

BARWON WATER SERVICE AREA
NTS

LOCALITY PLAN
NTS

RESERVOIR ROAD, MOUNT DUNED, 3151

0055-G-0830	LOCALITY PLAN AND DRAWING LIST
0055-G-0831	GENERAL NOTES
0055-C-0832	OVERALL SITE LAYOUT
0055-C-0833	EARLY WORKS DETAIL PLAN
0055-C-0834	CUT AND FILL EARTHWORK PLAN
0055-C-0835	SETOUT DETAILS
0055-C-0836	ENVIRONMENTAL DETAILED PLAN - GGF WETLAND
0055-C-0837	CROSS SECTIONS - CIVIL AND ENVIRONMENTAL
0055-C-0838	CROSS SECTIONS - GEOTECHNICAL
0055-C-0839	DRAIN LONGSECTIONS AND PIT SCHEDULE
0055-C-0840	DRAINAGE SECTION AND DETAILS

A1-9371.3381	PETTAVEL BASINS 210 – 240 RESERVOIR ROAD WAURN PONDS FEATURE SURVEY – WAYNE MITCHELL SURVEYING. DATE: JULY 2023.
DESIGN SURFACE.dwg	EARLY WORKS DESIGN SURFACE IN dwg. CAD format. DATE: JUNE 2024. FOR CONTRACTOR REFERENCE USE ONLY. ANY DISCREPANCY TO THESE DRAWINGS SHALL BE REPORTED TO THE SUPERINTENDENT.
GROWLING GRASS FROG HABITAT DESIGN STANDARDS, MELBOURNE STRATEGIC ASSESSMENT, DEPARTMENT OF ENVIRONMENT, LAND, WATER AND PLANNING. DATE: MARCH 2017.	
30049187-REP-01	PETTAVEL BASIN AUGMENTATION PROJECT – DETAILED FLORA AND FAUNA ASSESSMENT, SMEC AUSTRALIA. DATE: SEPTEMBER, 2023.
30049187-REP-06	PETTAVEL BASIN AUGMENTATION PROJECT – TARGETED SURVEYS FOR THE GROWLING GRASS FROG AND LATHAM'S SNIPE, SMEC AUSTRALIA. DATE: FEBRUARY 2024.
30049187-REP-07	PETTAVEL BASIN AUGMENTATION PROJECT – GROWLING GRASS FROG MANAGEMENT PLAN, SMEC AUSTRALIA. DATE: MAY 2024.
30049187-REP-08	EARLY WORKS GEOTECHNICAL REPORT, SMEC AUSTRALIA. DATE: MAY 2024.
30049187-REP-09	EARLY WORKS LAND CONTAMINATION REPORT, SMEC AUSTRALIA. DATE: MAY 2024.
PETTAVEL BASIN AUGMENTATION PROJECT – EPBC ACT REFERRAL CONDITIONS – TBC	



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Barwon Water

ISSUED FOR REVIEW
NOT FOR CONSTRUCTION PURPOSES

0055-C-0830

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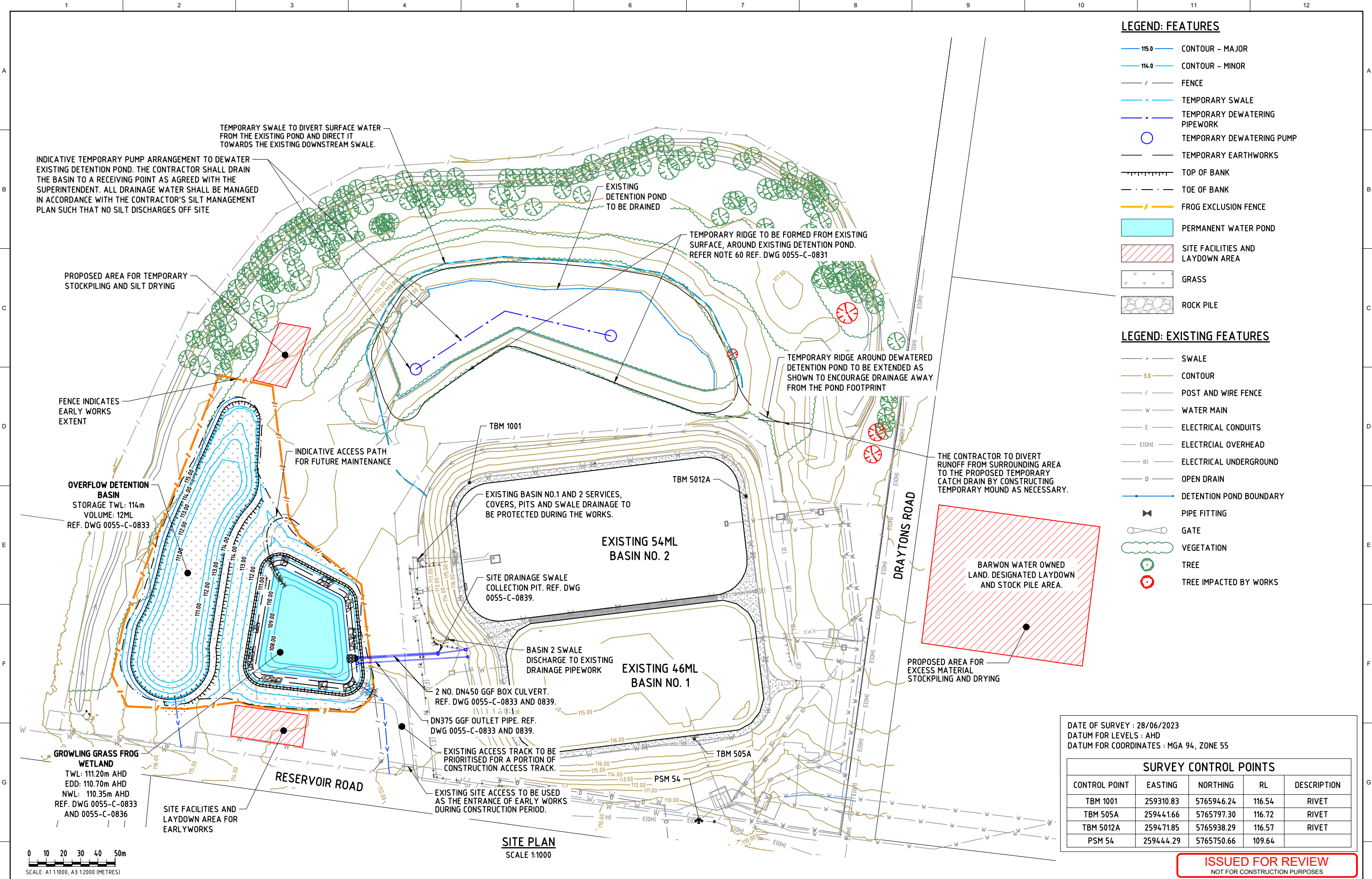
DATE PLOTTED: 7 May 2024 1:28 PM BY: HENRY HUANG
S:\Projects\BW\20330 - Pettavel Basin No 3.8 - CAO\0055-C-0831.dwg

