

SCOUR PROTECTION

Q738 - MUNDIWA



TREE LEGEND			
TREE TYPE	CODE	EXISTING QTY	QTY TO BE REMOVED <300 DBH
REDGUM		47	24
GREYBOX		3	1
WATTLE		1	0
FERN		1	0
EXOTIC		2	0
PEPPERCORN		5	5
OLIVE TREE		14	14
ACACIA STENOPHYLLA (RIVER COOBA)		39	31
LEMON TREE		1	1
DEAD TREE		8	8

LEGEND

EXISTING

TOP OF BANK (TB)	
TOE OF BANK (BB)	
EDGE OF FORMATION	
FENCE	
BEACHING	
ELECTRICITY POLE & OVERHEADS	
TELECOMMUNICATIONS	
WATER MAIN / VALVE	
GAS MAIN / VALVE	
SEWER MANHOLE	
CONTOUR	
BENCHMARK	
GATE	
UNDERGROUND ELECTRICITY LINE	
WATER LINE	

PROJECT : TASK 111 - Q738

DRAWING NUMBER	SHEET NUMBER	PLAN TITLE
PV111.Q738.01	1	COVER PLAN & DRAWING INDEX
PV111.Q738.02	2	ENVIRONMENTAL MANAGEMENT PLAN
PV111.Q738.03	3	EXISTING CONDITIONS PLAN
PV111.Q738.04	4	DEMOLITION PLAN
PV111.Q738.05	5	TREE ID TABLE
PV111.Q738.06	6	SITE LAYOUT
PV111.Q738.07	7	SECTION VIEW
PV111.Q738.08	8	LANDSCAPE PLAN
PV111.Q738.09	9	DETAILS 1
PV111.Q738.11	11	DETAILS 2
PV111.Q738.12	12	CONSTRUCTION NOTES

TEMPORARY BENCH MARK	EASTINGS	NORTHINGS	ELEVATION (mAHD)
TBM 3 - WOODEN STAKE	319455.190	6063110.230	89.53
TBM 4 - WOODEN STAKE	319446.155	6063110.110	89.87
TBM 5 - WOODEN STAKE	319468.624	6063158.025	88.72
TBM 6 - WOODEN STAKE	319475.897	6063023.315	89.17

HOLD POINTS / WITNESS

THE CONTRACTOR SHALL IMPLEMENT PROPOSED ENVIRONMENTAL MANAGEMENT PLAN PRIOR TO CONSTRUCTION	HOLD COMMENCEMENT OF WORKS UNTIL APPROVAL FROM THE PROJECT MANAGER IS GIVEN
EXCAVATION AND PRIOR TO PLACEMENT OF CONCRETE MAT MINIMUM 2 WORKING DAYS NOTICE TO THE PROJECT MANAGER SHALL BE GIVEN	HOLD COMMENCEMENT OF WORKS UNTIL APPROVAL FROM THE PROJECT MANAGER IS GIVEN
THE CONTRACTOR SHALL COMPLETE REINSTATEMENT OF LANDHOLDERS GARDEN AFTER	HOLD COMMENCEMENT OF WORKS UNTIL APPROVAL FROM THE PROJECT MANAGER IS GIVEN
FINAL INSPECTION	FINAL SIGN OFF ON WORKS BY IPT INSPECTION ONSITE

- GENERAL NOTES:
- ALL DIMENSIONS ARE IN MILLIMETRES. LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (mAHD) UNLESS OTHERWISE NOTED.
 - ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THIS SPECIFICATIONS AND TO THE SATISFACTION OF MURRAY IRRIGATION LIMITED. IN THE EVENT THESE SPECIFICATIONS DO NOT COVER THE WORKS, THE WORKS SHALL BE DONE IN ACCORDANCE WITH THE AUSTRALIAN STANDARDS OR MIL SPECIFICATIONS FOR SIMILAR WORKS.
 - ALL EXCAVATED AREAS ARE TO BE REINSTATED TO MATCH PRE-WORKS STATE AND LEVELS.
 - ALL WASTE MATERIAL, RUBBISH AND SPOIL SHALL BE REMOVED FROM SITE.
 - REASONABLE CARE SHALL BE TAKEN BY THE CONTRACTOR TO PRESERVE ANY SURVEY MARKERS. THE CONTRACTOR IS RESPONSIBLE FOR THE COST TO REPLACE IF DEEMED NECESSARY.
 - IF REQUIRED, THE CONTRACTOR SHALL PREPARE A SUITABLE TRAFFIC MANAGEMENT PLAN AND APPROVALS SHALL BE OBTAINED FROM MURRAY RIVER SHIRE COUNCIL & RELEVANT AUTHORITIES BEFORE CONSTRUCTION COMMENCES.
 - SERVICE PROTECTION / REINSTATEMENT WORKS SHALL BE IN ACCORDANCE WITH THE RELEVANT AUTHORITY STANDARDS, WHERE APPLICABLE.
 - THE CONTRACTOR SHALL UNDERTAKEN WORKS IN A MANNER THAT MINIMISES DAMAGE TO ASSETS.
 - ANY DISCREPANCIES IN DIMENSIONS OR DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE WORKS SUPERVISOR FOR CLARIFICATION PRIOR TO ANY WORKS BEING UNDERTAKEN. THE WORKS SUPERVISOR & SUPERINTENDENT ARE TO BE NOTIFIED PRIOR TO THE COMMENCEMENT OF WORKS, IF THE CONDITIONS ARE DIFFERENT TO THOSE SHOWN ON THE PLANS.
 - THE CONTRACTOR SHALL ENSURE ALL WORKERS / EMPLOYEES ARE EQUIP WITH THE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT IN ACCORDANCE WITH THE NEW SOUTH WALES WORK HEALTH AND SAFETY ACT.
 - WHERE ROCK OR SOFT AREAS ARE FOUND SUBGRADE IMPROVEMENT SHALL BE MADE AS DIRECTED BY THE WORK'S SUPERVISOR.
 - EXISTING FENCES ARE TO BE PROTECTED AT ALL TIMES UNLESS STATED OTHERWISE.
 - EXISTING SURFACE LEVELS, BENCH MARKS AND FEATURES ARE BASED UPON EXISTING FEATURE SURVEY INFORMATION OBTAINED AND UNDERTAKEN BY PV ENGINEERING SOLUTIONS.

WATER LEVEL

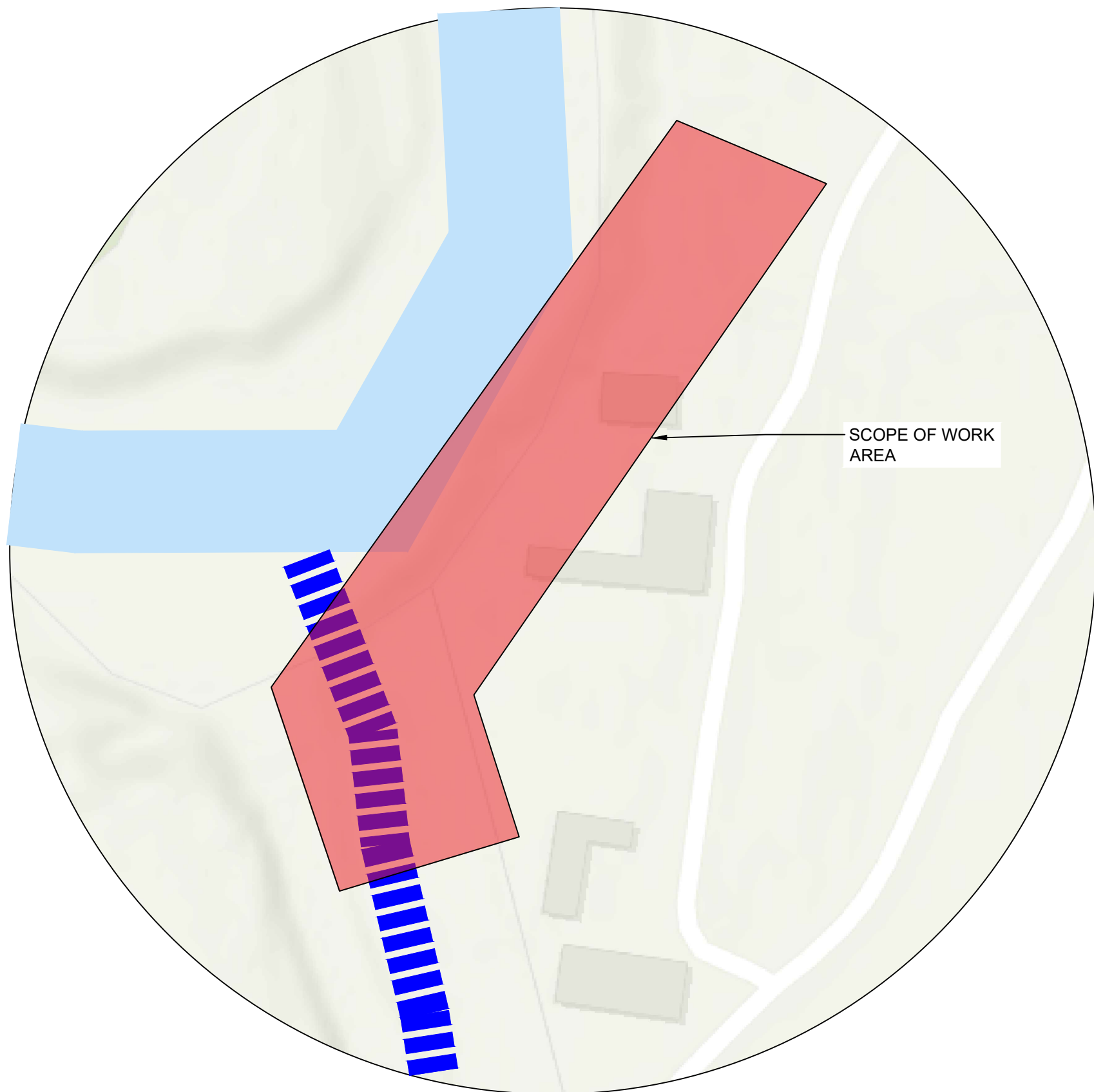
EDWARD RIVER @ DENILIQUIN GAUGE (9003)
GAUGE ZERO LEVEL: 82.43 MAHD

TO DETERMINE THE WATER LEVEL AT MUNDIWA, ADD 0.733m TO THE CURRENT GAUGE READING AT DENILIQUIN.

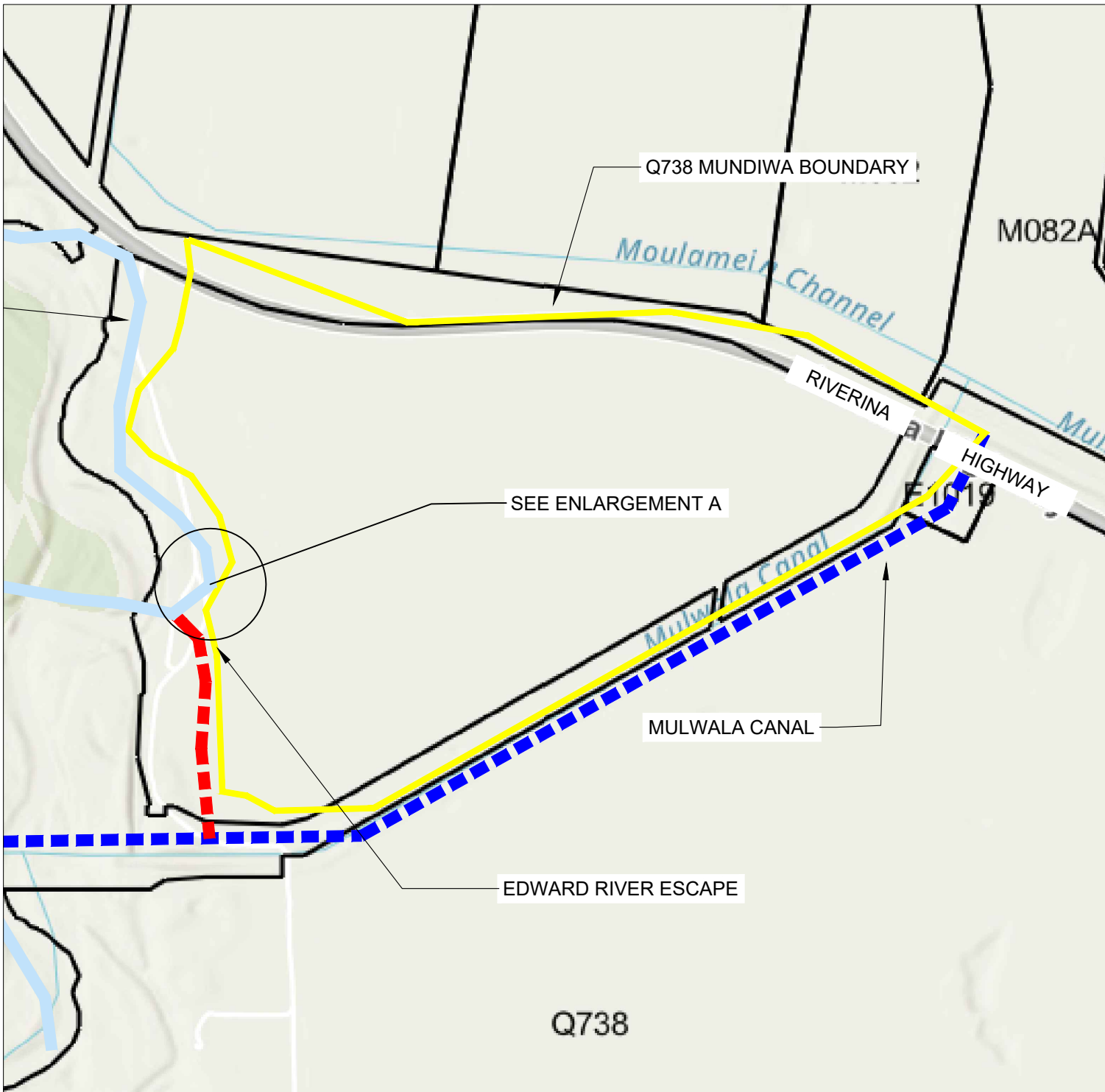
(GAUGE ZERO LEVEL) + (CURRENT GAUGE READING) + 0.733 = (AHD WATER LEVEL @ MUNDIWA)

FLOOD EVENT	PEAK FLOOD LEVEL mAHD @ LAWSON SYPHON
20% AEP	90.700
10% AEP	92.100
5% AEP	92.700
2% AEP	93.200
1% AEP	93.400
0.5% AEP	93.600

FLOOD EVENT LEVELS @ LAWSON SYPHON AS PER
TABLE 11 - EDWARD RIVER AT DENILIQUIN FLOOD STUDY 2014



ENLARGEMENT A
NTS



SITE LOCALITY
NTS



ALL SERVICES SHOWN ON THE DRAWINGS ARE INDICATIVE ONLY. THE EXACT LOCATION, DEPTH, AND CONFIGURATION OF ALL EXISTING AND PROPOSED SERVICES MUST BE VERIFIED ON SITE PRIOR TO CONSTRUCTION. CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING ALL SERVICES AND NOTIFYING THE DESIGNER OF ANY DISCREPANCIES.

