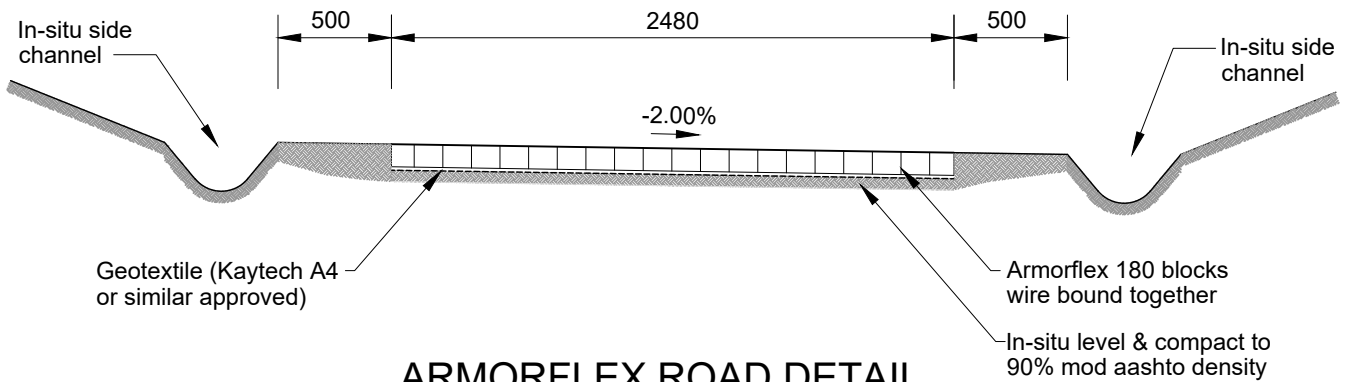
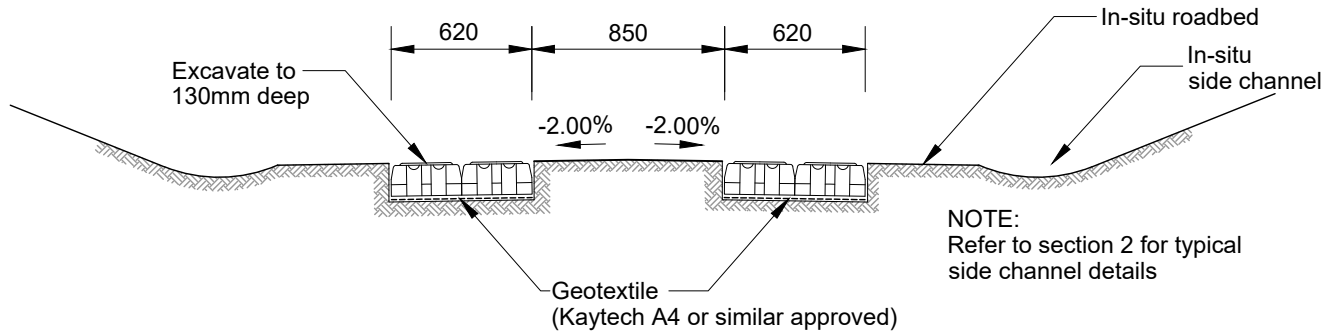


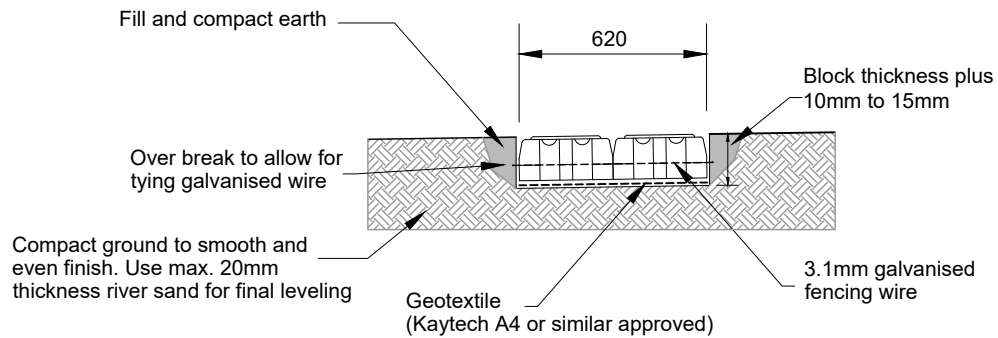
**ARMORFLEX ROAD DETAIL  
CHAMBER OPTION**



**ARMORFLEX ROAD DETAIL  
CROSSFALL OPTION**

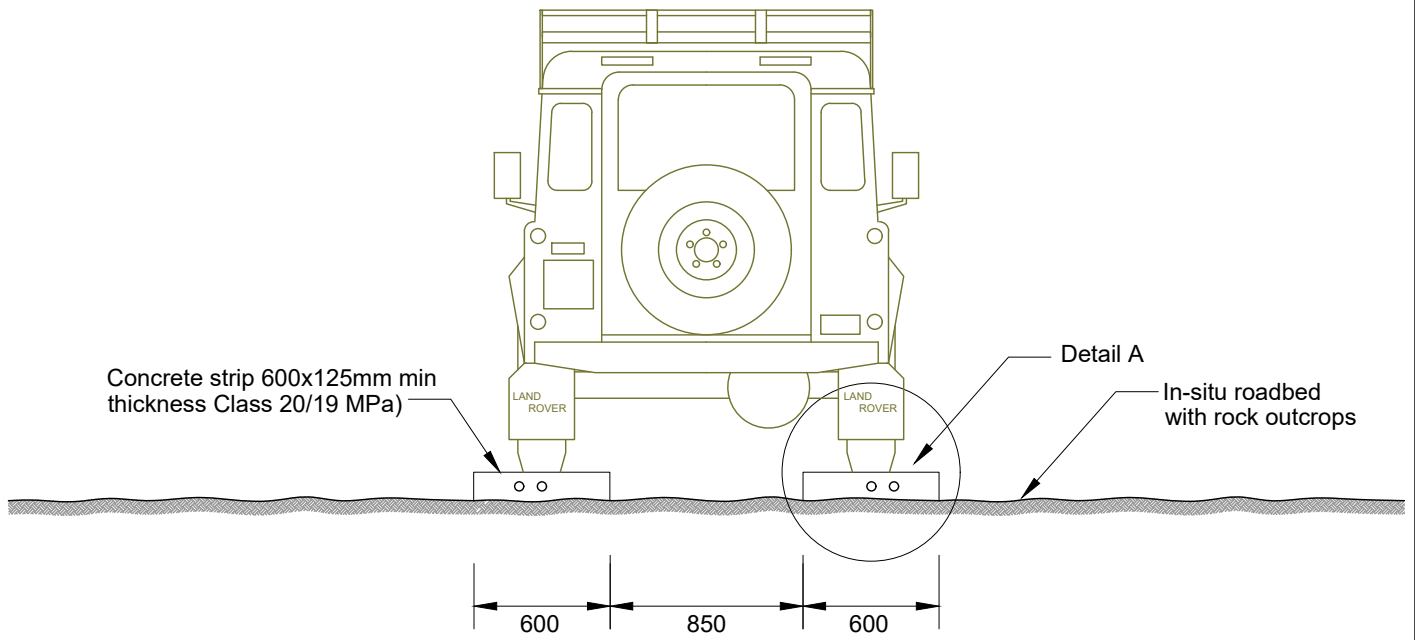


## ARMORFLEX STRIP ROAD DETAIL

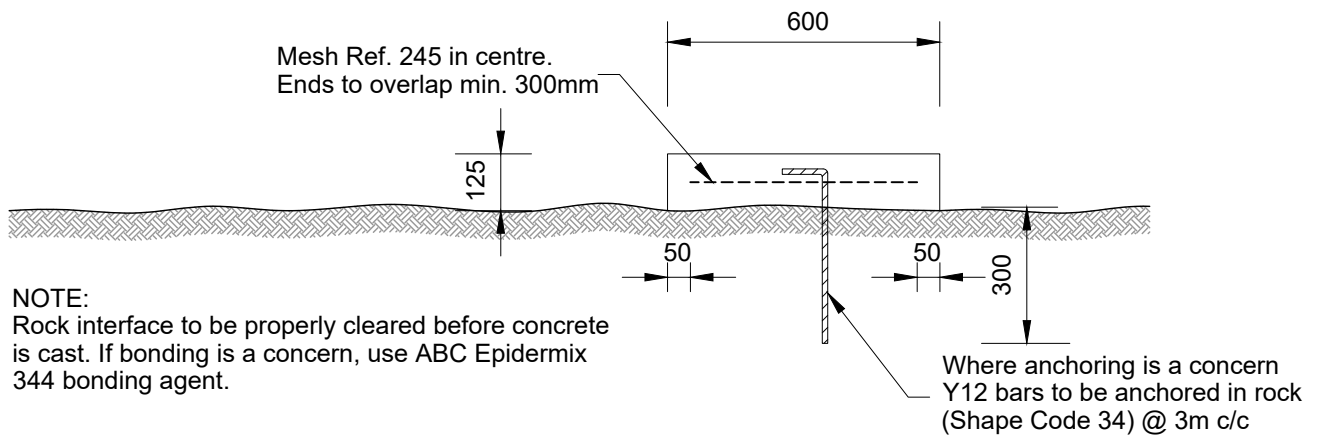


## DETAIL SECTION THROUGH ARMORFLEX STRIP




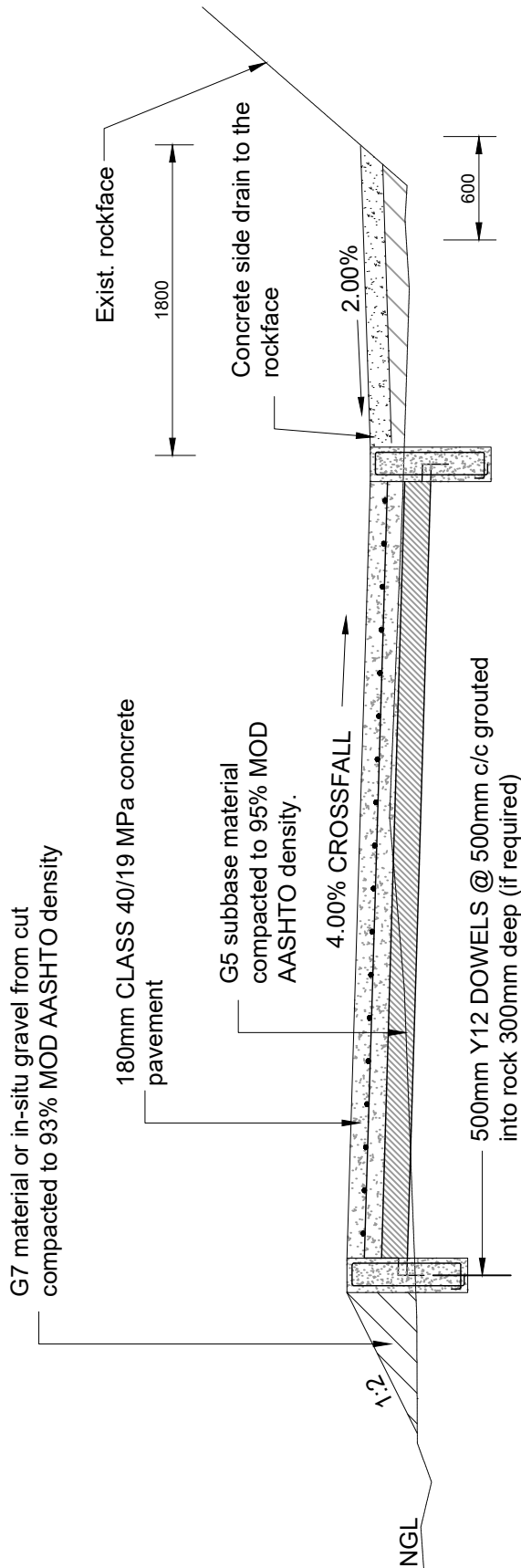


### DETAIL OF CONCRETE STRIP ROAD



### DETAIL A

 <p><b>V3 CONSULTING ENGINEERS</b></p> <p>T : +27 (0) 41 045 0420 email : portelizabeth@v3consulting.co.za</p> <p>83 Circular Drive, Overbaakens, Gqeberha, 6070 South Africa</p> <p><b>CESA</b> Consulting Engineers South Africa</p>	CLIENT		TITLE		DRAWING NO.		REV.
	CAPENATURE		STORM DAMAGED ASSESSMENT ROAD DETAIL 1(D)		11755000-1.4		
	DRAWN	SCALE	0 30		30 MILLIMETRES ON ORIGINAL DRAWING		
	L. Rogers	AS SHOWN					
CHECKED	DATE			FILE PATH			
L. Streicher	2025-08-01			Sharepoint \ Port Elizabeth \ 11755000 \ Capenature \ 03 Drw \ 01 Office \ 05 Draw ????			