	1	2	3	4	5	6	7	8	9	10	11	12
A	GENERAL NOTES 1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH GROWLING GRASS FROG HABITAT DESIGN STANDARDS, MELBOURNE WATER CONSTRUCTED WETLAND DESIGN MANUAL AND PROJECT SPECIFICATIONS. ANY DISCREPANCY SHALL BE REFERRED TO THE SUPERINTENDENT FOR DECISION BEFORE PROCEEDING WITH THE WORK. 2. ALL PROPRIETARY ITEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. 3. ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE RELEVANT S.A.A.CODES, 4. DRAWINGS ARE NOT TO BE SCALED. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORKS OR MAKING ANY SHOP DRAWINGS. 5. THE SUPERINTENDENT SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY INSPECTIONS REQUIRED IN THESE DOCUMENTS. 6. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND SERVICES PRIOR TO CONSTRUCTION. ALL APPROVALS FROM SERVICE AUTHORITIES SHALL BE OBTAINED BEFORE THE COMMENCEMENT OF WORKS. 7. THESE DRAWINGS ARE TO MGA 94, ZONE 55. ALL LEVELS ARE TO A.H.D. 8. ALL DIMENSIONS IN MILLIMETRES U.N.O. 9. ALL COORDINATES AND LEVELS ARE IN METRES. 10. EXISTING SERVICES TO BE PROTECTED AT ALL TIMES FOR THE DURATION OF THE WORKS. 11. ANY VARIATION TO THE DETAILS SHOWN ON THE DRAWINGS MUST BE AUTHORIZED BY THE SUPERINTENDENT PRIOR TO FABRICATION AND/OR CONSTRUCTION. 12. ALL MATERIAL ASSETS MODIFIED OR DAMAGED BY THE PROPOSED WORKS ARE TO BE REINSTATED TO THE SATISFACTION OF BOTH BARWON WATER AND COUNCIL. 13. CONSTRUCTION WORK SHALL BE CARRIED OUT STRICTLY IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT, 2024. 14. THE CONTRACTOR IS TO SUBMIT A SITE MANAGEMENT PLAN INCLUDING AN ENVIRONMENTAL MANAGEMENT PLAN TO THE SUPERINTENDENT IN ACCORDANCE WITH THE CONTRACT PRIOR TO THE COMMENCEMENT OF WORKS. 15. BLASTING IS NOT PERMITTED FOR THIS PROJECT. 16. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS IN E.P.A. GUIDELINES. 17. PRIOR TO COMMENCEMENT OF WORKS, CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS OF THE EPA PUBLICATION "CONSTRUCTION TECHNIQUES FOR SEDIMENT POLLUTION CONTROL" (PUBLICATION NO 275 1991). 18. ALL TREE AND SHRUB REMOVAL WITHIN THE WORKS FOOTPRINT IS TO BE COMPLETED BY BARWON WATER PRIOR TO COMMENCEMENT OF CONSTRUCTION. ALL TREES ONSITE AND IDENTIFIED NO GO ZONES ARE TO BE PRESERVED AND PROTECTED FOR THE DURATION OF THE WORKS. ANY VEGETATION REMOVAL AS PART OF THESE WORKS SHALL BE CONFIRMED WITH THE SUPERINTENDENT, AND RECORDED WITHIN PROJECT DOCUMENTATION. EARTHWORKS 34. CONSTRUCTION OF EMBANKMENT ABOVE STRIPPED SURFACE LEVEL TO BE UNDER GEOTECHNICAL LEVEL 1 SUPERVISION. 35. NO TOPSOIL TO BE REMOVED FROM SITE OR THE DESIGNATED STOCKPILE AREA AGREED WITH THE SUPERINTENDENT. 36. THE CONTRACTOR SHALL DISPOSE EXCESS SPOIL AS DIRECTED BY THE SUPERINTENDENT. 37. 250mm MIN DEPTH OF TOPSOIL TO BE STRIPPED OVER WHOLE OF WORKS AREA AND STOCKPILED. UPON COMPLETION OF EARTHWORKS, TOPSOIL TO BE SPREAD OVER ALL DISTURBED AREAS TO A DEPTH OF 250mm. 38. ALL BATTERS TO BE HYDRO SEEDED UPON COMPLETION OF WORKS. 39. AREAS ON WHICH FILL IS TO BE PLACED SHALL BE TRIMMED AS REQUIRED TO PROVIDE A FINISHED SURFACE LEVEL IN ACCORDANCE WITH THE DRAWINGS. ANY SCOURS OR HOLLOWES IN THE SURFACE SHALL BE STRIPPED OF ORGANIC MATTER AND ANY UNSUITABLE BASE MATERIAL AND THEN REPLACED WITH APPROVED FILL (REFER MELBOURNE WATER STANDARD SPECIFICATIONS). 40. ALL FILLING SHALL COMPRISE ZONE 1 SELECT CLAY FILL MATERIAL AND THIS IS TO BE PLACED AND COMPACTED TO DENSITIES DEFINED BELOW: 98% SMDD AS PER AS 1289, METHOD E1.1 EXCEPT FOR OVERFLOW DETENTION STORAGE EMBANKMENT AS PER NOTE 40 BELOW. 41. UPPER BANK BATTERS SHALL BE ROUNDED, TO AVOID THE APPEARANCE OF UNIFORM BATTER INTERSECTION LINES. 42. CLAY LINERS ARE TO BE CONSTRUCTED BELOW THE NORMAL TOP WATER LEVEL IN THE GGF WETLAND AND OVERFLOW DETENTION STORAGE AND ACCESS TRACK. THE LINER SHALL BE 600mm THICK AND COMPACTED IN 150mm THICK LAYERS. CLAY LINERS ARE TO BE MOISTURE CONDITIONED WITHIN 0% TO +3% OF STANDARD OPTIMUM MOISTURE CONTENT AND COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 98% STANDARD IN ACCORDANCE WITH AS1289 5.1.1, 5.4.1 OR 5.7.1. 42.1. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING OF THE SUITABILITY OF POTENTIAL FILL MATERIALS PRIOR TO COMMENCEMENT OF EARTHWORKS. 42.2. AREAS WHERE THE EXPOSED SUBGRADE COMPRISES OF SAND LENSES, SILTS OR OTHER FILL MATERIALS, SHALL BE REMOVED TO A DEPTH OF 300mm AND REPLACED WITH A SUITABLE CLAY MATERIAL. THE MATERIAL TO BE COMPACTED AND PROOF ROLLED TO THE REQUIREMENT OF THE PROJECT SPECIFICATION. 42.3. AREAS WHERE THE EXPOSED SUBGRADE COMPRISES ROCK SHALL UNDERGO SEAM TREATMENT AND DENTAL CONCRETE AS PER THE PROJECT SPECIFICATION. 42.4. THE CLAY LINER IS TO BE CONSTRUCTED TO MEET LEVEL 1 GEOTECHNICAL SUPERVISION INSPECTION AND TESTING REQUIREMENTS AS DEFINED BY AS3798-2007. THE CONTRACTOR IS TO REFER TO THE CONTRACT SPECIFIC CLAUSES WITHIN THE TENDER DOCUMENTATION RELATING TO THE CLAY LINER. 43. GEOTECHNICAL TESTING OF OVERFLOW DETENTION STORAGE EMBANKMENT FILL MATERIAL MUST BE CARRIED OUT BY A NATA ACCREDITED LABORATORY. 44. OVERFLOW DETENTION STORAGE EMBANKMENT IS TO HAVE ZONE 1 SELECT CLAY FILL COMPACTED IN 150mm LAYERS TO 98% MMDD WITH MOISTURE CONTENTS AT OMC TO +2%. CONCRETE 45. ALL PIPE FITTINGS INTO AND OUT OF PIT STRUCTURES MUST BE SEALED BETWEEN PIPE WALL AND CONCRETE WITH HYDROTITE (CJ-0725-3K) OR APPROVED EQUIVALENT. HYDROTITE FITTED TO MANUFACTURERS SPECIFICATION. 46. CONCRETE QUALITY SHALL BE: MINIMUM COMPRESSIVE STRENGTH F'C - 32MPA AT MINIMUM STRENGTH DEVELOPMENT TIME (DAYS) - 28 WATER CEMENT RATIO (MAXIMUM) - 0.55 SLUMP (MAXIMUM) - 80mm AGGREGATE SIZE (MAXIMUM) - 20mm CEMENT SHALL BE SULPHATE RESISTANT CEMENT WATER TO BE CLEAN AND POTABLE. AGGREGATE TO BE SHARP, CLEAN AND CONTINUOUSLY GRADED. ALTERNATIVELY AN APPROVED WATER REDUCING AGENT MAY BE USED AND THE SLUMP INCREASED TO 120mm. HOWEVER, THE CEMENT CONTENT SHALL NOT BE REDUCED. 47. ADDITIVES SHALL NOT BE USED WITHOUT WRITTEN APPROVAL FROM THE SUPERINTENDENT. 48. ALL CONCRETE SHALL BE THOROUGHLY COMPACTED USING MECHANICAL HIGH FREQUENCY VIBRATORS. SURFACE TREATMENT OF EXPOSED CONCRETE SHALL BE WOODEN TROWEL FINISHED. 49. ALL CONCRETE SHALL BE CURED BY KEEPING MOIST FOR A MINIMUM PERIOD OF SEVEN (7) DAYS AFTER PLACING OR BY APPLICATION OF AN APPROVED CURING COMPOUND. IMMEDIATELY AFTER SURFACE HARDENING APPLY WATER TO THE SURFACE AND THEN COVER THE WHOLE OF THE SURFACE WITH P.V.C SHEETING. EXTEND THE SHEETING BEYOND THE EDGES OF THE NEW CONCRETE AND SEAL THE P.V.C. TO THE OLD CONCRETE AND ALONG ALL EDGES AND ALL JOINTS IN THE P.V.C TO PREVENT ANY LOSS OF MOISTURE. 50. UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS, REINFORCING BARS ARE TO BE SUPPLIED, PLACED, FIXED AND SUPPORTED IN ACCORDANCE WITH AS 3600-2001 - CONCRETE STRUCTURES CODE AND THE SPECIFICATION WITH SUPPORTS AT 400mm CENTRES. 51. COVER TO REINFORCING SHALL BE A MINIMUM 50mm TOP AND BOTTOM. ALL SPLICES IN REINFORCEMENT SHALL BE LAPPED TO DEVELOP FULL TENSILE STRENGTH IN ACCORDANCE WITH AS 3600-2001, CONCRETE STRUCTURES CODE. 52. FORM UP CONTRACTION AND EXPANSION JOINTS AS AND WHERE SHOWN. ALLOW JOINTS TO THOROUGHLY DRY OUT AND SEAL USING AN APPROVED JOINT SEALANT AS SHOWN IN STRICT ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. 53. ALL EXPOSED STEEL SECTIONS CAST INTO CONCRETE SHALL BE HOT DIP GALVANISED. 54. ALL EXPOSED CONCRETE CORNERS TO HAVE 25mm CHAMFER. 55. ALL CONSTRUCTION JOINTS (C.J.) SHALL BE THOROUGHLY SCABBLED AND CLEANED BEFORE CONCRETE PLACEMENT. DEWATERING OF EXISTING DETENTION POND 56. DEWATERING OF EXISTING DETENTION POND WILL BE CARRIED OUT AS PER THE SPECIFICATION IN LIAISON WITH THE SUPERINTENDENT TO IMPLEMENT DRAIN-DOWN AND DESILTING IN CONJUNCTION WITH CAPTURE AND RELOCATION OF THE GROWLING GRASS FROG, EEL POPULATION AND ANY OTHER PROTECTED SPECIES NOMINATED BY THE SUPERINTENDENT, AS PER THE SPECIFICATION, THE GROWLING GRASS FROG MANAGEMENT PLAN AND ANY CONDITIONS NOMINATED IN THE VICTORIAN FISHERIES ACT PERMIT.											
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H	ISSUED FOR BW REVIEW 07.05.2024   REV REVISION DESCRIPTION DATE CHK'D APP'D # DENOTES SIGNATURE ON ORIGINAL  C M P CONSULTING GROUP Level 1, 700 Springvale Rd, Mulgrave VIC 3170 E: info@cmpgroup.com.au P: 61 3 9002 0710 www.cmpgroup.com.au DRAWN N. MATHIYUGARAJAH DESIGNED N. MATHIYUGARAJAH DESIGN CHECK G. SCHWAB DRAFT CHECK D. MOULTON REGISTERED ENGINEER S. LI APPROVED B. NICHOLSON  BARWON WATER PETTAVEL BASIN NO.3 - EARLY WORKS GGF WETLAND AND OVERFLOW DETENTION STORAGE GENERAL NOTES DO NOT SCALE SCALE DATUM DRAWING NUMBER 0055-C-0831 REV A											
	1	2	3	4	5	6	7	8	9	10	11	12

