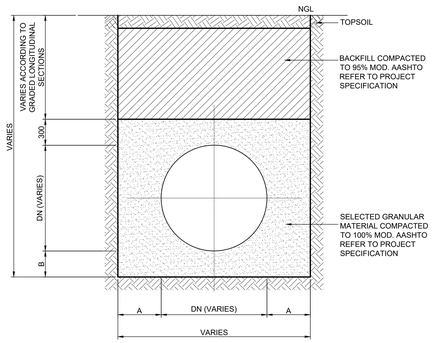
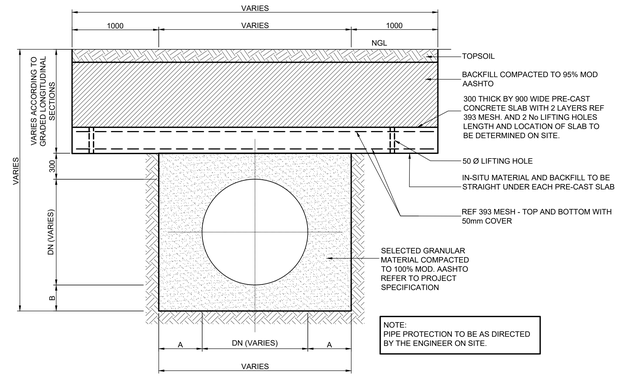
NOTE:
ALL DIMENSIONS TO BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF WORKS.
REFER ANY DISCREPANCIES TO THE ENGINEER.



TYPICAL PIPE TRENCH
NTS



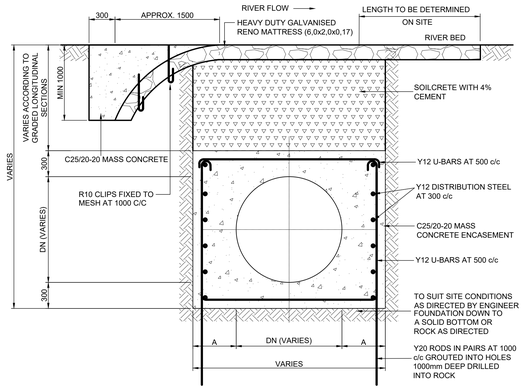
NOTE:
PIPE PROTECTION TO BE AS DIRECTED BY THE ENGINEER ON SITE.

TYPICAL PIPE PROTECTION TRENCH
NTS

BEDDING & SIDE ALLOWANCE DIMENSIONS		
NOMINAL DIAMETER (DN)	A	B
DN1200	500	300
DN650	300	200
DN550	300	200
DN400	300	200
DN300	300	200
DN200	300	200

BEDDING NOTES:

1. DIMENSION "B" TABULATED IS TO BE PLACED IN TWO LAYERS.
2. THE FIRST LAYER (B LESS 100mm) IS TO BE PLACED AND COMPACTED AS PER SPECIFICATION.
3. THE PIPE IS TO BE LAID ON THE SECOND UNCOMPACTED LAYER TO PROVIDE A FINAL BEDDING THICKNESS "B" AS STATED IN THE TABLE .



