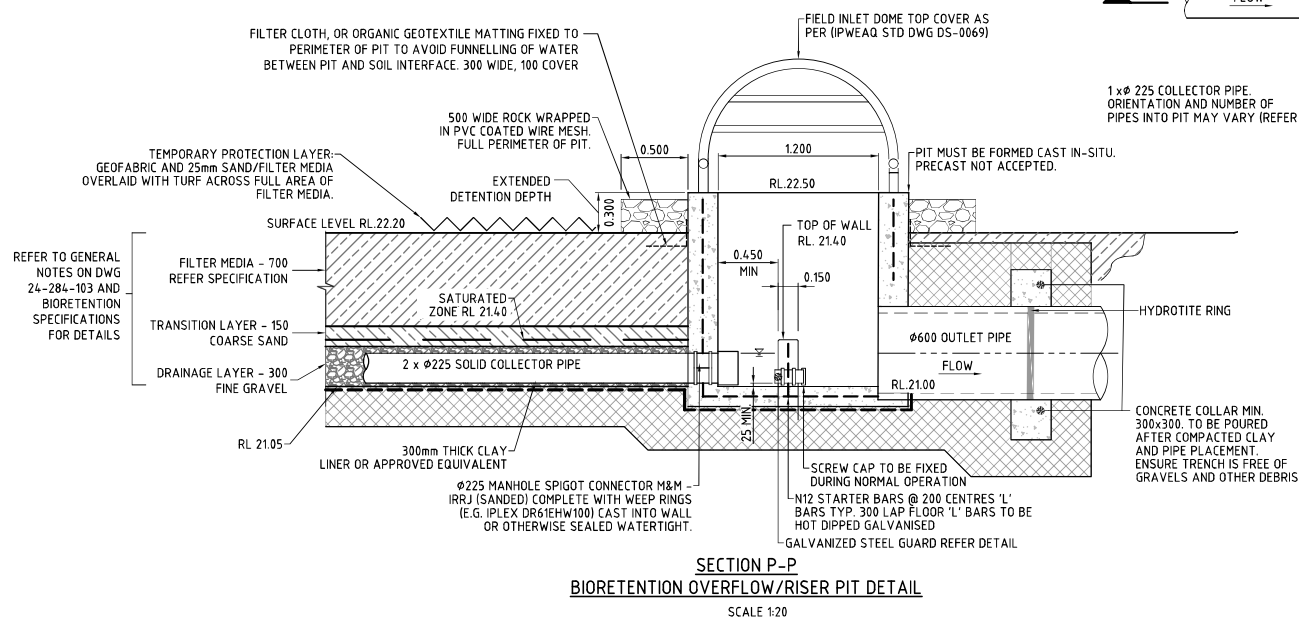
SCALE 1:10

Labels in diagram:

- SL82 MESH
- 2N12 MIN 500 LAP
- 50mm WIDE SLOTS CUT FULL HEIGHT OF WALL @ 2m CTRS.
- N12 1' L BARS @ 300 C/C

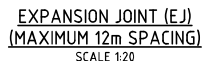
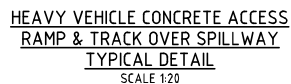


BIORETENTION OVERFLOW/RISER PIT DETAIL
PLAN
SCALE 1:20



M:\2024\24284 Rivermont P2 Bjo. 1 to 3\Engineering\Acad\100 SERIES\24-284-102-105 SECTIONS.dwg Plotted by: DF on 4/06/2026 2:01:24 PM

M:\2024\24284 Rivermont P2 Bjo 1 to 3\Engineering\Acad\100 SERIES\24_284-102-105 SECTIONS.dwg Plotted by: DE on 4/06/2026 2:01:25 PM



KEY CONSTRUCTION JOINTS TO BE PROVIDED BETWEEN ALL
ABUTTING NEW AND EXISTING CONCRETE WORKS

ROCK SCOUR PROTECTION

1. ALL ROCK TO BE IGNEOUS, CRUSHED AND ANGULAR (NOT SMOOTH), PLACED AND SECURED TO RESIST MOVEMENT.
2. NOMINAL ROCK SIZE (D50) REFERS TO THE EQUIVALENT DIAMETER FOR WHICH 50% OF THE ROCK BY VOLUME ARE EQUAL TO OR SMALLER THAN THAT SIZE. THE MAXIMUM ROCK SIZE IS NOT TO EXCEED $15 \times D_{50}$. REFER TABLE 2.