DEWATERING OF EXISTING DETENTION POND

56. DEWATERING OF EXISTING DETENTION POND WILL BE CARRIED OUT AS PER THE SPECIFICATION IN LIAISON WITH THE SUPERINTENDENT TO IMPLEMENT DRAIN-DOWN AND DESILTING IN CONJUNCTION WITH CAPTURE AND RELOCATION OF THE GROWLING GRASS FROG, EEL POPULATION AND ANY OTHER PROTECTED SPECIES NOMINATED BY THE SUPERINTENDENT, AS PER THE SPECIFICATION, THE GROWLING GRASS FROG MANAGEMENT PLAN AND ANY CONDITIONS NOMINATED IN THE VICTORIAN FISHERIES ACT PERMIT.

DATE PLOTTED: 7 May 2024 2:12 PM BY: HENRY HUANG
S:\Projects\BW\2023030 - Pettavel Basin No 3.8 - CAO\0055-C-0832.dwg



LEGEND: FEATURES

- 115.0 CONTOUR - MAJOR
- 114.0 CONTOUR - MINOR
- FENCE
- TEMPORARY SWALE
- TEMPORARY DEWATERING PIPEWORK
- TEMPORARY DEWATERING PUMP
- TEMPORARY EARTHWORKS
- TOP OF BANK
- TOE OF BANK
- FROG EXCLUSION FENCE
- PERMANENT WATER POND
- SITE FACILITIES AND LAYDOWN AREA
- GRASS
- ROCK PILE

LEGEND: EXISTING FEATURES

- SWALE
- 3.0 CONTOUR
- POST AND WIRE FENCE
- WATER MAIN
- ELECTRICAL CONDUITS
- ELECTRICIAL OVERHEAD
- ELECTRICAL UNDERGROUND
- OPEN DRAIN
- DETENTION POND BOUNDARY
- PIPE FITTING
- GATE
- VEGETATION
- TREE
- TREE IMPACTED BY WORKS

DATE OF SURVEY : 28/06/2023				
DATUM FOR LEVELS : AHD				
DATUM FOR COORDINATES : MGA 94, ZONE 55				
SURVEY CONTROL POINTS				
CONTROL POINT	EASTING	NORTHING	RL	DESCRIPTION
TBM 1001	259310.83	5765946.24	116.54	RIVET
TBM 505A	259441.66	5765797.30	116.72	RIVET
TBM 5012A	259471.85	5765938.29	116.57	RIVET
PSM 54	259444.29	5765750.66	109.64	

ISSUED FOR REVIEW
NOT FOR CONSTRUCTION PURPOSES

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LEGEND:

- 115.0 CONTOUR - MAJOR
- 114.0 CONTOUR - MINOR
- /// FENCE
- TEMPORARY SWALE
- TOP OF BANK
- TOE OF BANK
- FROG EXCLUSION FENCE
- PERMANENT WATER POND
- SITE FACILITIES AND LAYDOWN AREA
- GRASS
- ROCK PILE

LEGEND: EXISTING FEATURES

- SWALE
- 3.0 CONTOUR
- POST AND WIRE FENCE
- WATER MAIN
- E ELECTRICAL CONDUITS
- E(OH) ELECTRICAL OVERHEAD
- (E) ELECTRICAL UNDERGROUND
- D OPEN DRAIN
- DETENTION POND BOUNDARY
- PIPE FITTING
- GATE
- VEGETATION
- TREE
- TREE IMPACTED BY WORKS



FENCE INDICATES
EARLY WORKS EXTENT

CONTRACTOR TO CONSTRUCT FROG EXCLUSION
FENCE AS PER THE REQUIREMENT OF GROWLING
GRASS FROG HABITAT MANAGEMENT

OVERFLOW
DETENTION STORAGE
TWL: 114m AHD
VOLUME: 12ML

OVERFLOW DETENTION STORAGE OVERFLOW SWALE.
REF. SECTION DETAIL D. DWG 0055-C-0839.

