



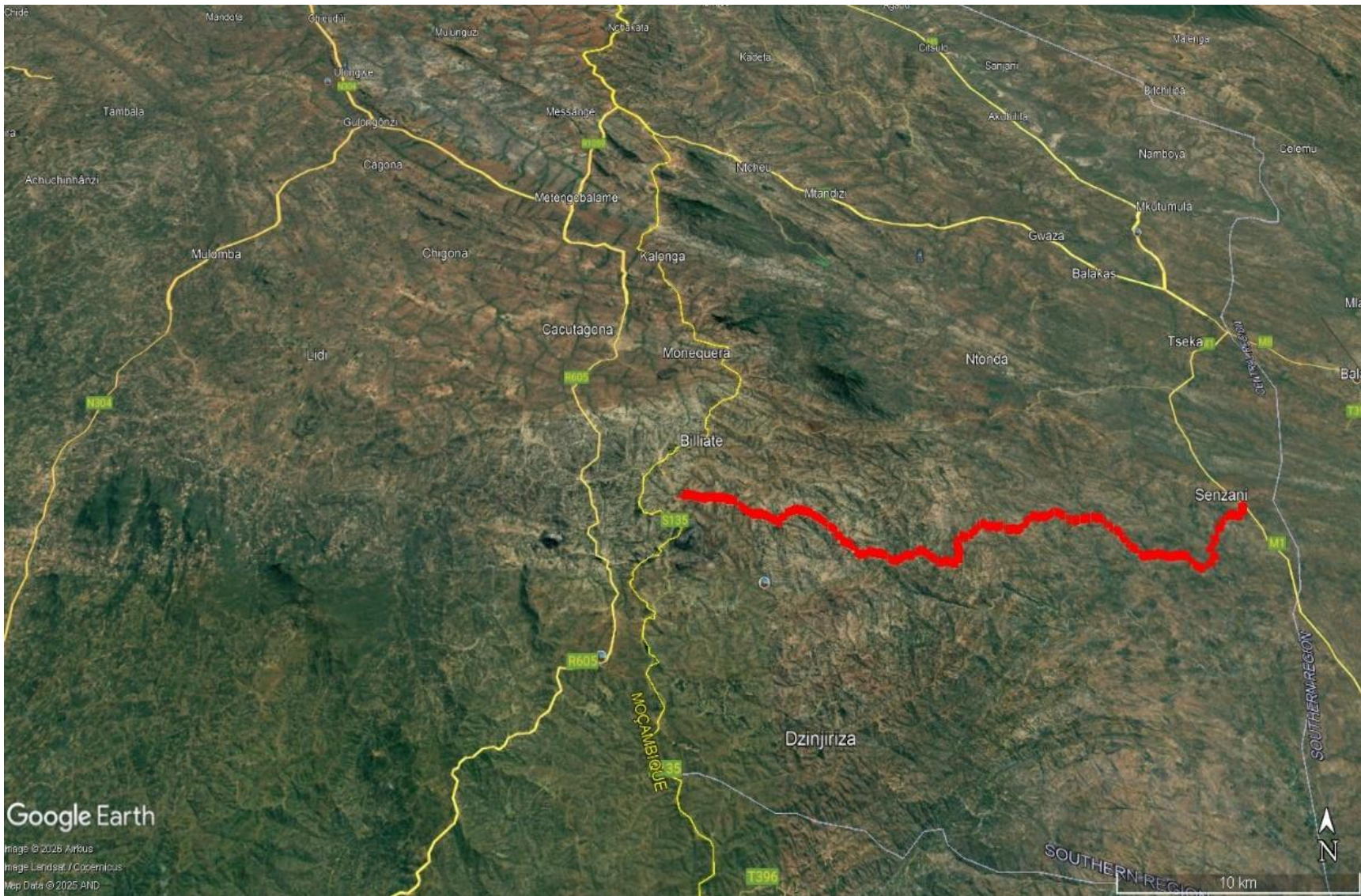
SOUTHERN AFRICA TRADE AND CONNECTIVITY PROJECT
(SATCP)

MINISTRY OF TRANSPORT AND PUBLIC WORKS

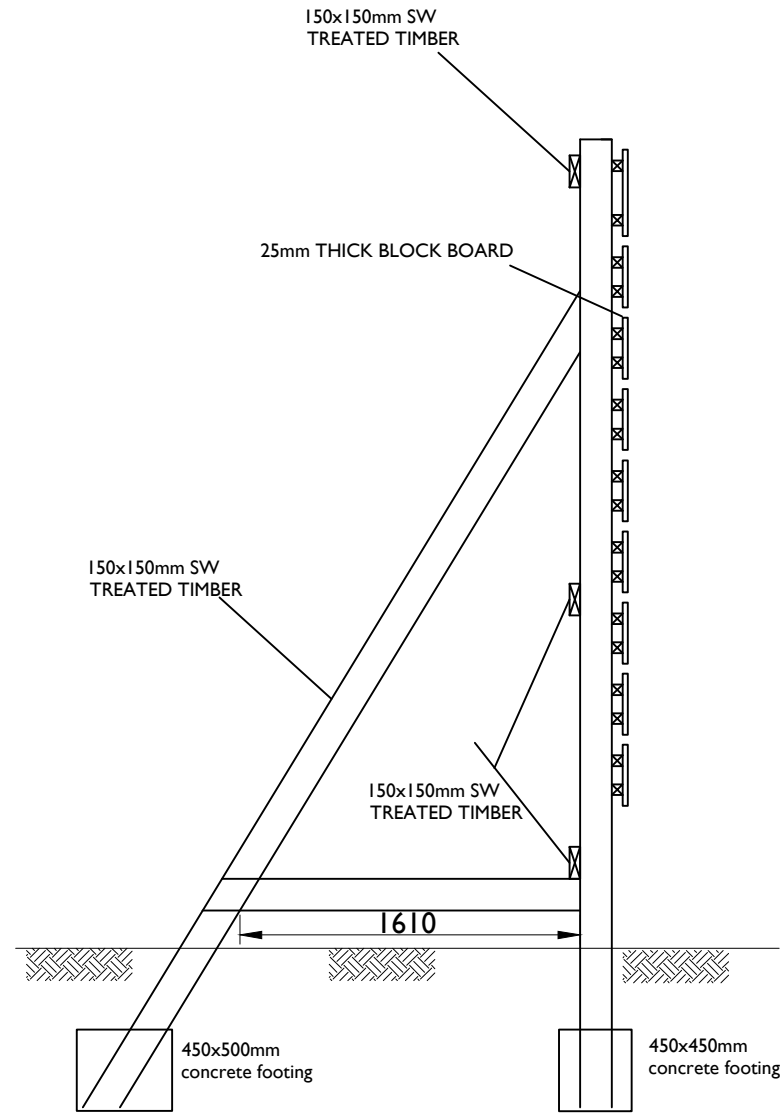
MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE
STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KMs) IN NTCHEU DISTRICT-SECTION 1
(KM 0-24)

THE BOOK OF DRAWINGS-TENDER PURPOSE

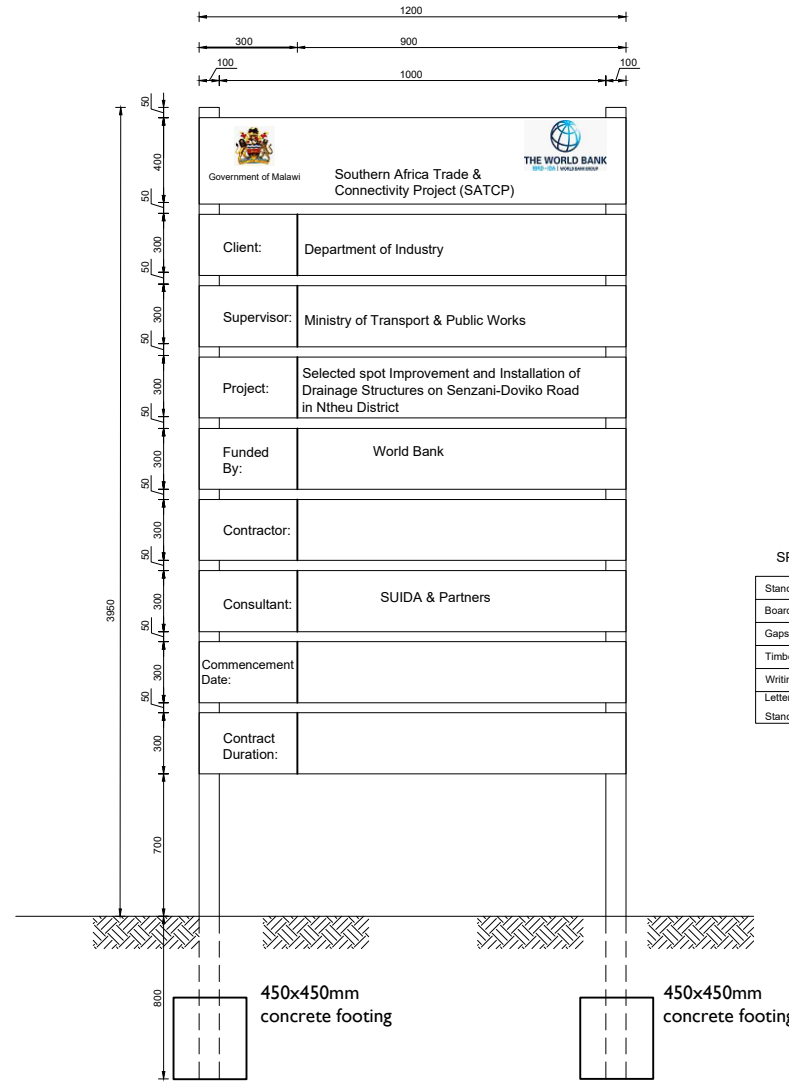
MARCH 2026



LOCATION MAP OF SENZANI-DOVIKO ROAD IN NTCHEU DISTRICT



SIDE ELEVATION



FRONT ELEVATION

SPECIFICATIONS	
Stands	100mmx50mmx3250mm
Boards	300mmx25mmx1200mm
Gaps between board	= 50mm
Timber to be treated	soft wood
Writings to appear on	one side only
Lettering	
Standard sizes of black colour	on white background.

AMENDMENTS		
NR.	DESCRIPTION	DATE
1	REVISION 1	25-02-206


LEGEND	

CONSULTANT'S DETAIL:



SUIDA & PARTNERS
P.O Box 32345, Chichiri, Blantyre 3
Malawi
Tel: + 888 343 523/ 999 343 523
Email info@suidamw.com

CLIENT'S DETAIL:



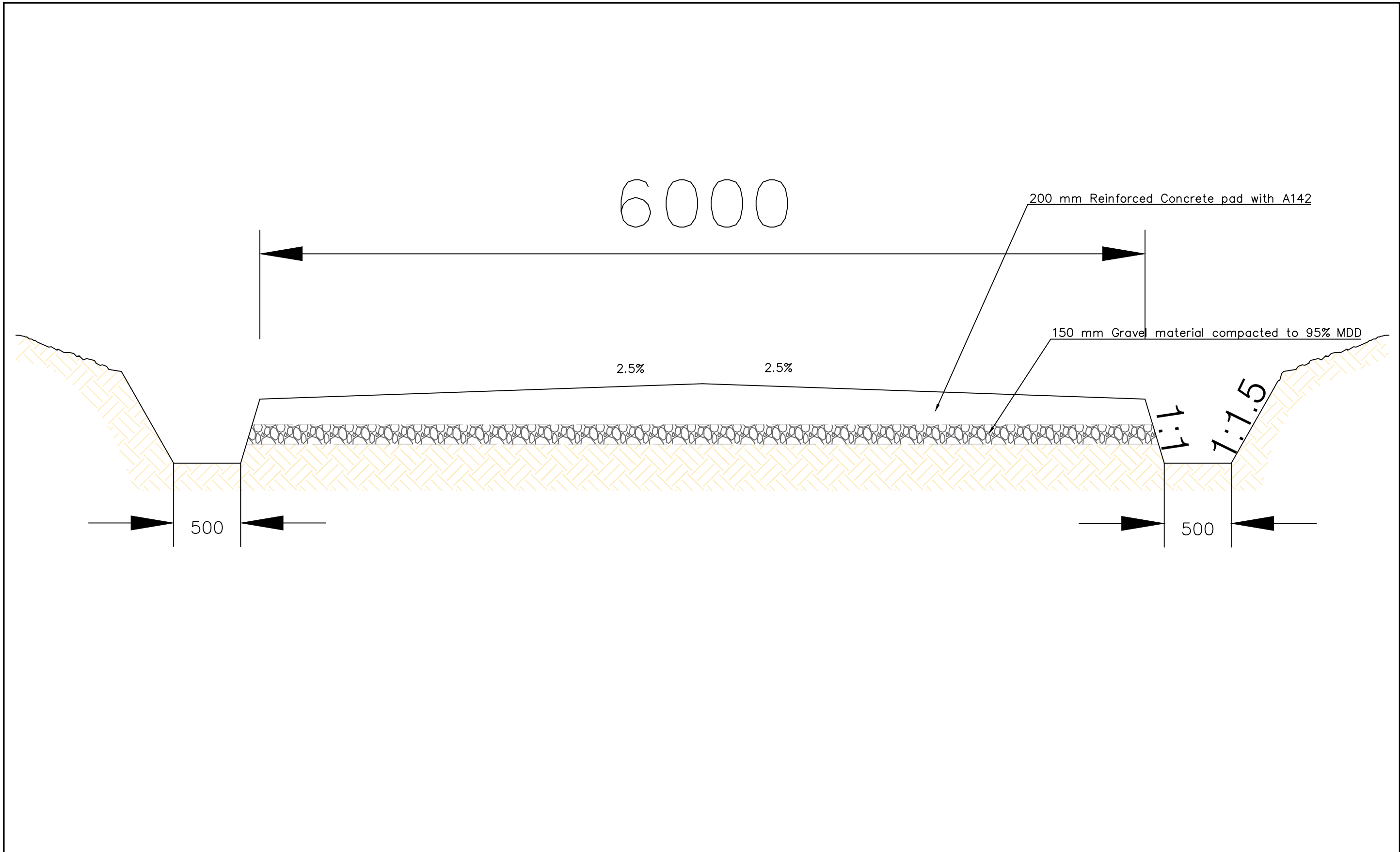
Southern Africa Trade Connectivity Project,
Ministry of Transport and Public Works
Capital Hill, Off Chilembwe Road
private Bag 322, Lilongwe



DESIGNED Z. B	DATE: _____
SIGNATURE: _____	DATE: _____
DESIGN CHECKED BY F. N. RENg	DATE: _____
SIGNATURE: _____	DATE: _____
DRAWN Z. B	DATE: _____
SIGNATURE: _____	DATE: _____
DRAWING CHECKED BY F. N. RENg	DATE: _____
SIGNATURE: _____	DATE: _____
DRAWING APPROVED BY MINISTRY	DATE: _____
SIGNATURE: _____	DATE: _____

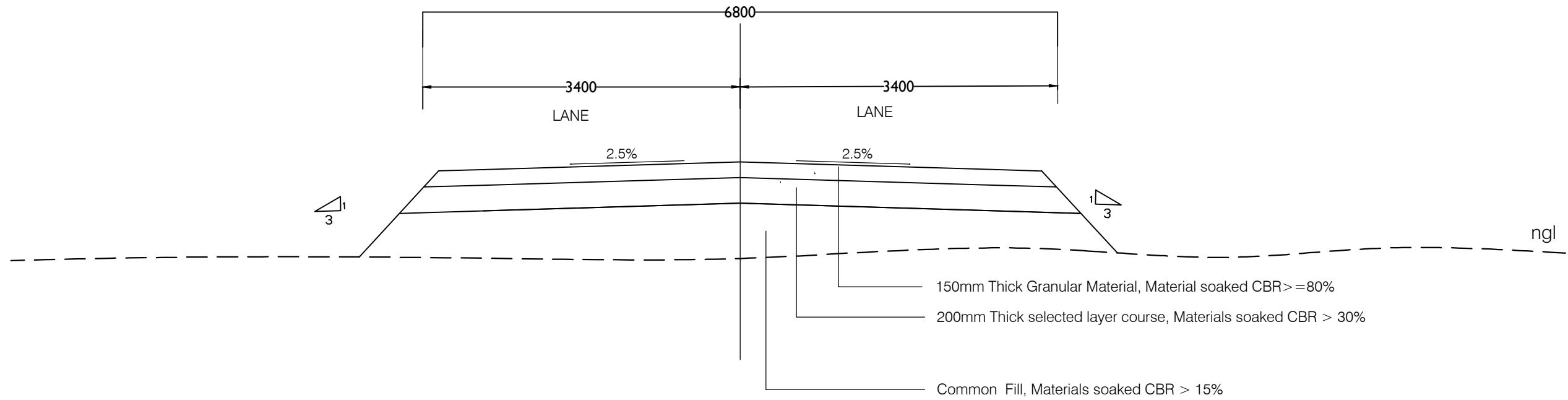
DRAWING TITLE			
DETAILS OF PROJECT SIGN BOARD			
DESCRIPTION OF PROJECT			
MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KMs) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)			
CONTRACT No.:	PROJECT No.:	SCALE:	DATE:
*****	*****	1:1000	NOVEMBER 2025

PROJECT STATUS	
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DRAWING NO.:	SHEET NO.:
CON/2025/SP/SATCP-LM/PSB-001	1 OF 1

