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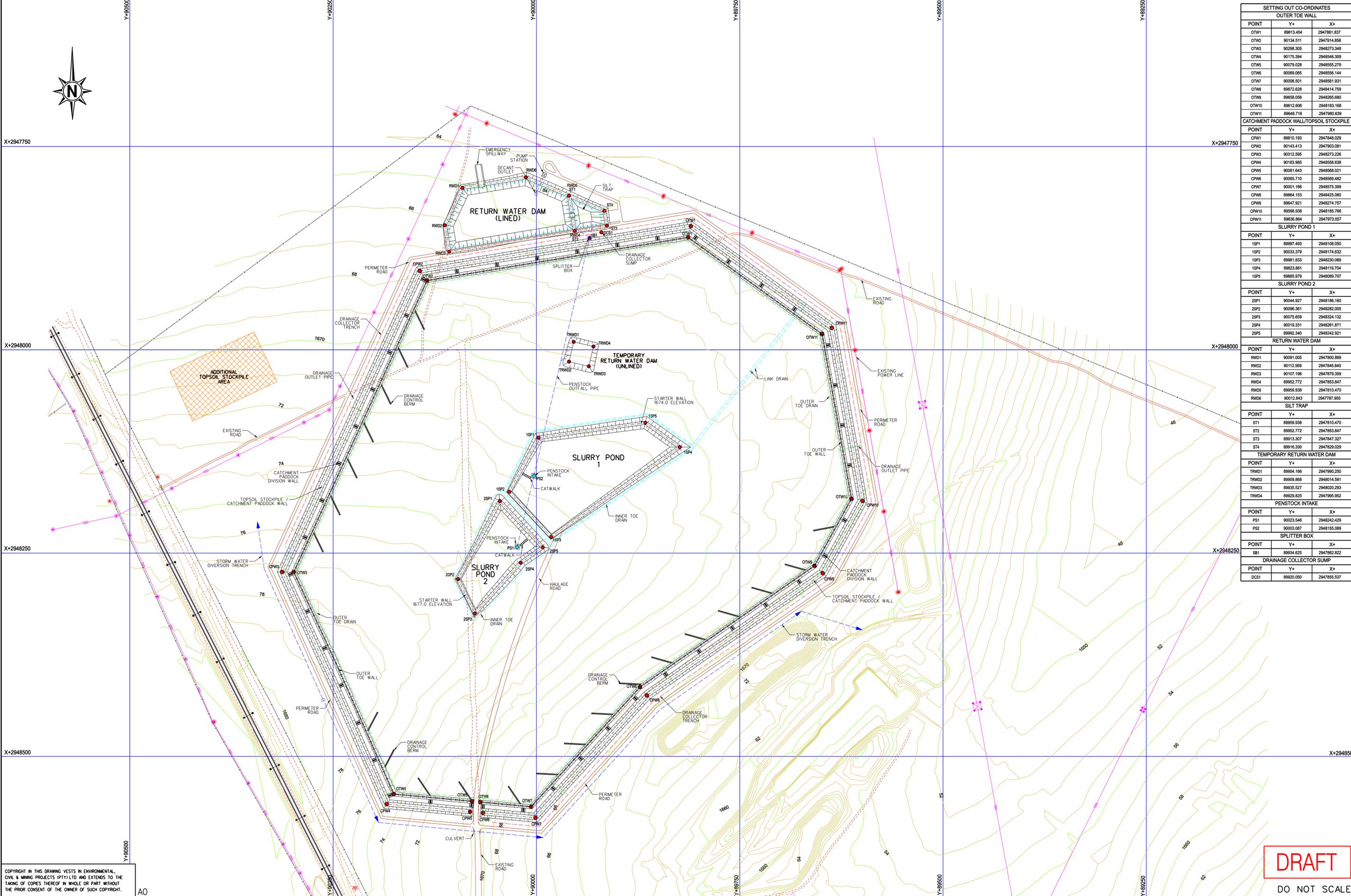
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REV	BY	DATE	DESCRIPTION	DRG.No.	REFERENCE DRAWINGS	DRG.No.	REFERENCE DRAWINGS
B	NS	01-04-09	DUMP FOOTPRINT ADJUSTED TO SUIT POWER LINES	002	SETTING OUT CO-ORDINATES	008	PENSTOCK OUTFALL PIPELINE DETAILS
				003	EARTHWORKS SECTIONS & DETAILS	009	CATWALK DETAILS
				004	DRAINAGE DETAILS	010	DRAINAGE PIPE DETAILS
				005	RETURN WATER DAM & SILT TRAP LAYOUT		
				006	RETURN WATER DAM & SILT TRAP DETAILS		
				007	RETURN WATER DAM SPILLWAY & TEMPORARY RETURN WATER DAM DETAILS		

ECMP
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 Box 783697 Sandton 2146
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CLIENT BADGER MINING & CONSULTING (PTY) LTD		BY	DATE
TITLE MOOIPLAATS COAL DISCARD DUMP GENERAL ARRANGEMENT		N.S.	MAR.09
DESIGNED	DRAWN	S.A.	MAR.09
CHECKED			
SCALE 1:1500	DRAWING No.	REVISION	
	T994-001	B	



SETTING OUT CO-ORDINATES		
OUTER TOE WALL		
POINT	Y+	X+
OTW1	89813.454	2947861.837
OTW2	90134.511	2947914.856
OTW3	90298.305	2948273.348
OTW4	90175.394	2948546.309
OTW5	90079.028	2948555.279
OTW6	90069.065	2948556.144
OTW7	90006.501	2948561.931
OTW8	89872.628	2948414.759
OTW9	89658.058	2948265.880
OTW10	89612.606	2948183.168
OTW11	89648.718	2947980.639
CATCHMENT PADDOCK WALL/TOPSOIL STOCKPILE		
POINT	Y+	X+
CPW1	89810.193	2947848.029
CPW2	90143.413	2947903.081
CPW3	90312.595	2948273.228
CPW4	90183.985	2948558.638
CPW5	90081.643	2948568.021
CPW6	90065.710	2948569.482
CPW7	90001.186	2948575.399
CPW8	89864.153	2948425.060
CPW9	89647.921	2948274.757
CPW10	89598.938	2948185.766
CPW11	89636.864	2947973.057
SLURRY POND 1		
POINT	Y+	X+
1SP1	89997.493	2948108.050
1SP2	90033.379	2948174.632
1SP3	89981.833	2948230.069
1SP4	89823.861	2948119.704
1SP5	89865.979	2948089.707
SLURRY POND 2		
POINT	Y+	X+
2SP1	90044.927	2948186.180
2SP2	90096.361	2948282.005
2SP3	90075.659	2948324.132
2SP4	90019.331	2948261.871
2SP5	89992.340	2948242.921
RETURN WATER DAM		
POINT	Y+	X+
RWD1	90091.005	2947800.869
RWD2	90112.569	2947848.840
RWD3	90107.196	2947878.359
RWD4	89952.772	2947853.847
RWD5	89959.936	2947810.470
RWD6	90012.843	2947787.955
SILT TRAP		
POINT	Y+	X+
ST1	89959.938	2947810.470
ST2	89952.772	2947853.847
ST3	89913.307	2947847.327
ST4	89916.330	2947829.029
TEMPORARY RETURN WATER DAM		
POINT	Y+	X+
TRWD1	89954.166	2947990.250
TRWD2	89959.888	2948014.591
TRWD3	89935.527	2948020.293
TRWD4	89929.825	2947995.962
PENSTOCK INTAKE		
POINT	Y+	X+
PS1	90023.546	2948242.429
PS2	90003.087	2948155.089
SPLITTER BOX		
POINT	Y+	X+
SBI	89934.625	2947862.822
DRAINAGE COLLECTOR SUMP		
POINT	Y+	X+
DCS1	89920.050	2947855.537