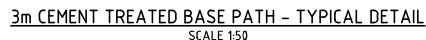
TABLE 2. ROCK GRADATION

EQUIVALENT SPHERICAL DIAMETER	% BY WEIGHT OF ROCK SMALLER SIZE
1.5 - 2.0 D50	100
D50	50
0.3 - 0.4 D50	10 - 20

3. PROVIDE ROCK PROTECTION AT ALL PIPE INLETS AND OUTLETS TO THE DIMENSIONS AND D50 SHOWN ON THE DRAWINGS. ROCK IS TO BE ANGULAR, DURABLE AND FREE OF FINES, PLACED ON A NON-WOVEN NEEDLE-PUNCH GEOTEXTILE $\geq 90 \text{ G/M}^2$ (E.G. BIDIM A29 OR APPROVED EQUIVALENT). KEY ROCK PROTECTION A MINIMUM OF 300 MM INTO ADJACENT BATTERS AND ENSURE NO PREFERENTIAL FLOW PATHS AROUND THE EDGES OF THE PROTECTED ZONE.

MAINTENANCE ACCESS TRACKS

1. PROOF-ROLL SUBGRADE BEFORE PLACING ROAD BASE. REMOVE AND REPLACE ANY SOFT, UNSTABLE OR UNSUITABLE SUBGRADE MATERIAL WITH APPROVED FILL COMPACTED TO THE SAME STANDARD.
2. COMPACT SUBGRADE TO 98% MMDI IN ACCORDANCE WITH AS 1289S.2.2 BEFORE ROAD BASE PLACEMENT.
3. CONSTRUCT ACCESS TRACKS USING COMPACTED TYPE 2.3 ROAD BASE IN ACCORDANCE WITH MRTS05 TO THE ALIGNMENTS, WIDTHS, DEPTHS AND GRADES SHOWN ON THE DRAWINGS.
4. COMPACT ROAD BASE TO 98% MMDI IN ACCORDANCE WITH AS 1289S.2.2.
5. SHAPE FINISHED TRACK SURFACES TO A MINIMUM 2% CROSSFALL TO PROMOTE SURFACE DRAINAGE.
6. WHERE SHOWN ON THE DRAWINGS OR DIRECTED BY THE SUPERINTENDENT, CEMENT STABILISE ROAD BASE AT 5% CEMENT BY DRY MASS IN ACCORDANCE WITH MRTS07B - STABILISATION OF PAVEMENT LAYERS USING CEMENTITIOUS BINDERS. CURE THE STABILISED LAYER FOR A MINIMUM OF 7 DAYS PRIOR TO TRAFFICING.
7. GRADES STEEPER THAN 1:10 (10%) ARE TO BE CONSTRUCTED AS REINFORCED CONCRETE -- REFER TO THE CONCRETE SECTION.