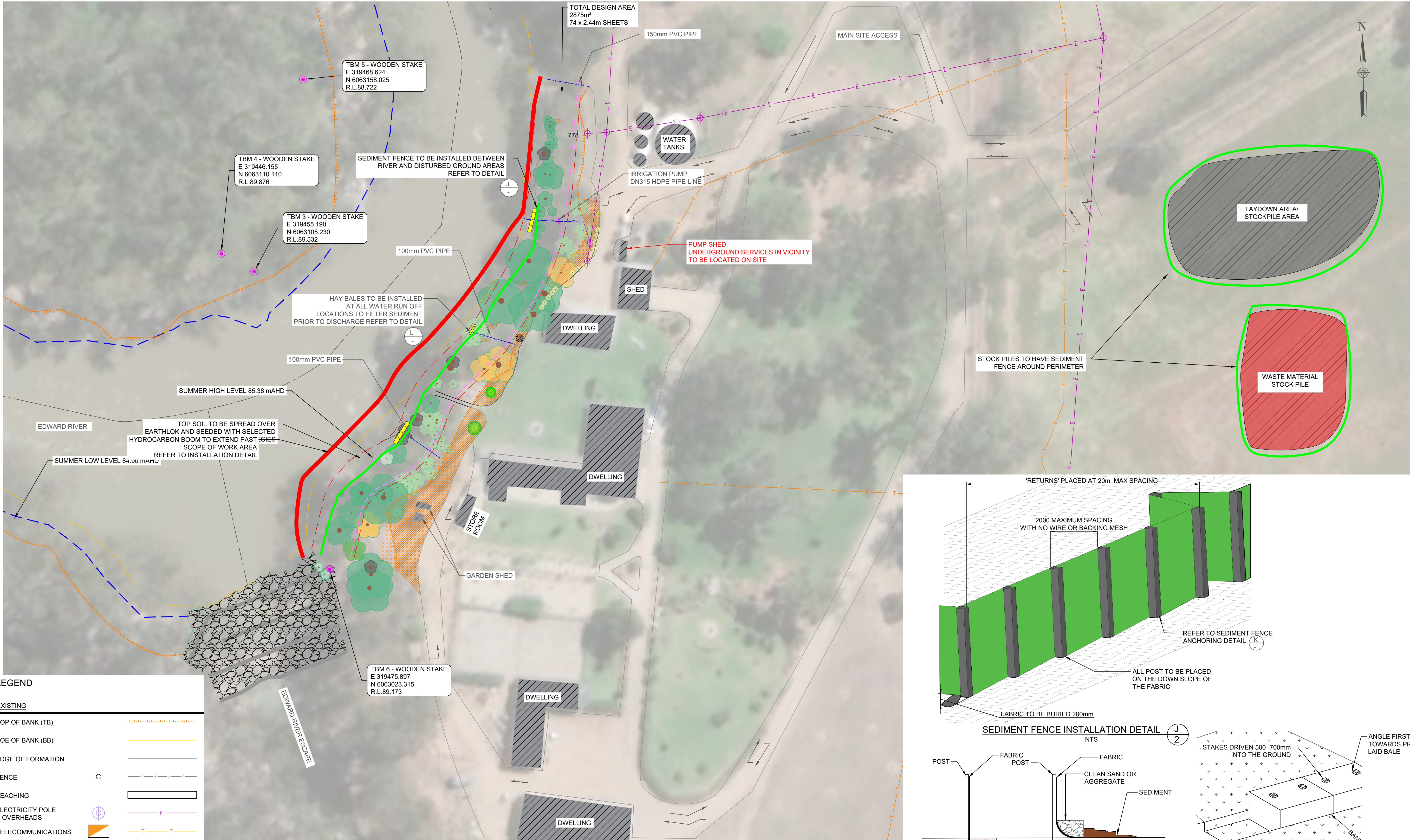
REV	DATE	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	REVISIONS
B	04/06/26	PV			DENILIQUIN GAUGE LEVEL ADDED
A	19/01/26	PV			ISSUED FOR REVIEW

NAME	DATE	REMARKS
AM/PV	16/01/25	SURVEYED
AM	19/01/26	DESIGNED
AM	19/01/26	DRAWN
PV	20/01/26	REVIEWED
PV	20/01/26	APPROVED

MURRAY IRRIGATION LTD.

SCOUR PROTECTION
Q738 - MUNDIWA
COVER PLAN & DRAWING INDEX

DRG. NO. REF	FILE NAME	SHEET	PLOT SIZE
PV111.Q738.01	T-111 Mundiwa_RevB.dwg	01 OF 11	A 1
SCALE	NTS		



LEGEND

EXISTING

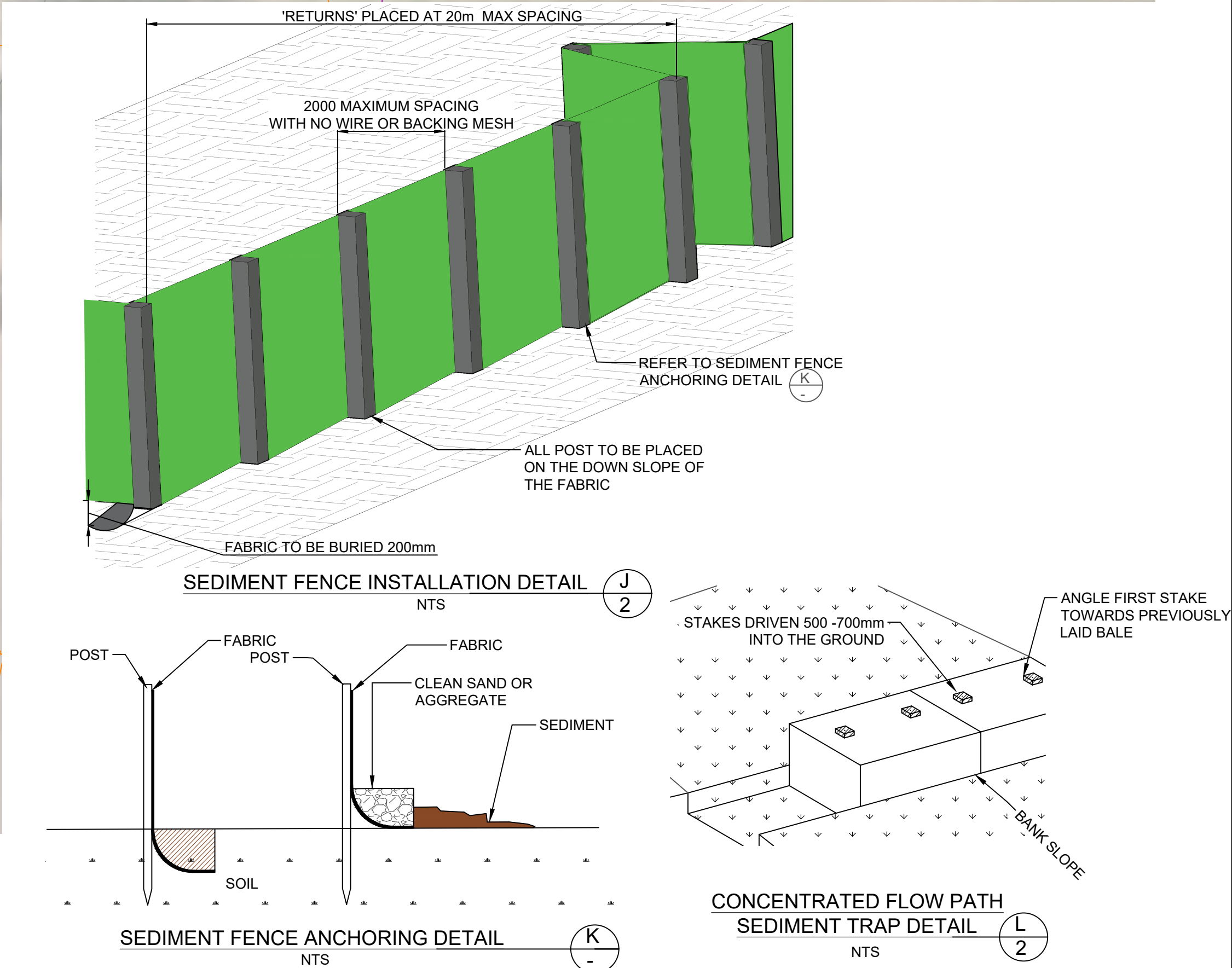
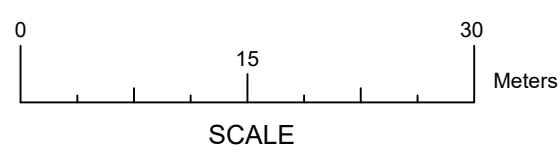
TOP OF BANK (TB)	
TOE OF BANK (BB)	
EDGE OF FORMATION	
FENCE	
BEACHING	
ELECTRICITY POLE & OVERHEADS	
TELECOMMUNICATIONS	
WATER MAIN / VALVE	
GAS MAIN / VALVE	
SEWER MANHOLE	
CONTOUR	
BENCHMARK	
GATE	
UNDERGROUND ELECTRICITY LINE	
WATER LINE	

	GARDEN BED
	HYDRO CARBON FENCE
	SEDIMENT FENCE
	HAY BALES
	EDGE OF FORMATION
	SUMMER LOW WATER LEVEL
	SUMMER HIGH WATER LEVEL
	2022 FLOOD LEVEL (91.19 mAHd)

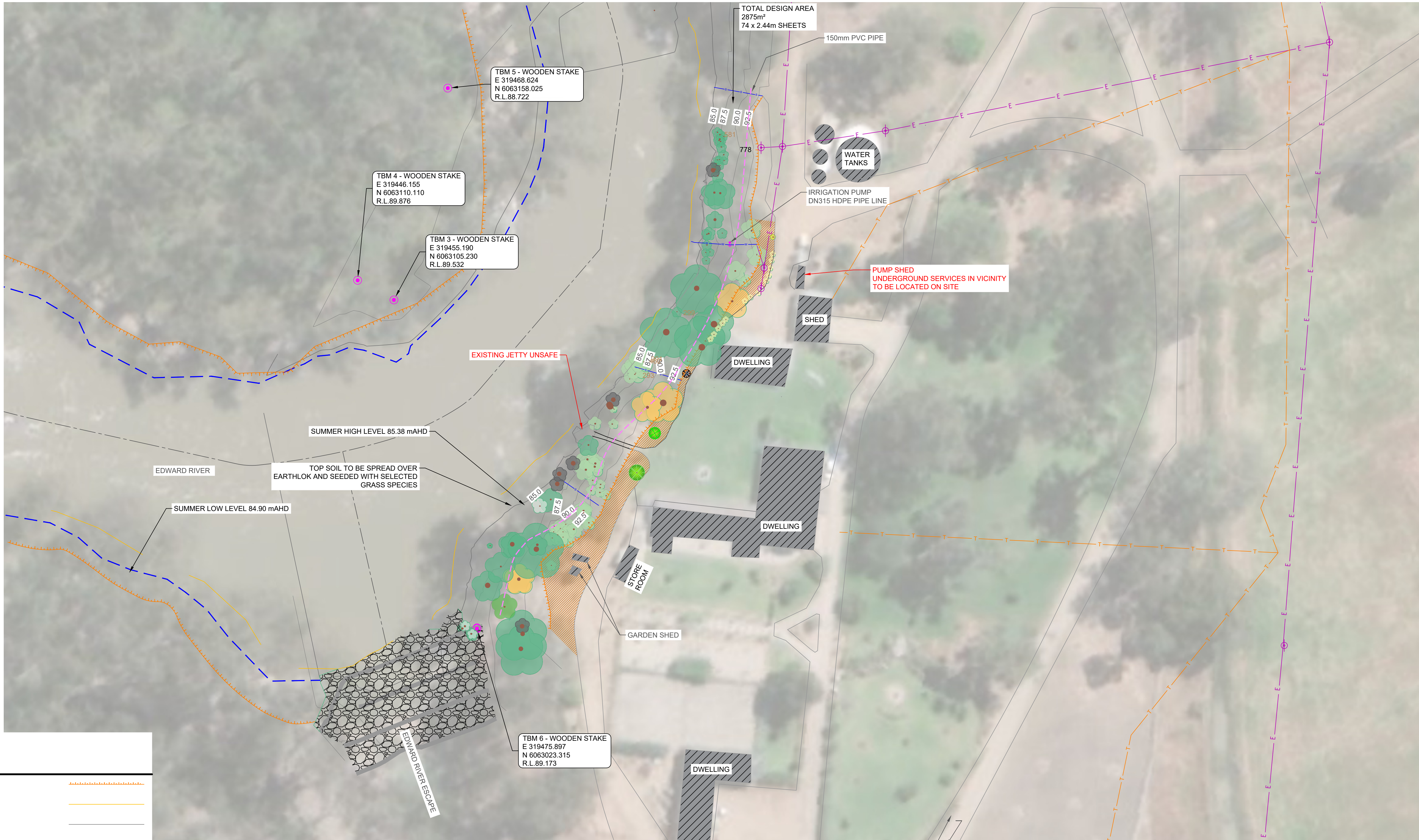


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ENVIRONMENTAL MANAGEMENT PLAN



				443 (PO BOX 528) CHARLOTTE STREET DENILIQUIN NSW 2710 AUSTRALIA ACN 067 197 933				TEL : (058) 819 300 FAX : (058) 819 317				MURRAY IRRIGATION LTD.			
												SCOUR PROTECTION Q738 - MUNDIWA			
												ENVIRONMENTAL MANAGEMENT PLAN			
												DRG. NO. REF		FILE NAME : T-111 Mundiwa RevB.dwg	
												SCALE		1:500	
												SHEET		PLOT	
												02 OF 11		SIZE	
														A 1	



LEGEND

EXISTING

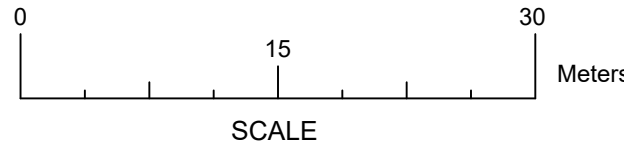
TOP OF BANK (TB)	
TOE OF BANK (BB)	
EDGE OF FORMATION	
FENCE	
BEACHING	
ELECTRICITY POLE & OVERHEADS	
TELECOMMUNICATIONS	
WATER MAIN / VALVE	
GAS MAIN / VALVE	
SEWER MANHOLE	
CONTOUR	
BENCHMARK	
GATE	
UNDERGROUND ELECTRICITY LINE	
WATER LINE	

TIMBER RETAINING WALL	
GARDEN BED	
CENTRE LINE	
EDGE OF FORMATION	
SUMMER LOW WATER LEVEL	
SUMMER HIGH WATER LEVEL	
2022 FLOOD LEVEL (91.19 mAHD)	

EXISTING CONDITIONS PLAN



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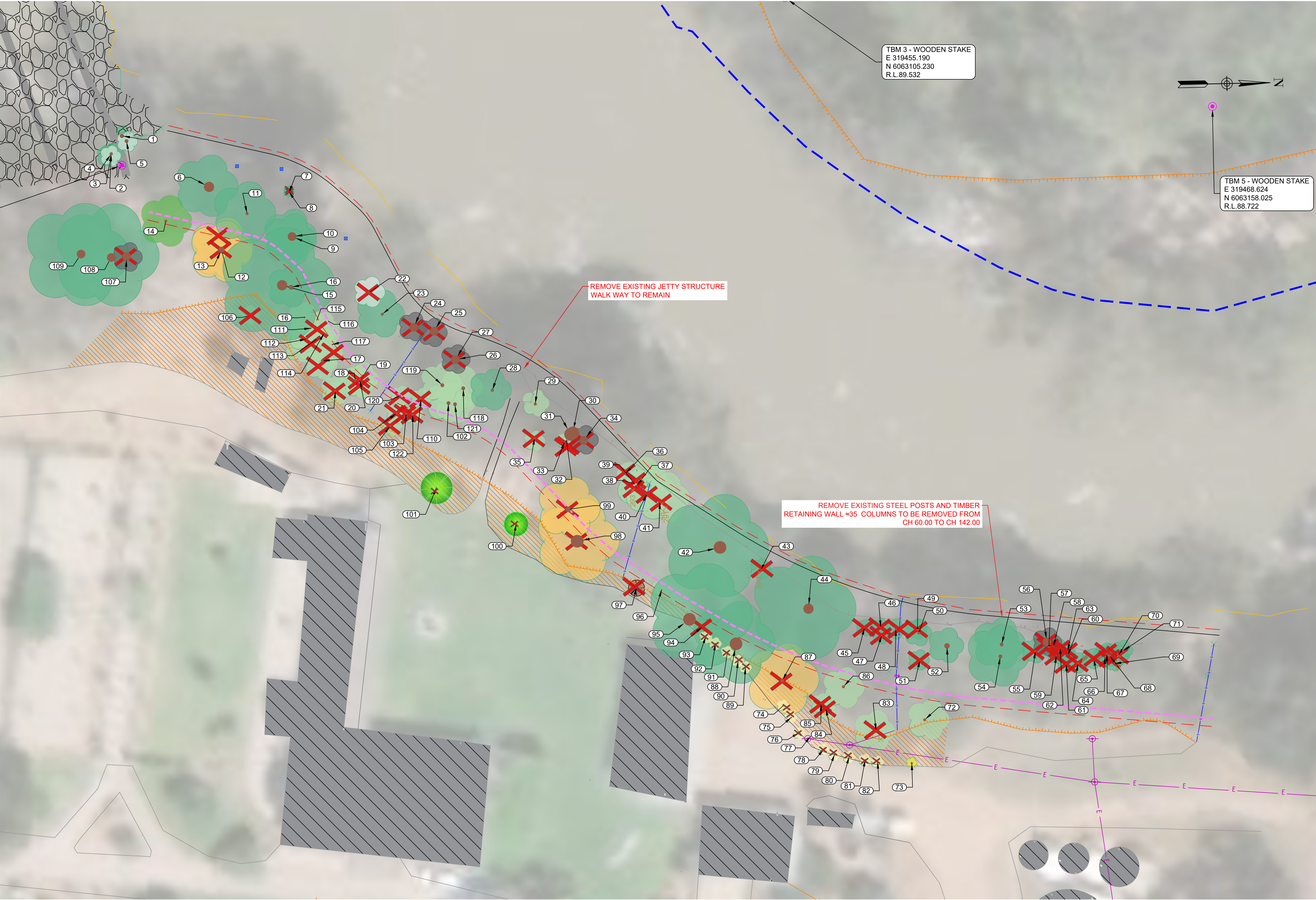