**DETAIL OF CONCRETE ROADWAY - SLOPE**



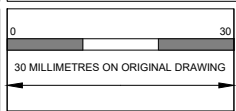
**V3 CONSULTING ENGINEERS**  
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 email : portelizabeth@v3consulting.co.za  
 83 Circular Drive, Overbaakens, Gqeberha, 6070 South Africa

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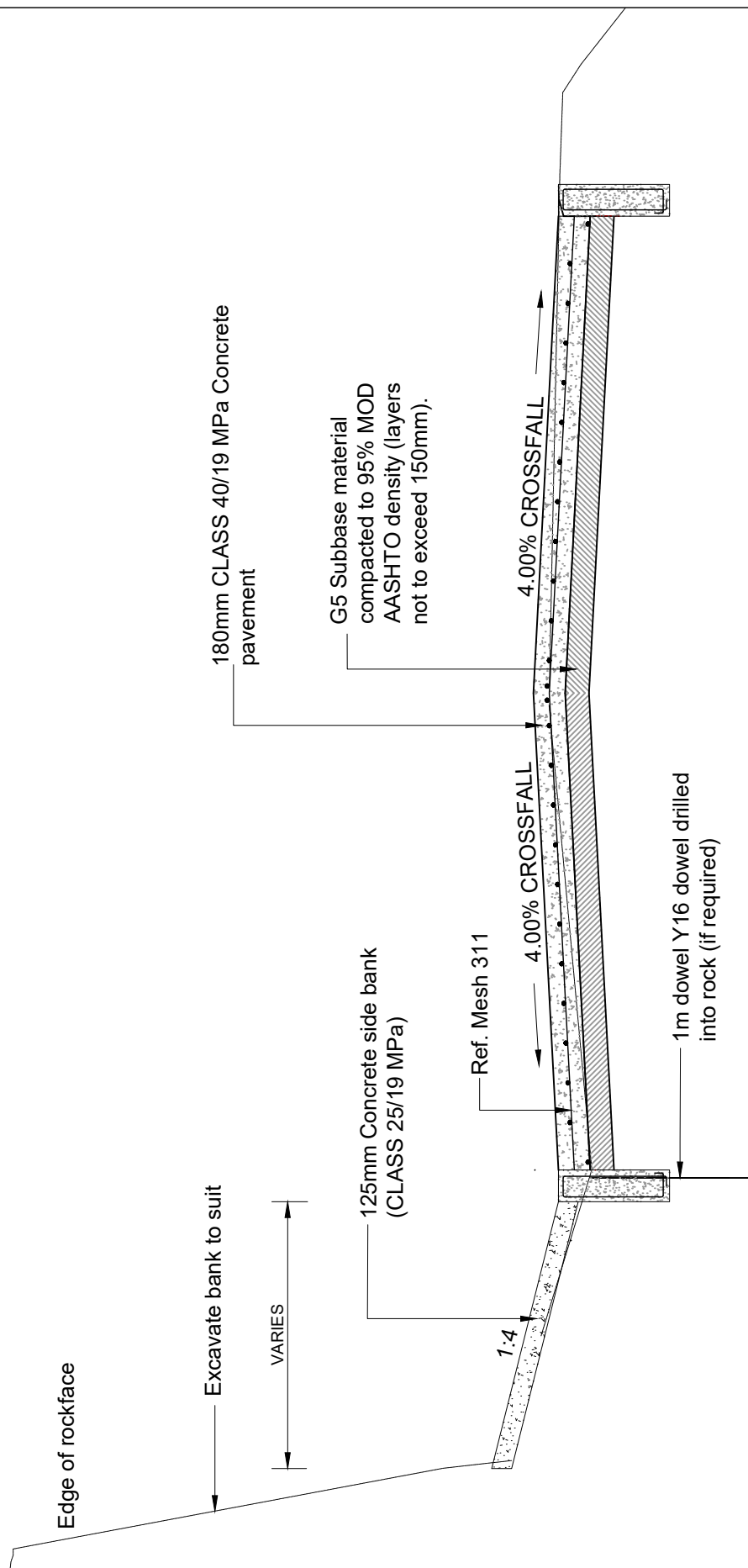
CLIENT	
CAPENATURE	

TITLE	
STORM DAMAGED ASSESSMENT ROAD DETAIL 1(E)	

DRAWN	SCALE
L. Rogers	AS SHOWN
CHECKED	DATE
L. Streicher	2025-08-01



DRAWING NO.	REV.
11755000-1.5	
FILE PATH	
Sharepoint \ Port Elizabeth \ 11755000 \ Capenature \ 03 Drw \ 01 Office \ 05 Draw ????	



**DETAIL OF CONCRETE ROADWAY - CHAMBER**

**V3 CONSULTING ENGINEERS**

T : +27 (0) 41 045 0420  
 email : portelizabeth@v3consulting.co.za

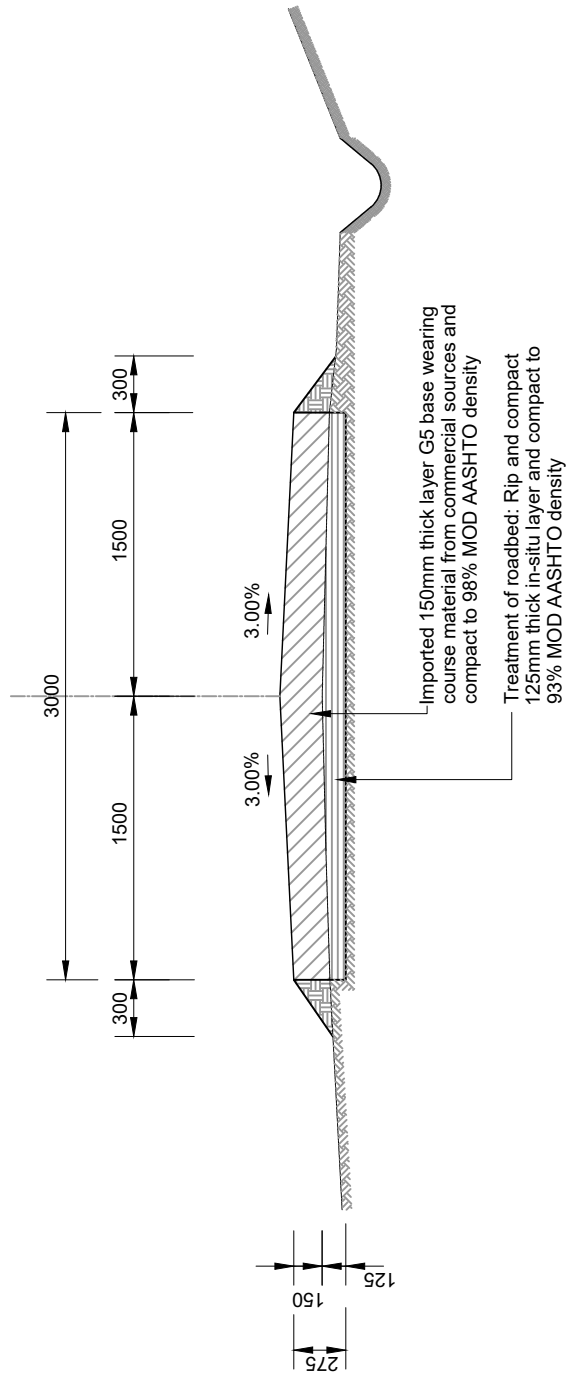
83 Circular Drive, Overbaakens, Gqeberha, 6070 South Africa

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Consulting Engineers South Africa

CLIENT	
CAPENATURE	
DRAWN	SCALE
L. Rogers	AS SHOWN
CHECKED	DATE
L. Streicher	2025-08-01

TITLE		STORM DAMAGED ASSESSMENT ROAD DETAIL 1(F)	
DRAWING NO.		11755000-1.6	
FILE PATH		Sharepoint \ Port Elizabeth \ 11755000 \ Capenature \ 03 Drw \ 01 Office \ 05 Draw ????	
		REV.	



**DETAIL OF GRAVEL ROADWAY**

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 email : portelizabeth@v3consulting.co.za

83 Circular Drive, Overbaakens, Gqeberha, 6070 South Africa

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 Consulting Engineers South Africa

CLIENT  
**CAPENATURE**

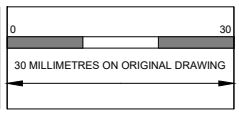
TITLE  
**STORM DAMAGED ASSESSMENT ROAD DETAIL 1(G)**

DRAWN  
 L. Rogers

SCALE  
 AS SHOWN

CHECKED  
 L. Streicher

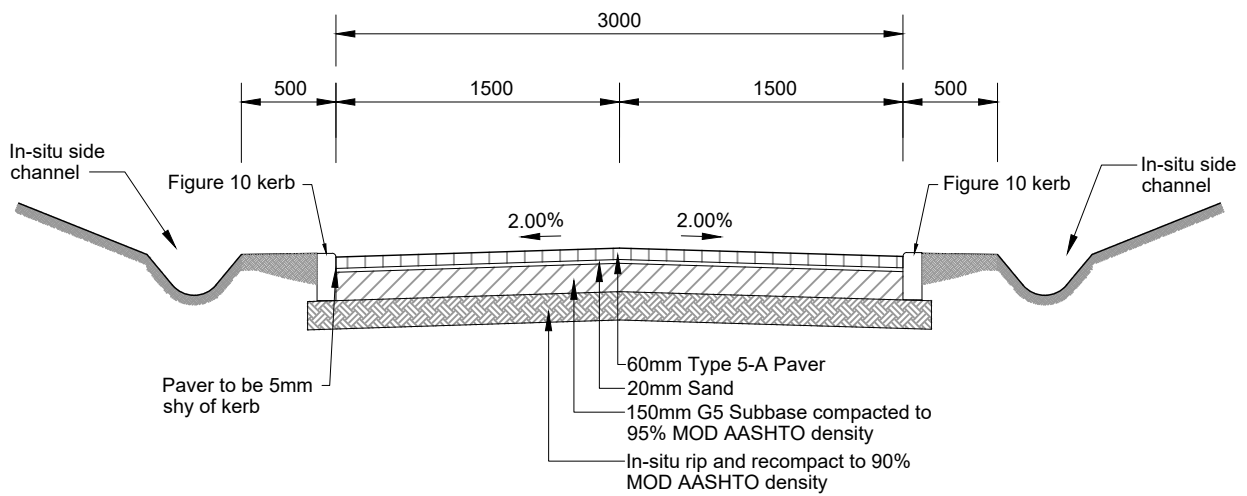
DATE  
 2025-08-01



DRAWING NO.  
**11755000-1.7**

REV.

FILE PATH  
 Sharepoint \ Port Elizabeth \ 11755000 \ Capenature \ 03 Drw \ 01 Office \ 05 Draw ????



**DETAIL OF BRICK PAVED ROADWAY**

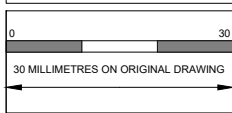
**V3 CONSULTING ENGINEERS**  
 T : +27 (0) 41 045 0420  
 email : portelizabeth@v3consulting.co.za  
 83 Circular Drive, Overbaakens, Gqeberha, 6070 South Africa

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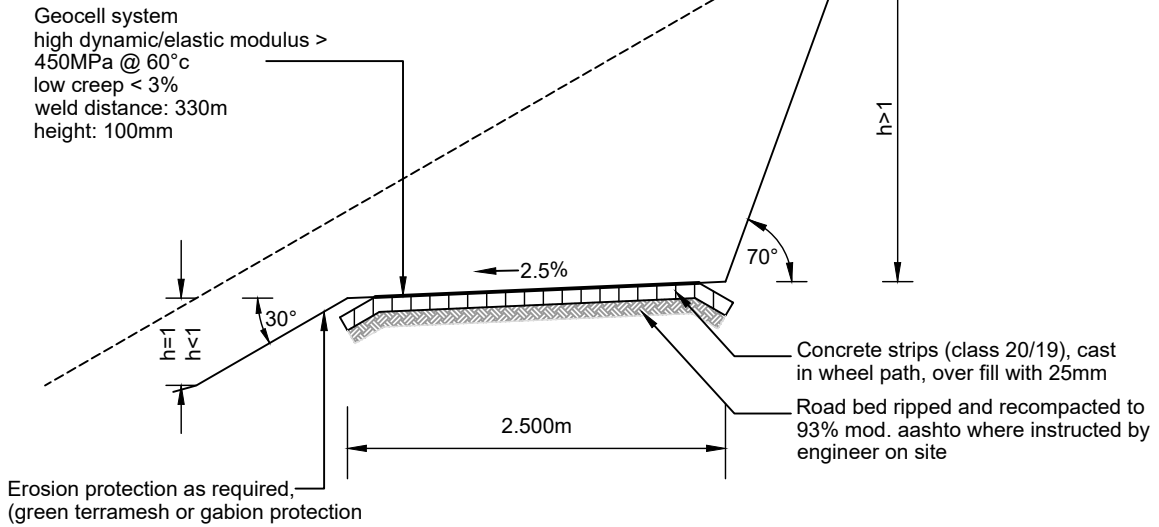
CLIENT  
**CAPENATURE**