ROCK PILE AREA

SHAPE AN EARTH SWALE
TOWARDS THE TABLE
DRAIN ON RESERVOIR ROAD

V-NOTCH SIDE TO BE POSITIONED
FACING THE WETLAND

RESERVOIR ROAD

SITE PLAN
SCALE 1:500

CONTRACTOR TO CONSTRUCT MAINTENANCE ACCESS RAMP
PATH (200mm DEPTH) OF CRUSHED ROCK. EXCAVATE TO HAVE
A SOLID FOUNDATION (NO SOFT SPOTS)

ROCK PILE AREA

GROWLING GRASS
FROG WETLAND
TWL: 111.2m AHD
EDD: 111.70m AHD
NWL: 110.35m AHD

CONTRACTOR TO CONSTRUCT TEMPORARY SWALE TO
DRAIN TO EXISTING SITE SWALE AND DRAIN

EXISTING FENCE TO BE REMOVED AND
REINSTATED TO INSTALL WETLAND PIPEWORK

MINIMUM COVER OF THE DRAINAGE PIPES ARE
REQUIRED FOR THE CONSTRUCTION VEHICLES

GRADED PIT COVER LEVEL TO BE SET AT 111.80 m AHD
TO SUIT FUTURE DRAINAGE WORKS (BY OTHERS).
EXCESS CUT MATERIAL TO BE PLACED AROUND PIT
SURROUNDS TO SUIT COVER LEVEL AND TIE-IN TO
EXISTING SURFACE, AS SHOWN ON 0055-C-0839.

FOR PIT SCHEDULE REFER
DWG 0055-C-0839

PIT TO BE CONSTRUCTED OVER
EXISTING DN375 DRAIN.
REF. DWG 0055-C-0839.

DN375 RCP WETLAND OUTLET
REF. DWG 0055-C-0839

EXISTING ELECTRICAL PIT TO BE
RELOCATED OR COVER LEVEL ADJUSTED
TO SUIT.

HOLD: TBC WITH BW BEFORE
FINAL SUBMISSION.

WETLAND OVERFLOW SWALE. REF.
SECTION DETAIL E. DWG 0055-C-0839

THE CONTRACTOR SHALL CONFIRM WITH
THE COUNCIL, DETAILS FOR SMOOTHLY
TRANSITIONING SWALE INTO EXISTING
ROAD SIDE SWALE ALONG RESERVOIR ROAD

0 5 10 15 20 25m
SCALE: A1 1:500, A3 1:1000 (METRES)

DENOTES SIGNATURE ON ORIGINAL



C M P CONSULTING GROUP

Level 1, 700 Springvale Rd, Mulgrave VIC 3170
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DRAWN
N. MATHIYUGARAJAH
DESIGNED
N. MATHIYUGARAJAH
DESIGN CHECK
G. SCHWAB

DRAFT CHECK
D. MOULTON
REGISTERED ENGINEER
S. LI
APPROVED
B. NICHOLSON



BARWON WATER
PETTAVEL BASIN NO.3 - EARLY WORKS
GGF WETLAND AND OVERFLOW DETENTION STORAGE
EARLY WORKS DETAIL PLAN

ISSUED FOR REVIEW
NOT FOR CONSTRUCTION PURPOSES

DO NOT SCALE
SCALE AS SHOWN
DATE MGA94-ZONE 55
DRAWING NUMBER
0055-C-0833



REV
A

DATE PLOTTED: 7 May 2024 3:13 PM BY: NAVIN MATHYUGARAJAH
\\comp-fieCompany\Projects\BWW\20330 - Pettavel Basin No 3\8 CAD\0055-C-0835.dwg

LEGEND:

- 115.0 CONTOUR - MAJOR
- 114.0 CONTOUR - MINOR
- FENCE
- TEMPORARY SWALE
- TOP OF BANK
- TOE OF BANK
- FROG EXCLUSION FENCE
- PERMANENT WATER POND
- SITE FACILITIES AND LAYDOWN AREA
- GRASS
- ROCK PILE

LEGEND: EXISTING FEATURES

- SWALE
- CONTOUR
- POST AND WIRE FENCE
- WATER MAIN
- ELECTRICAL CONDUITS
- ELECTRICAL OVERHEAD
- ELECTRICAL UNDERGROUND
- OPEN DRAIN
- DETENTION POND BOUNDARY
- PIPE FITTING
- GATE
- VEGETATION
- TREE
- TREE IMPACTED BY WORKS

NOTES:

- FOR DETAILED INFORMATION ABOUT ALL BOREHOLES, REFER TO 30049187-REP-08 EARLY WORKS GEOTECHNICAL REPORT, PREPARED BY SMEC AUSTRALIA. DATE MAY 2024.
- FOR LEGEND REFER TO DRAWING 0055-C-0833.

0 5 10 15 20 25m
SCALE: A1 1:500; A3 1:1000 (METRES)

REV	REVISION DESCRIPTION	DATE	CHK'D	APP'D
A	ISSUED FOR BW REVIEW	07.05.2024	CS	Ben

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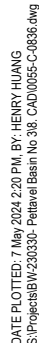
DRAWN H. HUANG	DRAFT CHECK D. MOULTON
DESIGNED H. HUANG	REGISTERED ENGINEER S. LI
DESIGN CHECK G. SCHWAB	APPROVED B. NICHOLSON



BARWON WATER
PETTAVEL BASIN NO.3 - EARLY WORKS
GGF WETLAND AND OVERFLOW DETENTION STORAGE
GEOTECHNICAL BOREHOLE LOCATIONS

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DATE PLOTTED: 7 May 2024 2:45 PM BY: NAVIN MATHIYUGARAJH
\\mp-fieCompany\Projects\B\W\23030 - Pettavel Basin No 3\8 CAD\0055-C-0837.dwg

H 1:500m (AT A1)
V 1:100m (AT A1)

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A	ISSUED FOR BW REVIEW	07.05.2024	BS	Ben

