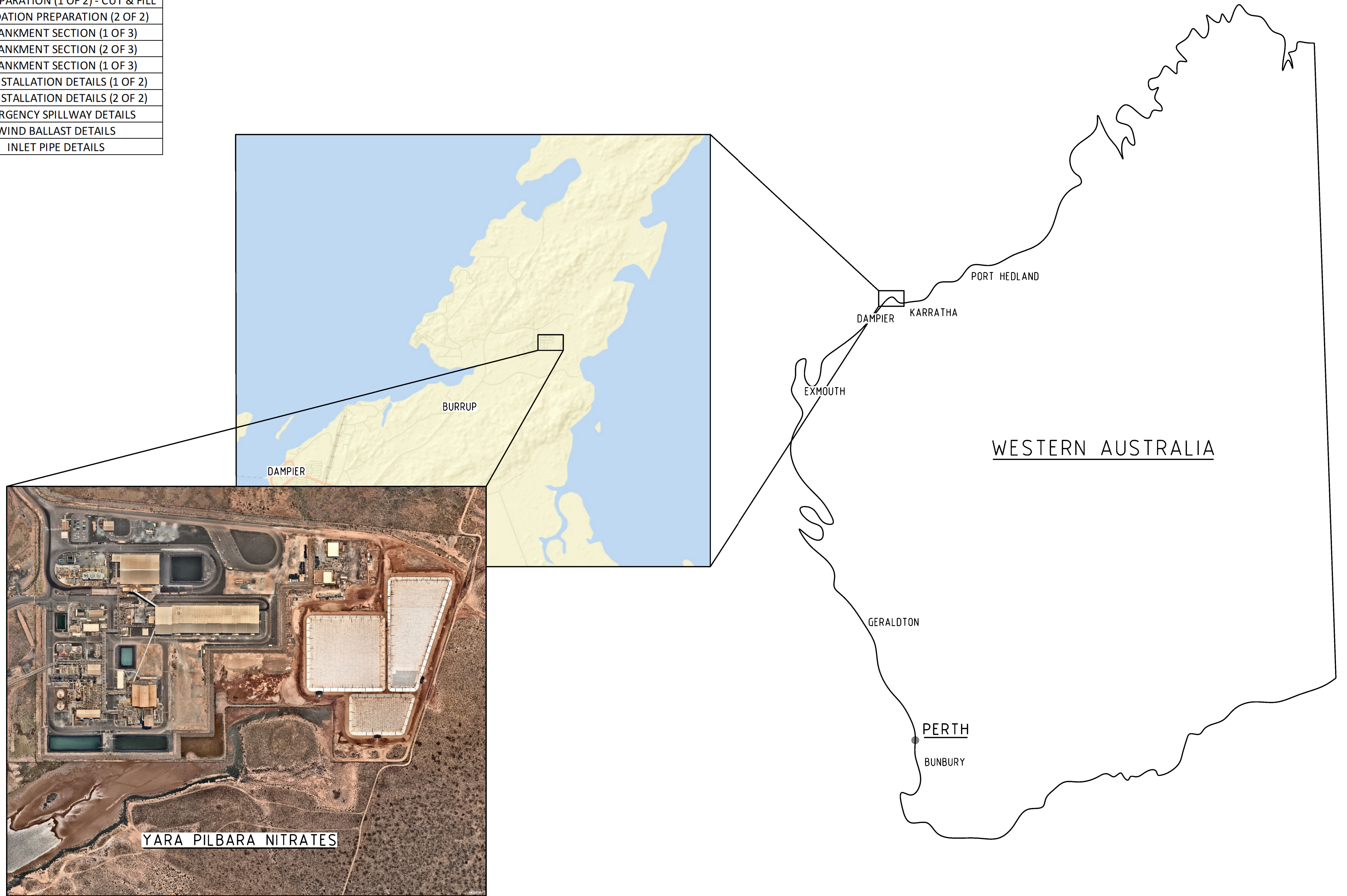


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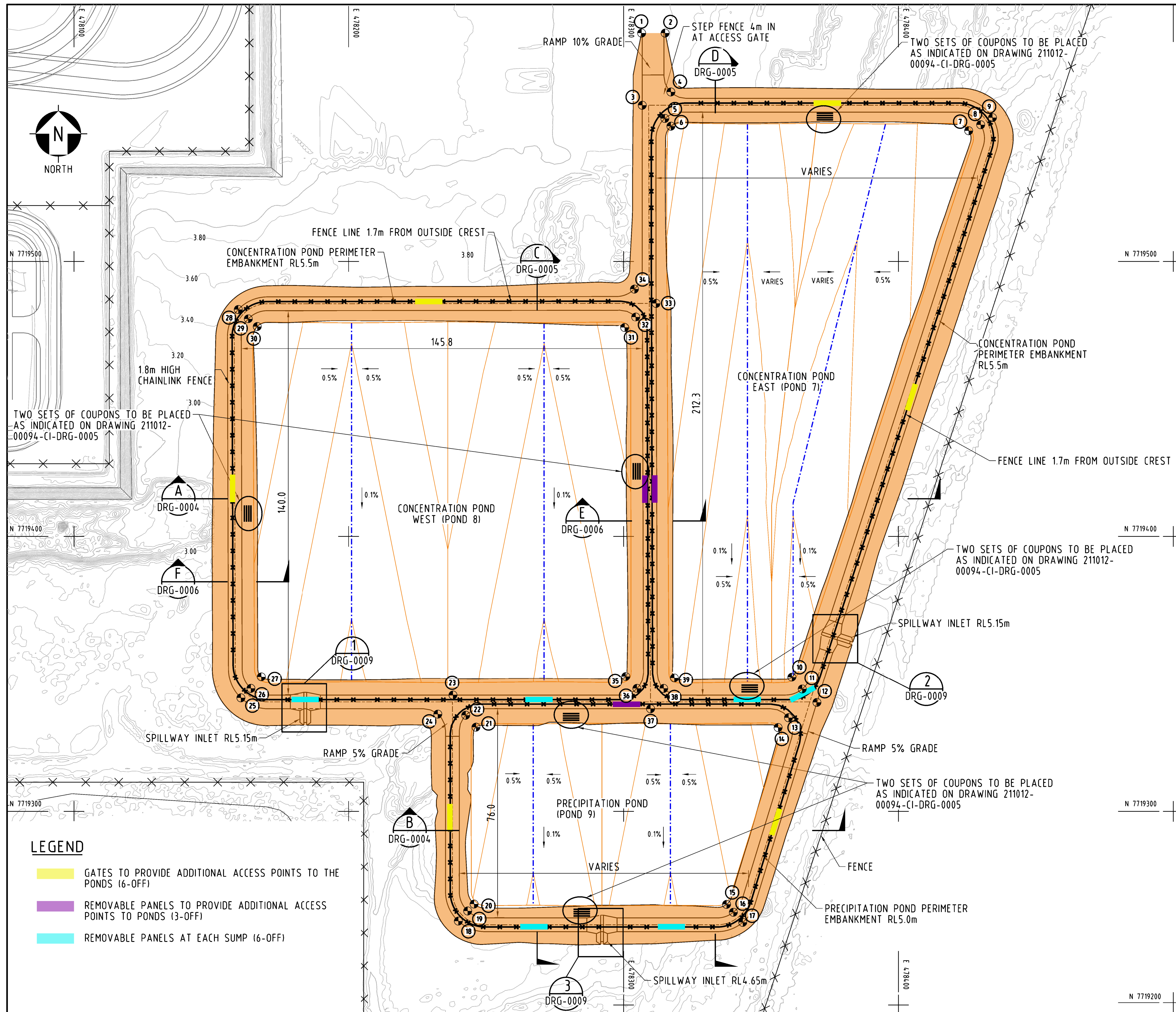
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211012-00094-CI-DRG-0000	COVER PAGE
211012-00094-CI-DRG-0001	GENERAL ARRANGEMENT
211012-00094-CI-DRG-0002	SITE PREPARATION (1 OF 2) - CUT & FILL
211012-00094-CI-DRG-0003	FOUNDATION PREPARATION (2 OF 2)
211012-00094-CI-DRG-0004	EMBANKMENT SECTION (1 OF 3)
211012-00094-CI-DRG-0005	EMBANKMENT SECTION (2 OF 3)
211012-00094-CI-DRG-0006	EMBANKMENT SECTION (1 OF 3)
211012-00094-CI-DRG-0007	PIPE INSTALLATION DETAILS (1 OF 2)
211012-00094-CI-DRG-0008	PIPE INSTALLATION DETAILS (2 OF 2)
211012-00094-CI-DRG-0009	EMERGENCY SPILLWAY DETAILS
211012-00094-CI-DRG-0010	WIND BALLAST DETAILS
211012-00094-CI-DRG-0011	INLET PIPE DETAILS



REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CLIENT	REF DRAWING No	REFERENCE DRAWING TITLE
2	03-NOV-23	AS BUILT	MD	TMJ	HZ	JV	JV			
1	03-APR-23	ISSUED FOR CONSTRUCTION	MD	TMJ	SR	JV	JV			
0	25-MAR-22	ISSUED FOR CONSTRUCTION	AD	SL	SL	SD	SW			
A	12-NOV-21	ISSUED FOR INTERNAL REVIEW	AD	SL	SL	SD				

<p>A1 SHEET SCALE AS SHOWN</p> <p>Copyright Advisian Pty Ltd</p>	<p>ENGINEERING AND PERMIT STAMPS (As Required)</p>	<p>CLIENT</p>	<p>YARA PILBARA NITRATES PTY LTD GROUNDWATER REMEDIATION PROJECT EVAPORATION PONDS COVER PAGE</p>
<p>ADVISIAN PROJECT No</p> <p>211012-00094</p>	<p>This drawing is prepared solely for the use of the contractual customer of Advisian and Advisian assumes no liability to any other party for any representations contained in this drawing.</p>	<p>DRG No</p> <p>211012-00094-CI-DRG-0000</p>	<p>REV</p> <p>2</p>

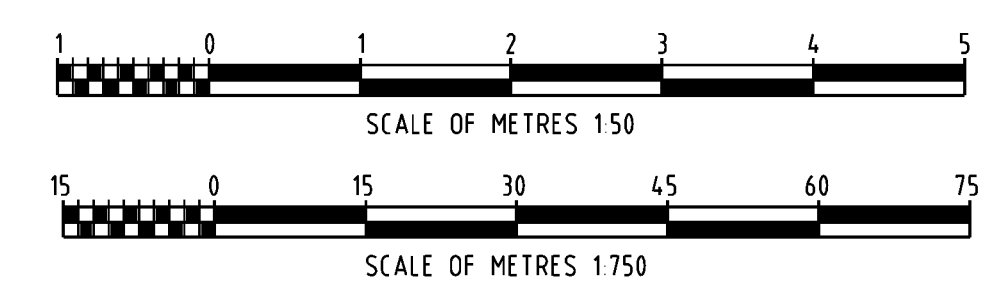




**SETOUT COORDINATES**

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2	478314.763	7719582.985	3.977
3	478306.768	7719556.624	5.500
4	478317.521	7719561.179	5.500
5	478314.676	7719551.597	5.500
6	478316.99	7719548.818	3.129
7	478425.804	7719547.152	3.142
8	478430.106	7719549.209	5.500
9	478434.529	7719551.633	5.500
10	478361.492	7719349.093	2.806
11	478364.987	7719344.439	5.500
12	478370.391	7719339.663	5.500
13	478360.161	7719333.767	5.230
14	478356.240	7719330.458	2.601
15	478337.698	7719266.353	2.437
16	478340.576	7719263.700	5.000
17	478343.334	7719259.772	5.000
18	478240.247	7719259.811	5.000
19	478243.968	7719263.192	5.000
20	478246.120	7719265.964	2.442
21	478246.388	7719330.656	2.508
22	478243.007	7719335.279	5.366
23	478237.791	7719342.268	5.500
24	478232.910	7719334.912	5.366
25	478161.509	7719340.568	5.500
26	478164.854	7719344.292	5.500
27	478168.087	7719349.100	2.898
28	478159.907	7719482.684	5.500
29	478163.582	7719479.296	5.500
30	478166.674	7719476.249	3.030
31	478300.431	7719475.944	3.002
32	478304.359	7719479.807	5.500
33	478311.808	7719484.700	5.500
34	478303.941	7719490.004	5.500
35	478300.589	7719349.086	2.875
36	478305.277	7719345.146	5.500
37	478309.798	7716337.264	5.500
38	478314.699	7719344.605	5.500
39	478318.633	7719348.503	2.928

- NOTES**
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE
  - HORIZONTAL DATUM TO MGA 94 ZONE 50
  - VERTICAL DATUM TO AUSTRALIAN HEIGHT DATUM (AHD)
  - SURVEY CONTOURS AT 0.2m INTERVALS
  - DESIGN CONTOURS AT 0.1m INTERVALS
  - 1.8m HIGH CHAINLINK FENCE TO BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1725.1 CHAINLINK FABRIC FENCING
  - COUPONS ON LINER TO BE WELDED ALONG TOP 0.3m LONG EDGE (i.e. 0.3m EDGE IS HORIZONTAL)



- LEGEND**
- GATES TO PROVIDE ADDITIONAL ACCESS POINTS TO THE PONDS (6-OFF)
  - REMOVABLE PANELS TO PROVIDE ADDITIONAL ACCESS POINTS TO PONDS (3-OFF)
  - REMOVABLE PANELS AT EACH SUMP (6-OFF)

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CLIENT	REF DRAWING No	REFERENCE DRAWING TITLE
2	10-NOV-23	AS BUILT	MD	TMJ	HZ	JV	JV			
1	03-APR-23	ISSUED FOR CONSTRUCTION	MD	TMJ	SR	JV	JV			
0	11-FEB-22	ISSUED FOR CONSTRUCTION	AD	SL	SL	SD	SW			
A	12-NOV-21	ISSUED FOR INTERNAL REVIEW	AKD	SL	SL	SD				

A1 SHEET SCALE AS SHOWN

**Oneway**  
to zero harm

Copyright ©  
Advisian Pty Ltd

ADVISIAN PROJECT No  
**211012-00094**

ENGINEERING AND PERMIT STAMPS (As Required)

CLIENT

YARA

**Advisian**  
Worley Group

**YARA PILBARA NITRATES PTY LTD**  
GROUNDWATER REMEDIATION PROJECT  
EVAPORATION PONDS  
GENERAL ARRANGEMENT

This drawing is prepared solely for the use of the contractual customer of Advisian and Advisian assumes no liability to any other party for any representations contained in this drawing.

DRG No  
**211012-00094-CI-DRG-0001**

REV  
**2**

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 LOCATION: \\AUPDC\PNAS01\chem-mm\211012-00094\_Yara\_Pilbara\_Nitrates - Advisian\_Miscellaneous\_Scopes\12.01\_Drawings\12.01\_Civils\DRG\211012-00094-CI-DRG-0001.dgn





SETOUT COORDINATES

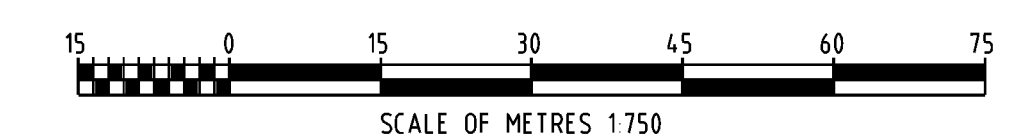
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2	478314.763	7719582.985	3.977
3	478306.768	7719556.624	5.500
4	478317.521	7719561.179	5.500
5	478314.676	7719551.597	5.500
6	478316.99	7719548.818	3.129
7	478425.804	7719547.152	3.142
8	478430.106	7719549.209	5.500
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10	478361.492	7719349.093	2.806
11	478364.987	7719344.439	5.500
12	478370.391	7719339.663	5.500
13	478360.161	7719333.767	5.230
14	478356.240	7719330.458	2.601
15	478337.698	7719266.353	2.437
16	478340.576	7719263.700	5.000
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27	478168.087	7719349.100	2.898
28	478159.907	7719482.684	5.500
29	478163.582	7719479.296	5.500
30	478166.674	7719476.249	3.030
31	478300.431	7719475.944	3.002
32	478304.359	7719479.807	5.500
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35	478300.589	7719349.086	2.875
36	478305.277	7719345.146	5.500
37	478309.798	7716337.264	5.500
38	478314.699	7719344.605	5.500
39	478318.633	7719348.503	2.928

LEGEND

- FILL
- CUT

NOTES

1. DIMENSIONS IN METRES UNLESS NOTED OTHERWISE
2. HORIZONTAL DATUM TO MGA 94 ZONE 50
3. VERTICAL DATUM TO AUSTRALIAN HEIGHT DATUM (AHD)
4. SURVEY CONTOURS AT 0.2m INTERVALS
5. DESIGN CONTOURS AT 0.1m INTERVALS



REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CLIENT	REF DRAWING No	REFERENCE DRAWING TITLE
2	10-NOV-23	AS BUILT	MD	TMJ	HZ	JV	JV			
1	03-APR-23	ISSUED FOR CONSTRUCTION	MD	TMJ	SR	JV	JV			
0	25-MAR-22	ISSUED FOR CONSTRUCTION	AD	SL	SL	SD	SW			
A	12-NOV-21	ISSUED FOR INTERNAL REVIEW	AKD	SL	SL	SD				

A1 SHEET SCALE AS SHOWN

**Oneway**  
to zero harm

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ADVISIAN PROJECT No  
**211012-00094**

ENGINEERING AND PERMIT STAMPS (As Required)