TITLE  
**STORM DAMAGED ASSESSMENT ROAD DETAIL 1(H)**

DRAWN L. Rogers	SCALE AS SHOWN
CHECKED L. Streicher	DATE 2025-08-01

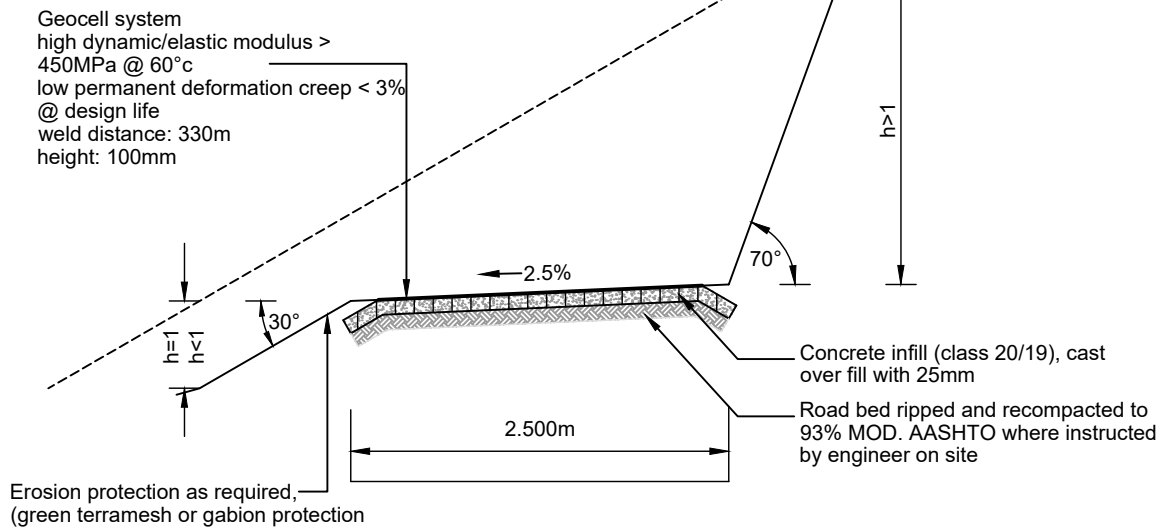


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FILE PATH Sharepoint \ Port Elizabeth \ 11755000 \ Capenature \ 03 Drw \ 01 Office \ 05 Draw ????	




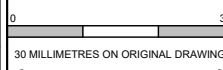
**NOTE:**  
Cut and fill slopes to be 30° with h between 0m and 1m, and 70°  
(or to retaining wall specification) where h is greater than 1m

## GEOCELL REINFORCED CONCRETE STRIP ROAD

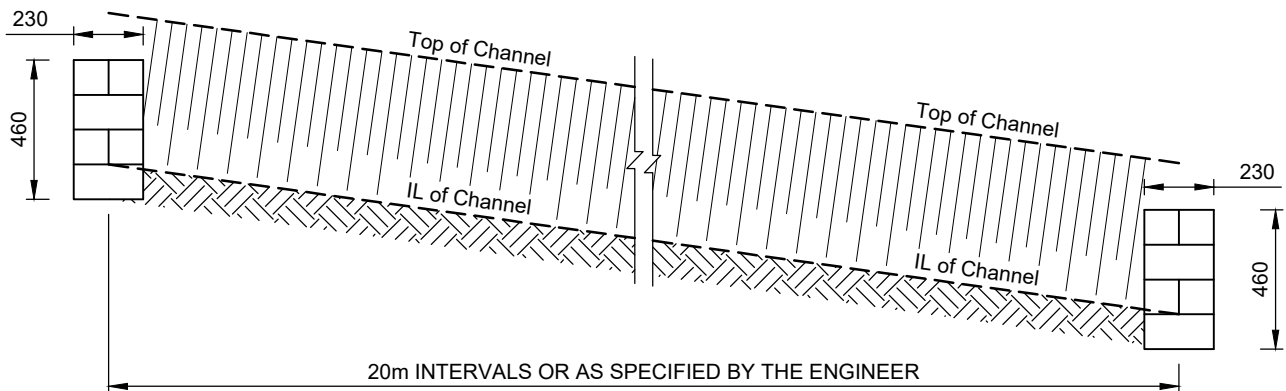


**NOTE:**  
Cut and fill slopes to be 30° with h between 0m and 1m, and 70°  
(or to retaining wall specification) where h is greater than 1m

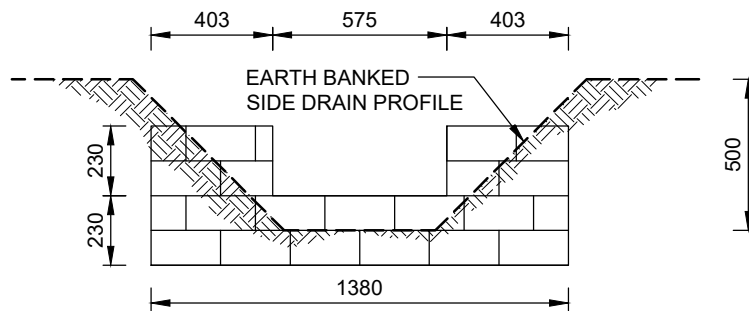
## GEOCELL REINFORCED CONCRETE SLAB/DRIFT ROAD

 <b>V3 CONSULTING ENGINEERS</b> <small>T : +27 (0) 41 045 0420 email : portelizabeth@v3consulting.co.za 83 Circular Drive, Overbaakens, Gqeberha, 6070 South Africa</small> <div style="text-align: right;"><b>CESA</b></div>	<b>CLIENT</b> <p style="font-size: 1.2em;">CAPENATURE</p>	<b>TITLE</b> <p style="font-size: 1.2em;">STORM DAMAGED ASSESSMENT ROAD DETAIL 1(I)</p>		
	<b>DRAWN</b> L. Rogers	<b>SCALE</b> AS SHOWN		<b>DRAWING NO.</b> <p style="font-size: 1.2em;">1175001-1.9</p>
	<b>CHECKED</b> L. Streicher	<b>DATE</b> 2025-08-01	<b>FILE PATH</b> Sharepoint \ Office Name \ Project Number \ Project Name \ 05 Const \ 01 Office \ 05 Draw	

# 2100 - TYPICAL DRAIN DETAILS



**DETAIL OF BOLSTER**  
SCALE 1:25



**SECTION OF BOLSTER**  
SCALE 1:25

**V3 CONSULTING ENGINEERS**

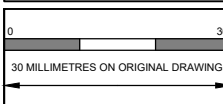
T: +27 (0) 44 691 2305  
email: mosselbaai@v3consulting.co.za



CLIENT  
**CapeNature**

TITLE  
**REMEDIAL WORK TO ROADS & STORM WATER  
2100  
TYPICAL DRAIN DETAILS**

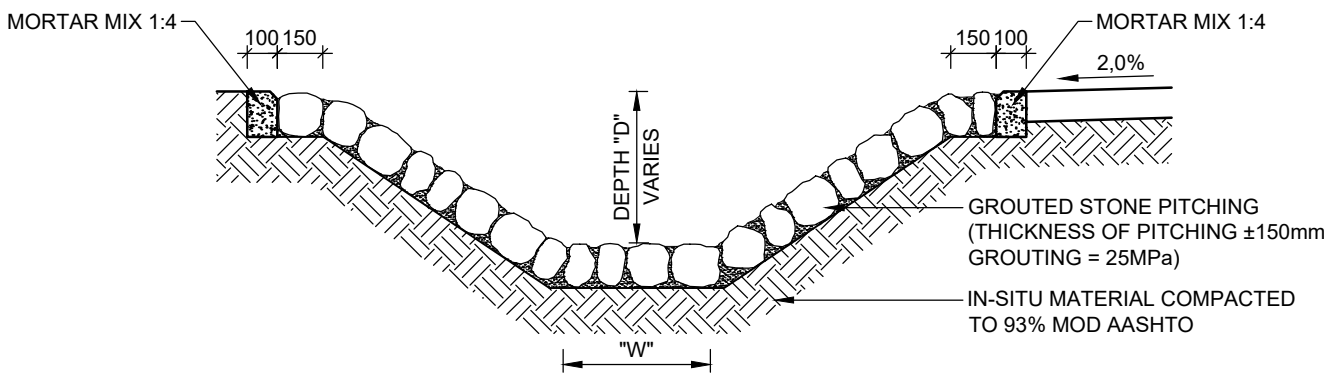
DRAWN  
K Steenkamp  
SCALE  
AS SHOWN  
CHECKED  
L Steicher  
DATE  
2025-08-01



DRAWING NO.  
**11755000 - B1**  
REV.  
FILE PATH  
Sharepoint \ Mossel Bay \ 11755000 \ CapeNature  
\ 02 Concept \ 04 Draw

# 2100 - TYPICAL DRAIN DETAILS

"W" mm	"D" (MIN) mm	SIZE/MASS OF PITCHING
250	250	LIGHT
500	500	LIGHT
750	500	ORDINARY
1000	500	ORDINARY



**TYPICAL STONE PITCHING**  
SCALE 1:25

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**CESA**

CLIENT  
**CapeNature**

DRAWN  
K Steenkamp

CHECKED  
L Steicher

SCALE  
AS SHOWN

DATE  
2025-08-01

TITLE  
**REMEDIAL WORK TO ROADS & STORM WATER  
2100  
TYPICAL DRAIN DETAILS**

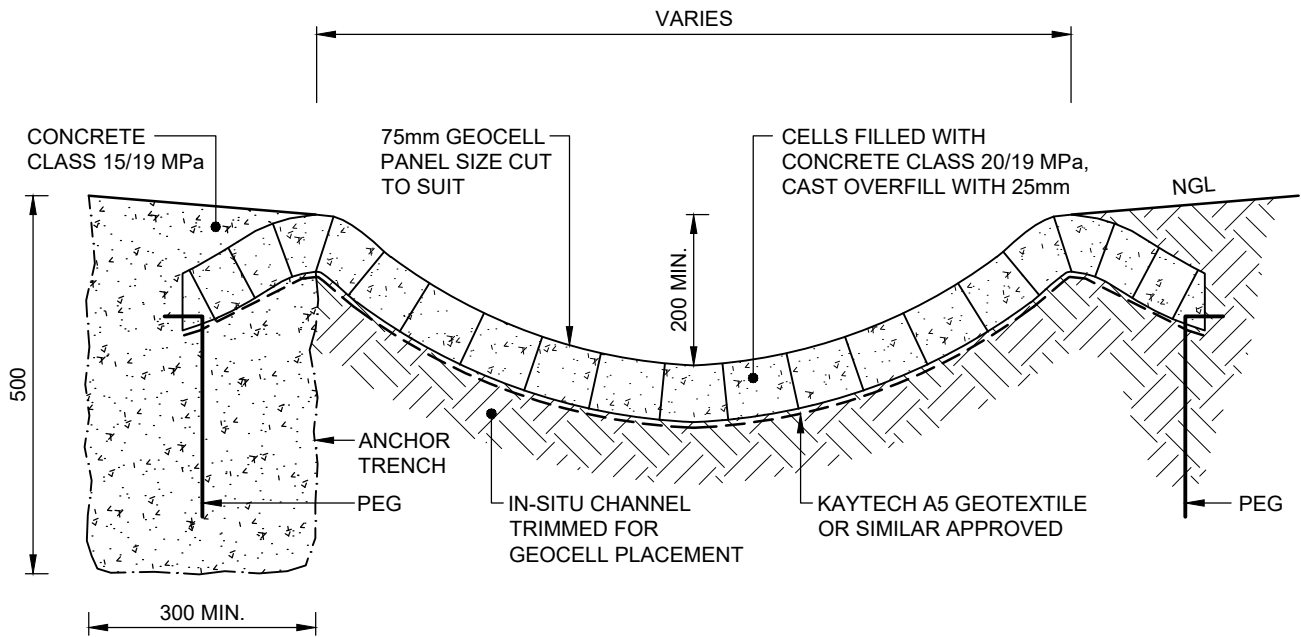
DRAWING NO.  
**11755000 - B2**

REV.

