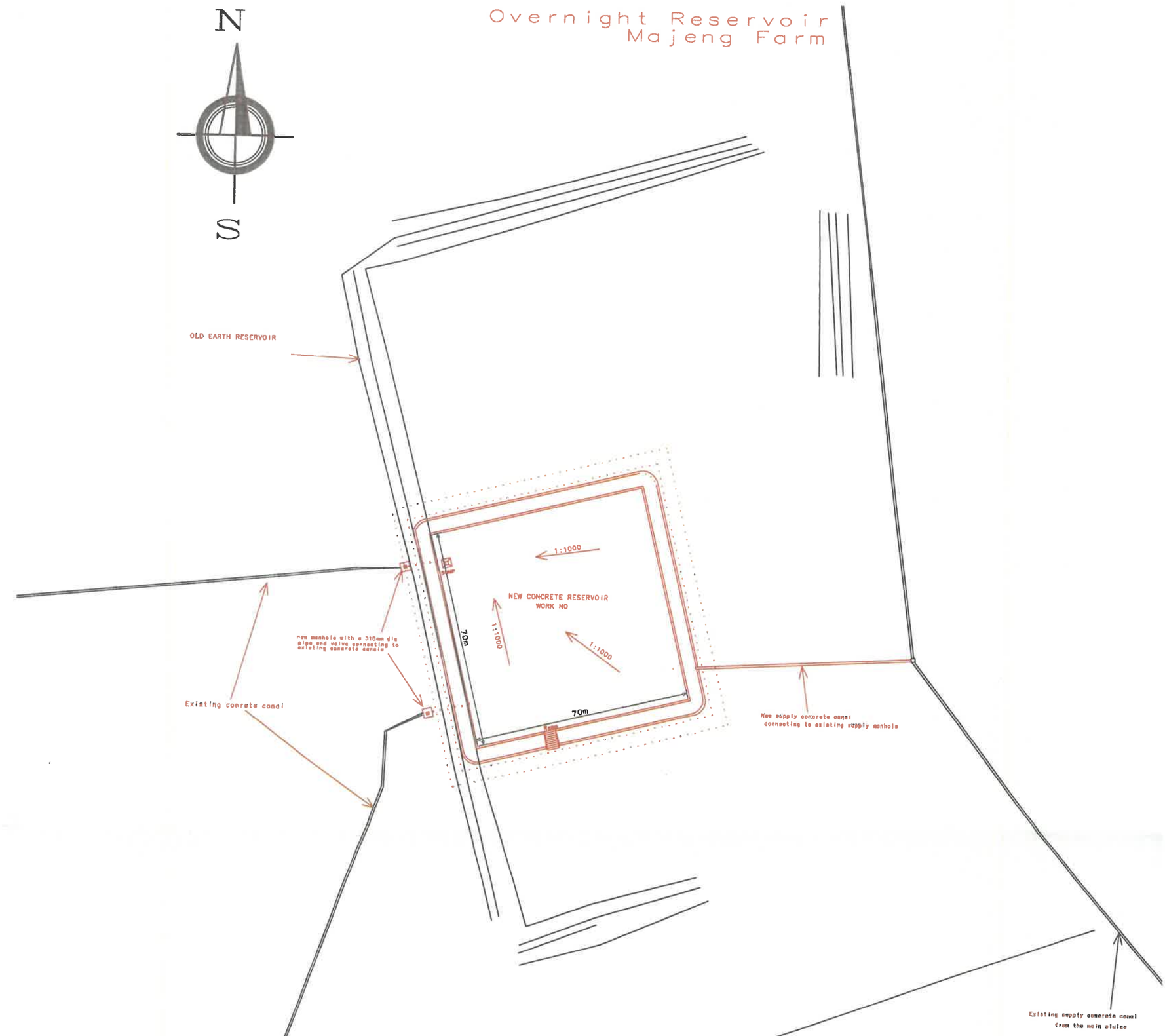
