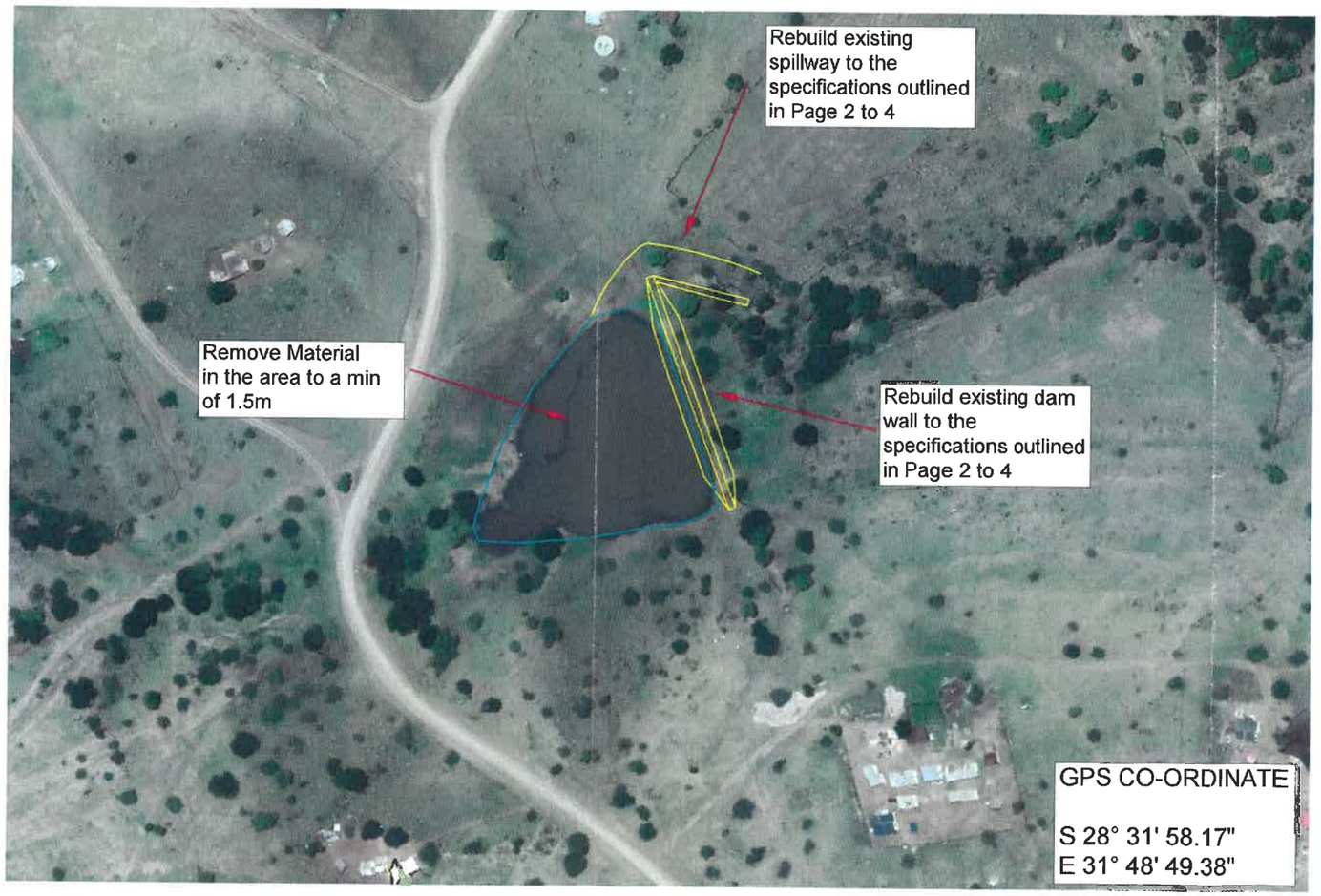
564

Dam Details

Crest width	= 3.0 m
Slope Waterside	= 1 : 3
Slope Downstream	= 1 : 3
Wall Length	= 105.1 m
Wall Depth	= 3.5 m
Water Level Depth	= 2.5 m
Freeboard	= 1.0 m
Wingwall Crest Width	= 3.0 m
Slopes	= 1 : 3
Wingwall height	= 1.0 m
Wingwall length	= 30 m
Key trech depth	= 3.0 m (min)
Bottom trench width	= 5.0 m
Top trench width	= 5.0 m
Length of key trench	= 94 m
Central Clay core slopes	= 2 : 1