CLIENT

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**Advisian**  
Worley Group

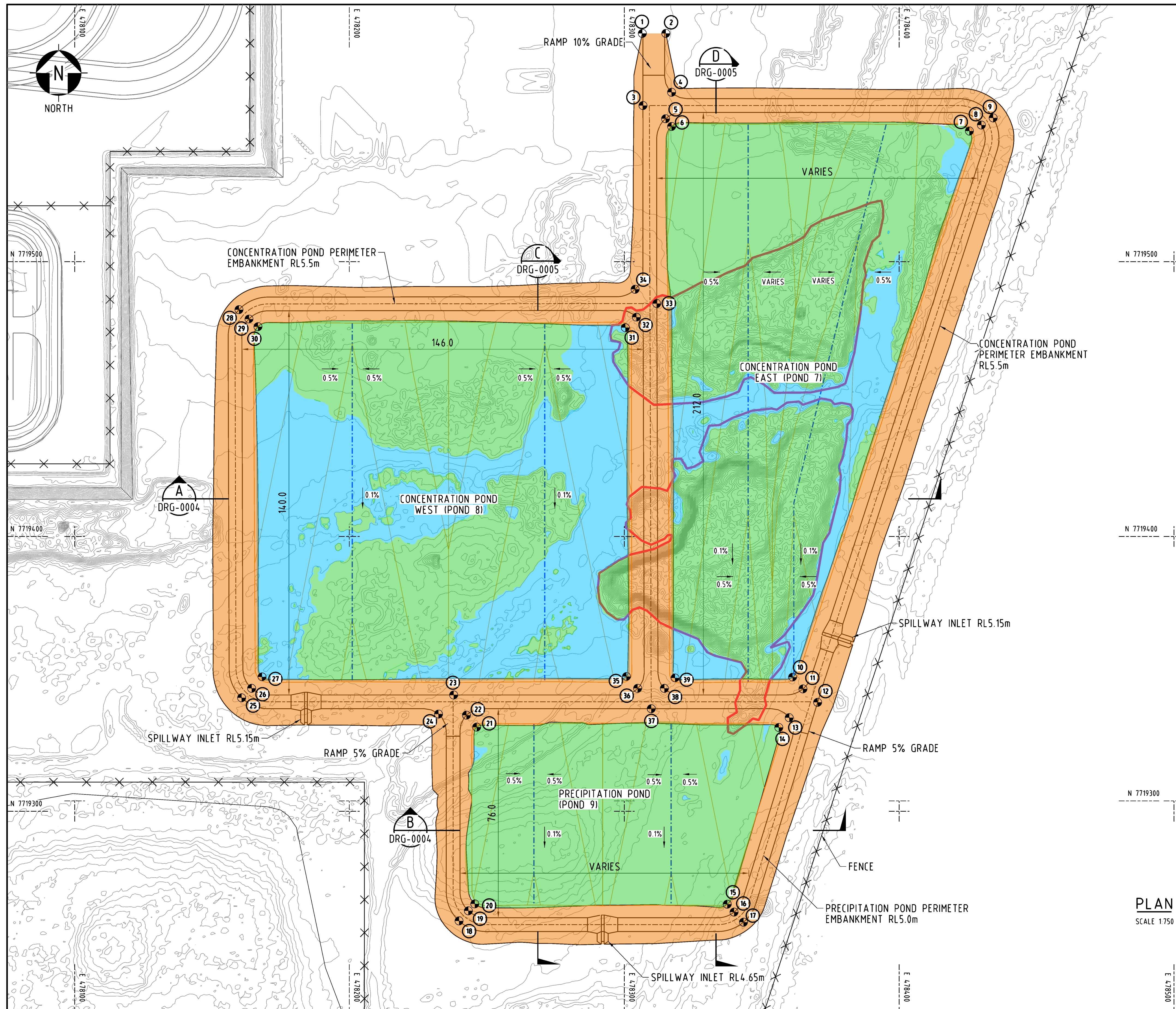
**YARA PILBARA NITRATES PTY LTD**  
GROUNDWATER REMEDIATION PROJECT  
EVAPORATION PONDS  
SITE PREPARATION (1 of 2) - CUT & FILL

DRG No  
**211012-00094-C1-DRG-0002**

REV  
**2**

USER NAME: Marnell,DeLara LOCATION: \\AUPDC\PNAS01\chem-mm\211012-00094\_Yara\_Pilbara\_Nitrates - Advisian\_Miscellaneous\_Scopes\12.01\_Drawings\12.01\_Civils\DRG\211012-00094-C1-DRG-0002.dgn  
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 ADVISIAN.A1





### FOUNDATION PREPARATION TYPE 1

1. REMOVE TOP SOIL TO 200mm.
2. RIP UP TO MINIMUM 300mm AND COMPACT TO 95% SMDD AT -2% TO OMC.
3. OBSERVE FOR SOFT AREAS AND CRACK FORMING.
4. REMOVE AND REPLACE SOFT POCKETS IF ENCOUNTERED. (SEE DETAIL 4, DRG-0004).

### FOUNDATION PREPARATION TYPE 2

IN CUT AREAS (REFER TO DETAIL 1, DRG-0004):

1. OVER EXCAVATE 200mm BELOW BOTTOM HDPE LINER AT THE BASE IN CUT AREAS.
2. RIP AND COMPACT TO 95% SMDD AT -2% TO OMC.
3. OBSERVE FOR SOFT AREAS AND CRACKS FORMING.
4. REMOVE AND REPLACE SOFT POCKETS IF ENCOUNTERED. (DETAIL 3, DRG-0004).
5. BACKFILL USING GENERAL FILL AND COMPACT TO 95% SMDD AT -2% TO OMC.
6. NO STONEY MATERIALS TO BE VISIBLE ON THE FINAL PREPARED SURFACE.
7. FINAL SURFACE TO COMPLY TO SPECIFICATIONS PRIOR TO HDPE LINER PLACEMENT.

IN FILL AREAS (REFER TO DETAIL 2, DRG-0004):

1. REMOVE TOP SOIL TO 200mm.
2. RIP AND COMPACT TO 95% SMDD AT -2% TO OMC.
3. OBSERVE FOR SOFT AREAS AND CRACKS FORMING.
4. REMOVE AND REPLACE SOFT POCKETS IF ENCOUNTERED.
5. PLACE GENERAL FILL IN LAYERS NOT EXCEEDING 300mm IN LOOSE THICKNESS AND COMPACT TO 95% SMDD AT OMC +/- 2%.
6. CONTINUE UP TO THE DESIGN POND BASE LEVEL (I.E. BOTTOM HDPE LINER LEVEL).
7. NO STONEY MATERIALS TO BE VISIBLE ON THE FINAL PREPARED SURFACE.
8. FINAL SURFACE TO COMPLY TO SPECIFICATIONS PRIOR TO HDPE LINER PLACEMENT.

### EMBANKMENT SLOPE PREPARATION

1. TRIM SLOPE TO DIMENSIONS.
2. COMPACT FACE/SLOPE TO 98% SMDD AT OMC TO +2%.
3. NO STONEY MATERIAL TO BE VISIBLE ON THE FINAL PREPARED UPSTREAM SURFACE WHERE LINER IS TO BE PLACED.
4. FINAL SURFACE TO COMPLY TO SPECIFICATIONS PRIOR TO HDPE LINER PLACEMENT.

### LEGEND

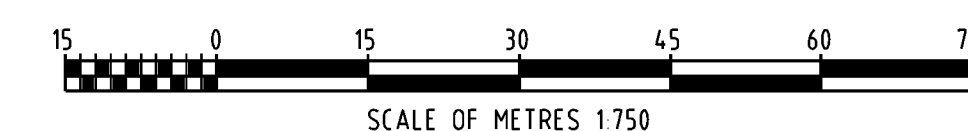
- FOUNDATION PREPARATION TYPE 1
- FOUNDATION PREPARATION TYPE 2 - FILL
- FOUNDATION PREPARATION TYPE 2 - CUT

### NOTES

1. DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
2. HORIZONTAL DATUM TO MGA 94 ZONE 50.
3. VERTICAL DATUM TO AUSTRALIAN HEIGHT DATUM (AHD).
4. SURVEY CONTOURS AT 0.2m INTERVALS.
5. DESIGN CONTOURS AT 0.1m INTERVALS.

### PLAN

SCALE 1:750



REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CLIENT	REF DRAWING No	REFERENCE DRAWING TITLE
2	10-NOV-23	AS BUILT	MD	TMJ	HZ	JV	JV			
1	03-APR-23	ISSUED FOR CONSTRUCTION	MD	TMJ	SR	JV	JV			
0	25-MAR-22	ISSUED FOR CONSTRUCTION	AD	SL	SL	SD	SW			
A	12-NOV-21	ISSUED FOR INTERNAL REVIEW	AD	SL	SL	SD				

A1 SHEET SCALE AS SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)	CLIENT
Copyright © Advisian Pty Ltd		
ADVISIAN PROJECT No		
211012-00094		

YARA logo

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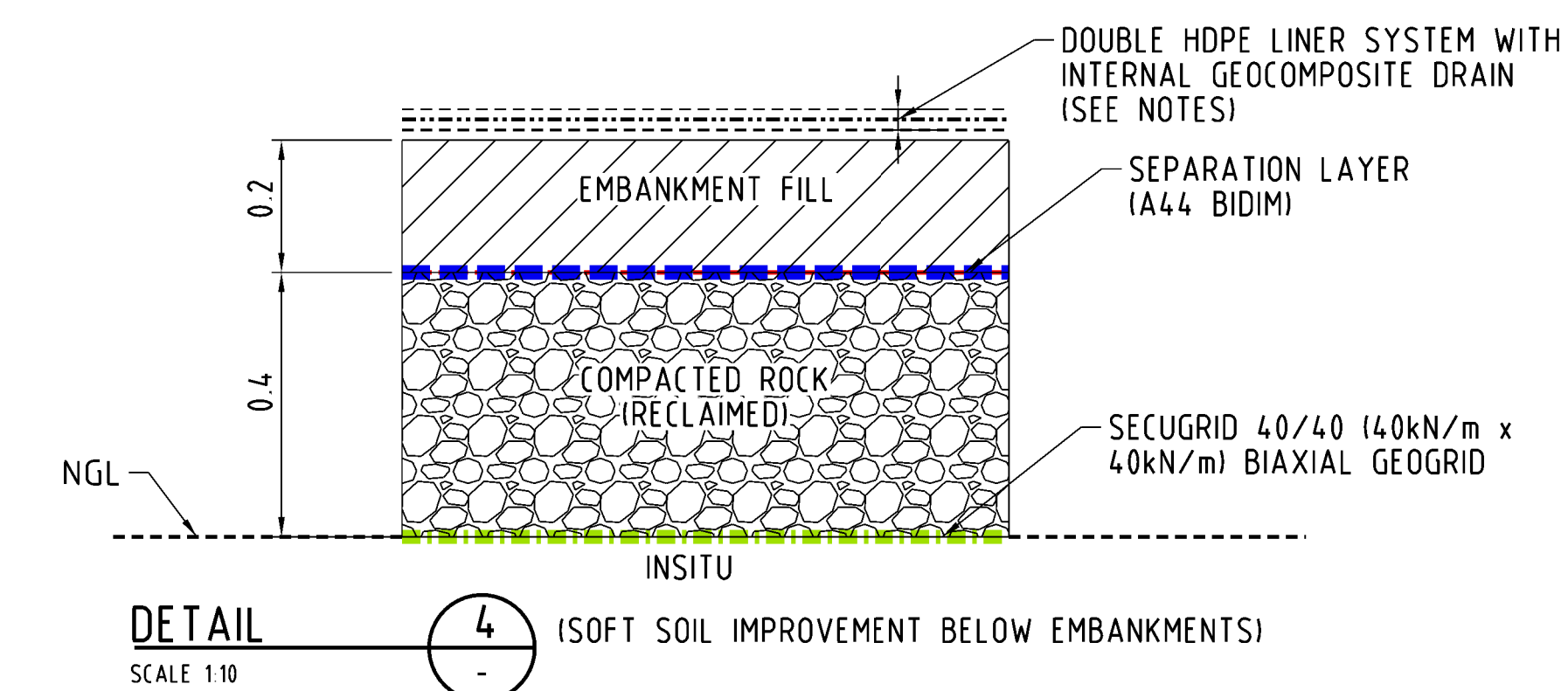
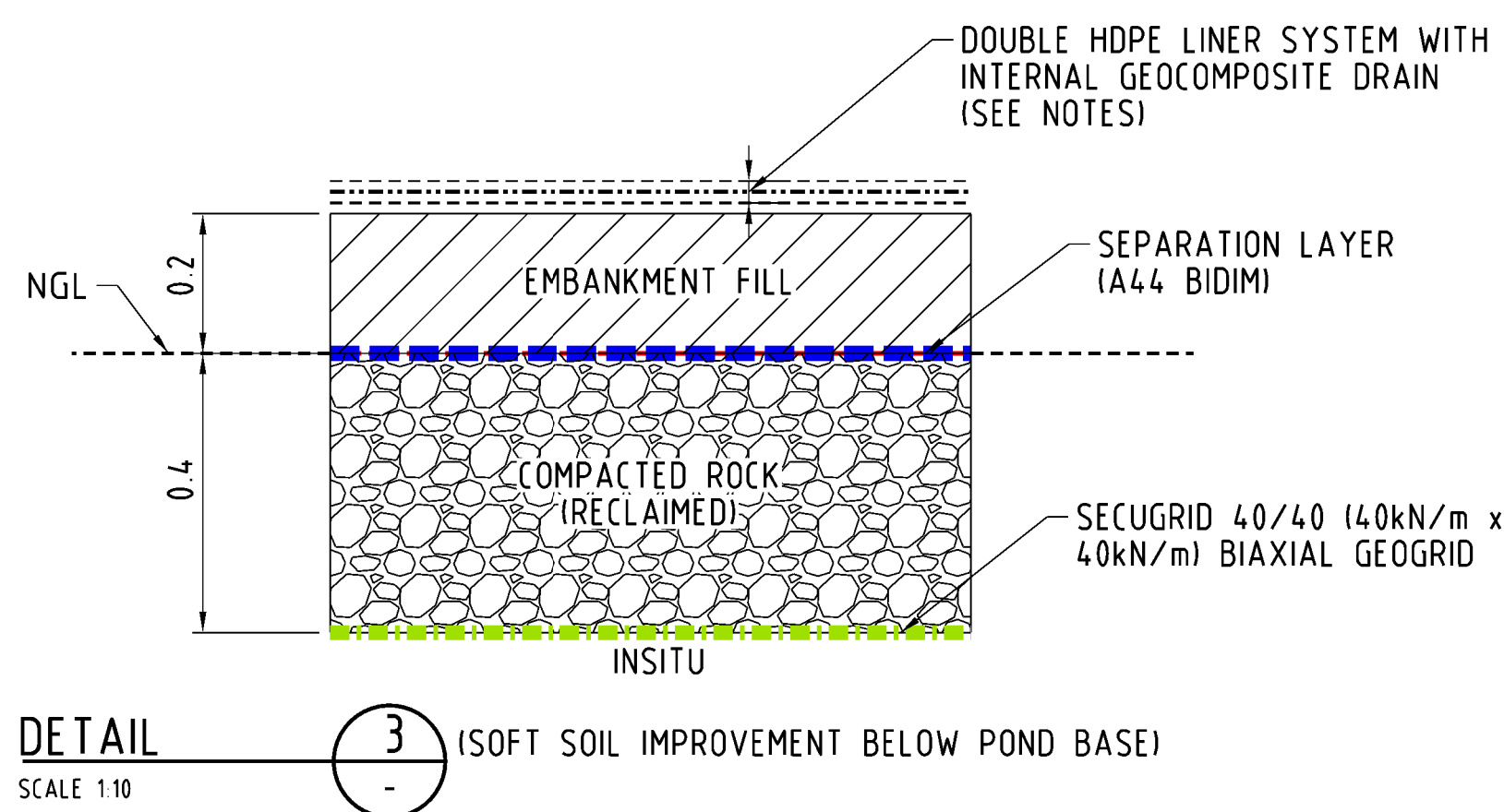
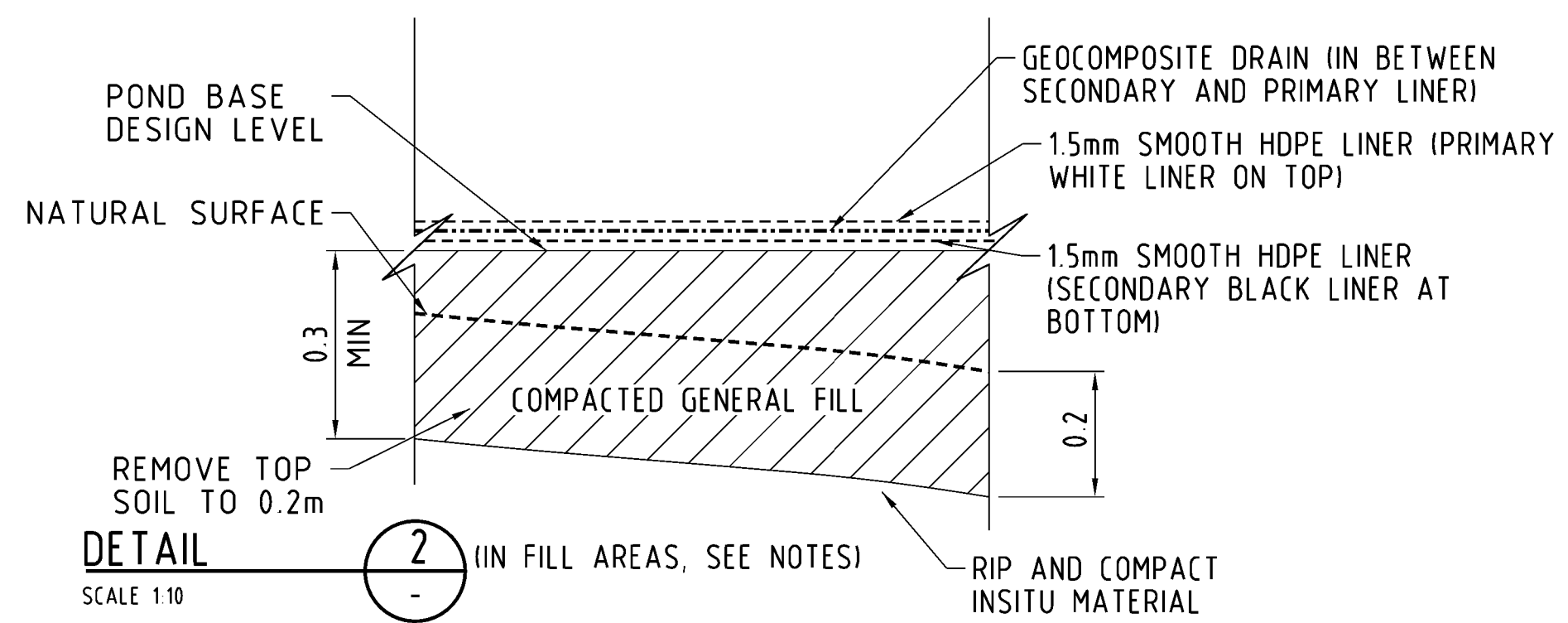
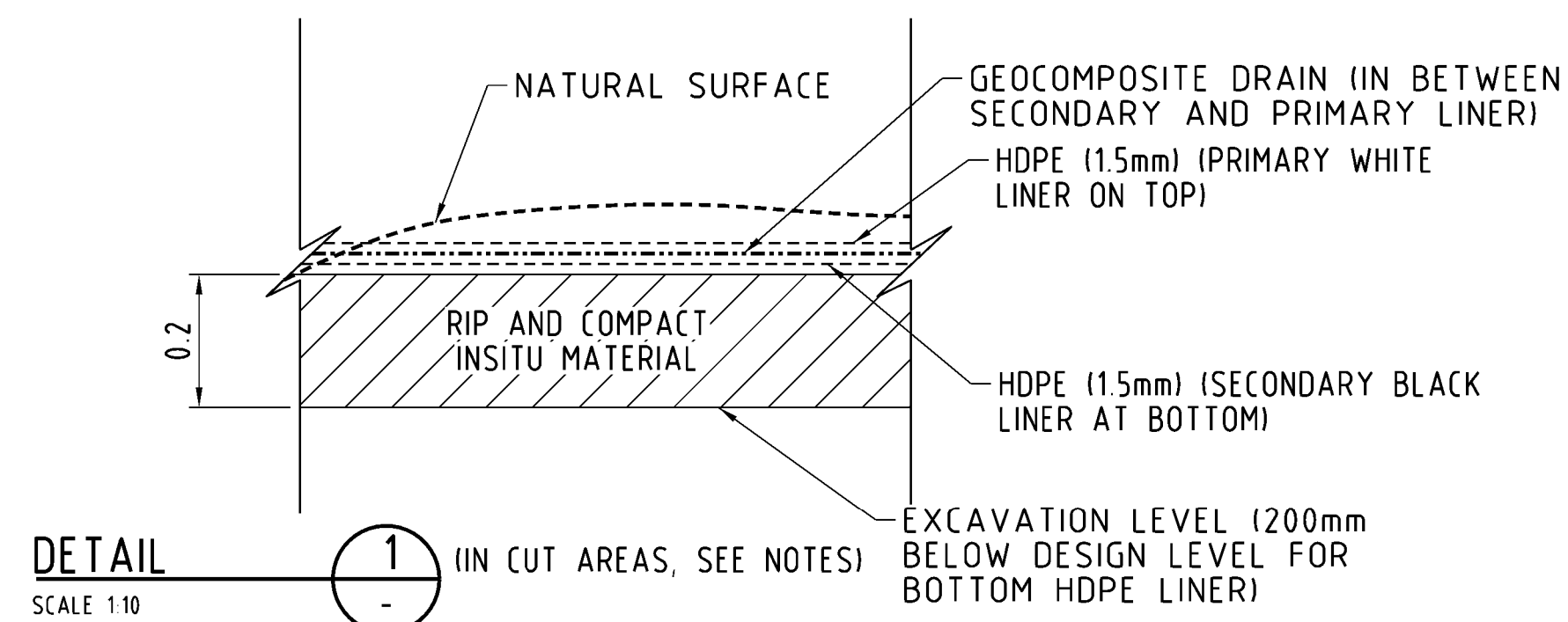
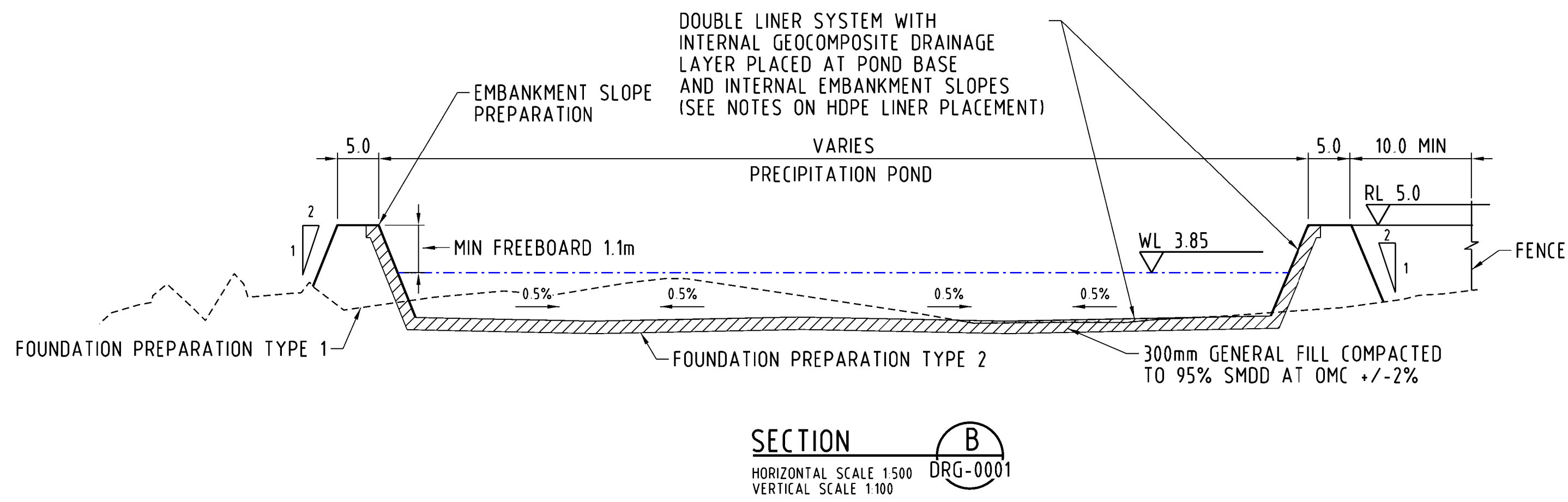
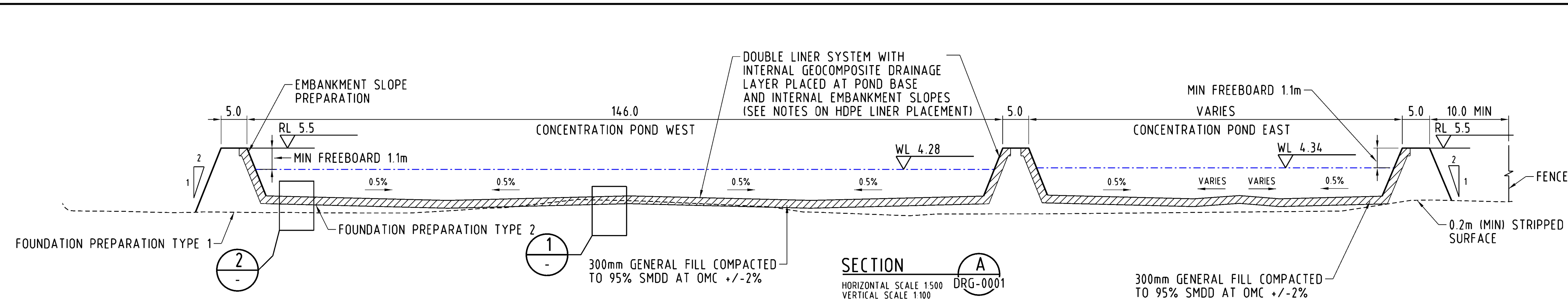
**Advisian**  
Worley Group