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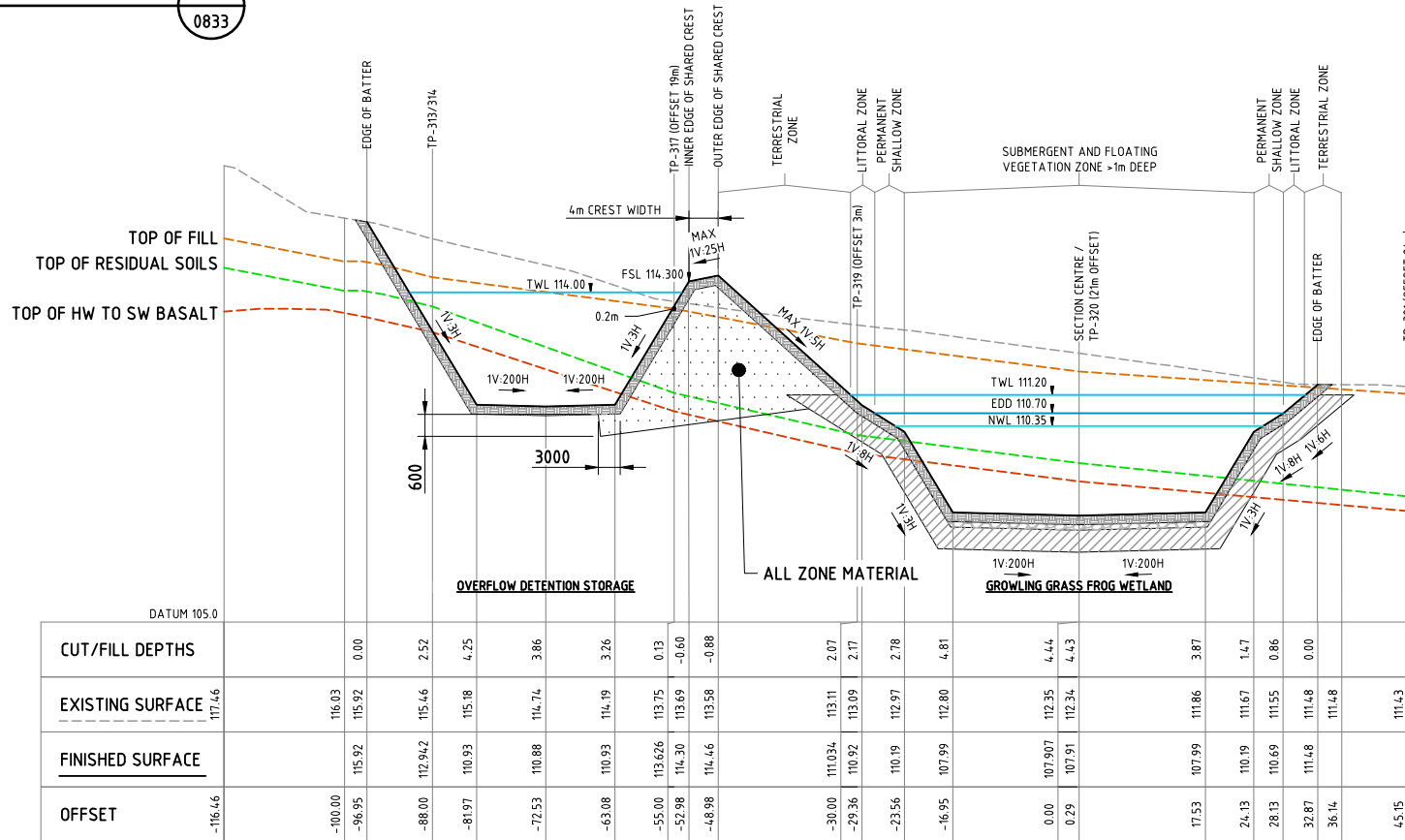
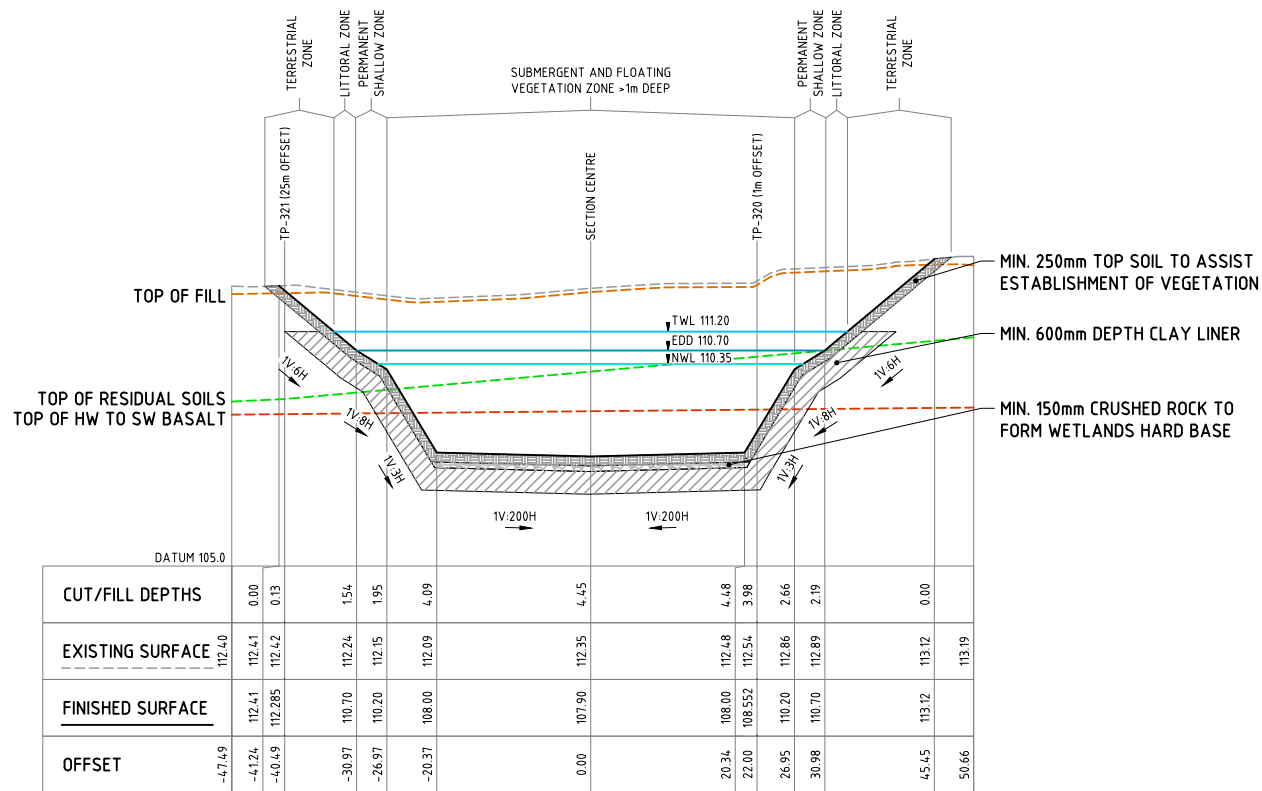
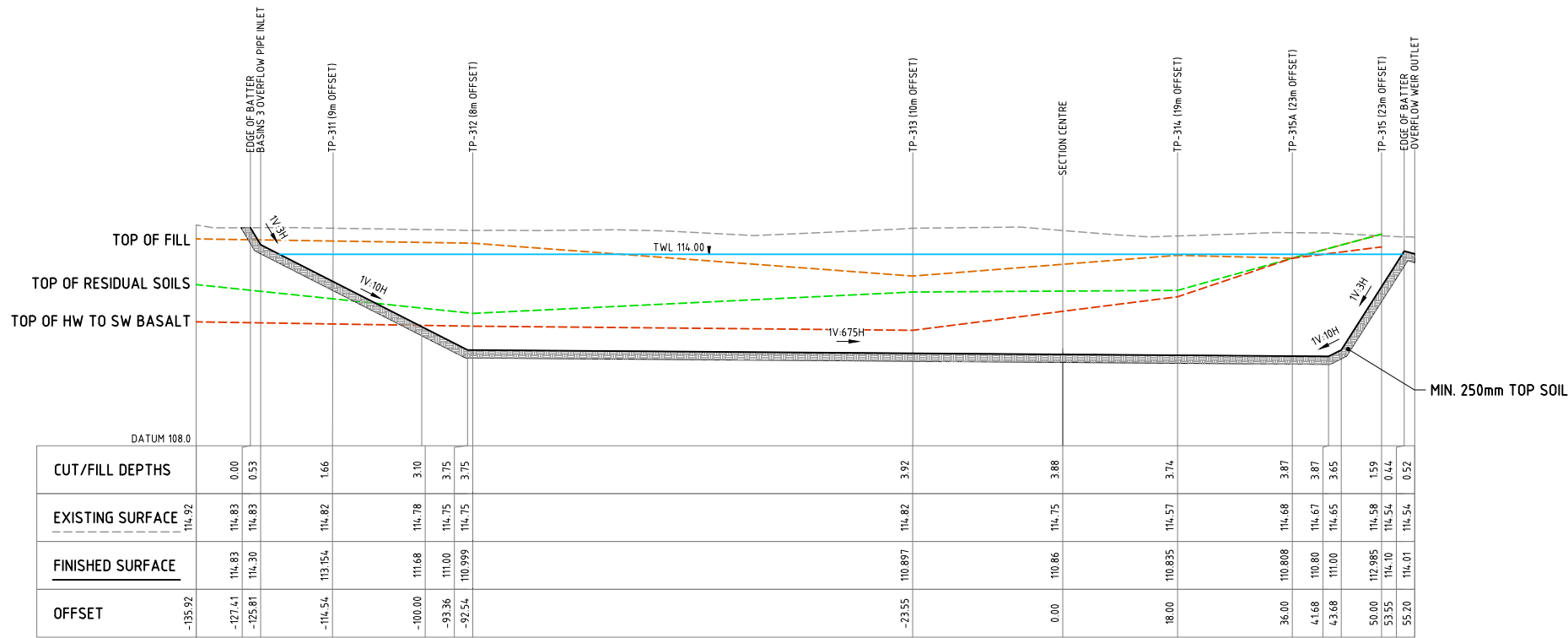
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DESIGNED H. HUANG	REGISTERED ENGINEER S. LI
DESIGN CHECK G. SCHWAB	APPROVED B. NICHOLSON