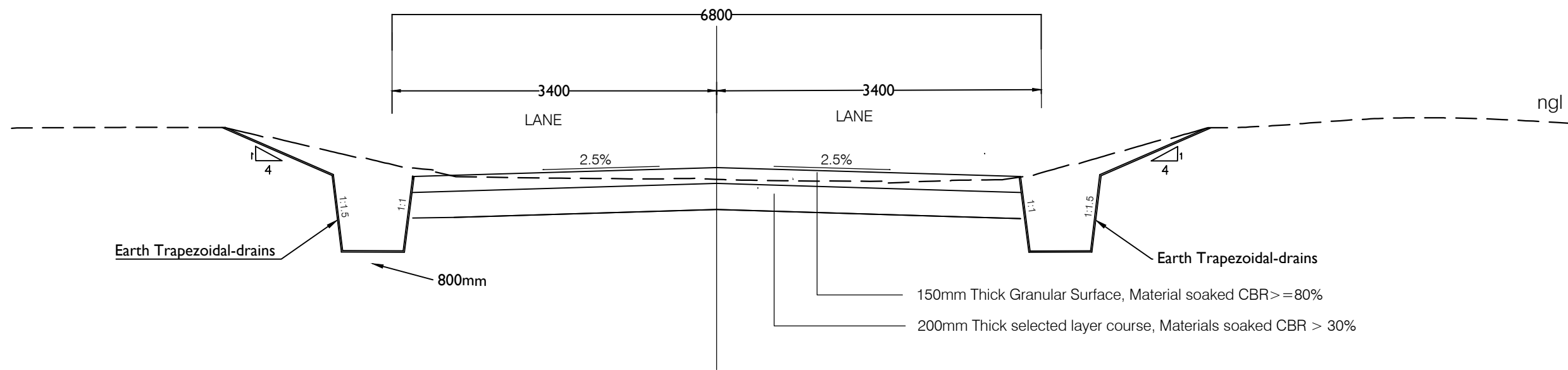
TYPICAL SECTIONS



AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		Southern Africal Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		Z. B		TYPICAL CROSS SECTION FOR CONCRETE PAD ROAD SURFACE		<input type="radio"/> CONSULTING <input type="radio"/> DESIGN <input type="radio"/> CONSTRUCTION <input type="radio"/> AS-BUILT	
1	REVISION 1	25-02-206							DESIGN CHECKED BY F. N. REng SIGNATURE: _____ DATE: _____ DRAWN Z. B SIGNATURE: _____ DATE: _____ DRAWING CHECKED BY F. N. REng SIGNATURE: _____ DATE: _____ DRAWING APPROVED BY MINISTRY SIGNATURE: _____ DATE: _____		DESCRIPTION OF PROJECT MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KM5) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)		PLANNING/PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1 DRAWING NO: CON/2025/SP/SATCP-LM/TS-301 SHEET NO: 1 OF 1 DATE: NOVEMBER 2025	
									CONTRACT No.: ***** PROJECT No.: ***** SCALE: 1:1000 DATE: NOVEMBER 2025					



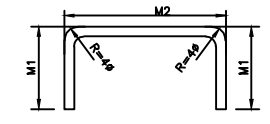
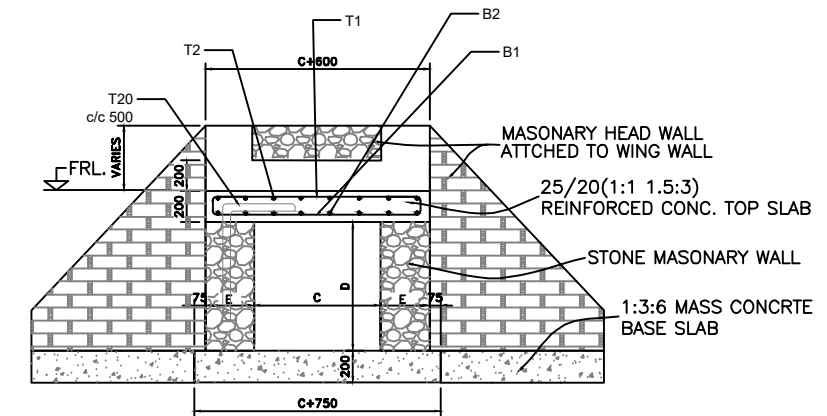
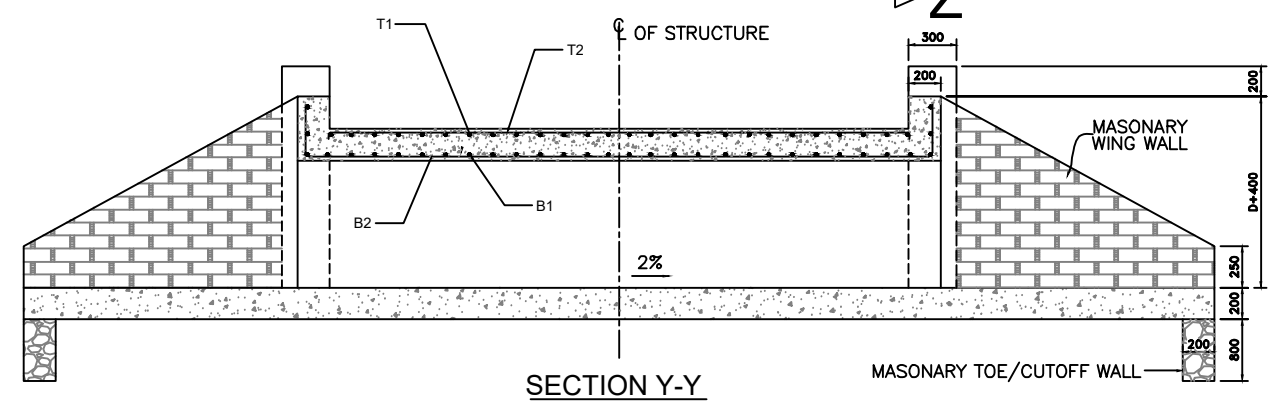
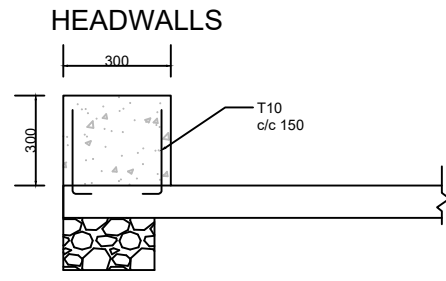
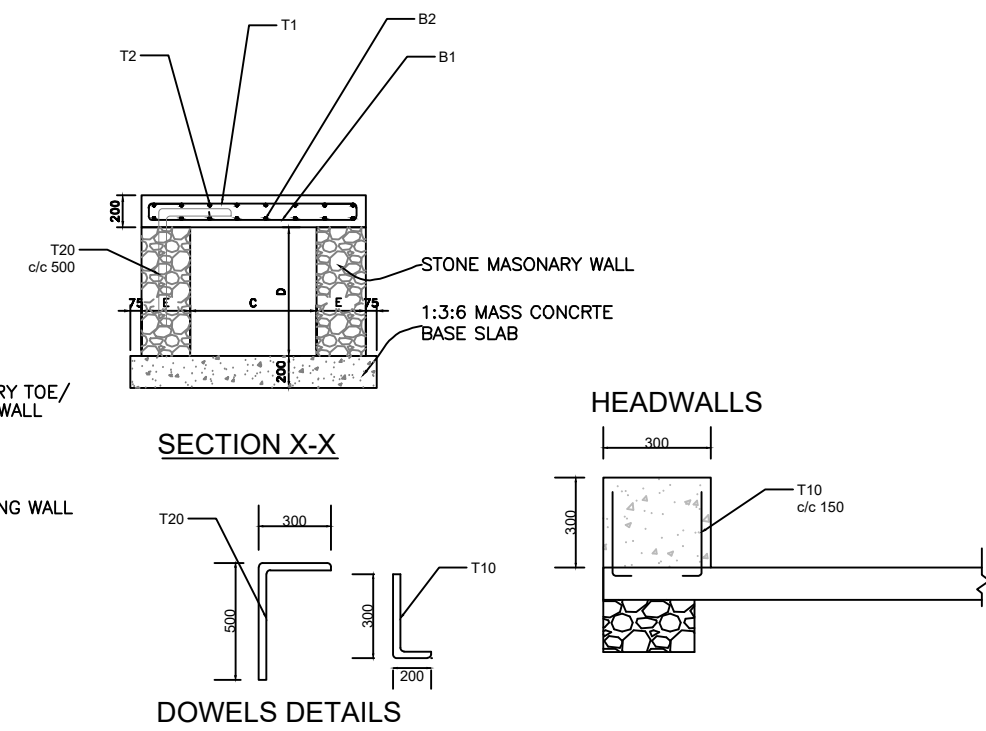
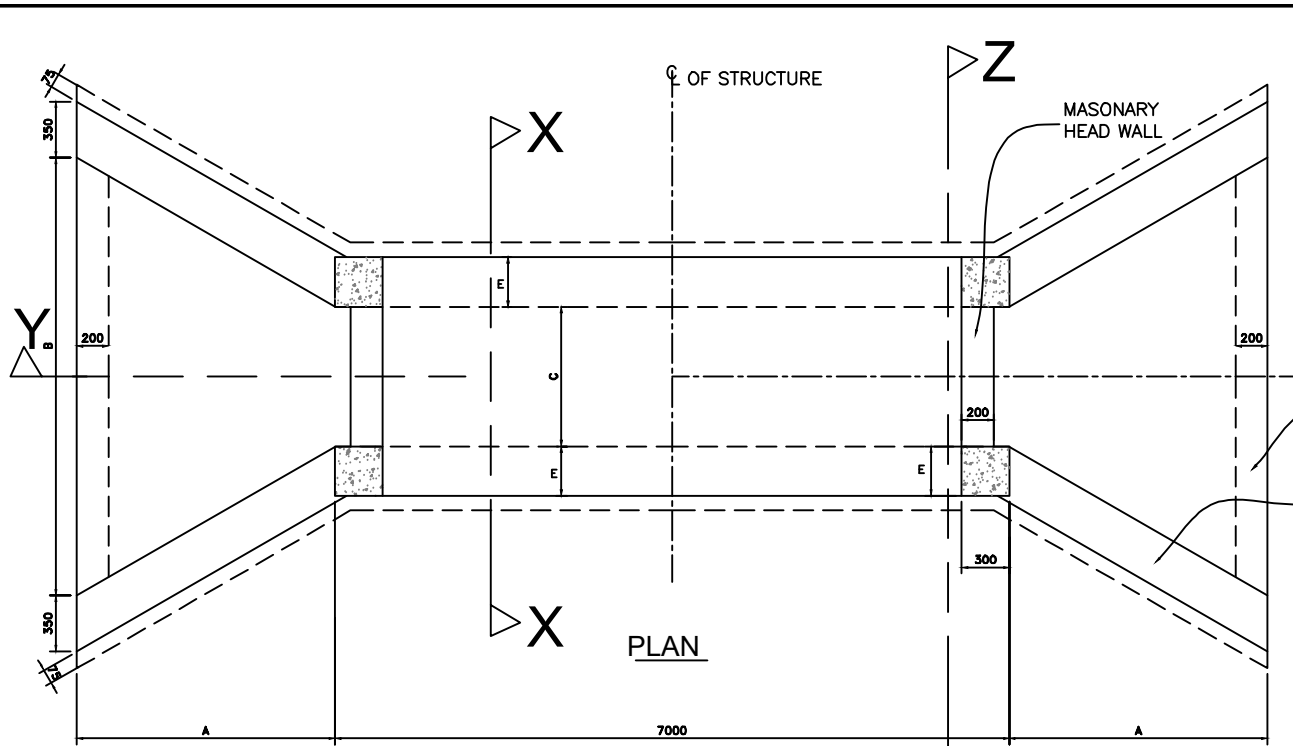
TYPICAL CROSS SECTION IN FILL



TYPICAL CROSS SECTION IN CUT

AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		Southern Africa Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		Z. B		TYPICAL CROSS SECTION FOR DESIGNATED ROAD		<input type="checkbox"/> DESIGN <input type="checkbox"/> CHECKED <input type="checkbox"/> DRAWING <input type="checkbox"/> APPROVED	
1	REVISION 1	25-02-206							DESIGN CHECKED BY F. N. RENg		DESCRIPTION OF PROJECT MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KMs) IN NTCHU DISTRICT-SECTION 1(KM 0-24)		PLANNING/PROJECT ENGINEER: INSPECTOR OF WORKS: REMARKS: ORIGINAL PAPER SIZE: A1	
									DRAWN Z. B				DRAWING NO. CONTRACT No.: PROJECT No.: SCALE: 1:1000 DATE: NOVEMBER 2025 CON/2025/SP/SATCP-LM/TS-304	
									DRAWING CHECKED BY F. N. RENg				SHEET NO. 1 OF 1	
									DRAWING APPROVED BY MINISTRY				REVISIONS	

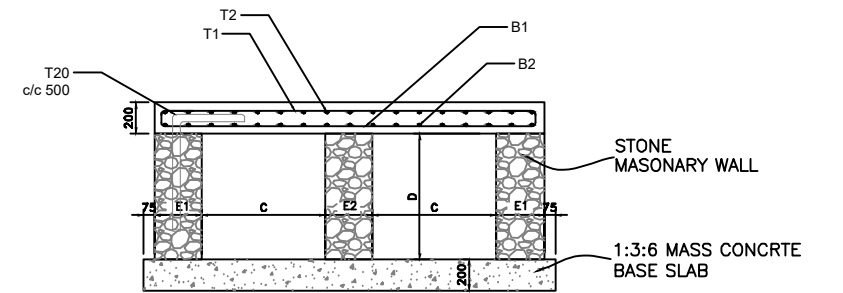
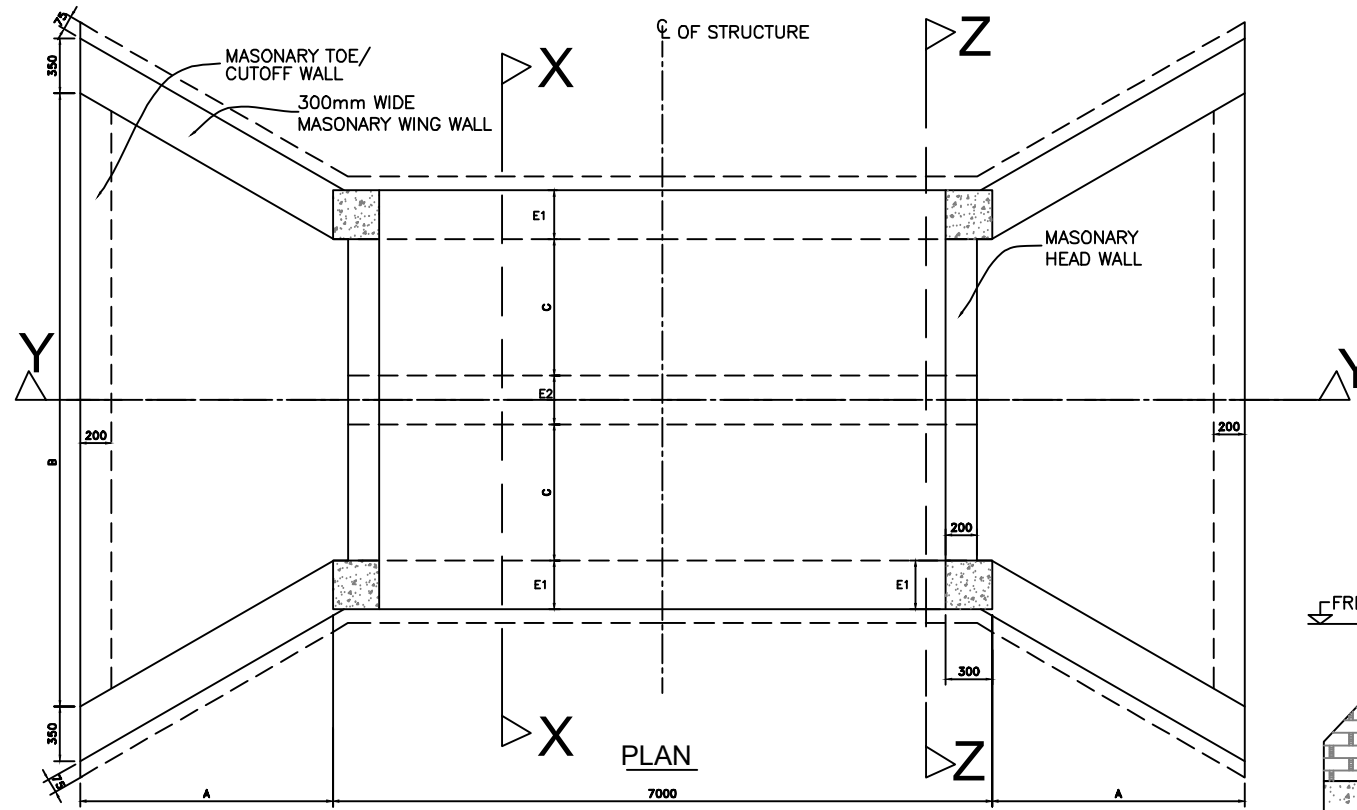
DRAINAGE STRUCTURES



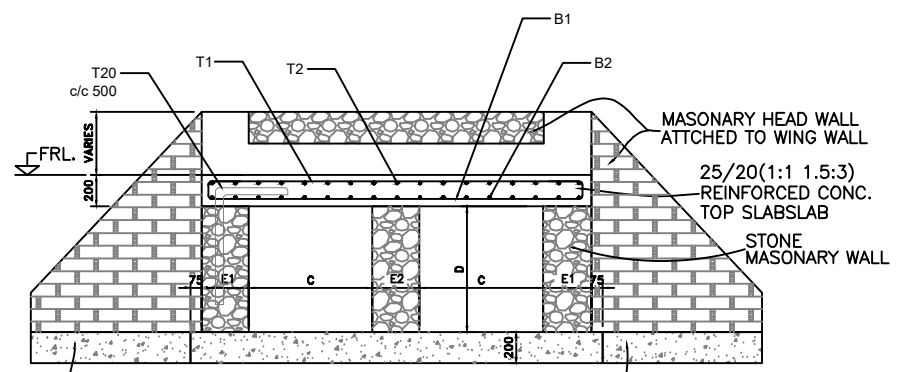
FOR 1M WIDTH SINGLE CELL BOX																
CULVERT TYPE	DIMENSIONS (MM)					NO. OF CELLS	SLAB THK. (MM)	BAR MARK	M1 (MM)	M2 (MM)	NO. OF BARS	BAR MARK	M1 (MM)	M2 (MM)	NO. OF BARS	BAR DESCRIPTION
	A	B	C	D	E											
BC1	2000	5600	1000	1000	300	1	200	B1	120	920	48	B2	120	6920	7	T10-01-150
								T1	120	920	48	T2	120	6920	7	T10-01-150
BC2	2400	6895	1500	1000	300	1	200	B1	120	1420	48	B2	120	6920	11	T12-01-150
								T1	120	1420	48	T2	120	6920	11	T10-01-150
BC3	2400	6895	1500	1500	500	1	200	B1	120	1420	48	B2	120	6920	11	T12-01-150
								T1	120	1420	48	T2	120	6920	11	T10-01-150
BC4	2800	8200	2000	1000	500	1	200	B1	120	1920	48	B2	120	6920	14	T12-01-150
								T1	120	1920	48	T2	120	6920	14	T12-01-150
BC5	2800	8200	2000	2000	600	1	200	B1	120	1920	48	B2	120	6920	14	T12-01-150
								T1	120	1920	48	T2	120	6920	14	T12-01-150

NOTES :-
 . ALL DIMENSIONS ARE IN MILLI METRES UNLESS OTHERWISE SPECIFIED.
 . ARRANGEMENT FOR COMBINATIONS OF MULTIPLE BOX CULVERTS TO BE DETERMINED BY THE