Dam Estimates

Earth Volume = 6 966.362 m³

Storing Capacity = 10 449.54 m³

Ratio = 1 : 1.5

Graphic Scale (A3)
25 0 12.5 25 50
1:1 000

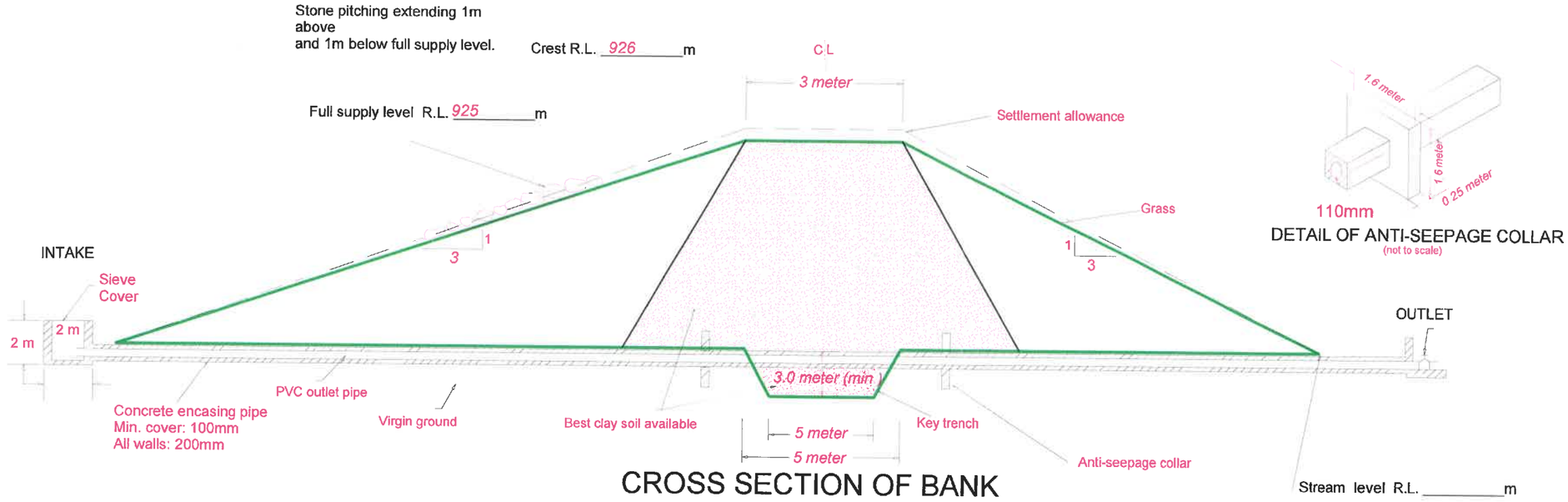
KZN DEPARTMENT OF AGRICULTURE & RURAL DEVELOPMENT

ENGINEERING SUPPORT SERVICES
CNR HEEREN & VAN RIEBEECK / PRIVATE BAG X 9423
VRYHEID / 3100 / PHONE : 034 - 982 2351
FAX : 034 981 5240

Survey : BC Mhlongo
Design : SD van Greuning
Drawn by : SD van Greuning
Date : 31 May 2018

DRAWING NUMBER: SDvG/2018/06/DAM-MAG
SCALE (A3) - 1 : 2 500

DRAWING 1 of 4
SOIL CONSERVATION STOCKWATERING DAM
MAGWETSWANA



CROSS SECTION OF BANK

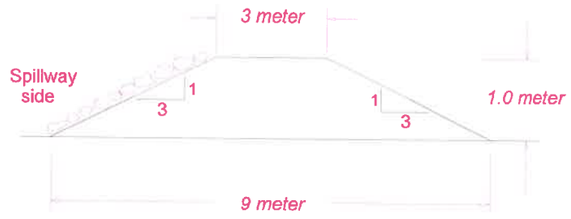
(not to scale)

DETAIL OF ANTI-SEEPAGE COLLAR

(not to scale)

NOTES:

1) All organic material and topsoil to be removed from base before construction commences. Stockpile and use for the 10% settlement allowance.
2) Soil must be moist to obtain maximum compaction.
3) Applicant must call for an intermediate inspection of the site when the:-
   * Key trench has been dug & before it is filled.
   * Bank is half completed.
   * Bank is completed, but before commencing with grassing & stone pitching.
4) The whole bank & spillway must be established to a good grass cover on completion. Use : Indigenous Couchgrass.
5) Establish common reed (Phragmites) in the stream bed at the dam inlet.
6) Concrete mix:- 1 Pocket cement : 110 liter sand : 125 liter stone (20mm stone).