FILE PATH  
Sharepoint \ Mossel Bay \ 11755000 \ CapeNature  
\ 02 Concept \ 04 Draw

0 30  
30 MILLIMETRES ON ORIGINAL DRAWING

# 2100 - TYPICAL DRAIN DETAILS



**GEOCELL SIDE DRAIN**  
SCALE 1:10

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PO Box 730, Mossel Bay, 6500, South Africa

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CLIENT  
**CapeNature**

DRAWN  
K Steenkamp

SCALE  
AS SHOWN

CHECKED  
L Steicher

DATE  
2025-08-01

TITLE  
**REMEDIAL WORK TO ROADS & STORM WATER  
2100  
TYPICAL DRAIN DETAILS**

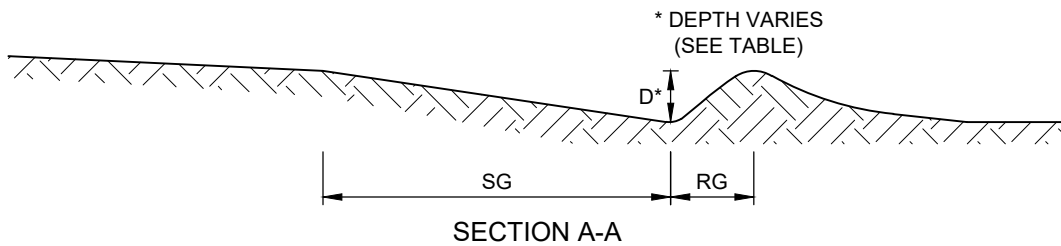
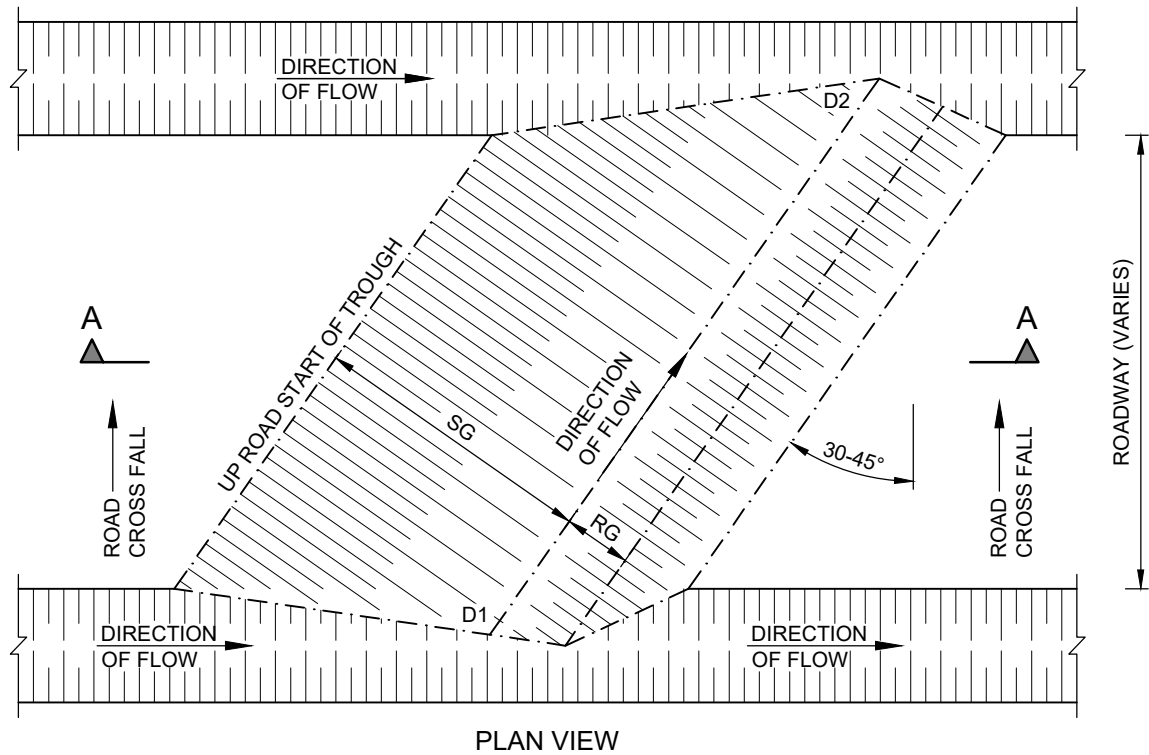
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**11755000 - B3**

REV.

FILE PATH  
Sharepoint \ Mossel Bay \ 11755000 \ CapeNature  
\ 02 Concept \ 04 Draw

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30 MILLIMETRES ON ORIGINAL DRAWING

# 2100 - TYPICAL CROSS DRAINAGE DETAILS



ROAD GRADE %	UPSLOPE APPROACH DISTANCE (SG) (from up road start to trough) m	REVERSE GRADE DISTANCE (RG) (from trough to crest) m	DEPTH AT TROUGH INLET (D1) (below average road grade) m	DEPTH AT TROUGH OUTLET (D2) (below average road grade) m
< 6	1.7	0.45 - 0.60	0.01	0.27
8	2.0	0.45 - 0.60	0.01	0.30
10	2.3	0.45 - 0.60	0.01	0.34
12	2.6	0.60 - 0.75	0.01	0.37
> 12	3.0	0.60 - 0.75	0.01	0.40

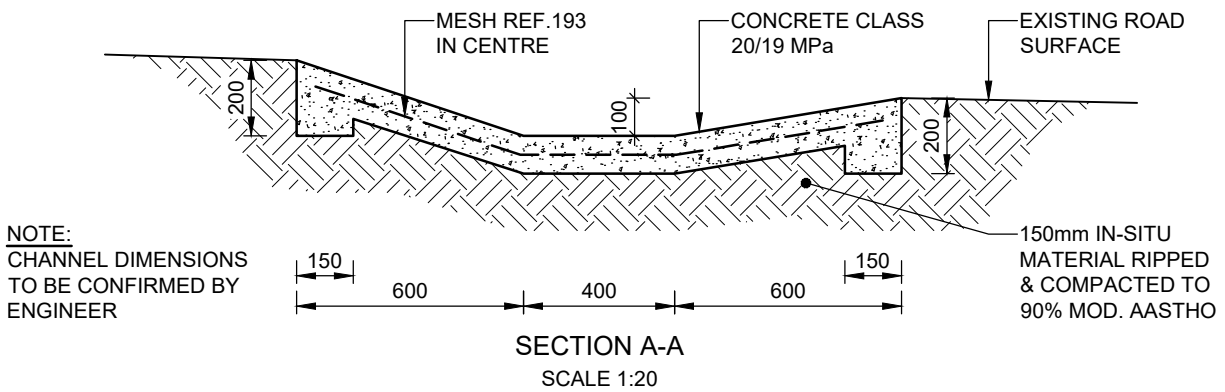
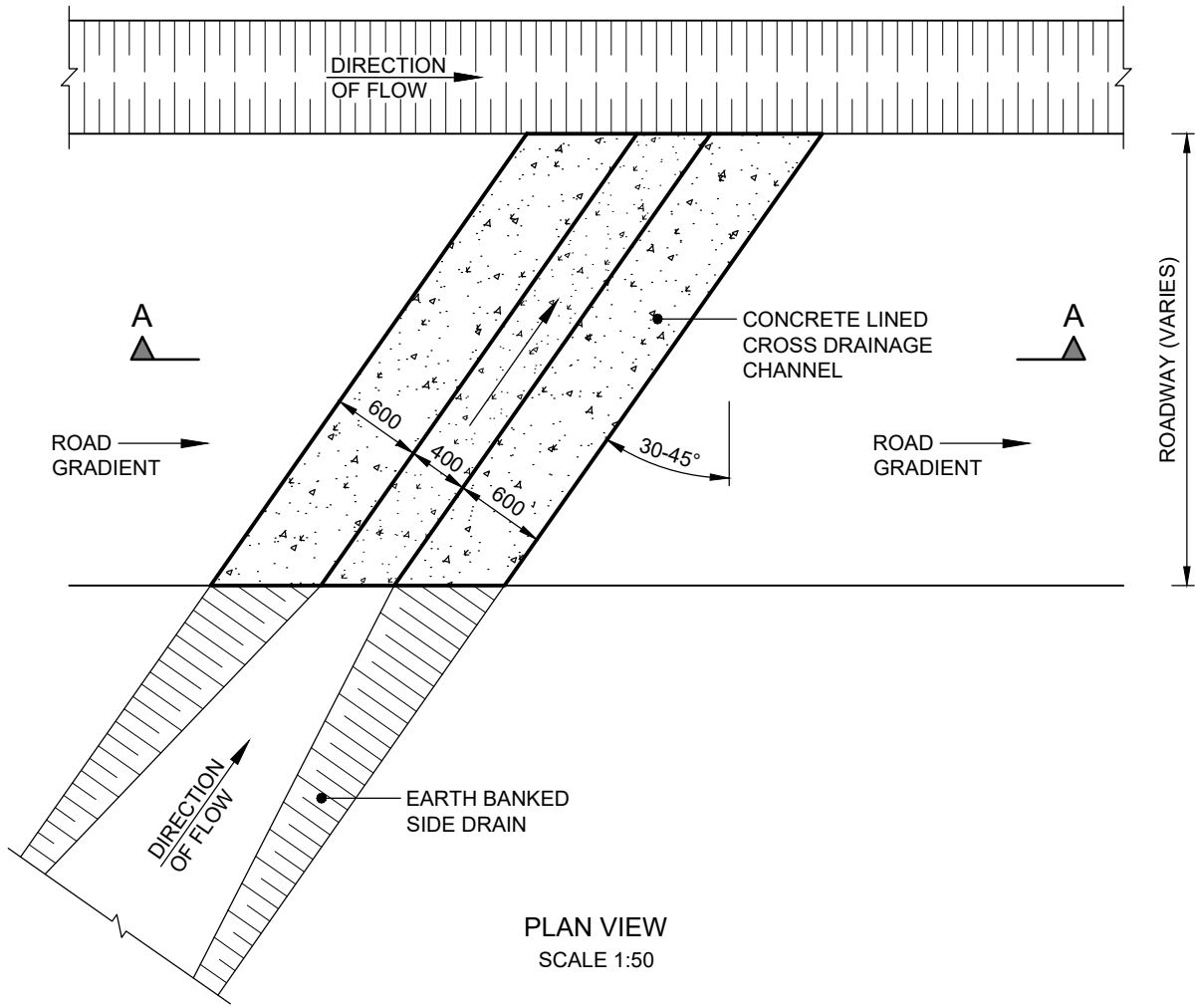
TABLE

## WATERBAR DETAIL

SCALE 1:50

<p><b>V3 CONSULTING ENGINEERS</b>                  T : +27 (0) 44 691 2305                  email : mosselbaai@v3consulting.co.za                  4 Mascador Street, Voor Bay, Mossel Bay, 6506                  PO Box 730, Mossel Bay, 6500, South Africa</p>	CLIENT <b>CapeNature</b>	TITLE <b>REMEDIAL WORK TO ROADS &amp; STORM WATER                  2100                  TYPICAL CROSS DRAINAGE DETAILS</b>		
	DRAWN K Steenkamp	SCALE AS SHOWN		DRAWING NO. <b>11755000 - C1</b>
	CHECKED L Steicher	DATE 2025-08-01	FILE PATH Sharepoint \ Mossel Bay \ 11755000 \ CapeNature \ 02 Concept \ 04 Draw	REV.

# 2100 - TYPICAL CROSS DRAINAGE DETAILS



**CONCRETE CROSS DRAIN DETAIL**  
SCALE AS SHOWN

**V3 CONSULTING ENGINEERS**

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**CESA**

CLIENT  
**CapeNature**

DRAWN  
K Steenkamp

CHECKED  
L Steicher

SCALE  
AS SHOWN

DATE  
2025-08-01

TITLE  
**REMEDIAL WORK TO ROADS & STORM WATER  
2100  
TYPICAL CROSS DRAINAGE DETAILS**

DRAWING NO.  
**11755000 - C2**

REV.

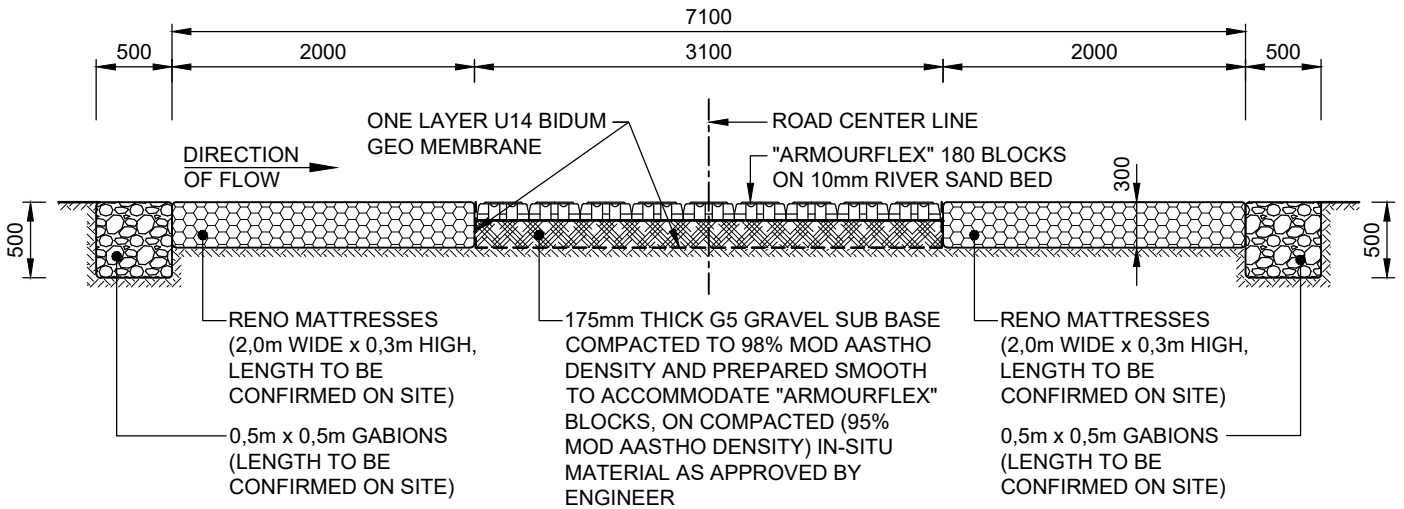
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Sharepoint \ Mossel Bay \ 11755000 \ CapeNature  
\ 02 Concept \ 04 Draw