REV	DATE	DESIGN REVIEW	REV'D PMGR	APP'D P.DIR	REVISIONS
B	04/06/26	PV			DENILIQUIN GAUGE LEVEL ADDED
A	19/01/26	PV			ISSUED FOR REVIEW
REV					

 443 (PO BOX 528) CHARLOTTE STREET DENILIQUIN NSW 2710 AUSTRALIA ACN 067 197 933				MURRAY IRRIGATION LTD.			
				SCOUR PROTECTION Q738 - MUNDIWA EXISTING CONDITIONS PLAN			
				DRG. NO. REF	FILE NAME : T-111 Mundiwa_RevB.dwg	SHEET 03 OF 11	PLOT SIZE A 1
				SCALE	1:500		

NAME	DATE	REMARKS
SURVEYED	AM/PV	16/01/25
DESIGNED	AM	19/01/26
DRAWN	AM	19/01/26
REVIEWED	PV	20/01/26
APPROVED	PV	20/01/26

TREE LEGEND			
TREE TYPE	CODE	EXISTING QTY	QTY TO BE REMOVED <300 DBH
REDGUM		47	24
GREYBOX		3	1
WATTLE		1	0
FERN		1	0
EXOTIC		2	0
PEPPERCORN		5	5
OLIVE TREE		14	14
ACACIA STENOPHYLLA (RIVER COOBA)		39	31
LEMON TREE		1	1
DEAD TREE		8	8



LEGEND

EXISTING

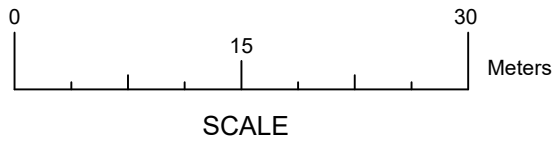
TOP OF BANK (TB)	
TOE OF BANK (BB)	
EDGE OF FORMATION	
FENCE	
BEACHING	
ELECTRICITY POLE & OVERHEADS	
TELECOMMUNICATIONS	
WATER MAIN / VALVE	
GAS MAIN / VALVE	
SEWER MANHOLE	
CONTOUR	
BENCHMARK	
GATE	
UNDERGROUND ELECTRICITY LINE	
WATER LINE	

GARDEN BED	
TIMBER RETAINING WALL	
EDGE OF FORMATION	
SUMMER LOW WATER LEVEL	
SUMMER HIGH WATER LEVEL	
2022 FLOOD LEVEL (91.19 mAHd)	

DEMOLITION PLAN



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B	04/06/26	PV			DENILQUIN GAUGE LEVEL ADDED
A	19/01/26	PV			ISSUED FOR REVIEW
REV	DATE	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	REVISIONS

	443 (PO BOX 528) CHARLOTTE STREET DENILQUIN NSW 2710 AUSTRALIA ACN 067 197 933			TEL - (058) 819 300 FAX - (058) 819 317	
	NAME	DATE	REMARKS		
	SURVEYED	AM/PV	16/01/25		
	DESIGNED	AM	19/01/26		
	DRAWN	AM	19/01/26		
	REVIEWED	PV	20/01/26		
	APPROVED	PV	20/01/26		

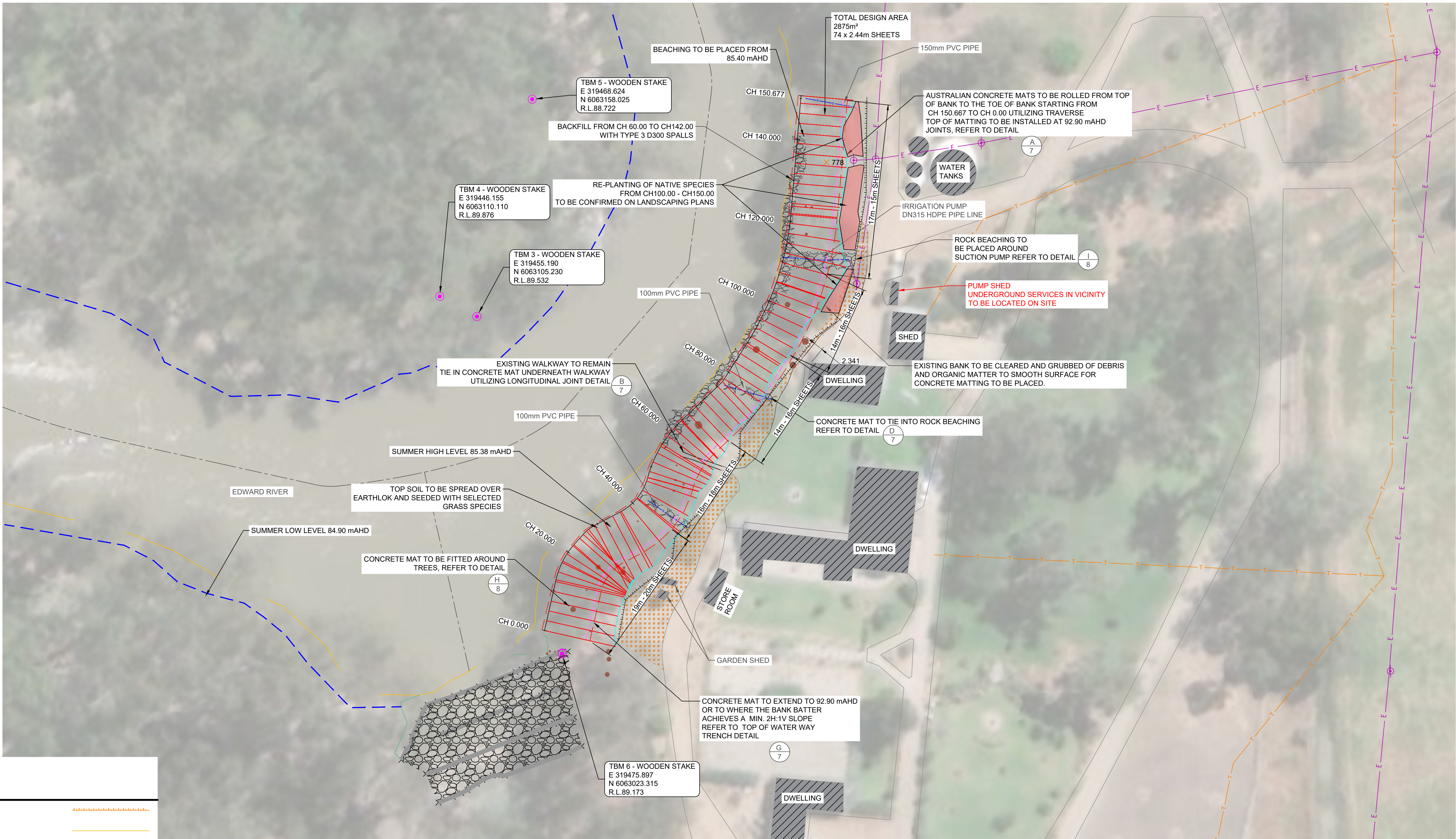
MURRAY IRRIGATION LTD.

SCOUR PROTECTION Q738 - MUNDIWA DEMOLITION PLAN			
DRG. NO. REF	FILE NAME	SHEET	PLOT SIZE
PV111.Q738.04	T-111 Mundiwa RevB.dwg	04 OF 11	A 1
SCALE	1:500		

TREE ID	TREE DIAMETER (DBH mm)	TREE TYPE	REMOVAL <300mm
1	450	RED GUM	NO
2	300	RED GUM	NO
3	300	RED GUM	NO
4	300	GREYBOX	NO
5	400	GREYBOX	NO
6	1200	RED GUM	NO
7	50	RED GUM	YES
8	50	RED GUM	YES
9	1000	REDGUM	NO
10	1000	REDGUM	NO
11	300	REDGUM	NO
12	700	PEPPERCORN	NO
13	700	PEPPERCORN	NO
14	300	WATTLE	NO
15	1200	REDGUM	NO
16	500	REDGUM	NO
17	300	ACACIA STENOPHYLLA	NO
18	200	ACACIA STENOPHYLLA	YES
19	200	ACACIA STENOPHYLLA	YES
20	200	ACACIA STENOPHYLLA	YES
21	200	ACACIA STENOPHYLLA	YES
22	200	GREYBOX	YES
23	300	REDGUM	NO
24	1000	DEAD	YES
25	1000	DEAD	YES
26	1000	DEAD	YES
27	300	DEAD	YES
28	300	REDGUM	NO
29	300	ACACIA STENOPHYLLA	NO
30	1500	REDGUM	NO
31	1500	REDGUM	NO
32	100	ACACIA STENOPHYLLA	YES
33	100	ACACIA STENOPHYLLA	YES
34	400	DEAD	YES
35	200	ACACIA STENOPHYLLA	YES
36	100	ACACIA STENOPHYLLA	YES
37	100	ACACIA STENOPHYLLA	YES
38	100	ACACIA STENOPHYLLA	YES
39	100	ACACIA STENOPHYLLA	YES
40	100	ACACIA STENOPHYLLA	YES
41	100	ACACIA STENOPHYLLA	YES
42	1500	REDGUM	NO
43	100	REDGUM	YES
44	1200	REDGUM	NO
45	100	REDGUM	YES
46	100	REDGUM	YES
47	100	REDGUM	YES
48	200	REDGUM	YES
49	200	REDGUM	YES
50	300	REDGUM	NO
51	100	REDGUM	YES
52	600	REDGUM	NO
53	400	REDGUM	NO
54	400	REDGUM	NO
55	200	REDGUM	YES
56	400	DEAD	YES
57	200	REDGUM	YES
58	100	REDGUM	YES
59	100	DEAD	YES
60	100	REDGUM	YES
61	100	REDGUM	YES

TREE ID	TREE DIAMETER (DBH mm)	TREE TYPE	REMOVAL <300mm
62	100	REDGUM	YES
63	100	REDGUM	YES
64	100	REDGUM	YES
65	100	DEAD	YES
66	200	REDGUM	YES
67	200	REDGUM	YES
68	100	DEAD	YES
69	200	REDGUM	YES
70	200	REDGUM	YES
71	300	REDGUM	NO
72	100	REDGUM	YES
73	200	REDGUM	YES
74	200	REDGUM	YES
75	300	ACACIA STENOPHYLLA	NO
76	50	LEMON	YES
77	50	OLIVE	YES
78	50	OLIVE	YES
79	60	OLIVE	YES
80	50	OLIVE	YES
81	50	OLIVE	YES
82	50	OLIVE	YES
83	60	OLIVE	YES
84	60	OLIVE	YES
85	50	OLIVE	YES
86	100	ACACIA STENOPHYLLA	YES
87	100	ACACIA STENOPHYLLA	YES
88	100	ACACIA STENOPHYLLA	YES
89	300	PEPERCORN	YES
90	400	PEPERCORN	YES
91	1500	REDGUM	NO
92	50	OLIVE	YES
93	60	OLIVE	YES
94	60	OLIVE	YES
95	50	OLIVE	YES
96	50	OLIVE	YES
97	200	PALM	YES
98	1500	REDGUM	NO
99	100	ACACIA STENOPHYLLA	YES
100	100	FERN	YES
101	1500	PEPERCORN	YES
102	600	PEPERCORN	YES
103	100	EXOTIC	YES
104	100	EXOTIC	YES
105	400	GREY BOX	NO
106	200	ACACIA STENOPHYLLA	YES
107	200	ACACIA STENOPHYLLA	YES
108	100	ACACIA STENOPHYLLA	YES
109	100	ACACIA STENOPHYLLA	YES
110	500	DEAD	YES
111	1000	REDGUM	NO
112	1000	REDGUM	NO
113	100	ACACIA STENOPHYLLA	YES
114	100	ACACIA STENOPHYLLA	YES
115	100	ACACIA STENOPHYLLA	YES
116	100	ACACIA STENOPHYLLA	YES
117	100	ACACIA STENOPHYLLA	YES
118	100	ACACIA STENOPHYLLA	YES
119	100	ACACIA STENOPHYLLA	YES
120	100	ACACIA STENOPHYLLA	YES
121	100	ACACIA STENOPHYLLA	YES
122	100	ACACIA STENOPHYLLA	YES

							NAME	DATE	REMARKS	SCOUR PROTECTION Q738 - MUNDIWA TREE ID TABLE			
						SURVEYED	AM/PV	16/01/25		DRG. NO. REF PV111.Q738.05			
						DESIGNED	AM	19/01/26					
B	04/06/26	PV			DENILIQUIN GAUGE LEVEL ADDED	DRAWN	AM	19/01/26		FILE NAME : T-111 Mundiwa_RevB.dwg			
A	19/01/26	PV			ISSUED FOR REVIEW	REVIEWED	PV	20/01/26					
REV	DATE	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	REVISIONS	APPROVED	PV	20/01/26		SCALE	1:500	SHEET 05 OF 11	PLOT SIZE A 1



LEGEND

EXISTING

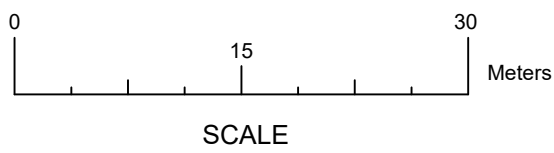
TOP OF BANK (TB)	
TOE OF BANK (BB)	
EDGE OF FORMATION	
FENCE	
BEACHING	
ELECTRICITY POLE & OVERHEADS	
TELECOMMUNICATIONS	
WATER MAIN / VALVE	
GAS MAIN / VALVE	
SEWER MANHOLE	
CONTOUR	
BENCHMARK	
GATE	
UNDERGROUND ELECTRICITY LINE	
WATER LINE	

GARDEN BED	
CONCRETE MATTING	
CENTRE LINE	
EDGE OF FORMATION	
SUMMER LOW WATER LEVEL	
SUMMER HIGH WATER LEVEL	
2022 FLOOD LEVEL (91.19 mAHD)	



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SITE LAYOUT



B	04/06/26	PV			DENILIQUIN GAUGE LEVEL ADDED
A	19/01/26	PV			ISSUED FOR REVIEW
REV	DATE	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	REVISIONS



443 (PO BOX 528) CHARLOTTE STREET
DENILIQUIN NSW 2710
AUSTRALIA
ACN 067 197 933

TEL - (058) 819 300
FAX - (058) 819 317

	NAME	DATE	REMARKS
SURVEYED	AM/PV	16/01/25	
DESIGNED	AM	19/01/26	
DRAWN	AM	19/01/26	
REVIEWED	PV	20/01/26	
APPROVED	PV	20/01/26	

MURRAY IRRIGATION LTD.