TYPICAL WATERCOURSE CROSSING DETAIL TYPE 1
NTS

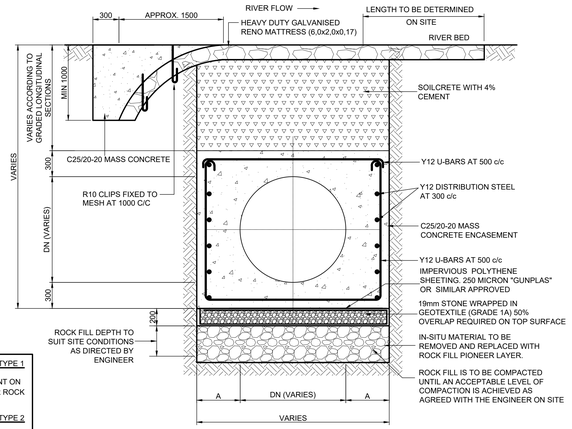
STREAM CROSSING DETAIL IS SUBJECT TO APPROVAL ON SITE BY THE ENGINEER

TYPICAL STREAM/RIVER CROSSING DETAIL TYPE 1

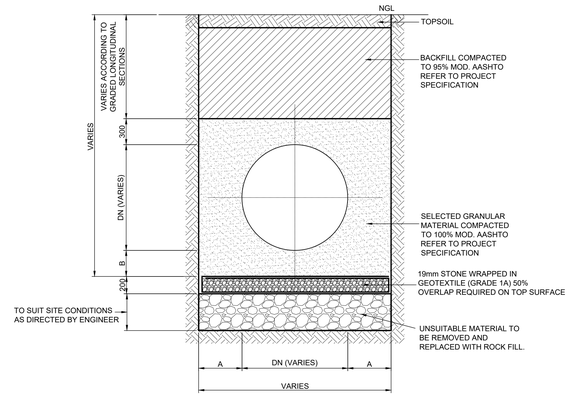
CONSTRUCTION OF CONCRETE ENCASEMENT ON RIVER BEDROCK.(I.E NO PIONEER LAYER OR ROCK FILL LAYER REQUIRED)

TYPICAL STREAM/RIVER CROSSING DETAIL TYPE 2

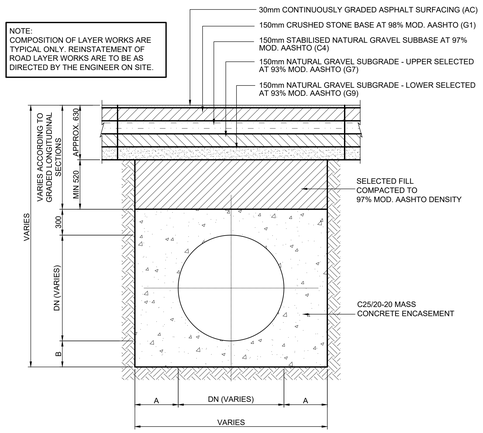
CONSTRUCTION OF CONCRETE ENCASEMENT ON PIONEER LAYER OR ROCK FILL LAYER AS DETERMINED ON SITE.



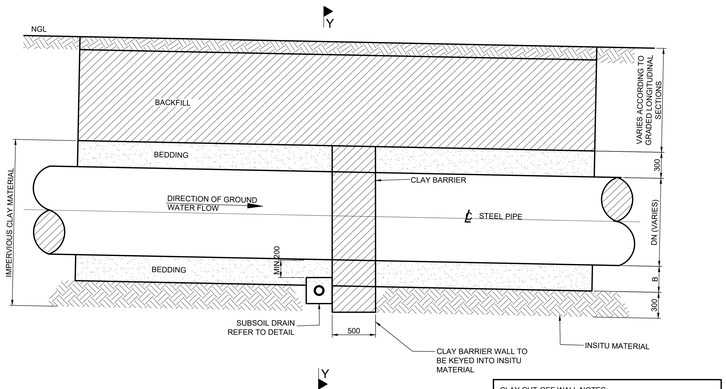
TYPICAL WATERCOURSE CROSSING DETAIL TYPE 2
NTS



TYPICAL STONE BEDDING DETAIL (HIGH WATER TABLE AREAS)
NTS



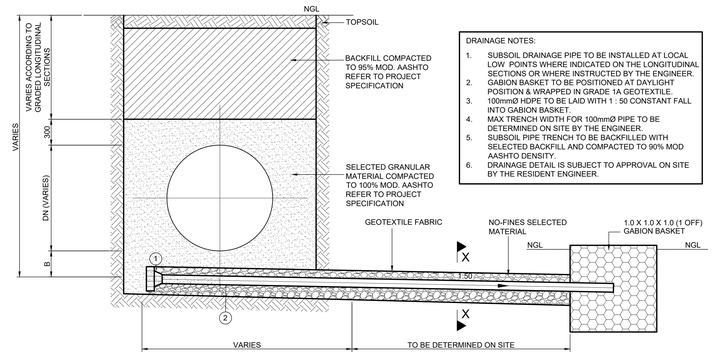
TYPICAL ROAD: TRENCH CROSSING AND LONGITUDINAL TRENCH DETAIL
NTS



ELEVATION ON CLAY CUT-OFF WALL AND SUB SOIL DRAIN DETAIL
NTS

CLAY CUT-OFF WALL NOTES:

1. COMPACTION OF IN-SITU MATERIAL AROUND SUBSOIL DRAIN UNDER MAIN PIPE TO BE 98% MOD ASSHTO.
2. CLAY BARRIER WALL TO BE INSTALLED ONLY WHERE ORDERED BY THE ENGINEER.
3. CUT-OFF WALL OF IMPERVIOUS CLAY TO BE COMPACTED IN 150mm THICK LAYERS.