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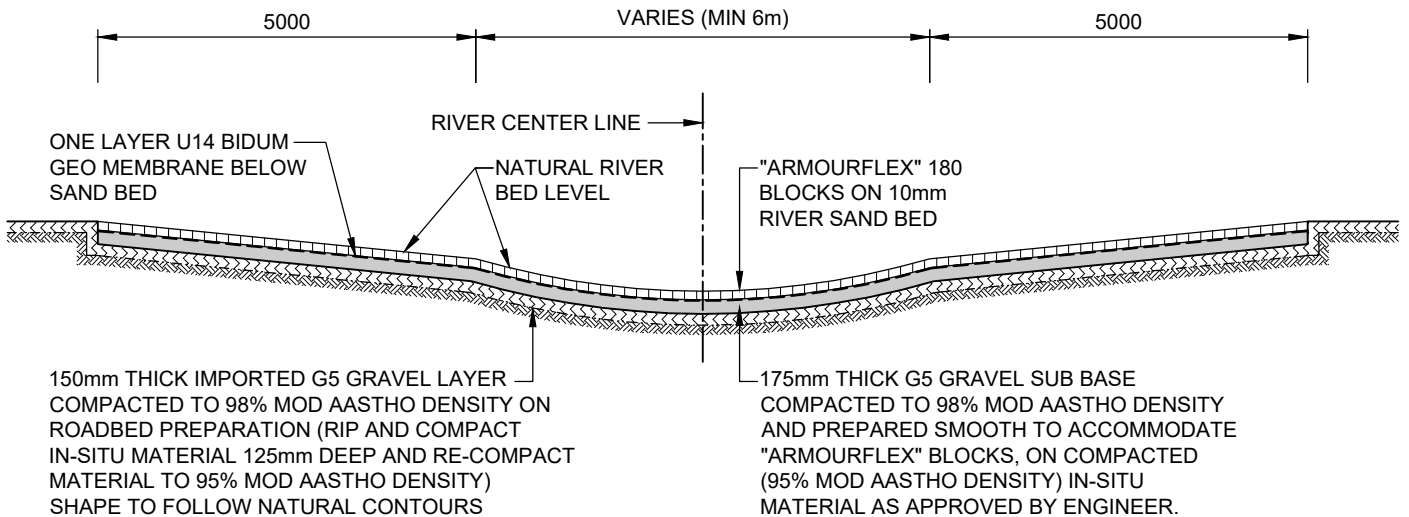
# 2200 - TYPICAL DRIFT / LOW-LEVEL CROSSING DETAILS

**NOTE:**

"RENO MATTRESSES" TOP LEVEL TO BE ON SAME LEVEL AS EXISTING RIVER BED AND ADJACENT GROUND LEVEL. MATTRESSES AND PRECAST BLOCKS TO TAKE PROFILE OF NATURAL GROUND.



LONGITUDINAL SECTION TROUGH RIVER BED  
CROSS SECTION THROUGH ROAD  
SCALE 1:50



LONGITUDINAL SECTION TROUGH ROAD  
CROSS SECTION THROUGH RIVER BED  
SCALE 1:100

## ARMOURFLEX LOW LEVEL CROSSING DETAIL SCALE AS SHOWN

**V3 CONSULTING ENGINEERS**  
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email: mosselbaai@v3consulting.co.za  
4 Mascador Street, Voor Bay, Mossel Bay, 6500  
PO Box 730, Mossel Bay, 6500, South Africa

**CESA**  
CONSULTING ENGINEERS

CLIENT  
**CapeNature**

DRAWN  
K Steenkamp

CHECKED  
L Steicher

SCALE  
AS SHOWN

DATE  
2025-08-01

TITLE  
**REMEDIAL WORK TO ROADS & STORM WATER  
2200  
TYPICAL DRIFT / LOW LEVEL CROSSING DETAILS**

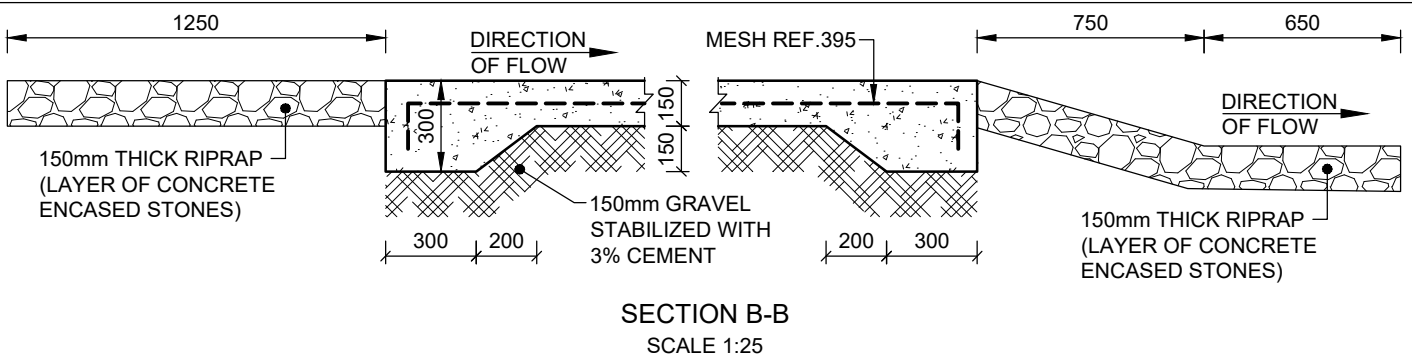
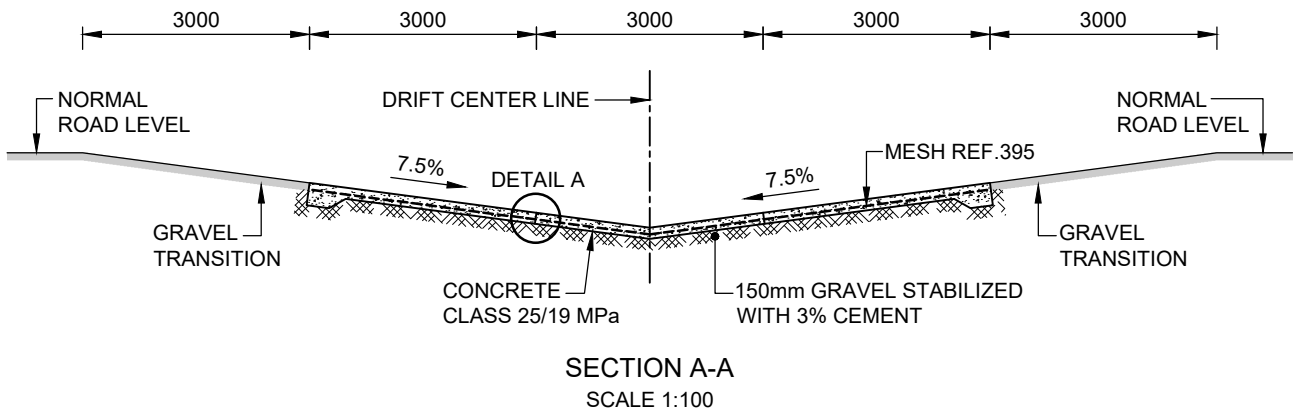
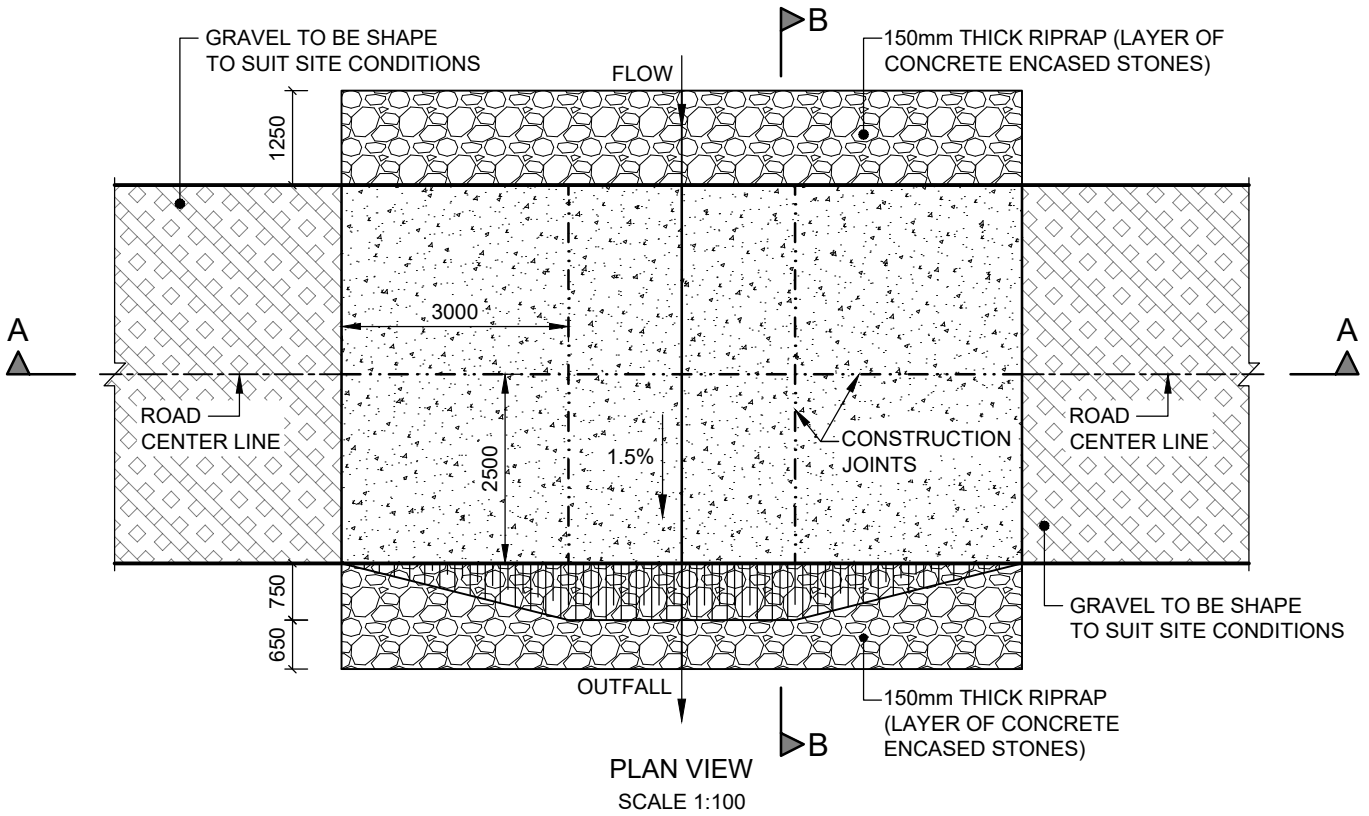
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REV.

FILE PATH  
Sharepoint \ Mossel Bay \ 11755000 \ CapeNature  
\ 02 Concept \ 04 Draw

0 30  
30 MILLIMETRES ON ORIGINAL DRAWING

# 2200 - TYPICAL DRIFT / LOW-LEVEL CROSSING DETAILS



## CONCRETE DRIFT DETAIL SCALE AS SHOWN

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4 Mascador Street, Voor Bay, Mossel Bay, 6500  
PO Box 730, Mossel Bay, 6500, South Africa



CLIENT  
**CapeNature**



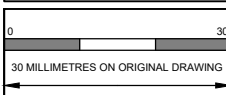
TITLE  
**REMEDIAL WORK TO ROADS & STORM WATER  
2200  
TYPICAL DRIFT / LOW LEVEL CROSSING DETAILS**

DRAWN  
K Steenkamp

SCALE  
AS SHOWN

CHECKED  
L Steicher

DATE  
2025-08-01

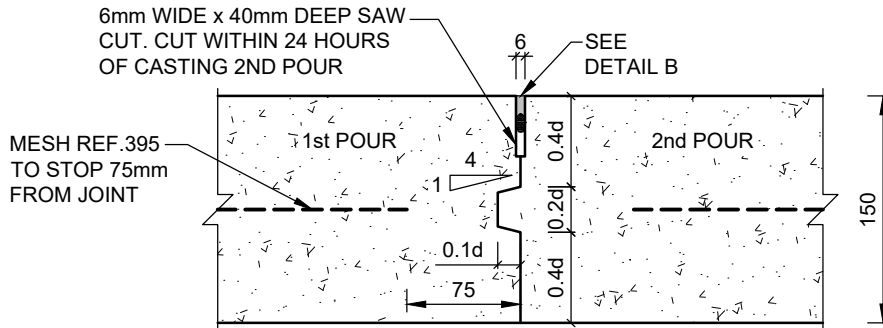


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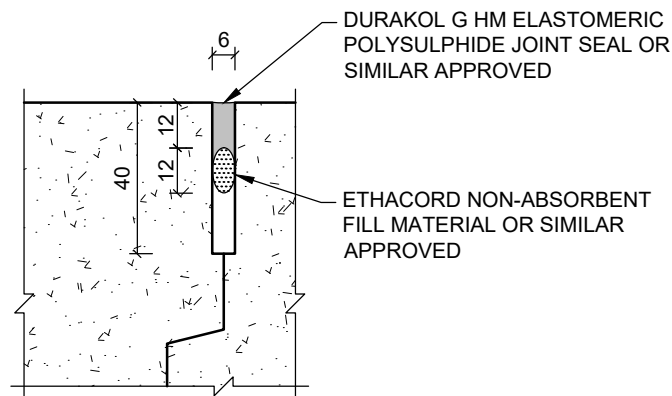
FILE PATH  
Sharepoint \ Mossel Bay \ 11755000 \ CapeNature  
\ 02 Concept \ 04 Draw

REV.

