

THE RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59

SANRAL TYPICAL DETAIL DRAWINGS

DRAWING NO.

DESCRIPTION

001-RD-01	SCHEMATIC ROAD LAYOUT AND MAINTENANCE INTERVENTIONS
001-RD-02	SCHEMATIC ROAD LAYOUT AND MAINTENANCE INTERVENTIONS
001-RD-03	SCHEMATIC ROAD LAYOUT AND MAINTENANCE INTERVENTIONS
001-RD-04	SCHEMATIC ROAD LAYOUT AND MAINTENANCE INTERVENTIONS
001-RD-05	SCHEMATIC ROAD LAYOUT AND MAINTENANCE INTERVENTIONS
002-RD-02	ROADWORKS DETAILS
003-TA-01	TRAFFIC ACCOMMODATION
004-TD-01	TYPICAL LAYOUT OFFICES AND LABORATORY UNITS
005-TD-01	ROAD SIGNS - SUPPORTS AND FOUNDATIONS - GENERAL DETAILS
005-TD-02	ROAD SIGNS - SUPPORTS AND FOUNDATIONS - DETERMINATION SHEET
005-TD-03	ROAD SIGNS - DETAIL OF ROAD SIGN - SIGN FACE SHEET
005-TD-04	ROAD SIGNS - SMALLER ROAD SIGNS - DETAIL
005-TD-05	ROAD SIGNS - SMALLER ROAD SIGNS - ATTACHMENT AND FIXING DETAILS SHEET 1 OF 2
005-TD-05	ROAD SIGNS - SMALLER ROAD SIGNS - ATTACHMENT AND FIXING DETAILS SHEET 2 OF 2
005-TD-06	ROAD MARKINGS LONGITUDINAL LINE TYPES
005-TD-07	RURAL LONGITUDINAL LINE COMBINATIONS
005-TD-08	MANDATORY DIRECTION ARROWS
005-TD-09	LANE REDUCTION ARROWS
005-TD-10	ROAD MARKINGS BIFURCATION ARROWS
005-TD-11	ROAD MARKINGS BARRIER LINE AHEAD ARROWS
005-TD-12	ROAD MARKINGS TYPICAL DETAILS - PAINTED ISLANDS

No.		DATE		REVISION		CONSULT. ENG.		APPROVED BY: _____ SANRAL PROJECT MANAGER		DRAWN BY: _____ CHECKED BY: _____ DATE: _____		SANRAL PROJECT APPROVAL _____ DATE: _____		HEAD OFFICE 48 Tambotie Avenue V&A de Grace Pretoria 0184 PO Box 415 Pretoria 0001 South Africa Tel: (012) 844 8000		 BUILDING SOUTH AFRICA THROUGH BETTER ROADS		NORTHERN REGION 38 Ma Street Muckleneuk Pretoria 0001 Private Bag X117 Lynwood Ridge 0080 Tel: (012) 426 6200		ACCEPTANCE THIS ACCEPTANCE FOR PROCEDURAL AND ADMINISTRATIVE PURPOSES ONLY AND DOES NOT ATTRACT LEGAL LIABILITY OR IMPLY ANY ENDORSEMENT OR ENDORSEMENT OF ANY KIND BY SANRAL.		PROJECT DESCRIPTION CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59				PROJECT NUMBER NRA 2025/0106		DRAWING LOCATION DATA ROUTE: N11 N11 SECTION: 12 12 DRAWING km DISTANCE: 76.1 85.59		DRAWING TYPE BRIDGE/STRUCTURE No.		DRAWING INDEX CONSULTANT DRAWING No.		AS SHOWN SHEET 1 OF 1 SANRAL DOCUMENT #		VER V3	
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CONTRACT NO: 2025/0106 CONTRACT DESCRIPTION: RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59		PROJECT NUMBER: NRA 2025/0106 DRAWING LOCATION DATA: ROUTE N11 SECTION 12 DRAWING km DISTANCE: 76.1 TO 78.1	
DRAWING TYPE: SCHEMATIC ROAD LAYOUT AND MAINTENANCE INTERVENTIONS BRIDGE STRUCTURE No.: - CONSULTANT DRAWING No.: SANRAL DOCUMENT #		PROJECT DESCRIPTION: CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59 DRAWING INDEX: 76.1 12 78.1 DRAWING INDEX: - DWG 001/RD/01 VER V3	
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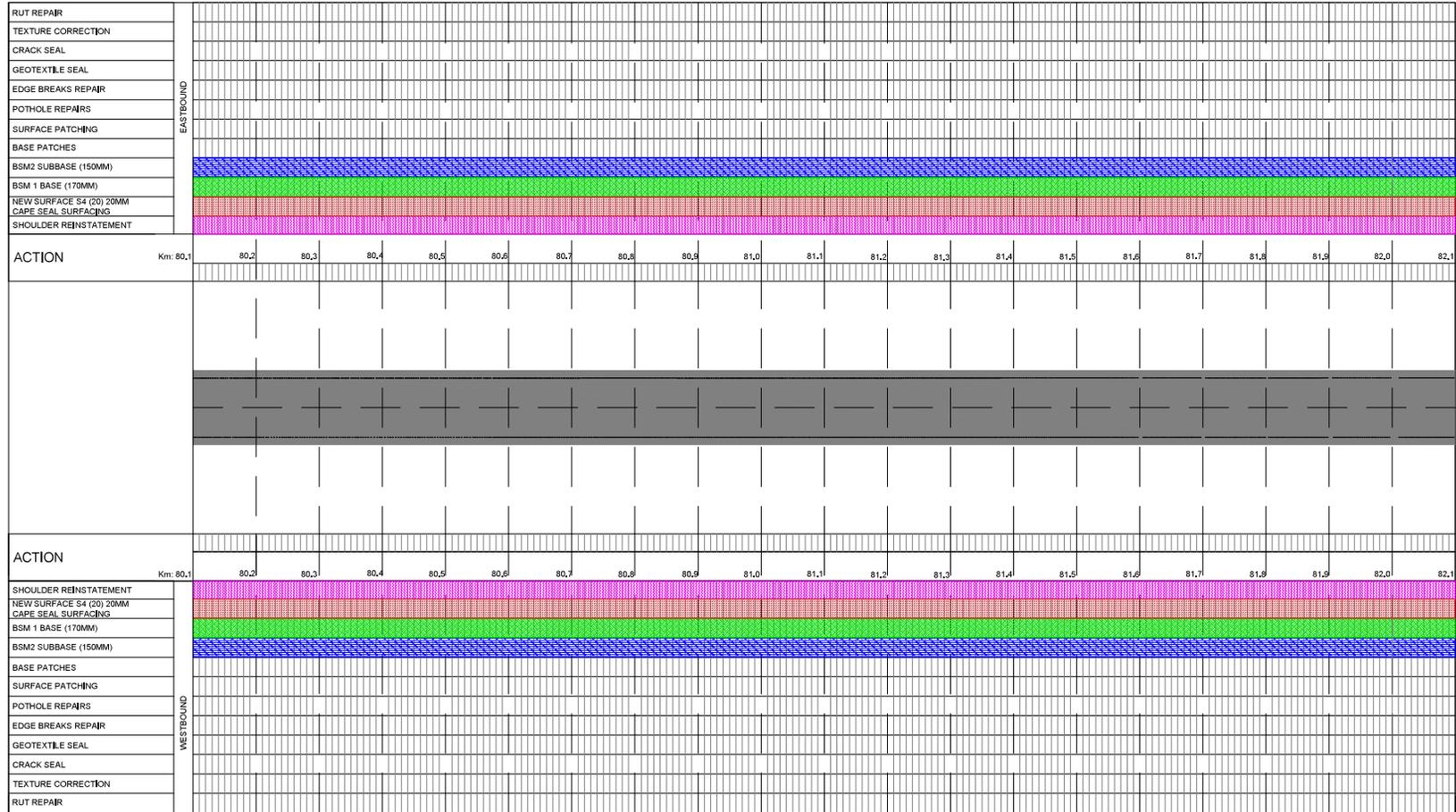
NORTHERN REGION
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 Tel: (012) 426 6200

THE ACCEPTANCE FOR PROCEEDING AND
 NON-APPEALABLE REPAIR PROCESSES ONLY
 ACCORDING TO THE QUALITY LEVEL OF
 QUALITY OF WORK PROVIDED BY THE
 CONTRACTOR/WORKER

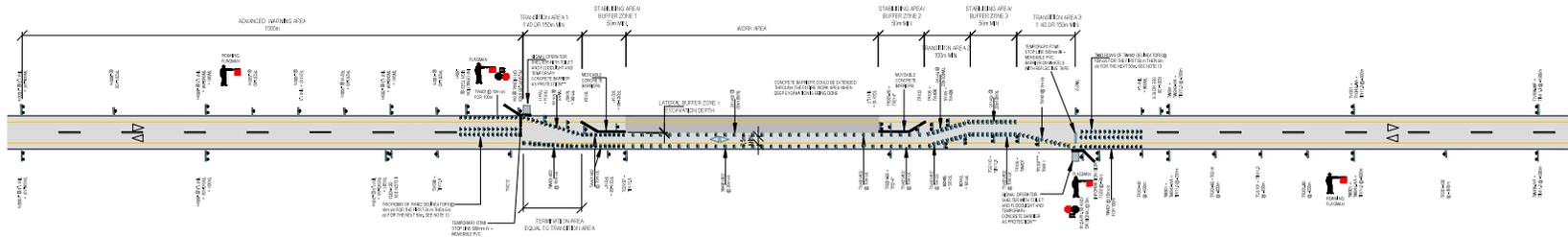
AS SHOWN SHEET 1 OF 1



NO. DATE REVISION _____ _____ _____		CONSULT. ENG. _____ _____	CONTRACTOR/DESIGNER _____ _____	APPROVED BY _____ _____	SUBMITTER APPROVAL _____ _____	HEAD OFFICE 48 Tambotie Avenue 1st de Grace Pretoria 0181 PO Box 415 Pretoria 0001 South Africa Tel (012) 844 8000	 BUILDING SOUTH AFRICA THROUGH BETTER ROADS	NORTHERN REGION 38 8da Street Meibos Park Pretoria 0001 Private Bag X17 Lynwood Ridge 0060 Tel (012) 426 6200	ACCEPTANCE THE ACCEPTANCE IS FOR PROCEDURAL AND ADMINISTRATIVE REASONS ONLY AND DOES NOT IMPLY LIABILITY OR LIABILITY OF ANY KIND FOR UNDESIRABLE CONSEQUENCES OF THE WORK	PROJECT DESCRIPTION CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59 SCHEMATIC ROAD LAYOUT AND MAINTENANCE INTERVENTIONS	PROJECT NUMBER DRAWING LOCATION DATA ROUTE N11 SECTION 12 DRAWING km DISTANCE 78.1 DRAWING TYPE BRIDGE STRUCTURE No. - CONSULTANT DRAWING No. SANRAL DOCUMENT #	NRA 2025/0106 START N11 END N11 SECTION 12 DRAWING INDEX 78.1 DRAWING INDEX 80.1 DRAWING INDEX - DRAWING INDEX - VER V3
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NO.		DATE	REVISION	CONSULT. ENG.	CONTRACT DESCRIPTION		REQUEST BY		SUBMITTER APPROVAL		HEAD OFFICE		SANRAL		NORTHERN REGION		ACCEPTANCE		PROJECT DESCRIPTION		PROJECT NUMBER		NRA 2025/0106	
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					ROUTE		SECTION		DRAWING NO.		DRAWING DATE		DRAWING TYPE		DRAWING INDEX		DRAWING INDEX		DRAWING INDEX		N11		N11	
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					DRAWING NO.		DRAWING DATE		DRAWING SCALE		DRAWING TYPE		DRAWING INDEX		DRAWING INDEX		DRAWING INDEX		DRAWING INDEX		SHEET 1 OF 3			



RURAL STOPGO CONTROL LONG-TERM WORKS
100 - 120km/h

NOTES:
1. SIGNAGE TO BE USED SHALL BE AS SPECIFIED IN THE DRAWING AND THE SIGNAGE SHALL BE PLACED AS SHOWN.
2. SIGNAGE TO BE USED SHALL BE AS SPECIFIED IN THE DRAWING AND THE SIGNAGE SHALL BE PLACED AS SHOWN.
3. SIGNAGE TO BE USED SHALL BE AS SPECIFIED IN THE DRAWING AND THE SIGNAGE SHALL BE PLACED AS SHOWN.
4. SIGNAGE TO BE USED SHALL BE AS SPECIFIED IN THE DRAWING AND THE SIGNAGE SHALL BE PLACED AS SHOWN.