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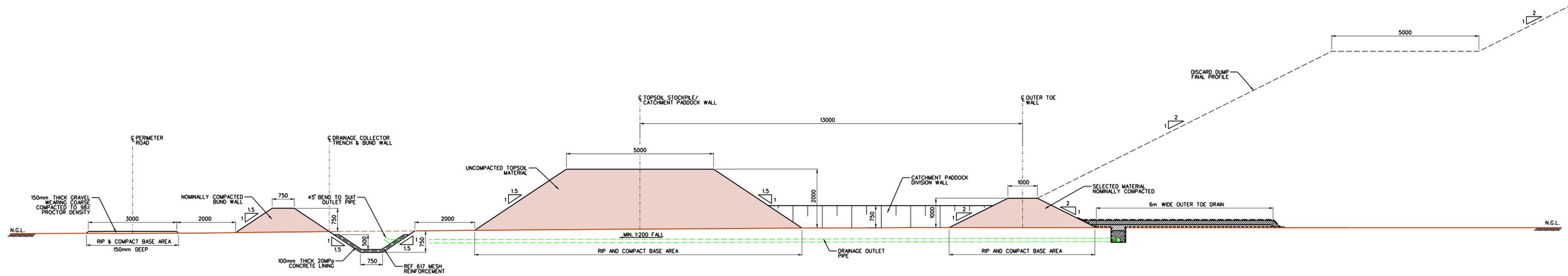
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REV	BY	DATE	DESCRIPTION
B	NS	02-04-09	DUMP FOOTPRINT ADJUSTED TO SUIT POWER LINES

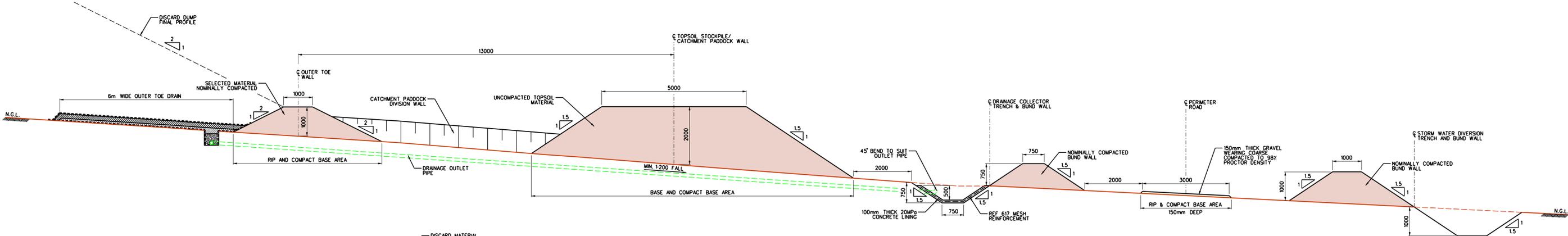
DRG.No.	REFERENCE DRAWINGS	DRG.No.	REFERENCE DRAWINGS
001	GENERAL ARRANGEMENT		

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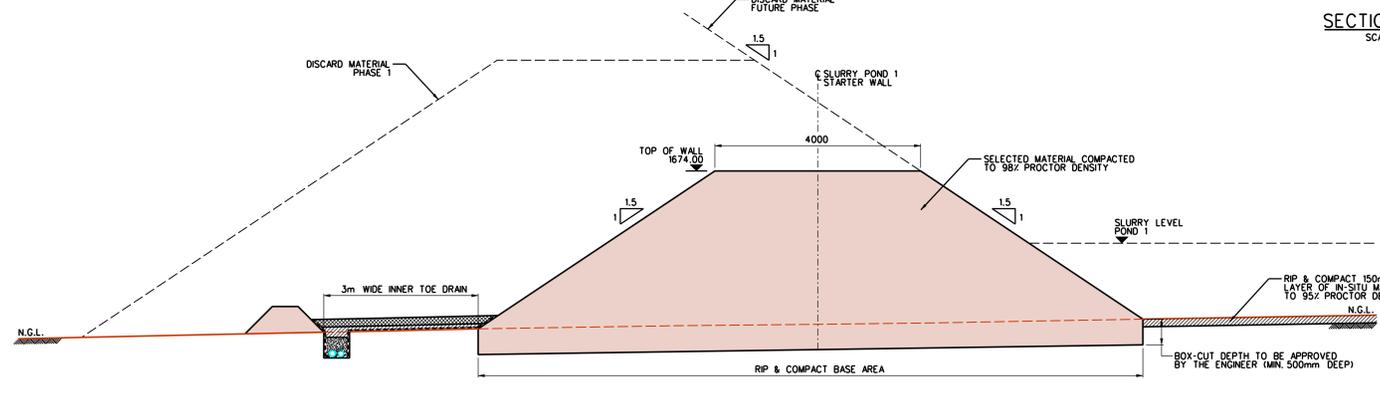
CLIENT BADGER MINING & CONSULTING (PTY) LTD	BY N.S.	DATE MAR.09
TITLE MOOPLAATS COAL DISCARD DUMP SETTING OUT CO-ORDINATES	DRAWN S.A.	MAR.09
SCALE 1:1500	CHECKED	REVISION B
DRAWING No. T994-002		



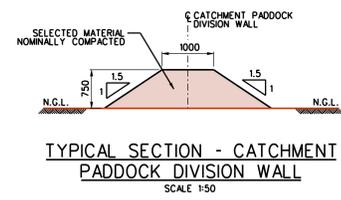
SECTION A - A
SCALE 1:50



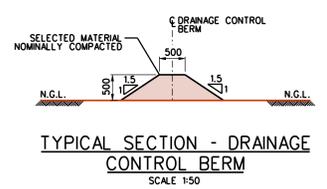
SECTION B - B
SCALE 1:50



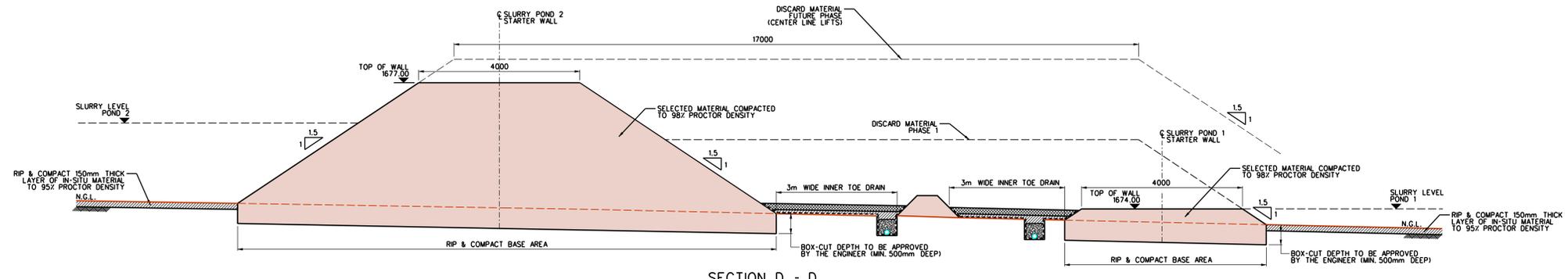
SECTION C - C
SLURRY POND 1 STARTER WALL
SCALE 1:50



TYPICAL SECTION - CATCHMENT
Paddock DIVISION WALL
SCALE 1:50



TYPICAL SECTION - DRAINAGE
CONTROL BERM
SCALE 1:50



SECTION D - D
SCALE 1:50

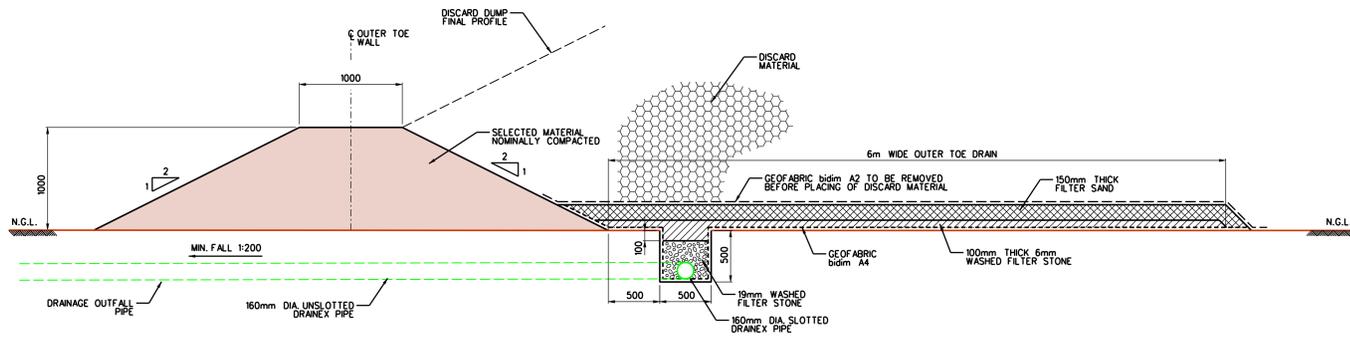
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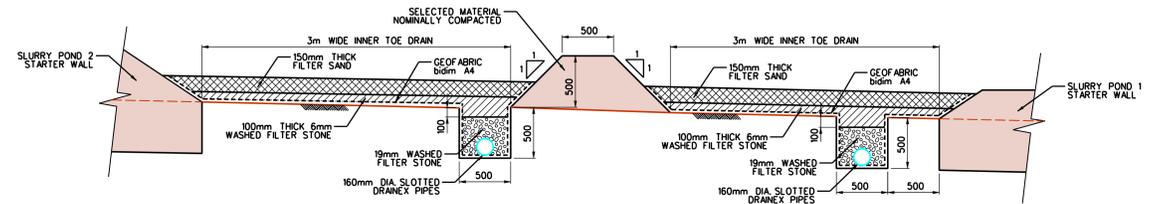
REV	BY	DATE	DESCRIPTION	DRG.No.	REFERENCE DRAWINGS	DRG.No.	REFERENCE DRAWINGS
B	NS	02-04-09	DETAILS ADDED	001	GENERAL ARRANGEMENT		
				004	DRAINAGE DETAILS		