CROSS SECTION OF WINGWALL

(not to scale)

OTHER RELEVANT NOTES :-

Reference drawings	
Page 4	Wall Detail
Page 3	Erodible Soils - Protection Works
Page 1	Layout Plan

Amendment				
No.	Date	Checked	By	Description

* DO NOT SCALE THIS DRAWING - USE FIGURED DIMENSIONS ONLY.
* ALL DIMENSIONS TO BE CHECKED ON SITE PRIOR TO WORK COMMENCING.
* ANY DISCREPANCIES ON THE DRAWINGS MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEERS, DESIGN TEAM AND INFRASTRUCTURE MANAGERS AND RECORDED IN THE SITE MINUTES THEREOF.

Surveyed	Drawn	Checked
CNK	SvG	TKO

S.D. van Greuning — Designed By :- — 31/05/2018 Date

T.K. Onkay — Engineers Approval :- — 31/05/2018 Date

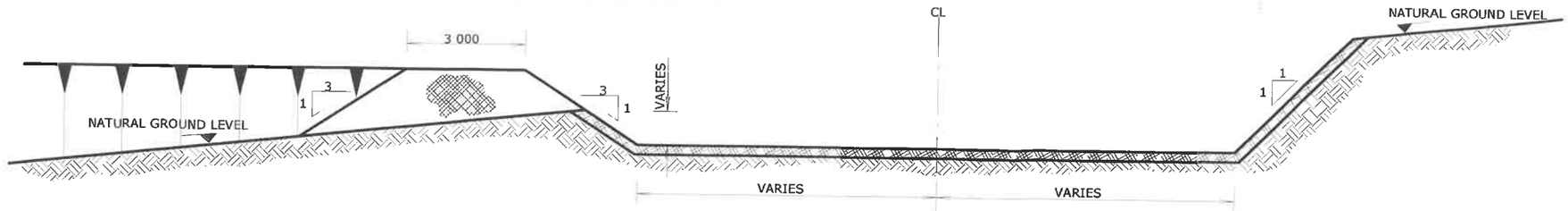
Project
RE -SCOOPING STOCKWATERING DAM

Drawing description
PIPE LAYOUT PLAN

Scale	Date
NTS	31/05/2018

Drawing number
SDvG /2018/06/DAM-MAG

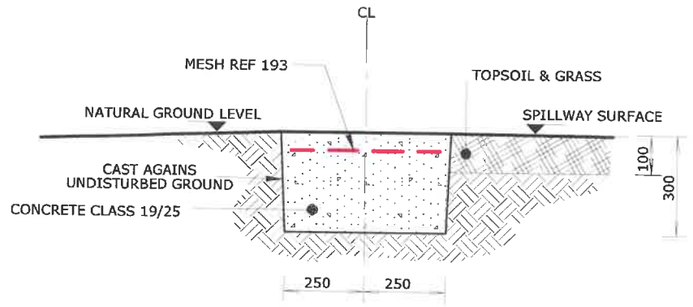
SHEET 2 of 4



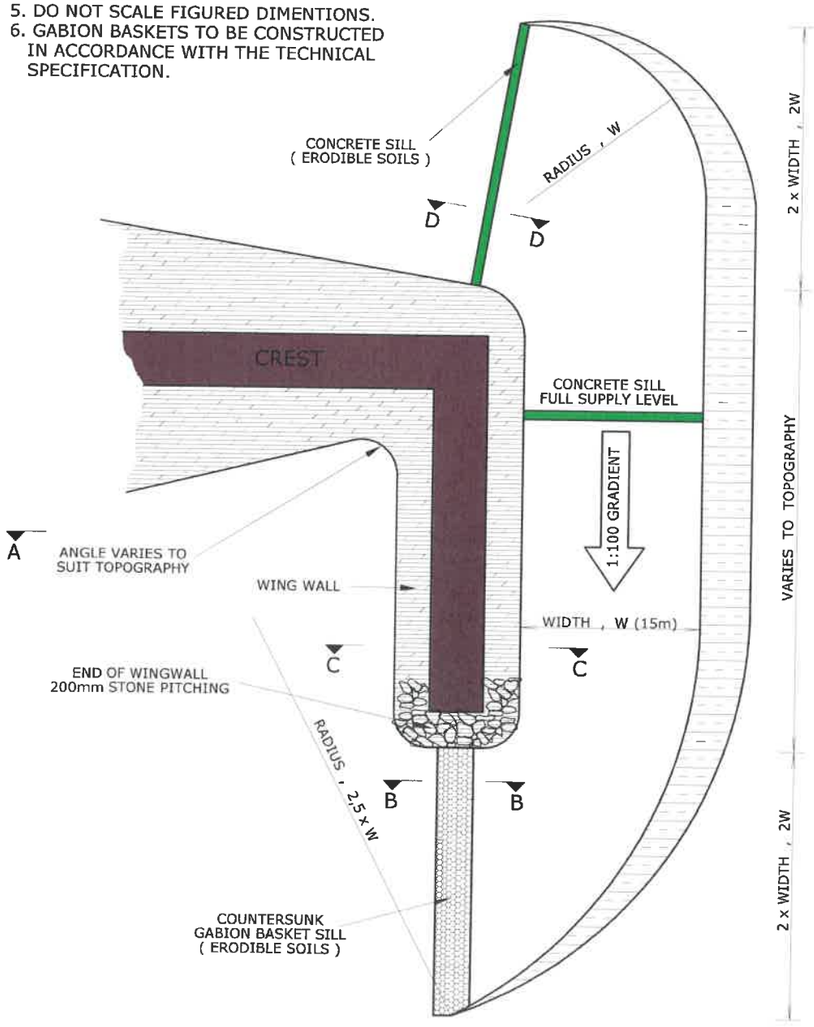
EMBANKMENT & SPILLWAY
SECTION A-A

NOTES :

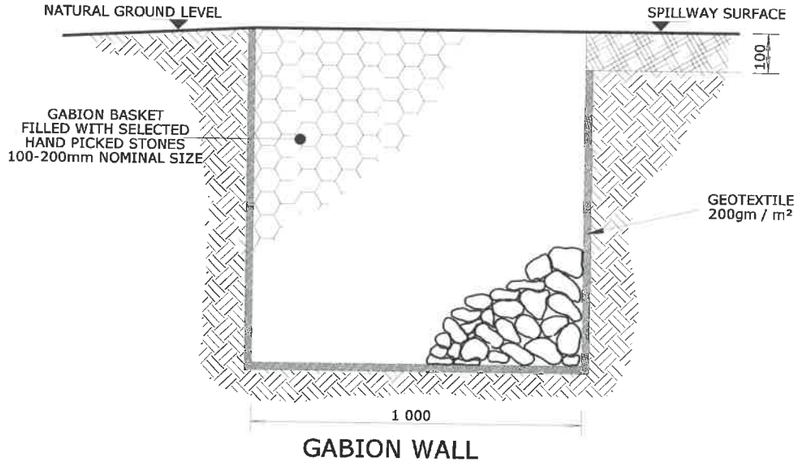