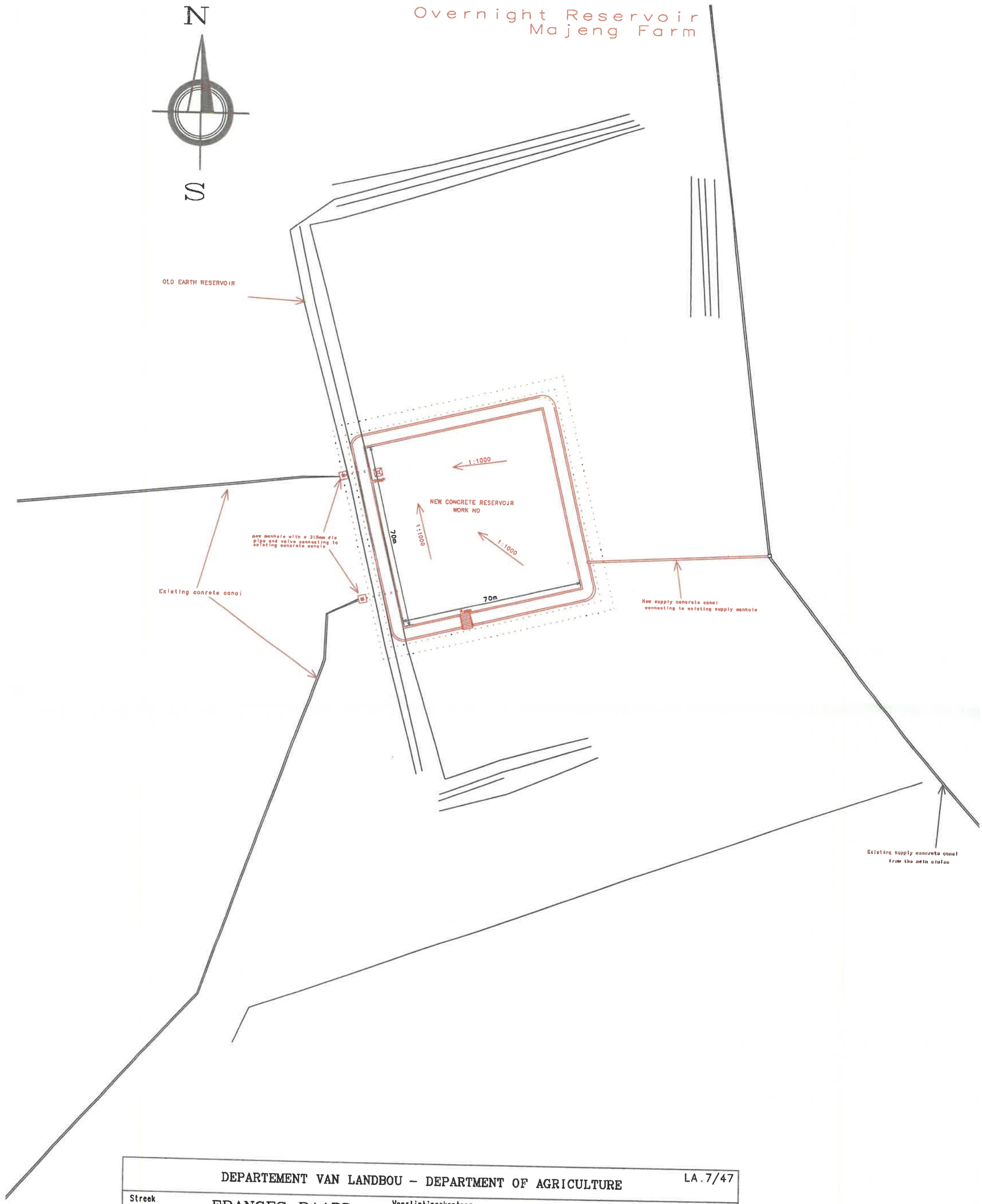
Overnight Reservoir
Majeng Farm