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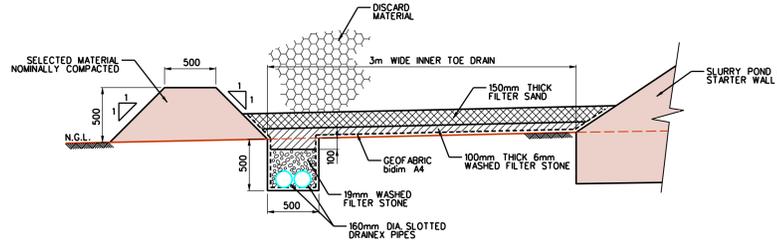
CLIENT	BADGER MINING & CONSULTING (PTY) LTD	BY	N.S.	DATE	MAR.09
TITLE	MOOIPLAATS COAL DISCARD DUMP EARTHWORKS SECTIONS & DETAILS	DRAWN	N.S.	CHECKED	
SCALE	A0-1:50	DRAWING No.	T994-003	REVISION	B



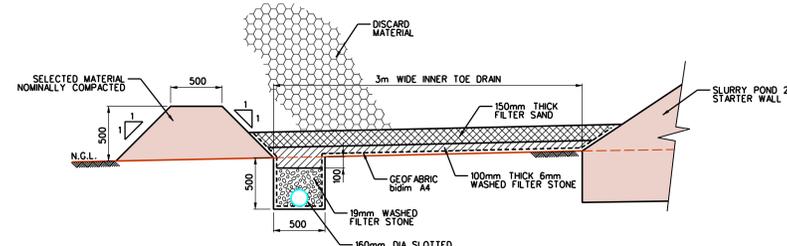
SECTION - OUTER TOE DRAIN
SCALE 1:25



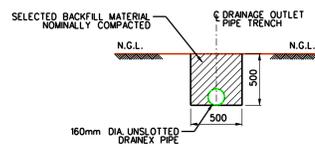
SECTION - INNER TOE DRAINS BETWEEN
SLURRY POND 1 & 2
SCALE 1:25



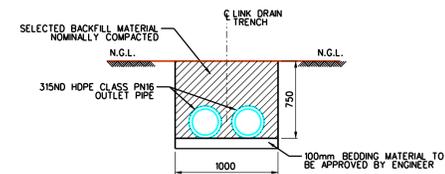
SECTION - INNER TOE DRAIN ALONG
SLURRY POND 1 PERIMETER
SCALE 1:25



SECTION - INNER TOE DRAIN ALONG
SLURRY POND 2 PERIMETER
SCALE 1:25



SECTION - DRAINAGE OUTLET PIPE
SCALE 1:25



SECTION - LINK DRAIN
SCALE 1:25

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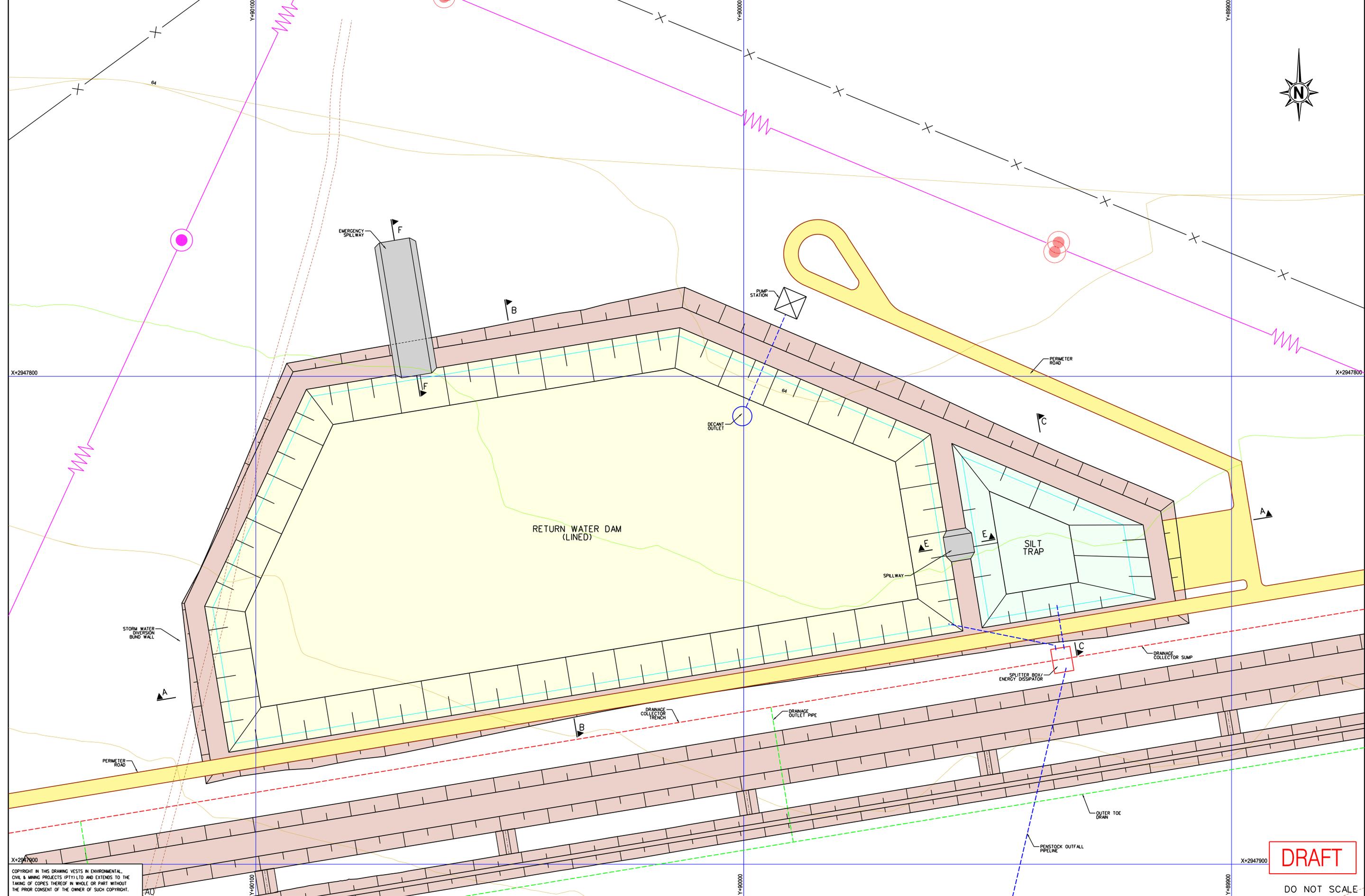
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REV	BY	DATE	DESCRIPTION	DRG.No.	REFERENCE DRAWINGS	DRG.No.	REFERENCE DRAWINGS
-	-	-	-	001	GENERAL ARRANGEMENT		
				003	EARTHWORKS & DETAILS		
				010	DRAINAGE PIPE DETAILS		

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CLIENT BADGER MINING & CONSULTING (PTY) LTD	DESIGNED	BY	DATE
TITLE MOOIPLAATS COAL DISCARD DUMP DRAINAGE DETAILS	DRAWN	N.S.	APR.09
	CHECKED	N.S.	APR.09
	SCALE	A0:1:25	
DRAWING No.	T994-004	REVISION	A