# 2200 - TYPICAL DRIFT / LOW-LEVEL CROSSING DETAILS



DETAIL A - CONSTRUCTION JOINT  
SCALE 1:5



DETAIL B - JOINT SEAL  
SCALE 1:2

## CONCRETE DRIFT JOINT DETAILS SCALE AS SHOWN

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**CapeNature**

DRAWN  
K Steenkamp

SCALE  
AS SHOWN

CHECKED  
L Steicher

DATE  
2025-08-01

TITLE  
REMEDIAL WORK TO ROADS & STORM WATER  
2200  
TYPICAL DRIFT / LOW LEVEL CROSSING DETAILS

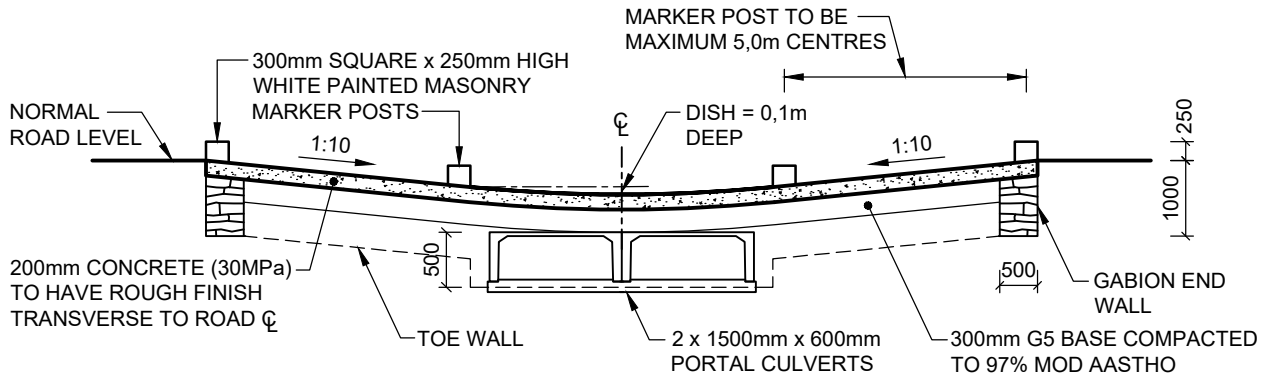
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REV.

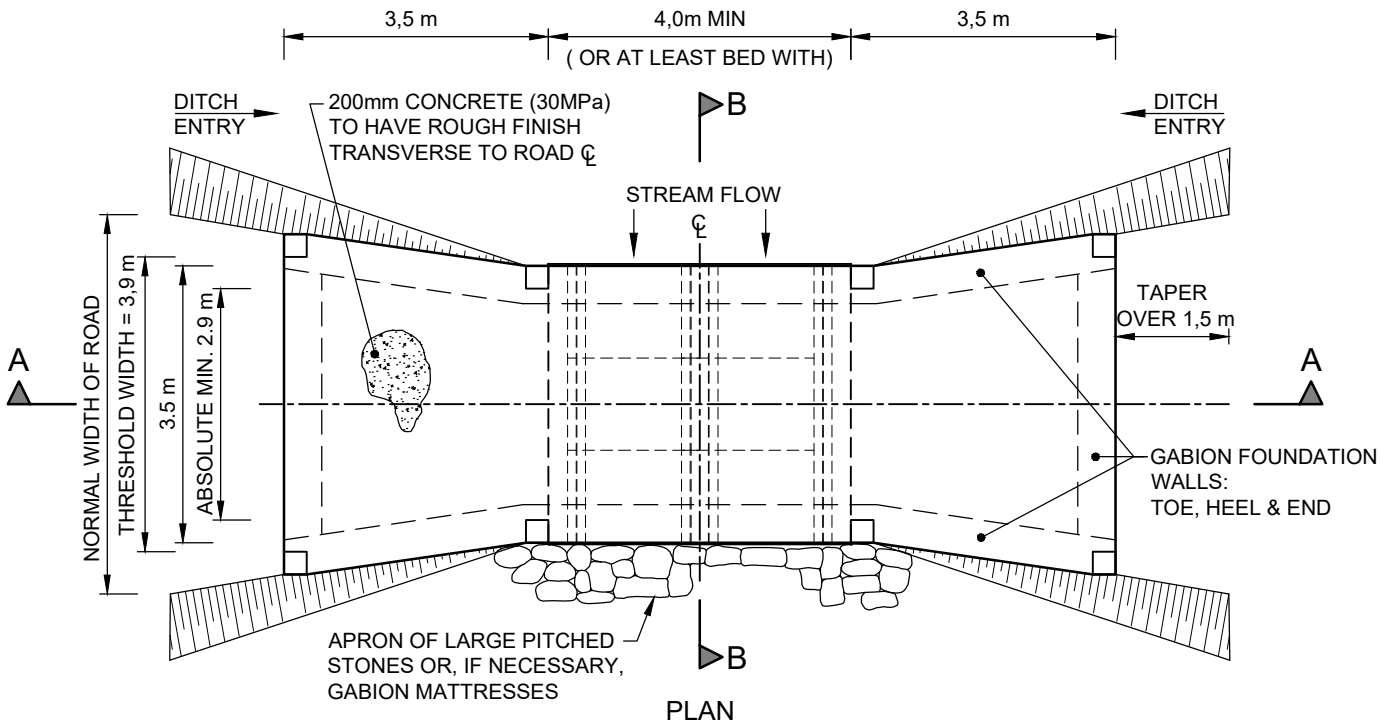
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\ 02 Concept \ 04 Draw

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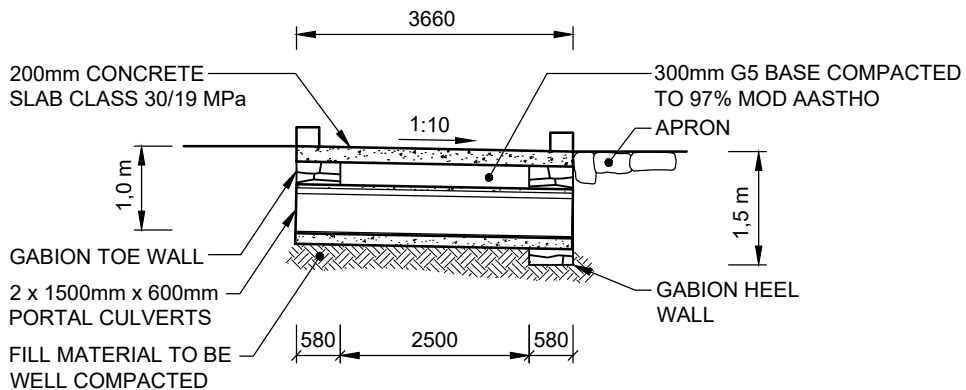
# 2200 - TYPICAL DRIFT / LOW-LEVEL CROSSING DETAILS



SECTION A-A



PLAN



SECTION B-B

## LOW LEVEL CROSSING DETAIL

SCALE 1:100

**V3 CONSULTING ENGINEERS**

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email: mosselbaai@v3consulting.co.za

4 Mascard Street, Voor Bay, Mossel Bay, 6500  
PO Box 730, Mossel Bay, 6500, South Africa



CLIENT

CapeNature



TITLE

REMEDIAL WORK TO ROADS & STORM WATER  
2200  
TYPICAL DRIFT / LOW LEVEL CROSSING DETAILS

DRAWN

K Steenkamp

SCALE

AS SHOWN

CHECKED

L Steicher

DATE

2025-08-01

0

30

30 MILLIMETRES ON ORIGINAL DRAWING

DRAWING NO.

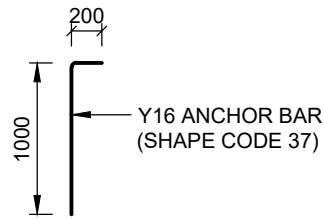
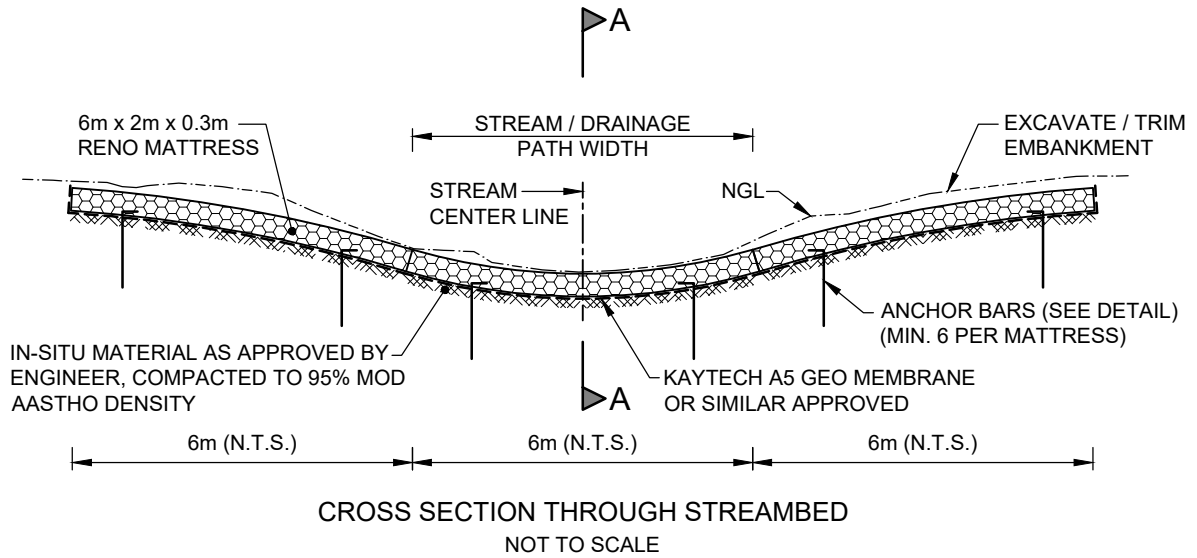
11755000 - D3

REV.