SIGN CODE	SIGN FACE	SIGN SIZE	MATERIAL	QUANTITY
TW338-WF + T1N1.3		1800mm x 2400mm 1800mm x 400mm	YELLOW CLASS IV	4
TR201-100		1200mm DIA.	YELLOW CLASS III	2
TW301 + TW343-WA + T1N1.3		1800mm x 2400mm 1800mm x 400mm	YELLOW CLASS III	4
TR201-80		1200mm DIA.	YELLOW CLASS III	2
TGS107 + T1N1.3		1800mm x 2400mm 1800mm x 400mm	YELLOW CLASS III	2
TR201-60		1200mm DIA.	YELLOW CLASS III	4

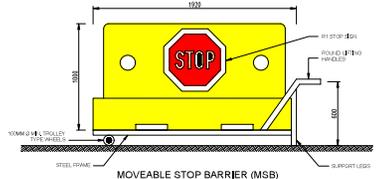
SIGN CODE	SIGN FACE	SIGN SIZE	MATERIAL	QUANTITY
TG02		1742mm x 2800mm	YELLOW CLASS III	2
TR214		1200mm DIA.	YELLOW CLASS III	4
TW301 + TW343-WA + T1N1.3		1800mm x 2400mm 1800mm x 400mm	YELLOW CLASS III	4

SIGN CODE	SIGN FACE	SIGN SIZE	MATERIAL	QUANTITY
TGS107 + T1N1.3		1800mm x 2400mm 1800mm x 400mm	YELLOW CLASS III	2
TR105		1200mm DIA.	YELLOW CLASS III	4
TGS110 + T1N1.3		1800mm x 2400mm 1800mm x 400mm	YELLOW CLASS III	1
TR106		1200mm DIA.	YELLOW CLASS III	2
TW407		1800mm x 600mm	YELLOW CLASS III	2
TW408		1800mm x 600mm	YELLOW CLASS III	4
TW411		2400mm x 400mm	YELLOW CLASS III	2
TW212		1500mm	YELLOW CLASS III	2

SIGN CODE	SIGN FACE	SIGN SIZE	MATERIAL	QUANTITY
TR201-40		1200mm DIA.	YELLOW CLASS III	2
TW336 + T1N1.4		1500mm 1500mm x 400mm	YELLOW CLASS III	2
TR104 + TR104 LED		1200mm DIA.	YELLOW CLASS III	3

TRAFFIC ACCOMMODATION NOTES:
1. TEMPORARY ROAD BLOCKS SHALL BE USED ON THE EXISTING ROAD TO MAINTAIN TRAFFIC ACCORDING TO THE APPROVAL.
2. ACTUAL TRAFFIC ACCOMMODATION MEASURES TO BE USED FOR THE WORKS SHALL BE SUBMITTED INDIVIDUALLY FOR THE ENGINEERS APPROVAL.
3. ALL ROAD BLOCKS SHALL COMPLY WITH THE SAAS ROAD TRAFFIC CONTROL SYSTEMS AND THE NATIONAL ROAD TRAFFIC ACT AND REGULATIONS.
4. ROAD BLOCKS SHALL BE PREPARED TO THE SPECIFICATIONS OF SANRAL VAS2, CHAPTER 15.
5. ROAD BLOCKS SHALL COMPLY WITH THE SAAS ROAD TRAFFIC CONTROL SYSTEMS AND THE NATIONAL ROAD TRAFFIC ACT AND REGULATIONS.
6. ROAD BLOCKS SHALL BE PREPARED TO THE SPECIFICATIONS OF SANRAL VAS2, CHAPTER 15.
7. ROAD BLOCKS SHALL COMPLY WITH THE SAAS ROAD TRAFFIC CONTROL SYSTEMS AND THE NATIONAL ROAD TRAFFIC ACT AND REGULATIONS.
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12. ROAD BLOCKS SHALL BE PREPARED TO THE SPECIFICATIONS OF SANRAL VAS2, CHAPTER 15.
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15. ROAD BLOCKS SHALL COMPLY WITH THE SAAS ROAD TRAFFIC CONTROL SYSTEMS AND THE NATIONAL ROAD TRAFFIC ACT AND REGULATIONS.

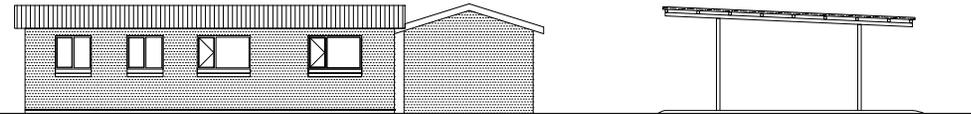
SIGN CODE	SIGN FACE	SIGN SIZE	MATERIAL	QUANTITY
TW401		200mm x 800mm	YELLOW CLASS III	200**
TW402		200mm x 800mm	YELLOW CLASS III	200**
TR103		1200mm DIA.	YELLOW CLASS III	1
R201-120		1200mm DIA.	WHITERED CLASS III	2
FLAGMAN & R1.5B		1200mm DIA.	CLASS IV FLUORESCENT YELLOW	2
FLAGMAN & R1.5A		1200mm DIA.	CLASS III RED/WHITE	2
ROAMING FLAGMAN		600mm x 800mm FLAG	RED	2



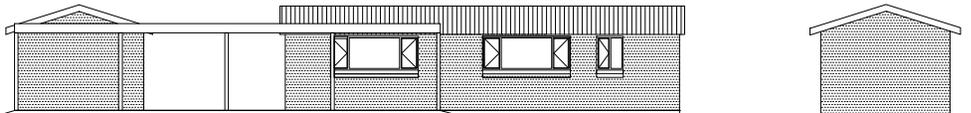
MOVABLE STOP BARRIER (MSB) NOTES:
1. THE SIGNAGE (WHATEVER) SHOULD BE IDENTIFIED BY THE ENVIRONMENT BY THE REFLECTIVE DOWN POLYMER AS FAR AS POSSIBLE.
2. WHEN OPERATIONS ARE POSITIONED TO AN EXISTING ROAD, THE DEPTH OF THE EXCAVATION SHOULD BE PROTECTED BETWEEN THE EDGE AND THE TRAVELLED ROADWAY. A NARROWER RUTWAY MAY BE CONSIDERED BY THE ENGINEER. ALL EXCAVATION SHOULD BE PROTECTED BY CONCRETE BARRIERS, REINFORCED CONCRETE BARRIERS, OR CONCRETE BARRIERS WITH A MINIMUM HEIGHT OF 1.2 METRES. THE BARRIERS SHOULD BE PLACED AT THE END OF THE EXCAVATION. THE BARRIERS SHOULD BE IDENTIFIED BY THE SIGNAGE TO BE IDENTIFIED BY THE ENVIRONMENT BY THE REFLECTIVE DOWN POLYMER AS FAR AS POSSIBLE.
3. THE SIGNAGE (WHATEVER) SHOULD BE IDENTIFIED BY THE ENVIRONMENT BY THE REFLECTIVE DOWN POLYMER AS FAR AS POSSIBLE.
4. THE SIGNAGE (WHATEVER) SHOULD BE IDENTIFIED BY THE ENVIRONMENT BY THE REFLECTIVE DOWN POLYMER AS FAR AS POSSIBLE.
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15. THE SIGNAGE (WHATEVER) SHOULD BE IDENTIFIED BY THE ENVIRONMENT BY THE REFLECTIVE DOWN POLYMER AS FAR AS POSSIBLE.

CONTRACTOR'S RECORD PROJECT NO: _____ DRAWING NO: _____ DATE: _____		DESIGNED BY NAME: _____ DESIGNED: _____		QUALITY ASSURANCE NAME: _____ CHECKED: _____		HEAD OFFICE 48 Tamboe Avenue 4th Floor Pretoria 0001 PO Box 415 Pretoria 0001 South Africa Tel: (012) 844 8000		SANRAL BUILDING SOUTH AFRICA THROUGH BETTER ROADS		NORTHERN REGION 38 8th Street Meibos Park Pretoria 0001 Private Bag 517 Lynnwood Ridge 0000 Tel: (012) 426 0000		PROJECT DESCRIPTION CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N1 SECTION 12 FROM KM 76.1 TO KM 85.9 TRAFFIC ACCOMMODATION		PROJECT NUMBER NRA 2025/0106	
DRAWING LOCATION DATA ROUTE: N11 SECTION: 12 DRAWING NO: 76.1		DRAWING TYPE BRIDGE/STRUCTURE No.		DRAWING INDEX CONSULTANT DRAWING No.		START N11 12 76.1		END N11 12 85.9		DWG 003-TA01 V3					
NO. DATE REVISION		CONSULTANT NAME: _____ ADDRESS: _____		AS SHOWN		SHEET 1 OF 1		CONSULTANT DRAWING No.		DWG 003-TA01					

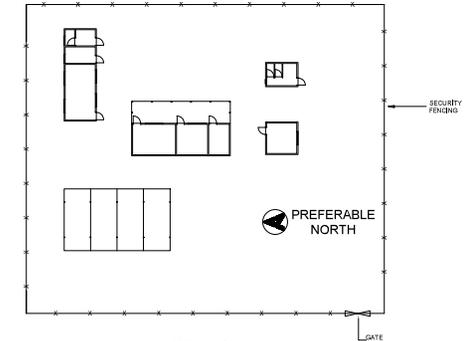
TYPICAL LAYOUT OF OFFICES AND LABORATORY UNITS



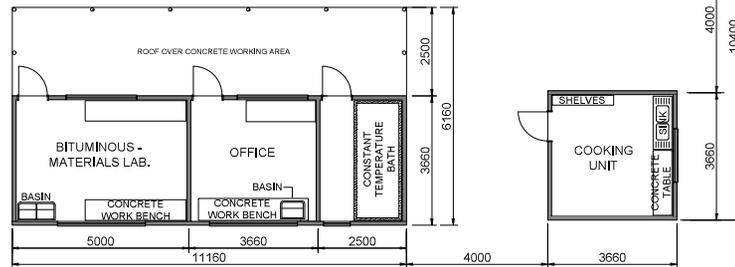
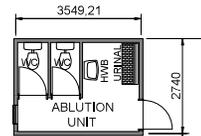
NORTH ELEVATION
SCALE 1:50



WEST ELEVATION
SCALE 1:50

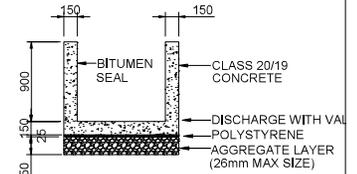


SITE PLAN
SCALE 1:200

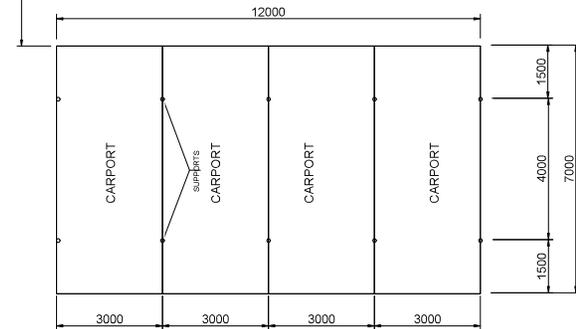


PLAN
SCALE 1:50

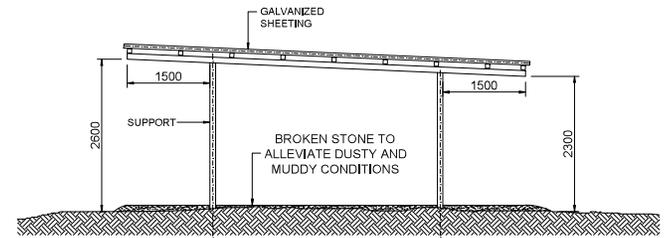
NOTE:
THE LAYOUT OF THE OFFICE AND LABORATORY UNITS IS ONLY A PROPOSAL AND IS SUBJECT TO ALTERNATIVES PROPOSED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.