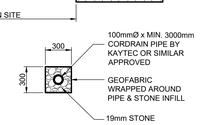


DRAINAGE NOTES:

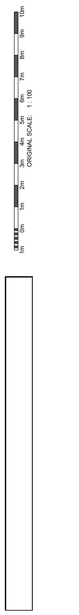
1. SUBSOIL DRAINAGE PIPE TO BE INSTALLED AT LOCAL LOW POINTS WHERE INDICATED ON THE LONGITUDINAL SECTIONS OR WHERE INSTRUCTED BY THE ENGINEER.
2. GABION BASKET TO BE POSITIONED AT DAYLIGHT POSITION & WRAPPED IN GRADE 1A GEOTEXTILE.
3. 100mmØ HDPE TO BE LAID WITH 1 : 50 CONSTANT FALL INTO GABION BASKET.
4. MAX TRENCH WIDTH FOR 100mmØ PIPE TO BE DETERMINED ON SITE BY THE ENGINEER.
5. SUBSOIL PIPE TRENCH TO BE BACKFILLED WITH SELECTED BACKFILL AND COMPACTED TO 90% MOD AASHTO DENSITY.
6. DRAINAGE DETAIL IS SUBJECT TO APPROVAL ON SITE BY THE RESIDENT ENGINEER.

PIPEWORK SCHEDULE		
ITEM	DESCRIPTION	QTY
1	110mmØ END CAP	1
2	100mmØ x MIN. 3000mm CORDRAIN PIPE BY KAYTEC, WRAPPED 1,5 TIMES IN GEOTEXTILE AND NO-FINES SELECTED MATERIAL	1

SECTION Y-Y SUBSOIL DRAIN DETAIL
NTS



SECTION X-X



No.	DATE	REVISION	CONSULT. ENG.
V1	23/11/2023	ORIGINAL VERSION	

CONSTRUCTION RECORD (AS-BUILT)
WORKS CONTRACT ENGINEER
Name :
Prof. Reg. No. :
Date :
SANRAL PROJECT MANAGER
Name :
Date :

HEAD OFFICE
48 Tambotie Avenue
Val de Grace
Pretoria
0184

PO Box 415
Pretoria 0001
South Africa

Tel: (012) 844 8000

SANRAL
SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD
Reg No. 1998/009584/30
BUILDING SOUTH AFRICA THROUGH BETTER ROADS

WESTERN REGION
1 Havenga Street
Oakdale
Bellville
7530

Private Bag X19
Bellville
7535

Tel: (021) 957 4600

ACCEPTANCE

THIS ACCEPTANCE IS FOR PROCEDURAL AND ADMINISTRATIVE REVIEW PURPOSES ONLY AND DOES NOT ATTRACT LEGAL LIABILITY OR LIABILITY OF ANY KIND FROM WHATSOEVER CAUSE OR HOWEVER ARISING

for the SA NATIONAL ROADS AGENCY SOC LTD.
Date:

PROJECT DESCRIPTION
THE CAPACITY IMPROVEMENT OF THE NATIONAL ROUTE 1 SECTION 1 FROM OLD OAK INTERCHANGE (KM 18.90) TO KOELENOFF INTERCHANGE (KM 33.00)

DRAWING DESCRIPTION
N1 - WEMMERSHOEK PIPELINE RELOCATION
SECTION B - KRAAIFONTEIN TO BRACKENFELL
TYPICAL TRENCH DETAILS

SCALE : AS SHOWN | SHEET 1 OF 1

PROJECT NUMBER	N.001-010-2021/1	
DRAWING LOCATION DATA	START	END
ROUTE	N01	N01
SECTION	01	01
DRAWING km DISTANCE	18.90	33.00
DRAWING TYPE	ROADS-UTILITIES	
BRIDGE/STRUCTURE No.	-	
CONSULTANT DRAWING No.	312-0827-B-E01	VER
SANRAL DOCUMENT #	-	V1