YARA PILBARA NITRATES PTY LTD  
GROUNDWATER REMEDIATION PROJECT  
EVAPORATION PONDS  
FOUNDATION PREPARATION (2 of 2)

DRG No 211012-00094-C1-DRG-0003

REV 2





**NOTES**

- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE
- HORIZONTAL DATUM TO MGA 94 ZONE 50
- VERTICAL DATUM TO AUSTRALIAN HEIGHT DATUM (AHD)
- ANCHOR TRENCH DETAILS PROVIDED ON DRG-0006

**FOUNDATION PREPARATION TYPE 1**

- REMOVE TOP SOIL TO 200mm.
- RIP UP TO MINIMUM 300mm AND COMPACT TO 95% SMDD AT -2% TO OMC.
- OBSERVE FOR SOFT AREAS AND CRACK FORMING.
- REMOVE AND REPLACE SOFT POCKETS IF ENCOUNTERED (DETAIL 4).

**FOUNDATION PREPARATION TYPE 2**

- IN CUT AREAS (REFER TO DETAIL 1)
- OVER EXCAVATE 200 MM BELOW BOTTOM HDPE LINER AT THE BASE IN CUT AREAS.
  - RIP AND COMPACT TO 95% SMDD AT -2% TO OMC.
  - OBSERVE FOR SOFT AREAS AND CRACKS FORMING.
  - REMOVE AND REPLACE SOFT POCKETS IF ENCOUNTERED (DETAIL 3).
  - BACKFILL USING GENERAL FILL AND COMPACT TO 95% SMDD AT -2% TO OMC.
  - NO STONEY MATERIALS TO BE VISIBLE ON THE FINAL PREPARED SURFACE.
  - FINAL SURFACE TO COMPLY TO SPECIFICATIONS PRIOR TO HDPE LINER PLACEMENT.

IN FILL AREAS (REFER TO DETAIL 2)

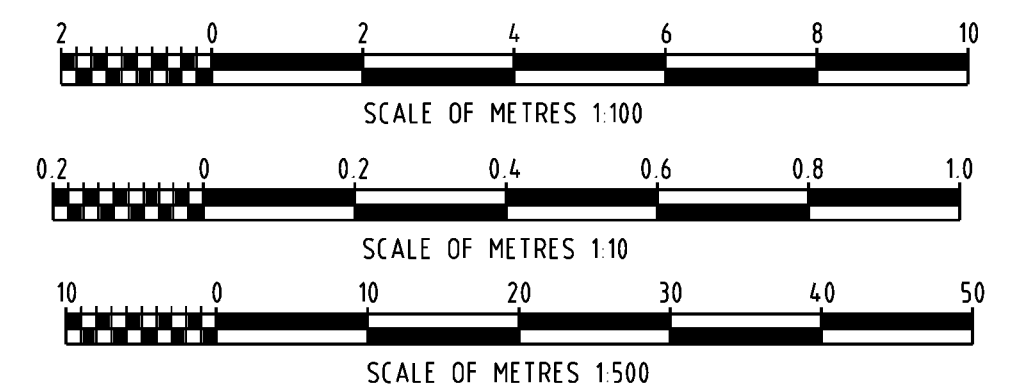
- REMOVE TOP SOIL TO 200mm.
- RIP AND COMPACT TO 95% SMDD AT -2% TO OMC.
- OBSERVE FOR SOFT AREAS AND CRACKS FORMING.
- REMOVE AND REPLACE SOFT POCKETS IF ENCOUNTERED (DETAIL 3).
- PLACE GENERAL FILL IN LAYERS NOT EXCEEDING 300mm IN LOOSE THICKNESS AND COMPACT TO 95% SMDD AT -2% TO OMC.
- CONTINUE UP TO THE DESIGN POND BASE LEVEL (I.E. BOTTOM HDPE LINER LEVEL).
- NO STONEY MATERIALS TO BE VISIBLE ON THE FINAL PREPARED SURFACE.
- FINAL SURFACE TO COMPLY TO SPECIFICATIONS PRIOR TO HDPE LINER PLACEMENT.

**EMBANKMENT SLOPE PREPARATION**

- TRIM SLOPE TO DIMENSIONS.
- COMPACT FACE/SLOPE TO 98% SMDD AT OMC TO +2%.
- NO STONEY MATERIAL TO BE VISIBLE ON THE FINAL PREPARED UPSTREAM SURFACE WHERE LINER IS TO BE PLACED.
- FINAL SURFACE TO COMPLY TO SPECIFICATIONS PRIOR TO HDPE LINER PLACEMENT.

**HDPE LINER PLACEMENT**

- PLACE SECONDARY BLACK 1.5mm SMOOTH HDPE LINER AT BOTTOM ON PREPARED SURFACE.
- PLACE GEOCOMPOSITE DRAINAGE LAYER ON SECONDARY LINER, IN BETWEEN PRIMARY AND SECONDARY LINER.
- PLACE PRIMARY WHITE 1.5mm SMOOTH HDPE LINER OVER GEOCOMPOSITE DRAINAGE LAYER.

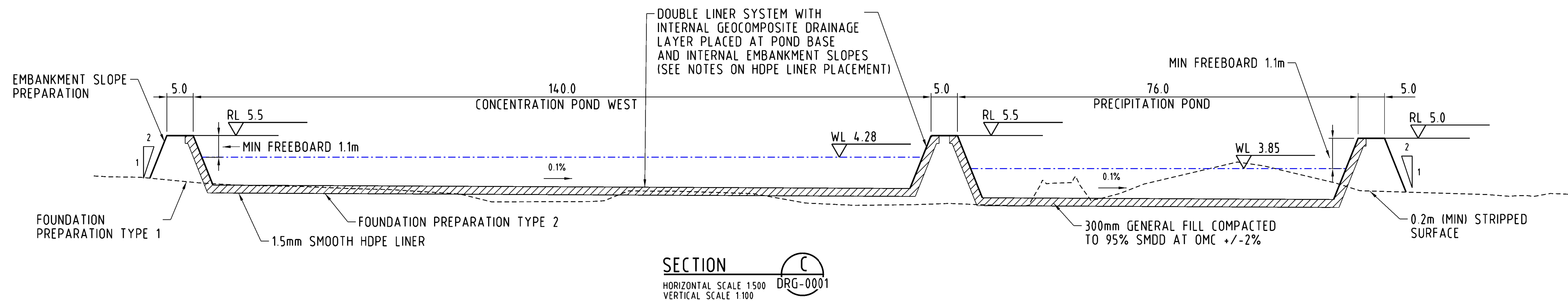


REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CLIENT	REF DRAWING No	REFERENCE DRAWING TITLE
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1	03-APR-23	ISSUED FOR CONSTRUCTION	MD	TMJ	SR	JV	JV			
0	25-MAR-22	ISSUED FOR CONSTRUCTION	AD	SL	SL	SD	SW			
A	12-NOV-21	ISSUED FOR INTERNAL REVIEW	AD	SL	SL	SD				

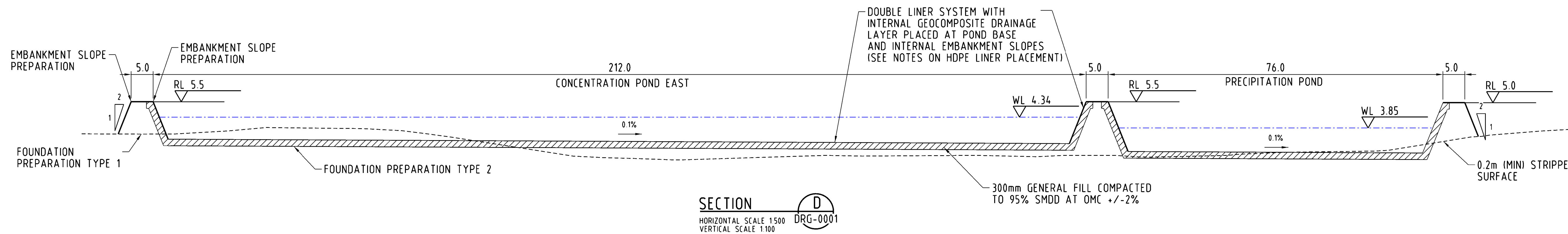
A1 SHEET SCALE AS SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)	CLIENT
 Copyright Advisian Pty Ltd		 YARA PILBARA NITRATES PTY LTD GROUNDWATER REMEDIATION PROJECT EVAPORATION PONDS EMBANKMENT SECTIONS (1 OF 3)
ADVISIAN PROJECT No 211012-00094	This drawing is prepared solely for the use of the contractual customer of Advisian and Advisian assumes no liability to any other party for any representations contained in this drawing.	
	DRG No 211012-00094-C1-DRG-0004	REV 2

USER NAME: Marnell.DeLara | LOCATION: \\AUPDC\WPNAS01\chem-mm\211012-00094\_Yara\_Pilbara\_Nitrates - Advisian\_Miscellaneous\_Scopes\17.0\_Drawings\17.01\_Level1\DRG\211012-00094-C1-DRG-0004.dgn | SAVE DATE & TIME: 3/17/2023 11:03:37 AM | PLOT DATE & TIME: 3/17/2023 11:03:37 AM