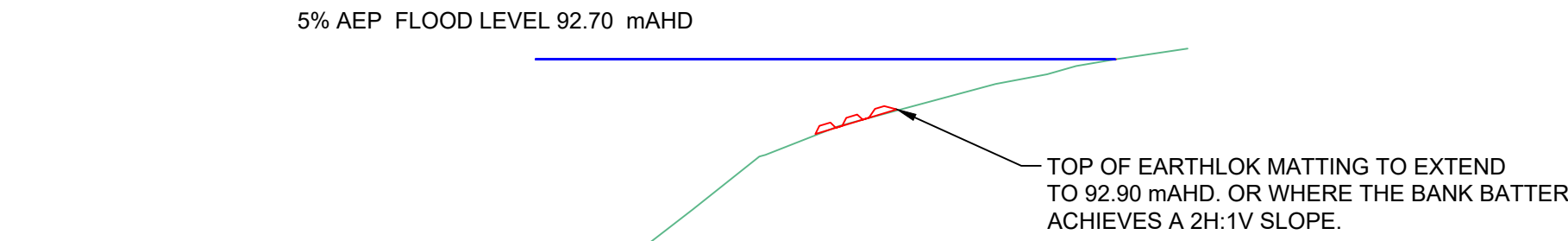
SCOUR PROTECTION
Q738 - MUNDIWA
SITE LAYOUT

DRG. NO. REF	FILE NAME : T-111 Mundiwa_RevB.dwg	SHEET	PLOT
PV111.Q738.06		06 OF 11	SIZE
SCALE	1:500		A 1

TOTAL SURFACE AREA 2875 m²

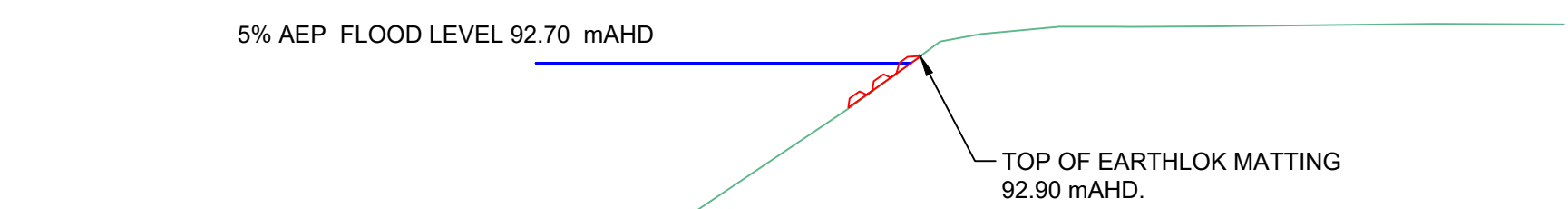
CONCRETE MATT ROLL SIZE (m)	QTY (EA)
14 x 2.400	9
15 x 2.400	14
16 x 2.400	15
17 x 2.400	10
18 x 2.400	11
19 x 2.400	8
20 x 2.400	7

MATting SIZES TO BE CONFIRMED WITH SUPPLIER



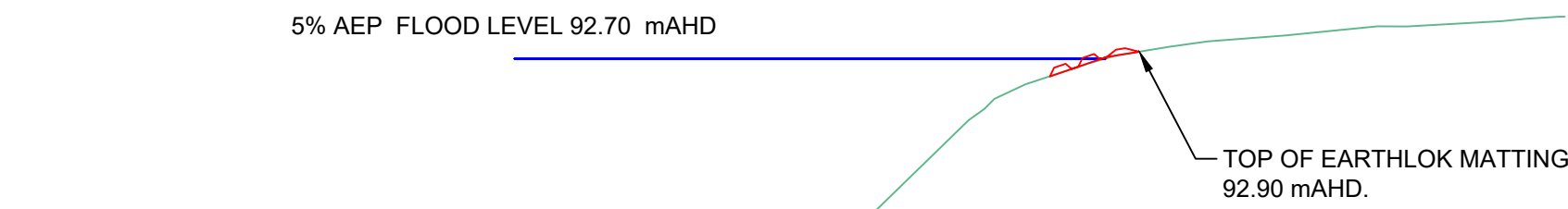
DATUM 82.00												
EXISTING LEVEL	-3.000	83.73	-0.817	84.42	0.000	84.98	0.038	84.59	0.638	84.86	2.319	86.17
OFFSET												

CH 0.000



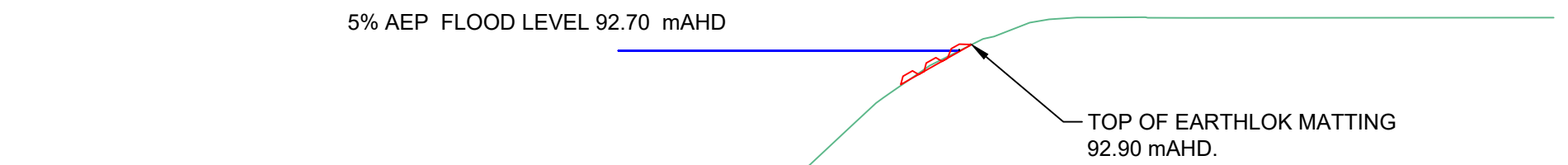
DATUM 82.00												
EXISTING LEVEL	-3.000	82.91	0.000	84.24	3.515	87.62	9.189	91.42	12.595	93.48	16.882	93.76
OFFSET												

CH 75.000



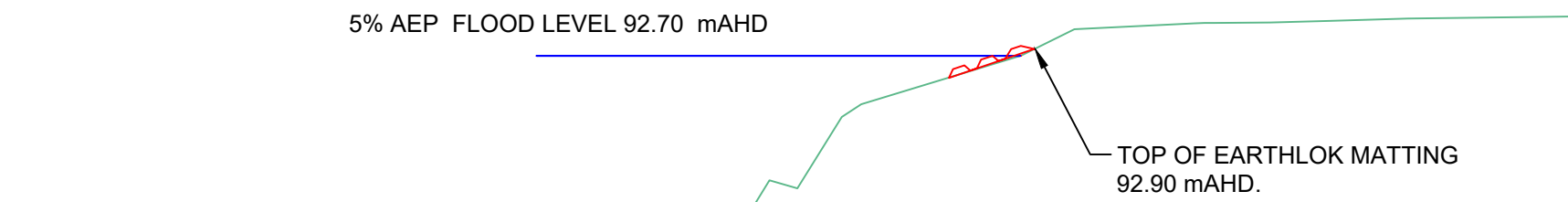
DATUM 82.00												
EXISTING LEVEL	-3.000	83.60	0.000	84.67	4.863	85.74	8.428	86.10	12.975	90.95	16.337	92.55
OFFSET												

CH 23.462



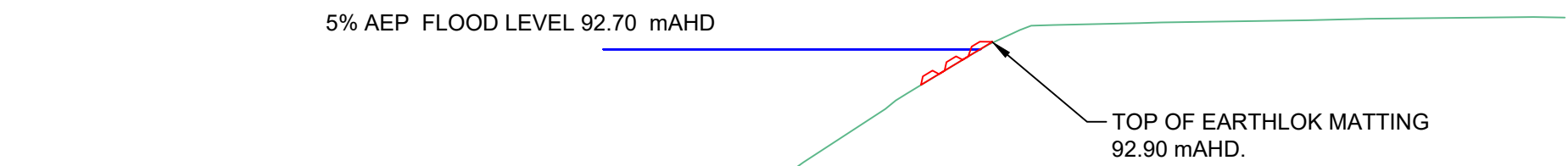
DATUM 82.00												
EXISTING LEVEL	-3.000	83.26	0.000	83.75	3.909	87.05	7.445	90.26	11.700	93.08	14.712	93.77
OFFSET												

CH 100.000



DATUM 82.00												
EXISTING LEVEL	-3.000	83.38	0.000	84.16	3.650	85.08	6.742	89.10	14.035	92.71	19.036	93.64
OFFSET												

CH 50.000



DATUM 82.00												
EXISTING LEVEL	-3.000	83.23	0.000	84.07	3.014	87.35	6.247	89.17	9.474	91.32	13.001	93.31
OFFSET												

CH 125.000

CROSS SECTION 1

NOTE:
OFFSET FROM SUMMER LOW WATER LEVEL

					 443 (PO BOX 528) CHARLOTTE STREET DENILIQUIN NSW 2710 AUSTRALIA ACN 067 197 933 TEL - (058) 819 300 FAX - (058) 819 317			MURRAY IRRIGATION LTD.				
					NAME	DATE	REMARKS		SCOUR PROTECTION Q738 - MUNDIWA SECTION VIEW			
					SURVEYED	AM/PV	16/01/25					
					DESIGNED	AM	19/01/26		DRG. NO. REF PV111.Q738.07			
B	04/06/26	PV			DRAWN	AM	19/01/26					
A	19/01/26	PV			ISSUED FOR REVIEW		REVIEWED	PV	20/01/26	FILE NAME : T-111 Mundiwa_RevB.dwg		
REV	DATE	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	REVISIONS		APPROVED	PV	20/01/26			
								SCALE	1:200	SHEET 07 OF 11		PLOT SIZE A

PLANTING OPTIONS

TREE SPECIES

COMMON NAME	BOTANICAL NAME
RIVER RED GUM	EUCALYPTUS CAMALDULENSIS
COOBA NATIVE/ NATIVE WILLOW	ACACIA SALCINA
RIVER COOBA	ACIACIA STENOPHYLLA
SILVER WATTLE	ACACIA DELBATA

SHRUBS

COMMON NAME	BOTANICAL NAME
GOLD DUST WATTLE	ACACIA ACINACEA
WESTERN BLACK WATTLE	ACACIA HAKODES
PUNTY BUSH	SENNA ARTEMISIOIDES

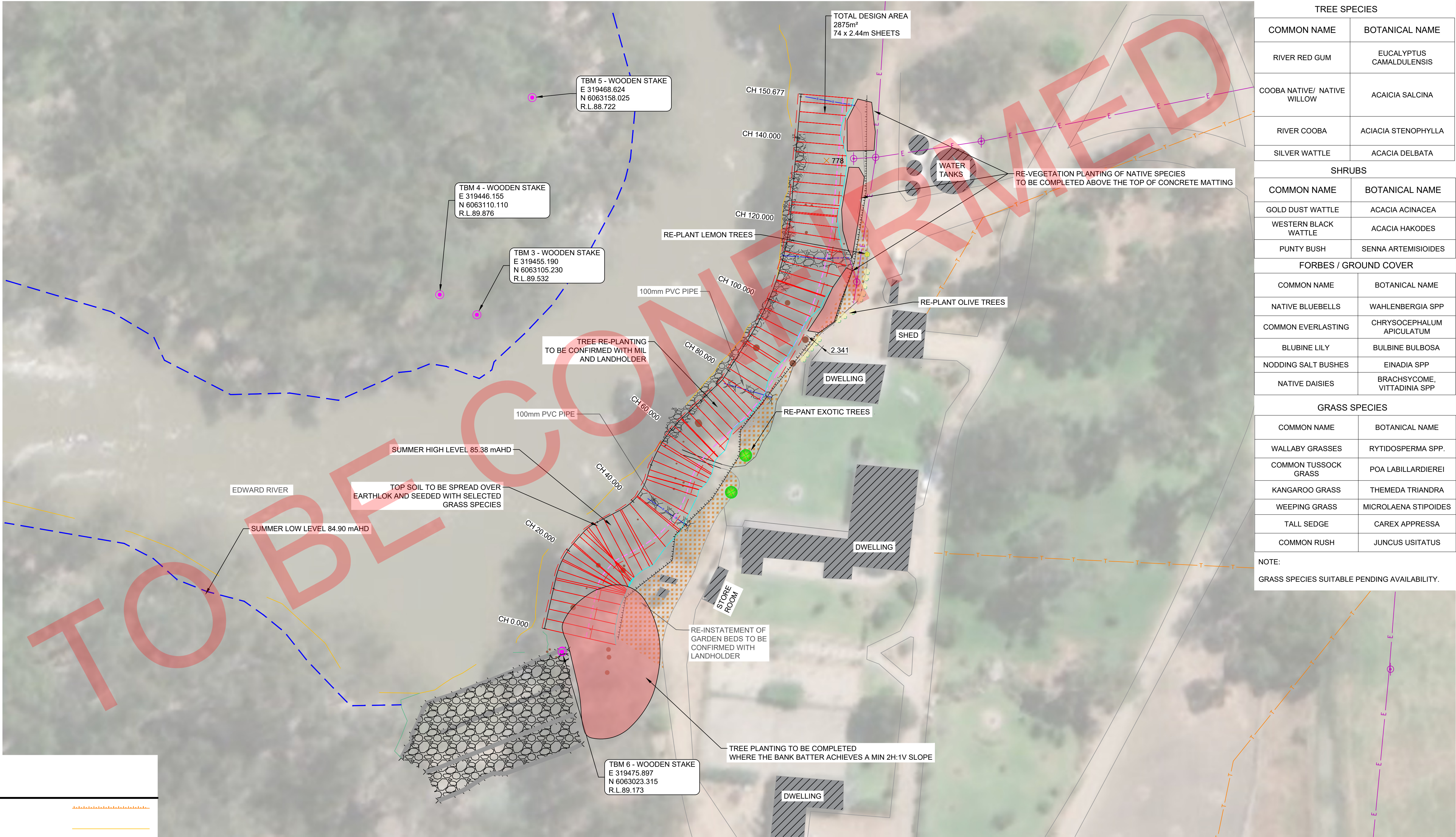
FORBES / GROUND COVER

COMMON NAME	BOTANICAL NAME
NATIVE BLUEBELLS	WAHLENBERGIA SPP
COMMON EVERLASTING	CHRYSOCEPHALUM APICULATUM
BLUBINE LILY	BULBINE BULBOSA
NODDING SALT BUSHES	EINADIA SPP
NATIVE DAISIES	BRACHSYCOME, VITTADINIA SPP

GRASS SPECIES

COMMON NAME	BOTANICAL NAME
WALLABY GRASSES	RYTIDOSPERMA SPP.
COMMON TUSSOCK GRASS	POA LABILLARDIEREI
KANGAROO GRASS	THEMEDA TRIANDRA
WEeping GRASS	MICROLAENA STIPOIDES
TALL SEDGE	CAREX APPRESSA
COMMON RUSH	JUNCUS USITATUS

NOTE:
GRASS SPECIES SUITABLE PENDING AVAILABILITY.



LEGEND

EXISTING

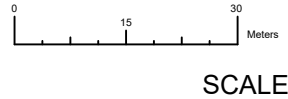
TOP OF BANK (TB)	
TOE OF BANK (BB)	
EDGE OF FORMATION	
FENCE	
BEACHING	
ELECTRICITY POLE & OVERHEADS	
TELECOMMUNICATIONS	
WATER MAIN / VALVE	
GAS MAIN / VALVE	
SEWER MANHOLE	
CONTOUR	
BENCHMARK	
GATE	
UNDERGROUND ELECTRICITY LINE	
WATER LINE	

GARDEN BED	
CONCRETE MATTING	
CENTRE LINE	
EDGE OF FORMATION	
SUMMER LOW WATER LEVEL	
SUMMER HIGH WATER LEVEL	
2022 FLOOD LEVEL (91.19 mAHD)	



ALL SERVICES SHOWN ON THE DRAWINGS ARE INDICATIVE ONLY. THE EXACT LOCATION, DEPTH, AND CONFIGURATION OF ALL EXISTING AND PROPOSED SERVICES MUST BE VERIFIED ON SITE PRIOR TO CONSTRUCTION. CONTRACTORS ARE RESPONSIBLE FOR CONFIRMING ALL SERVICES AND NOTIFYING THE DESIGNER OF ANY DISCREPANCIES.