1. ALL REINFORCEMENT ON THIS DRAWING IS DETAILED IN ACCORDANCE WITH SABS 10400
2. COVER FOR REINFORCEMENT IS 40mm, UNLESS STATED OTHERWISE.
3. ALL DIMENTIONS IN MILLIMETER
4. ELEVATIONS IN METERS
5. DO NOT SCALE FIGURED DIMENTIONS.
6. GABION BASKETS TO BE CONSTRUCTED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION.



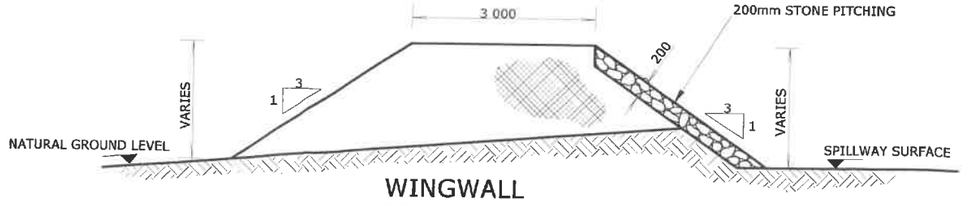
CONCRETE SILL
SECTION D-D



TYPICAL SPILLWAY ARRANGEMENT - PLAN



GABION WALL
SECTION B-B



WINGWALL
SECTION C-C

OTHER RELEVANT NOTES :-

Reference drawings

Page 4	Typical Wall Detail
Page 1	Layout / Siteplan
Page 2	Pipe plan

Amendment

No.	Date	Checked By	Description

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Surveyed	Drawn	Checked
BCM	SvG	TKO

S.D. van Greuning — Designed By :- — 31/05/2018 Date

T.K. Onkay — Engineers Approval :- — 31/05/2018 Date

Project
RE -SCOOPING STOCKWATERING DAM

Drawing description
ERODIBLE SOILS - Protection Works

Scale: NTS
Date: 31/05/2018

Drawing number
SDvG /2018/06/DAM-MAG

SHEET 3 of 4