DETAIL OF CONCRETE TEMPERATURE BATH
SCALE 1:20

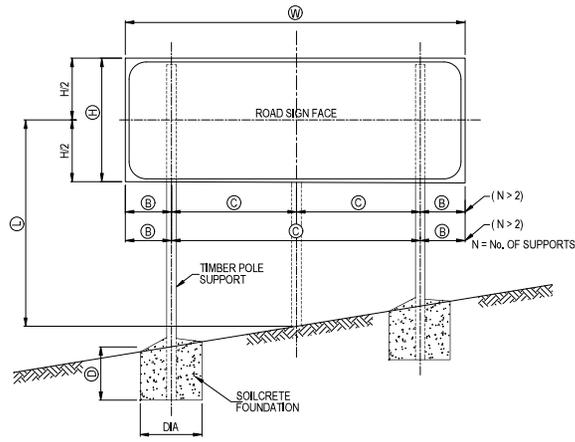


PLAN OF CARPORTS
SCALE 1:50



SIDE ELEVATION OF CARPORTS
SCALE 1:50

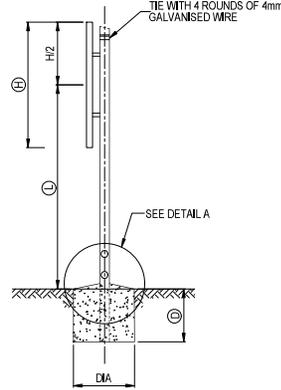
CONTRACT INFORMATION CONTRACT NO. _____ PROJECT NAME _____		REQUESTED BY NAME _____ DESIGNED BY _____ DRAWN BY _____ CHECKED BY _____		CONSULTANT APPROVAL NAME _____ DESIGN NO. _____ DATE _____		HEAD OFFICE 48 Tambolet Avenue 1st Floor Pretoria 0184 PO Box 415 Pretoria 0001 South Africa Tel: (012) 844 8000		SANRAL BUILDING SOUTH AFRICA THROUGH BETTER ROADS		NORTHERN REGION 38 8th Street Meibos Park Pretoria 0001 Private Bag 117 Lynnwood Ridge 0000 Tel: (012) 426 6200		ACCEPTANCE THE ACCEPTANCE FOR PROCEEDING AND APPROPRIATE REVIEW PROCESSES ONLY ACCEPTANCE OF ANY INFORMATION OR LIABILITY OF ANY INFORMATION USER DOES NOT CONSTITUTE AN ENDORSEMENT OF THE INFORMATION		PROJECT DESCRIPTION CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.9		PROJECT NUMBER NRA 2025/0106	
DRAWING LOCATION DATA ROUTE N11 SECTION 12 DRAWING NO. 76.1		DRAWING TYPE BRIDGE STRUCTURE No. _____		DRAWING INDEX DWG 00A.TD.01		START N11 12		END N11 12		CONSULTANT DRAWING No. SANRAL DOCUMENT # _____		DWG 00A.TD.01		VER V2			
NO. _____		DATE _____		REVISION _____		CONSULT. ENG. _____		AS SHOWN		SHEET 1 OF 1		CONTRACT DRAWING No.		VER			



ELEVATION

FREE STANDING SUPPORT

SCALE - N.T.S

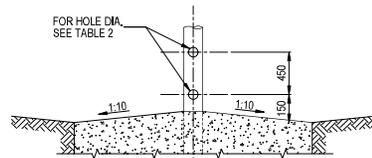


TYPICAL SECTION

TABLE 1

WIDTH OF SIGN W	No. OF SUPPORTS N	DIMENSIONS	
		B	C
1.2m OR LESS	1	W/2	-
1.2m - 4.0m	2	W/5	3W/5
4.0m - 7.2m	3	W/2N	W/N
7.2m - 9.6m	4		
9.6m - 12.0m	5		

NOTE : MAXIMUM DISTANCE BETWEEN SUPPORTS = 2,4 m

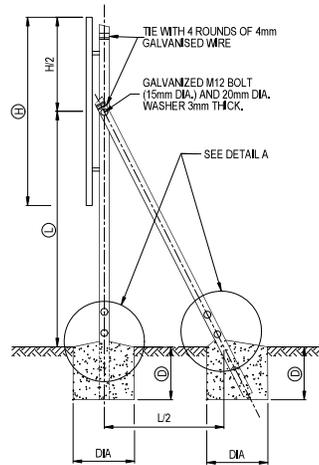


DETAIL A

SCALE - N.T.S

TABLE 2

TIMBER POLE DIA. AT GROUND LEVEL (mm)	HOLE DIA. (mm)
≤ 140	NONE
141 - 170	40
171 - 200	50
201 - 225	65



TYPICAL SECTION
BRACED SUPPORT

SCALE - N.T.S

GENERAL NOTES

SIZE AND SPACING OF ROAD SIGN SUPPORTS AND FOUNDATIONS SHALL BE DETERMINED FROM INFORMATION SHOWN ON PLAN AND SIZE AND SPACING OF SUPPORTS AND FOUNDATIONS SHALL BE DETERMINED FROM INFORMATION SHOWN ON PLAN AND ON THE DESIGN CHARTS SHOWN ON DRAWING TD-R-RS-002, THE SIZES AND SPACING OBTAINED ARE FOR USE WITH THE SIGN FACE SHOWN ON DRAWING TD-R-RS-100, DETAILS OF SINGLE POLE SIGNS (LESS THAN 1,5m² IN AREA) ARE SHOWN ON DRAWING TD-R-RS-200.

POSITION

ROAD SIGNS SHALL BE ERECTED IN THE POSITIONS SHOWN ON THE DRAWINGS OR INDICATED BY THE ENGINEER, STANDARD CLEARANCES ARE SHOWN IN THE SADC ROAD TRAFFIC SIGNS MANUAL.

EXCAVATION

EXCAVATIONS FOR FOUNDATIONS MUST BE MADE TO THE NEAT DIMENSIONS SPECIFIED, WHERE THE FOUNDATION DEPTH IS 1,5m OR GREATER, EXCAVATIONS MUST BE SUITABLY SHORED FOR THE PROTECTION OF WORKMEN.

TIMBER POLE SUPPORTS

TIMBER SUPPORTS SHALL BE STRAIGHT ROUND POLES COMPLYING WITH THE REQUIREMENTS OF SANS 457-3 AND SHALL NOT EXHIBIT EXCESSIVE CRACKING AT THE ENDS

LENGTH:

WHEREVER POSSIBLE POLE LENGTHS CORRESPONDING TO AVAILABLE NOMINAL LENGTHS SHALL BE USED.

CUTTING:

WHERE CUTTING TO LENGTH AFTER PRESERVATIVE TREATMENT IS UNAVOIDABLE, ONLY ONE CUT PER POLE SHALL BE ALLOWED, THE CUT SHALL BE NEAR THE TOP END OF THE POLE AND THE EXPOSED SURFACE SHALL BE TREATED WITH TWO COATS OF THE APPLICABLE PRESERVATIVE AND THE POLE BANDED IN ACCORDANCE WITH SANS 457-3.

PRESERVATIVE TREATMENT:

THE POLES SHALL BE TREATED WITH EITHER A MIXTURE OF COPPER-CHROMIUM-ARSENIC COMPOUNDS COMPLYING WITH THE REQUIREMENTS OF TYPE II OF SANS 673 (HICKSONS 'TANALITH C' OR EQUAL) OR WITH CREOSOTE THAT COMPLIES WITH SANS 538 OR SANS 539.

ERECTION:

POLES SHALL BE SELECTED FOR STRAIGHTNESS AND ERECTED AT AN ORIENTATION WHICH WILL PERMIT THE SIGN FACE TO BE FASTENED IN A VERTICAL PLANE WITHOUT UNDUE DISTORTION.

BREAKAWAY HOLES:

ALL TIMBER POLES HAVING A DIAMETER >140mm SHALL BE DRILLED WITH TWO HOLES PERPENDICULAR TO THE DIRECTION OF TRAFFIC AS SHOWN IN DETAIL A, THE EXPOSED TIMBER SURFACES SHALL BE TREATED WITH TWO COATS OF THE APPLICABLE PRESERVATIVE.

SOILCRETE FOUNDATIONS

SOILCRETE SHALL CONSIST OF 12 PARTS APPROVED GRANULAR SOIL OR GRAVEL MIXED WITH 1 PART PORTLAND CEMENT AND ONLY SUFFICIENT WATER TO GIVE IT A CONSISTENCY THAT WILL PERMIT THE SOILCRETE TO BE VIBRATED OR TAMPED TO EXCLUDE VOIDS. TIMBER SUPPORT POLES SHALL BE SET VERTICAL AND FIRMLY PROPPED IN POSITION PRIOR TO PLACING OF THE SOILCRETE. PROPS SHALL REMAIN IN POSITION FOR A MINIMUM OF 12 HOURS AFTER PLACING THE SOILCRETE. THE SURFACE OF THE SOILCRETE SHALL BE NEATLY FINISHED WITH SUFFICIENT FALL TO ENSURE PROPER DRAINAGE. CONCRETE SHALL NOT BE SUBSTITUTED FOR SOILCRETE. TOPPING OF SOILCRETE FOUNDATION TO BE STEEL FLOATED.