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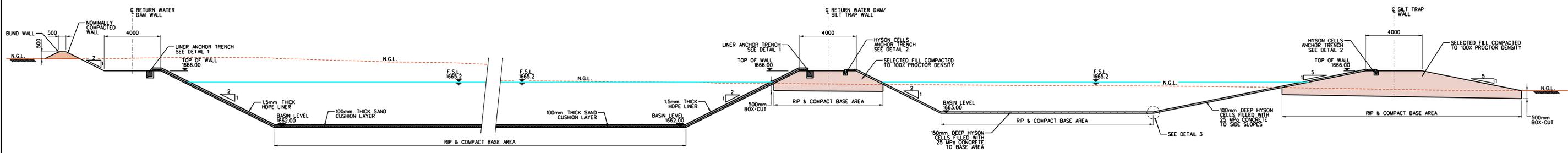
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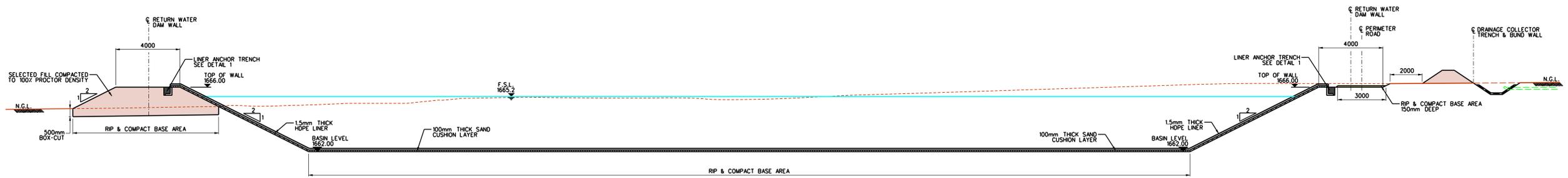
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B	SA	06-04-09	DUMP FOOTPRINT ADJUSTED TO SUIT POWER LINES	001	GENERAL ARRANGEMENT		
				006	RETURN WATER DAM & SILT TRAP DETAILS		
				007	RETURN WATER DAM SPILLWAY & TEMPORARY RETURN WATER DAM DETAILS		

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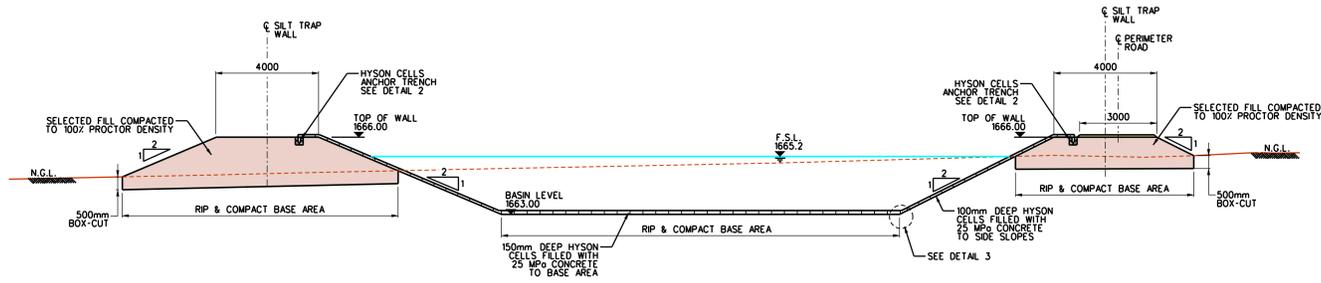
CLIENT	BADGER MINING & CONSULTING (PTY) LTD	BY	N.S.	DATE	MAR.09
TITLE	MOOPLAATS COAL DISCARD DUMP RETURN WATER DAM AND SILT TRAP LAYOUT	DRAWN	S.A.	REVISION	B
SCALE	1:500	CHECKED		DRAWING No.	T994-005



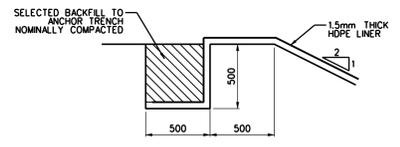
SECTION A - A
SCALE 1:100



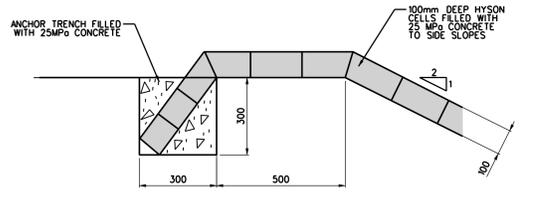
SECTION B - B
SCALE 1:100



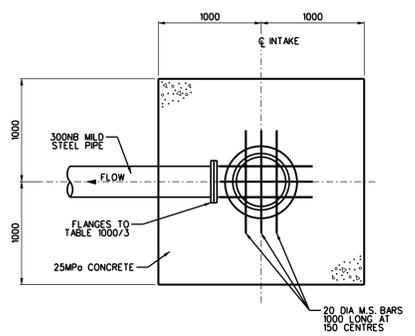
SECTION C - C
SCALE 1:100



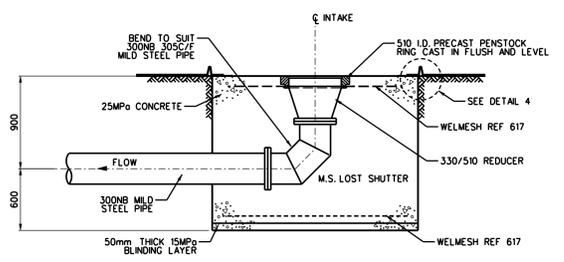
DETAIL 1
SCALE 1:20



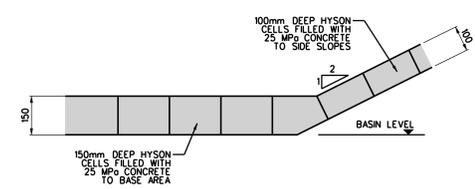
DETAIL 2
SCALE 1:10



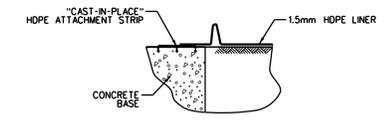
PLAN
RETURN WATER DAM DECANT OUTLET STRUCTURE
SCALE 1:25



SECTION
RETURN WATER DAM DECANT OUTLET STRUCTURE
SCALE 1:25



DETAIL 3
SCALE 1:10



DETAIL 4
N.T.S.

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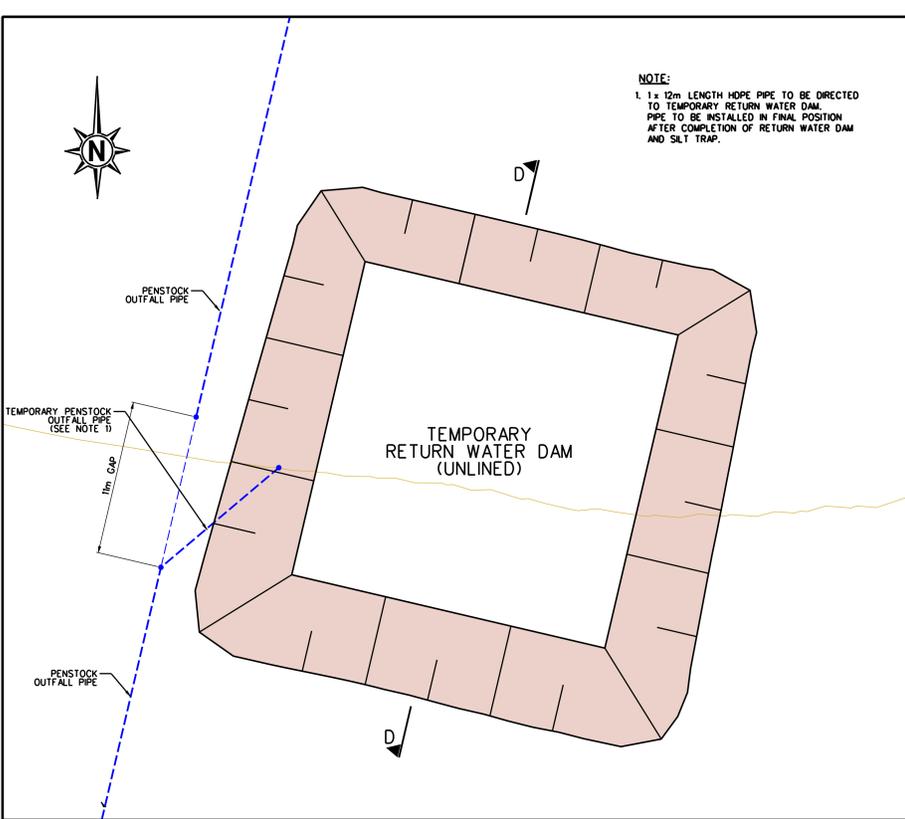
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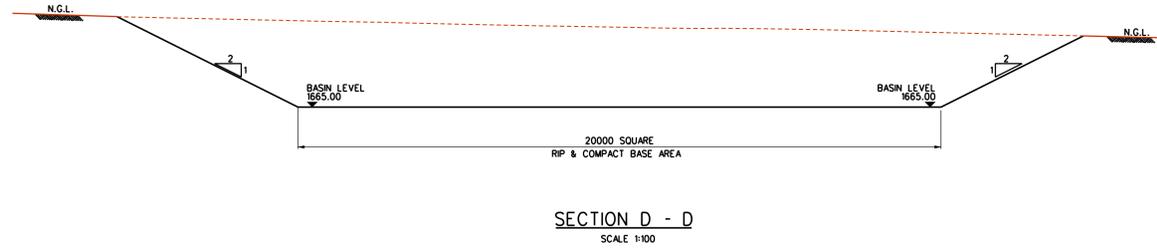
REV	BY	DATE	DESCRIPTION	DRG.No.	REFERENCE DRAWINGS	DRG.No.	REFERENCE DRAWINGS
				001	GENERAL ARRANGEMENT		
				005	RETURN WATER DAM & SILT TRAP LAYOUT		
				007	RETURN WATER DAM SPILLWAY & TEMPORARY RETURN WATER DAM DETAILS		