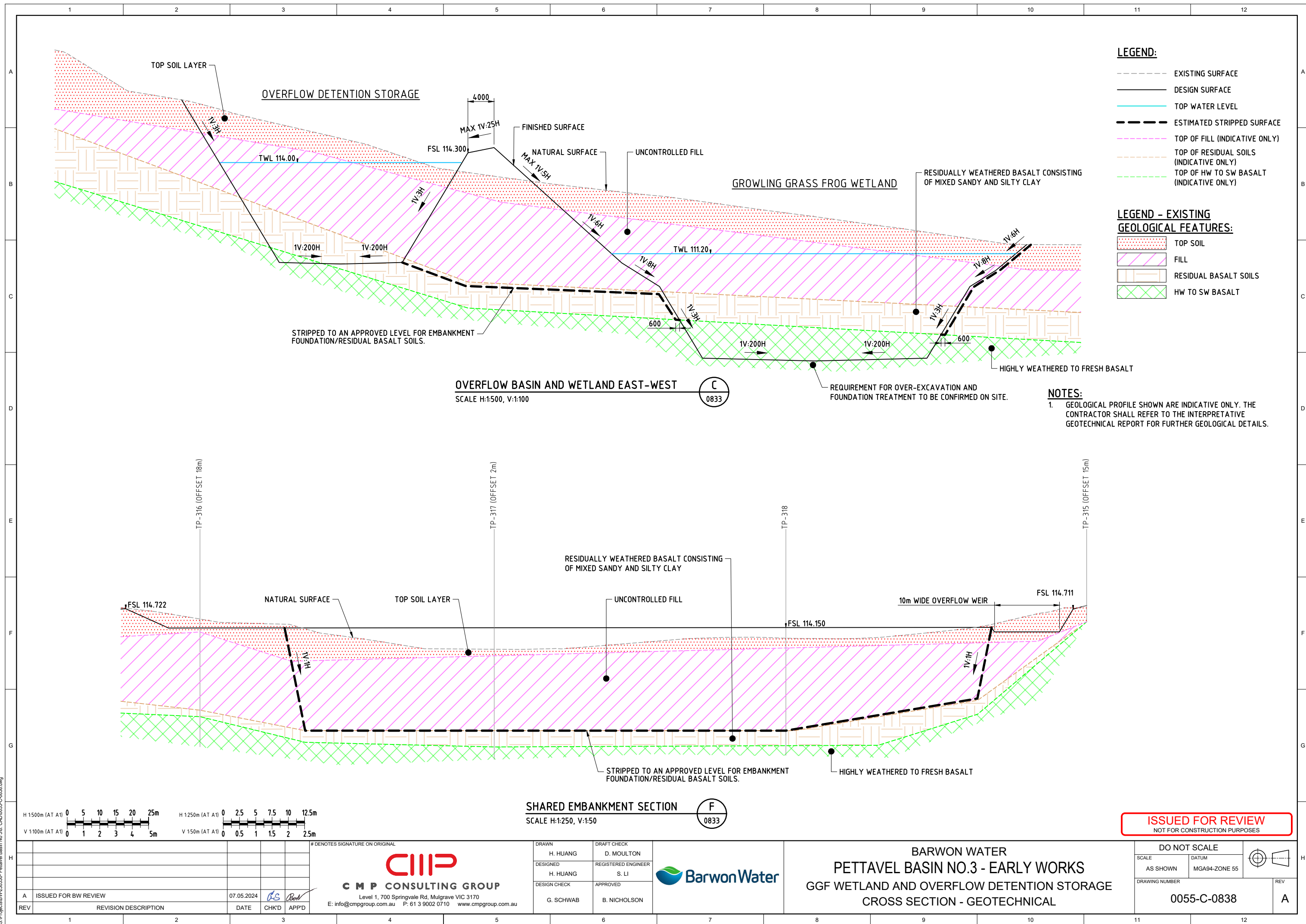
BARWON WATER
PETTAVEL BASIN NO.3 - EARLY WORKS
GGF WETLAND AND OVERFLOW DETENTION STORAGE
CROSS-SECTION - CIVIL AND ENVIRONMENTAL

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DO NOT SCALE		
SCALE AS SHOWN	DATUM MGA94-ZONE 55	
DRAWING NUMBER 0055-C-0837	REV A	



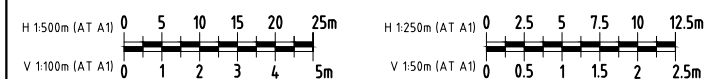
DATE PLOTTED: 7 May 2024 3:30 PM BY: HENRY HUANG
S:\Projects\BW\20330 - Pettavel Basin No 3.8 - CAO\055-C-0838.dwg



- LEGEND:**
- EXISTING SURFACE
 - DESIGN SURFACE
 - TOP WATER LEVEL
 - ESTIMATED STRIPPED SURFACE
 - TOP OF FILL (INDICATIVE ONLY)
 - TOP OF RESIDUAL SOILS (INDICATIVE ONLY)
 - TOP OF HW TO SW BASALT (INDICATIVE ONLY)
- LEGEND - EXISTING GEOLOGICAL FEATURES:**
- TOP SOIL
 - FILL
 - RESIDUAL BASALT SOILS
 - HW TO SW BASALT

NOTES:

1. GEOLOGICAL PROFILE SHOWN ARE INDICATIVE ONLY. THE CONTRACTOR SHALL REFER TO THE INTERPRETATIVE GEOTECHNICAL REPORT FOR FURTHER GEOLOGICAL DETAILS.