BIORETENTION BASIN ELEMENTS

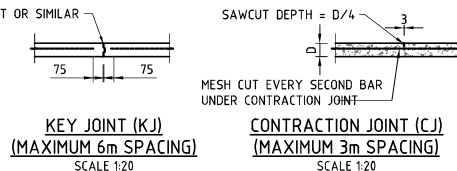
1. PROVIDE BIOTENTION FILTER MEDIA, TRANSITION LAYER SAND AND DRAINAGE LAYER GRAVEL TESTED AND CERTIFIED AS COMPLIANT WITH:
 - a. BIOTENTION TECHNICAL DESIGN GUIDELINE (WATER BY DESIGN, CURRENT VERSION).
 - b. GUIDELINES FOR FILTER MEDIA IN BIOTENTION SYSTEMS (FACILITY FOR ADVANCING WATER BIOFILTRATION, VERSION 3.01 OR LATER).
2. TEST THE NUMBER OF SAMPLES REQUIRED BY THE ABOVE GUIDELINES.
3. PROVIDE SUPPLIER CERTIFICATION CONFIRMING THAT THESE REQUIREMENTS HAVE BEEN ACHIEVED.
4. USE SLOTTED RIGID UNDERDRAINS (UPVC OR APPROVED EQUIVALENT) COMPLYING WITH AS 2439.1 TYPE 2. DO NOT INSTALL SLOTTED PIPES WITH A FILTER SOCK.
5. MAXIMUM SLOT WIDTH IS 2.0 MM.
6. USE NON-SLOTTED RIGID COLLECTOR PIPES (UPVC OR APPROVED EQUIVALENT). SEAL ALL PIPE CONNECTIONS IN ACCORDANCE WITH THE ENGINEERING SPECIFICATIONS, INCLUDING GLUED PIPE JOINTS USING PLUMBING CEMENT.
7. SEAL COLLECTOR PIPES, VALVES AND OTHER PIPEWORK INTO PITS USING GROUT OR OTHER APPROVED WATERTIGHT SEAL.
8. ALL UPVC PIPES, FITTINGS, JOINTING MATERIALS AND PROCEDURES ARE TO COMPLY WITH AS/NZS 1254.
9. INSTALL CLEANOUT RISERS AT THE UPSTREAM END OF EACH UNDERDRAIN RUN. USE NON-SLOTTED CAPPED UPVC EXTENDING 150 MM ABOVE THE FINAL FILTER MEDIA SURFACE. CONFIGURE ALL UNDERDRAINAGE PIPE CONNECTIONS TO ALLOW RODDING AND FLUSHING.
10. THE BASIN FINISHED SURFACE LEVEL IS TO BE THE TOP OF FILTER MEDIA, UNLESS AN ALTERNATIVE APPROACH IS APPROVED BY THE WSD DESIGNER. COVER THE FILTER SURFACE WITH 50 MM OF COARSE SAND AND OVERLAY WITH TURF. PIN AND SECURE THE PROTECTIVE LAYER NEAR INFLOW POINTS. INSTALL AND MAINTAIN A SEDIMENT FENCE AROUND THE PERIMETER OF THE PROTECTED FILTER SURFACE FOR THE DURATION OF THE PROTECTION PHASE. KEEP THE TURF PROTECTIVE LAYER IN PLACE UNTIL AT LEAST 90% OF LAND-DISTURBING ACTIVITIES WITHIN THE CONTRIBUTING CATCHMENT HAVE CEASED AND EXPOSED SOILS HAVE BEEN STABILISED, AFTER WHICH THE PROTECTIVE LAYER IS TO BE REMOVED BEFORE PLANTING. IMPLEMENT A PROTECTION APPROACH IN ACCORDANCE WITH THESE NOTES AND DRAWINGS.
11. INSTALL SEDIMENT FENCES AROUND ALL BIOTENTION EXCAVATIONS AT OR IMMEDIATELY ABOVE THE TOE OF BATTER BEFORE FILTER MEDIA INSTALLATION. COVER ALL EXPOSED BATTERS OUTSIDE THE SEDIMENT FENCE WITH PINNED GEOFABRIC. TRENCH AND COMPACT SEDIMENT FENCES 200 MM BELOW GROUND LEVEL, WITH MATCHING GROUND LEVELS ON BOTH SIDES OF THE FENCE.
12. THE BASE OF THE BIOTENTION EXCAVATION AND THE FINISHED FILTER MEDIA SURFACE ARE TO BE FREE OF LOCALISED DEPRESSIONS OR LOW POINTS TO ENSURE EVEN DISTRIBUTION OF FLOW ACROSS THE FILTER AND PREVENT PONDING ABOVE THE DESIGN EXTENDED DETENTION DEPTH.

SURVEY REQUIREMENTS

1. PROVIDE AS-CONSTRUCTED SURVEY AT THE FOLLOWING STAGES:
 - a. BULK EARTHWORKS FLOOR AND WALLS PRIOR TO CLAY LINER INSTALLATION.
 - b. FINISHED LEVEL OF COMPACTED CLAY LINER TO FLOOR AND WALLS, OR CAPPING FILL OVER PROPRIETARY LINER.
 - c. UNDERDRAINAGE LAYOUT AND INVERT LEVELS OF COLLECTOR PIPE CONNECTIONS TO PITS.
 - d. BIORETENTION DRAINAGE LAYER GRAVEL, TRANSITION LAYER SAND AND FILTER MEDIA SURFACE LEVELS.
 - e. STORMWATER PITS, INCLUDING INTERNAL NIB WALLS, PIPES, SPILLWAYS, WINGWALLS, MAINTENANCE PIPES AND VALVE PITS.
 - f. SEDIMENT FOREBAY FLOOR, NIB WALLS AND MAINTENANCE ACCESS RAMPS.
 - g. TOP OF BUND LEVEL AND WIDTH, INCLUDING MAINTENANCE TRACK.
2. VERIFY COMPLIANCE BY A QUALIFIED LAND OR ENGINEERING SURVEYOR.
3. PROVIDE PRELIMINARY AS-CONSTRUCTED SURVEY IN DWG AND PDF FORMAT AT EACH HOLD POINT. RECTIFY NON-CONFORMANCES PRIOR TO FINAL SURVEY SUBMISSION.
4. PROVIDE INDEPENDENT FINAL AS-CONSTRUCTED SURVEY DATA AT THE RELEVANT HOLD POINTS, IN BOTH PDF AND CAD (DWG) FORMAT, IN A FORM SUITABLE FOR SUBMISSION TO THE RELEVANT APPROVING AUTHORITY.