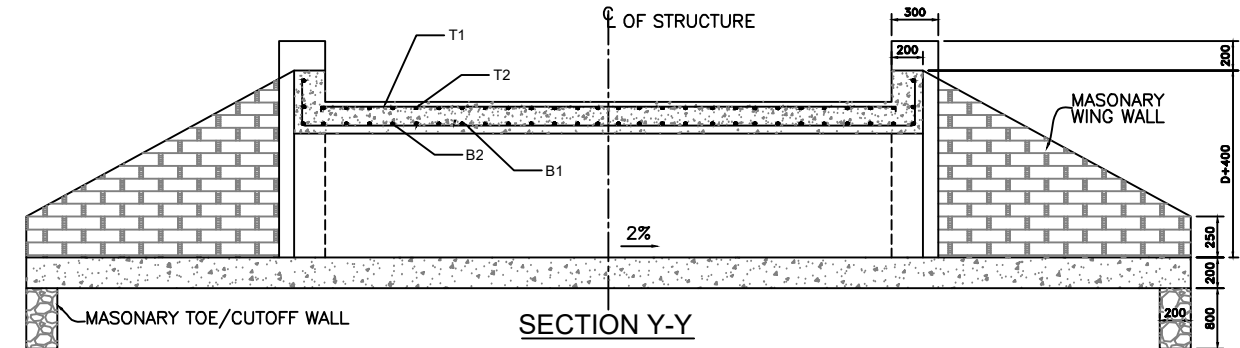
AMENDMENTS NR. DESCRIPTION DATE 1 REVISION 1 25-02-208		LEGEND		CONSULTANT'S DETAIL: SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		CLIENT'S DETAIL: Southern Africa Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chibembwe Road private Bag 322, Lilongwe		DESIGNED: Z. B DESIGN CHECKED BY: F. N. REng DRAWN: Z. B DRAWING CHECKED BY: F. N. REng		DRAWING TITLE: STANDARD SINGLE CELL BOX CULVERT DETAILS DESCRIPTION OF PROJECT: MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KMs) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)		PROJECT STATUS PLANNING PROJECT ENGINEER INSPECTOR OF WORKS REMARKS: ORIGINAL PAPER SIZE: A1	
								CONTRACT No.: PROJECT No.: SCALE: 1:1000 DATE: NOVEMBER 2025 DRAWING NO.: SHEET NO: 1 OF 1		CON/2025/SP/SATCP-LM/SBC-001			



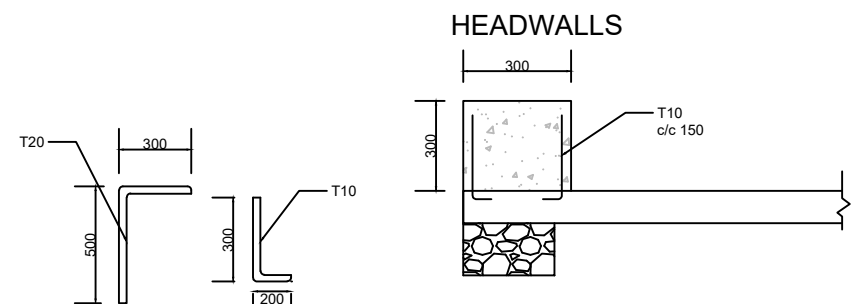
SECTION X-X



SECTION Z-Z



SECTION Y-Y



DOWELS DETAILS

NOTES :-
 . ALL DIMENSIONS ARE IN MILLI METRES UNLESS OTHERWISE SPECIFIED.
 . ARRANGEMENT FOR COMBINATIONS OF MULTIPLE BOX CULVERTS TO BE DETERMINED BY THE SUPERVISION ENGINEER ON SITE

CULVERT TYPE	FOR 1M WIDTH SINGLE CELL BOX											BAR DESCRIPTION					
	DIMENSIONS (MM)						NO. OF CELLS	SLAB THK. (MM)	BAR MARK	M1	M2		NO. OF BARS	BAR MARK	M1	M2	NO. OF BARS
	A	B	C	D	E1	E2				(MM)	(MM)				(MM)	(MM)	
BC6	2400	10200	1500	1500	500	600	2	200	B1	120	4520	48	B2	120	6920	31	T12-01-150
									T1	120	4520	48	T2	120	6920	31	T10-01-150

AMENDMENTS		
NR.	DESCRIPTION	DATE
1	REVISION 1	25-02-2008


LEGEND	

CONSULTANT'S DETAIL:



SUIDA & PARTNERS
 P.O Box 32345, Chichiri, Blantyre 3
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 Email info@suidamw.com

CLIENT'S DETAIL:



Southern African Trade Connectivity Project,
 Ministry of Transport and Public Works
 Capital Hill, Off Chilembwe Road
 private Bag 322, Lilongwe

DESIGNED BY: Z. B. [Signature]

DESIGN CHECKED BY: F. N. RENg [Signature]

DRAWN BY: Z. B. [Signature]

DRAWING CHECKED BY: F. N. RENg [Signature]

DRAWING APPROVED BY: [Signature]

STANDARD DOUBLE CELL BOX CULVERT DETAILS

DESCRIPTION OF PROJECT: MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KM5) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)

CONTRACT No.: [Blank]

PROJECT No.: [Blank]

SCALE: 1:1000

DATE: NOVEMBER 2025

PROJECT STATUS

PLANNING/PROJECT ENGINEER: [Signature]

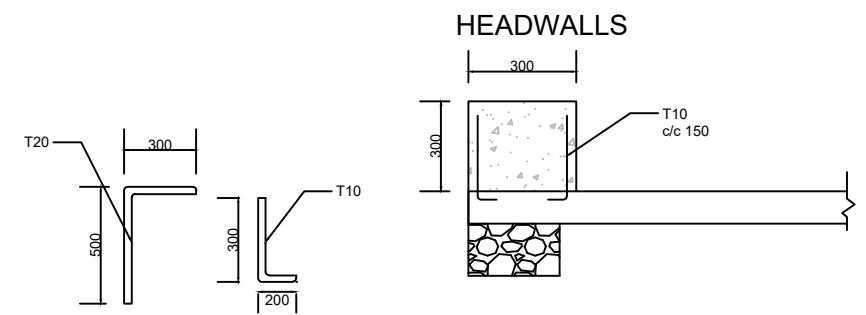
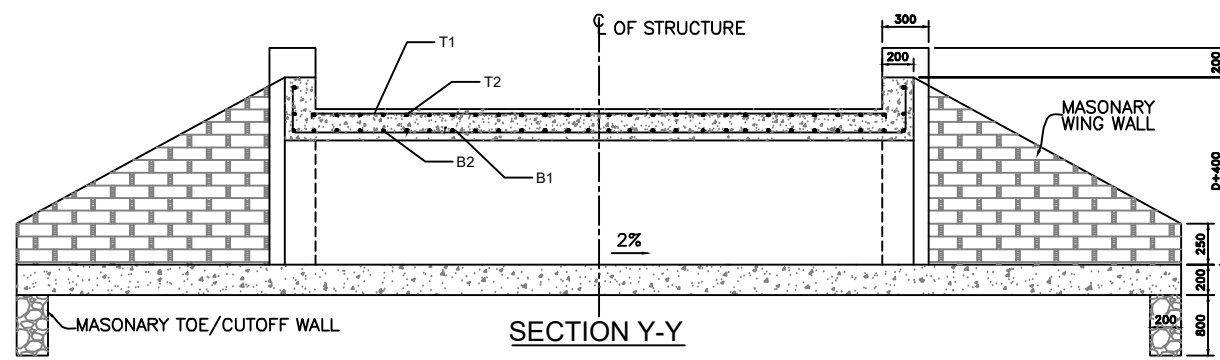
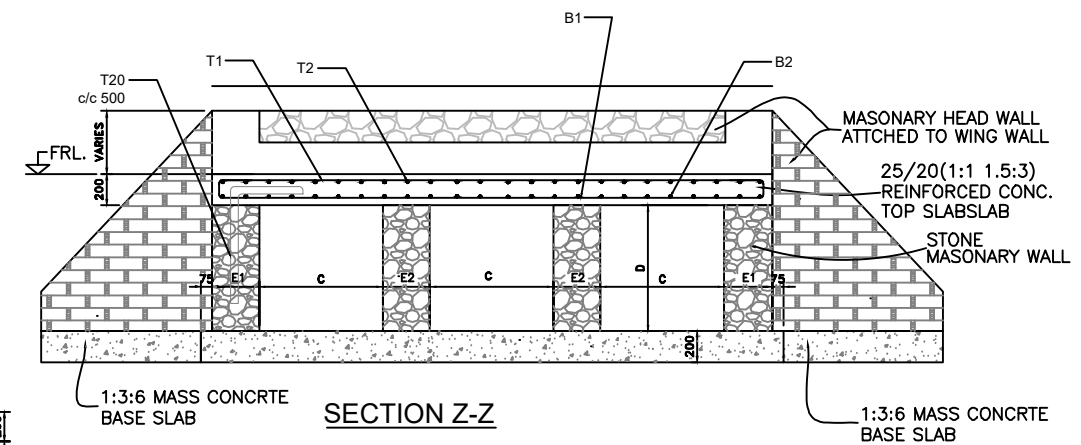
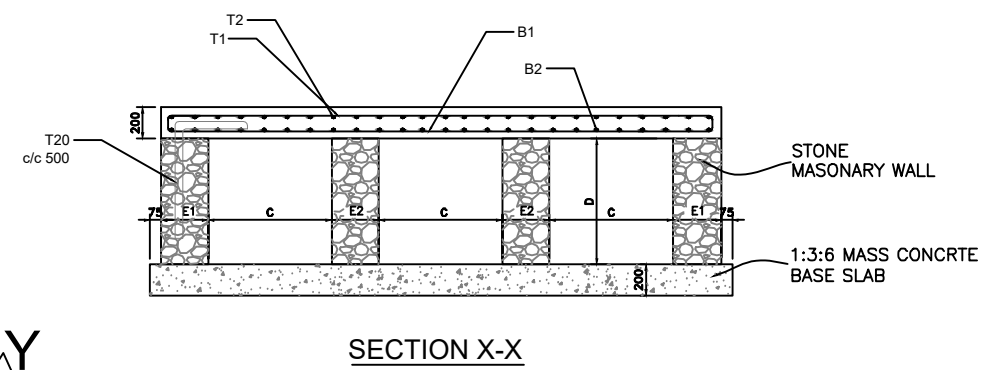
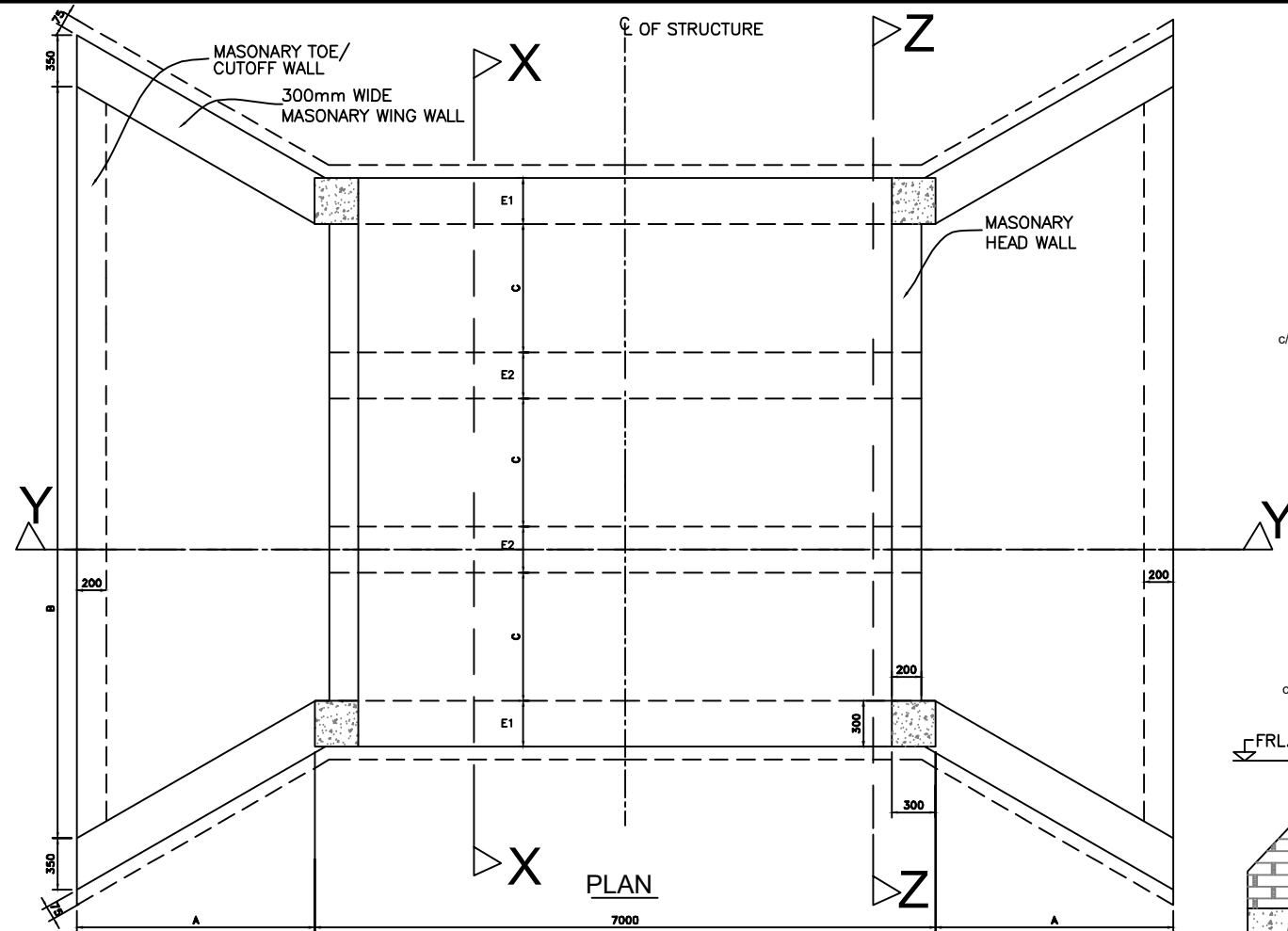
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REMARKS: [Blank]

ORIGINAL PAPER SIZE: A1

DRAWING NO: CON/2025/SP/SATCP-LM/SBC-002

SHEET NO: 1 OF 1



NOTES :-
 . ALL DIMENSIONS ARE IN MILLI METRES UNLESS OTHERWISE SPECIFIED.
 . ARRANGEMENT FOR COMBINATIONS OF MULTIPLE BOX CULVERTS TO BE DETERMINED BY THE SUPERVISION ENGINEER ON SITE

CULVERT TYPE	DIMENSIONS (MM)						NO. OF CELLS	SLAB THK. (MM)	BAR MARK	M1		M2		NO. OF BARS	BAR MARK	M1		M2		NO. OF BARS	BAR DESCRIPTION
	A	B	C	D	E1	E2				(MM)	(MM)	(MM)	(MM)			(MM)	(MM)	(MM)	(MM)		
BC7	2800	13600	2000	1000	500	600	3	200	B1	120	7920	48	B2	120	6920	54	T12-01-150				
										T1	120	7920		48	T2	120		6920	54	T12-01-150	
BC8	2800	13600	2000	2000	500	800	3	200	B1	120	7920	48	B2	120	6920	54	T12-01-150				
										T1	120	7920		48	T2	120		6920	54	T12-01-150	

AMENDMENTS		
NR.	DESCRIPTION	DATE
1	REVISION 1	25-02-2018

LEGEND	

CONSULTANT'S DETAIL:

SUIDA & PARTNERS
 P.O Box 32345, Chichiri, Blantyre 3
 Malawi
 Tel: + 888 343 523/ 999 343 523
 Email info@suidamw.com

CLIENT'S DETAIL:

Southern African Trade Connectivity Project,
 Ministry of Transport and Public Works
 Capital Hill, Off Chilembwe Road
 private Bag 322, Lilongwe

DESIGNED BY: Z. B. [Signature]

DESIGN CHECKED BY: F. N. RENg [Signature]

DRAWN BY: Z. B. [Signature]

DRAWING CHECKED BY: F. N. RENg [Signature]

DRAWING APPROVED BY: [Signature]

DRAWING TITLE: STANDARD THREE CELL BOX CULVERT DETAILS

DESCRIPTION OF PROJECT: MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KM5) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)

CONTRACT No.: [Blank]

PROJECT No.: [Blank]

SCALE: 1:1000

DATE: NOVEMBER 2025

PROJECT STATUS

PLANNING/PROJECT ENGINEER: [Signature]

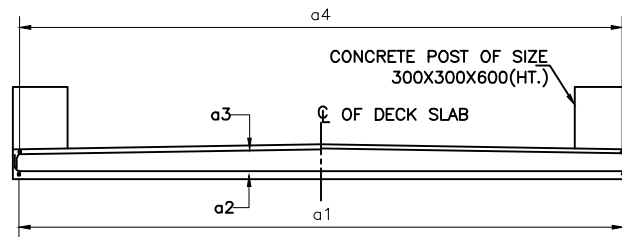
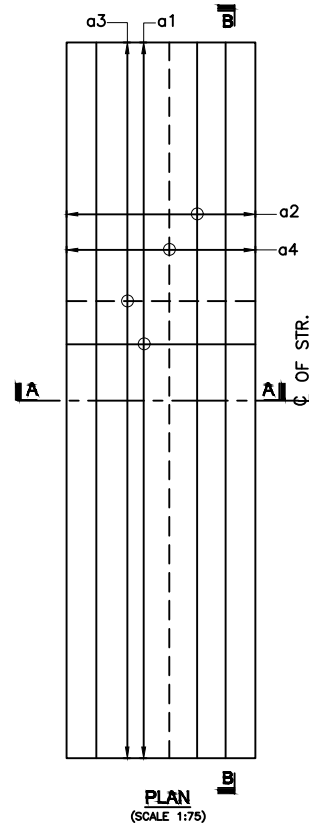
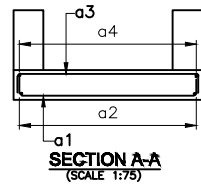
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REMARKS: [Blank]

ORIGINAL PAPER SIZE: A1

DRAWING NO: [Blank]

SHEET NO: 1 OF 1



SECTION B-B
(SCALE 1:75)

LEGEND :

TOP BARS SHOWN THUS ---
 BOTTOM BARS SHOWN THUS ---

TABLE OF BAR BENDING SCHEDULE FOR SLAB HAVING SPAN 2000mm. :-

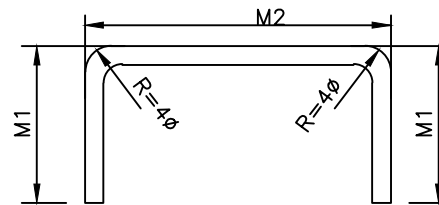
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REIN. SCHEDULE :-

SL. NO.	DESCRIPTION	SHAPE
	FOR SPAN 2000mm.	
a1	16Y @ 150 c/c	
a2	8Y @ 150 c/c	
a3	10Y @ 250 c/c	
a4	10Y @ 250 c/c	