# DENOTES SIGNATURE ON ORIGINAL			
A	ISSUED FOR BW REVIEW	07.05.2024	CS
REV	REVISION DESCRIPTION	DATE	CHK'D APP'D
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DESIGN CHECK	G. SCHWAB	APPROVED	B. NICHOLSON

BarwonWater

BARWON WATER

PETTAVEL BASIN NO.3 - EARLY WORKS

GGF WETLAND AND OVERFLOW DETENTION STORAGE

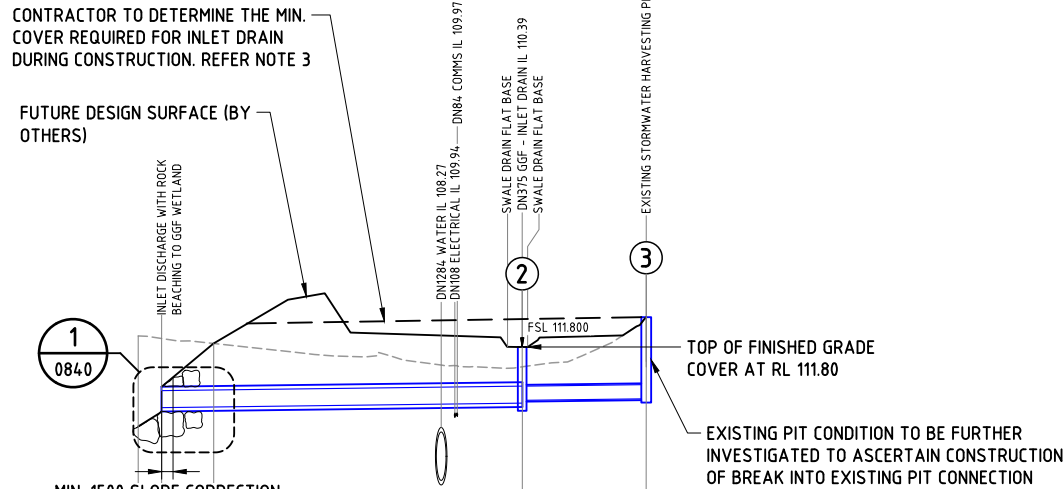
CROSS SECTION - GEOTECHNICAL

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DO NOT SCALE

SCALE	DATUM
AS SHOWN	MGA94-ZONE 55
DRAWING NUMBER	REV
0055-C-0838	A

DATE PLOTTED: 8 May 2024 12:59 PM BY: HENRY HUANG
S:\Projects\BW\20330 - Pettavel Basin No 3\8. CAD\0055-C-0839.dwg



BACKFILL MATERIAL
EMBEDMENT MATERIAL
PIPE SIZE & TYPE
LENGTH & GRADE

DATUM 104.0

DEPTH TO INVERT	0.55			
INVERT LEVEL	110.20			
DESIGN SURFACE	110.75			
EXISTING SURFACE	112.02			
CHAINAGE	0.00	3.10	50.79	67.20

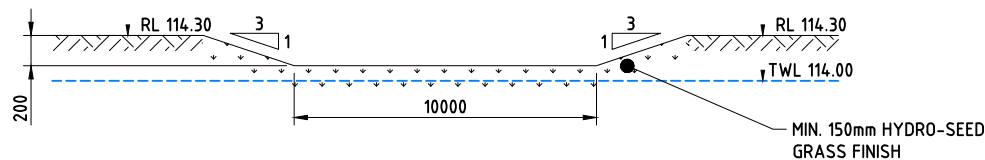
TYPE C

DN450 x 450 mm Concrete Box Culvert
47.7m 1:400

TYPE A

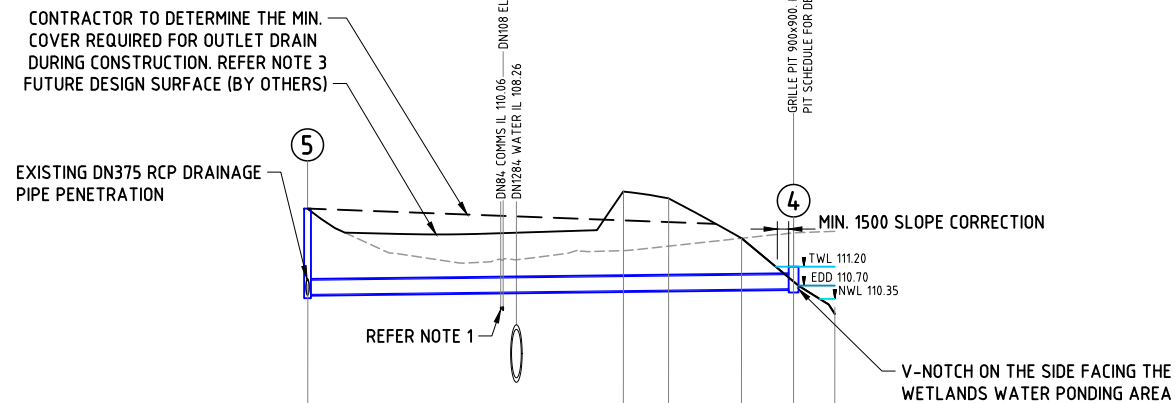
DN375 RCP CLASS 2
16.4m 1:400

GGF INLET DRAIN - LONGITUDINAL SECTION
SCALE H:1:500, V:1:100



OVERFLOW DETENTION STORAGE - OVERFLOW SWALE
SCALE NTS

D
0833



BACKFILL MATERIAL
EMBEDMENT MATERIAL
PIPE SIZE & TYPE
LENGTH & GRADE

DATUM 104.0

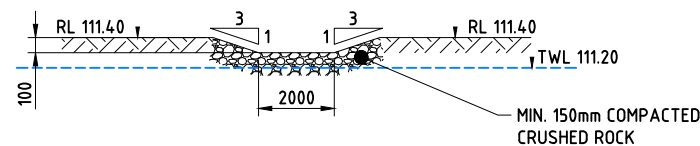
DEPTH TO INVERT	2.27			
INVERT LEVEL	110.42 110.47			
DESIGN SURFACE	112.74			
EXISTING SURFACE	112.74			
CHAINAGE	0.00	4.176	4.774	69.75

TYPE A

DN375 RCP CLASS 2
64.3m 1:424

TYPE C

GGF OUTLET DRAIN - LONGITUDINAL SECTION
SCALE H:1:500, V:1:100



WETLAND - OVERFLOW SWALE
SCALE NTS

E
0833

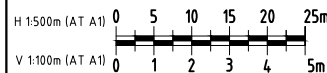
- NOTES:**
- EXACT INVERTS FOR ELECTRICAL AND COMMUNICATION CONDUITS ARE NOT KNOWN. VALUES PROVIDED ARE AS PER MINIMUM COVER EXPECTED FROM AS/NZS 3000.
 - REFER TO MRWA-W-201 FOR BACKFILL DETAILS AND MRWA-W-203 FOR EMBEDMENT DETAILS.
 - MINIMUM COVER ABOVE THE INLET AND OUTLET DRAIN WILL NEED TO WITHSTAND THE TRAFFICABLE LOADING DURING CONSTRUCTION.