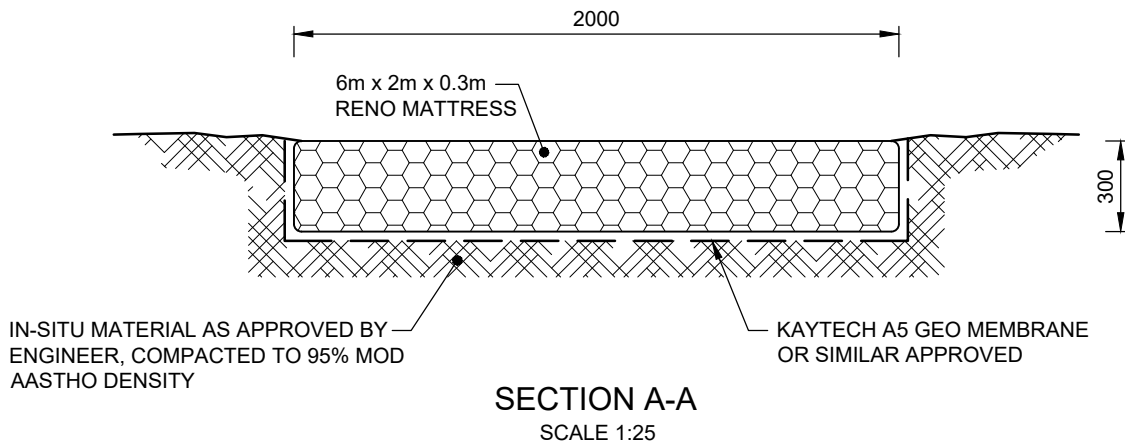
FILE PATH

Sharepoint \ Mossel Bay \ 11755000 \ CapeNature  
\ 02 Concept \ 04 Draw

# 2200 - TYPICAL DRIFT / LOW-LEVEL CROSSING DETAILS



**ANCHOR BAR DETAIL**  
SCALE 1:50



**RENO MATTRESS DRIFT DETAIL**  
SCALE AS SHOWN

**V3 CONSULTING ENGINEERS**

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**CapeNature**

DRAWN  
K Steenkamp

CHECKED  
L Steicher

SCALE  
AS SHOWN

DATE  
2025-08-01

TITLE  
**REMEDIAL WORK TO ROADS & STORM WATER**  
2200  
**TYPICAL DRIFT / LOW LEVEL CROSSING DETAILS**

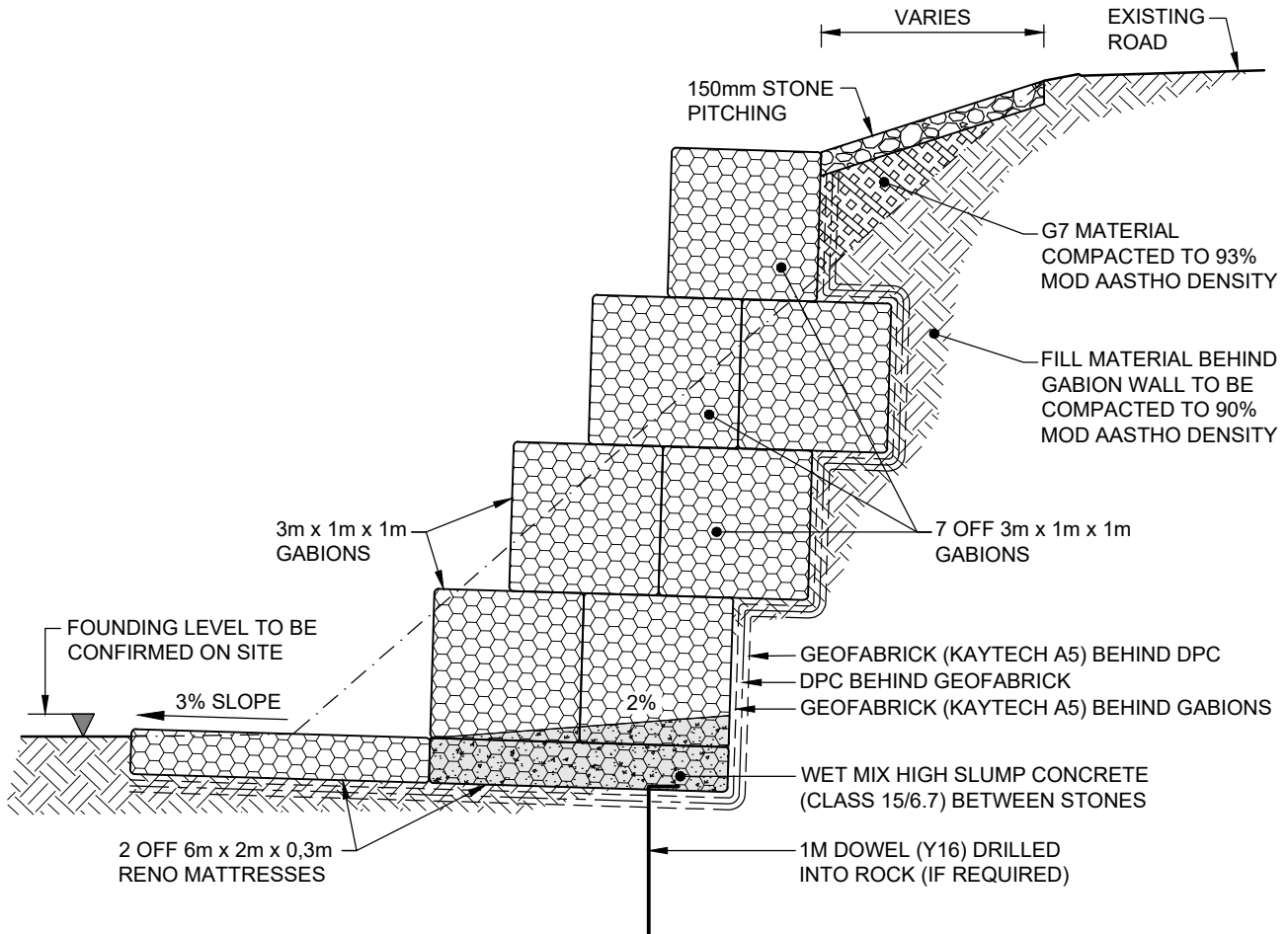
DRAWING NO.  
**11755000 - D4**

REV.

FILE PATH  
Sharepoint \ Mossel Bay \ 11755000 \ CapeNature \ 02 Concept \ 04 Draw

0 30  
30 MILLIMETRES ON ORIGINAL DRAWING

# 5200 / 6000 - RETAINING STRUCTURES



TYPICAL GABION STRUCTURE (HEIGHT EXCEEDING 4m)

SCALE 1:50

**V3 CONSULTING ENGINEERS**

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 email: mosselbaai@v3consulting.co.za

4 Mascador Street, Voor Bay, Mossel Bay, 6506  
 PO Box 730, Mossel Bay, 6500, South Africa

**CESA**

CLIENT  
**CapeNature**

DRAWN  
 K Steenkamp

CHECKED  
 L Steicher

SCALE  
 AS SHOWN

DATE  
 2025-08-01

TITLE  
**REMEDIAL WORK TO ROADS & STORM WATER  
 5200 / 6000  
 RETAINING STRUCTURES**

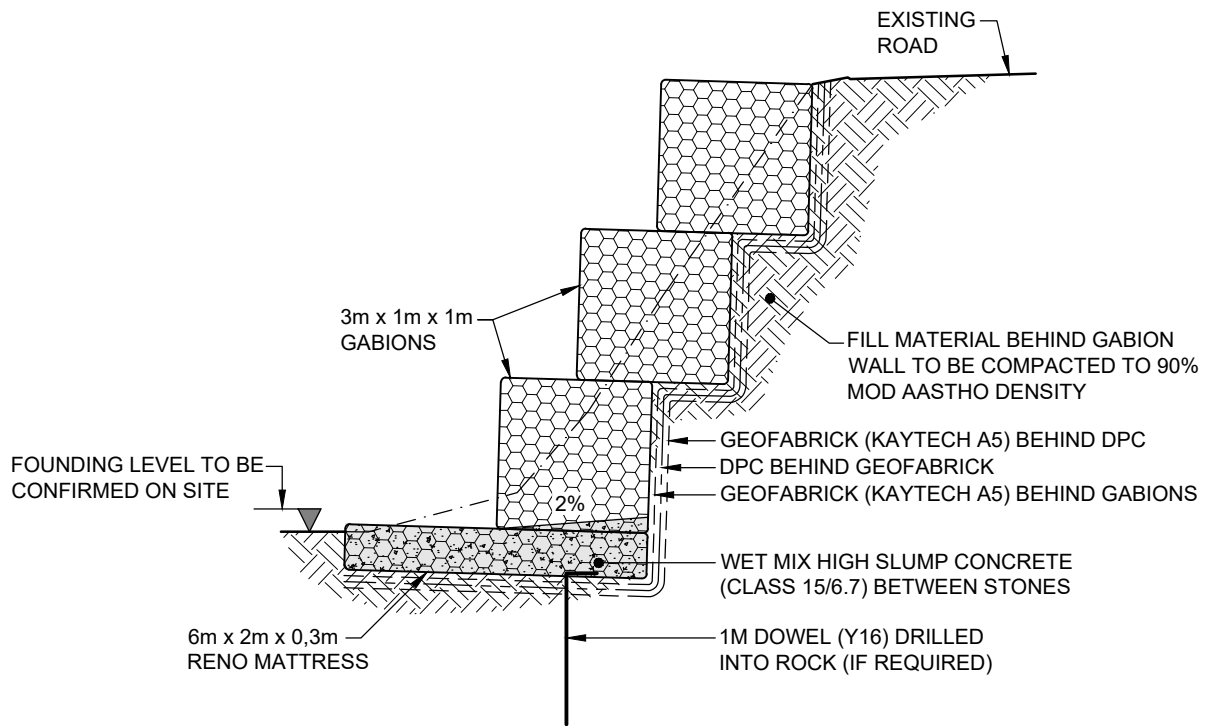
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REV.

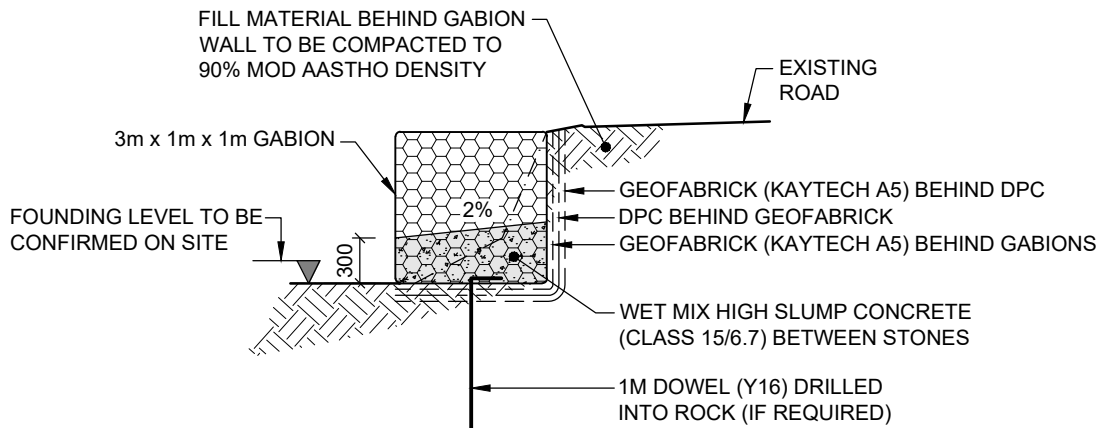
FILE PATH  
 Sharepoint \ Mossel Bay \ 11755000 \ CapeNature  
 \ 02 Concept \ 04 Draw

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# 5200 / 6000 - RETAINING STRUCTURES



TYPICAL GABION STRUCTURE (HEIGHT 1m - 3m)  
SCALE 1:50



TYPICAL GABION STRUCTURE (HEIGHT 1m - 3m)  
SCALE 1:50

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CLIENT  
**CapeNature**

DRAWN  
 K Steenkamp

SCALE  
 AS SHOWN

CHECKED  
 L Steicher

DATE  
 2025-08-01

TITLE  
**REMEDIAL WORK TO ROADS & STORM WATER  
 5200 / 6000  
 RETAINING STRUCTURES**

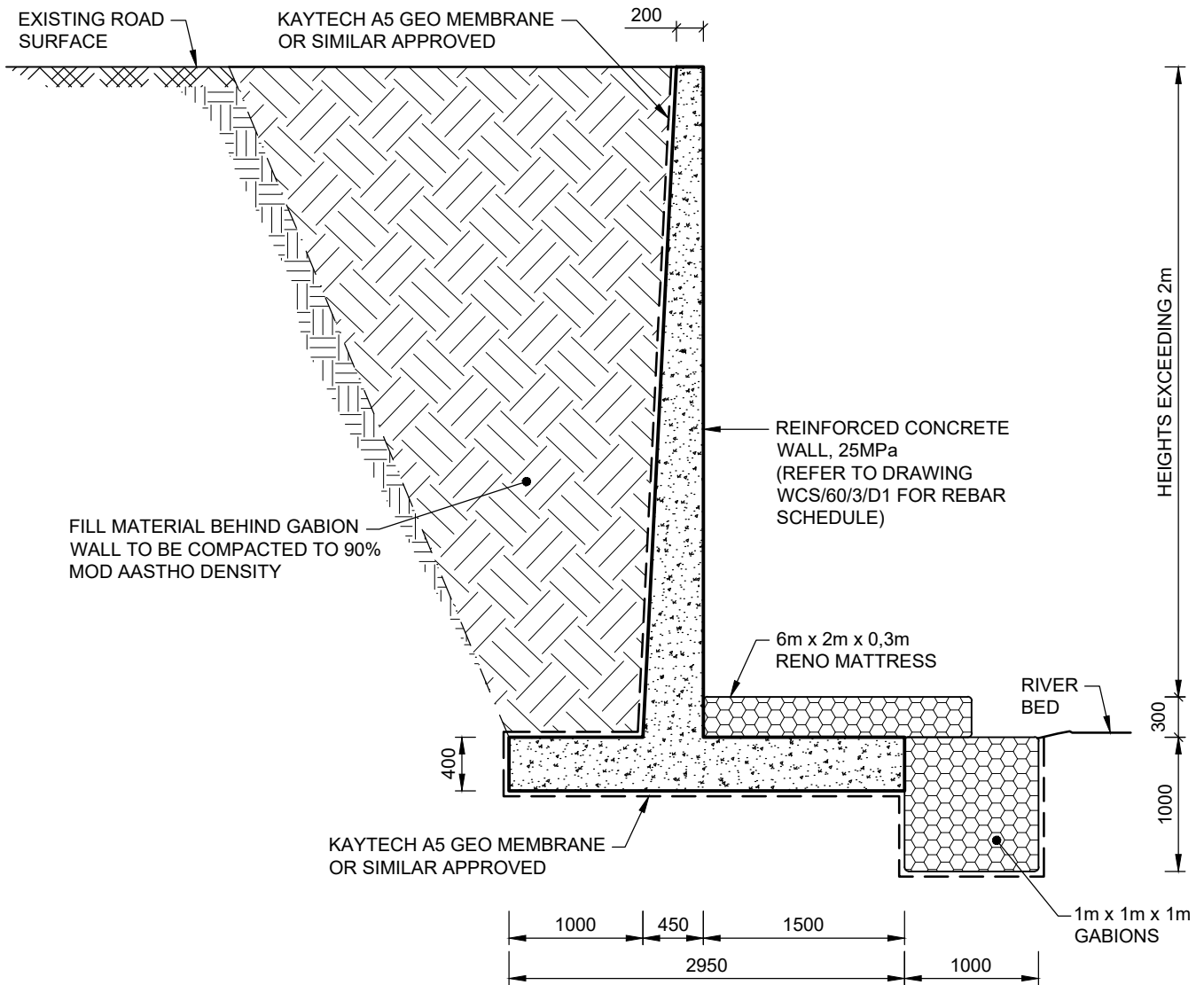
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**11755000 - E2**

FILE PATH  
 Sharepoint \ Mossel Bay \ 11755000 \ CapeNature  
 \ 02 Concept \ 04 Draw

REV.