TABLE FOR SLAB :-

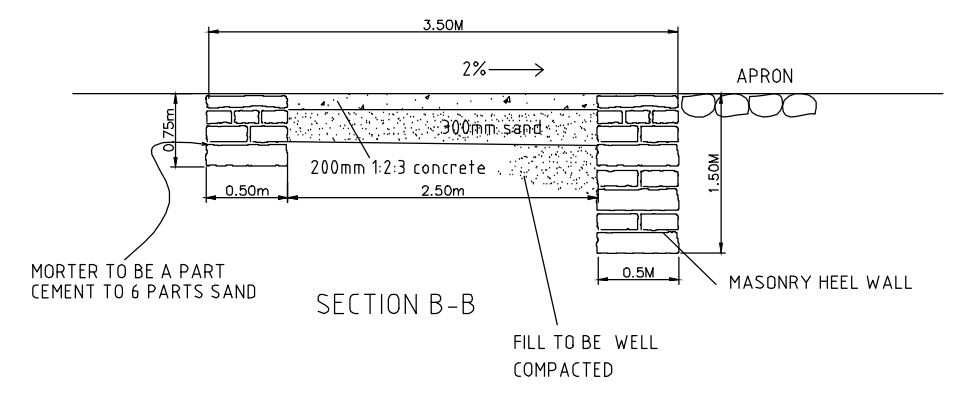
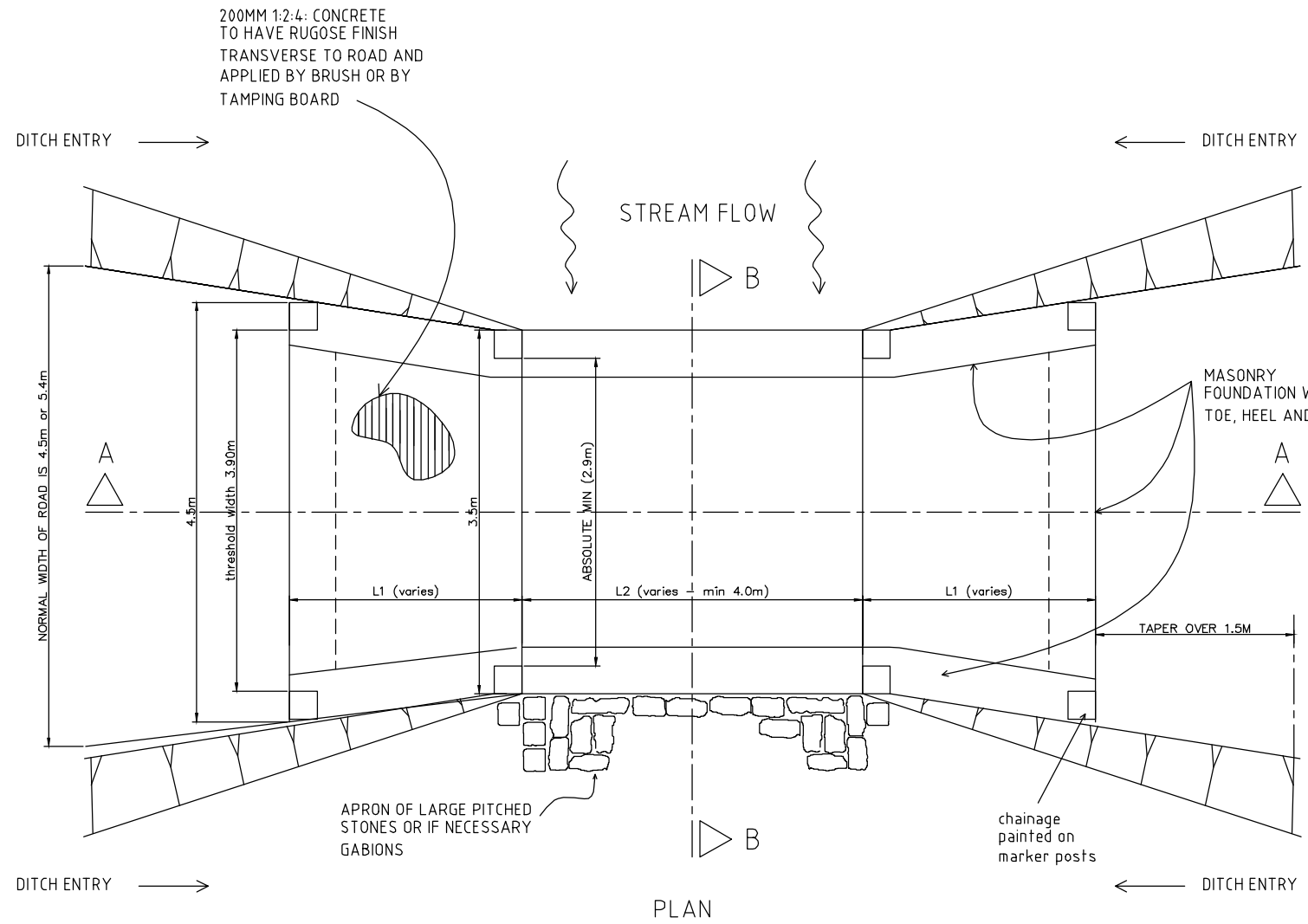
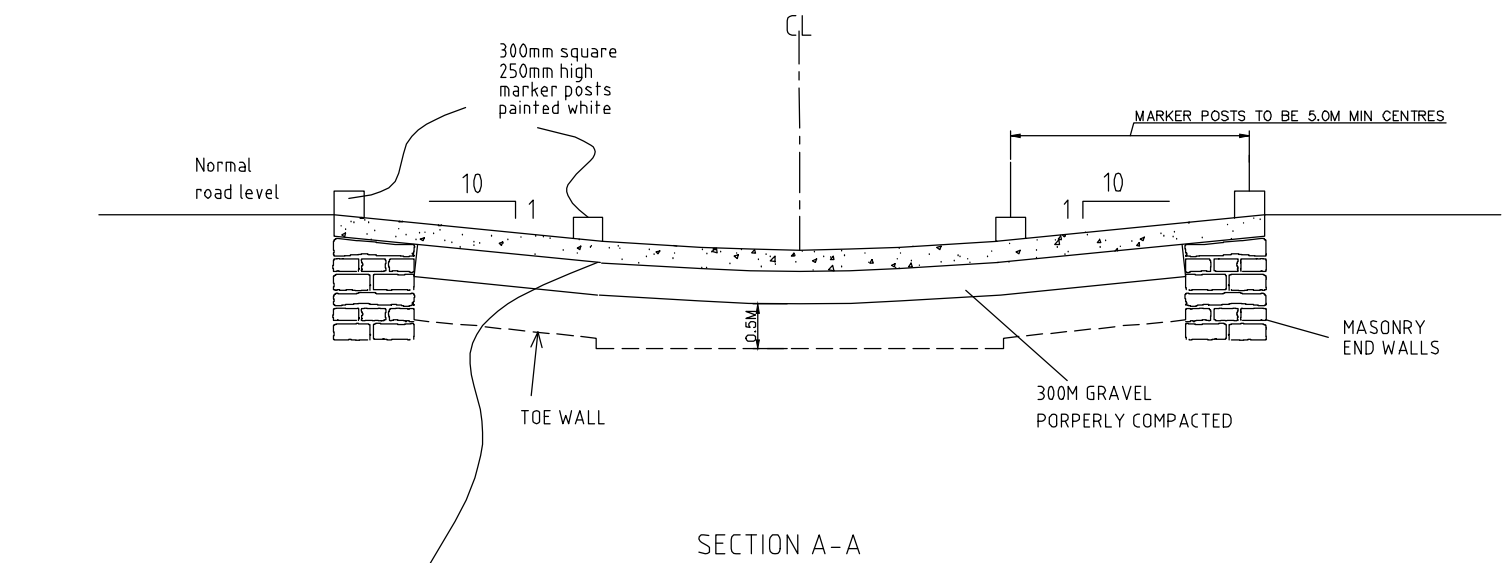
SL. NO.	SPAN (mm)	THICKNESS OF SLAB (mm)
1	2000	250 To 300



NOTES :-

1. ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS IN METRES UNLESS NOTED OTHERWISE.
2. DIMENSIONS ARE NOT TO BE SCALED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
3. CONCRETE GRADE FOR RCC PRECAST GIRDER SHALL BE CLASS 40/20.
4. GRADE OF STEEL SHALL BE H.Y.S.D. GRADE 460
5. THE CONCRETE COVER FOR REINFORCEMENT SHALL BE 40mm.
6. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH OTHER SHEETS OF THIS DRAWING.
7. FOR ALL OTHER NOTES REFER 'GENERAL NOTES' DRAWING.

AMENDMENTS			LEGEND	CONSULTANT'S DETAIL:	CLIENT'S DETAIL:	DESIGNED	DRAWING TITLE:	PROJECT STATUS					
NR.	DESCRIPTION	DATE		SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com	Southern Africal Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe	DESIGNED	REINFORCEMENT DETAIL OF TOPSLAB OF MASONRY WALL BOX CULVERT	<input type="radio"/> CONSULTANT DRAWING <input type="radio"/> DESIGNER DRAWING <input type="radio"/> PROJECT ENGINEER DRAWING <input type="radio"/> ASSEMBLY DRAWING					
1	REVISION 1	25-02-2026				DESIGN CHECKED BY	F. N. RENg	DESCRIPTION OF PROJECT	MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KM5) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)				
						DRAWN	Z. B	REMARKS:	ORIGINAL PAPER SIZE: A1				
						DRAWING CHECKED BY	F. N. RENg	INSPECTOR OF WORKS:	SHEET NO. 1 OF 1				
						DRAWING APPROVED BY	F. N. RENg	DATE:	NOVEMBER 2025	CONTRACT No.:	PROJECT No.:	SCALE:	1:1000



1. ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS IN METRES UNLESS NOTED OTHERWISE.
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7. FOR ALL OTHER NOTES REFER 'GENERAL NOTES' DRAWING.

AMENDMENTS		
NR.	DESCRIPTION	DATE
1	REVISION 1	25-02-2018


LEGEND	

CONSULTANT'S DETAIL:



SUIDA & PARTNERS
P.O Box 32345, Chichiri, Blantyre 3
Malawi
Tel: + 888 343 523/ 999 343 523
Email info@suidamw.com

CLIENT'S DETAIL:



Southern African Trade Connectivity Project,
Ministry of Transport and Public Works
Capital Hill, Off Chilembwe Road
private Bag 322, Lilongwe

DESIGNED Z. B	DATE
DESIGN CHECKED BY F. N. RENg	DATE
DRAWN Z. B	DATE
DRAWING CHECKED BY F. N. RENg	DATE
DRAWING APPROVED BY MINISTRY	DATE
SIGNATURE	DATE

DRAWING TITLE: TYPICAL DETAILS OF CONCRETE DRIFT	
DESCRIPTION OF PROJECT: MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KM5) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)	
CONTRACT No.:	PROJECT No.:
SCALE: 1:1000	DATE: NOVEMBER 2025

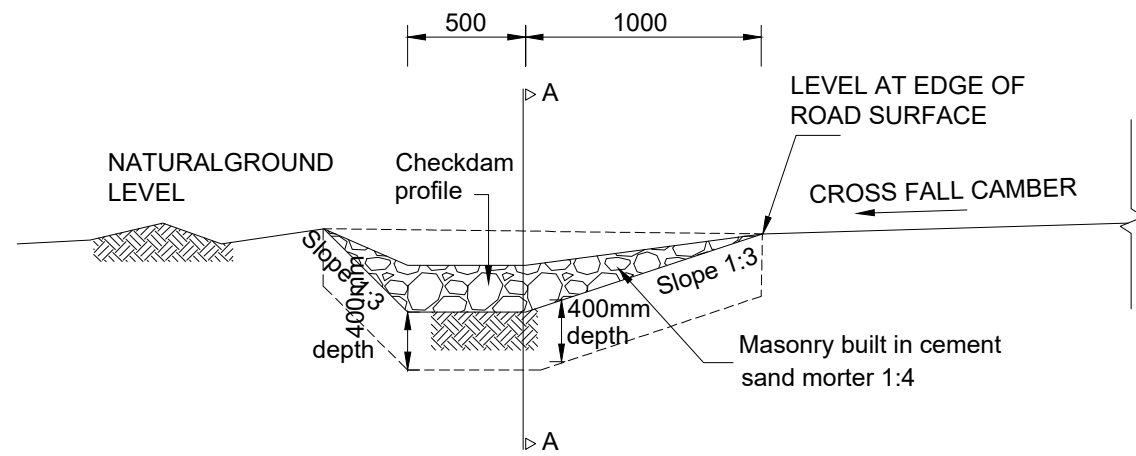
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<input type="radio"/> PROPOSED FOR CONSTRUCTION	<input type="radio"/> AS BUILT DRAWING
PLANNING/PROJECT ENGINEER:	DATE:
INSPECTOR OF WORKS:	DATE:
REMARKS:	ORIGINAL PAPER SIZE: A1
DRAWING NO.:	SHEET NO.:
CON/2025/SP/SATCP-LM/STR/CD-001	1 OF 1

STANDARD DRAWINGS

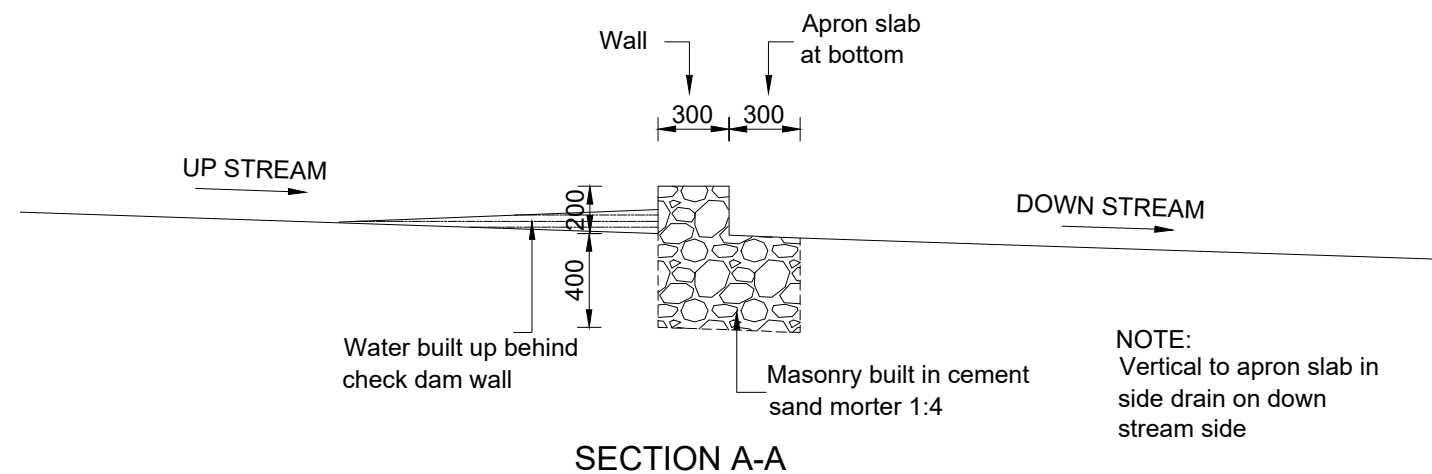
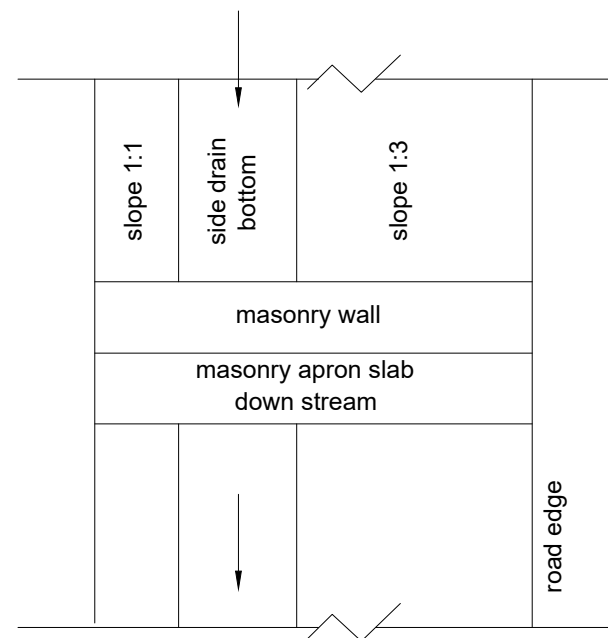
NOTE: Check dam to be used where soil is erodable and as indicated in the table below

TABLE SCOUR CHECK SPACING

GRADIENT OF ROAD (%)	SCOUR CHECK INTERNAL (m)
3	Not Required
4	17
5	13
6	10
7	8
8	7
9	6
10	5
12	4