DEPARTEMENT VAN LANDBOU – DEPARTMENT OF AGRICULTURE			LA.7/47
Streek / Region	FRANCES BAARD	Voorligtingskantoor / Extension Office	JAN KEMPDORP
Plaaseenheid / Farm Unit	Majeng Farm	Opgemeet / Surveyed	T.MMereki & C. Paulus
Landdrosdistrik / Magisterial District	Magareng	Ontwerp / Designed	T. Mmereki
Eienaar / Owner	Majeng CPA	Kalkeer / Traced	
Onderwerp / Subject	Overnight Reservoir	Nagesien / Checked	
Bylae tot / Annexure to	Preliminary Design	Plaasplan * Farmplan	
	Work No / Werk Nr		

Overnight Reservoir
Majeng Farm



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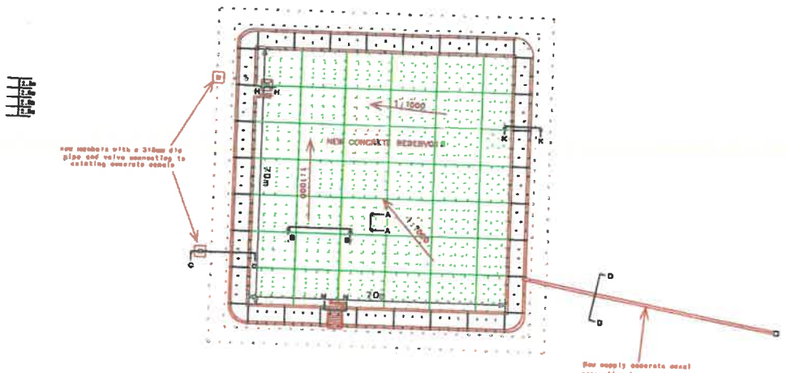


Note:

1. Konstruksie voeg bestaan uit 10mm bewegingsfoute.(swart lyne)
Construction joint with 10mm movement joint.(black lines)

Las moet met emmervole nael middel gassel word.
Joint must be sealed with approved sealant.

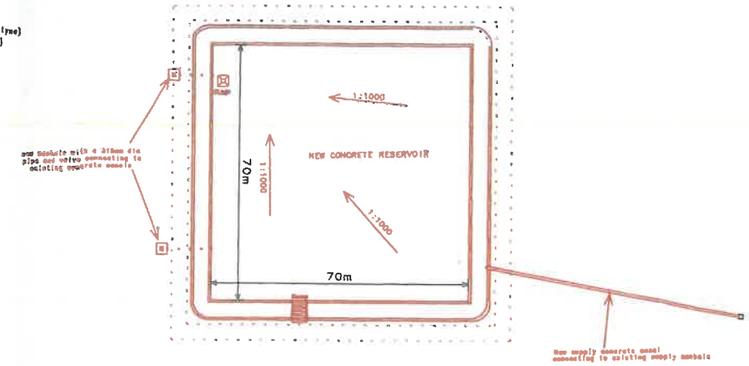
- - - - - - - - - - - - - -

Kreuk/Krimp foute wat 35-40mm diep en 3mm wyd gesaag word binne 18-24 uur na die beton gegiet is, op aangeduide posisies(rooi lyne). Die foute kan ook teen beton foute wees maar moet nog steeds gesaag word om toer in foute te sit.

Crack/Shrink joint – This is the joints 35-40mm deep and 3mm wide and must be cut within 18-24 hours after the placing of the concrete(red lines). These joints may be cold concrete joints aswell but, must still be cut inorder to put in the sealant and fat it penetrate into the joint.

3. Die bewegingsgate en kreukfoute moet van die middel van die beton vloer na die kante toe uitgesaag word. Om toe te laat dat die kreukfoute gevorendig van emmerdig van die kante van die nat gegiet word.

The movement joints and crack/shrink joints must be cut out from the centre of the reservoir to the sides of the walls to have an equal length spacing from the toes of the wall.

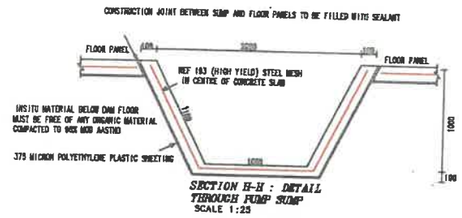


CONSTRUCTION NOTES:

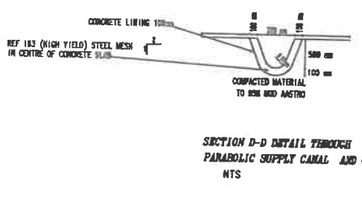
CAPACITY OF DAM WALL AT FSL:	10500 m³
MAX DEPTH:	5.0 m
TOTAL DEPTH: Top of concrete dam wall to top of concrete dam floor	5.2 m
TOP CREST OF DAM	1150.70 m
TOP SPILLWAY	1147.70 m
TOP TOEMAT ON DAM	1148.12 m
INVERT OUTLET PIPE THROUGH DAM	1136.6 m
TOP OVERFLOW	1138.50m
TOP DAM FLOOR TOP OF CONCRETE	1130.6m
COORDINATES REFERENCE POINT DRAKPOL SLUICE	
COORDINATES A1:	28 10 58.35"S and 24 38 39.05"E
COORDINATES A2:	28 10 55.62"S and 24 38 41.65"E
COORDINATES A3:	28 10 58.56"S and 24 38 39.04"E
COORDINATES A4:	28 10 58.83"S and 24 38 42.14"E
PIPE OUTLET: uPVC Class 6 Plastic Pipe	315 mm dia
GATE VALVE	FLANGED 315 mm dia
DIMENSION OF DAM FLOOR	SEE DRAWING
TOP	SEE DRAWING
CONCRETE CLASS SANS	25/19
SUPPLY CANAL DETAIL LENGTH	TO BE CONFIRMED WITH PROJECT LEADER
TOP WIDTH	700 mm
DEPTH	600 mm
SLOPE	1:000
PUMP SUMP DETAIL: TOP WIDTH	2.00 m
BOTTOM WIDTH	1.00 m
DEPTH	1.00 m

REINFORCEMENT: REF. 193 HIGH YIELD REINFORCING MESH (2.4m x 6m sheets Wire Size 5.0mm)
PLASTIC SHEETING TO BE USED UNDER RESERVOIR CONCRETE: 375 MU 2 x 250 MICRON POLYETHYLENE
PLASTIC SHEETING MUST BE FREE OF ANY DAMAGES AND HOLES THAT WATER LEAD TO REJECTION OF THE PLASTIC SHEETING- Construction method must be adopted as such
CONCRETE COVER ON ALL REINFORCEMENT STEEL MUST BE A MINIMUM OF 50mm

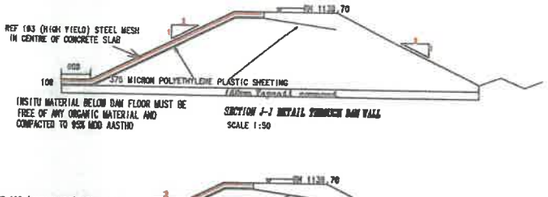
SITE CLEARANCE:
CONCRETE TRUCK, PLANT MATERIAL AND 150 mm OF TOPSOIL FROM SITE TO APPROVED ATE SITE AS INDICATED BY CHIEF/PROJECT LEADER. MATERIALS FOR THE CONSTRUCTION OF DAM WALL MUST BE FREE OF FLASH MATERIALS.
CONCRETE PIPE TO BE LAYED AND FIXATION AFTER CONSTRUCTION
TEMPORARY PIT AREAS TO BE DETERMINED BY CONTRACTOR AND LAND OWNERS.
PLACE MATERIAL IN LAYERS NOT EXCEEDING 150 mm AND COMPACT TO 93% STANDARD PROCTOR AT OPTIMUM MOISTURE CONTENT.



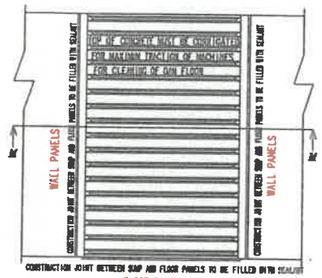
SECTION H-H : DETAIL THROUGH PUMP SUMP
SCALE 1:25



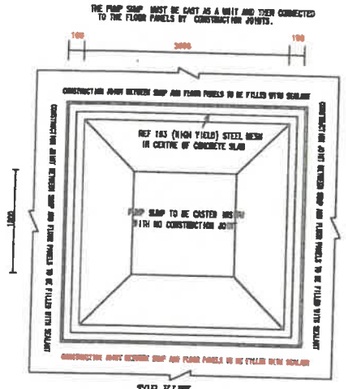
SECTION D-D DETAIL THROUGH PARABOLIC SUPPLY CANAL AND OVERFLOW
NTS



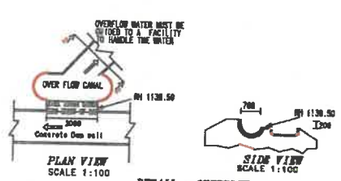
SECTION J-J DETAIL THROUGH DAM WALL
SCALE 1:50