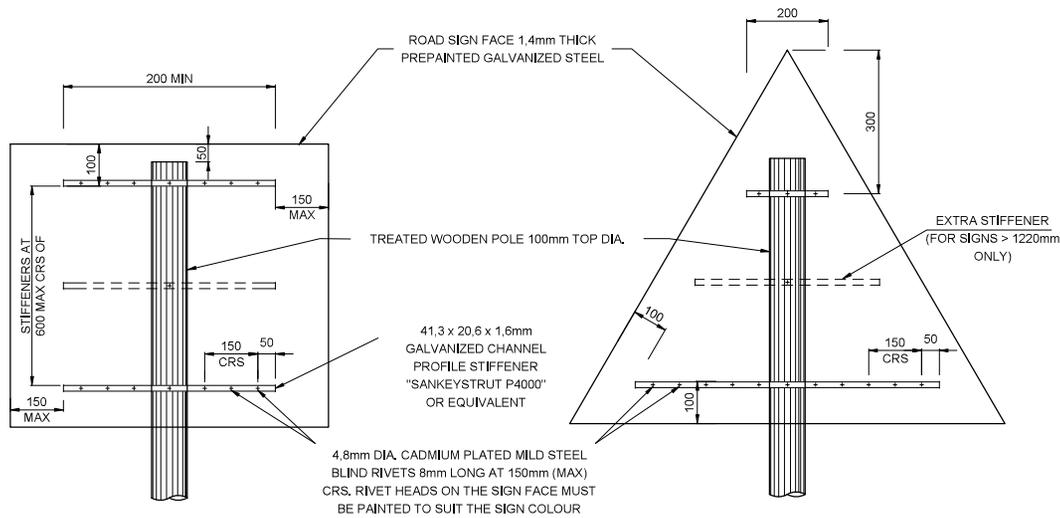
BOLTS, NUTS AND WASHERS

EXCEPT WHERE OTHERWISE SPECIFIED STEEL BOLTS AND NUTS SHALL CONFORM TO SANS 135 OR SANS 1143 AND ALL COMPONENTS SHALL HAVE A HOT-DIP (GALVANIZED) ZINC COATING THAT COMPLIES WITH THE REQUIREMENTS OF SANS 121 : 2000 (ISO 1461 : 1999) FOR COATINGS ON TYPE C1 ARTICLES.

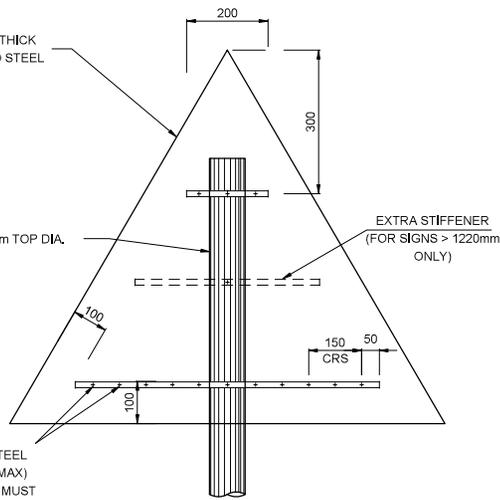
ROAD SIGN FACES

ROAD SIGN FACES SHALL BE MANUFACTURED STRICTLY IN ACCORDANCE WITH THE DETAILS SHOWN ON DRAWING TD-R-RS-100. TRANSPORTATION AND ERECTION OF SIGN FACES SHALL BE CARRIED OUT IN SUCH A WAY THAT DAMAGE TO THE SIGN IS PREVENTED, THE LOWER EDGE OF SIGN FACES SHALL BE HORIZONTAL AFTER COMPLETION OF ERECTION, THE MONTH AND YEAR OF ERECTION OF THE ROAD SIGN SHALL BE INDICATED BY MEANS OF WHITE PAINT ON THE BACK OF THE SIGN IN THE BOTTOM RIGHT HAND CORNER, THE LETTERS AND FIGURES SHALL BE 25mm HIGH.

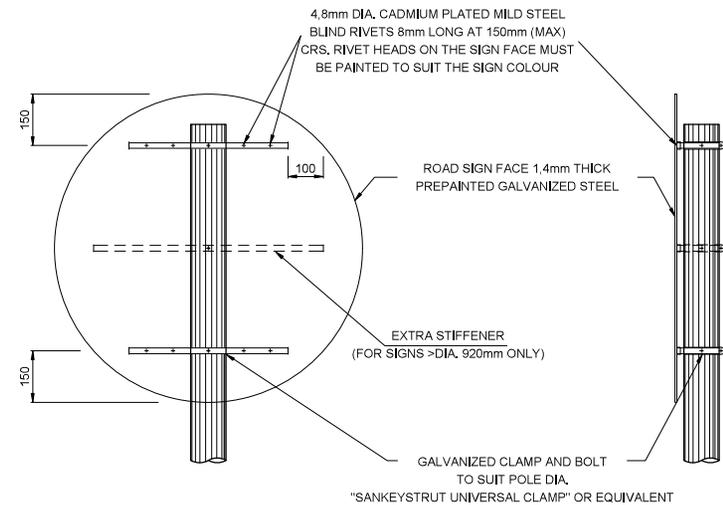
REVISION		CONSULT.		DESIGNER		CHECKED		APPROVED		HEAD OFFICE		NORTHERN REGION		JOB TITLE		PROJECT DESCRIPTION		PROJECT NUMBER														
No.	DATE	REVISION	CONSULT.	DESIGNER	CHECKED	APPROVED	NAME	NAME	NAME	48 Tambolie Avenue Val de Grace Pretoria 0184	SANRAL BUILDING SOUTH AFRICA THROUGH BETTER ROADS	38 Bils Street Mabopane Pretoria 0001	THE ACCEPTANCE FOR PROCEEDURE AND FOR THE CONTRACT SHALL BE SUBJECT TO THE ACCEPTANCE OF THE CONTRACT BY THE CLIENT AND THE CONTRACTOR.	CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE M1 SECTION 12 FROM KM 76,1 TO KM 85,59	DRAWING LOCATION DATA	ROUTE	N11	N11	SECTION	12	12	DRAWING NO. DISTANCE	76,1	85,59	DRAWING TYPE	DRAWING INDEX	BIDGE STRUCTURE No.		CONSULTANT DRAWING No.	DWG 004-TD001	VER	V2
																PROJECT DESCRIPTION		PROJECT NUMBER														
																SUPPORT AND FOUNDATION: GENERAL DETAILS		SHEET 1 OF 2														



REAR ELEVATION

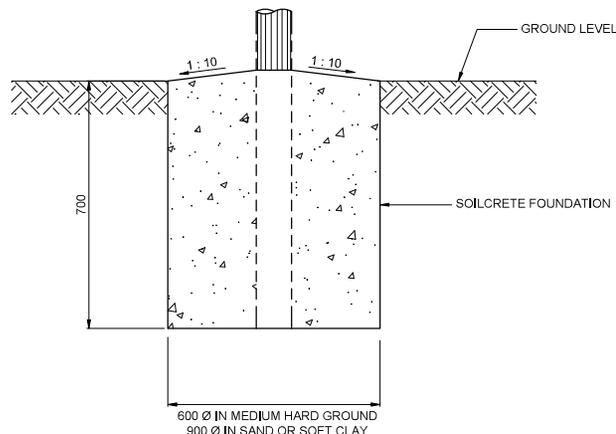


REAR ELEVATION



REAR ELEVATION

TYPICAL SIDE ELEVATION



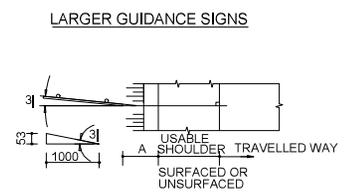
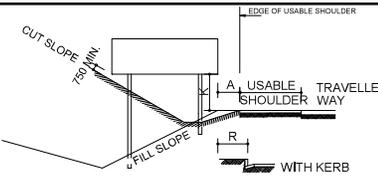
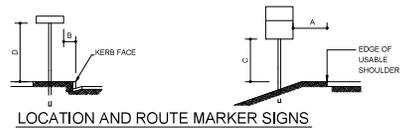
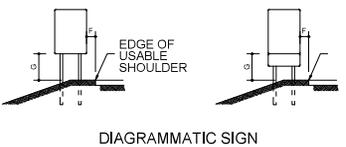
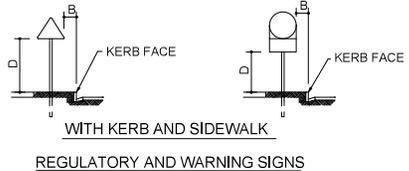
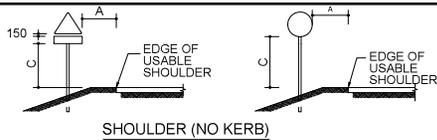
TYPICAL FOUNDATION

NOTES :

THE ROAD SIGN FACES SHALL BE MANUFACTURED AND ERECTED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS :

1. DETAILS ON THIS DRAWING ARE APPLICABLE TO ROAD SIGNS SMALLER THAN 1,5m² REQUIRING DOUBLE / SINGLE SUPPORTS.
2. BOLTS, WASHERS AND NUTS SHALL COMPLY WITH THE REQUIREMENTS OF SANS 1700-5-1 AND SHALL BE GALVANISED IN ACCORDANCE WITH THE REQUIREMENTS OF SANS 121 : 2000 (ISO 1461 : 1999).
3. BLIND RIVETS SHALL BE 4,8mm DIA CADMIUM PLATED MILD STEEL.
4. REFERENCE MUST BE MADE TO THE RELEVANT ROAD SIGNS DETAIL DRAWING FOR DETAILS OF THE ROAD SIGN SYMBOLS AND LEGEND FOR EACH INDIVIDUAL SIGN.

		CONSTRUCTION RECORD WORKS CONTRACT ENGINEER		HEAD OFFICE 48 Tambotie Avenue Val de Grace Pretoria 0184		 BUILDING SOUTH AFRICA THROUGH BETTER ROADS		NORTHERN REGION 36 Ida Street Menlo Park Pretoria 0081		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		PROJECT DESCRIPTION CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59		PROJECT NUMBER NRA 2025/0106	
		SANRAL PROJECT MANAGER		PO Box 415 Pretoria 0001 South Africa Tel: (012) 844 8000		Private Bag X17 Lynwood Ridge 0040 Tel: (012) 426 6200				ROAD SIGNS DETAILS		DRAWING LOCATION DATA		START N11 12	
												ROUTE SECTION		END N11 12	
												DRAWING km DISTANCE		76.1 85.59	
												DRAWING TYPE		DRAWING INDEX	
												BRIDGE/STRUCTURE No.		-	
												CONSULTANT DRAWING No.		DWG 006TD/04	
												SANRAL DOCUMENT #		V2	
No.	DATE	REVISION	CONSULT. ENG.									AS SHOWN		SHEET 2 OF 2	



SETTING OUT PLAN
TYPICAL DIRECTION SIGN

CHEVRON SPACING	
CURVE RADIUS (m)	SINGLE MODULE SPACING "S" (m)
60	8-15
150	15-25
300	25
800	25

NOTES:

- A MINIMUM OF 5 CHEVRON ARROWS PER DIRECTION ARE NORMALLY REQUIRED
- AT LEAST 3 CHEVRON ARROWS SHOULD BE VISIBLE AT ANY ONE TIME
- WHERE RADII ARE LESS THAN ABOUT 30m A MULTIPLE CHEVRON SIGN CONSISTING OF AT LEAST 3 MODULES SHOULD BE USED
- WHERE CHEVRON ARROWS FOR RIGHT AND LEFT HAND CURVES OVERLAP:
 - (a) SPACING SHOULD REMAIN AS SHOWN IN THE TABLE AS FAR AS POSSIBLE
 - (b) WHERE THE DISTANCE BETWEEN LEFT AND RIGHT HAND CURVE CHEVRON ARROWS IS LESS THAN 2.0m PLACE BOTH CHEVRON ON A SINGLE POST BACK TO BACK