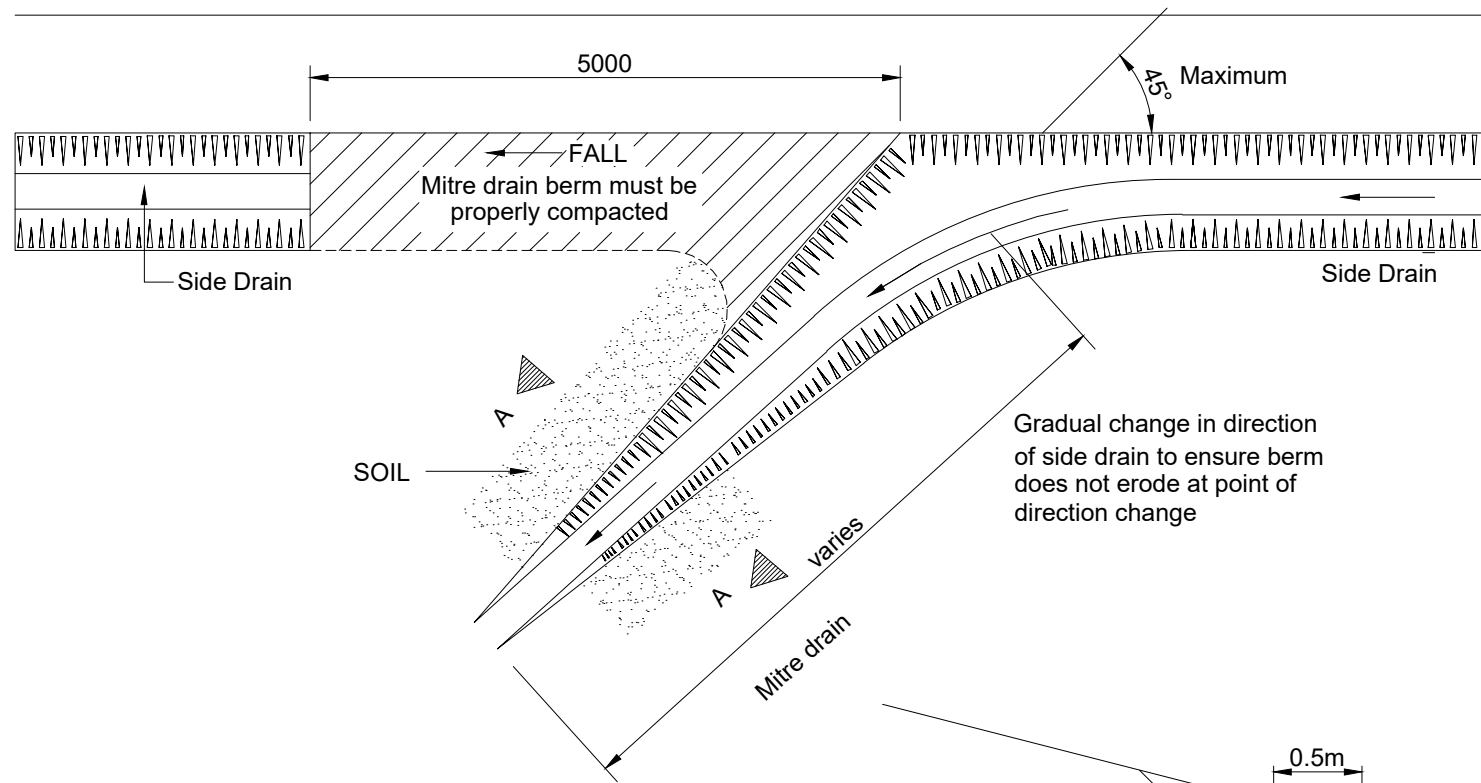


SIDE DRAIN ELEVATION WITH CHECK DAM CONSTRUCTED

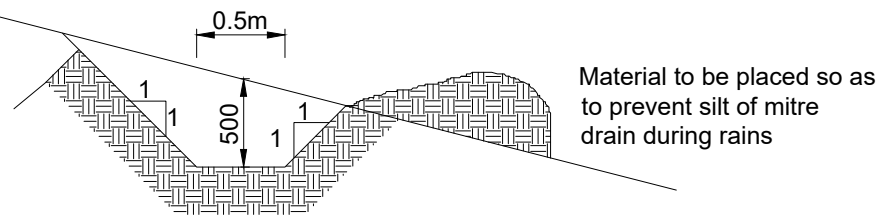


NOTE: Vertical to apron slab in side drain on down stream side

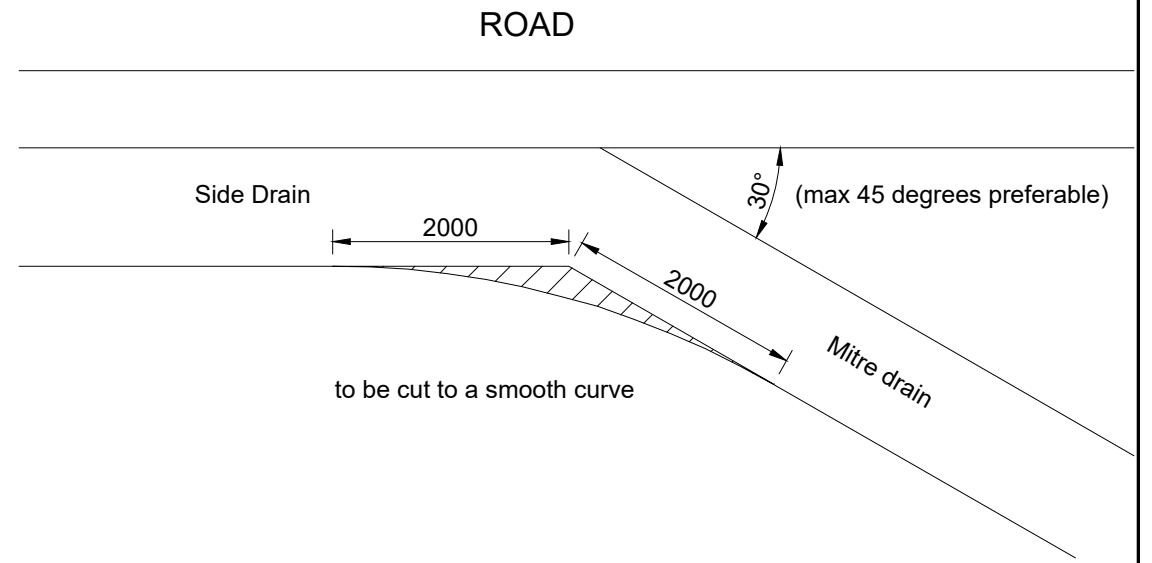
AMENDMENTS			PLAN	CONSULTANT'S DETAIL:	CLIENT'S DETAIL:	DESIGNED Z. B	DRAWING TITLE	PROJECT STATUS				
NR.	DESCRIPTION	DATE						DESIGNED	CHECKED	APPROVED	DATE	DATE
1	REVISION 1	25-02-2018		 SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com	 Southern Africal Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe	F. N. RENg DATE: _____ F. N. RENg DATE: _____ F. N. RENg DATE: _____	TYPICAL DETAILS OF MASONRY CHECK DAMS DESCRIPTION OF PROJECT MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KM5) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)	<input type="checkbox"/> DESIGN <input type="checkbox"/> CHECKING <input type="checkbox"/> DRAWING <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> AS-BUILT	PLANNING/PROJECT ENGINEER: _____ DATE: _____	INSPECTOR OF WORKS: _____ DATE: _____	REMARKS: _____	ORIGINAL PAPER SIZE: A1
												CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025 DRAWING NO: CON/2025/SP/SATCP-LM/DRN-01 SHEET NO: 1 OF 1



PLAN OF COMPLETED MITRE DRAIN

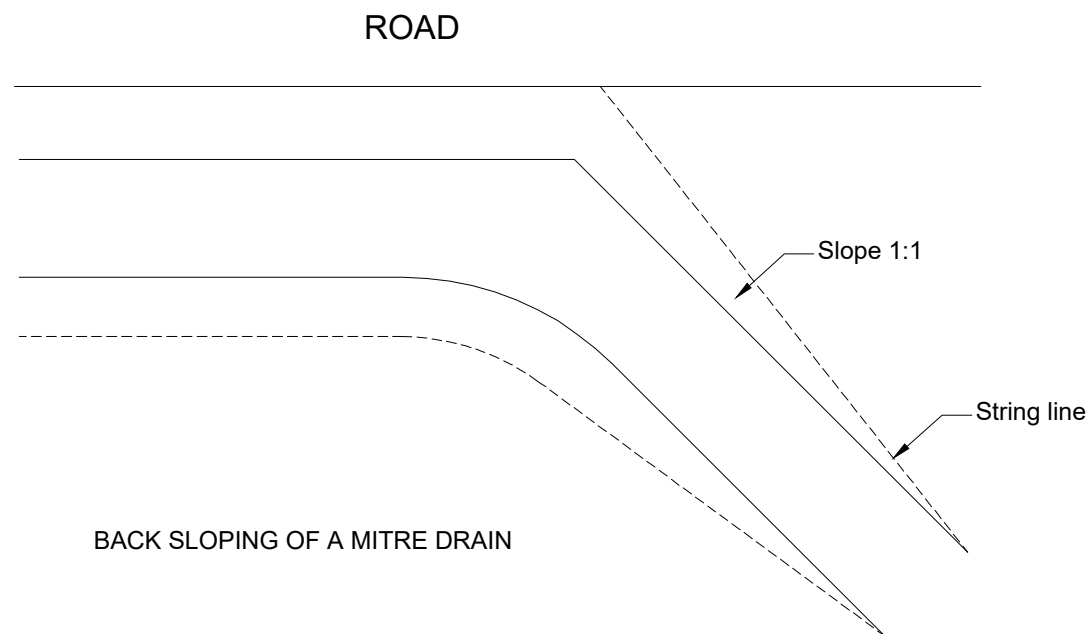


SECTION A-A



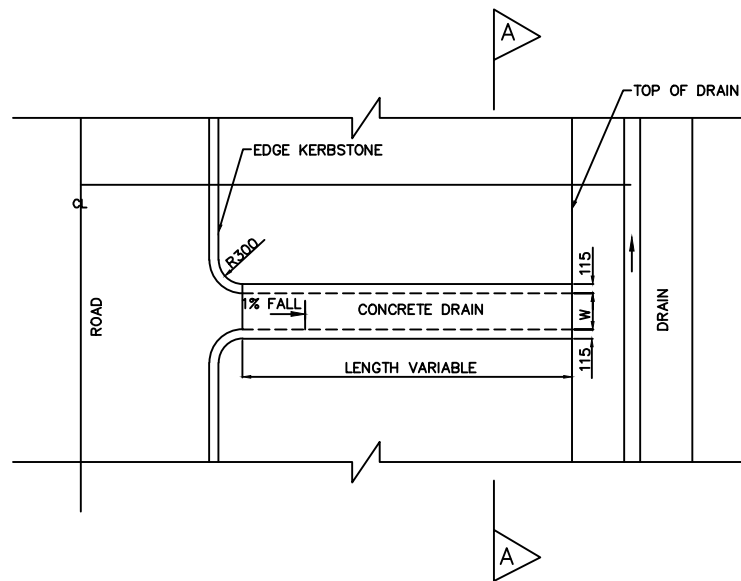
SPACING OF MITRES

Longitudinal Road Gradient (%)	Maximum Mitre Drain Interval (M)
12	40
10	80
8	120
6	150
4	200

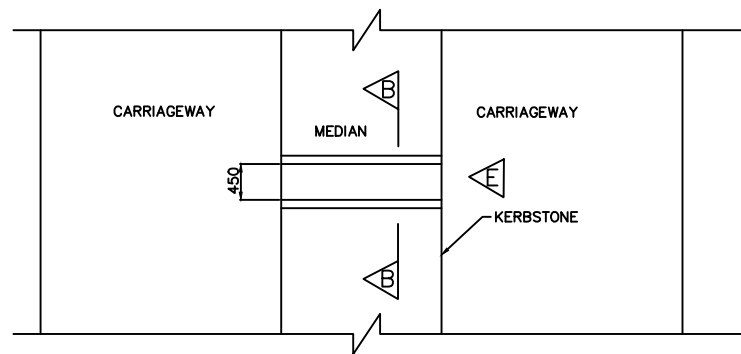


BACK SLOPING OF A MITRE DRAIN

AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS			
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS		Southern African Trade Connectivity Project,		Z. B		TYPICAL DETAILS OF MASONRY MITRE DRAIN		<input type="radio"/> DESIGN <input type="radio"/> CHECKED <input type="radio"/> DRAWING <input type="radio"/> ASSEMBLY			
1	REVISION 1	25-02-2018			 P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		 Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		SIGNATURE: _____ DATE: _____ DESIGN CHECKED BY: F. N. REng SIGNATURE: _____ DATE: _____ DRAWING CHECKED BY: F. N. REng SIGNATURE: _____ DATE: _____ DRAWING APPROVED BY: _____ SIGNATURE: _____ DATE: _____		DESCRIPTION OF PROJECT: MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KM5) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)		PLANNING/PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1 DRAWING NO: _____ CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025 CON/2025/SP/SATCP-LM/DRN-02 SHEET NO: 1 OF 1			

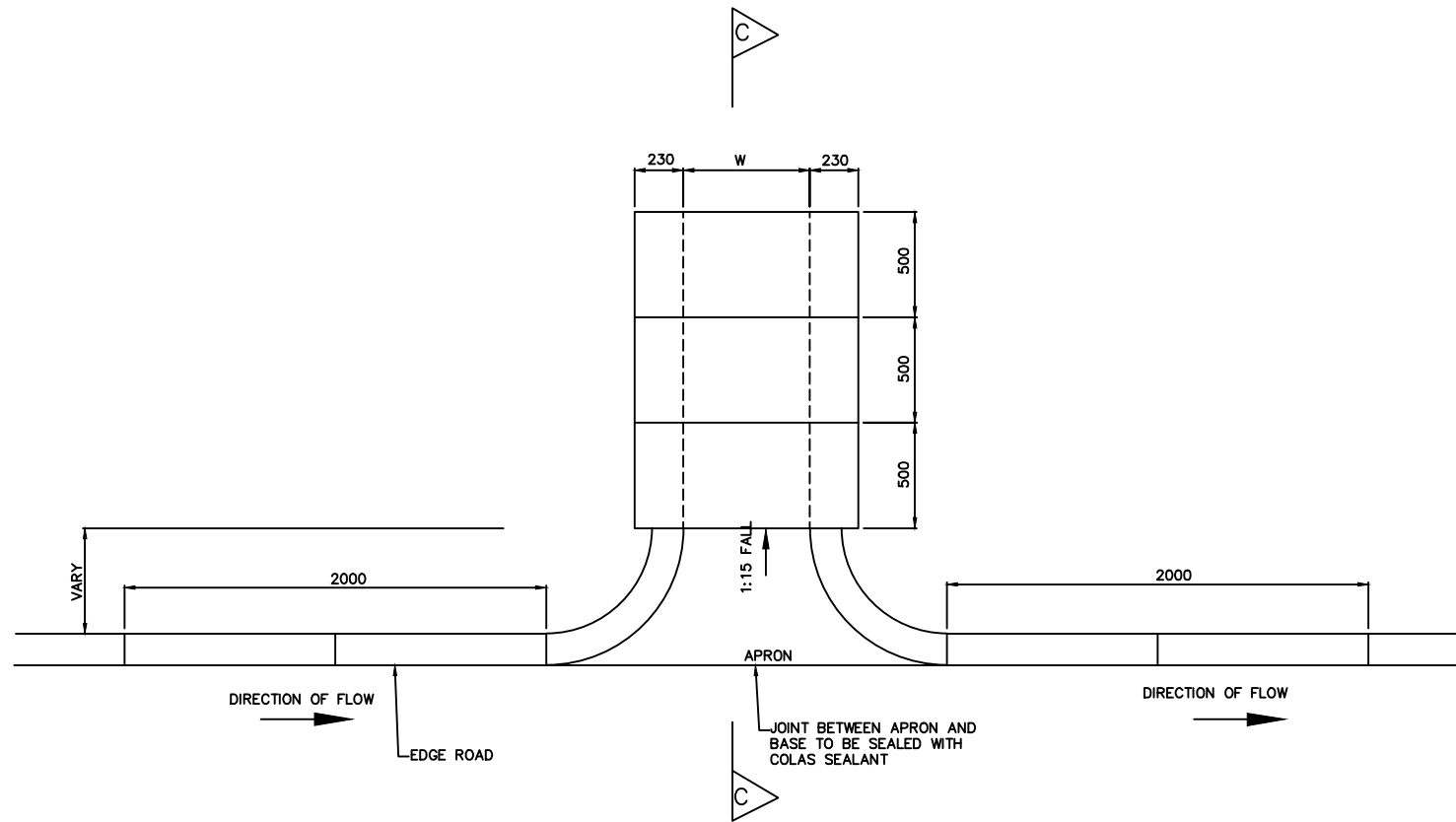


TYPICAL CONCRETE OUTLETS AND CHUTE PLANE



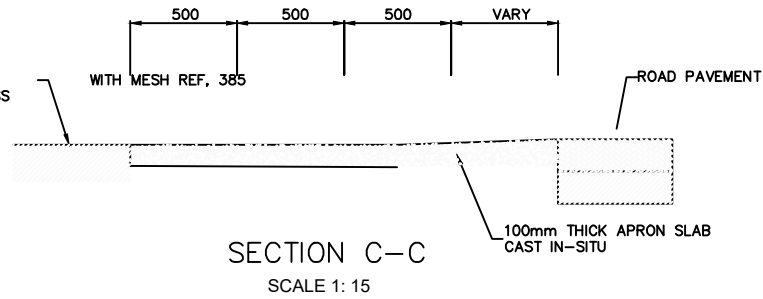
DUAL CARRIAGE ROAD PLAN

SCALE 1: 40



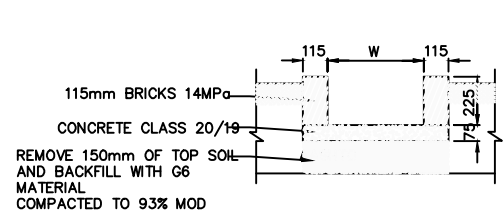
TYPICAL PLAN AT OUTLETS
SCALE 1: 15

COVER TO OUTLET AT WALKWAY CONCRETE CLASS 20/19

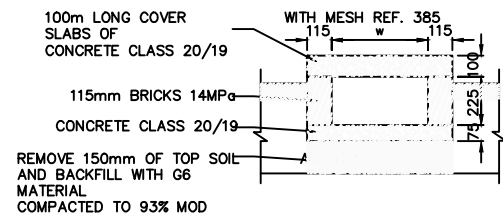


SECTION C-C
SCALE 1: 15

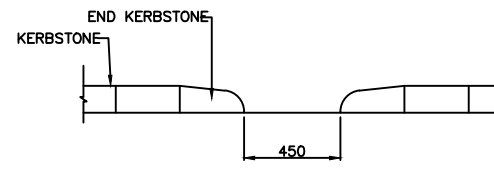
CHUTE	COVER	W
TYPE 1	OPEN	W=450
TYPE 2	COVERED	W=450
TYPE 3	COVERED	W=600



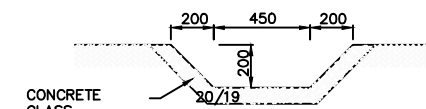
SECTION A-A OPEN CHUTES



SECTION A-A COVERED CHUTE IN WALKWAYS
SCALE 1: 15



ELEVATION E
SCALE 1: 15



SECTION B-B

AMENDMENTS		
NR.	DESCRIPTION	DATE
1	REVISION 1	25-02-2008


LEGEND	

CONSULTANT'S DETAIL:



SUIDA & PARTNERS
P.O Box 32345, Chichiri, Blantyre 3
Malawi
Tel: + 888 343 523/ 999 343 523
Email info@suidamw.com

CLIENT'S DETAIL:



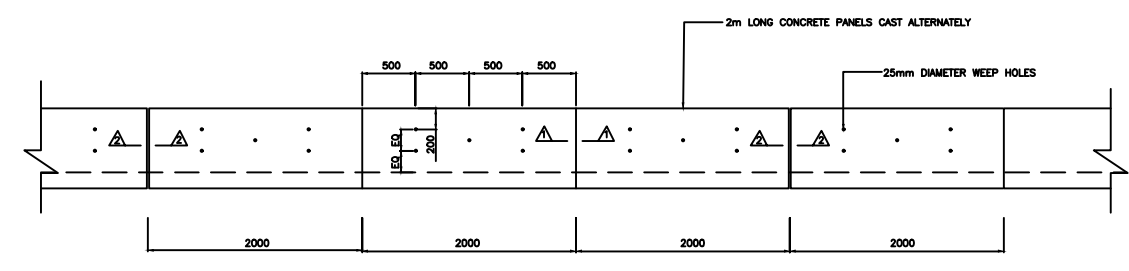
Southern African Trade Connectivity Project,
Ministry of Transport and Public Works
Capital Hill, Off Chilembwe Road
private Bag 322, Lilongwe