0 30  
 30 MILLIMETRES ON ORIGINAL DRAWING

# 5200 / 6000 - RETAINING STRUCTURES



TYPICAL REINFORCED CONCRETE WALL DETAIL

SCALE 1:50

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 PO Box 730, Mossel Bay, 6500, South Africa

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CLIENT  
**CapeNature**

DRAWN  
 K Steenkamp

SCALE  
 AS SHOWN

CHECKED  
 L Steicher

DATE  
 2025-08-01

TITLE  
**REMEDIAL WORK TO ROADS & STORM WATER  
 5200 / 6000  
 RETAINING STRUCTURES**

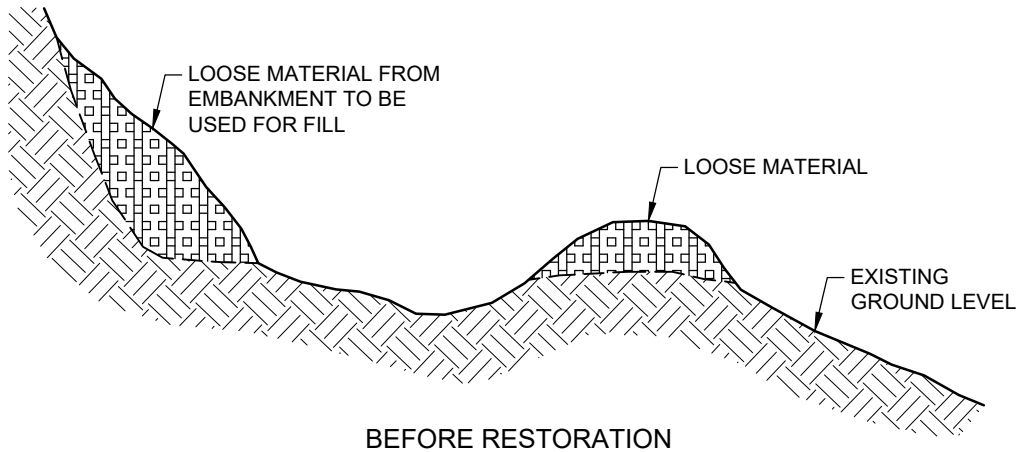
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REV.

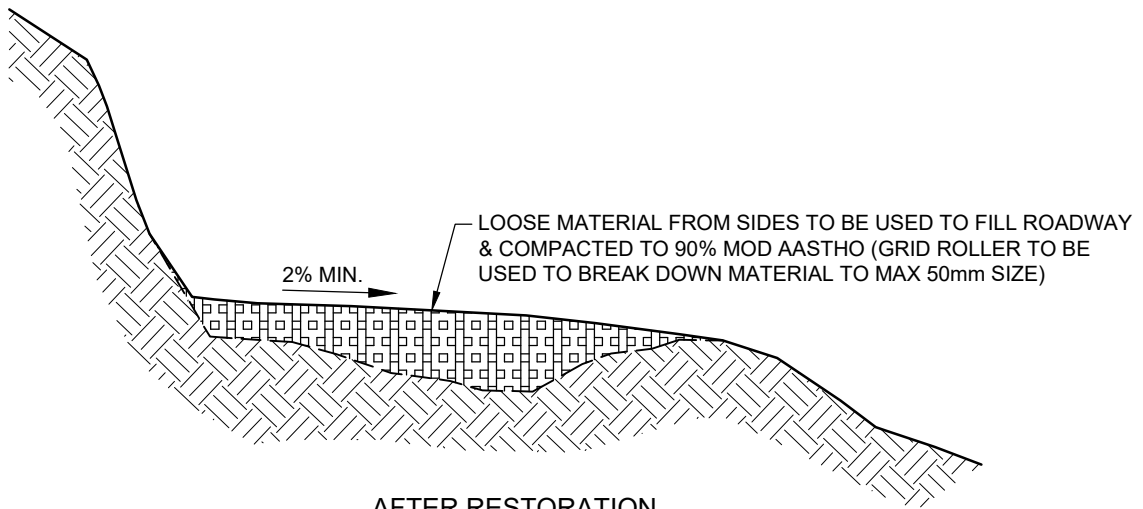
FILE PATH  
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 \ 02 Concept \ 04 Draw

0 30  
 30 MILLIMETRES ON ORIGINAL DRAWING

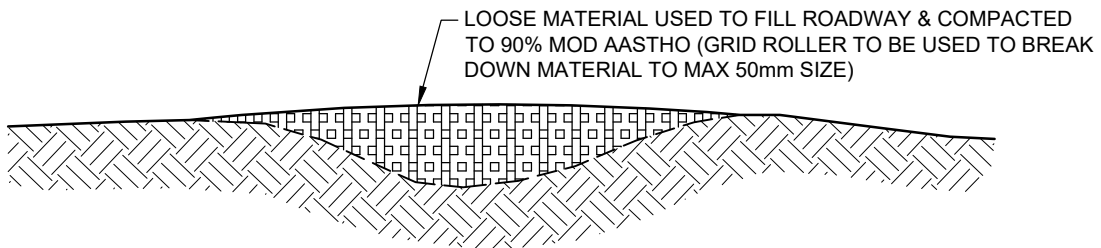
# 0000 - GENERAL REPAIR DETAILS



BEFORE RESTORATION






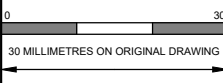
AFTER RESTORATION



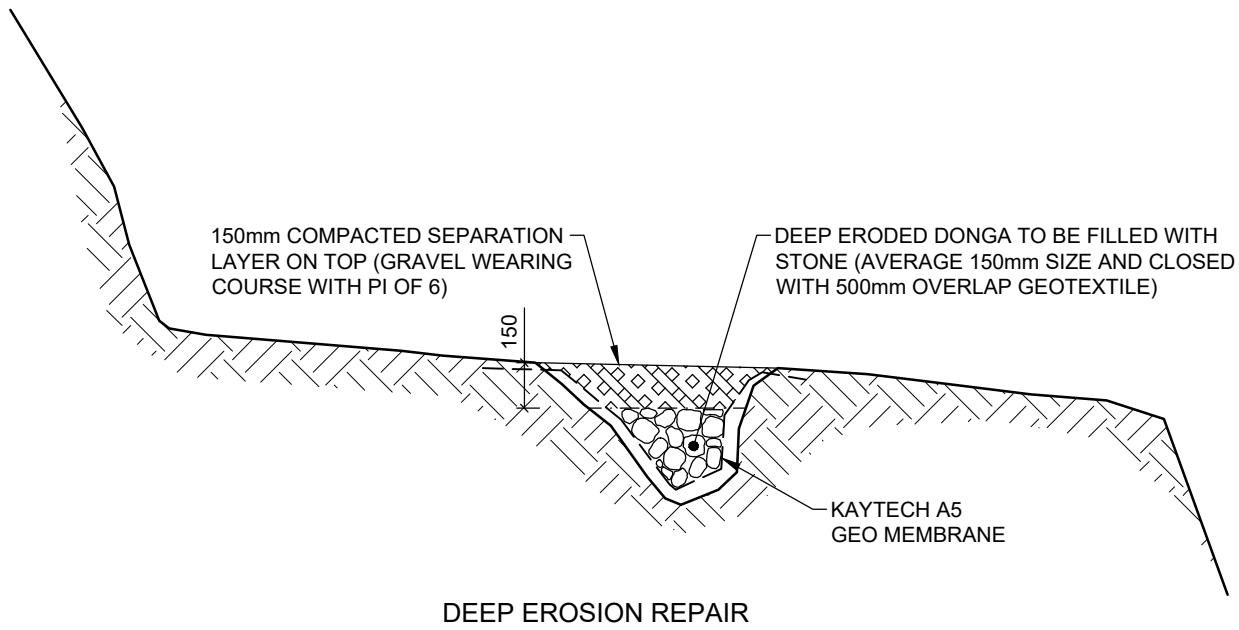
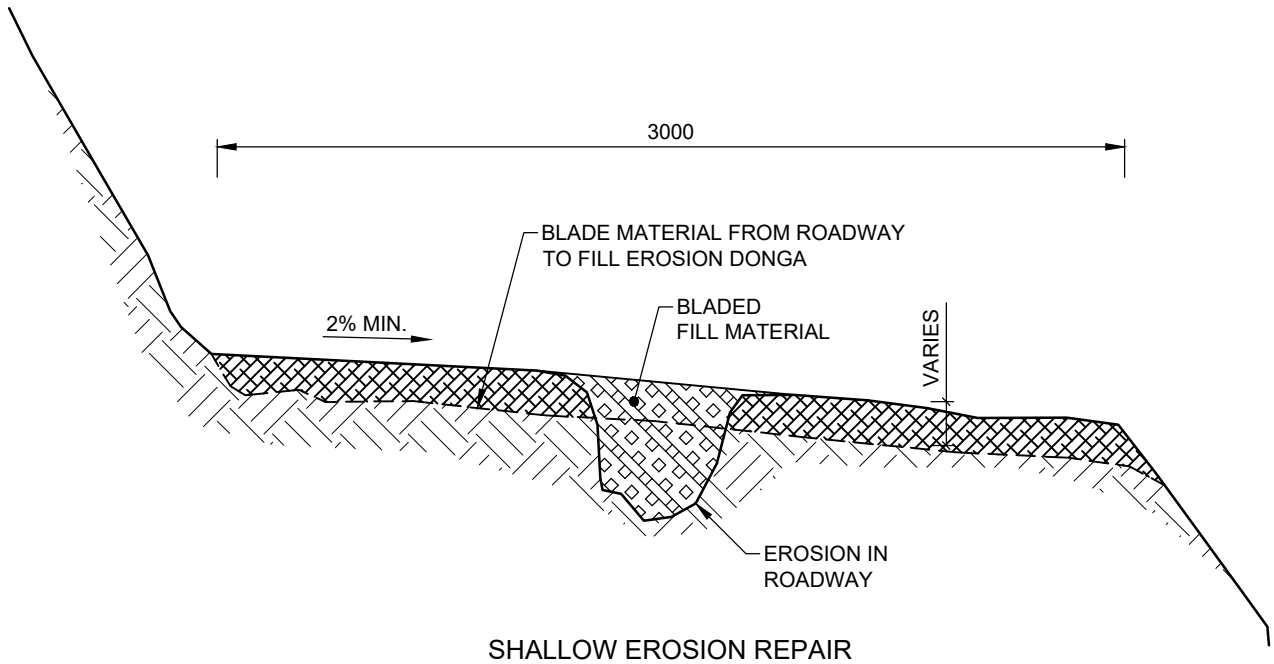
FLAT SLOPES

## GENERAL INFILL DETAIL FROM ROAD PRISM (1 OF 2)



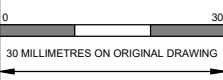
NOT TO SCALE

 <b>V3 CONSULTING ENGINEERS</b> T : +27 (0) 44 691 2305 email : mosselbaai@v3consulting.co.za 4 Mascador Street, Voor Bay, Mossel Bay, 6506 PO Box 730, Mossel Bay, 6500, South Africa 	CLIENT CapeNature 	TITLE REMEDIAL WORK TO ROADS & STORM WATER 0000 GENERAL REPAIR DETAILS		
	DRAWN K Steenkamp	SCALE AS SHOWN		DRAWING NO. 11755000 - F1
	CHECKED L Steicher	DATE 2025-08-01	FILE PATH Sharepoint \ Mossel Bay \ 11755000 \ CapeNature \ 02 Concept \ 04 Draw	REV.

# 0000 - GENERAL REPAIR DETAILS



GENERAL INFILL DETAIL FROM ROAD PRISM (2 OF 2)  
NOT TO SCALE

 <b>V3 CONSULTING ENGINEERS</b> <small>T : +27 (0) 44 691 2305 email : mosselbaai@v3consulting.co.za 4 Mascador Street, Voor Bay, Mossel Bay, 6506 PO Box 730, Mossel Bay, 6500, South Africa</small>	<b>CLIENT</b> CapeNature 		<b>TITLE</b> REMEDIAL WORK TO ROADS & STORM WATER 0000 GENERAL REPAIR DETAILS		
	<b>DRAWN</b> K Steenkamp	<b>SCALE</b> AS SHOWN			<b>DRAWING NO.</b> 11755000 - F2
	<b>CHECKED</b> L Steicher	<b>DATE</b> 2025-08-01	<b>FILE PATH</b> Sharepoint \ Mossel Bay \ 11755000 \ CapeNature \ 02 Concept \ 04 Draw		<b>REV.</b>