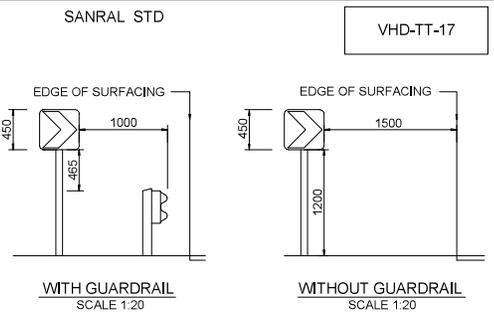
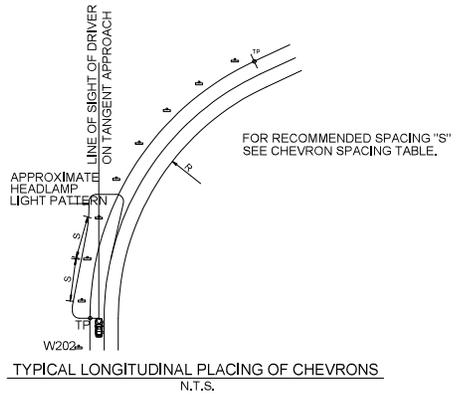
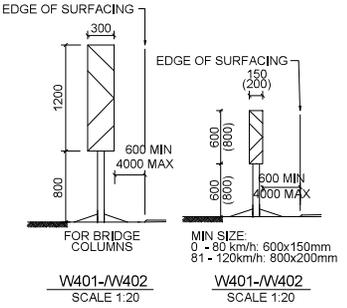
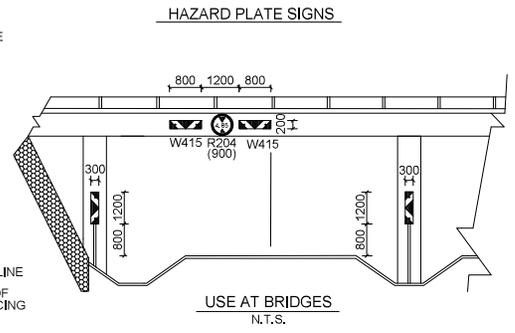
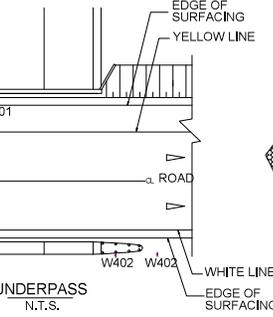
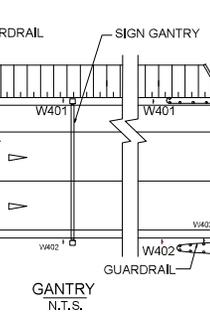
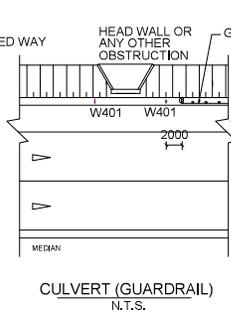
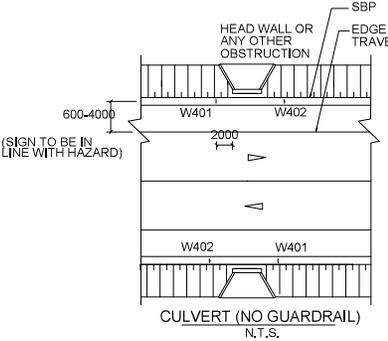


TABLE 1 PERMANENT SIGN PLACEMENT DIMENSIONS				
POSITIONING	VERTICAL	LATERAL	PREFERRED	RANGE
			(mm)	(mm)
	A		1500	1200-2000
		B	750	500-
	C		2100	600-2500
	D		2500	2100-3000
	E		0	0-200
		F	1200	600-2000
	G		1200	800-1600
		K	2000	1600-2400
		R	1500	600-



SMALL TO MEDIUM SIZED GUIDANCE AND INFORMATION SIGNS



LOCATION DETAILS
(SINGLE CARRIAGEWAY)

LOCATION DETAILS
(DUAL CARRIAGEWAY)

TYPICAL DETAILS FOR THE POSITIONING OF GROUND MOUNTED SIGNS

No.	DATE	REVISION	CONSULT. ENG.

CONSTRUCTION RECORD
WORKS CONTRACT ENGINEER

HEAD OFFICE
48 Tambotie Avenue
Val de Grace
Pretoria
0184

SANRAL PROJECT MANAGER
PO Box 415
Pretoria 0001
South Africa
Tel: (012) 844 8000



NORTHERN REGION
36 Ida Street
Menlo Park
Pretoria
0081

Private Bag X17
Lynwood Ridge
0040
Tel: (012) 426 6200

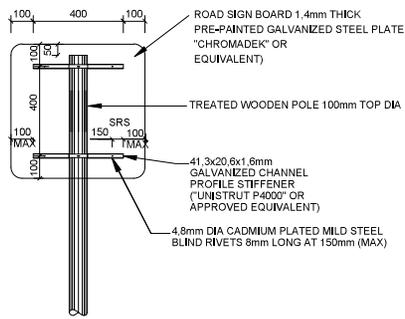
ACCEPTANCE

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

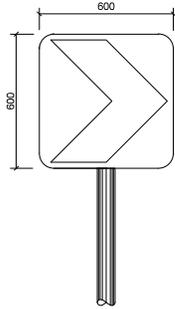
for CEO: SA NATIONAL ROADS AGENCY SOC LTD.
Date: _____

PROJECT DESCRIPTION	
CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59	
ATTACHMENT AND FIXING DETAILS	
AS SHOWN	SHEET 1 OF 2

PROJECT NUMBER		NRA 2025/0106	
DRAWING LOCATION DATA	START	END	
ROUTE SECTION	N11 12	N11 12	
DRAWING km DISTANCE	76.1	85.59	
DRAWING TYPE	DRAWING INDEX		
BRIDGE/STRUCTURE No.	-		
CONSULTANT DRAWING No.	DWG 0087D/06		VER
SANRAL DOCUMENT #			V2

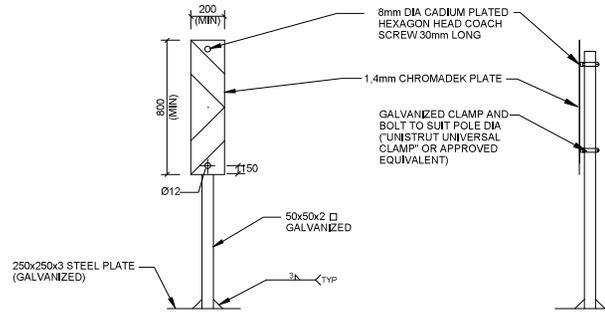


REAR ELEVATION
N.T.S.



FRONT ELEVATION
N.T.S.

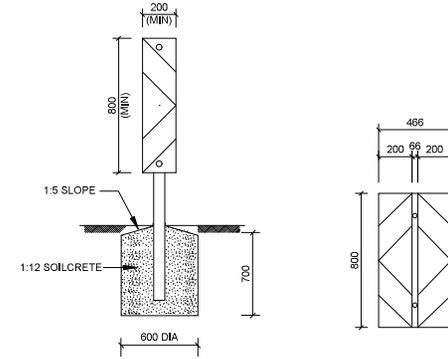
W405/W406 SHARP CURVE CHEVRON SIGN



FRONT ELEVATION
N.T.S.

TYPICAL SIDE ELEVATION
N.T.S.

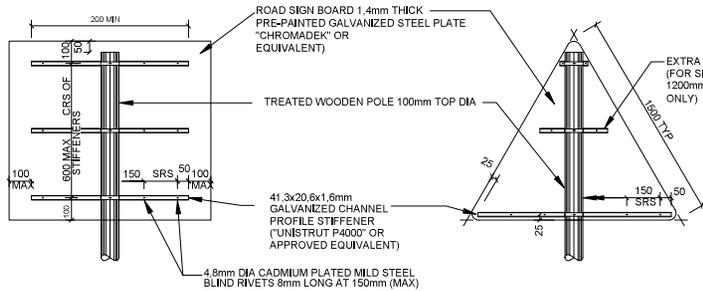
W401 DANGER PLATE



FOUNDATION DETAIL
N.T.S.

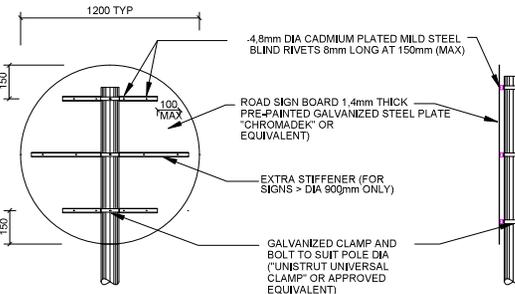
FRONT ELEVATION
N.T.S.

W413 GORE PLATE



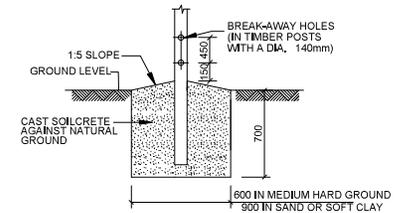
REAR ELEVATION
N.T.S.

REAR ELEVATION
N.T.S.



REAR ELEVATION
N.T.S.

TYPICAL SIDE ELEVATION
N.T.S.



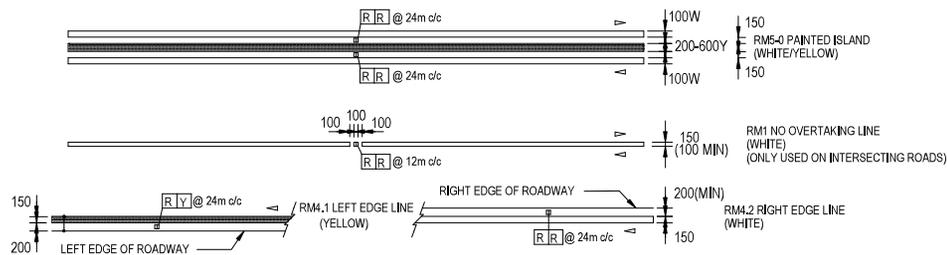
FOUNDATION DETAIL
N.T.S.