DESIGNED Z. B	DATE: _____
DESIGN CHECKED BY F. N. RENg	DATE: _____
DRAWN Z. B. NDOLO	DATE: _____
DRAWING CHECKED BY F. N. RENg	DATE: _____
DRAWING APPROVED BY MINISTRY	DATE: _____

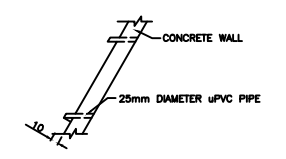
DRAWING TITLE: STANDARD DRAWINGS: STORMWATER DRAINAGE DETAILS INLETS, OUTLETS AND CHUTES
DESCRIPTION OF PROJECT: MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KMs) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)
CONTRACT No.: _____
PROJECT No.: _____
SCALE: 1:1000
DATE: NOVEMBER 2025

PROJECT STATUS	
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DRAWING NO: CON/2025/SP/SATCP-LM/DRN-03	SHEET NO: 1 OF 1

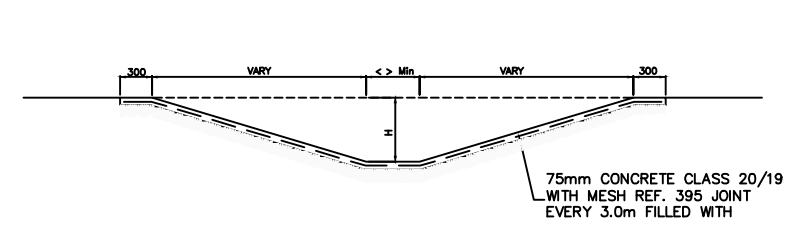
DEPTH H(m)	DEPTH H(m)
H<0.8	1:4
0.8<H<0.9	1:3
0.9<H<1.5	1:2
H>1.5	1:1.5



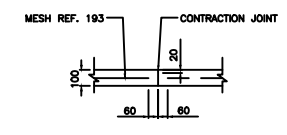
VEE OR TRAPEZOIDAL LINED DRAIN SIDE WALL ELEVATION
SCALE 1: 300



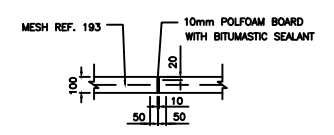
SECTION THROUGH SIDE PANEL



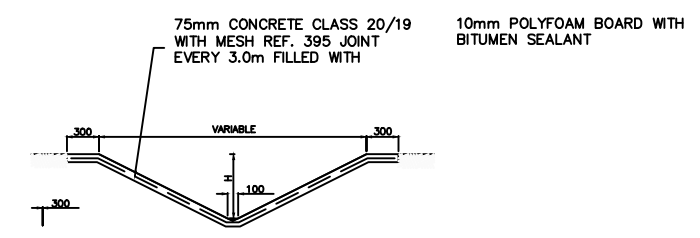
TYPICAL SECTION OF LINED TRAPEZOIDAL DRAIN
SIDE SLOVES VARY 'H' Min 300mm
SCALE 1: 300



SECTION 2-2
EXPANSION JOINT SECTION THROUGH SIDE PANEL



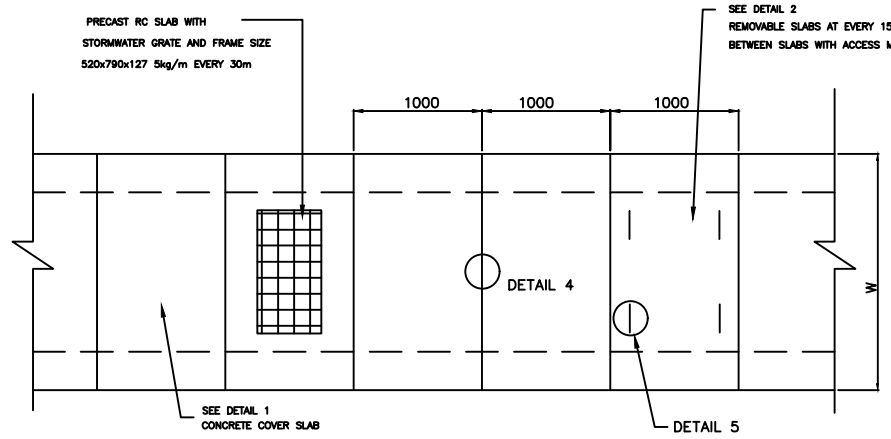
SECTION 2-2
EXPANSION JOINT



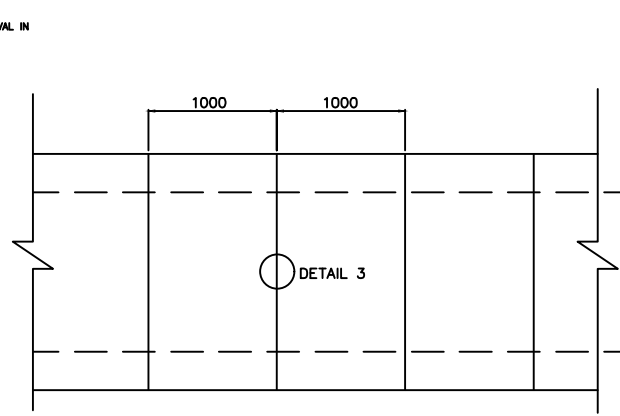
TYPICAL SECTION OF LINED VEE DRAIN
SIDE SLOVES VARY 'H' Min 300mm
SCALE 1: 300

REFERENCE CODE	WIRE/BAR DIAMETER	MESH APERTURE	SHEET WEIGHT
REF 100	4.00 mm	200 x 200mm	14.4 kgs
REF 156	3.55 mm	100 x 100mm	22.5 kgs
REF 193	5.6 mm	200 x 200mm	27.8 kgs
REF 245	6.3 mm	200 x 200mm	35.3 kgs
REF 311	7.1 mm	200 x 200mm	44.8 kgs
REF 395	8.00 mm	200 x 200mm	56.9 kgs
REF 500	9.00 mm	200 x 200mm	72.0 kgs
REF 617	10.00 mm	200 x 200mm	88.9 kgs
REF 888	12.00 mm	200 x 200mm	127.9 kgs

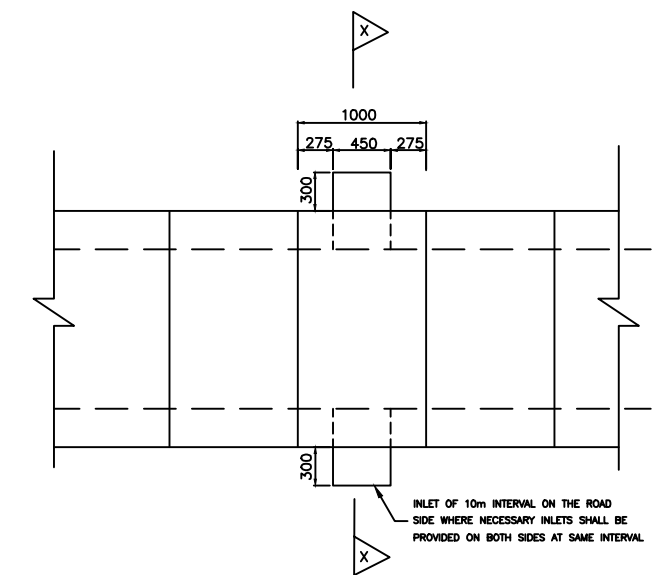
AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		Southern Africal Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		Z. B		STANDARD DRAWINGS: TRAPEZOIDAL AND VEE DRAINS DETAILS AT ROAD CROSSING		<input type="radio"/> DESIGN <input type="radio"/> CHECKED <input type="radio"/> APPROVED FOR CONSTRUCTION <input type="radio"/> AS BUILT	
1	REVISION 1	25-02-206			 <small>ADVANCED INFRASTRUCTURE AND URBAN SERVICES PROFESSIONAL ENGINEERS - MANAGERS</small>		 MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KMs) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)		DESIGN CHECKED BY F. N. RENg DRAWING CHECKED BY F. N. RENg DRAWING APPROVED BY MINISTRY		DESCRIPTION OF PROJECT MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KMs) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)		PLANNING/PROJECT ENGINEER: INSPECTOR OF WORKS: REMARKS: ORIGINAL PAPER SIZE: A1	
									CONTRACT No.: PROJECT No.: SCALE: 1:1000 DATE: NOVEMBER 2025		DRAWING NO: CON/2025/SP/SATCP-LM/DRN-06 SHEET NO: 1 OF 1		<input type="checkbox"/>	



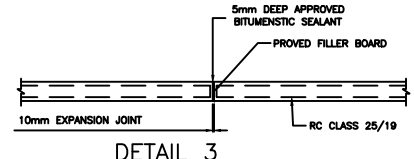
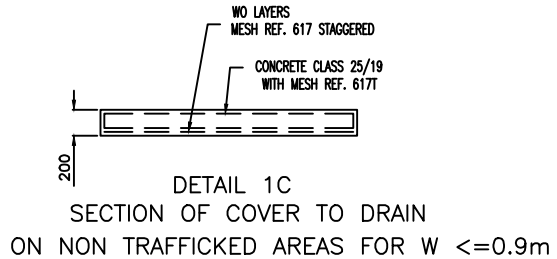
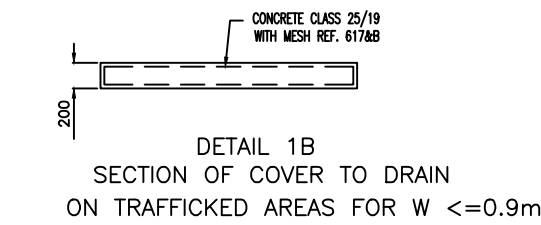
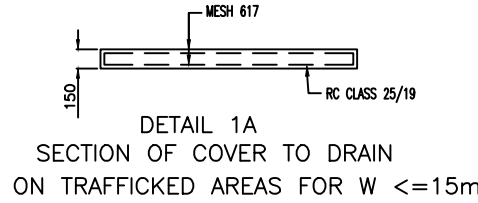
PLAN OF RECTANGULAR DRAIN COVERED WITH PRECAST SLABS



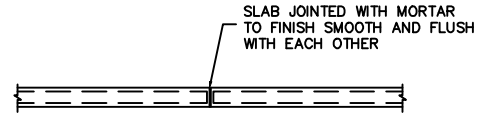
RECTANGULAR DRAIN INVERT SLAB OR CAST IN-SITU CONCRETE



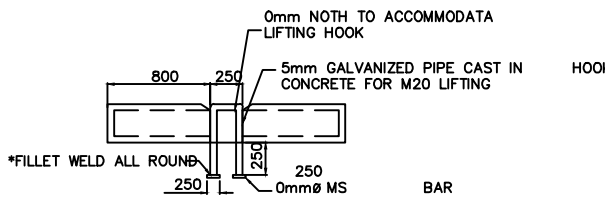
RECTANGULAR ROAD SIDE DRAIN PLAN



DETAIL 3 EXPANSION JOINT DETAIL ON WALLS AND BASE SLAB OF DRAIN AT 30m INTERVAL

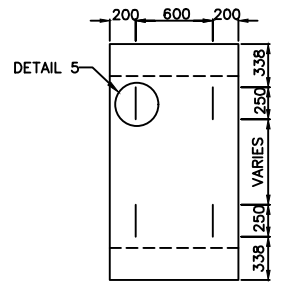


DETAIL 4 JOINT IN COVER SLAB TO DRAIN

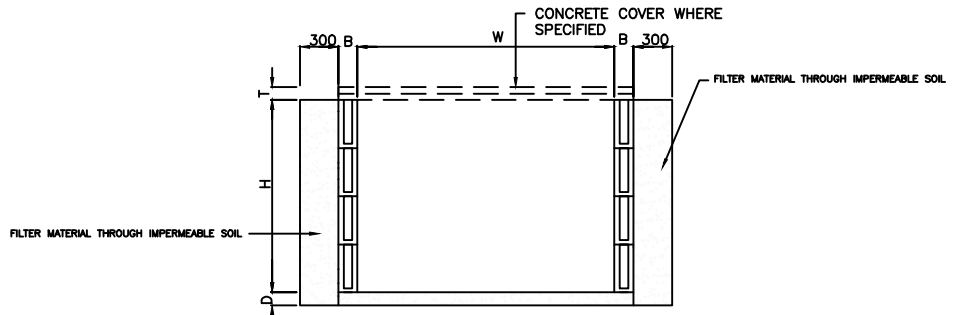


DETAIL 5 LIFTING HOOK FOR REMOVABLE SLABS

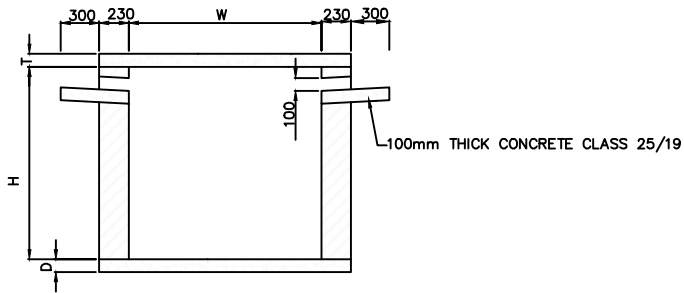
W	Varies (as specified)
B	150 mm for H less than 0.6m Y= Hollow block min 5.0MPa filled with concrete class 20/19 and reinforced with Y12 bars vertically in each hole 230mm for H greater than 0.6m less than 1.5m Y= Hollow block min 5MPa with Y12mm per hole and filled with concrete class 20/19 150 mm for H greater than 1.5m and less than 1.8 Y= class 25/19 reinforced with mesh REF. 617 each face 150 mm for H greater than 1.8m and less than 2.5m Y= class 25/19 reinforced with double layer mesh REF. 617 each face for one thirds of height and single layer for rest of height
D	100mm concrete class 25/19 reinforced with mesh Ref. 395 top face
T	Varies (as specified)



DETAIL 2 REMOVABLE PRECAST SLAB



HOLLOW BLOCK RECTANGULAR DRAIN(OUTFALL)



SECTION X-X ROAD SIDE DRAIN

AMENDMENTS		
NR.	DESCRIPTION	DATE
1	REVISION 1	25-02-206


LEGEND	

CONSULTANT'S DETAIL:



SUIDA & PARTNERS
P.O Box 32345, Chichiri, Blantyre 3
Malawi
Tel: + 888 343 523/ 999 343 523
Email info@suidamw.com

CLIENT'S DETAIL:



Southern African Trade Connectivity Project,
Ministry of Transport and Public Works
Capital Hill, Off Chilembwe Road
private Bag 322, Lilongwe

DESIGNED
Z. B

DESIGN CHECKED BY
F. N. RENg

DRAWN
Z. B

DRAWING CHECKED BY
F. N. RENg

DRAWING APPROVED BY MINISTRY

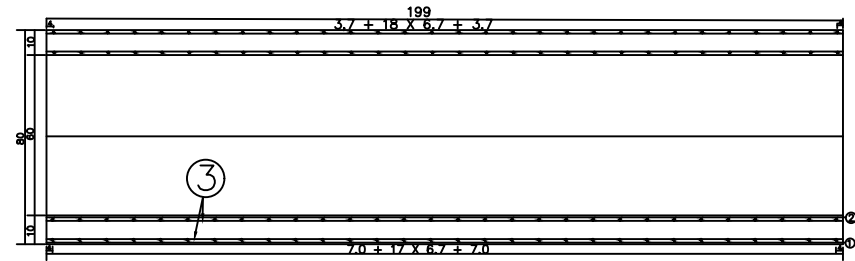
DRAWING TITLE:
STANDARD DRAWINGS: COVERED RECTANGULAR DRAIN DETAILS

DESCRIPTION OF PROJECT:
MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KMs) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)

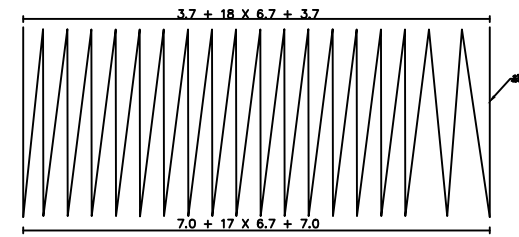
CONTRACT No.:
PROJECT No.:
SCALE: **1:1000**
DATE: **NOVEMBER 2025**

PROJECT STATUS

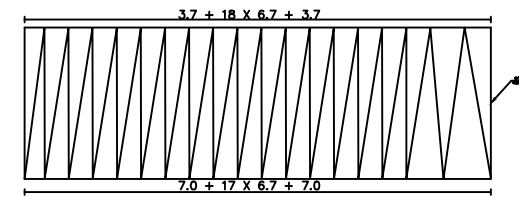
PLANNING/PROJECT ENGINEER:
INSPECTOR OF WORKS:
REMARKS:
ORIGINAL PAPER SIZE: **A1**
DRAWING NO.:
SHEET NO: **1 OF 1**