TOP VIEW OF RAMP
SCALE 1:50



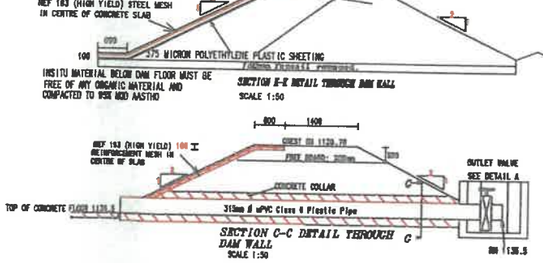
TOP VIEW PUMP SUMP
SCALE 1:25



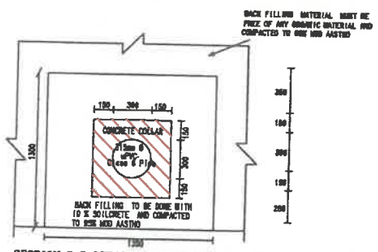
PLAN VIEW
SCALE 1:100

SIDE VIEW
SCALE 1:100

DETAIL : OVERFLOW



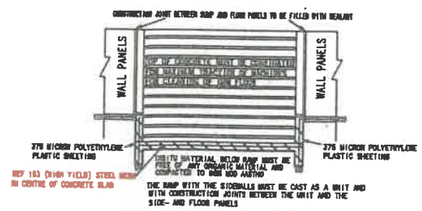
SECTION C-C DETAIL THROUGH DAM WALL
SCALE 1:50



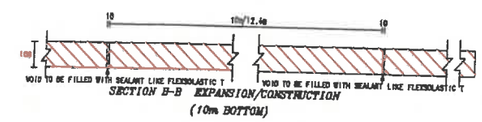
SECTION C-C DETAIL THROUGH OUTLET PIPE



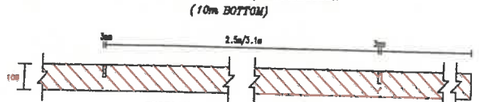
SECTION L-L DETAIL OF RAMP THROUGH DAM WALL
SCALE 1:50



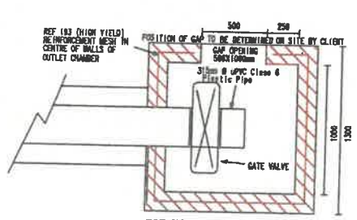
SECTION M-M CROSS SECTION OF RAMP
SCALE 1:50



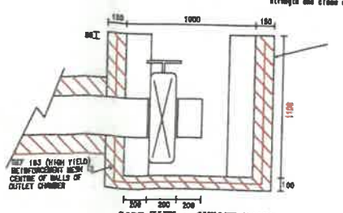
SECTION B-B EXPANSION/CONSTRUCTION (10m BOTTOM)



SECTION A-A and F-F : CRACK JOINT (2.6m/3.1m BOTTOM AND SIDES)



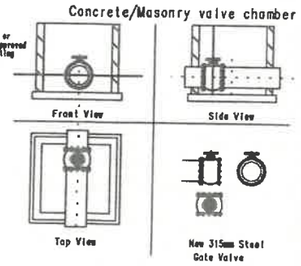
TOP VIEW : OUTLET VALVE
SCALE 1:20



SIDE VIEW : OUTLET VALVE
SCALE 1:20

* Manhole to be constructed with concrete or masonry blocks all materials to be SABS approved masonry block should have certificate stating strength and class of blocks.

Concrete/Masonry valve chamber



* Method of connection between Distribution chamber and Valve chamber to be determined and indicated on site by Project leader.

No.	DATE	REVISIONS

NOTES

W.Marrais	2024/10/04	
SURVEY	DATE	
W.Marrais	2024/10/04	
DRAWN	DATE	
CHECKED	DATE	

CONTRACT DESCRIPTION

SCALE AS SHOWN	CONSTRUCTION OF CONCRETE IRRIGATION RESERVOIR AT MAJENC FARM, VAALHARTS	CLIENT PLAN NO.