REGULATORY AND WARNING SIGNS

TYPICAL MANUFACTURING AND ERECTION DETAILS OF
REGULATORY AND WARNING ROAD SIGNS - TIMBER POSTS

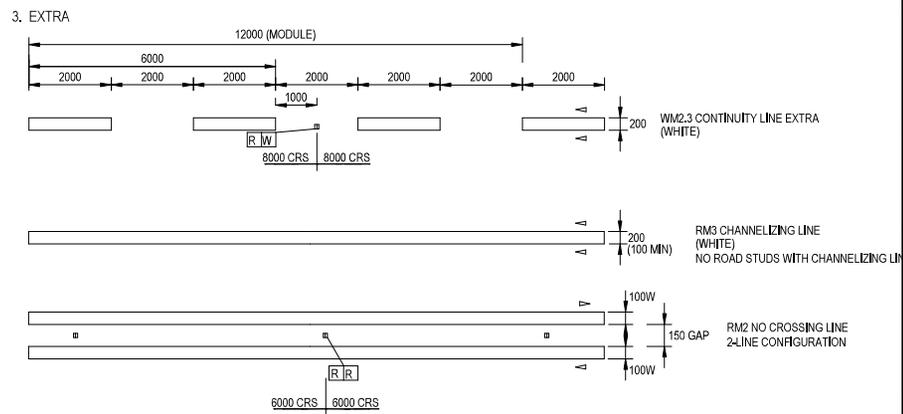
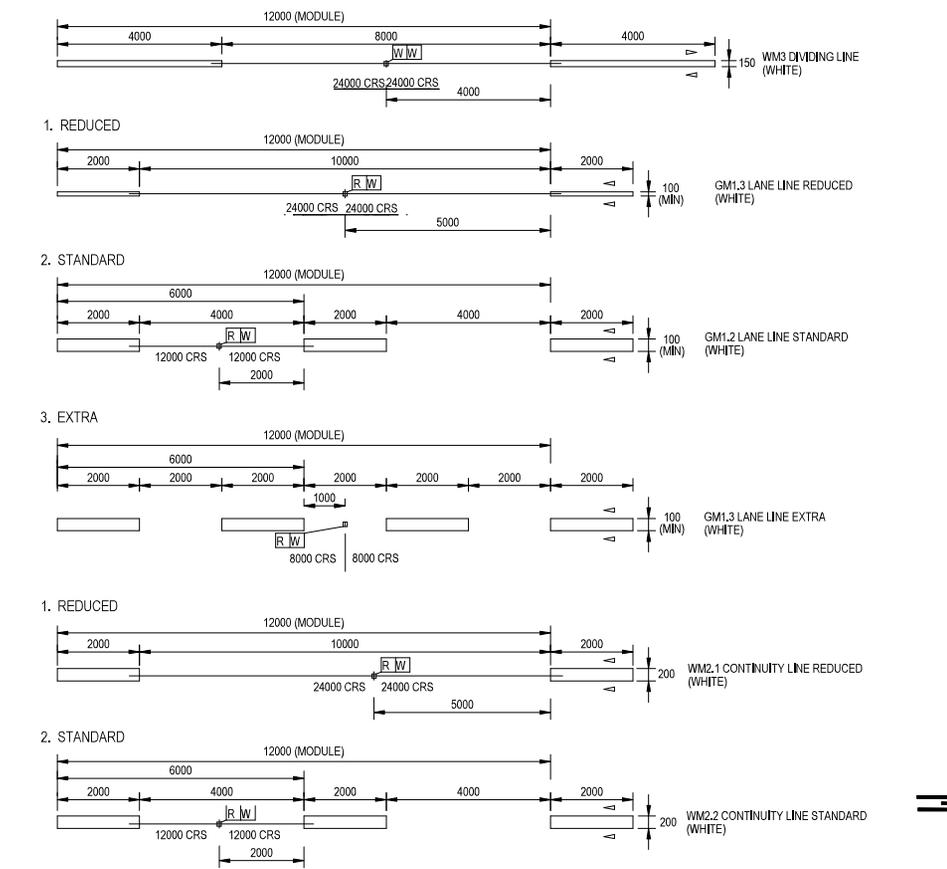
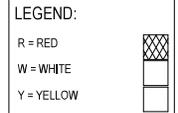
NOTES:
1 DETAILS ON THIS DRAWING ARE APPLICABLE TO ROAD SIGNS SMALLER THAN 1,5m² REQUIRING A SINGLE SUPPORT

		CONSTRUCTION RECORD WORKS CONTRACT ENGINEER		HEAD OFFICE 48 Tambotie Avenue Val de Grace Pretoria 0184		 BUILDING SOUTH AFRICA THROUGH BETTER ROADS		NORTHERN REGION 38 Ista Street Menlo Park Pretoria 0081 Private Bag X17 Lynwood Ridge 0040 Tel: (012) 426 6200		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		PROJECT DESCRIPTION CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59		PROJECT NUMBER NRA 2025/0106			
		SANRAL PROJECT MANAGER		PO Box 415 Pretoria 0001 South Africa Tel: (012) 844 8000						ATTACHMENT AND FIXING DETAILS		DRAWING LOCATION DATA		START N11 12		END N11 12	
												DRAWING km DISTANCE		76.1		85.59	
												DRAWING TYPE		DRAWING INDEX			
												BRIDGE/STRUCTURE No.					
												CONSULTANT DRAWING No.		DWG 005/2D/05		VER	
No. DATE		REVISION		CONSULT. ENG.								AS SHOWN		SHEET 2 OF 2		SANRAL DOCUMENT #	

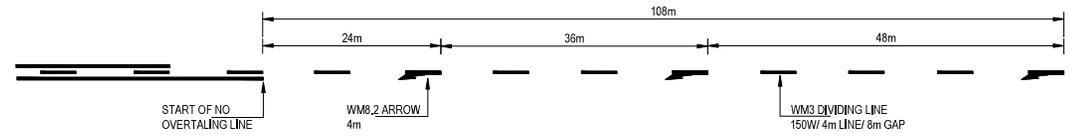


NOTES (RURAL LONGITUDINAL LINE TYPES)

1. DIRECTION OF TRAFFIC MOVEMENT WITH RESPECT TO THE MARKING INDICATED THUS > OR < .
2. PAINTED ISLAND MARKINGS SHALL BE USED AS A STANDARD DIVIDING MARKING ON ALL 4-LANE 2-WAY ROADWAYS.
3. A NO OVERTAKING LINE MAY BE USED TO REPLACE A DIVIDING LINE MARKING ON MINOR ROADS OR TO MATCH PROVINCIAL ROAD MARKING POLICY ON AN INTERSECTING ROADWAY AS APPROPRIATE. A NO OVERTAKING LINE MAY BE USED IN COMBINATION WITH A LANE LINE. (NORMALLY ON A FREEWAY CARRIAGEWAY.)
4. A LEFT EDGE LINE MARKING SHALL NOT EXTEND ACROSS THE POINT OF DEPARTURE FROM A THROUGH PORTION OF ROADWAY.
5. THE DIVIDING LINE MARKING REPLACES THE PREVIOUS "CENTRE LINE" MARKING AND SHALL ONLY BE USED BETWEEN LANES CARRYING OPPOSING TRAFFIC FLOWS WHERE OVERTAKING IS PERMITTED.
6. A CONTINUITY LINE MAY BE SPECIFIED IN ONE OF THREE DENSITIES - 1. REDUCED 2. STANDARD OR 3. EXTRA. A CONTINUITY LINE MAY BE USED TO DEFINE THE LIMIT OF THE THROUGH PORTION OF A ROADWAY. EITHER AT A HIGH SPEED EXIT (OFF-RAMP OR SLIP ROAD), A DEDICATED EXIT LANE ON FREEWAY, OR AT-GRADE ROAD, (RIGHT OR LEFT TURN.)
7. A LANE LINE, CONTINUITY LINE OR CHANNELIZING LINE SHALL NOT BE USED BETWEEN OPPOSING TRAFFIC MOVEMENTS.

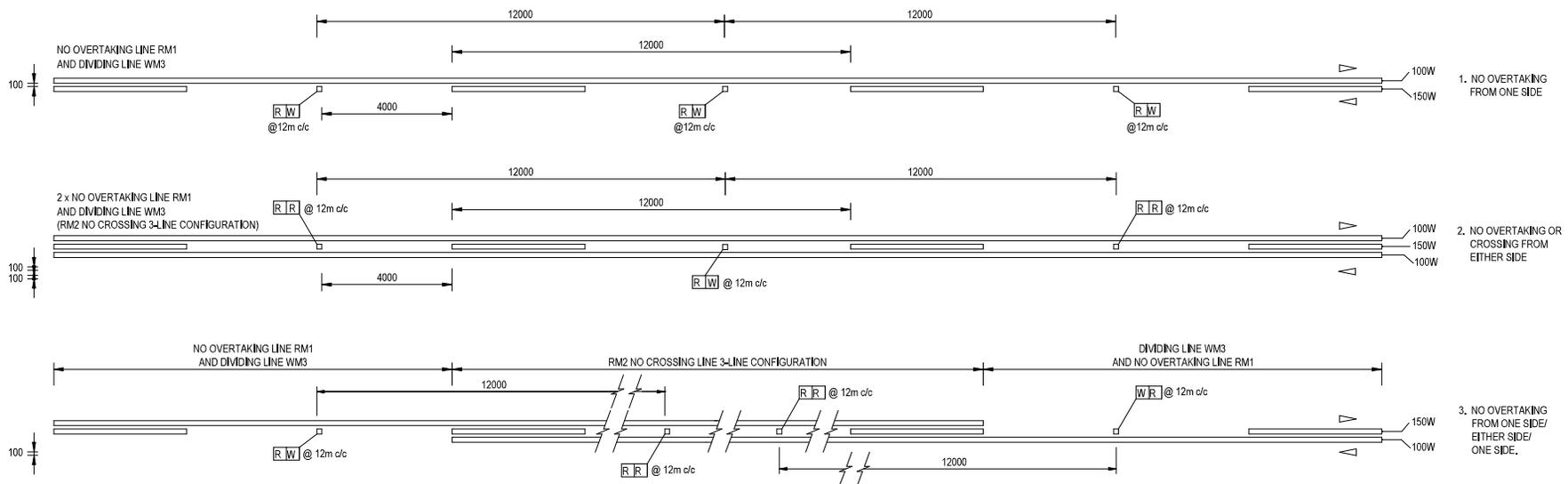


RURAL LONGITUDINAL LINE TYPES
N.T.S.

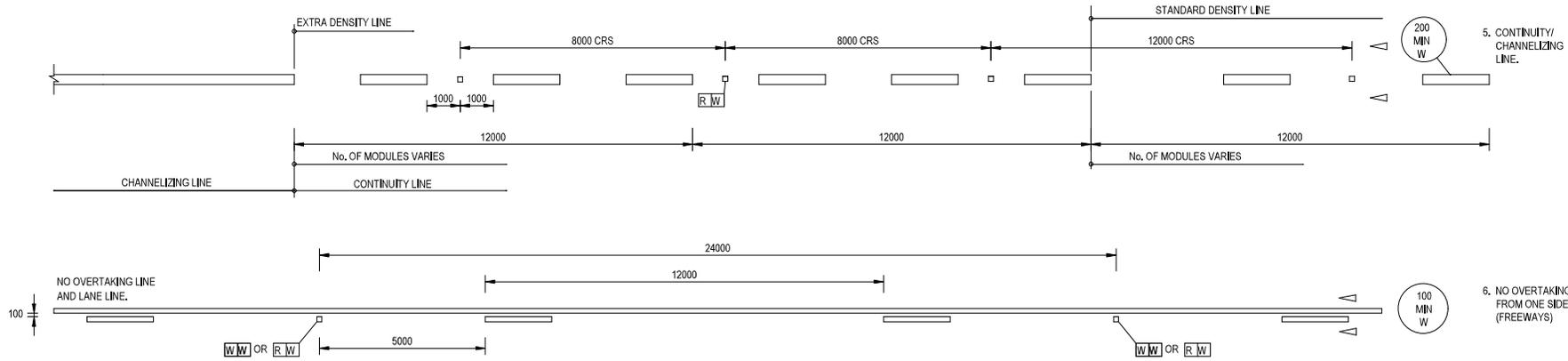


NO OVERTAKING OR NO CROSSING AHEAD ARROW PLACEMENT
N.T.S.

<table border="1"> <tr><td>NO.</td><td>DATE</td><td>REVISION</td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </table>		NO.	DATE	REVISION										<table border="1"> <tr><td>CONSULT. ENGR.</td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>		CONSULT. ENGR.								<table border="1"> <tr><td>DESIGNER</td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>		DESIGNER								<table border="1"> <tr><td>APPROVAL</td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>		APPROVAL								<table border="1"> <tr><td>HEAD OFFICE</td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>		HEAD OFFICE								<table border="1"> <tr><td>NORTHERN REGION</td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>		NORTHERN REGION								<table border="1"> <tr><td>PROJECT DESCRIPTION</td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>		PROJECT DESCRIPTION								<table border="1"> <tr><td>PROJECT NUMBER</td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>		PROJECT NUMBER								<table border="1"> <tr><td>START</td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>		START							
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RURAL CENTRE LINE COMBINATIONS : TWO-WAY OPPOSING TRAFFIC
N.T.S.