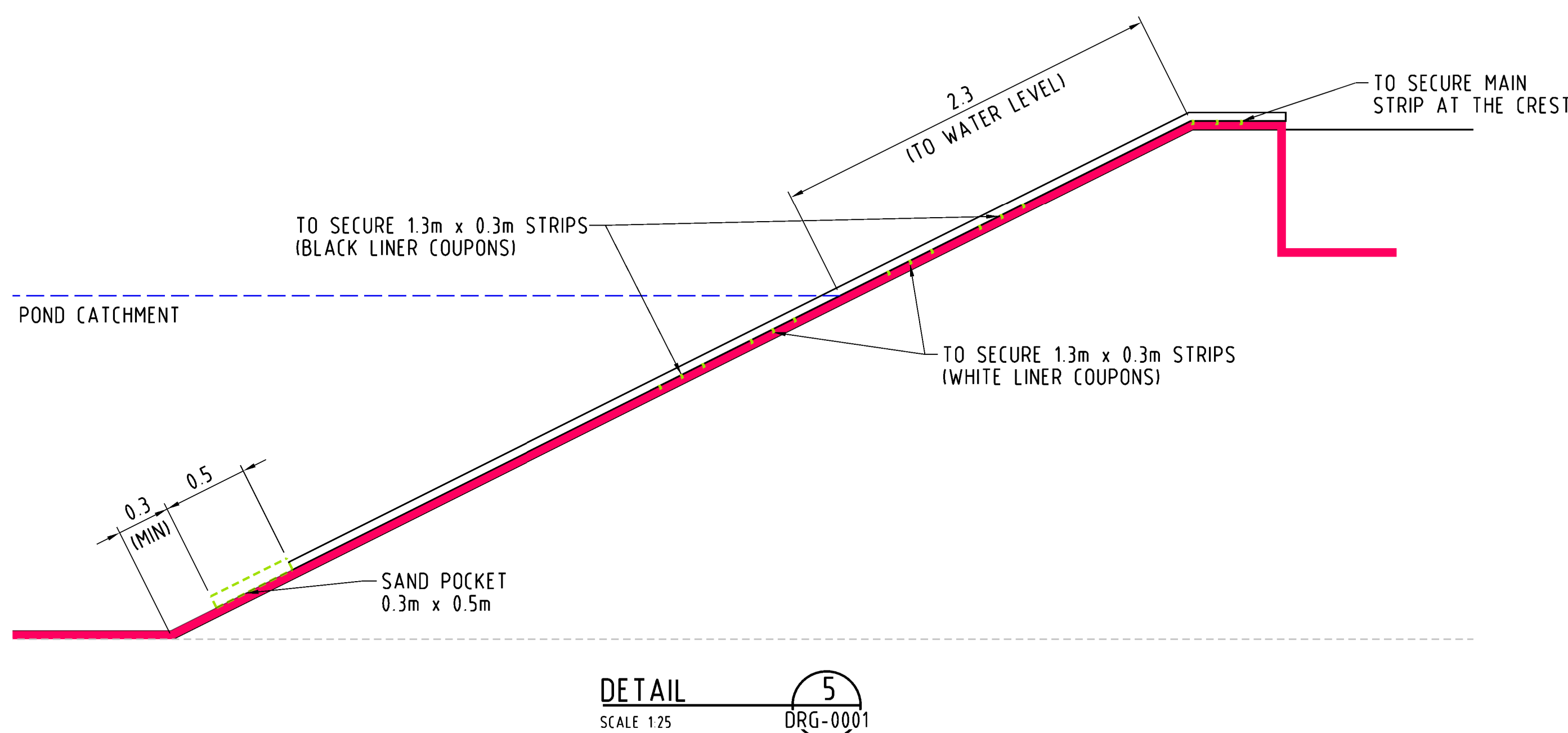




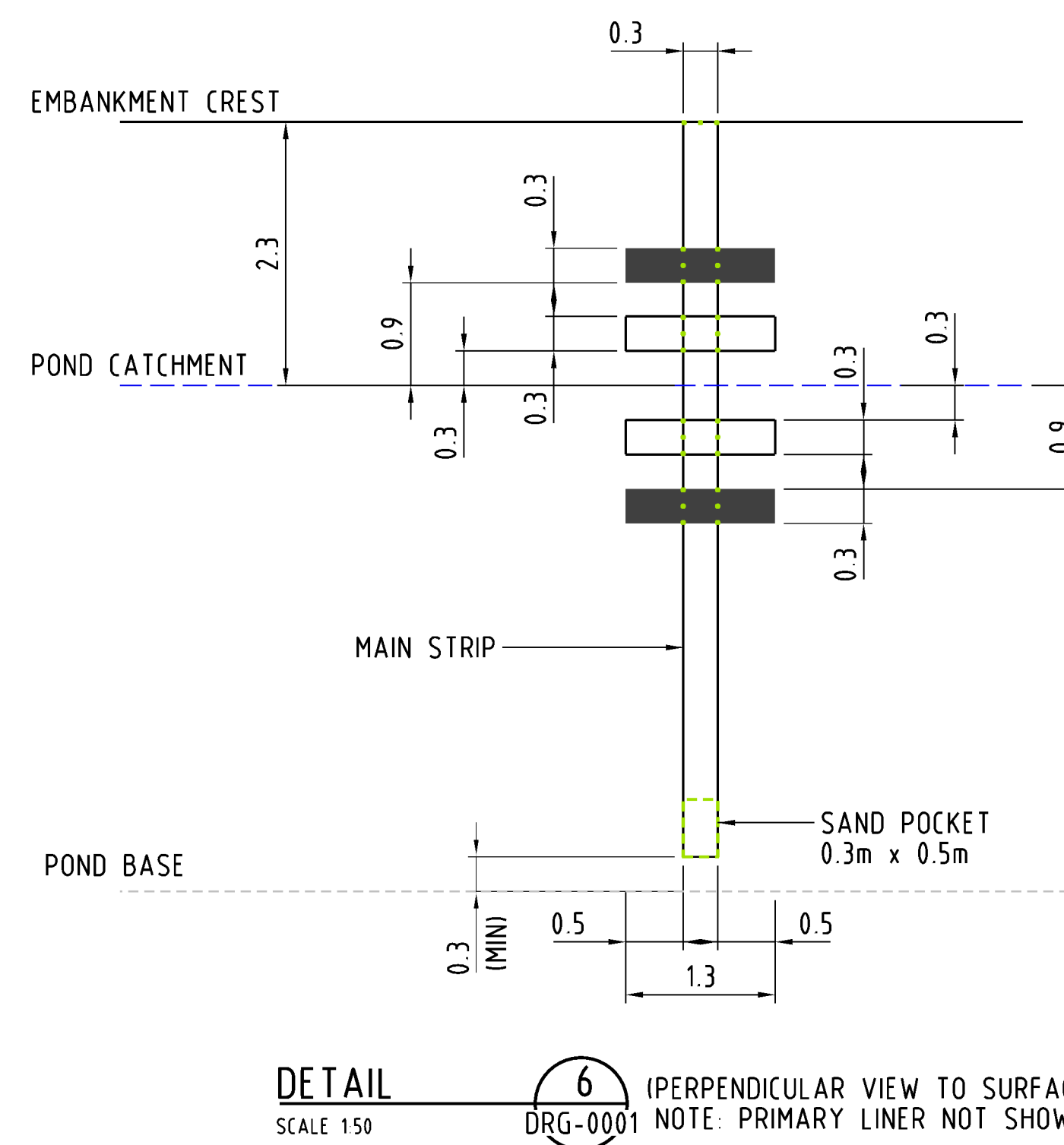
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VERTICAL SCALE 1:100  
DRG-0001



SECTION D  
HORIZONTAL SCALE 1:500  
VERTICAL SCALE 1:100  
DRG-0001



DETAIL 5  
SCALE 1:25  
DRG-0001



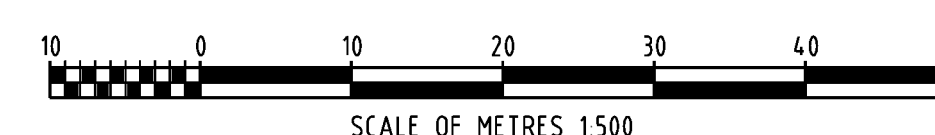
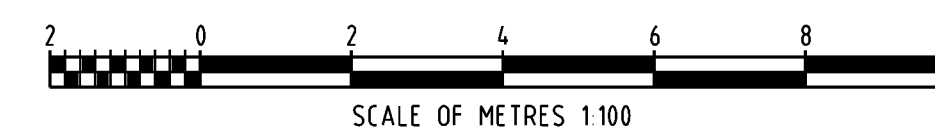
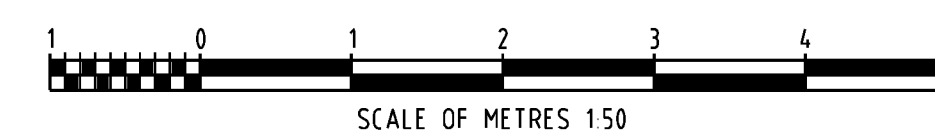
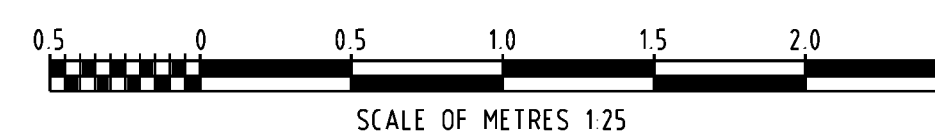
DETAIL 6 (PERPENDICULAR VIEW TO SURFACE)  
SCALE 1:50  
DRG-0001  
NOTE: PRIMARY LINER NOT SHOWN

NOTES

- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE
- HORIZONTAL DATUM TO MGA 94 ZONE 50
- VERTICAL DATUM TO AUSTRALIAN HEIGHT DATUM (AHD)
- ANCHOR TRENCH DETAILS PROVIDED ON DRG-0006
- REFER TO DRAWING 211012-00094 FOR DETAIL OF FOUNDATION PREPARATION

LEGEND

- PRIMARY WHITE HDPE LINER
- BLACK HDPE LINER COUPON
- WHITE HDPE LINER COUPON
- WELDING LOCATIONS



REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CLIENT	REF DRAWING No	REFERENCE DRAWING TITLE
2	08-NOV-23	AS BUILT	MD	TMJ	HZ	JV	JV			
1	03-APR-23	ISSUED FOR CONSTRUCTION	MD	TMJ	SR	JV	JV			
0	25-MAR-22	ISSUED FOR CONSTRUCTION	AD	SL	SL	SD	SW			
A	12-NOV-21	ISSUED FOR INTERNAL REVIEW	AD	SL	SL	SD				

A1 SHEET SCALE AS SHOWN

**Oneway**  
to zero harm

Copyright  
Advisian Pty Ltd

ADVISIAN PROJECT No  
211012-00094

ENGINEERING AND PERMIT STAMPS (As Required)

CLIENT

**YARA**

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**Advisian**  
Worley Group

YARA PILBARA NITRATES PTY LTD  
GROUNDWATER REMEDIATION PROJECT  
EVAPORATION PONDS  
EMBANKMENT SECTIONS (2 OF 3)

DRG No  
211012-00094-C1-DRG-0005

REV  
2

SAVE DATE & TIME: 8/11/2023 3:08:57 PM  
PLOT DATE & TIME: 8/11/2023 3:08:57 PM  
USER NAME: Marneth.Delara  
LOCATION: \\AUPDC\PNAS01\chem-mm\211012-00094\_Yara\_Pilbara\_Nitrates - Advisian\_Miscellaneous\_Scopes\12.01\_Drawings\12.01\_Civils\DRG\211012-00094-C1-DRG-0005.dgn

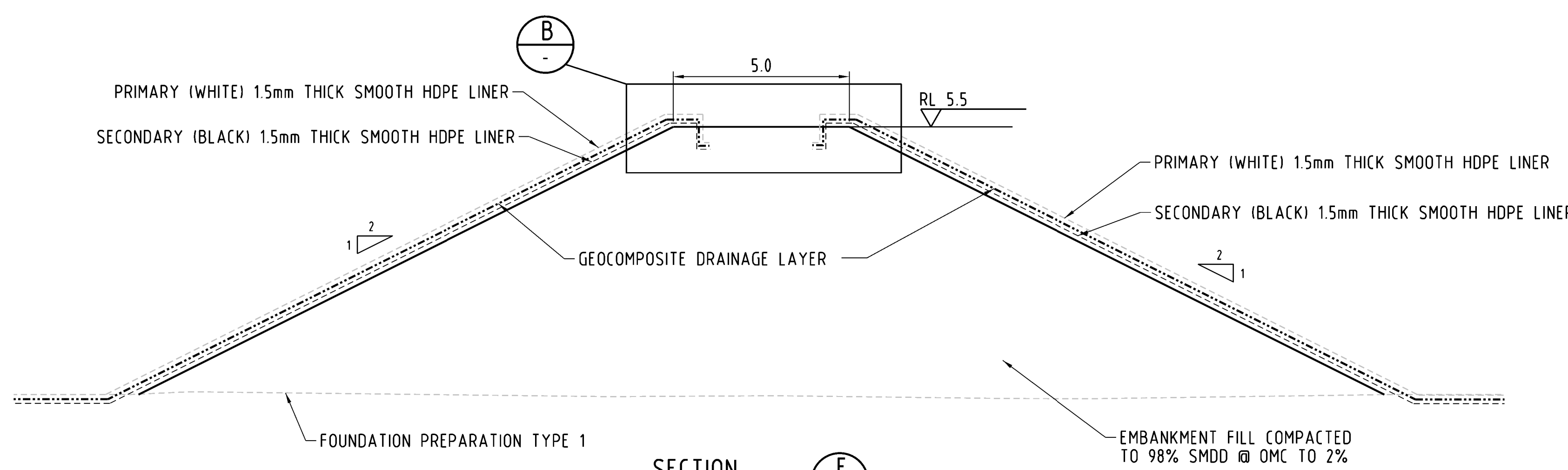


**NOTES**

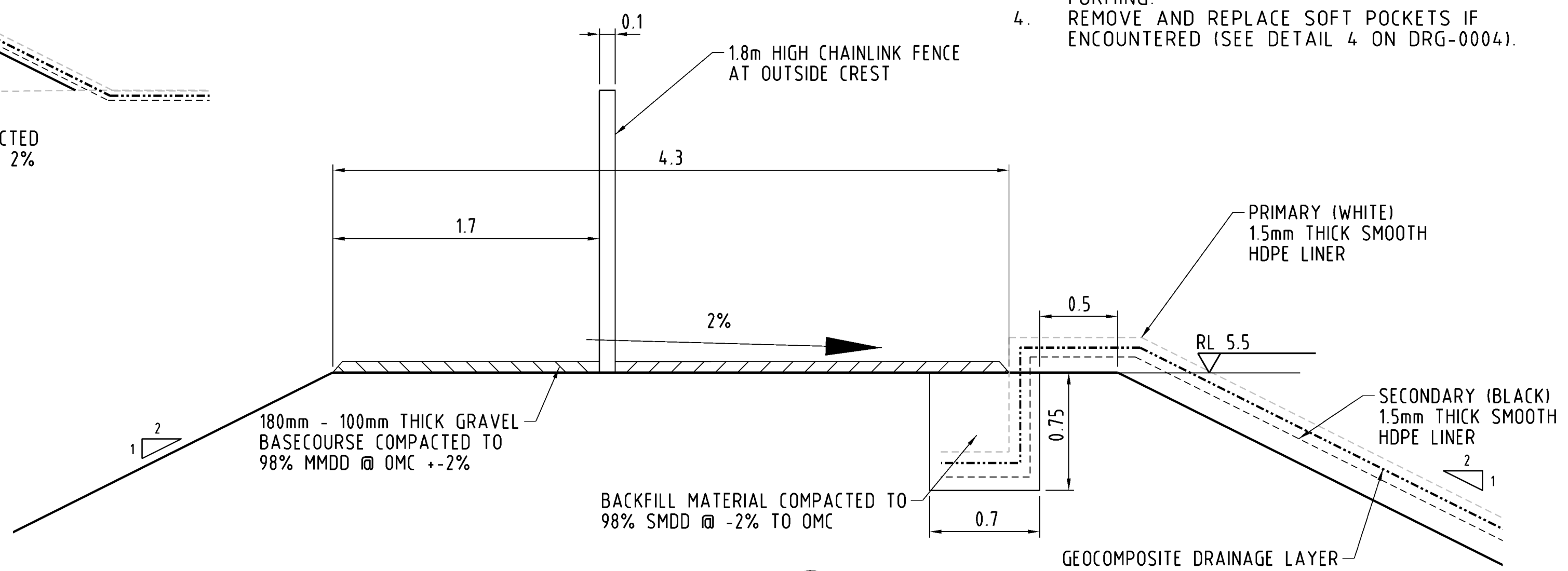
1. DIMENSIONS IN METRES UNLESS NOTED OTHERWISE
2. HORIZONTAL DATUM TO MGA 94 ZONE 50
3. VERTICAL DATUM TO AUSTRALIAN HEIGHT DATUM (AHD)
4. PLACE LINERS AND GEOCOMPOSITE DRAIN IN ANCHOR TRENCH AND WAIT 48 HOURS BEFORE BACKFILLING TRENCH

**FOUNDATION PREPARATION TYPE 1**

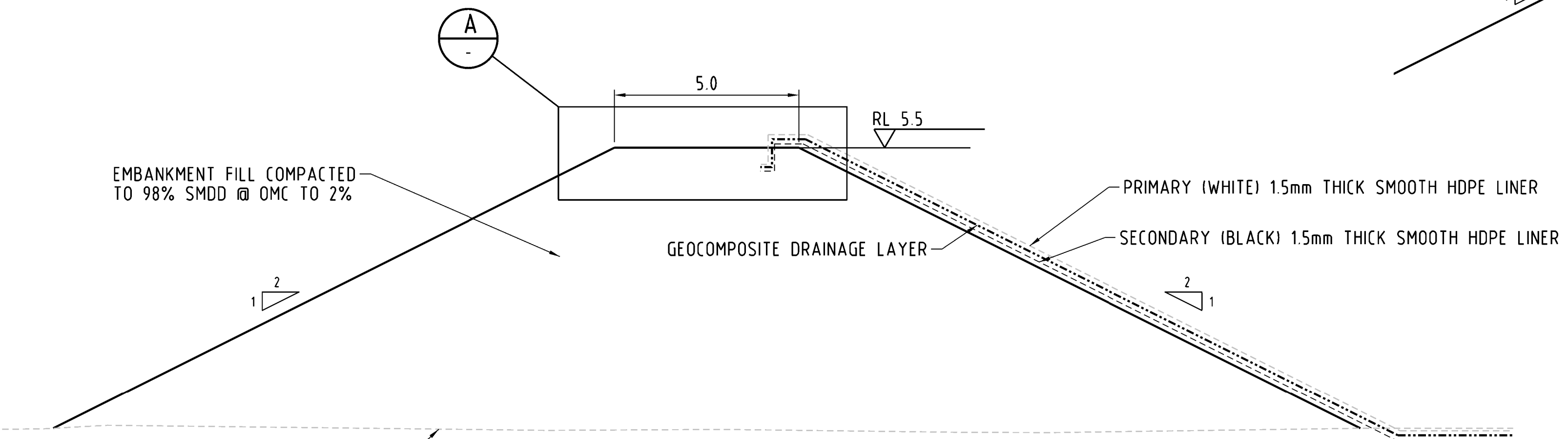
1. REMOVE TOP SOIL TO 200mm.
2. RIP UP TO MINIMUM 300mm AND COMPACT TO 95% SMDD AT -2% TO OMC.
3. OBSERVE FOR SOFT AREAS AND CRACK FORMING.
4. REMOVE AND REPLACE SOFT POCKETS IF ENCOUNTERED (SEE DETAIL 4 ON DRG-0004).