BIORETENTION BASIN - HOLD POINTS

1. THE FOLLOWING HOLD POINTS APPLY TO BIORETENTION BASIN WORKS AND ALIGN WITH THE WATER BY DESIGN SIGN-OFF FORMS:
- a. FORM A: COMPLETE EARTHWORKS AND INSTALL HYDRAULIC STRUCTURES.
 - b. FORM B: INSTALL LINER AND UNDERDRAINAGE.
 - c. CONCRETE SEEPAGE COLLARS: INSPECT AND APPROVE PIPE PENETRATIONS, HYDROTITE SEALS AND CLAY/GRANULAR FILL PLACEMENT PRIOR TO CONCRETE POUR.
 - d. FORM C: INSTALL FILTER MATERIALS.
 - e. FORM D: COMPLETE AS-CONSTRUCTED SURVEY.
 - f. FORM E: INSTALL COARSE SEDIMENT FOREBAY.
 - g. FORM F: INSTALL PROTECTIVE MEASURES.
- PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL**
- 



NOTES:

1. PROVIDE CONSTRUCTION JOINTS (CJ) AT A MAXIMUM SPACING APPROXIMATELY 15 TIMES THE WIDTH OF THE CONCRETE PATH. CUT EVERY SECOND BAR OF MESH UNDER JOINT. SAW CUT JOINT SHALL BE A WET CUT WITHIN 24 HOURS OF CONCRETE POUR.
2. PROVIDE KEY JOINT (KJ) AT MAXIMUM 4.0m SPACING.
3. PROVIDE EXPANSION JOINT (EJ) AT MAXIMUM 12.0m SPACING. JOINT TO BE FILLED WITH APPROVED FILLER AND SEALANT
4. KEY CONSTRUCTION JOINTS TO BE PROVIDED ADJACENT TO ALL CONCRETE PROPERTY CROSSINGS AND ANY SIGNIFICANT CHANGE IN WIDTH AND DIRECTION.
5. LAYOUT OF JOINTS TO BE PROVIDED TO SUPERINTENDENT PRIOR TO CONSTRUCTION.

DRAINAGE PIPES AND PITS

1. INSPECT AND APPROVE DRAINS BEFORE BACKFILLING.
2. FLUSH AND CLEAN ALL CONSTRUCTED PIPEWORK ON COMPLETION OF THE WORKS.
3. PROVIDE MASS CONCRETE SHAPED BASES TO ALL PITS FOR SMOOTH HYDRAULIC CONVEYANCE. CONSTRUCT PIT WALLS WITH SMOOTH FORMED INNER AND OUTER FACES.
4. FIT ALL GRATED PITS WITH HINGES, A LIFTING HANDLE AND A SECURE LOCK-DOWN SYSTEM
5. ALL PIT LIDS WITHOUT GRATES ARE TO BE TRAFFICABLE BY LIGHT VEHICLES AND LOCKABLE.
6. PROVIDE CLASS 2, EXPOSURE CLASS C, STEEL REINFORCED CONCRETE STORMWATER PIPES AND CULVERTS UNLESS NOTED OTHERWISE. COMPLY WITH CURRENT VERSIONS OF AS 3600, MRTS70, MRTS24 AND MRTS25.
7. WHERE UPVC PIPES ARE USED FOR STORMWATER DRAINAGE, COMPLY WITH AS/NZS 1254.
8. PROVIDE EXPOSURE CLASS C HEADWALLS IN ACCORDANCE WITH MRTS72.
9. SEAL ALL PIPE CONNECTIONS INTO PITS.
10. REFER TO THE IMPERMEABLE LINERS SECTION FOR PIPE PENETRATION SEALING THROUGH CLAY LINERS.