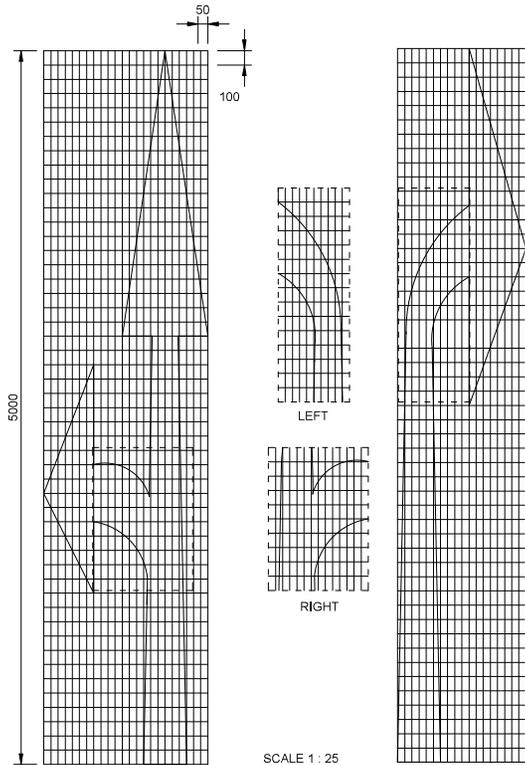
RURAL LONGITUDINAL LINE COMBINATIONS : TWO LANES IN THE SAME DIRECTION
N.T.S.

NOTES: (LONGITUDINAL LINE COMBINATIONS)

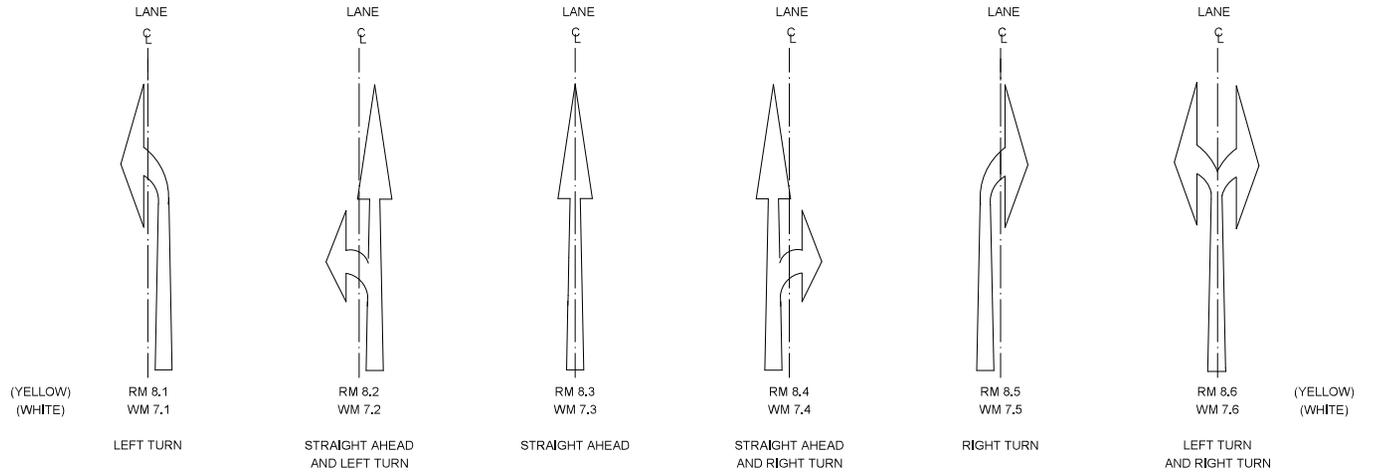
- DIRECTION OF TRAFFIC MOVEMENT WITH RESPECT TO THE MARKING INDICATED THIS OR .
- COMBINATION MARKING 1 TO 3 ARE FOR TWO WAY TRAFFIC AND ARE APPLICABLE TO NATIONAL NON-FREEWAY ROUTES.
- COMBINATION MARKING 4 SHALL BE USED TO INDICATE THE DIVISIONS BETWEEN THE THROUGH ROADWAY AND ANY EXCLUSIVE EXIT/TURN LANES. WHEREVER POSSIBLE A CONTINUITY LINE SHOULD LEAD TO, OR TERMINATE IN A CHANNELIZING LINE WHICH MAY BE SHORT. RECOMMENDED MINIMUM LENGTH IS 12m FOR RURAL AND 9m FOR URBAN APPLICATIONS.
- FOR MARKINGS 1 TO 3 ROAD STUDS SHOULD BE LOCATED ON CENTRE LINE OF THE DIVIDING LINE.
- WHERE POSSIBLE THE LENGTH OF CHANNELIZING MARKING SHOULD BE ADJUSTED SO THAT THE CONTINUITY LINE ROADSTUDS MATCH OTHER ROADSTUDS ON CROSS-SECTION AND FALL IN THE CENTRE OF A GAP IN THE CONTINUITY LINE.

NO. DATE REVISION CONSULT. ENG.		APPROVED BY: _____ CHECKED BY: _____ DATE: _____		NAME: _____ POSITION: _____ DATE: _____		HEAD OFFICE 48 Tambotie Avenue Vag die Gracie Pretoria 018 PO Box 415 Pretoria 0001 South Africa Tel: (012) 844 8000		SANRAL BUILDING SOUTH AFRICA THROUGH BETTER ROADS		NORTHERN REGION 38 8th Street Media Park Pretoria 0001 Private Bag X17 Lynnwood Ridge 0000 Tel: (012) 428 6200		PROJECT DESCRIPTION CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59 LONGITUDINAL LINE COMBINATIONS		PROJECT NUMBER DRAWING LOCATION DATA ROUTE N11 N11 SECTION 12 12 DRAWING km DISTANCE 76.1 85.59 DRAWING TYPE BRIDGE/STRUCTURE No. CONSULTANT DRAWING No.		NRA 2025/0106 START N11 END N11 DWG 004/TD/07 SANRAL DOCUMENT #		V3
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ROAD MARKINGS - MANDATORY DIRECTION ARROWS AND DIRECTION ARROW AHEAD



SCALE 1 : 25



APPLICATIONS

DIMENSIONS (mm)

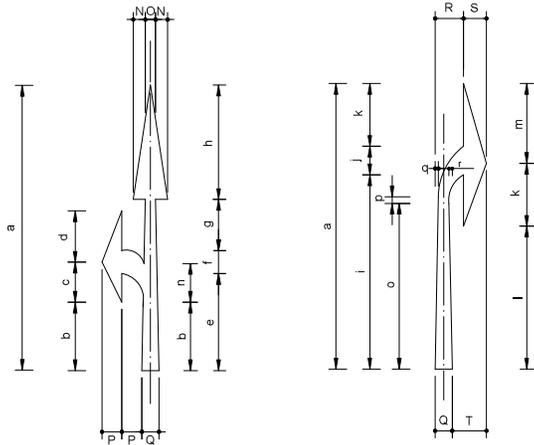
OPERATING SPEED km/h	TYPICAL APPLICATIONS	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
30 - 40	CITY CENTRE	2500	600	350	450	884	200	417	1000	1700	250	550	1250	700	380	1450	58	30	29
50 - 90	URBAN/RURAL EXPRESSWAY	4000	960	560	720	1406	320	666	1600	2720	400	880	2000	1120	608	2320	93	48	46
100 - 120	RURAL AND FREEWAYS	5000	1200	700	900	1767	400	833	2000	3400	500	1100	2500	1400	760	2900	116	60	58
ALL	SPECIAL APPLICATIONS	7500	1800	1050	1350	2651	600	1250	3000	5100	750	1650	3750	2100	1140	4350	174	90	87

ALL OPERATING SPEEDS AND APPLICATIONS	N	O	P	Q	R	S	T
	210	180	350	300	500	400	600

a	ARROW AREA (m ²)			
	RM8,1/RM8,5 WM7,1/WM7,5	RM8,2/RM8,4 WM7,2/WM7,4	RM8,3 WM7,3	RM8,6 WM7,6
2500	0,67	0,89	0,66	1,03
4000	1,14	1,43	1,06	1,68
5000	1,45	1,78	1,32	2,12
7500	2,23	2,66	1,98	3,20

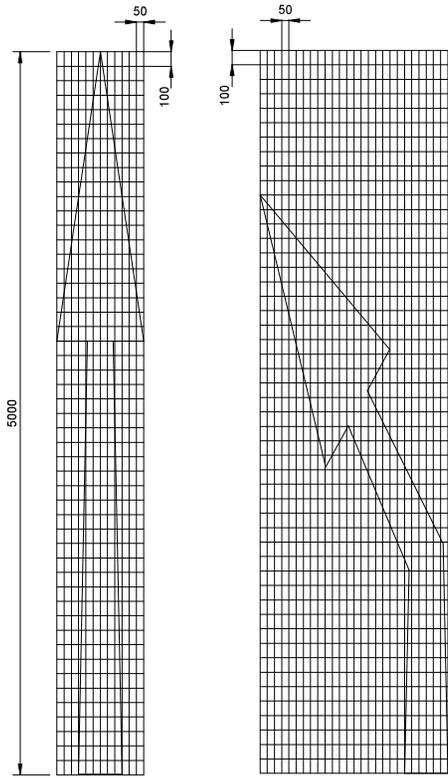
NOTES:

1. THESE ARROWS MAY BE USED IN LANES TO INDICATE THAT DRIVERS SHALL PROCEED ONLY IN THE DIRECTION OR DIRECTIONS SHOWN. THEY SHOULD ONLY BE USED IF THE JUNCTION CONCERNED REQUIRED TURNING MOVEMENT CONTROL BY LANE.
2. THE FINAL ARROW NEAREST THE POINT OF TURN OR STRAIGHT ON MOVEMENT SHALL BE YELLOW. ANY ARROWS MARKED IN ADVANCE OF THIS POINT TO WARN DRIVERS OF THE MANDATORY MOVEMENT AHEAD SHALL BE WHITE.
3. A MANDATORY OR WARNING DIRECTION ARROW SHALL NOT BE USED IN ADVANCE OF A WIDENING OF THE ROADWAY TO A GREATER NUMBER OF LANES. THIS SHALL BE INDICATED IF NECESSARY, BY USING FURCATION ARROWS.