HOLD: PIT CONDITION TBC
WITH BW FOR SUITABILITY
OF BREAK-IN

PIT SCHEDULE

PIT No	PIT TYPE	WIDTH mm	LENGTH mm	COVER RL m	PIT DEPTH m	INLET PIPE	INLET I.L. m	OUTLET PIPE	OUTLET I.L. m	SETOUT POINT m	REMARKS
1 (ROCK BEACHING)	HEADWALL	-	-	110.74	-	2 x 450 x 450 BOX CULVERTS (TWIN)	110.20	-	-	-	ROCK BEACHING. REFER DWG 0839 DETAIL 1 & A
2	GRATED PIT	900	1800	111.80	1.59	DN375 RCP	110.39	2 x 450 x 450 BC	110.32	E: 259292.529 N: 5765846.894	GRATE TO BE SUPPLIED TO BARWON WATER. TO BE INSTALLED LATER BY OTHERS.
3	JUNCTION PIT	900	900	112.59	2.16	EXISTING DN375 RCP + EXISTING DN225 PVC	110.64 + 111.45	DN375 RCP	110.43	-	DN375 (PIPE P1) TO BREAK INTO EXISTING STORMWATER PIT
4	GRILLE PIT	900	900	111.20	0.80			DN375 RCP	110.62	-	GRILLE PIT 900x900 AS PER MW-7251/08/423. V-NOTCH TO BE INCLUDED ON THE WEST-SIDE WALL AND MATCHED AT THE EXTENDED DETENTION DEPTH LEVEL OF WETLAND
5	JUNCTION PIT	600	900	112.74	2.27	DN375 RCP + EXISTING DN375 RCP	110.47 + 110.42	EX. DN375 RCP	110.42	-	

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BARWON WATER
PETTAVEL BASIN NO.3 - EARLY WORKS
GGF WETLAND AND OVERFLOW DETENTION STORAGE
DRAIN LONGSECTIONS AND PIT SCHEDULE

DO NOT SCALE

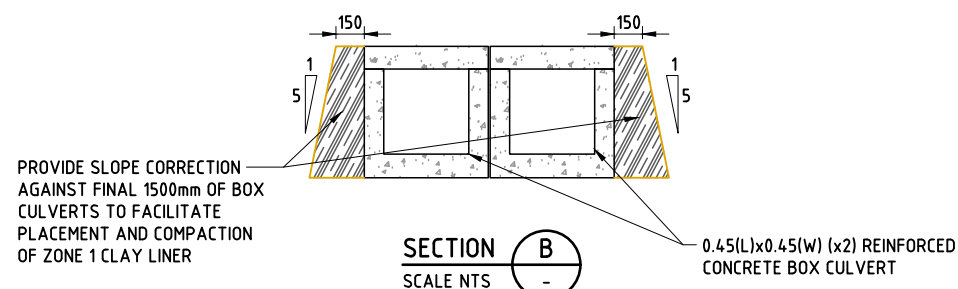
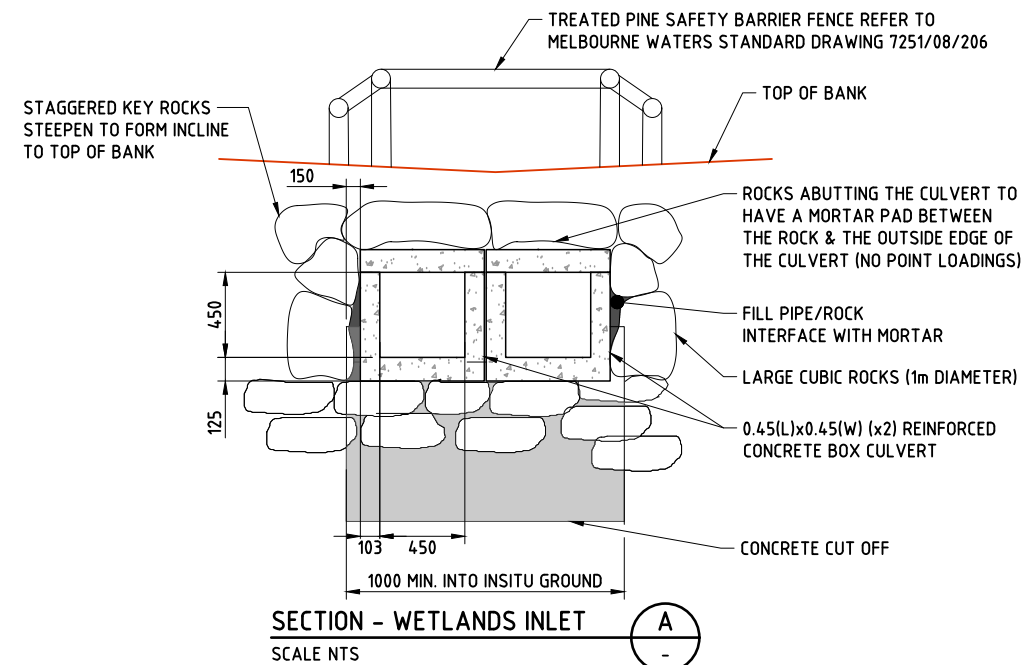
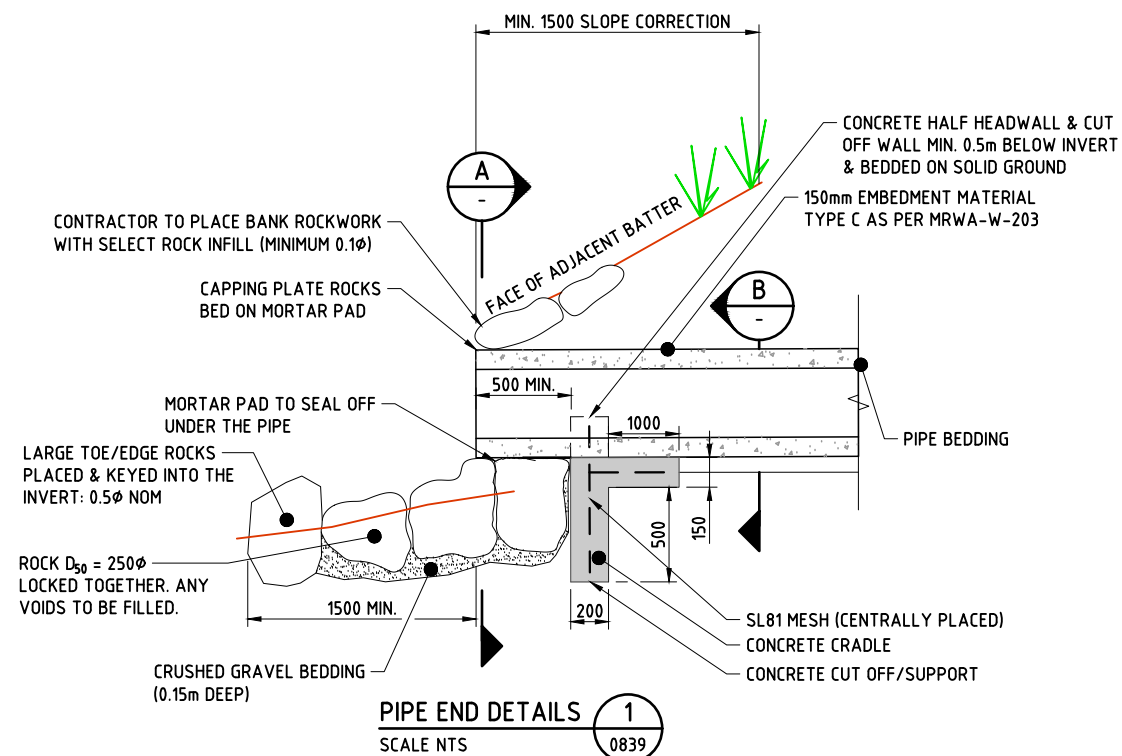
SCALE
AS SHOWN

DATUM
MGA94-ZONE 56

DRAWING NUMBER

0055-C-0839

REV
A



REV	REVISION DESCRIPTION	DATE	CHK'D	APP'D
A	ISSUED FOR BW REVIEW	07.05.2024	HS	Ben

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BARWON WATER
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GGF WETLAND AND OVERFLOW DETENTION STORAGE
DRAINAGE SECTION AND DETAILS

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DO NOT SCALE		
SCALE AS SHOWN	DATUM MGA94-ZONE 56	
DRAWING NUMBER 0055-C-0840		REV A