CONCRETE

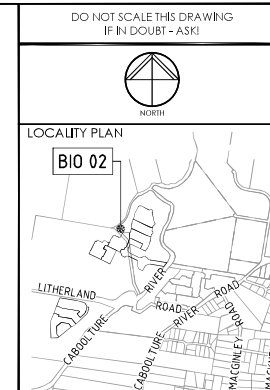
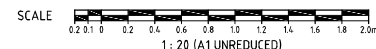
1. CONCRETE CONSTRUCTION (INCLUDING STRUCTURAL SLABS, ACCESS RAMPS AND SEEPAGE COLLARS) TO BE COMPLETED IN ACCORDANCE WITH AS 3600 AND AS 1379. CONCRETE PIPE AND CULVERT REQUIREMENTS ARE SPECIFIED IN THE DRAINAGE PIPES AND PITS SECTION.
2. REINFORCEMENT MUST TO COMPLY WITH AS/NZS 4671:2019 STEEL REINFORCING MATERIALS, 50 MM TOP AND EDGE COVER, LAP MESH 250 MM.
3. ALL CONCRETE TO BE MINIMUM STRENGTH GRADE N32 MPA IN ACCORDANCE WITH AS 1379 AND AS 3600, UNLESS SPECIFIED OTHERWISE.
4. PATHWAY CROSSFALLS TO BE MAXIMUM OF 2.5%.
5. JOINTING TO BE IN ACCORDANCE WITH IPWEAQ STD DWG RS-065, THE RELEVANT COUNCIL STANDARD DRAWING, OR AS SHOWN ON THE DRAWINGS.
6. REINFORCED CONCRETE ACCESS RAMPS TO BE A MINIMUM OF 3 M WIDE WITH A MAXIMUM SLOPE OF 1 IN 6.

CONSTRUCTED WETLAND / SEDIMENT POND - HOLD POINTS

1. THE FOLLOWING HOLD POINTS APPLY TO CONSTRUCTED WETLAND AND SEDIMENT POND WORKS AND ALIGN WITH THE WATER BY DESIGN SIGN-OFF FORMS.
 - a. FORM A: COMPLETE EARTHWORKS AND PROFILING.
 - b. FORM B: INSTALL BUNDS AND LINER.
 - c. FORM C: INSTALL HYDRAULIC STRUCTURES, INCLUDING CONCRETE SEEPAGE COLLARS: INSPECT AND APPROVE PIPE PENETRATIONS, HYDROTITE SEALS AND CLAY/GRANULAR FILL PLACEMENT PRIOR TO CONCRETE POUR.
 - d. FORM D: PLACE TOPSOIL AND PROFILE TO FINAL LEVELS.
 - e. FORM E: ISOLATE MACROPHYTE ZONE AT PRACTICAL COMPLETION OF CIVIL WORKS.

TOPSOIL

1. REUSE SITE TOPSOIL ONLY IF APPROVED BY THE SUPERINTENDENT AND AMELIORATED FOR REUSE IN CONSULTATION WITH A SOIL SCIENTIST OR AGRONOMIST BEFORE PLACEMENT.
2. TOPSOIL IS TO COMPLY WITH AS 4419 - SOILS FOR LANDSCAPING AND GARDEN USE AND BE FREE OF DELETERIOUS MATTER, INCLUDING SUBSOIL, TURF, WEEDS, STICKS, ROOTS, STONES GREATER THAN 25 MM DIAMETER, AND ANY MATERIAL TOXIC TO PLANT GROWTH.
3. TOPSOIL PH IS TO BE WITHIN THE RANGE 6 TO 7 UNLESS OTHERWISE RECOMMENDED BY AN AGRONOMIST.
4. TOPSOIL IS TO BE NON-DISPERSIVE, WITH EMERSON CLASS ≥ 5 .
5. PLACE TOPSOIL TO A MINIMUM COMPACTED DEPTH OF 200 MM OVER WETLAND AND SEDIMENT BASIN BATTERS AND MACROPHYTE ZONES (OR AS SHOWN ON THE DRAWINGS, WHICHEVER IS GREATER), AND LIGHTLY COMPACT TO PROVIDE A SMOOTH FINISHED SURFACE READY FOR PLANTING. DO NOT OVER COMPACT -- FINAL SURFACE IS TO REMAIN FRIABLE TO SUPPORT PLANT ESTABLISHMENT.
6. PROVIDE LABORATORY TEST RESULTS FROM A NATA-ACCREDITED LABORATORY CONFIRMING COMPLIANCE WITH AS 4419 AND THESE NOTES FOR EACH TOPSOIL SOURCE, WITH RETESTING AT A MINIMUM FREQUENCY OF ONE TEST PER 500 M³ OR PER DELIVERY BATCH, WHICHEVER IS MORE FREQUENT.