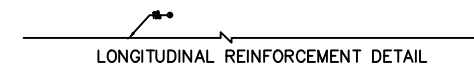
PROFILE



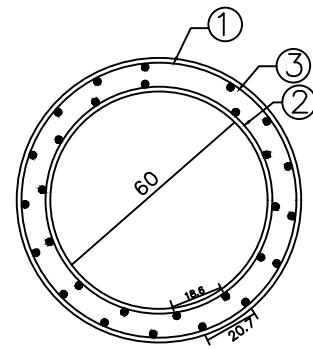
OUTER RING RIBS PROFILE



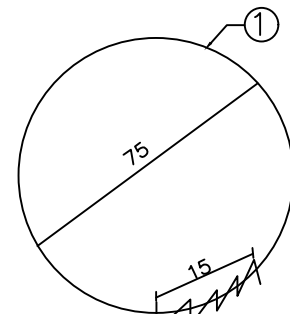
INNER RING RIBS PROFILE



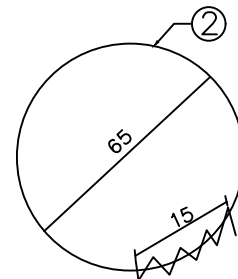
LONGITUDINAL REINFORCEMENT DETAIL



CROSS-SECTION



OUTER RING RIBS DETAILS



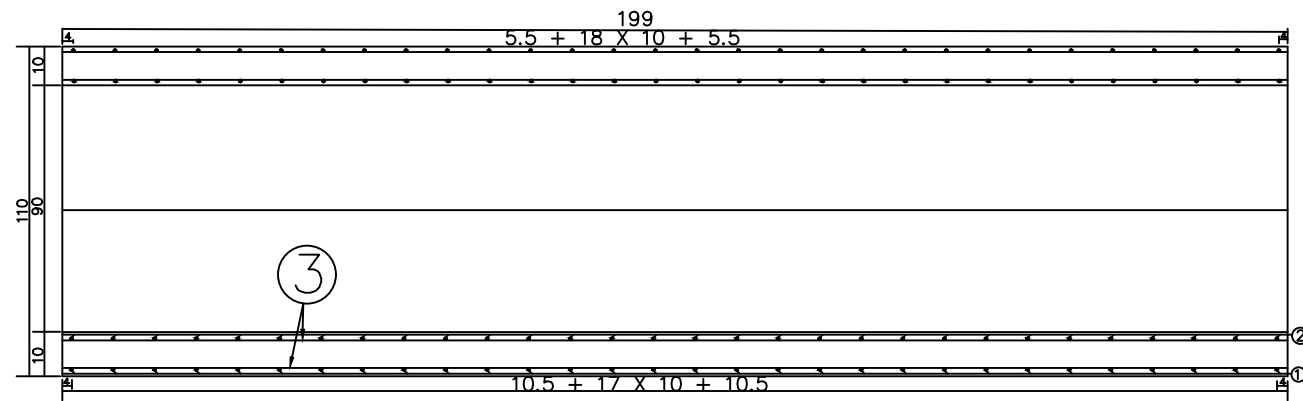
INNER RING RIBS DETAILS

ENGINEERING QUANTITIES LIST

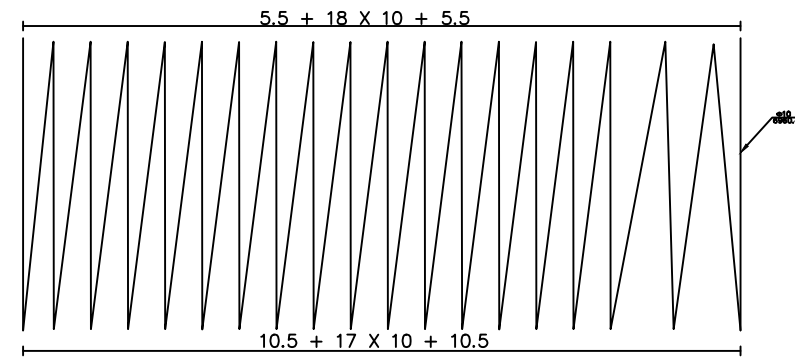
NUMBER	DIAMETER	EACH LENGTH	THE NUMBER	TOTAL	WEIGHT PER METER	WEIGHT	SERIAL NUMBER	
Unit	mm	cm	Radical	m	kg/m	kg		
1	10	1000	1	1000	0.008	8.00	001	
2	12	1000	1	1000	0.011	11.00	002	
3	16	1000	1	1000	0.020	20.00	003	
SUMMATION C20 concrete: 0.4m ³ HPB235: 67.7KG								

NOTES:
1. Figures in addition to the steel bar diameter in millimeters in size and indicated, the rest are in centimeters

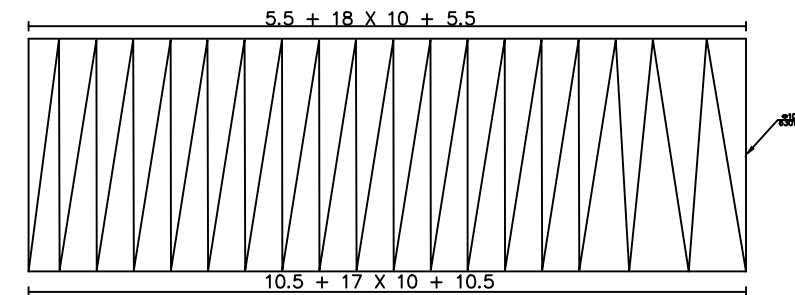
AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		Southern Africal Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		Z. B		STANDARD DRAWINGS: 900MM DIAMETER CONCRETE DETAILS		<input type="radio"/> DESIGN <input type="radio"/> CHECKING <input type="radio"/> APPROVAL FOR CONSTRUCTION <input type="radio"/> AS-BUILT DRAWING	
1	REVISION 1	25-02-206							DESIGN CHECKED BY F. N. REng DATE: _____		DESCRIPTION OF PROJECT MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KM5) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)		PLANNING/PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1	
									DRAWN Z. B DATE: _____		CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025		DRAWING NO: CON/2025/SP/SATCP-LM/DRN-09 SHEET NO: 1 OF 1	



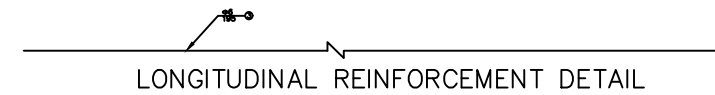
PROFILE



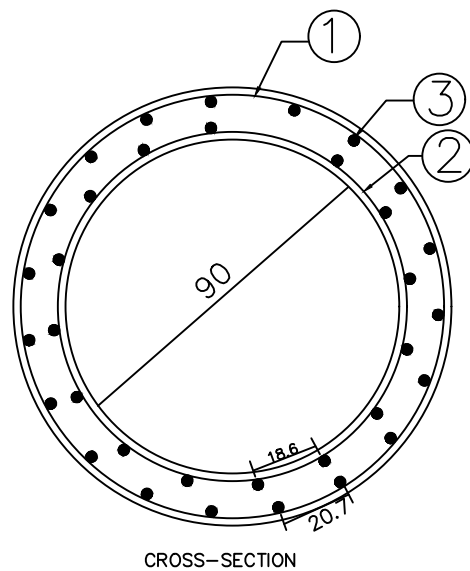
OUTER RING RIBS PROFILE



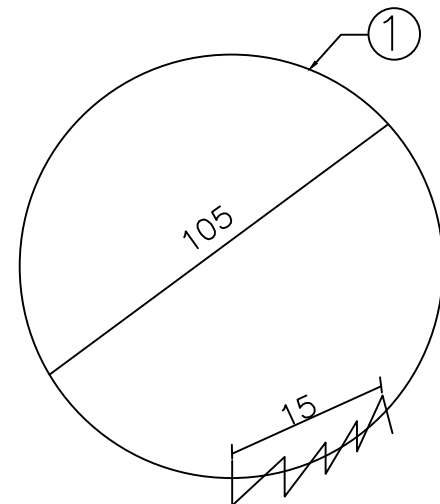
INNER RING RIBS PROFILE



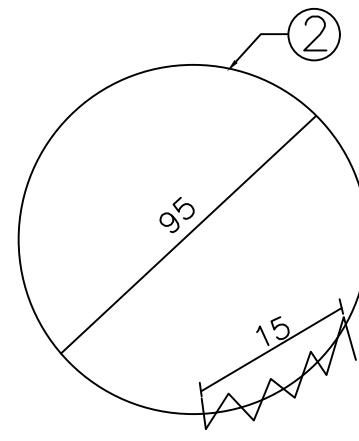
LONGITUDINAL REINFORCEMENT DETAIL



CROSS-SECTION



OUTER RING RIBS DETAILS



INNER RING RIBS DETAILS

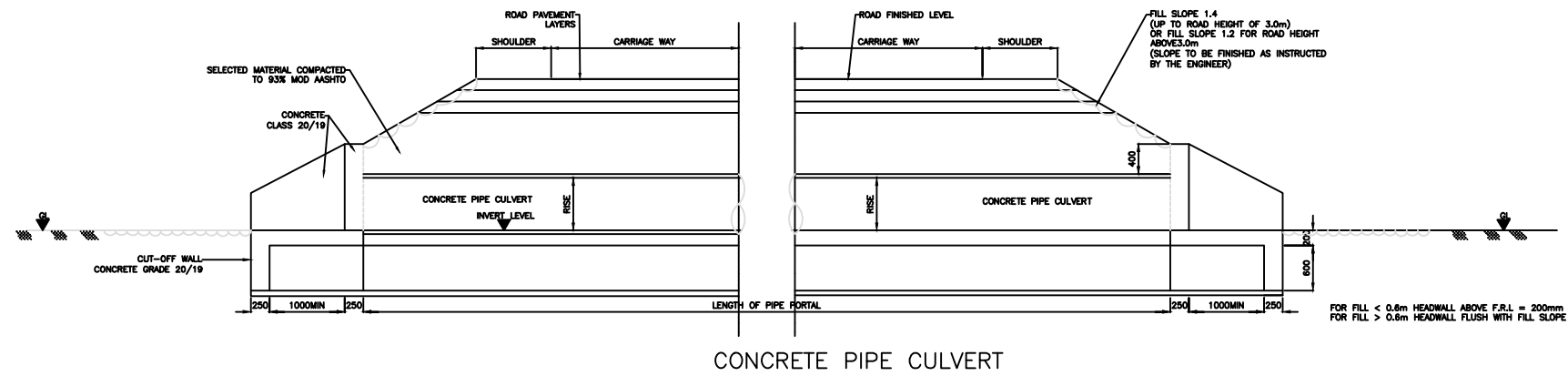
ENGINEERING QUANTITIES LIST

NUMBER	DIAMETER	EACH LENGTH	THE NUMBER	TOTAL	WEIGHT PER METER	WEIGHT	SERIAL NUMBER
Unit	mm	cm	Radical	m	kg/m	kg	
1	ø10	6003.30	1	60.0	0.62	42.98	HPB 235
2	ø10	6300.80	1	63.0	0.62	38.88	HPB 235
3	ø6	195	32	62.4	0.22	13.85	HPB 235
SUMMATION C20 concrete: 0.6m ³ HPB235: 95.7KG							

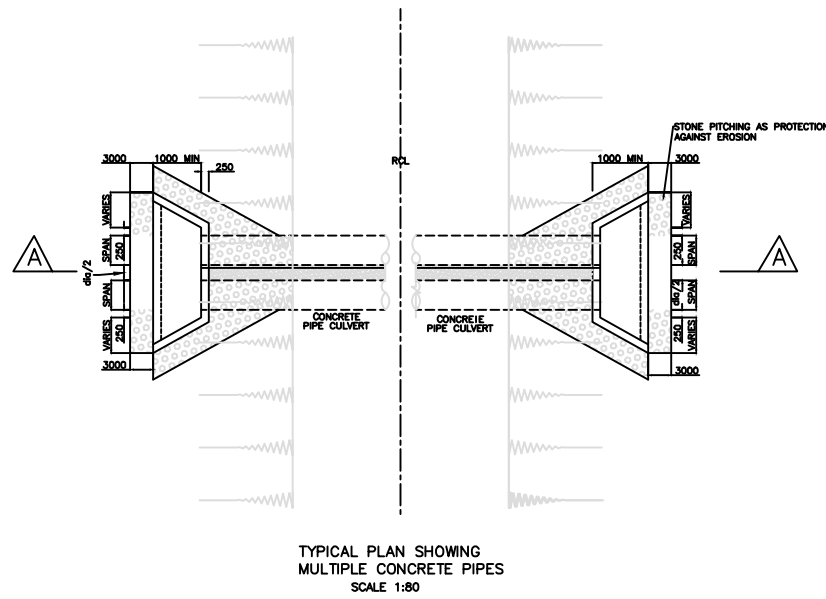
NOTES:

1. Figures in addition to the steel bar diameter in millimeters in size and indicated, the rest are in centimeters

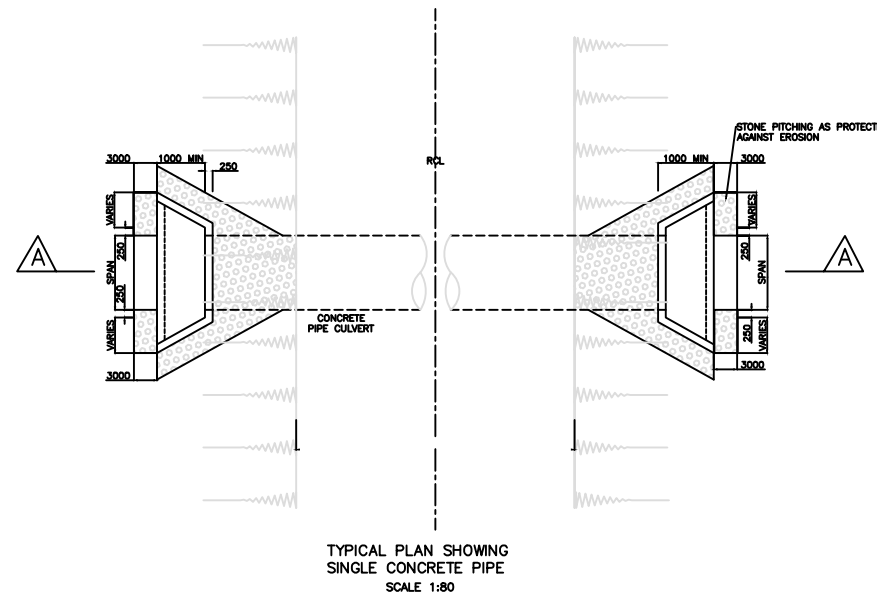
AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		Southern Africa Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		Z. B		STANDARD DRAWINGS: 900MM DIAMETER CONCRETE DETAILS		<input type="radio"/> DESIGN <input type="radio"/> CHECKING <input type="radio"/> CONSTRUCTION <input type="radio"/> AS-BUILT	
1	REVISION 1	25-02-206							DESIGN CHECKED BY F. N. RENg		DESCRIPTION OF PROJECT MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KMs) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)		PLANNING/PROJECT ENGINEER: INSPECTOR OF WORKS: REMARKS: ORIGINAL PAPER SIZE: A1	
									DRAWING APPROVED BY MINISTRY		CONTRACT No.:		PROJECT No.:	
									SCALE: 1:1000		DATE: NOVEMBER 2025		DRAWING NO. CON/2025/SP/SATCP-LM/DRN-10	
													SHEET NO. 1 OF 1	



TYPICAL SECTION A-A
SCALE 1:30

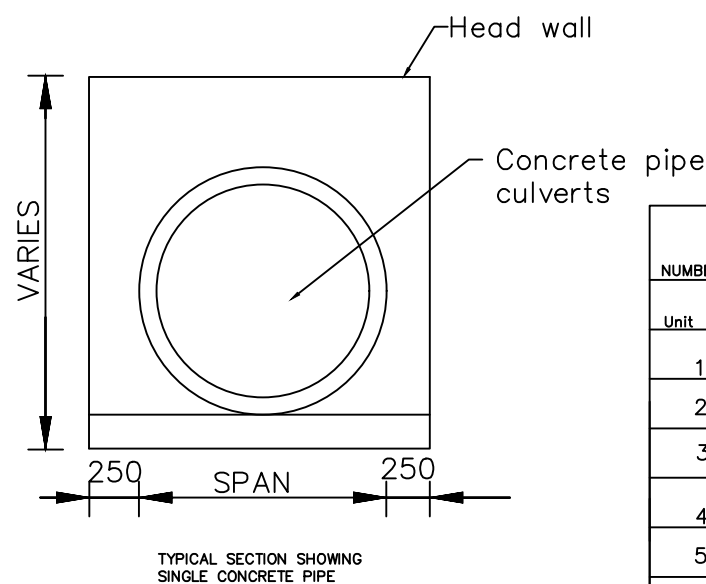
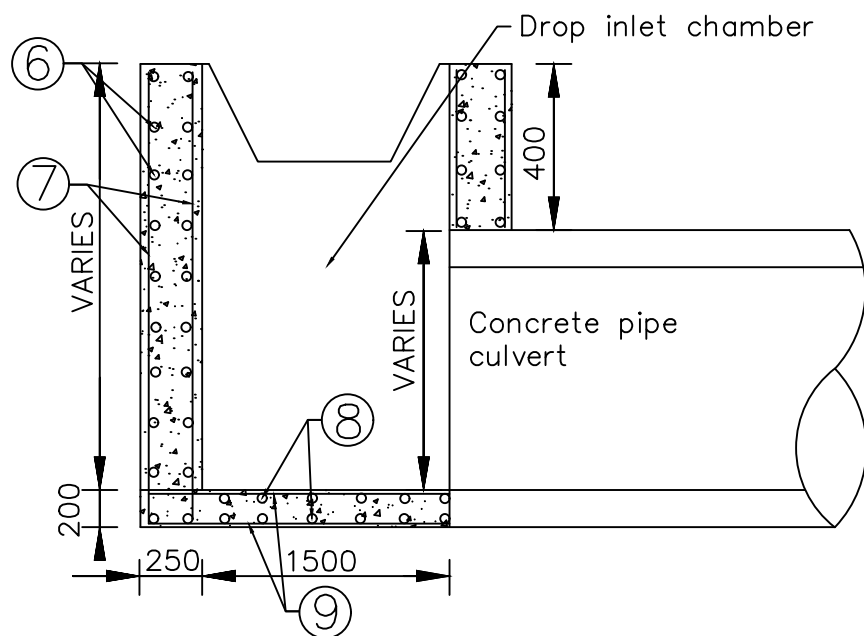
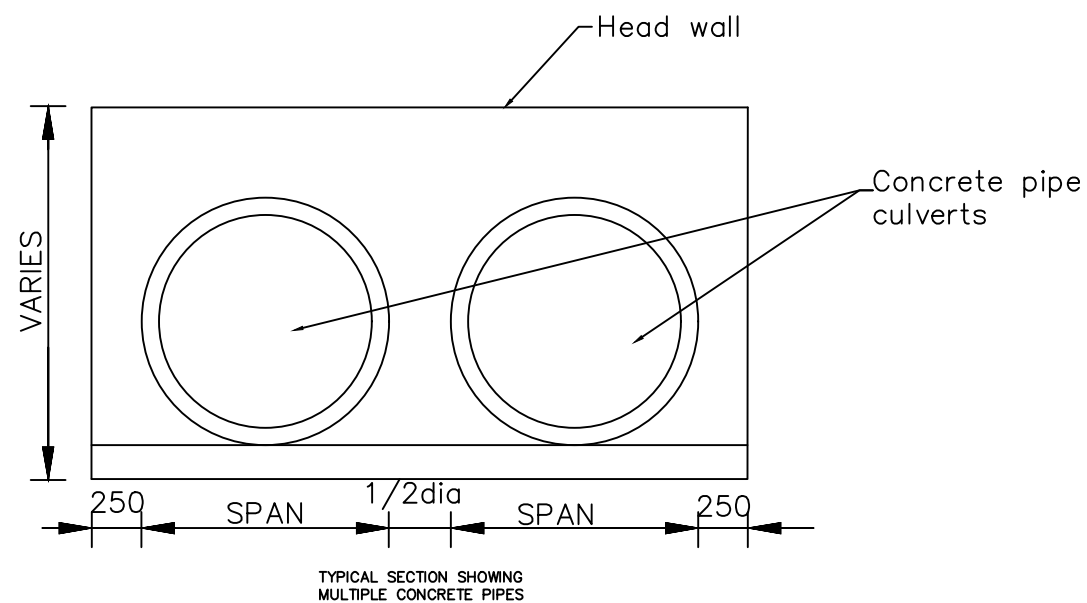
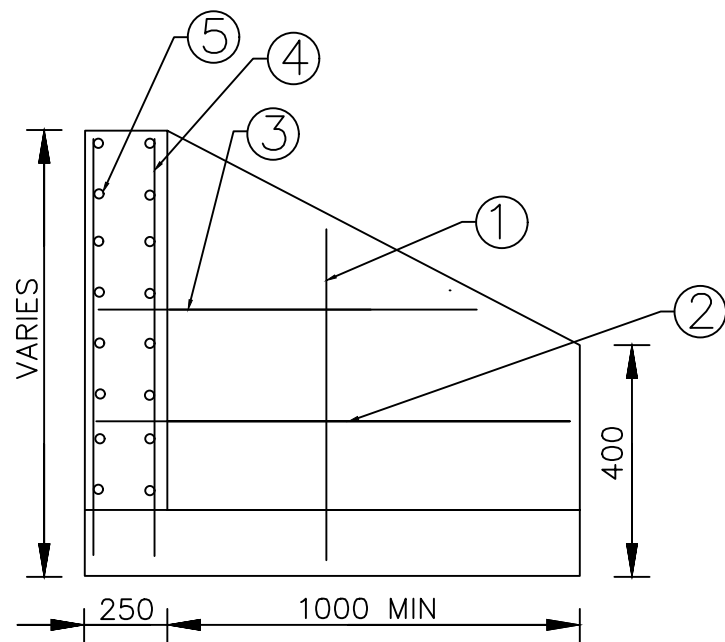