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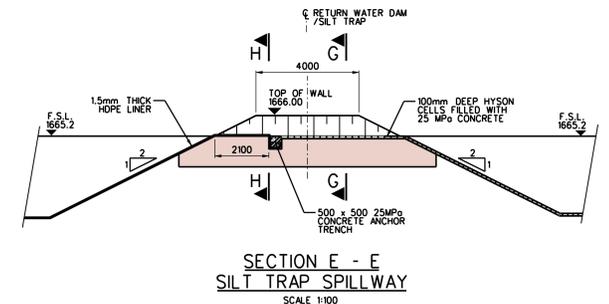
CLIENT BADGER MINING & CONSULTING (PTY) LTD	DESIGNED N.S.	DATE APR.09
TITLE MOOPLAATS COAL DISCARD DUMP RETURN WATER DAM AND SILT TRAP DETAILS	DRAWN S.A.	APR.09
	CHECKED	
	SCALE AS SHOWN	
DRAWING No. T994-006	REVISION A	



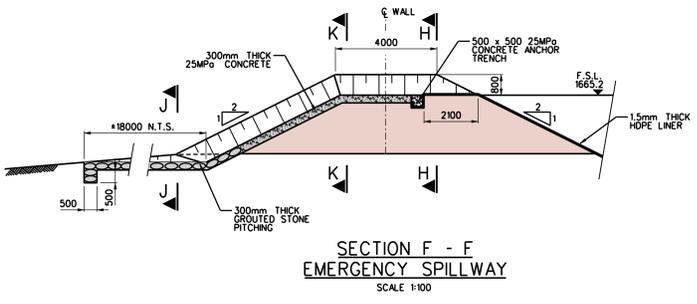
PLAN
TEMPORARY RETURN WATER DAM (UNLINED)
SCALE 1:200



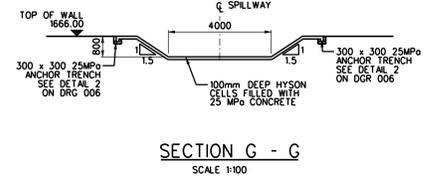
SECTION D - D
SCALE 1:100



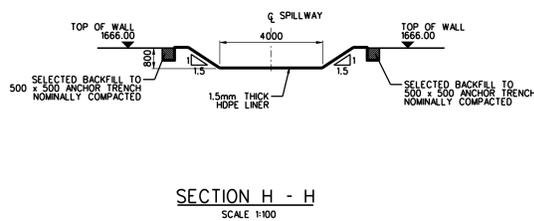
SECTION E - E
SILT TRAP SPILLWAY
SCALE 1:100



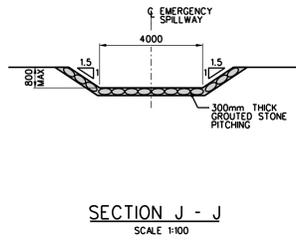
SECTION F - F
EMERGENCY SPILLWAY
SCALE 1:100



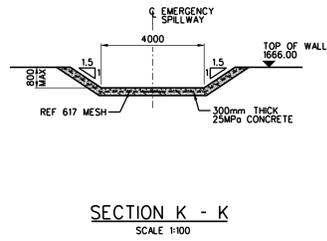
SECTION G - G
SCALE 1:100



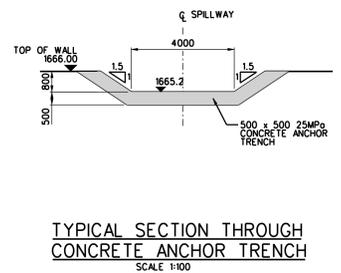
SECTION H - H
SCALE 1:100



SECTION J - J
SCALE 1:100



SECTION K - K
SCALE 1:100



TYPICAL SECTION THROUGH
CONCRETE ANCHOR TRENCH
SCALE 1:100

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				001	GENERAL ARRANGEMENT			BADGER MINING & CONSULTING (PTY) LTD		N.S.	APR.09
				005	RETURN WATER DAM & SILT TRAP LAYOUT				DRAWN	S.A.	APR.09
				006	RETURN WATER DAM & SILT TRAP DETAILS				CHECKED		
									SCALE	AS SHOWN	
									DRAWING No.	T994-007	REVISION
											A

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CLIENT
BADGER MINING & CONSULTING (PTY) LTD

TITLE
MOOPLAATS COAL DISCARD DUMP
RETURN WATER DAM SPILLWAY
AND TEMPORARY RETURN WATER DAM
DETAILS

DESIGNED
BY
DATE

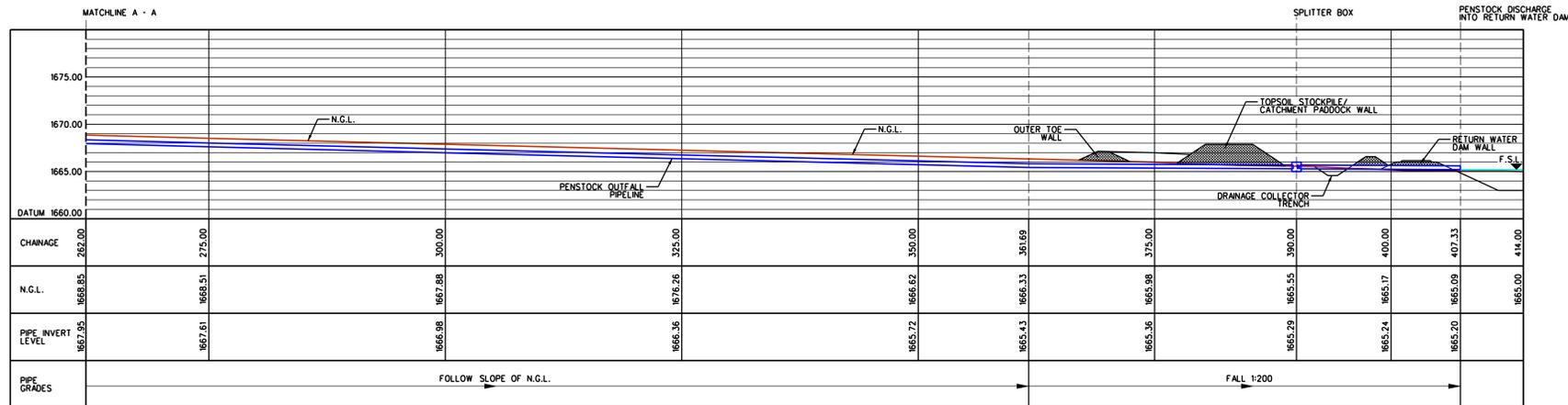
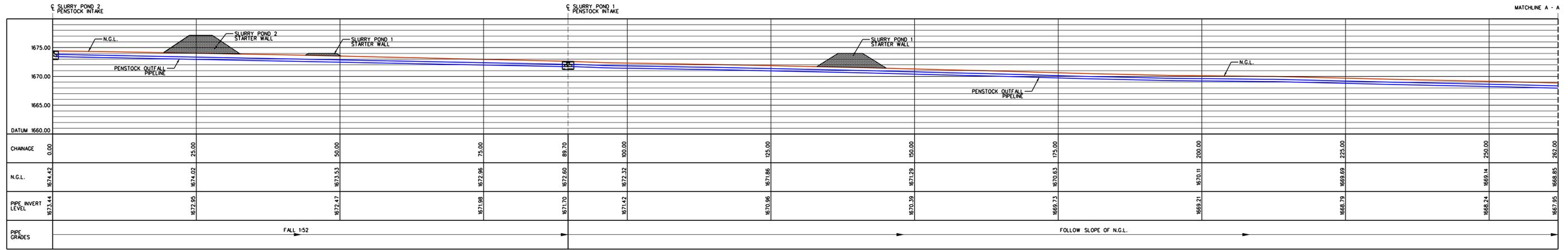
DRAWN
S.A.
APR.09