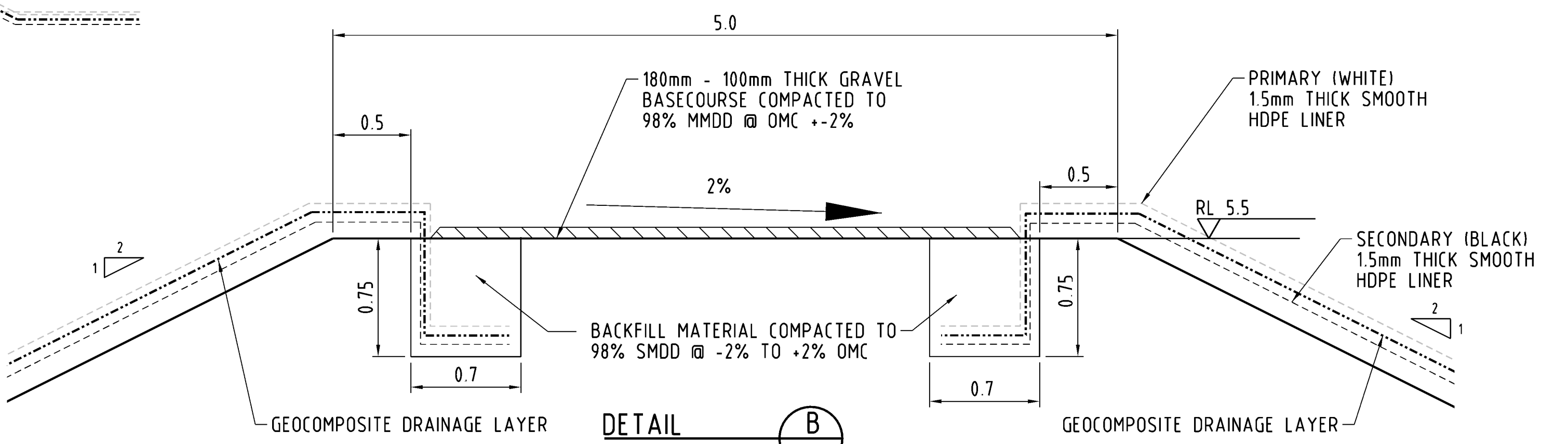
**SECTION E**  
ALE 1:100  
**EMBANKMENT SECTION DETAILS**



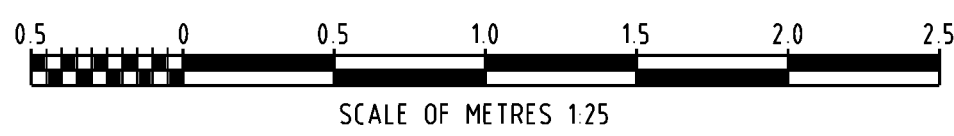
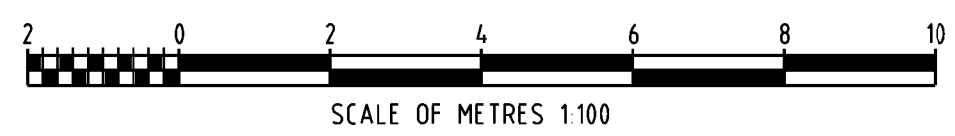
**DETAIL A**  
SCALE 1:25  
**EMBANKMENT DETAILS**



**SECTION F**  
ALE 1:100  
**EMBANKMENT SECTION DETAILS**



**DETAIL B**  
SCALE 1:25  
**EMBANKMENT DETAILS**

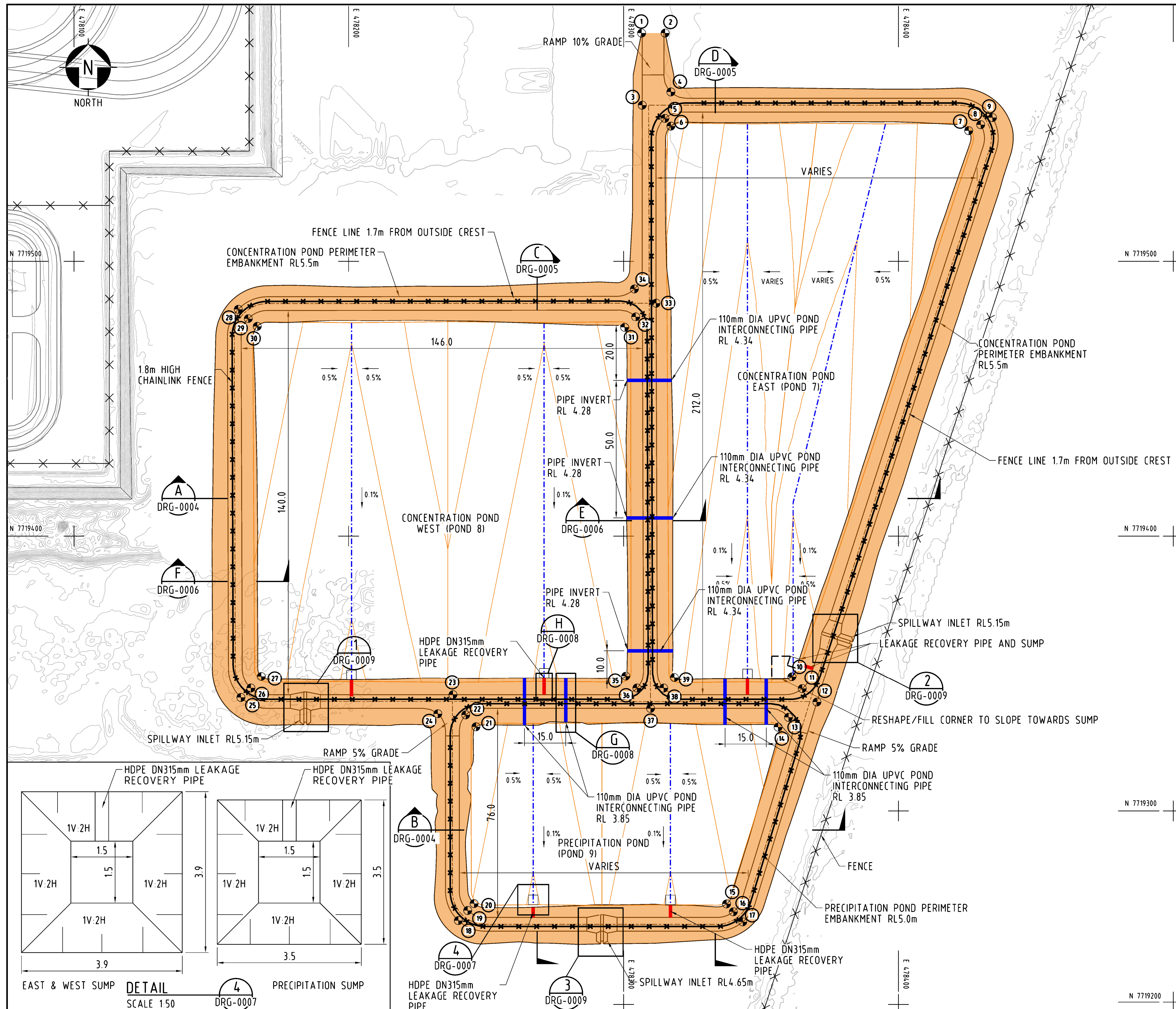


REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CLIENT	REF DRAWING No	REFERENCE DRAWING TITLE
2	10-NOV-23	AS BUILT	MD	TMJ	HZ	JV	JV			
1	03-APR-23	ISSUED FOR CONSTRUCTION	MD	TMJ	SR	JV	JV			
0	25-MAR-22	ISSUED FOR CONSTRUCTION	AD	SL	SL	SD	SW			
A	16-SEP-21	ISSUED FOR REVIEW	AKD							

A1 SHEET SCALE AS SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)	CLIENT
 Copyright Advisian Pty Ltd ADVISIAN PROJECT No 211012-00094	 YARA PILBARA NITRATES PTY LTD GROUNDWATER REMEDIATION PROJECT EVAPORATION PONDS EMBANKMENT SECTIONS (3 OF 3)	 YARA PILBARA NITRATES PTY LTD GROUNDWATER REMEDIATION PROJECT EVAPORATION PONDS EMBANKMENT SECTIONS (3 OF 3)
*This drawing is prepared solely for the use of the contractual customer of Advisian and Advisian assumes no liability to any other party for any representations contained in this drawing.*		DRG No 211012-00094-C1-DRG-0006 REV 2

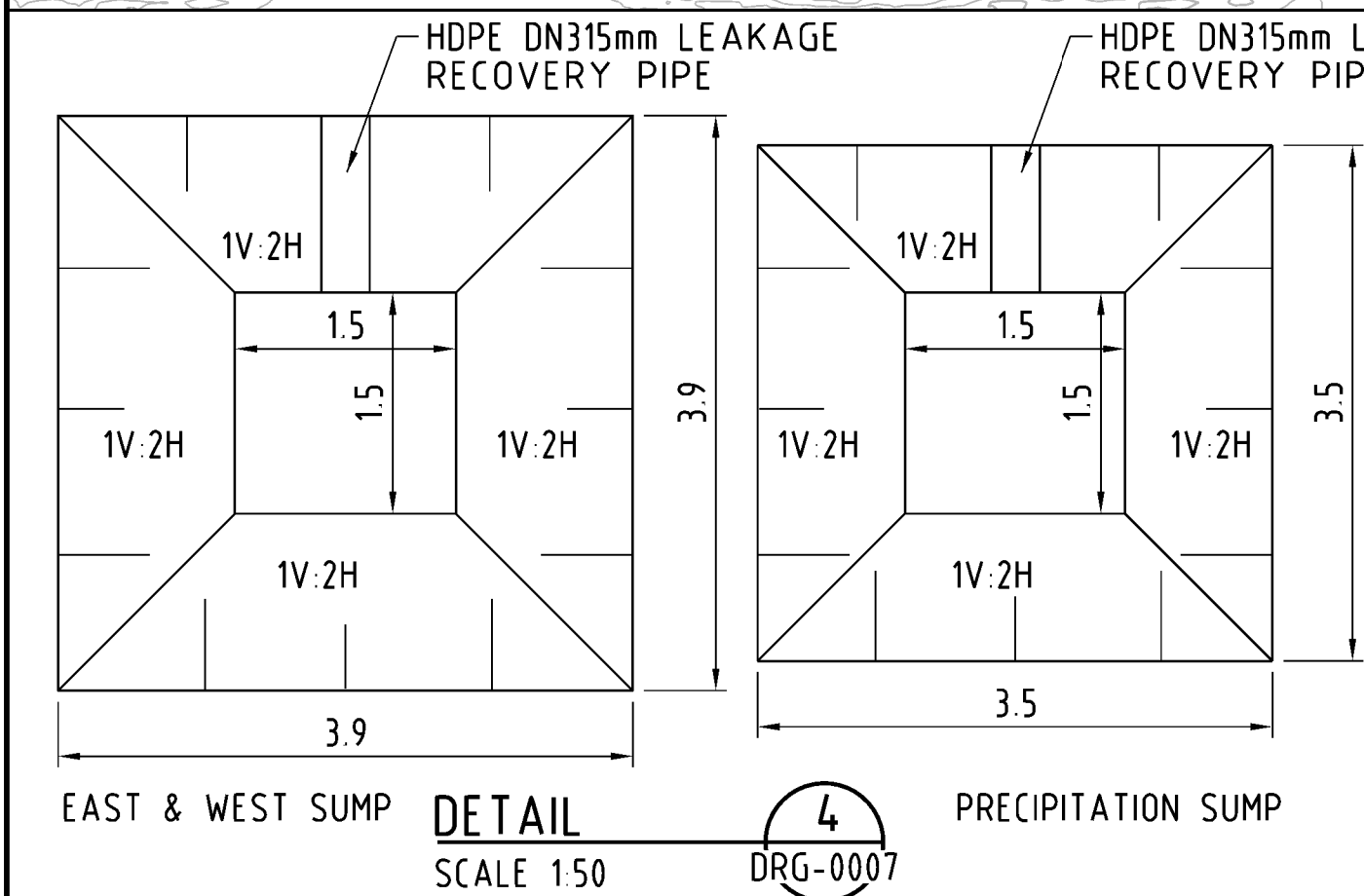
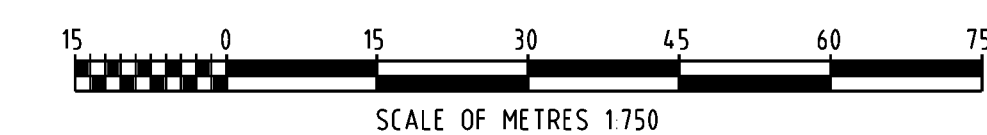
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 SAVE DATE & TIME: 10/11/2023 12:09:14 PM  
 PLOT DATE & TIME: 10/11/2023 12:09:14 PM





SETOUT COORDINATES			
POINT	NORTHING	EASTING	RL
1	478306.759	7719582.981	3.977
2	478314.763	7719582.985	3.977
3	478306.768	7719556.624	5.500
4	478317.521	7719561.179	5.500
5	478314.676	7719551.597	5.500
6	478316.99	7719548.818	3.129
7	478425.804	7719547.152	3.142
8	478430.106	7719549.209	5.500
9	478434.529	7719551.633	5.500
10	478361.492	7719349.093	2.806
11	478364.987	7719344.439	5.500
12	478370.391	7719339.663	5.500
13	478360.161	7719333.767	5.230
14	478356.240	7719330.458	2.601
15	478337.698	7719266.353	2.437
16	478340.576	7719263.700	5.000
17	478343.334	7719259.772	5.000
18	478240.247	7719259.811	5.000
19	478243.968	7719263.192	5.000
20	478246.120	7719265.964	2.442
21	478246.388	7719330.656	2.508
22	478243.007	7719335.279	5.366
23	478237.791	7719342.268	5.500
24	478232.910	7719334.912	5.366
25	478161.509	7719340.568	5.500
26	478164.854	7719344.292	5.500
27	478168.087	7719349.100	2.898
28	478159.907	7719482.684	5.500
29	478163.582	7719479.296	5.500
30	478166.674	7719476.249	3.030
31	478300.431	7719475.944	3.002
32	478304.359	7719479.807	5.500
33	478311.808	7719484.700	5.500
34	478303.941	7719490.004	5.500
35	478300.589	7719349.086	2.875
36	478305.277	7719345.146	5.500
37	478309.798	7716337.264	5.500
38	478314.699	7719344.605	5.500
39	478318.633	7719348.503	2.928

- NOTES**
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE
  - HORIZONTAL DATUM TO MGA 94 ZONE 50
  - VERTICAL DATUM TO AUSTRALIAN HEIGHT DATUM (AHD)
  - SURVEY CONTOURS AT 0.2m INTERVALS  
DESIGN CONTOURS AT 0.1m INTERVALS
  - FENCING TO BE SUPPLIED AND INSTALLED IN ACCORDANCE AUSTRALIAN STANDARD AS1725.1 CHAIN LINK FABRIC FENCING.

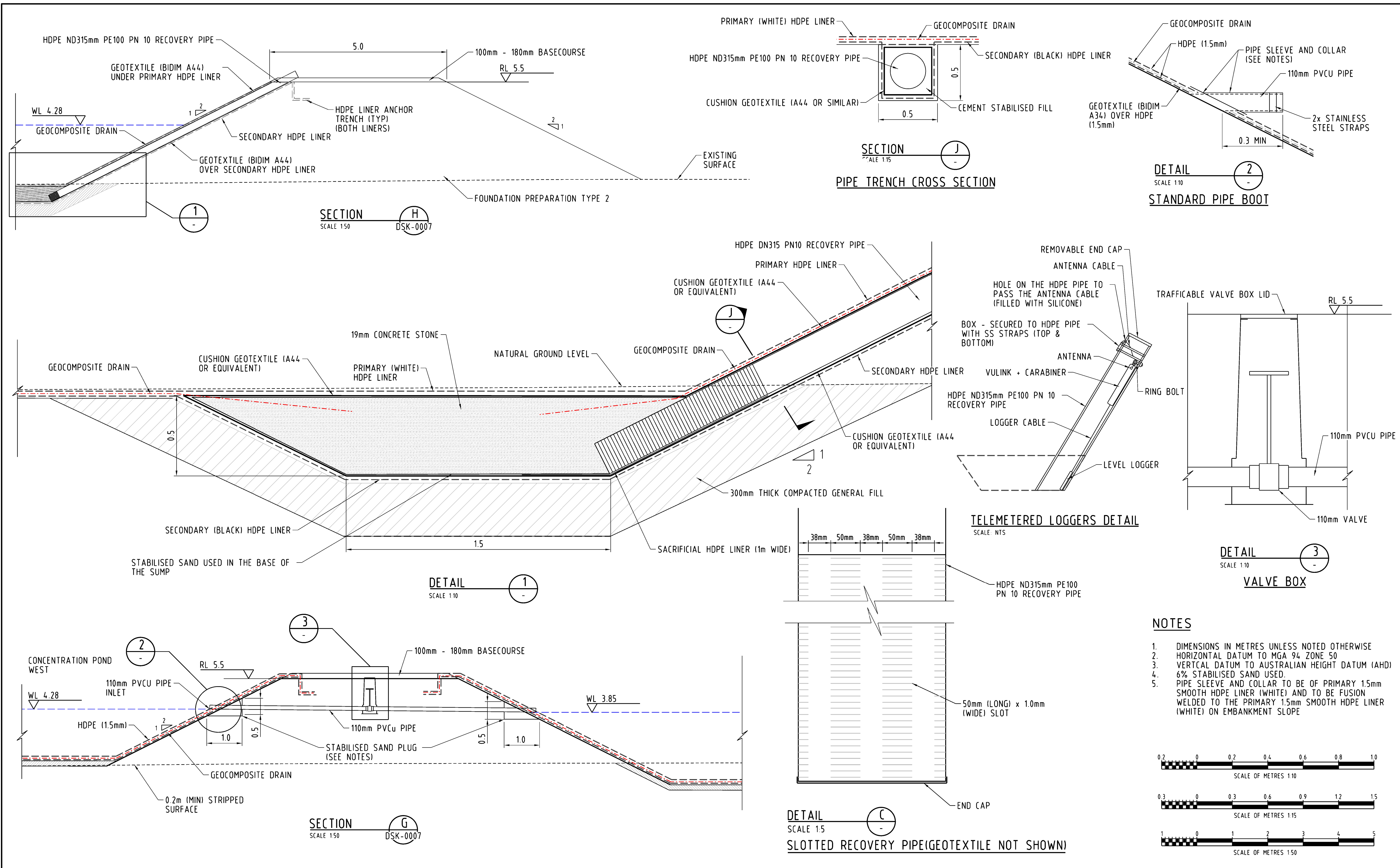


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3	18-NOV-23	AS BUILT	MD	TMJ	HZ	JV	JV			
2	03-APR-23	ISSUED FOR CONSTRUCTION	MD	TMJ	SR	JV	JV			
1	08-JUN-22	ISSUED FOR CONSTRUCTION	AD	SL	SL	SD	SW			
0	25-MAR-22	ISSUED FOR CONSTRUCTION	AD	SL	SL	SD	SW			
A	29-NOV-21	ISSUED FOR INTERNAL REVIEW	AKD	SL	SL	SD				