SITE LAYOUT

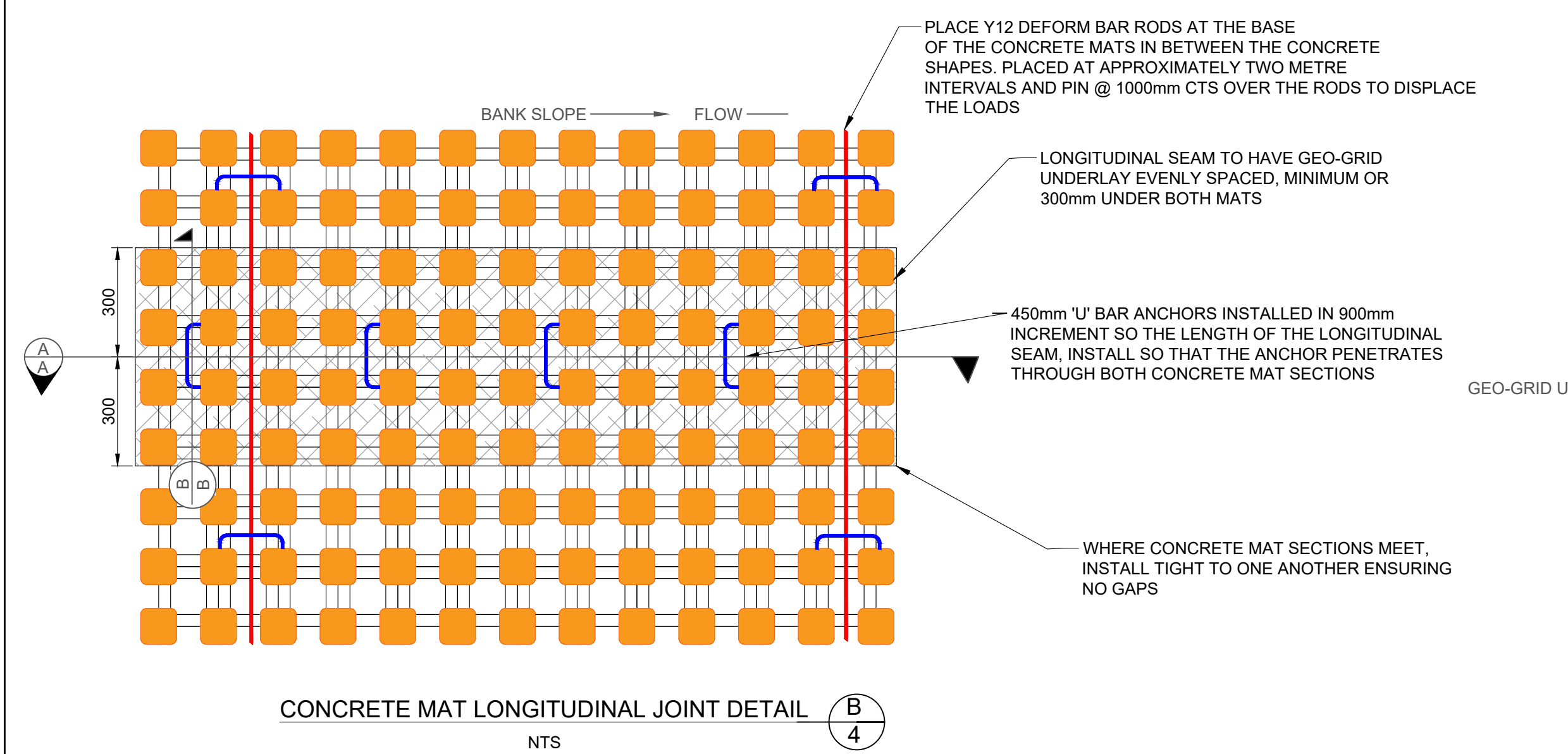
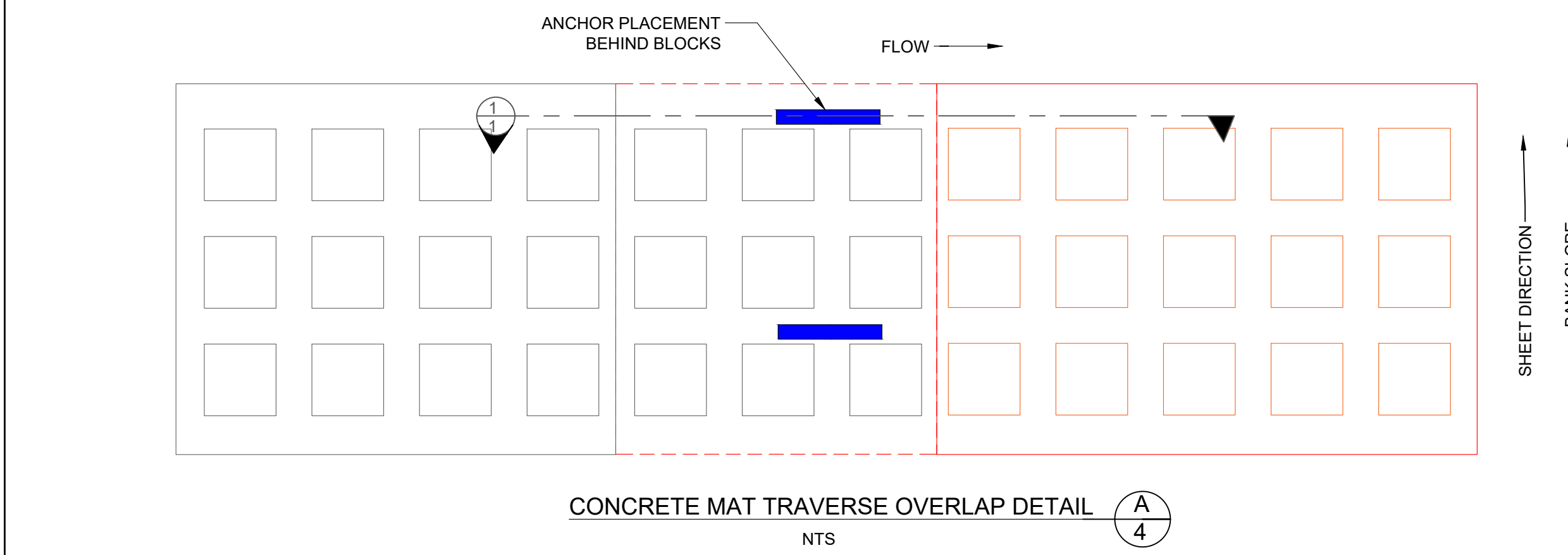
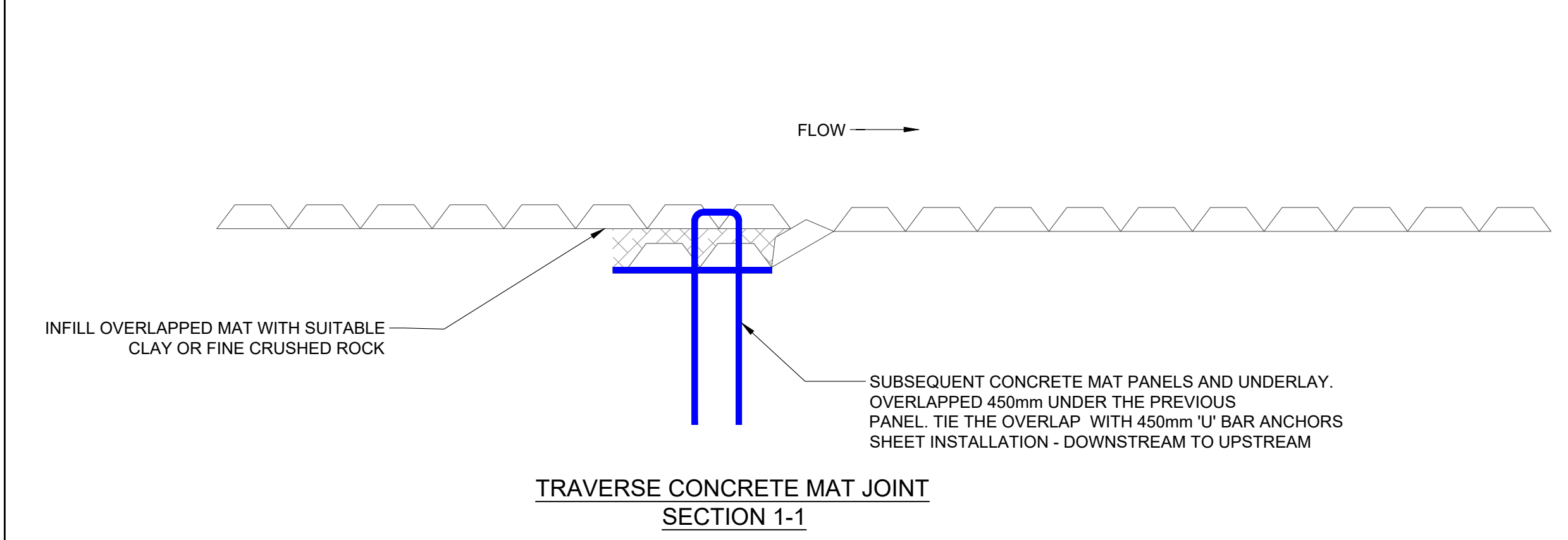


B	04/06/26	PV			DENILIQUIN GAUGE LEVEL ADDED
A	19/01/26	PV			ISSUED FOR REVIEW
REV	DATE	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	REVISIONS