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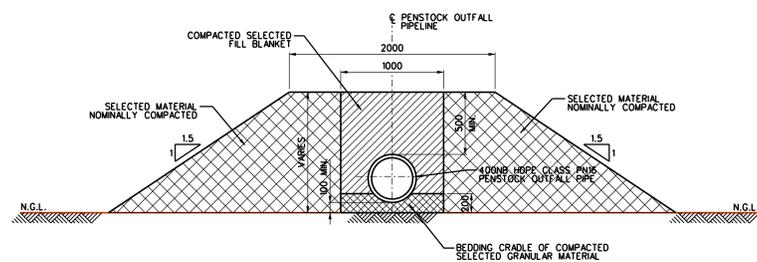
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DRAWING No. T994-007

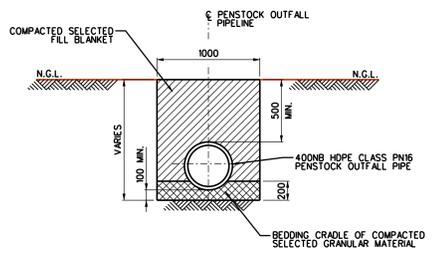
REVISION
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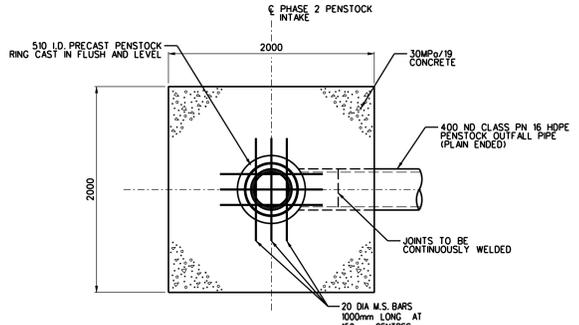
LONGITUDINAL SECTION - PENSTOCK OUTFALL PIPELINE
SCALE 1:250



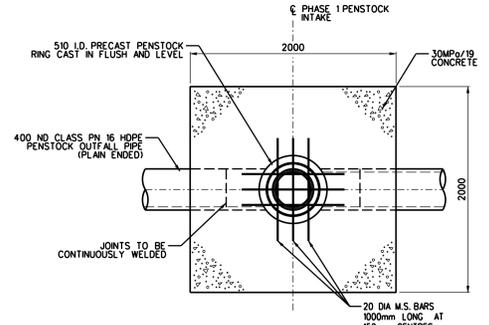
TYPICAL SECTION - PENSTOCK OUTFALL PIPELINE ABOVE N.G.L. (CLASS C BEDDING)
SCALE 1:25



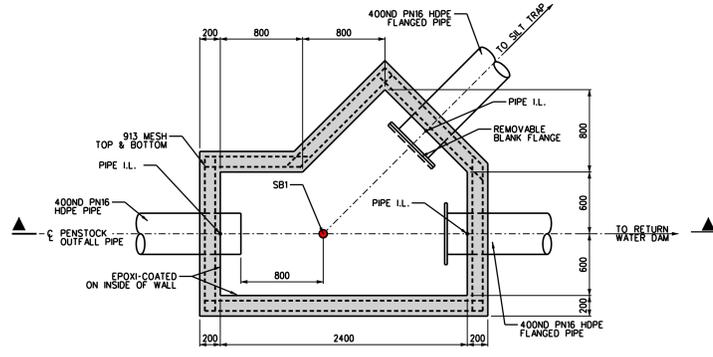
TYPICAL SECTION - PENSTOCK OUFALL PIPELINE BELOW N.G.L. (CLASS C BEDDING)
SCALE 1:25



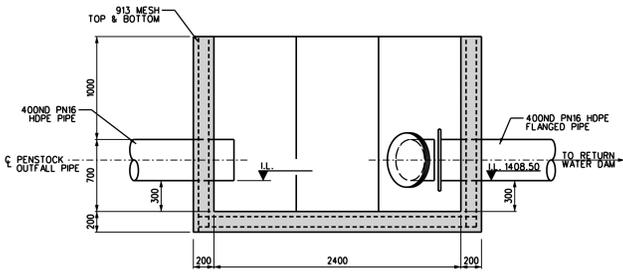
PLAN - SLURRY POND 2 PENSTOCK INTAKE
SCALE 1:25



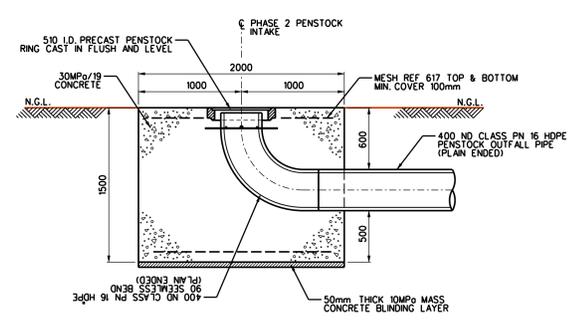
PLAN - SLURRY POND 1 PENSTOCK INTAKE
SCALE 1:25



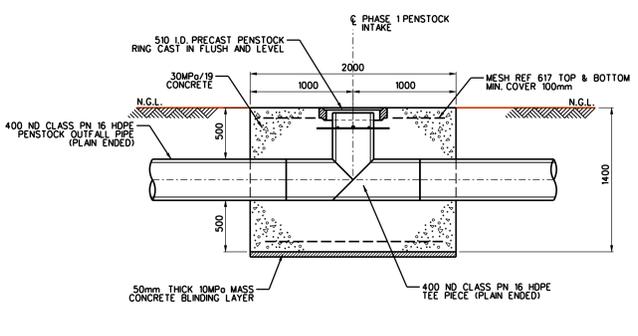
PLAN OF SPLITTER BOX
SCALE 1:25



SECTION - SPLITTER BOX
SCALE 1:25



SECTION - SLURRY POND 2 PENSTOCK INTAKE
SCALE 1:25



SECTION - SLURRY POND 1 PENSTOCK INTAKE
SCALE 1:25

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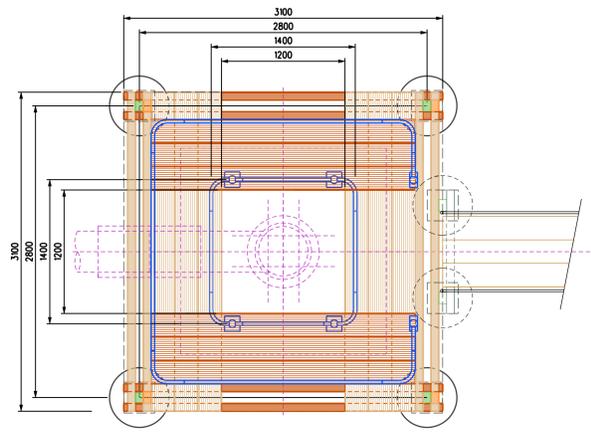
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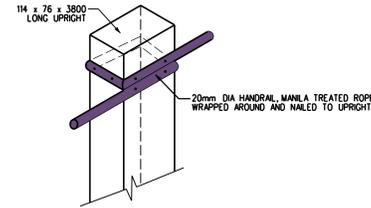
REV	BY	DATE	DESCRIPTION	DRG.No.	REFERENCE DRAWINGS	DRG.No.	REFERENCE DRAWINGS
				001	GENERAL ARRANGEMENT		