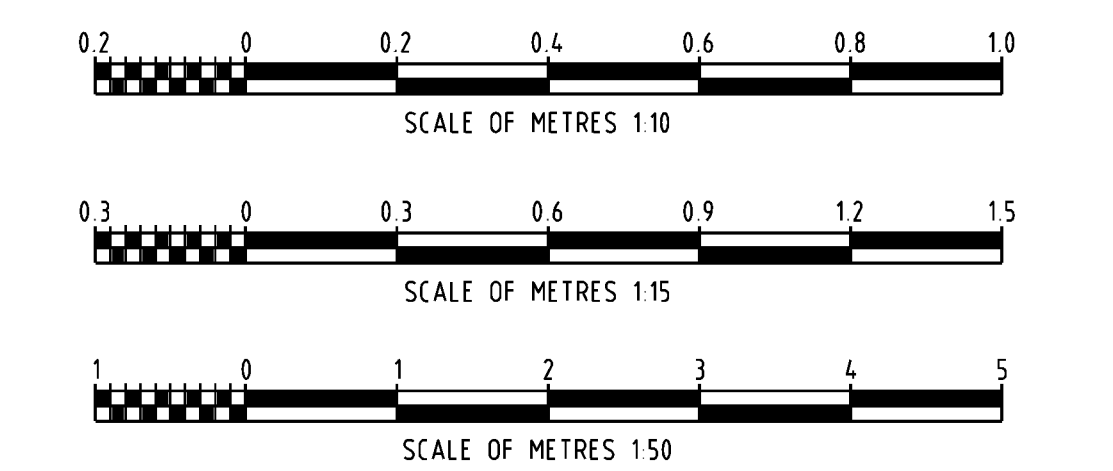
A1 SHEET SCALE AS SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)	CLIENT
<b>Oneway</b> to zero harm		<b>YARA</b>
Copyright Advisian Pty Ltd		<b>Advisian</b> Worley Group
ADVISIAN PROJECT No 211012-00094		<b>YARA PILBARA NITRATES PTY LTD</b> GROUNDWATER REMEDIATION PROJECT EVAPORATION PONDS PIPE INSTALLATION DETAILS (1 OF 2)
		This drawing is prepared solely for the use of the contractual customer of Advisian and Advisian assumes no liability to any other party for any representations contained in this drawing.
		DRG No 211012-00094-C1-DRG-0007
		REV 3

SAVE DATE & TIME: 10/11/2023 12:13:03 PM  
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 USER NAME: Marneth.DeLara  
 \$LSDATES \$LSTIMES  
 ADVISIAN.A1





- NOTES**
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE
  - HORIZONTAL DATUM TO MGA 94 ZONE 50
  - VERTICAL DATUM TO AUSTRALIAN HEIGHT DATUM (AHD)
  - 6% STABILISED SAND USED.
  - PIPE SLEEVE AND COLLAR TO BE OF PRIMARY 1.5mm SMOOTH HDPE LINER (WHITE) AND TO BE FUSION WELDED TO THE PRIMARY 1.5mm SMOOTH HDPE LINER (WHITE) ON EMBANKMENT SLOPE

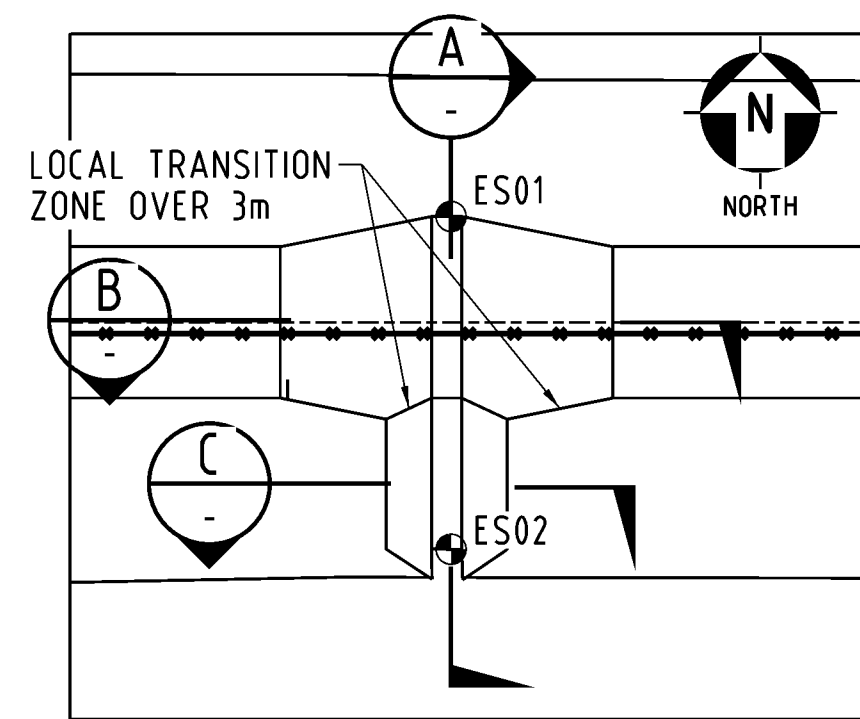


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2	03-APR-23	ISSUED FOR CONSTRUCTION	MD	TMJ	SR	JV	JV			
1	08-JUN-22	ISSUED FOR CONSTRUCTION	AD	SL	SL	SD	SW			
0	31-MAR-22	ISSUED FOR CONSTRUCTION	AD	SL	SL	SD	SW			
A	29-NOV-21	ISSUED FOR REVIEW	AD	SD	SL					

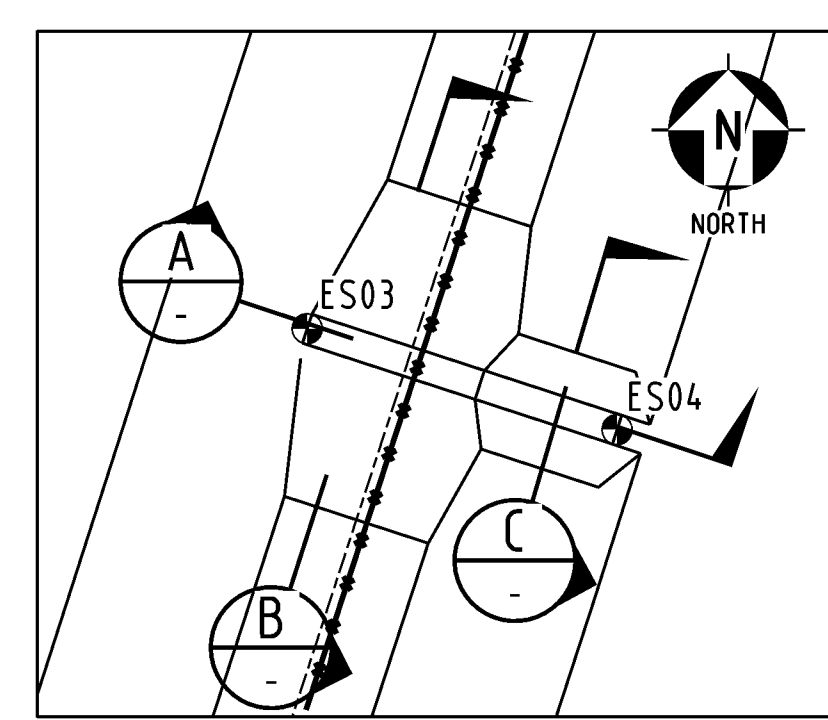
A1 SHEET	SCALE AS SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)	CLIENT
Copyright © Advisian Pty Ltd			
ADVISIAN PROJECT No		This drawing is prepared solely for the use of the contractual customer of Advisian and Advisian assumes no liability to any other party for any representations contained in this drawing.	
211012-00094		DRG No	REV
		211012-00094-C1-DRG-0008	3

USER NAME: Marneth, Delara | LOCATION: \\AUPDC\PNAS01\chem-mm\211012-00094\_Yara\_Pilbara\_Nitrates - Advisian\_Miscellaneous\_Scopes\12.01\_Civils\_DRG\211012-00094-C1-DRG-0008.dgn | SAVE DATE & TIME: 10/11/2023 12:17:15 PM | PLOT DATE & TIME: 10/11/2023 12:17:15 PM | \$LSDATES \$LSTIMES

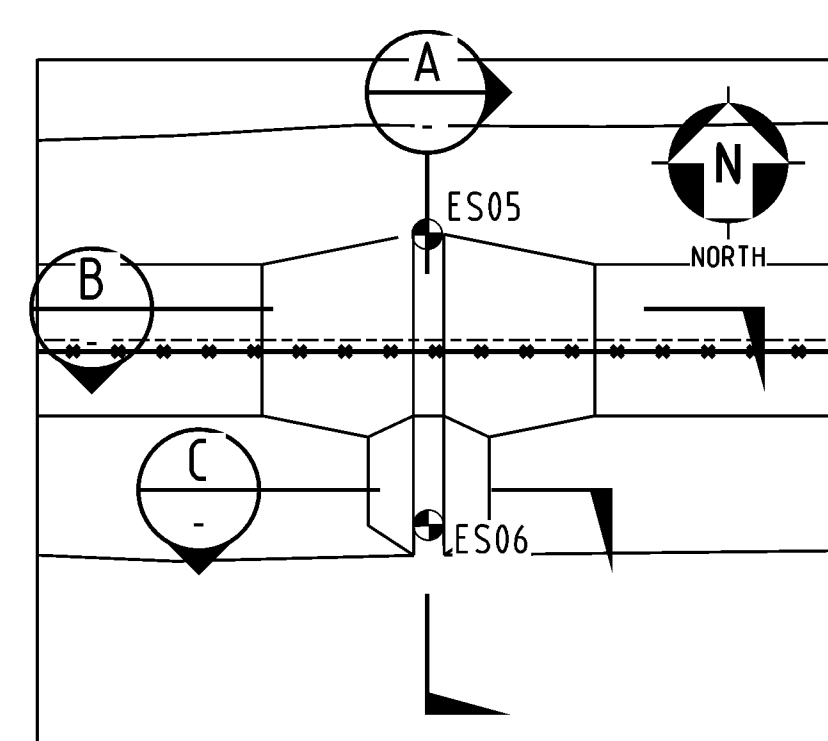




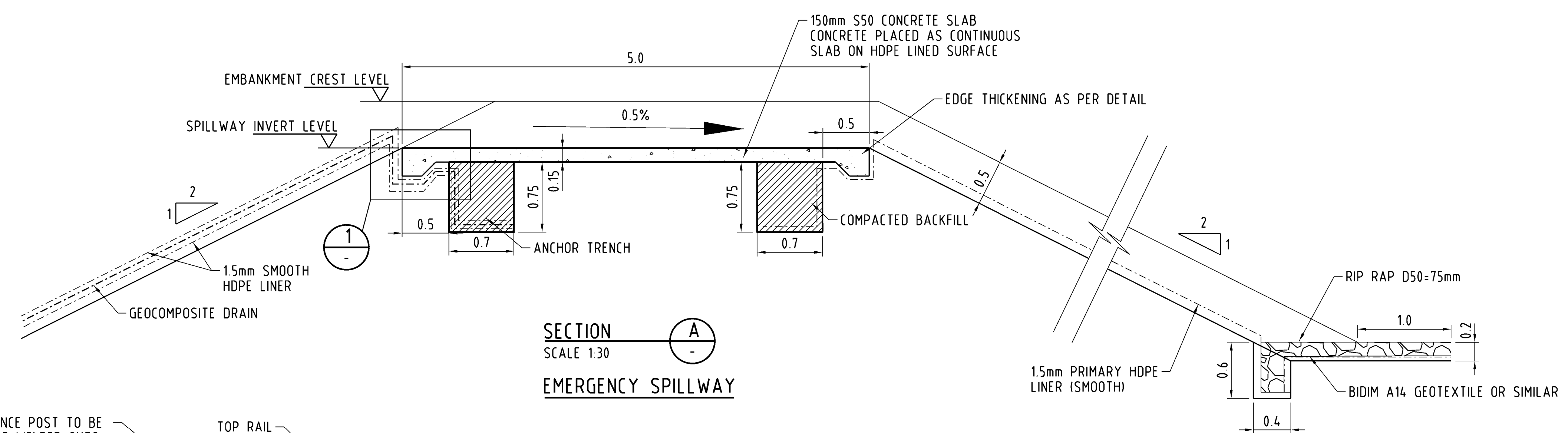
DETAIL 1  
SCALE 1:250  
DRG-0001  
EMERGENCY SPILLWAY 1



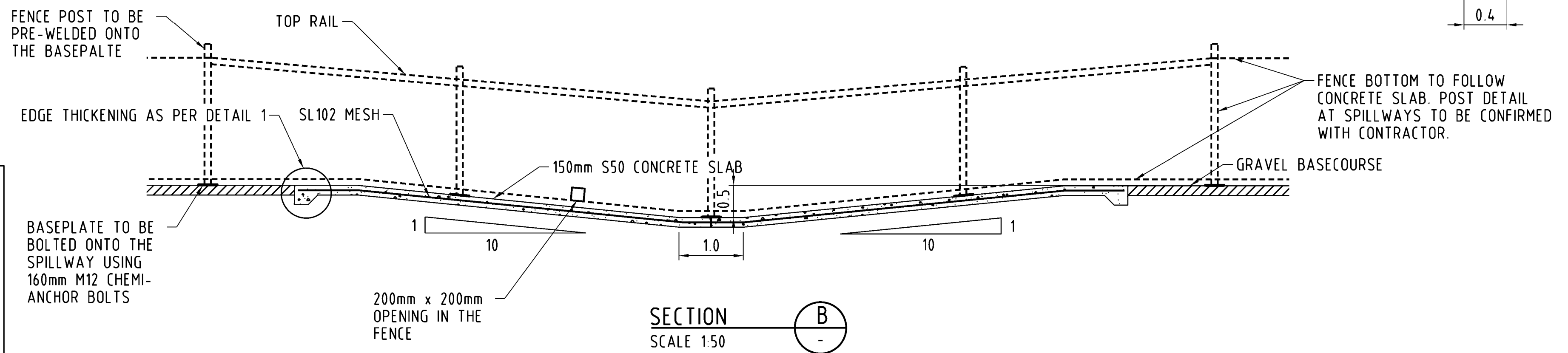
DETAIL 2  
SCALE 1:250  
DRG-0001  
EMERGENCY SPILLWAY 2



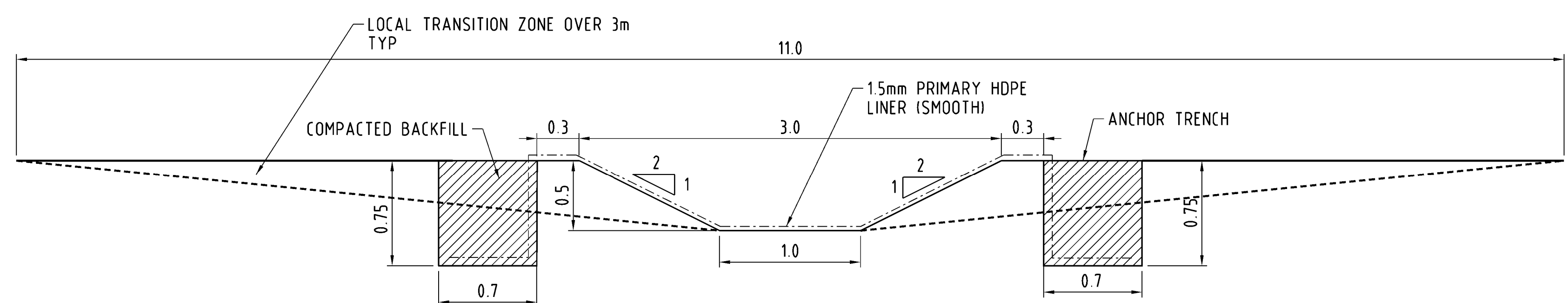
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SCALE 1:250  
DRG-0001  
EMERGENCY SPILLWAY 3



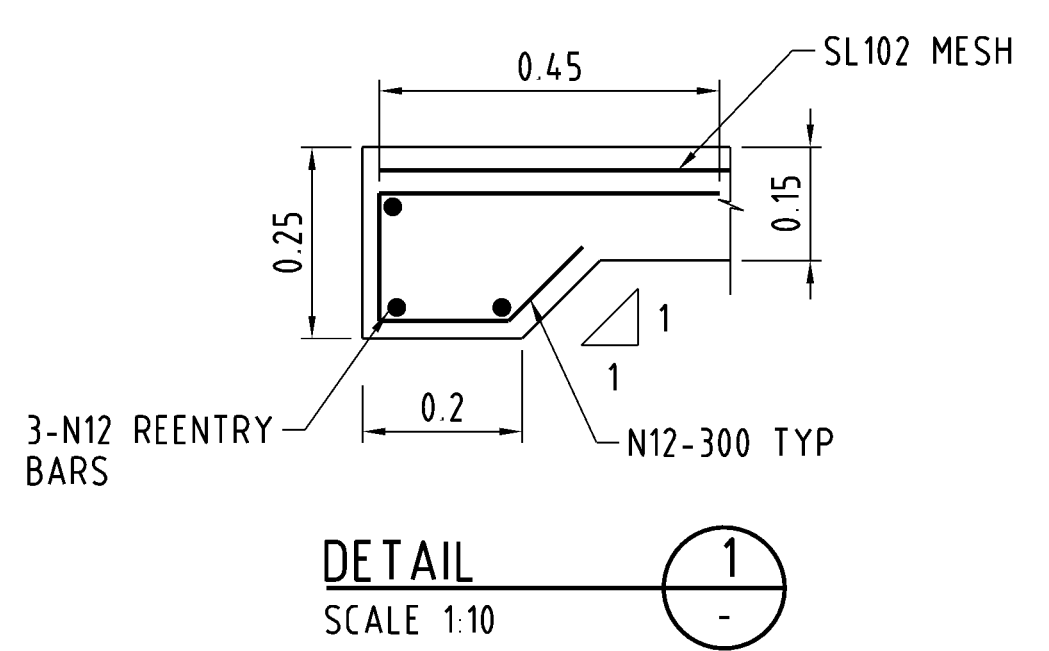
SECTION A  
SCALE 1:30  
EMERGENCY SPILLWAY



SECTION B  
SCALE 1:50  
EMERGENCY SPILLWAY



SECTION C  
SCALE 1:25  
SPILLWAY CHUTE



DETAIL 1  
SCALE 1:10

EMERGENCY SPILLWAY SETTING OUT POINTS  
SPILLWAY 1

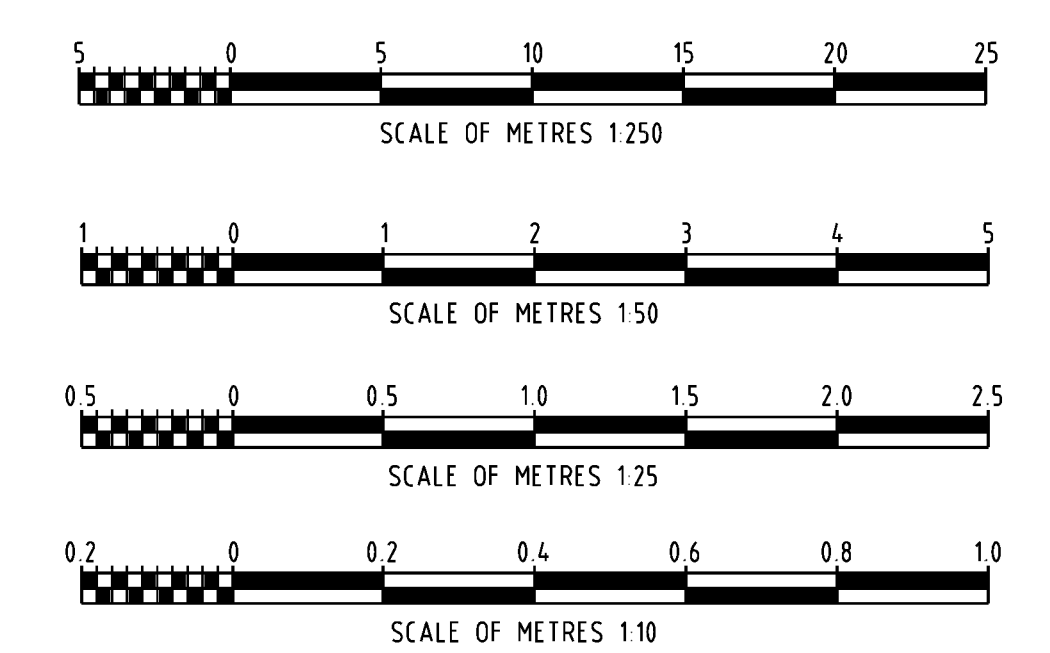
POINT	EASTING	NORTHING	INVERT LEVEL
ES01	7719343.26	478200.97	5.15
ES02	7719332.27	478200.97	5.15