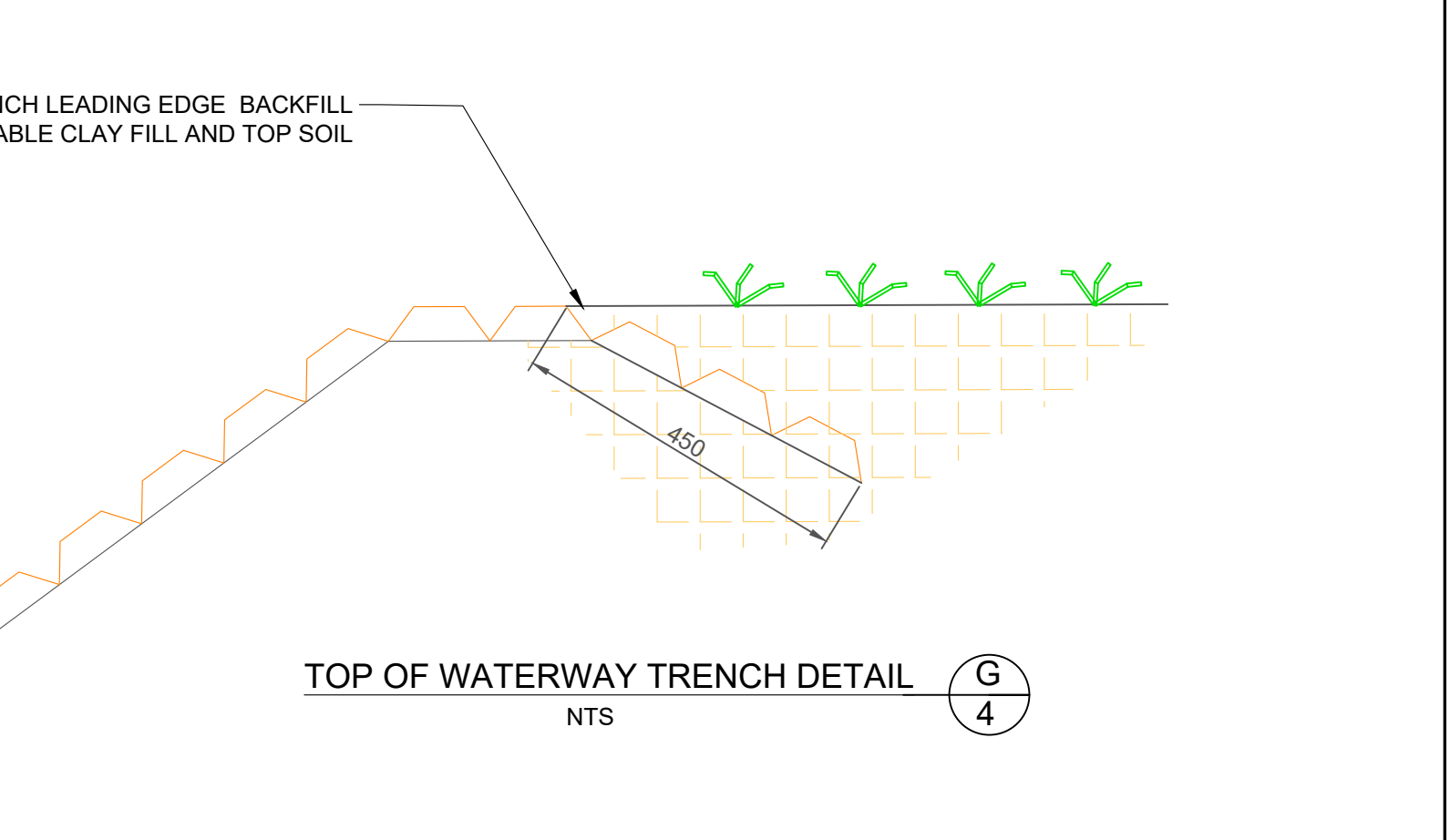
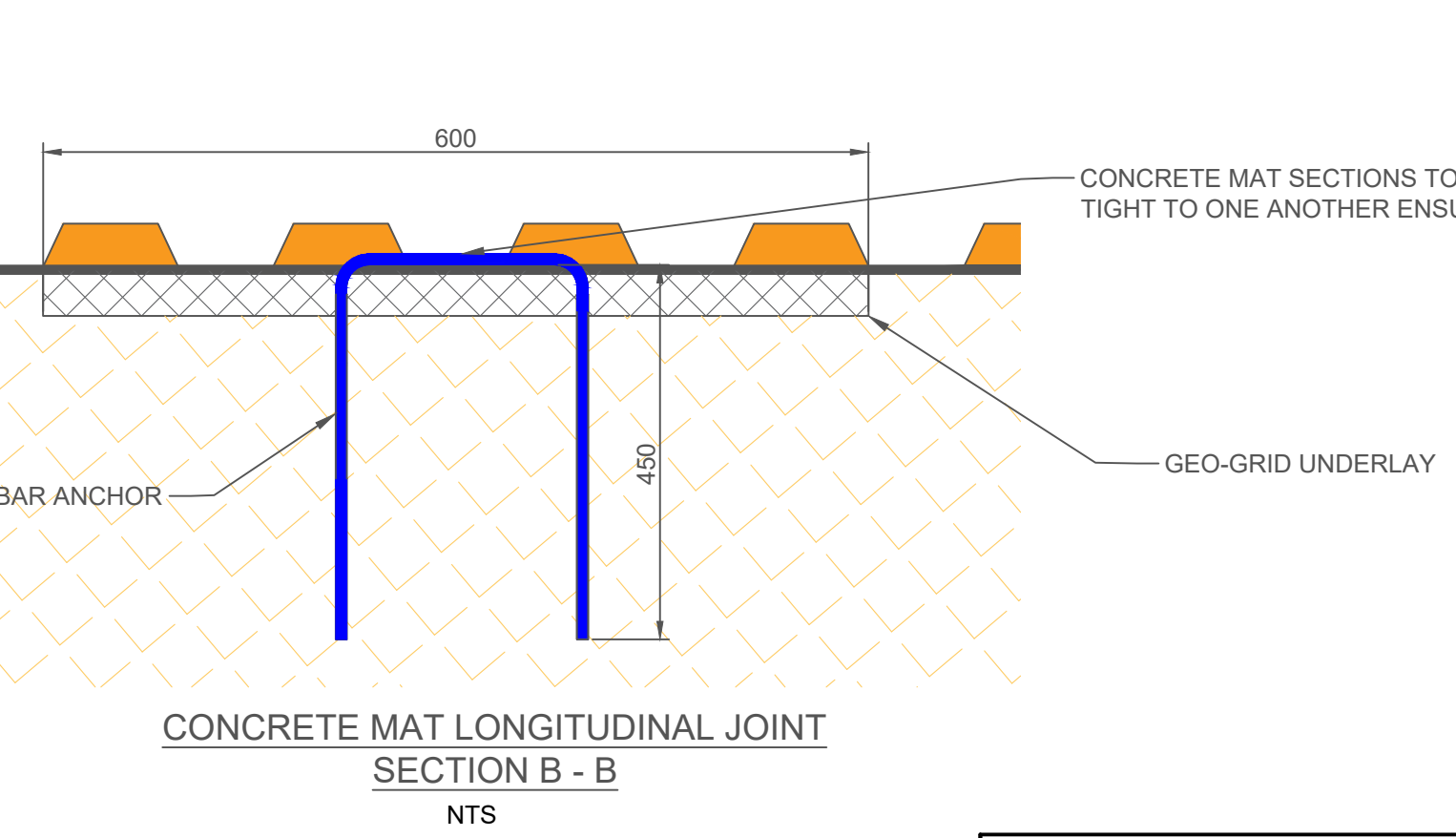
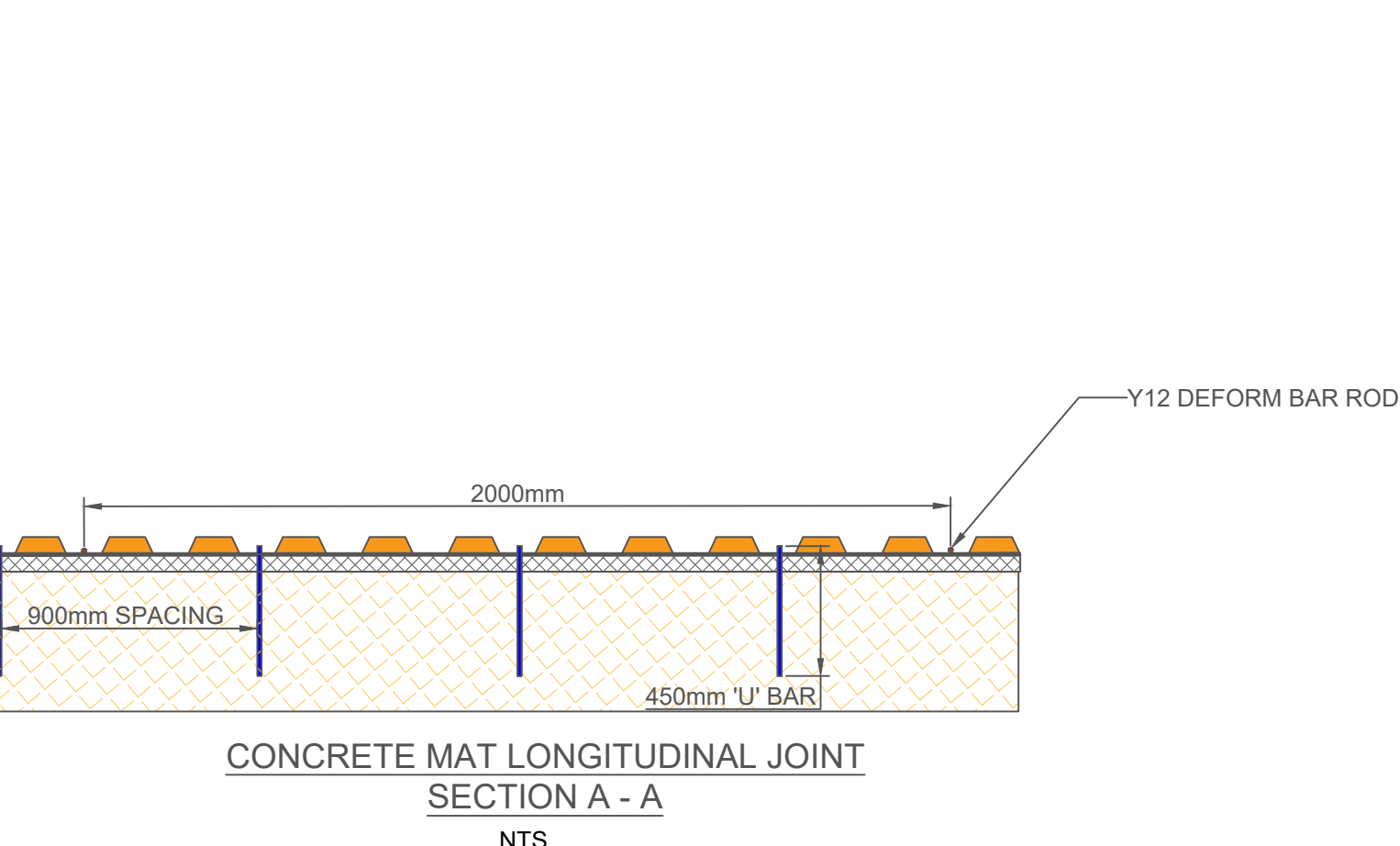
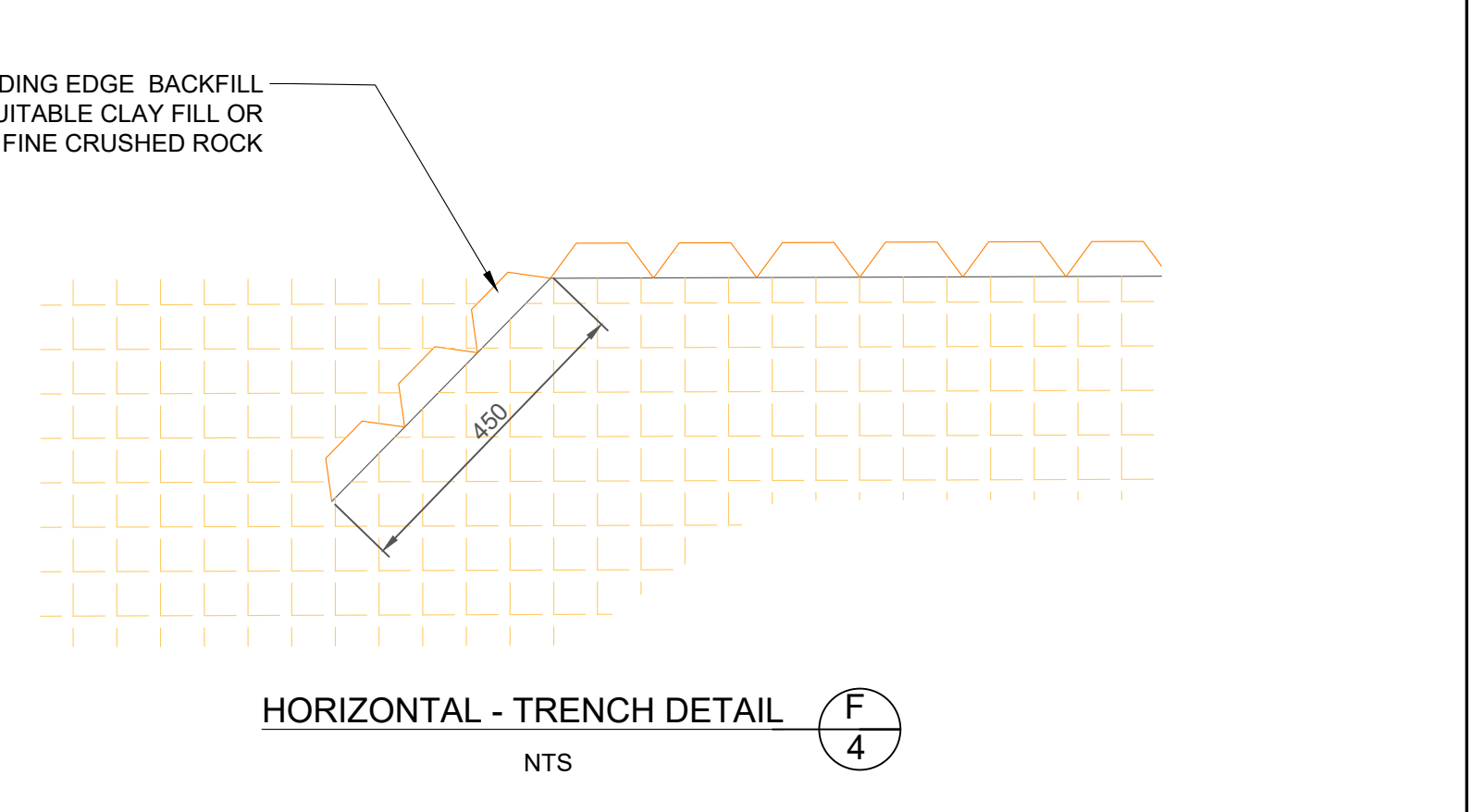
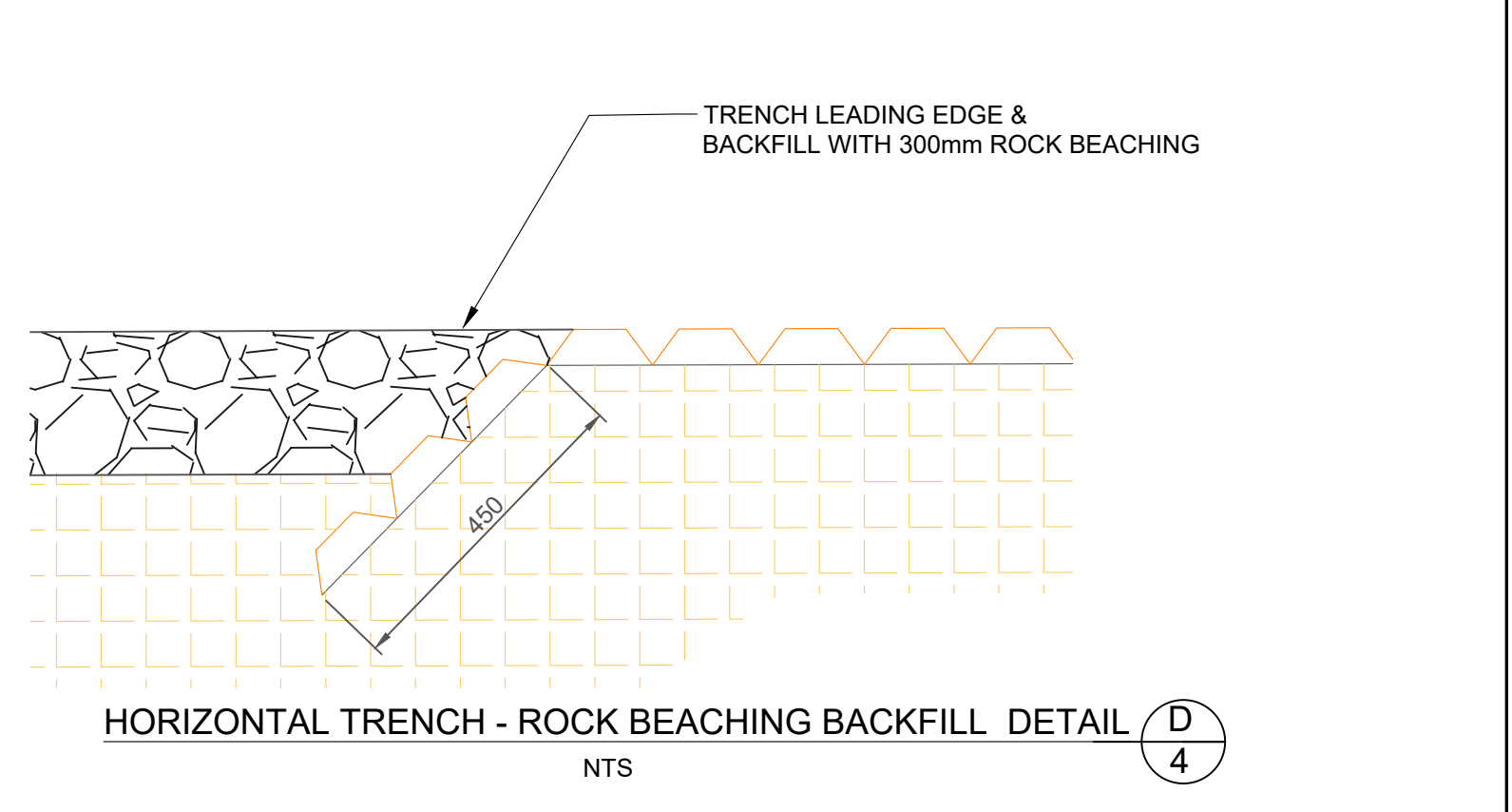
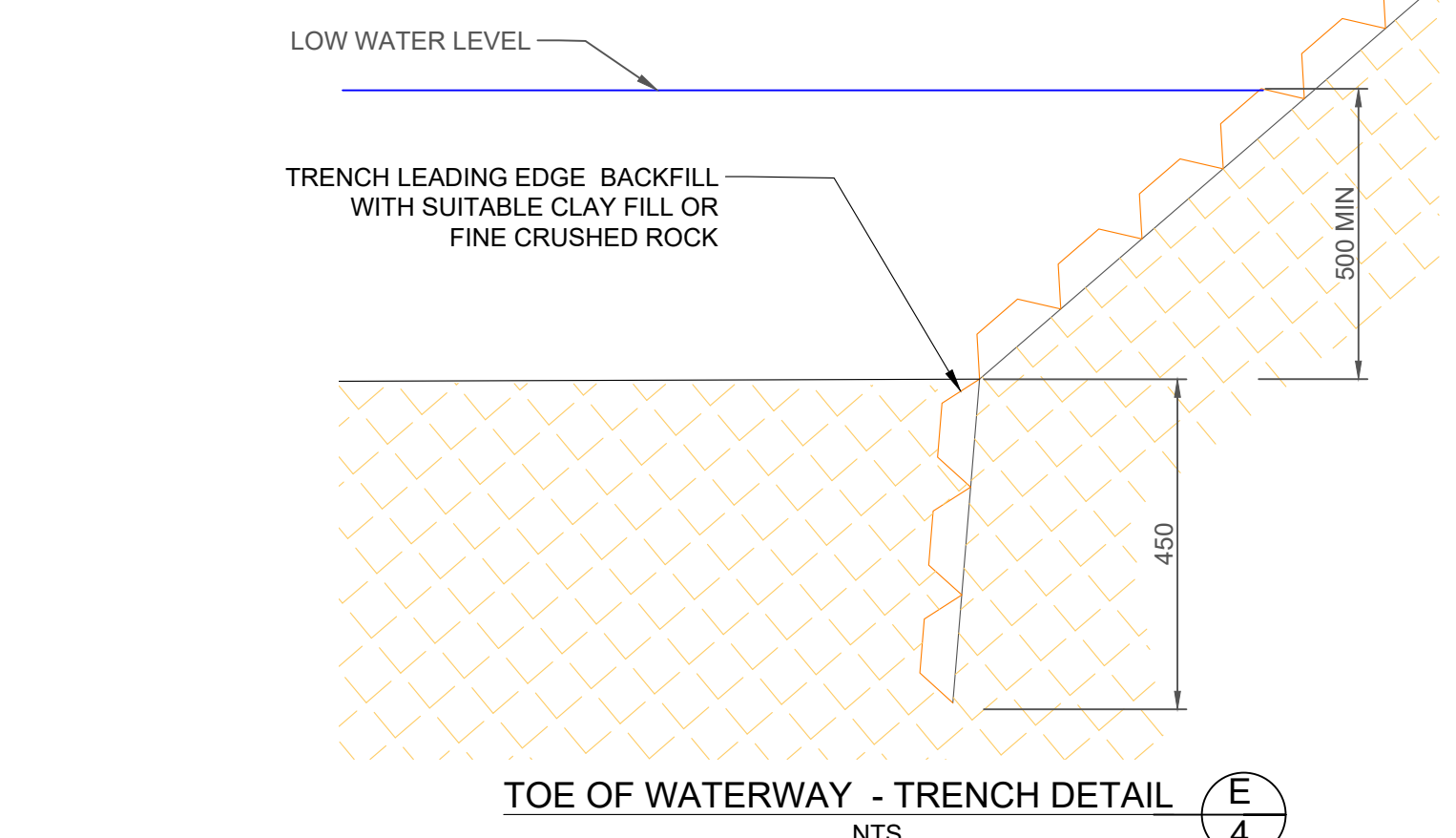
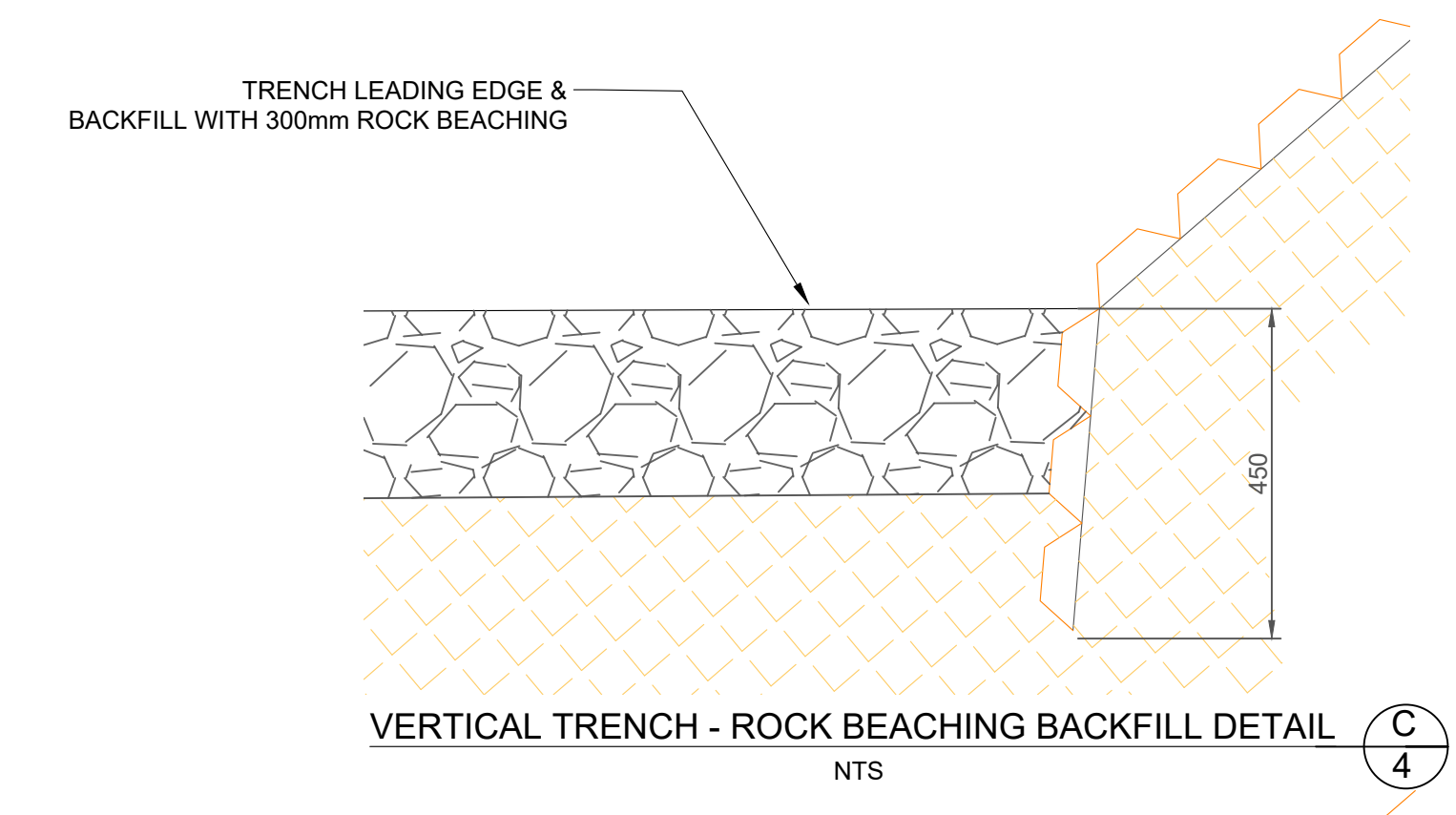
	443 (PO BOX 528) CHARLOTTE STREET DENILIQUIN NSW 2710 AUSTRALIA ACN 067 197 933		
	TEL - (058) 819 300 FAX - (058) 819 317		
	NAME	DATE	REMARKS
	AM/PV	16/01/25	
	AM	19/01/26	
DRAWN	AM	19/01/26	
REVIEWED	PV	20/01/26	
APPROVED	PV	20/01/26	