REVISIONS

[illegible]

Project

RIVERMONT
PRECINCT 2
BIO BASIN 02

L1, 62 Astor Terrace, Spring Hill, QLD 4000
www.kngroup.com.au | 07 3017 1900

Approved Director - RPEQ 1754

Digitally signed by
Mark Shaw RPE
17544
Date: 2026.06.15
16:24:15+1000'

Drawing Title:

BIO BASIN
NOTES
SHEET 2

Drawn DF	Designed JB	Checked MS	Date Mar '22
Scale AS SHOWN			Sheet 06 of 1
A1	Drawing No 24-284-105		Revision B

STRUCTURE NAME
STRUCTURE DESCRIPTION

NOTE:
[F512] CONTRACTOR TO PROVIDE FORM 15 AND 12 FOR ALL MAINTENANCE HOLES GREATER THAN 3m DEPTH.

PIPE SIZEmm (Class)	375	375	375	375	375	450	750	750	750
PIPE GRADE %	1.84%	0.93%	0.59%	1.04%	2.93%	1.91%	0.50%	0.83%	1.19%
PIPE SLOPE 1 in X	54.24	107.20	169.52	95.86	34.11	52.40	200.00	120.28	84.12
FULL PIPE FLOW VELOCITY (m/s)	0.13	0.18	0.24	1.05	2.00	1.90	1.93	1.96	2.79
PART FULL FLOW VELOCITY (m/s)	1.19	1.03	0.94	1.72	2.97	2.73	1.93	2.58	3.13
DATUM RL	11.0								
WATER LEVEL IN STRUCTURE	26.757	26.750	26.346	26.342	26.339	26.340	26.333	26.327	26.341
HYDRAULIC GRADE LEVEL	26.757	26.750	26.346	26.342	26.339	26.340	26.333	26.327	26.341
PIPE FLOW (Cumecs)	0.015	0.020	0.026	0.116	0.221	0.302	0.851	0.865	1.232
PIPE CAPACITY AT GRADE (Cumecs)	0.238	0.169	0.135	0.179	0.300	0.394	0.788	1.016	1.214
DEPTH TO INVERT	1.340	1.340	1.243	1.513	1.470	1.450	1.446	1.519	1.519
INVERT LEVEL OF DRAIN	26.665	26.665	26.665	26.665	26.665	26.665	26.665	26.665	26.665
DESIGN SURFACE LEVEL	28.005	28.005	28.005	28.005	28.005	28.005	28.005	28.005	28.005
SETOUT CO-ORDINATE	24.517	24.517	24.517	24.517	24.517	24.517	24.517	24.517	24.517
RUNNING CHAINAGE	24.517	24.517	24.517	24.517	24.517	24.517	24.517	24.517	24.517

14

SCALE A 1:1000
(Horiz.)



B 1:100
(Vert.)



(A1 UNREDUCED)

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV-2026-WAR-4917

Date: 11 September 2026



DO NOT SCALE THIS DRAWING IF IN DOUBT - ASK!

LOCALITY PLAN

BIO 02

REVISIONS

No	Description	Date	By
A	FOR APPROVAL	12.03.2026	DF
B	FOR APPROVAL	04.06.2026	DF

Client

Project

RIVERMONT
PRECINCT 2
BIO BASIN 02

Approved Director - RPEQ 17544

Digitally signed by Mark Shaw RPEQ 17544
Date: 2026.06.15 16:24:16+1000

Drawing Title

STORMWATER
LONGITUDINAL SECTIONS

Drawn	Designed	Checked	Date
DF	JB	MS	Mar'26

Scale

A3 SHOWN

Sheet

08 of 10

Drawing No	Revision
A1	B

STRUCTURE NAME	FI03-83
STRUCTURE DESCRIPTION	900x900 WITHOUT APRON
PIPE SIZEmm (Class)	600
PIPE GRADE %	2.08%
PIPE SLOPE 1 in X	47.98
FULL PIPE FLOW VELOCITY (m/s)	0.00
PART FULL FLOW VELOCITY (m/s)	0.00
DATUM RL	8.0
WATER LEVEL IN STRUCTURE	21.000
HYDRAULIC GRADE LEVEL	21.000
PIPE FLOW (Cumecs)	0.000
PIPE CAPACITY AT GRADE (Cumecs)	0.887
DEPTH TO INVERT	1.500
INVERT LEVEL OF DRAIN	21.000
DESIGN SURFACE LEVEL	22.500
SETOUT CO-ORDINATE	24.517
RUNNING CHAINAGE	24.517

83