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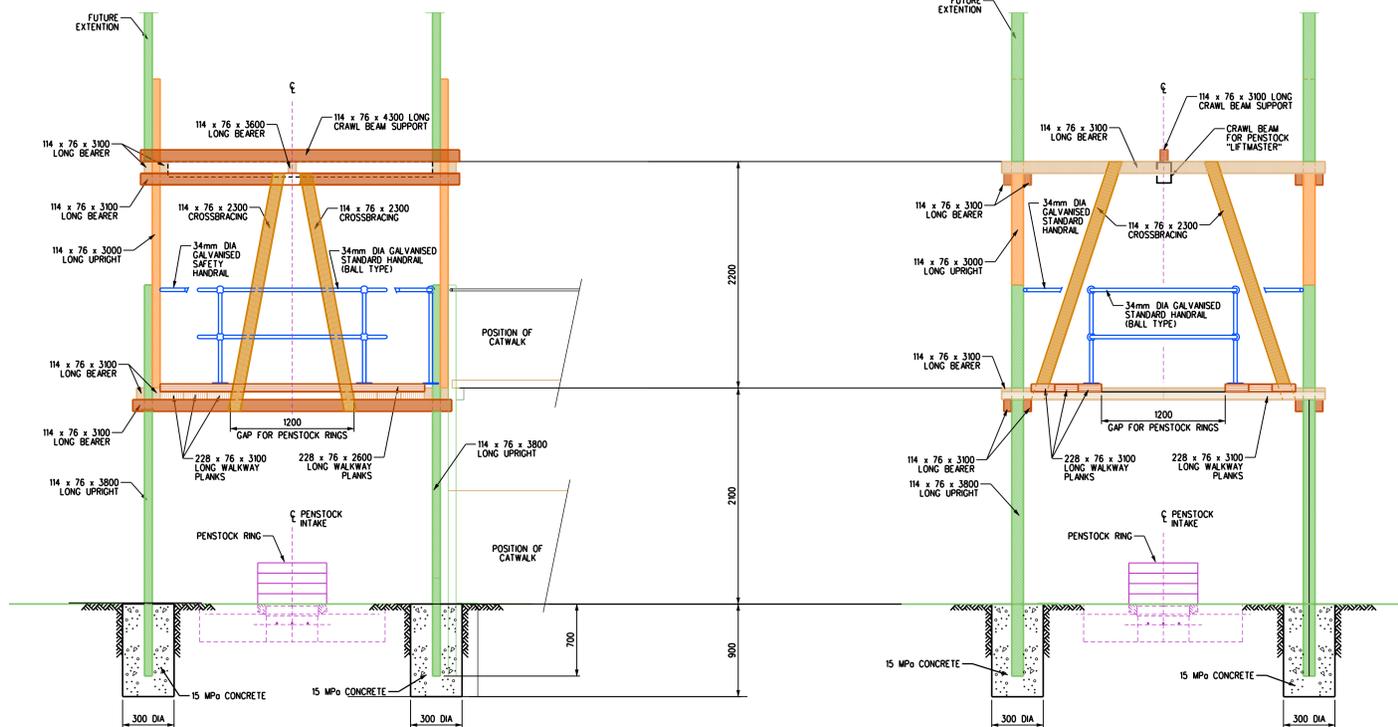
CLIENT BADGER MINING & CONSULTING (PTY) LTD	DESIGNED N.S.	BY N.S.	DATE MAR.09
TITLE MOOIPLAATS COAL DISCARD DUMP PENSTOCK OUTFALL PIPELINE DETAILS	DRAWN N.S.	CHECKED	REVISION B
SCALE AS SHOWN	DRAWING No. T994-008	REVISION B	



PLAN - PLATFORM
AT SINGLE PENSTOCK INTAKE
SCALE 1:25

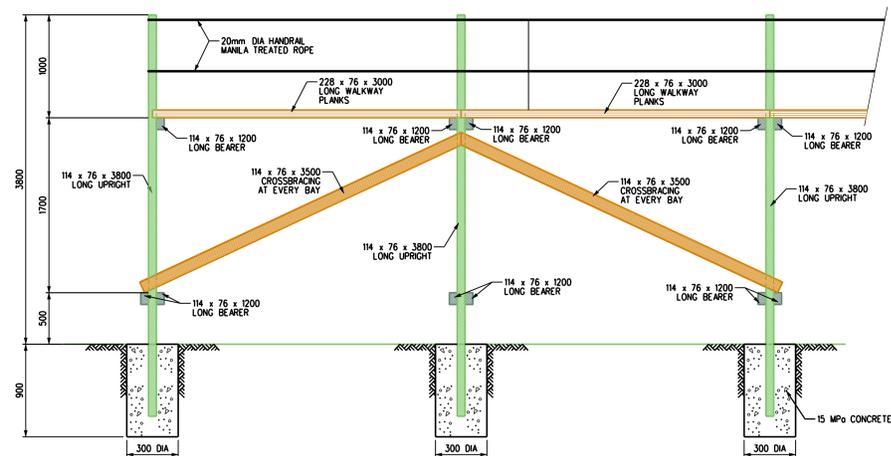


DETAIL 1
SHOWING ROPE HANDRAIL AT UPRIGHT
N.T.S.

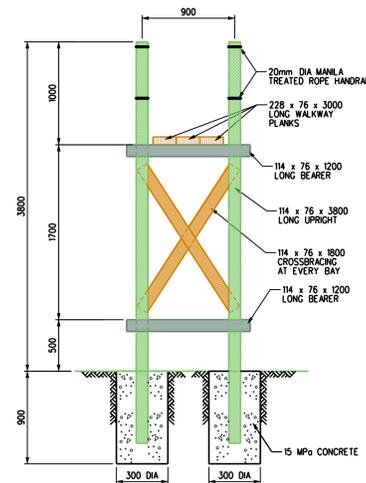


TYPICAL ELEVATION THROUGH PLATFORM
AT SINGLE PENSTOCK INTAKE
SCALE 1:25

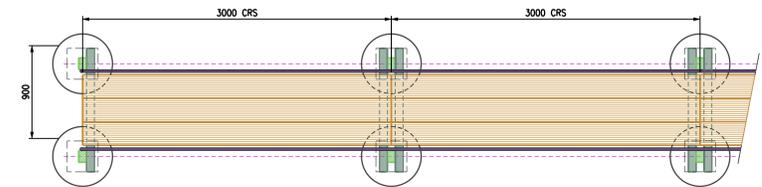
SECTION THROUGH PLATFORM
AT SINGLE PENSTOCK INTAKE
SCALE 1:25



SIDE ELEVATION - CATWALK
SCALE 1:25



TYPICAL SECTION THROUGH CATWALK
SCALE 1:25



PLAN - CATWALK
SCALE 1:25

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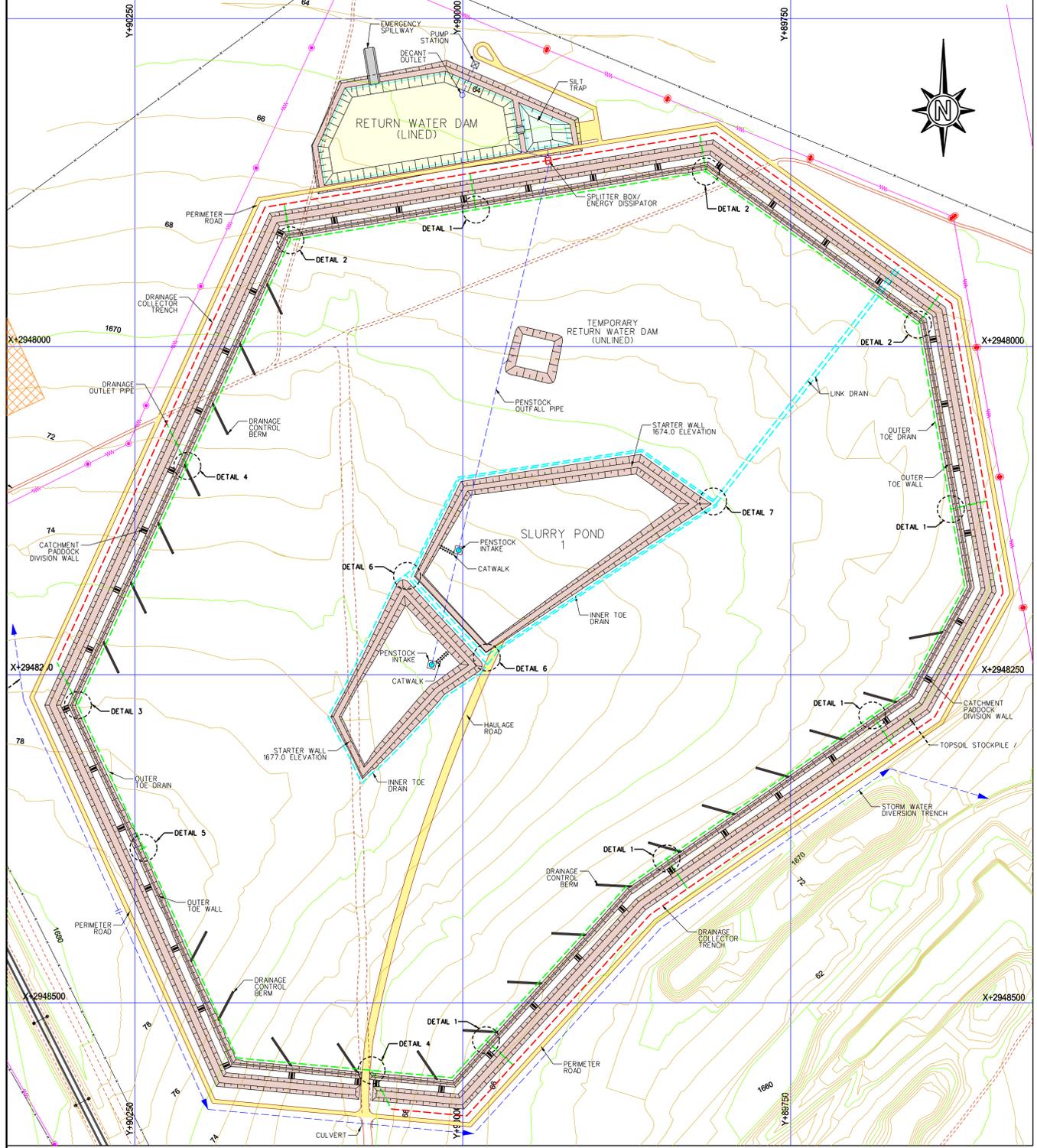
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REV	BY	DATE	DESCRIPTION	DRG.No.	REFERENCE DRAWINGS	DRG.No.	REFERENCE DRAWINGS
				001	GENERAL ARRANGEMENT		