MURRAY IRRIGATION LTD.

SCOUR PROTECTION Q738 - MUNDIWA LANDSCAPE PLAN			
DRG. NO. REF	FILE NAME : T-111 Mundiwa_RevB.dwg	SHEET	PLOT
PV111.Q738.08		08 OF 11	SIZE
SCALE	1:500		A 1

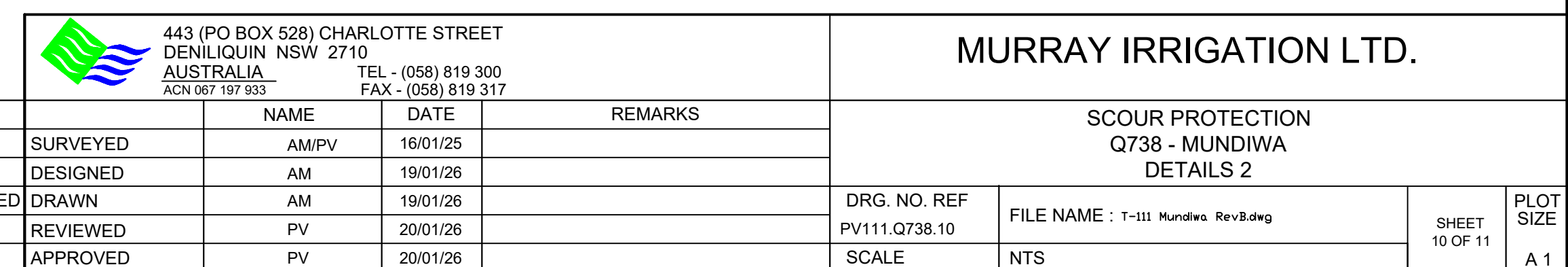
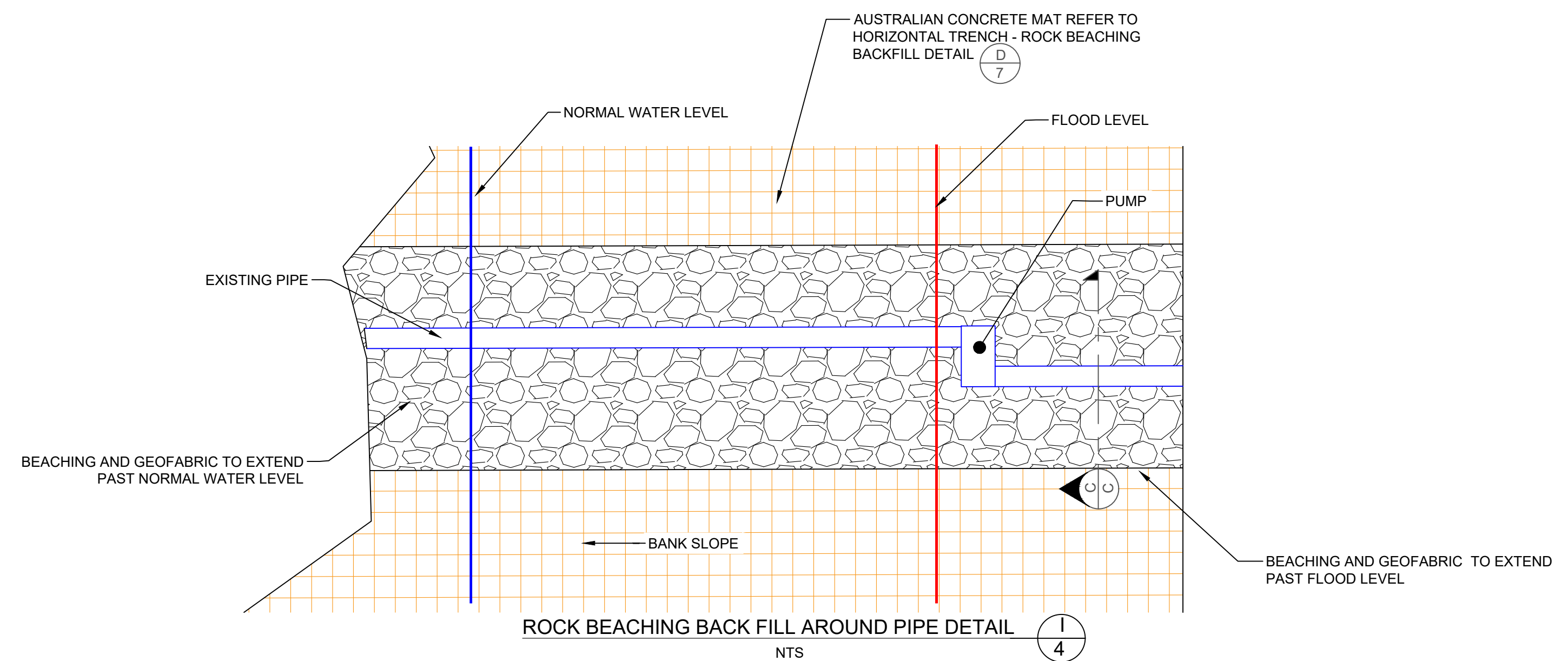


- CONCRETE MAT NOTES:
- ALL SUBGRADE SURFACES PREPARED FOR PLACEMENT OF MATS SHALL BE SMOOTH AND FREE OF ALL ORGANIC MATTER, OTHER PROTRUSIONS, OR DEBRIS OF ANY KIND.
 - TO ACHIEVE WIDER WIDTHS INSTALL CONCRETE MATS ADJACENT TO ONE ANOTHER, INSTALL ADDITIONAL UNDERLAYMENT GEO-GRID UNDER ALL ADJOINING MATS. A MINIMUM OF 450mm OF UNDERLAYMENT SHALL EXTEND UNDER EACH SIDE OF THE MAT AND DIRECTLY AGAINST THE SUBGRADE.
 - INSTALL 4500mm REBAR U ANCHORS OR STAINLESS STEEL ZIP TIES IN 900mm INCREMENTS THE LENGTH OF THE LONGITUDINAL SEAM.
 - AT THE BEGINNING OF THE MATS, TRANSITION THE INITIAL LEADING EDGE PROPERLY WITH EROSION MATTING OR SOD. IF EXPOSED TO CONCENTRATED FLOWS EMBED 450mm VERTICALLY INTO THE SUBGRADE TO SERVE AS AN ANCHOR TRENCH. THE TRENCH SHALL BE FILLED AND COMPACTED WITH SUITABLE FILL OR OTHER (AS SPECIFIED EOR)
 - FOR ADDITIONAL SECTIONS OF MAT, OVERLAP THE DOWNSTREAM SECTION 450mm WITH UPSTREAM SECTION OF MAT. PRIOR TO INSTALLING OVERLAP, FLIP UPSTREAM MAT BACK 600mm, EXCAVATE 600mm OF SOIL 450mm FROM THE END OF THE UPSTREAM END OF THE MAT. DOWNSTREAM SECTION IS LAID IN THE SHALLOW TRENCH. LIGHTLY SPREAD TOPSOIL, SEED AND FERTILIZER OVER INITIAL EDGE. FLIP END OF UPSTREAM MAT OVER THE SOIL COVERED INITIAL LEADING EDGE OF DOWNSTREAM MAT



REV	DATE	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	REVISIONS
B	04/06/26	PV			DENILQUIN GAUGE LEVEL ADDED
A	19/01/26	PV			ISSUED FOR REVIEW

 443 (PO BOX 528) CHARLOTTE STREET DENILQUIN NSW 2710 AUSTRALIA ACN 067 197 933				MURRAY IRRIGATION LTD.			
				SCOUR PROTECTION Q738 - MUNDIWA DETAILS 1			
				DRG. NO. REF	FILE NAME	SHEET	PLOT SIZE
				PV111.Q738.09	1-111 Mundiwa RevB.dwg	09 OF 11	A 1
				SCALE	NTS		



GENERAL NOTES

- G1. ALL CONSTRUCTION HOLD POINTS ARE TO BE OUTLINED IN THE ITP.
- G2. WORKMANSHIP AND MATERIALS TO COMPLY WITH REQUIREMENTS OF CURRENT AUSTRALIAN STANDARD CODES.
- G3. DO NOT SCALE DIMENSIONS FROM DRAWINGS.
- G4. "UNO" DENOTES UNLESS NOTED OTHERWISE.
- G5. UNLESS NOTED OTHERWISE:
ALL DIMENSIONS ARE IN MILLIMETRES (mm)
ALL LEVELS ARE IN METERS TO AUSTRALIAN HEIGHT DATUM (AHD).
- G6. VERIFY ON SITE SETTING OUT DIMENSIONS AND EXISTING MEMBER SIZES SHOWN ON DRAWINGS BEFORE SHOP DRAWINGS, CONSTRUCTION AND FABRICATION IS COMMENCED.
- G7. DESIGN INFORMATION IS TO BE READ IN ACCORDANCE WITH THE FOLLOWING ORDER OF PRECEDENCE:
1. SITE SPECIFIC DRAWING
2. SITE DATA SHEET
3. STANDARD DETAILS
4. GENERAL SPECIFICATIONS
- G8. ALL PROPRIETARY PRODUCTS TO BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- G9. ALL PROPRIETARY PRODUCTS MAY BE SUBSTITUTED WITH EQUIVALENT PRODUCTS OF OTHER MANUFACTURER'S, SUBJECT TO THE APPROVAL OF THE PRODUCT AND THE METHOD STATEMENT FOR THEIR USE BY THE PROJECT MANAGER.
- G10. THE CONTRACTOR IS RESPONSIBLE FOR COMPLETING A "DIAL BEFORE YOU DIG" AND LOCATING ALL SERVICES PRIOR TO COMMENCING EXCAVATION.
- G11. MAINTAIN STRUCTURE IN A STABLE CONDITION DURING CONSTRUCTION AND PROVIDE TEMPORARY BRACING AS REQUIRED. ENSURE NO PART IS OVERSTRESSED. DO NOT PLACE OR STORE BUILDING MATERIALS ON STRUCTURAL MEMBERS WITHOUT PROJECT MANAGER'S APPROVAL.
- G12. STRUCTURAL WORK HAS BEEN DESIGNED FOR THE FOLLOWING LOADS.
- SOIL LOADS: 20 KN/CU.M
- DEAD LOADS: TO AS/NZS1170.1
- DESIGN LIFE: 50 YEARS
- G13. ALL CONSTRUCTION WASTE AND SURPLUS MATERIALS TO BE REMOVED FROM SITE AT COMPLETION OF WORKS.

DEFINITIONS

- DDL - DESIGN DISCHARGE LEVEL
- FCR - FINE CRUSHED ROCK
- GP - GENERAL PURPOSE
- HWM - HIGH WATER MARK
- OMC - OPTIMUM MOISTURE CONTENT
- SDS - SITE DATA SHEET
- SL - SUPPLY LEVEL
- SMDD - STANDARD MAXIMUM DRY DENSITY
- TBM - TEMPORARY BENCH MARK
- U/S SL - UPSTREAM SUPPLY LEVEL

FOUNDATION AND EARTHWORKS

- F1. REMOVE TOP SOIL AND STOCKPILE FOR REUSE.
- F2. ALL SILT AND/OR DEBRIS TO BE REMOVED FROM FOUNDATION OF BANK AND STRUCTURE PRIOR TO CONSTRUCTION. DISPOSAL TO BE OFF SITE UNLESS SPECIFIED ON SDS OR APPROVED BY PROJECT MANAGER. UNDER NO CIRCUMSTANCE SHALL SILT BE PLACED ON INSIDE CHANNEL BANK BATTERS.
- F3. LOOSE TOPSOIL, ORGANIC MATERIAL AND OTHER DEBRIS SHALL BE STRIPPED FROM THE SITE PRIOR TO PLACING AND MIXING FILL STOCKPILES.
- F4. STRIPPING SHOULD REMOVE ALL EXISTING MATERIAL TO A DEPTH OF 200mm MINIMUM OR TO SOLID FOUNDATION.
- F5. FOOTINGS HAVE BEEN DESIGNED FOR A SAFE WORKING BEARING PRESSURE OF 100 kPa. REMOVE MATERIAL THAT DOES NOT ACHIEVE THIS CRITERIA. REFER TO HOLD POINT REQUIREMENTS BEFORE COVERING FOUNDATIONS OR PLACING CONCRETE.
- F6. RECONSTRUCTED CHANNEL BANKS AND BACKFILL AROUND STRUCTURES IS TO BE SELECT CLAY FILL.

FOUNDATION AND EARTHWORKS (cont.)