EMERGENCY SPILLWAY SETTING OUT POINTS  
SPILLWAY 2

POINT	EASTING	NORTHING	INVERT LEVEL
ES03	7719364.82	478372.12	5.15
ES04	7719361.4	478382.34	5.15

EMERGENCY SPILLWAY SETTING OUT POINTS  
SPILLWAY 3

POINT	EASTING	NORTHING	INVERT LEVEL
ES05	7719262.26	478292.24	4.65
ES06	7719252.65	478292.13	4.65



NOTES

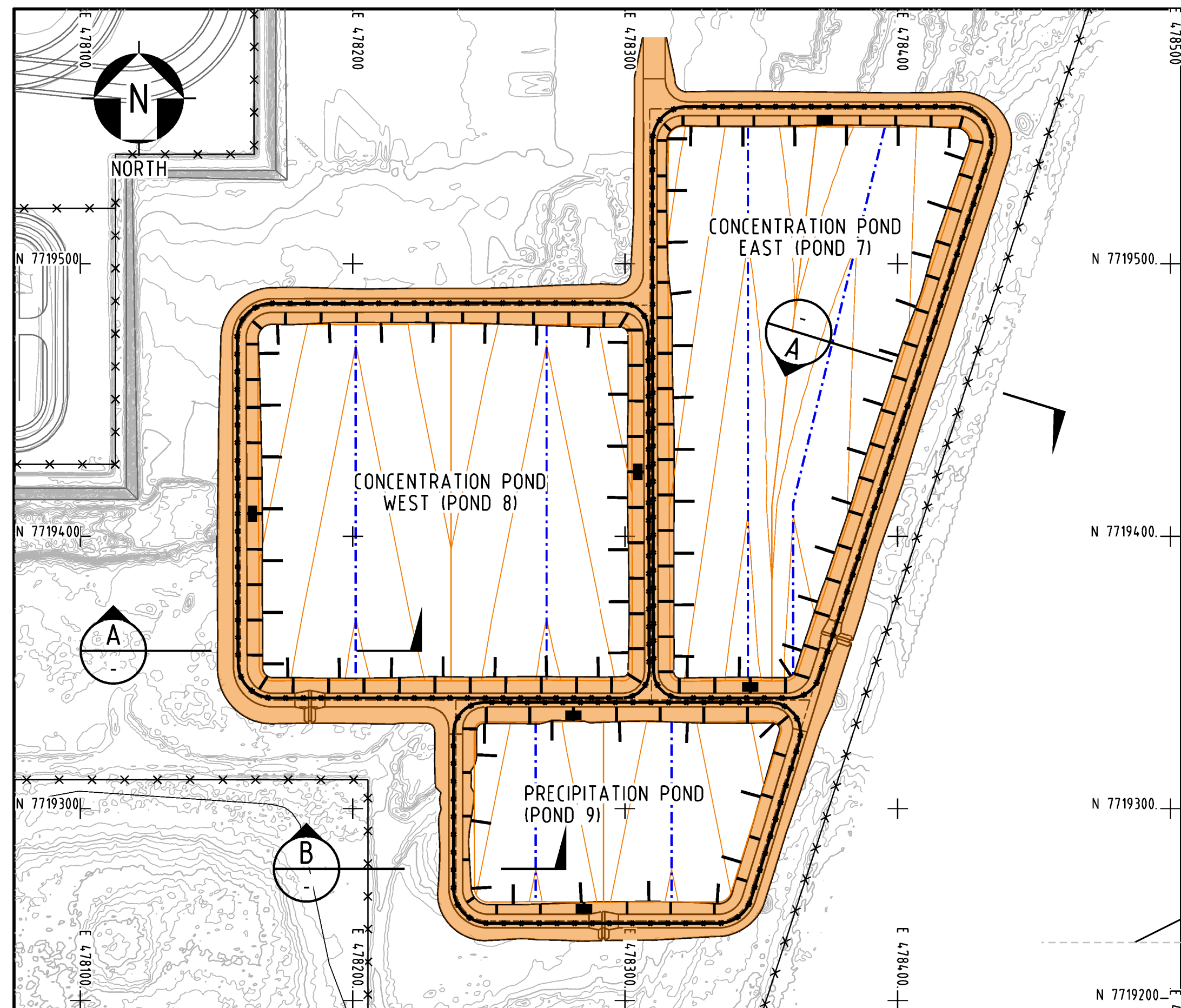
- DIMENSIONS IN METRES UNLESS NOTED OTHERWISE
- HORIZONTAL DATUM TO MGA 94 ZONE 50
- VERTICAL DATUM TO AUSTRALIAN HEIGHT DATUM (AHD)
- FENCING TO BE SUPPLIED AND INSTALLED IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1725.1 CHAIN LINK FABRIC FENCING.
- PLACE LINERS AND GEOCOMPOSITE DRAIN IN ANCHOR TRENCH AND WAIT 48 HOURS BEFORE BACKFILLING TRENCH.

REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CLIENT	REF DRAWING No	REFERENCE DRAWING TITLE
2	08-NOV-23	AS BUILT	MD	TMJ	HZ	JV	JV			
1	03-APR-23	ISSUED FOR CONSTRUCTION	MD	TMJ	SR	JV	JV			
0	31-MAR-22	ISSUED FOR CONSTRUCTION	AD	SL	SL	SD	SW			
A	16-SEP-21	ISSUED FOR REVIEW	AKD							

A1 SHEET SCALE AS SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)	CLIENT
 Copyright © Advisian Pty Ltd		 YARA PILBARA NITRATES PTY LTD GROUNDWATER REMEDIATION PROJECT EVAPORATION PONDS EMERGENCY SPILLWAY DETAILS
ADVISIAN PROJECT No 211012-00094	<small>*This drawing is prepared solely for the use of the contractual customer of Advisian and Advisian assumes no liability to any other party for any representations contained in this drawing.*</small>	DRG No 211012-00094-C1-DRG-0009 REV 2

USER NAME: Marneth,DeLara LOCATION: \\AUPDC\PNAS01\chem-mm\211012-00094\_Yara\_Pilbara\_Nitrates - Advisian\_Miscellaneous\_Scopes\12.01\civil\DRG\211012-00094-C1-DRG-0009.dgn  
 SAVE DATE & TIME: 8/11/2023 12:42:49 PM  
 PLOT DATE & TIME: 8/11/2023 12:42:49 PM  
 \$LSDATES \$LSTIMES





PLAN  
SCALE 1:1500

**NOTES:**

1. BALLASTS ON SLOPE AND AT TOE TO BE PLACED AT AN OFFSET FROM EACH OTHER
2. BALLASTS TO BE PLACED SO IT DOES NOT INTERFERE WITH SPILLWAYS
3. AFTER PLACING PRIMARY LINER, GEOCOMPOSITE DRAIN, SECONDARY LINER AND WIND BALLAST LINER IN ANCHOR TRENCH, WAIT 48 HOURS BEFORE BACKFILLING TRENCH

**BALLAST ARRANGEMENT FOR CONCENTRATION POND EAST AND WEST**

1. LENGTH OF BALLASTS ON SLOPE VARIES AND SPACED AT 13m INTERVALS
2. TOE BALLASTS 7.5m LONG AND SPACED AT 19m INTERVALS

**BALLAST ARRANGEMENT FOR PRECIPITATION POND**

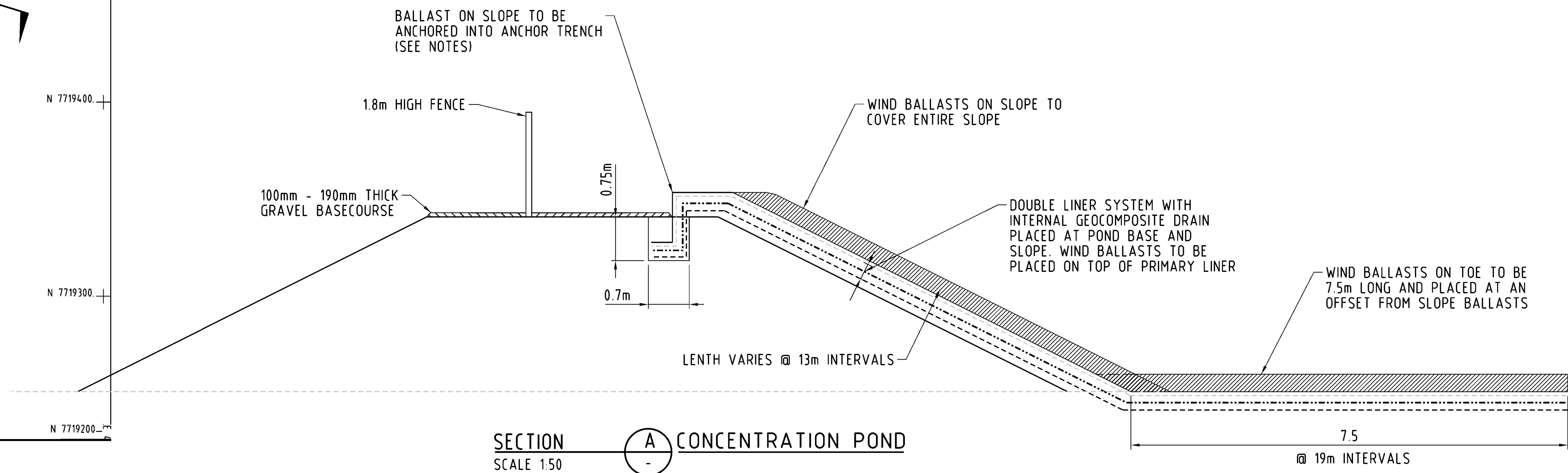
1. LENGTH OF BALLASTS ON SLOPE VARIES AND SPACED AT 16m INTERVALS
2. TOE BALLASTS 7.5m LONG AND SPACED AT 25m INTERVALS

**BALLAST DETAILS**

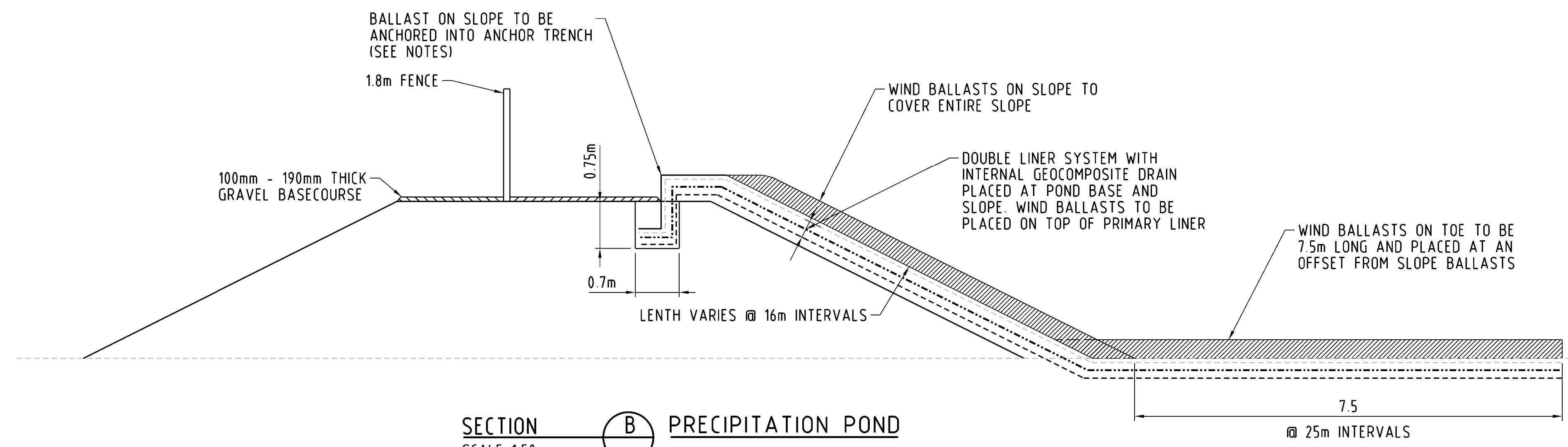
1. PRIMARY (WHITE) HDPE LINER, 1.5mm THICK TO BE USED FOR SLOPE AND TOE BALLASTS
2. BALLASTS TO BE 300mm DIAMETER AND FILLED WITH SAND WITH MINIMUM DENSITY OF 1680kg/m<sup>3</sup>

**COUPONS ON WIND BALLASTS**

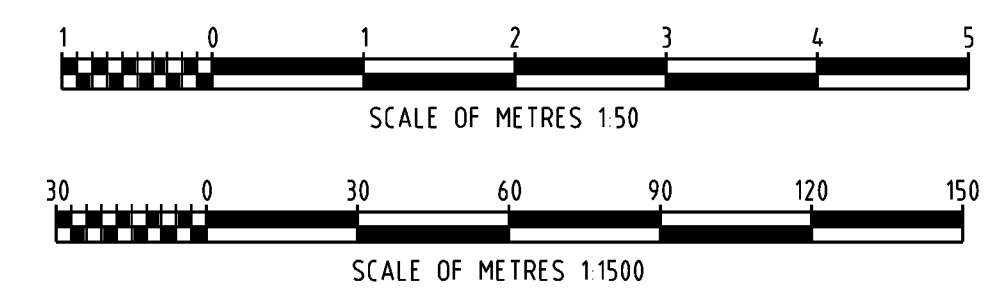
1. COUPONS ON WIND BALLASTS TO BE WELDED TO WIND BALLASTS IN ADDITION TO COUPONS TO BE WELDED TO PRIMARY HDPE LINER SLOPE AS SHOWN ON DRG-0001
2. 1.3m x 0.3m COUPONS TO BE WELDED TO WIND BALLASTS.
3. COUPONS TO BE WELDED ALONG THE TOP 1.3m LONG EDGE (i.e. 1.3m EDGE IS HORIZONTAL)



SECTION A CONCENTRATION POND  
SCALE 1:50



SECTION B PRECIPITATION POND  
SCALE 1:50



REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CLIENT	REF DRAWING No	REFERENCE DRAWING TITLE
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0	03-APR-23	ISSUED FOR CONSTRUCTION	MD	TMJ	SR	JV	JV			
A	20-FEB-23	ISSUED FOR INTERNAL REVIEW	MD	TMJ	SR	JV	JV			

A1 SHEET SCALE AS SHOWN

**Oneway**  
to zero harm

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ENGINEERING AND PERMIT STAMPS (As Required)