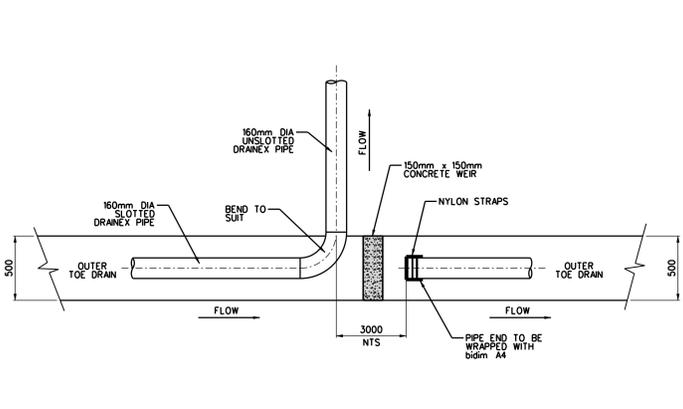
ECMP
Environmental, Civil & Mining Projects (Pty) Ltd
Box 783697 Sandton 2146
Tel. (011) 705 1111
Fax. (011) 705 1908

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TITLE MOOPLAATS COAL DISCARD DUMP CATWALK DETAILS	DRAWN S.A.	MAR.09
SCALE AS SHOWN	CHECKED	
DRAWING No. T994-009	REVISION A	

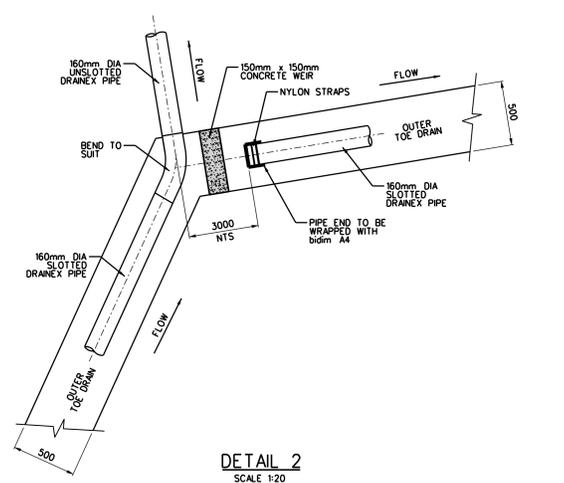
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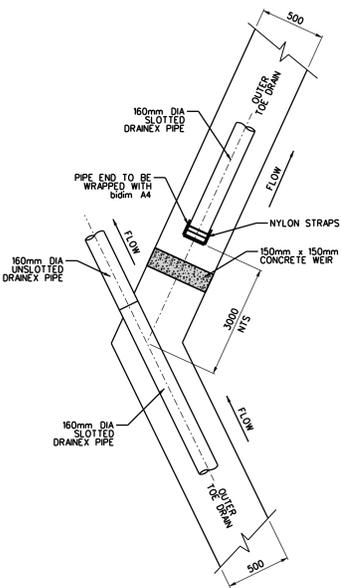
PLAN
SCALE 1:1500



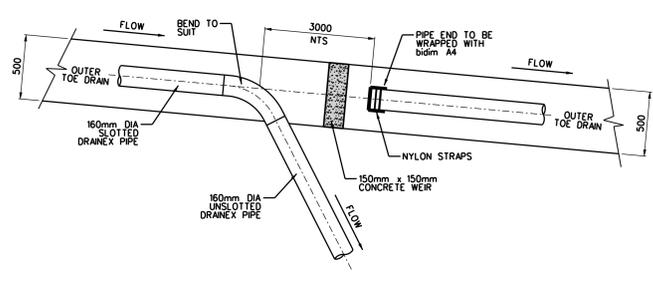
DETAIL 1
SCALE 1:20



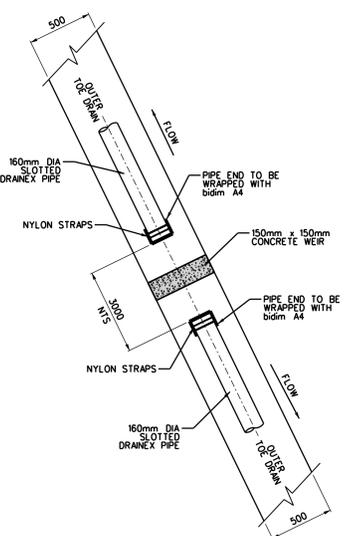
DETAIL 2
SCALE 1:20



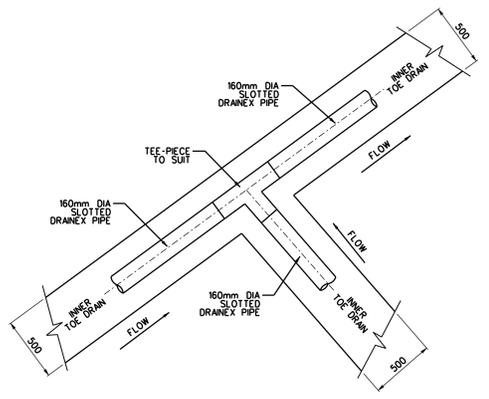
DETAIL 3
SCALE 1:20



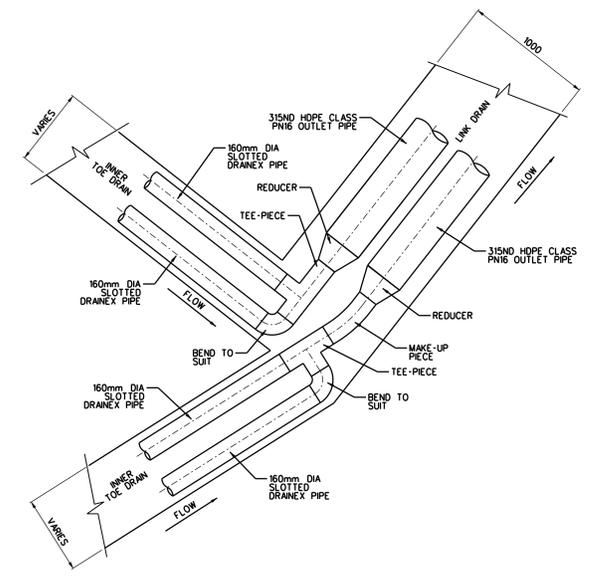
DETAIL 4
SCALE 1:20



DETAIL 5
SCALE 1:20



DETAIL 6
SCALE 1:20



DETAIL 7
SCALE 1:20

DRAFT

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A0

REV	BY	DATE	DESCRIPTION	DRG.No.	REFERENCE DRAWINGS	DRG.No.	REFERENCE DRAWINGS
				001	GENERAL ARRANGEMENT		
				004	DRAINAGE DETAILS		

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TITLE MOOPLAATS COAL DISCARD DUMP DRAINAGE PIPE DETAILS	DRAWN N.S.	MAR.09
CHECKED	SCALE A0-150	REVISION
DRAWING No. T994-010		A