TYPICAL PLAN SHOWING
MULTIPLE CONCRETE PIPES
SCALE 1:80



TYPICAL PLAN SHOWING
SINGLE CONCRETE PIPE
SCALE 1:80

AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE							Z. B		STANDARD DRAWINGS: GENERAL ARRANGEMENT OF REINFORCED CONCRETE RING		<input type="radio"/> CONSULTING <input type="radio"/> DESIGN <input type="radio"/> PRELIMINARY <input type="radio"/> AS-BUILT	
1	REVISION 1	25-02-206			 SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		 Southern Africal Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		DESIGN CHECKED BY F. N. RENg DATE: _____ DRAWN Z. B DATE: _____ DRAWING CHECKED BY F. N. RENg DATE: _____ DRAWING APPROVED BY MINISTRY DATE: _____		DESCRIPTION OF PROJECT MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KM5) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)		PLANNING/PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1 SHEET NO: 1 OF 1	
									CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025		DRAWING NO: CON/2025/SP/SATCP-LM/DRN-11			



REINFORCEMENT DETAILS
(TO BE CUT AND BENT ON SITE)

NUMBER	DIAMETER	SPACING	WEIGHT PER METER	SERIAL NUMBER
Unit	mm	mm	kg/m	
1	φ12	150	0.89	HPB 235
2	φ10	150	0.62	HPB 235
3	φ10	150	0.62	HPB 235
4	φ12	150	0.89	HPB 235
5	φ10	150	0.62	HPB 235
6	φ10	225	0.62	HPB 235
7	φ10	225	0.62	HPB 235
8	φ10	225	0.62	HPB 235
9	φ10	225	0.62	HPB 235

Concrete class: C20/19

AMENDMENTS			LEGEND		CONSULTANT'S DETAIL:		CLIENT'S DETAIL:		DESIGNED		DRAWING TITLE:		PROJECT STATUS	
NR.	DESCRIPTION	DATE			SUIDA & PARTNERS P.O Box 32345, Chichiri, Blantyre 3 Malawi Tel: + 888 343 523/ 999 343 523 Email info@suidamw.com		Southern Africa Trade Connectivity Project, Ministry of Transport and Public Works Capital Hill, Off Chilembwe Road private Bag 322, Lilongwe		Z. B		STANDARD DRAWINGS: REINFORCED CONCRETE RING AND DROP INLET CHAMBER DETAILS		<input type="radio"/> DESIGN <input type="radio"/> CHECKED <input type="radio"/> APPROVED FOR CONSTRUCTION <input type="radio"/> AS BUILT	
1	REVISION 1	25-02-206							DESIGN CHECKED BY F. N. RENg DATE: _____ SIGNATURE: _____		DESCRIPTION OF PROJECT MW-MTPW-544345-CW-RFB/ SPOT IMPROVEMENT AND INSTALLATION OF DRAINAGE STRUCTURES ON SENZANI- DOVIKO (T394/S125) ROAD(24KMs) IN NTCHEU DISTRICT-SECTION 1(KM 0-24)		PLANNING/PROJECT ENGINEER: _____ INSPECTOR OF WORKS: _____ REMARKS: _____ ORIGINAL PAPER SIZE: A1	
							DRAWING APPROVED BY MINISTRY F. N. RENg DATE: _____ SIGNATURE: _____		CONTRACT No.: _____ PROJECT No.: _____ SCALE: 1:1000 DATE: NOVEMBER 2025		DRAWING NO: CON/2025/SP/SATCP-LM/DRN-12 SHEET NO: 1 OF 1		<input type="checkbox"/>	

ROAD INVENTORY

DISTRICT - NTCHEU

DATA COLLECTED ON: 29/SEPT/2025

UPDATED ON:

SENZANI - DOVIKO ROAD (T394/S125) ROAD

Chainage		DESCRIPTION
FROM	TO	
0+000		SENZANI
0+004		Existing Culvert line- 600mm Dia - 2lines, Excavation of outlet drain
0+010	0+470	Section requires Embank formation and Lined drains LHS & RHS
0+300		Provide Vehicular cross - over slab
0+470	0+600	Section requires gravelling and Line drains
0+600	0+810	Sections Requires Embank formation and Lined Drains
0+810		Existing Concrete pipe Culvert - (600mm Dia , 1 Line) - Requires - Erosion protection Works at the outlet structure
0+810	0+860	Do nothing
0+860		Existing concrete pipe culvert (600mm Dia 1 line)
0+860	0+900	Do nothing
0+900	1+200	Do nothing
1+200		Mitre drain required - LHS & RHS
1+200	2+056	Section requires gravelling
1+300		Existing Concrete Pipe Culvert - (600mm Dia, 1 line)
1+400		Existing Concrete Pipe culvert (600mm Dia 1 line)
1+500		Existing Concrete Pipe culvert (600mm Dia 1 line)
1+600		Existing Concrete Pipe culvert (600mm Dia, 1 line)
2+000	2+056	Sections requires gravelling and earth drains - LHS and RHS
2+056	2+200	Do nothing
2+200		Existing Concrete Pipe Culvert - (600mm Dia , 1 Line)
2+200	2+300	Section requires gravelling
2+300		Existing Concrete Pipe Culvert - (600mm Dia , 1 Line)
2+300	2+400	Sections requires gravelling
2+400		Existing Concrete Pipe culvert
2+400		anti treatment required
2+400	3+920	Do nothing
2+520		Existing Concrete drift
2+904		Existing Concrete Pipe culvert - (600mm Dia, 1 Line) - Excavation of outlet drain required
2+998		Mitre drain required - RHS
3+100		Existing Drift
3+300		Provide mitre drain - RHS
3+720		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
3+900		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
3+920	4+200	Do nothing
4+200	4+260	Section requires gravelling and Earth drains
4+240		Existing Bridge - Makande Bridge
4+283	4+300	Do nothing
4+300	4+405	Provide concrete pad and Lined drains - LHS and RHS
4+500	5+334	Do nothing
4+560		Existing Concrete drift - Erosion protection works required
5+334	5+410	Do nothing
5+410		Existing Bridge - Likudzi Bridge
5+450	10+500	Do nothing
6+000		Do nothing
6+100		Existing Concrete Pipe Culverte - (600mm Dia 1 Line)
6+200		Existing Concerete Pipe Culvert - (600mm Dia 1 Line)
6+520		ExistingConcrete Pipe Culvert - (600mm Dia 1 Line)
6+870		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
7+090		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
7+200		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
7+700		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
8+620		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
9+140		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
9+690		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
10+450		Do nothing
10+506		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
10+500	12+000	Do nothing
10+700		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
10+700	10+890	Do nothing
10+905		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
10+910		Mitre drain required - LHS
11+685		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
11+800	11+882	Reshape Section
11+882	12+000	Do nothing
12+000	12+200	Do nothing
12+000	12+136	Reshape section
12+100		Do nothing
12+100	12+145	Do nothing
12+145	12+190	Re-alignment of Vertical Curve
12+190	12+700	Do nothing
12+700	12+805	Reshape Section
12+805	12+815	Filling of eroded sections

12+815		Existing Bridge - NAMISU BRIDGE - Provide weepholes
12+822	12+853	Section requires gravelling
12+853		Provide Service Ducts - min. 110mm Dia
13+070	13+100	Do nothing
13+280	13+360	Section requires gravelling and Earth drains
13+450		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
13+450	13+550	Do nothing
13+550	13+600	Re-alignment of Vertical Curve, Provide lined drains - LHS & RHS
13+570	13+700	Section requires gravelling and Earth drains
14+200		Provide a Box Culvert 1m x 1m - 1 Cell, Excavate inlet & outlet drains
14+200	14+300	Section requires gravelling and Earth drains
14+300	14+400	Provide Scour Checks - LHS & RHS
14+400		Demolish and remove existing culvert (600mm Dia 1 line)
14+700		Provide mitre drain - LHS
14+700	14+900	Section requires Gravelling and Earth drains
14+750		Demolish and remove existing Culvert (600mm Dia 1 Line)
14+800		Provide mitre drain - RHS
15+000	15+300	Reshape Section and provide Earth drains
15+300	15+365	Reshape Section and provide Earth drains
15+365	15+380	Do nothing
15+380	15+600	Reshape Section and provide Earth drains
15+500	15+620	Do nothing
15+700		Provide mitre drain - RHS
15+715		Provide mitre drain - LHS
15+738		Provide mitre drain - RHS
15+748		Provide mitre drain - LHS
15+800		Provide mitre drain - LHS & RHS
15+800	16+100	Reshape Section and provide Earth drains
16+200	16+385	Do nothing
16+385	16+405	Section requires gravelling and Earth drains
16+405	16+455	Do nothing
16+500		Provide mitre drain - RHS
16+510		Provide mitre drain - RHS
16+515		Provide mitre drain - LHS
16+580		Provide mitre drains -LHS & RHS
16+600		Provide mitre drains -LHS & RHS
16+670	16+700	Reshape Section and Provide Earth drains
16+670		Provide mitre drain - LHS
16+740		Do nothing
16+760	16+870	Do nothing
16+790		Provide mitre drain - LHS & RHS
16+870	16+915	Re-alignment of Vertical Curve
16+985	17+025	Re-alignment of vertical Curve
17+025		Provide mitre drain - RHS
17+100		Provide mitre drain - RHS
17+104		Provide mitre drain - LHS
17+180	17+220	Reshape section and provide Earth drains
17+300		Provide Mitre drain - RHS
17+305		Provide mitre drain - LHS
17+350	17+410	Reshape section and provide earth drains
17+410	17+500	Reshape road, Provide earth drain - LHS
17+500	17+550	Do nothing
17+550	17+600	Reshape Section and Provide Earth drain - RHS
17+000		Provide mitre drain - RHS
17+650	17+700	Do nothing
17+750		Provide mitre drain - RHS
17+780	17+900	Reshape Section, Provide Scour Checks - LHS and Provide lined drains RHS
17+920		Provide mitre drain - LHS & RHS
18+000		Provide mitre drain - RHS
18+00	18+070	Reshape Section and provide earth drains
18+010		Provide mitre drain - RHS
18+070	18+133	Section requires Gravelling and Earth drains
18+200	18+300	Section requires Gravelling and Earth drains
18+300		Provide mitre drains - RHS
18+315		Provide mitre drains - LHS
18+400		Provide mitre drain - LHS
18+500		Provide Box Culvert 1m x 1m , 1 Cell
18+670	18+700	Reshape Section
18+650		Do nothing
18+700	18+780	Reshape Section, Provide Scour Checks - LHS& RHS
18+800		Provide mitre drain - LHS & RHS
18+830	18+900	Reshape Section and provide earth drains and Scour Checks- LHS & RHS
18+900	19+100	Reshape Section
19+120	19+180	Do nothing
19+200	19+400	Realignment of vertical curve
19+500		Provide mitre drain - RHS
19+500	19+840	Reshape Section , Provide Earth drains
19+600		Provide Mitre drains - LHS & RHS
19+660		Provide Mitre drains - LHS & RHS
19+700		Provide Mitre drain - LHS
19+840	19+920	Section requires Gravelling
20+000		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
20+180	20+205	Reshape Section and provide Earth drains
20+205		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
20+205	20+280	Reshape Section and Provide earth drains
20+300		Provide mitre drain - LHS

20+500		Provide mitre drain - RHS
20+500	20+600	Reshape Section, provide earth drains
20+550		Provide mitre drains - LHS & RHS
20+600		Provide mitre drains - LHS & RHS
20+700		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
20+630	20+700	Provide earth drains - RHS
20+700	20+800	Provide earth drains - RHS
20+800		Provide mitre drain - RHS
20+870		Do nothing
20+870	20+940	Reshape Section, Provide earth drains - LHS & RHS
20+940		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
20+970	21+000	Provide earth drains - RHS
21+000		Provide Mitre drains - LHS
21+000	21+400	Reshape Section, Provide earth drains
21+160		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
21+200	21+379	Section requires Gravelling and Earth drains
21+379	21+400	Do nothing
21+400	21+500	Reshape Section and Provide Earth drains
21+500	21+700	Reshape Section and Provide Earth drains
21+700	21+770	Do nothing
21+770		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
21+770	21+820	Provide earth drains - RHS
21+770	21+850	Reshape Section
21+850	22+090	Gravelling and Lined drains - LHS and RHS
22+090	22+133	Extend concrete pad and provide lined drains - LHS & RHS
22+133	22+195	Provide concrete pad and lined drains - LHS & RHS
22+195	22+235	Extend concrete pad and provide lined drains - LHS & RHS
22+235	22+248	Provide concrete pad and Lined drains - LHS and RHS
22+248	22+310	Extend concrete pad and provide lined drains - LHS & RHS
22+310	22+400	Reshape Section and Provide earth drains
22+326		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
22+400	22+440	Section requires gravelling and Earth drains
22+440	22+600	Reshape Section and provide earth drains
22+720		Do nothing
22+760		Anti- treatment
22+760	23+500	Reshape Section and provide earth drains
22+900	23+000	Provide Scour Checks - LHS & RHS
23+000	23+280	Section requires gravelling and Earth drains
23+280	23+400	Reshape and Gravel Section
23+400	23+660	Section requires Gravelling and Earth drains
23+660		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
23+740	23+850	Section requires gravelling and Earth drains
23+900		Existing Concrete Pipe Culvert - (600mm Dia 1 Line)
23+660	24+000	Reshape Section, Provide Earth drains
		END

LIST OF STRUCTURES		
DISTRICT - NTCHEU		
DATA COLLECTED ON: 29/SEPT/2025		
UPDATED ON:		
	SENZANI - DOVIKO ROAD (T394/S125) ROAD	
Chainage	DESCRIPTION	ACTION
SECTION 1		
0+000	SENZANI	
0+004	Existing Culvert line- 600mm Dia - 2lines	
0+810	Existing Concrete pipe Culvert - (600mm Dia , 1 Line) -	Requires - Erosion protection Works at the outlet structure
0+860	Existing concrete pipe culvert (600mm Dia 1 line)-	requires repairing of 1No. Headwall, outlet drain excavation and Cleaning
1+300	Existing Concrete Pipe Culvert - (600mm Dia, 1 line)	requires repairing of outlet structure
1+500	Existing Concrete Pipe culvert (600mm Dia 1 line)-	requiresCleaning
1+600	Existing Concrete Pipe culvert (600mm Dia, 1 line) -	requires repairing of headwalls - 2No. and cleaning
2+200	Existing Concrete Pipe Culvert - (600mm Dia , 1 Line) -	Requires repairing of 1 No. Headwall and Cleaning
2+200	Existing Concrete Pipe Culvert - (600mm Dia , 1 Line) -	Requires repairing of 1 No. Headwall and Cleaning
2+400	Existing Concrete Pipe culvert - (600mm Dia, 1 Line) -	Requires repairing of 1 No. Headwall
2+904	Existing Concrete Pipe culvert - (600mm Dia, 1 Line) -	Excavation of outlet drain required
3+300	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Provide 1No. Headwalls
3+900	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Requires Cleaning
4+240	Existing Bridge - Makande Bridge	
5+410	Existing Bridge - Likudzi Bridge	
6+100	Existing Concrete Pipe Culverte - (600mm Dia 1 Line) -	Provide erosion protection works, fill eroded section
6+200	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Requires repairing of outlet drain and Culvert cleaning
6+520	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Requires repairing of Headwalls and Culvert cleaning
6+870	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Demolish and reconstruct
7+090	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Requires repairing of outlet structure, excvaton of outlet drain and Culvert cleaning
7+200	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	provide inlet and outlet structure, excavation of outlet drain and clean the culvert
7+700	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	excavation of outlet drain and Culvert cleaning
8+620	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	excavation of outlet drain and Culvert cleaning
9+140	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	excavation of outlet drain, filling of eroded section and Culvert cleaning
9+690	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	excavation of outlet drain, repair outlet structure and inlet structure and Culvert cleaning
10+506	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Requires cleaning
10+700	Existing Concrete Pipe Culvert - (600mm Dia 1 Line)	
10+905	Existing Concrete Pipe Culvert - (600mm Dia 1 Line)	
11+685	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	requires cleaning and repairing of outlet structure
12+100	Provide a Box Culvert 1m x 1m 1No. Cell	
12+815	Existing Bridge - NAMISU BRIDGE -	Provide weepholes
13+450	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Requires repairing of inlet structure
14+200	Provide a Box Culvert 1m x 1m - 1 Cell	Excavate inlet & outlet drains
14+400	Demolish ans remove existing culvert (600mm Dia 1 line)	
14+750	Demolish and remove existing Culvert (600mm Dia 1 Line)	
18+500	Provide Box Culvert 1m x 1m , 1 Cell	
20+000	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Replace 3No. Concrete pipes, clean and Excavation of inlet drain
20+205	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Provide inlet and outlet structure.
20+700	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Remove and Replace with a box culvert - 1m x 1m
20+870	Provide New Box Culvert - 1m x 1m	
20+940	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Repair inlet & Outlet Structures and excavation od outlet drain
21+160	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Repair inlet Structure and excavate of outlet drain
21+770	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Repair inlet & outlet Structures and culvert cleaning
22+326	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	Repair inlet & outlet Structures and culvert cleaning
22+720	Provide a Box Culvert 1m x 1m - 1 Cell,	Excavate inlet & outlet drains
23+660	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	2No. Head walls required and culvert cleaning
23+900	Existing Concrete Pipe Culvert - (600mm Dia 1 Line) -	1No. Head wall required and culvert cleaning