ADVISIAN PROJECT No  
**211012-00094**

CLIENT

**YARA**

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**Advisian**  
Worley Group

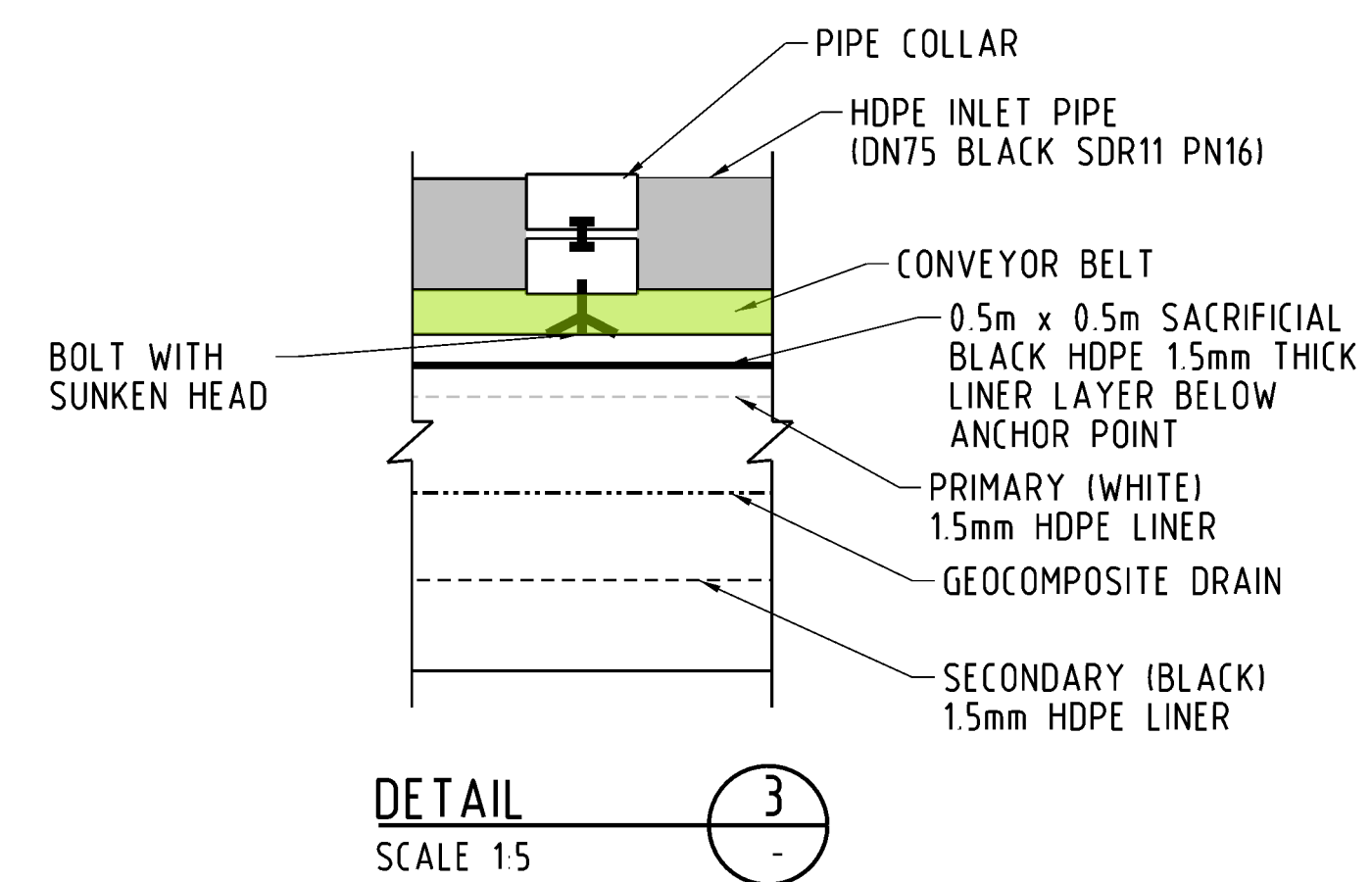
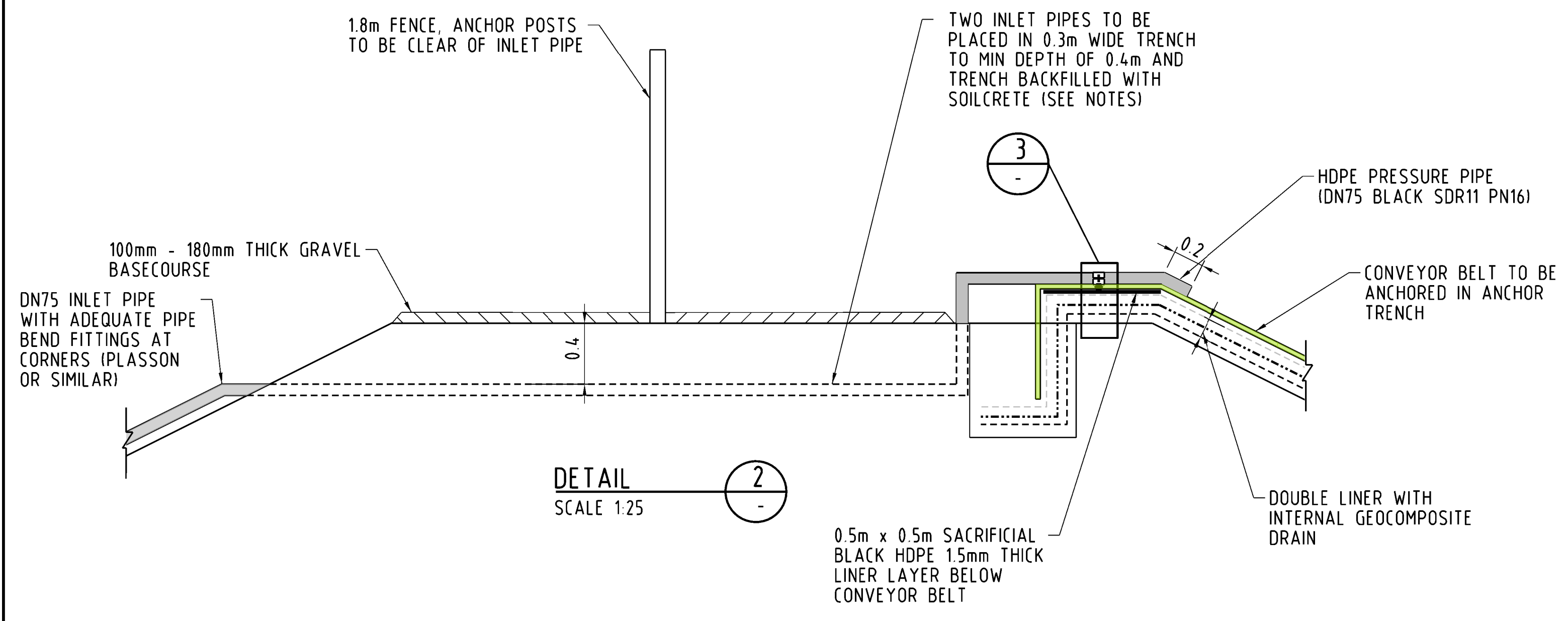
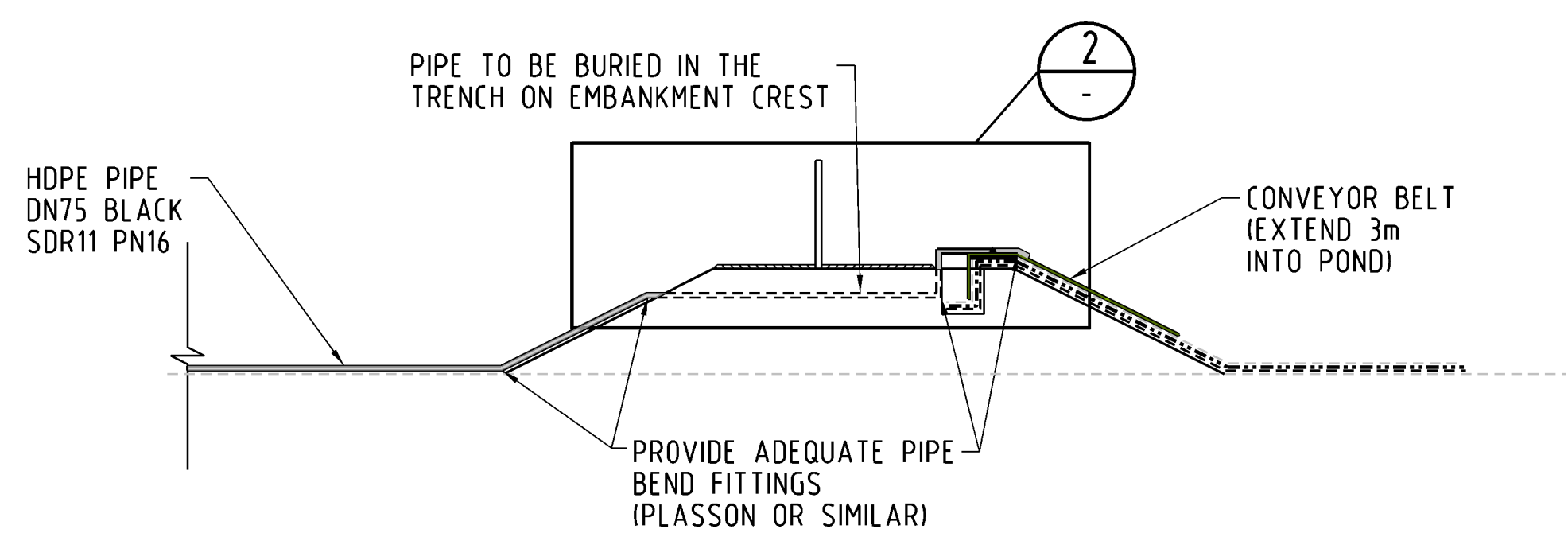
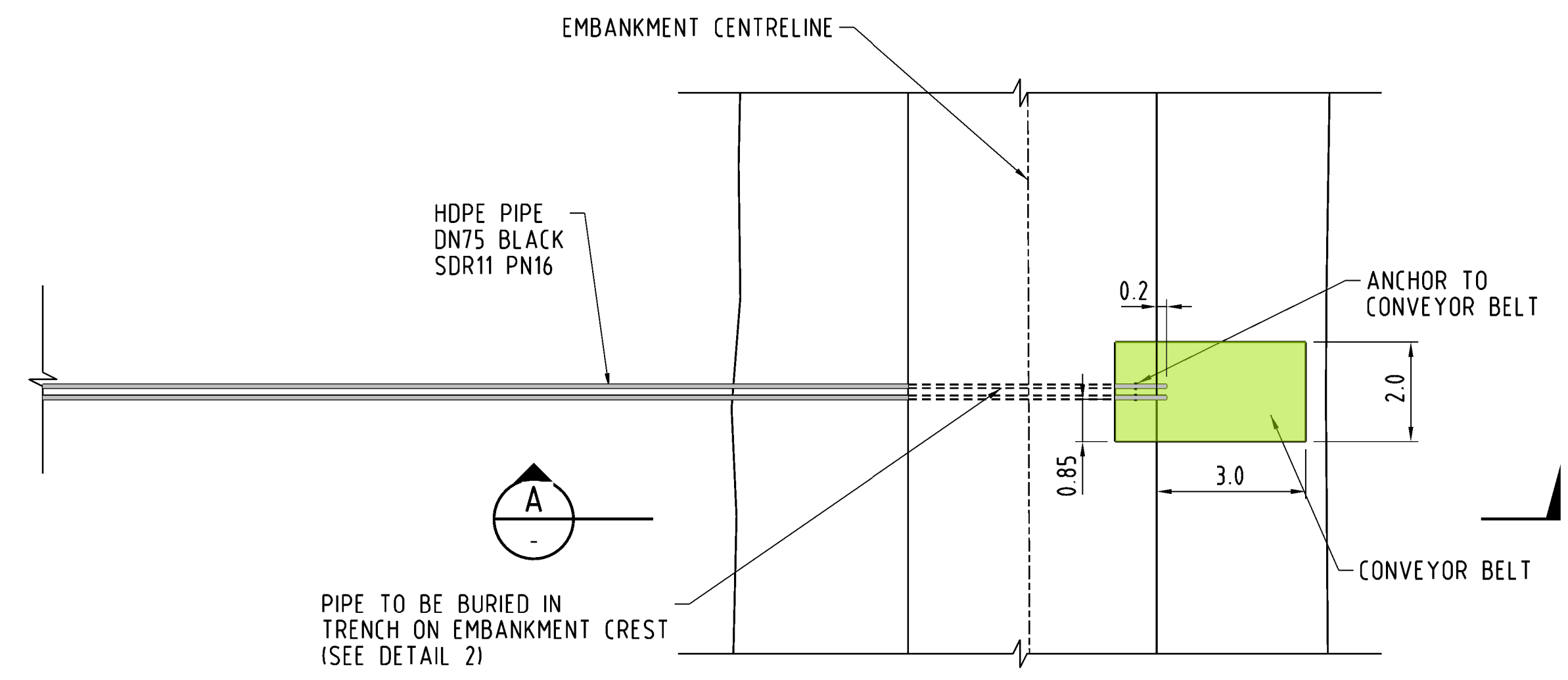
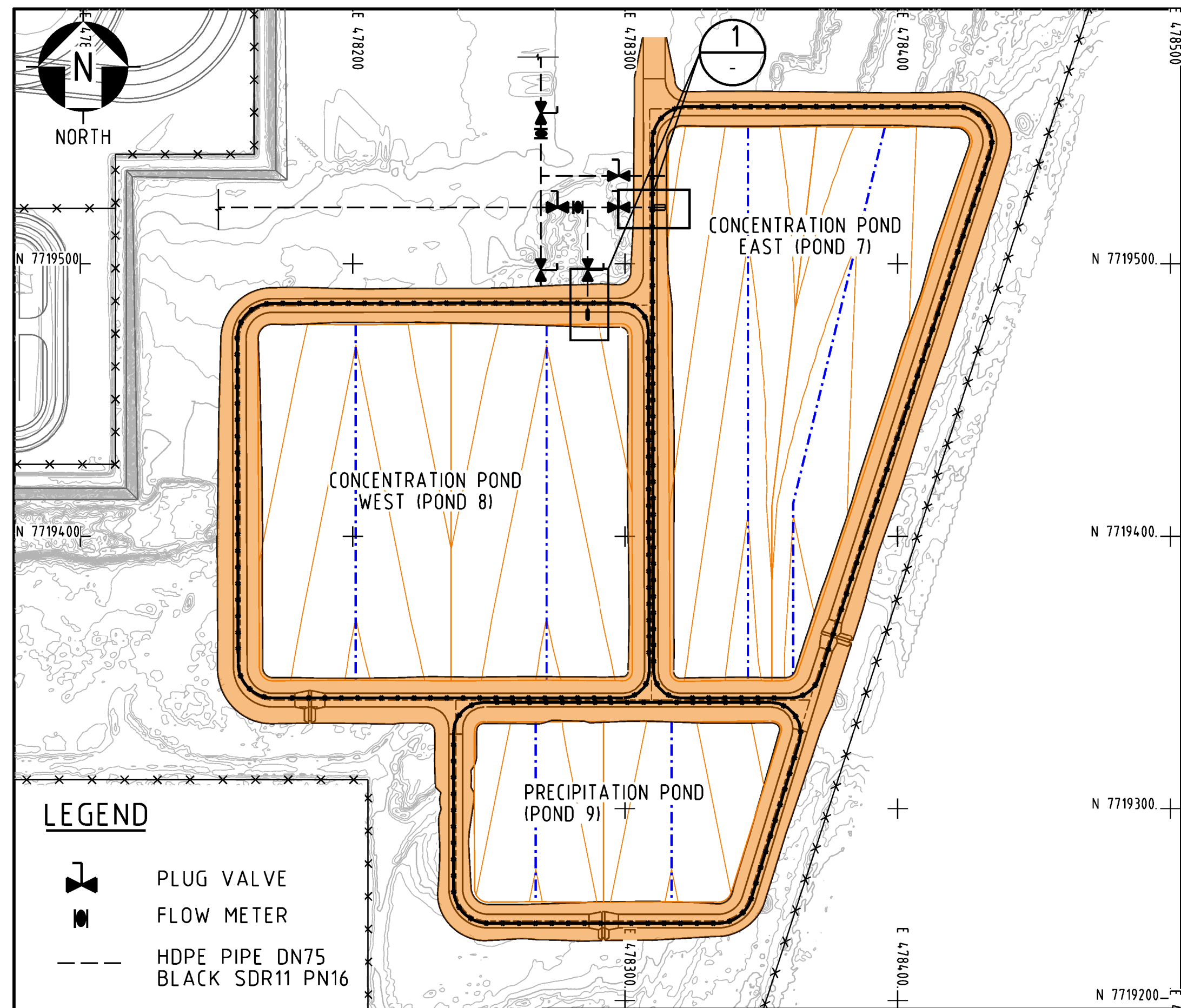
**YARA PILBARA NITRATES PTY LTD**  
GROUNDWATER REMEDIATION PROJECT  
EVAPORATION PONDS  
WIND BALLAST DETAILS

DRG No  
**211012-00094-CI-DRG-0010**

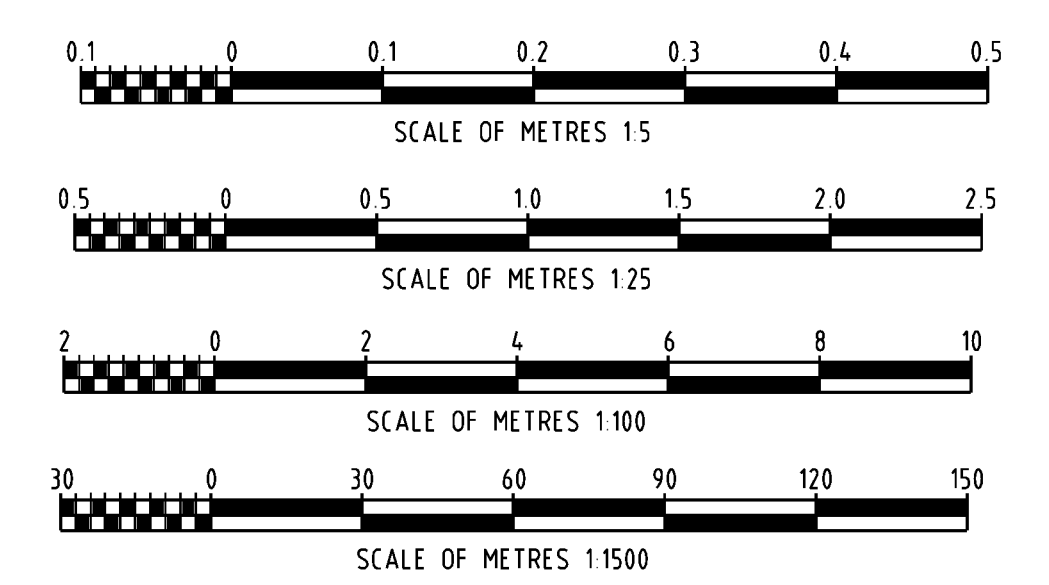
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LOCATION: \\AUPDC\WP\NAS01\chem-mm\211012-00094\_Yara\_Pilbara\_Nitrates - Advisian\_Miscellaneous\_Scopes\12.01\_Drawings\12.01\_Civils\DRG\211012-00094-CI-DRG-0010.dgn  
USER NAME: Marneth.DeLera  
SAVE DATE & TIME: 10/11/2023 12:20:01 PM  
PLOT DATE & TIME: 10/11/2023 12:20:01 PM  
\$LSDATES \$LSTIMES  
ADVISIAN.A1





- NOTES:**
- ALL DIMENSIONS IN METRES U.N.O.
  - SOILCRETE MIX WITH A RATIO OF 1(CEMENT):10(SOIL).
  - INLET PIPE POSITIONS INDICATIVE ONLY, TO BE CONFIRMED ON SITE.



REV	DATE	REVISION DESCRIPTION	DRAWN	DRAFT CHK	DESIGNED	ENG CHK	APPROVED	CLIENT	REF DRAWING No	REFERENCE DRAWING TITLE
1	18-NOV-23	AS BUILT	MD	TMJ	HZ	JV	JV			
0	03-APR-23	ISSUED FOR CONSTRUCTION	MD	TMJ	SR	JV	JV			
A	20-FEB-23	ISSUED FOR INTERNAL REVIEW	MD	TMJ	SR	JV	JV			

A1 SHEET SCALE AS SHOWN	ENGINEERING AND PERMIT STAMPS (As Required)	CLIENT
<p>Oneway to zero harm</p> <p>Copyright Advisian Pty Ltd</p>	<p>YARA</p>	<p>Advisian Worley Group</p> <p>YARA PILBARA NITRATES PTY LTD GROUNDWATER REMEDIATION PROJECT EVAPORATION PONDS INLET PIPE DETAILS</p>
ADVISIAN PROJECT No 211012-00094	<p>*This drawing is prepared solely for the use of the contractual customer of Advisian and Advisian assumes no liability to any other party for any representations contained in this drawing.*</p>	
	DRG No 211012-00094-CI-DRG-0011	REV 1

USER NAME: Marnell,Delara LOCATION: \\AUPDC\PNAS01\chem-mm\211012-00094\_Yara\_Pilbara\_Nitrates - Advisian\_Miscellaneous\_Scopes\12.01\_Civils\_DRG\11012-00094-CI-DRG-0011.dgn SAVE DATE & TIME: 10/11/2023 12:22:22 PM PLOT DATE & TIME: 10/11/2023 12:22:22 PM