- F7. SELECT CLAY FILL SHALL CONSIST OF CLAY, SILTY CLAY, SANDY CLAY OR CLAYEY SAND MATERIAL AS DEFINED IN AS1726. IT SHALL BE FREE OF ORGANIC MATTER, WITH FINES CONTENT GREATER THAN 30%. EMERSON CLASS NUMBER (CHANNEL WATER EQUIVALENT) IN ACCORDANCE WITH THE FOLLOWING TABLE AND A PLASTICITY INDEX BETWEEN 15 AND 40 AS DETERMINED THROUGH BORROW SITE INVESTIGATIONS AND LABORATORY TESTING IN ACCORDANCE WITH AS1289.
- | EMERSON CLASS NUMBER (CHANNEL WATER EQUIVALENT) | 1 | 2 OR 3 # | 4 & ABOVE |
|---|---|----------|-----------|
| MINIMUM DRY DENSITY | - | 98% | 95% |
| MOISTURE CONTENT VARIATION FROM OPTIMUM | - | 0 TO +3% | 0 TO +3% |
- * SOILS WITH EMERSON CLASS NO. 1 SHALL NOT BE USED
- # SPECIAL INSIDE BATTER PROTECTION TREATMENT MAY BE REQUIRED FOR MODERATELY DISPERSIVE BORROW MATERIAL.
- F8. SELECT CLAY FILL SHALL BE CONDITIONED AND THOROUGHLY MIXED TO ENSURE A UNIFORM MATERIAL.
- F9. COMPACTED FILL AROUND STRUCTURES SHALL ACHIEVE A RELATIVE COMPACTION OF NO LESS THAN 98% STANDARD MAXIMUM DRY DENSITY (SMDD). OPTIMUM MOISTURE CONTENT (OMC) SHOULD BE BETWEEN OMC AND +3%.
- F10. SELECT CLAY FILL SHALL BE PLACED IN LAYERS NOT EXCEEDING 150mm COMPACTED WITH A 'WACKER PACKER' OR 300mm COMPACTED WITH AN EXCAVATOR BOOM-MOUNTED SHEEPSFOOT ROLLER. COMPACTION BY HEAVY MACHINERY SHALL NOT BE UNDERTAKEN WITHIN 1.0 METRE OF CONCRETE STRUCTURES.
- F11. CLASS 3 FCR MATERIAL MAY BE USED AT A MINIMUM OF 600mm BELOW THE CHANNEL BED TO STABILISE THE BASE FOR COMPACTION.
- F12. ALL PRE-CAST CONCRETE UNITS SHALL BE KEPT MOIST WHILE BACKFILLING IS PERFORMED AND THE MOISTURE CONTENT OF SELECT FILL AROUND CONCRETE SHOULD BE BETWEEN OMC AND OMC +3%.
- F13. TOP COVER IS TO COMPRISE OF TOPSOIL MATERIAL FROM STRIPPING OR OTHER IMPORTED MATERIAL ACCORDING TO THE FOLLOWING:

TOP COVER	REQUIREMENTS
150mm TOPSOIL AND VEGETATION	- PLASTICITY INDEX <35 (AS 1289) - CONTAINS ORGANIC MATERIAL - pH BETWEEN 6 & 8

- F14. TRENCHING OPERATIONS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE EXCAVATION WORK-CODE OF PRACTICE 2013

CONCRETE GENERAL

- C1. CONCRETE SHALL BE IN ACCORDANCE WITH AS3600 CONCRETE STRUCTURES.
- C2. EXPOSURE CLASSIFICATION FOR DURABILITY IS B1.
- C3. CONCRETE TO BE AS FOLLOWS, UNO ON SITE SPECIFIC DRAWINGS:
- | STRUCTURAL ELEMENT | BLINDING | FOOTINGS, SLABS AND WALLS |
|----------------------|----------|---------------------------|
| STRENGTH GRADE (MPa) | N15 | N32 |
| CEMENT TYPE | GP | GP |
- C4. POURS AGAINST EXISTING CONCRETE MUST BE UNDERTAKEN AGAINST SOUND CONCRETE. ANY WEAK CRACKED OR BROKEN CONCRETE MUST BE REMOVED BACK TO SOLID. AN EPOXY BONDING AGENT SHALL BE APPLIED ON ALL SURFACES WHERE NEW CONCRETE IS TO BE POURED AGAINST EXISTING CONCRETE AND THERE ARE NO REINFORCING BARS PRESENT. THE BONDING AGENT SHALL BE PARCHEM NITOBOND EP OR APPROVED EQUIVALENT UTILISED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. THE SURFACE SHALL BE TACKY WHEN THE NEW CONCRETE IS APPLIED.
- C5. WHERE SCABBLED SURFACES ARE SHOWN ON THE DRAWING, CONCRETE SURFACES AGAINST WHICH FRESH CONCRETE IS TO BE PLACED SHALL BE SCABBLED CLEANED AND TREATED WITH NITOBOND EP OR EQUIVALENT PRIOR TO PLACEMENT OF CONCRETE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- C6. WATERSTOPS SHALL BE PROVIDED WHERE SHOWN ON THE DRAWINGS
- WATERSTOPS BETWEEN PRECAST BOLTED ELEMENTS SHALL BE SIKASWELL 'PROFILE' 3 x 20. OR APPROVED SIMILAR.
 - WATERSTOPS ON NEWLY FORMED SURFACE SHALL BE HYDROTITE CJ1020-2K OR APPROVED SIMILAR.
 - WATERSTOPS ON OLD OR BROKEN CONCRETE SHALL BE A CONSEAL CS231 SECURED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION.
- C7. INSTALL WATERSTOPS STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
- C8. MINIMUM 15mm CHAMFERS ARE REQUIRED ON ALL EXPOSED CONCRETE EDGES AND CORNERS UNO.

- C9. THE USE OF CONCRETE ADMIXTURES WHERE REQUIRED SHALL BE SUBJECT TO THE APPROVAL OF THE PROJECT MANAGER AND SHALL CONFORM TO AS1478.1. WHERE FORMS TO BE STRIPPED BEFORE 24 HRS SIKA RAPID 1 OR EQUIVALENT SHOULD BE USED.
- C10. SURFACE FINISHES SHALL BE IN ACCORDANCE WITH AS3610 UNLESS SHOWN OTHERWISE ON DRAWINGS.

SURFACE FINISHES SHALL BE:	FORMED	UNFORMED
ALL EXPOSED SURFACES	CLASS 3	U3
BURIED SURFACES	CLASS 5	-

U3 - DENOTES STEEL TROWEL FINISH FREE OF TROWEL MARKS

- C11. THE FINISHED CONCRETE SHALL BE A DENSE HOMOGENOUS MASS, COMPLETELY FILLING THE FORMWORK THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. ALL CONCRETE INCLUDING SLABS ON GROUND AND FOOTINGS SHALL BE COMPACTED WITH MECHANICAL VIBRATORS.
- C12. SURFACE IRREGULARITIES SHALL BE TESTED BY USE OF A TEMPLATE 1.5m LONG AND SHALL CONSIST OF A STRAIGHT EDGE. THE MAXIMUM SURFACE IRREGULARITY FOR EACH CLASS OF FORMWORK MEASURED USING THE TEMPLATE SHALL BE AS FOLLOWS:
- CLASS 3 - 7mm
 - CLASS 5 - NO MEASUREMENT REQUIRED.
- C13. ELAPSED TIME BETWEEN WETTING OF MIX AND DISCHARGE OF CONCRETE AT SITE MUST BE AS SHORT AS POSSIBLE AND COMPLY WITH THE FOLLOWING.

CONCRETE TEMPERATURE AT TIME OF DISCHARGE (°C)	MAXIMUM ELAPSED TIME (HOURS)
10-24	2.00
24-27	1.50
27-30	1.00
30-32	0.75

- C14. NO UNCONTROLLED WATER TO BE ADDED ON SITE WITHOUT PRIOR CONSENT OF MIX DESIGNER.
- C15. THE COVER (OR "CLEAR COVER") AS STATED ON THE DRAWINGS, SHALL BE THE CLEAR DISTANCE FROM THE FACE OF ANY REINFORCEMENT, WIRE TIES FOR FIXING REINFORCEMENT, FORMWORK FIXINGS OR SIMILAR METAL WORK TO THE NEAREST CONCRETE SURFACE.
- C16. COVER TO BE AS FOLLOWS, UNLESS NOTED OTHERWISE:

SUBSTRATE	MINIMUM COVER (mm)
AGAINST FORMS	50
BLINDING LAYER	50
ON GROUND	75

- C17. CONCRETING SHALL BE COMMENCED AT THE LOWEST LEVEL OF EACH PART OF THE WORK AND SHALL BE BROUGHT UP IN A MANNER APPROVED BY THE PROJECT MANAGER, THE PLACING ROUTINE BEING SUCH THAT EACH LAYER MUST STILL BE SOFT WHEN A NEW LAYER IS PLACED UPON IT. THE CONCRETE SHALL BE THOROUGHLY CONSOLIDATED BY APPROVED VIBRATORS.
- C18. CONCRETE SHALL NOT BE PLACED IN WATER, EXCEPT WITH THE APPROVAL OF THE PROJECT MANAGER, AND THEN UNDER SUCH CONDITIONS AS THE PROJECT MANAGER MAY IMPOSE.
- C19. IMMEDIATELY BEFORE PLACING CONCRETE, ALL SURFACES OR FOUNDATION UPON OR AGAINST WHICH THE CONCRETE IS TO BE PLACED, SHALL BE FREE FROM STANDING WATER (EXCEPT AS PROVIDED ABOVE), MUD, OR DEBRIS. ALL SURFACES OF ROCK UPON OR AGAINST WHICH CONCRETE IS TO BE PLACED, SHALL, IN ADDITION, BE CLEAN AND FREE FROM OIL, OBJECTIONABLE COATINGS AND FROM ALL LOOSE, SEMIDETACHED OR UNSOUND FRAGMENTS. THE SURFACE OF ABSORPTIVE FOUNDATIONS AGAINST WHICH CONCRETE IS TO BE PLACED SHALL BE MOISTENED THOROUGHLY.
- C20. DO NOT USE VIBRATORS TO MOVE CONCRETE ALONG FORMS, USE PLACEMENT METHODS THAT WILL MINIMISE PLASTIC SETTLEMENT AND SHRINKAGE CRACKING. LIMIT VERTICAL FREE FALL BY USE OF CHUTES, ETC. KEEP CHUTES VERTICAL, FULL AND IMMERSSED IN PLACED CONCRETE. PLACE CONCRETE IN LAYERS AND BLEND SUCCEEDING LAYERS BY COMPACTION. MAINTAIN A PLASTIC CONCRETE EDGE BETWEEN CONSTRUCTION JOINTS. PROPERLY COMPACT CONCRETE USING MECHANICAL VIBRATORS (AND HAND METHODS IF REQUIRED) TO REMOVE AIR BUBBLES AND GIVE MAXIMUM COMPACTION WITHOUT SEGREGATION OF CONCRETE. TAKE CARE TO AVOID CONTACT BETWEEN VIBRATORS AND PARTIALLY HARDENED CONCRETE, FORMWORK OR REINFORCEMENT.
- C21. IN COLD WEATHER MAINTAIN TEMPERATURE OF FRESHLY MIXED CONCRETE WITHIN LIMITS SHOWN BELOW. 'OUTDOOR' AIR TEMPERATURE IS AIR AT TIME OF MIXING, OR PREDICTED OR LIKELY AIR TEMPERATURE DURING NEXT 48 HOURS. BEFORE AND WHILE PLACING CONCRETE MAINTAIN TEMPERATURE OF FORMWORK AND REINFORCEMENT AT >5°C. DO NOT USE CALCIUM CHLORIDE, SALTS, CHEMICALS OR OTHER MATERIAL IN MIX TO LOWER THE FREEZING POINT OF CONCRETE. DO NOT ALLOW FROZEN MATERIALS TO ENTER MIXER. KEEP FORMS, MATERIALS, EQUIPMENT IN CONTACT WITH CONCRETE FREE OF FROST AND ICE. HEAT CONCRETE MATERIALS (OTHER THAN CEMENT) TO MINIMUM TEMPERATURE NECESSARY TO ENSURE TEMPERATURE OF PLACED CONCRETE IS WITHIN LIMITS SPECIFIED. MAXIMUM WATER TEMPERATURE: 60°C WHEN PLACED IN MIXER.

- C22. IN HOT WEATHER PREVENT PREMATURE STIFFENING OF FRESH CONCRETE; REDUCE WATER ABSORPTION AND EVAPORATION LOSSES. MIX, TRANSPORT, PLACE AND COMPACT CONCRETE AS QUICKLY AS POSSIBLE. DURING PLACEMENT TEMPERATURE OF CONCRETE MUST NOT EXCEED TEMPERATURES BELOW.

CONCRETE ELEMENT	TEMPERATURE
NORMAL CONCRETE IN FOOTINGS, BEAMS, COLUMNS, WALLS AND SLABS f _c ≥ 32MPa	35°C
MASS CONCRETE SECTIONS ≥ 1.0m EACH DIMENSION, OR CONCRETE f _c ≥ 40 MPa IN SECTIONS ≥ 600mm THICKNESS	27°C

- C23. DO NOT MIX CONCRETE WHEN SURROUNDING OUTDOOR SHADE TEMPERATURE ≥ 38°C MAINTAIN TEMPERATURE OF FORMWORK AND REINFORCEMENT AT ≤32°C BEFORE AND DURING PLACING. MAINTAIN SPECIFIED TEMPERATURE OF PLACED CONCRETE BY:
- COOL CONCRETE USING LIQUID NITROGEN INJECTION BEFORE PLACING, OR
 - COVER CONTAINER IN WHICH CONCRETE IS TRANSPORTED TO FORMS, OR
 - SPRAY COARSE AGGREGATE USING COLD WATER OR USE CHILLED MIXING WATER.
- C24. PROTECT FRESH CONCRETE FROM PREMATURE DRYING - PARTICULARLY IN HOT, WINDY OR DRY (LOW HUMIDITY) CONDITIONS, EXCESSIVELY HOT OR COLD TEMPERATURES, RAIN, ETC. PROVIDE WIND BREAKS. MAINTAIN CONCRETE AT A REASONABLY CONSTANT TEMPERATURE WITH MINIMUM MOISTURE LOSS FOR CURING PERIOD.
- C25. KEEP ON RECORD THE DELIVERY DOCKETS AND SLUMP MEASUREMENTS FOR EACH PLACEMENT OF CONCRETE PER SITE.
- C26. CONSTRUCTION JOINTS OR POUR BREAKS WHERE NOT SHOWN ON THE DRAWINGS SHALL BE LOCATED AND FORMED TO THE APPROVAL OF THE PROJECT MANAGER.
- C27. CURING OF ALL CONCRETE SHALL COMMENCE NO LATER THAN 2 HOURS AFTER FINISHING OPERATIONS HAVE BEEN COMPLETED. THE CONCRETE SHALL BE CURED FOR A PERIOD OF 5 DAYS (UNLESS APPROVED OTHERWISE BY THE PROJECT MANAGER) BY ONE OF THE FOLLOWING METHODS:
- PONDING OR CONTINUOUS SPRINKLING WITH WATER.
 - USE OF AN ABSORPTIVE COVER KEPT CONTINUOUSLY WET.
 - COATING WITH AN APPROVED SPRAYED MEMBRANE CURING COMPOUND WHERE COMPATIBLE WITH FINISHES.
 - USE OF AN APPROVED MOISTURE RETAINING COVERING SUCH AS HEAVY GAUGE BUILDERS PLASTIC OR PAPER FIRMLY HELD AGAINST CONCRETE SURFACES TO PREVENT AIR CIRCULATION.
- C28. WHEN AIR TEMPERATURE IS BELOW 5°C OR ABOVE 35°C SPECIAL CONCRETE PLACEMENT PRECAUTIONS SHALL BE TAKEN IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE.
- C29. STRIP FORMWORK TO AS3600 CLAUSE 17.6. REMOVE FROM TIE BOLTS WITHOUT DAMAGING CONCRETE. PARTS OF BOLTS LEFT IN CONCRETE MUST NOT INTRUDE INTO COVER CONCRETE. FLUSH FILL HOLES USING PARCHEM RENDEROC HB40 OR APPROVED EQUIVALENT UTILISED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- C30. THOSE CONCRETE SURFACES REQUIRED TO BE RENDERED AND ANY OTHER CONCRETE SURFACE WHICH THE PROJECT MANAGER MAY ORDER TO BE RENDERED SHALL BE TREATED AS FOLLOWS:
- THE CONCRETE SURFACE SHALL BE SCABBLED AND DAMPENED.
 - CEMENT MORTAR SHALL BE PARCHEM RENDEROC HB40 OR APPROVED EQUIVALENT UTILISED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



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MURRAY IRRIGATION LTD.

SCOUR PROTECTION
Q738 - MUNDIWA
CONSTRUCTION NOTES

							NAME	DATE	REMARKS				
							SURVEYED	AM/PIV	16/01/25				
							DESIGNED	AM	19/01/26				
B	04/06/26	PV				DENILIKUIN GAUGE LEVEL ADDED	DRAWN	AM	19/01/26				
A	19/01/26	PV				ISSUED FOR REVIEW	REVIEWED	PV	20/01/26				
REV	DATE	DESIGN REVIEW	REV'D PMGR	APPR'D P.DIR		REVISIONS	APPROVED	PV	20/01/26				

DRG. NO. REF

PV111.Q738.09

SCALE

NTS

SHEET

11 OF 11

PLOT

SIZE

A 1