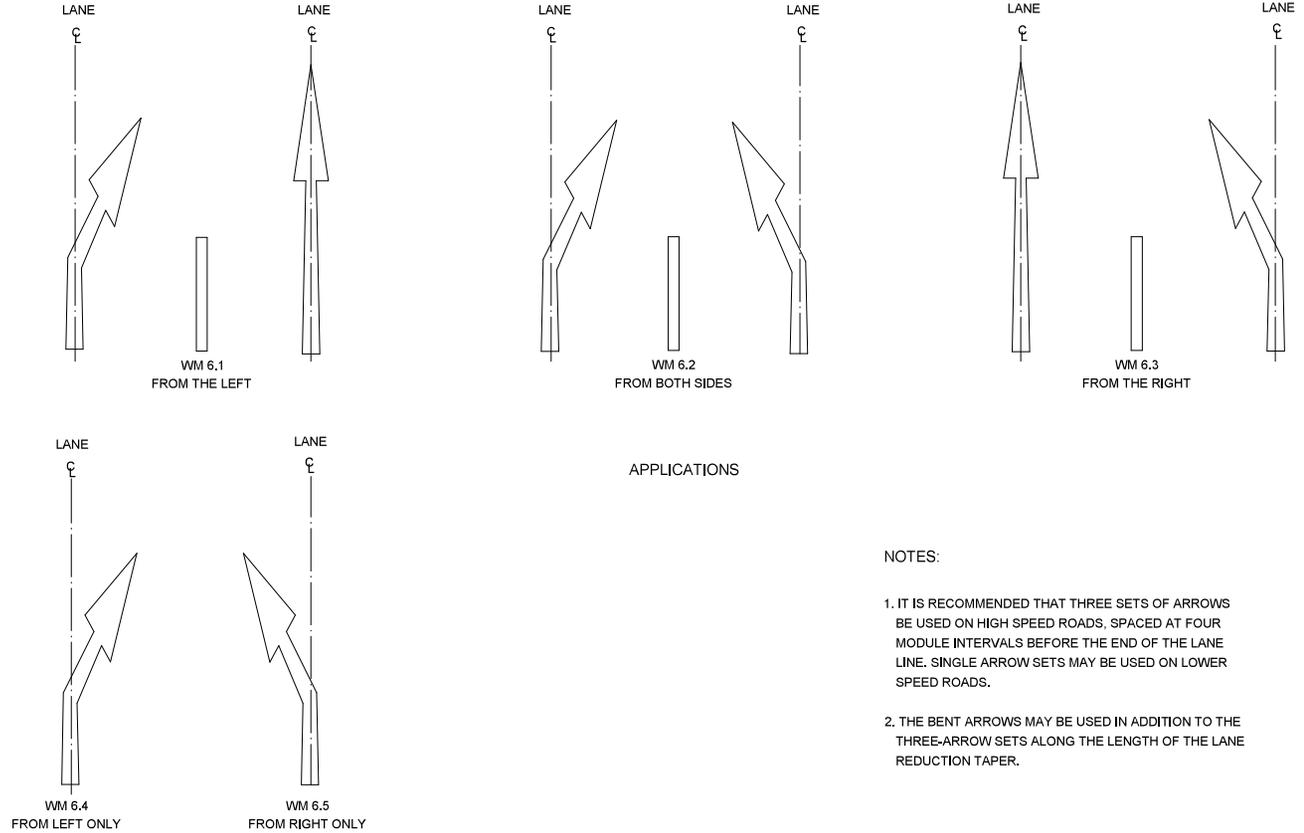


REVISIONS		APPROVALS		SUBMITTALS		HEAD OFFICE		NORTHERN REGION		PROJECT DESCRIPTION		PROJECT NUMBER	
No.	DATE	REVISION	CONSULT. ENG.	NAME	DESIGNED BY	NAME	DESIGNED BY	48 Tamboke Avenue Vid de Grace Pretoria 0184 PO Box 415 Pretoria 0001 South Africa Tel: (012) 844 8000	3814 Street Medipark Pretoria 0001 Private Bag X17 Lynwood Ridge 0000 Tel: (012) 428 6200	CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59		NRA 2025/0106	
MANDATORY DIRECTION ARROWS										DRAWING LOCATION DATA		START	
										ROUTE		N11	
										DRAWING km DISTANCE		12	
										DRAWING TYPE		76.1	
										BRIDGE/STRUCTURE No.		85.59	
										CONSULTANT DRAWING No.		DWG 004/TD08	
										SANRAL DOCUMENT #		V2	
AS SHOWN										SHEET 1 OF 1			

ROAD MARKINGS - LANE REDUCTION ARROWS



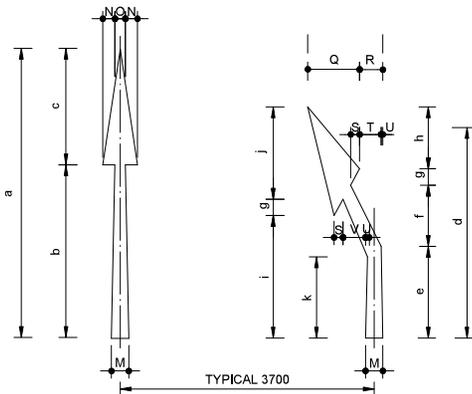
SCALE 1 : 25



APPLICATIONS

NOTES:

- IT IS RECOMMENDED THAT THREE SETS OF ARROWS BE USED ON HIGH SPEED ROADS. SPACED AT FOUR MODULE INTERVALS BEFORE THE END OF THE LANE LINE. SINGLE ARROW SETS MAY BE USED ON LOWER SPEED ROADS.
- THE BENT ARROWS MAY BE USED IN ADDITION TO THE THREE-ARROW SETS ALONG THE LENGTH OF THE LANE REDUCTION TAPER.



	ARROW AREA / (m ²)		
a	WM6.1/ WM6.3	WM6.2	WM6.4 / WM6.5
4000	2.08	2.06	1.03
5000	2.61	2.58	1.29
7500	3.92	3.88	1.94
12000	6.56	6.20	3.10

DIMENSIONS (mm)

OPERATING SPEED km/h	TYPICAL APPLICATIONS	a	b	c	d	e	f	g	h	i	j	k
30 - 40	CITY CENTRE	4000	2400	1600	3200	1271	847	227	855	1696	1277	1126
50 - 60	URBAN ROADS	5000	3000	2000	4000	1589	1058	284	1069	2120	1596	1407
70 - 90	URBAN ARTERIAL ROADS/ RURL EXPRESSWAYS	7500	4500	3000	6000	2384	1587	426	1603	3180	2394	2111
100 - 120	RURAL ROADS AND FREEWAYS	12000	7200	4800	9600	3814	2539	681	2566	5089	3830	3377

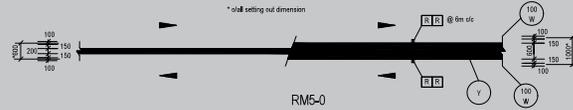
ALL OPERATING SPEEDS	M	N	O	P	Q	R	S	T	U	V
AND APPLICATIONS	300	210	180	1300	898	402	155	370	32	390

REVISION		CONSULT. ENG.		DRAWING INDEX		DRAWING TYPE		DRAWING INDEX		DRAWING INDEX		DRAWING INDEX	
NR.	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE

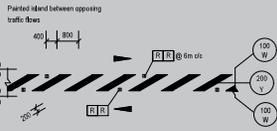
HEAD OFFICE	388a Street	NORTHERN REGION	388a Street	PROJECT DESCRIPTION	CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59	PROJECT NUMBER	NRA 2025/0106															
48 Tamboke Avenue	Via de Grace	Pretoria	0181	PO Box 415	Pretoria 0001	South Africa	Tel (012) 844 8000	HEAD OFFICE	388a Street	Medipark	Pretoria	0181	Private Bag X17	Lynwood Ridge	0100	Tel (012) 428 6200	PROJECT DESCRIPTION	CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59	PROJECT NUMBER	NRA 2025/0106		
BUILDING SOUTH AFRICA THROUGH BETTER ROADS				LANE REDUCTION ARROWS				DRAWING LOCATION DATA	ROUTE	-	SECTION	-	DRAWING km DISTANCE	-	DRAWING TYPE	LANE REDUCTION ARROWS	BRIDGE/STRUCTURE No.	-	CONSULTANT DRAWING No.	DWG 004/TD/09	VER	V2

SPEED ▼ TRAFFIC FLOW ►

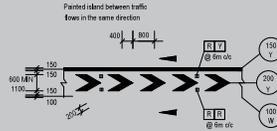
All Speeds
Limited road width



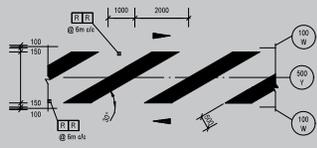
RM5-0



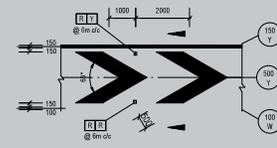
RM5-1



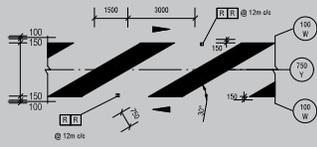
RM5-2



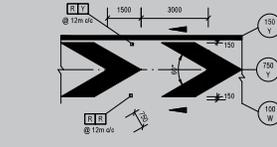
RM5-3/S



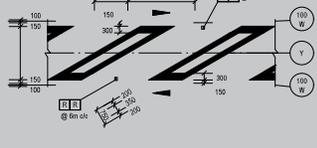
RM5-3/H



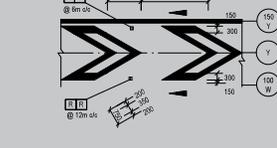
RM5-4/S



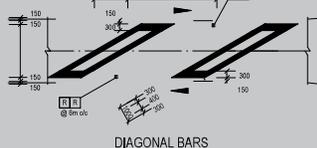
RM5-4/H



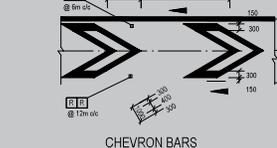
RM5-5/S



RM5-5/H



RM5-6/S



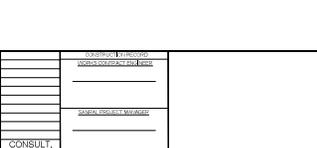
RM5-6/H



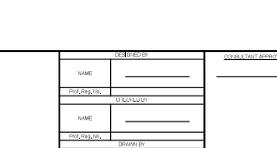
RM5-7/S



RM5-7/H



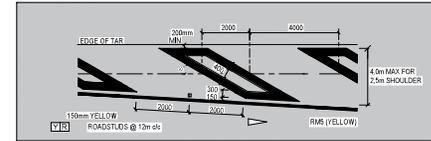
RM5-8/S



RM5-8/H

STANDARD PAINTED ISLAND ROAD MARKINGS

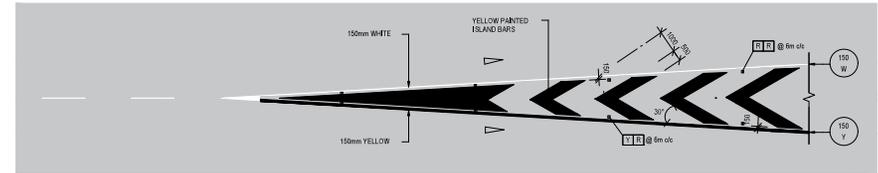
NTS



DETAIL A : RM5-4H NEXT TO ROAD EDGE

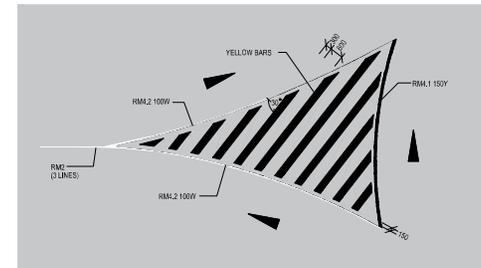
NTS

ROAD STUD LEGEND	
W W	- WHITE/WHITE
R W	- RED/WHITE
Y R	- YELLOW/RED
R R	- RED/RED



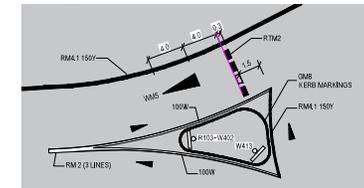
DETAIL B : SPLITTER ISLAND - NO KERBS

NTS



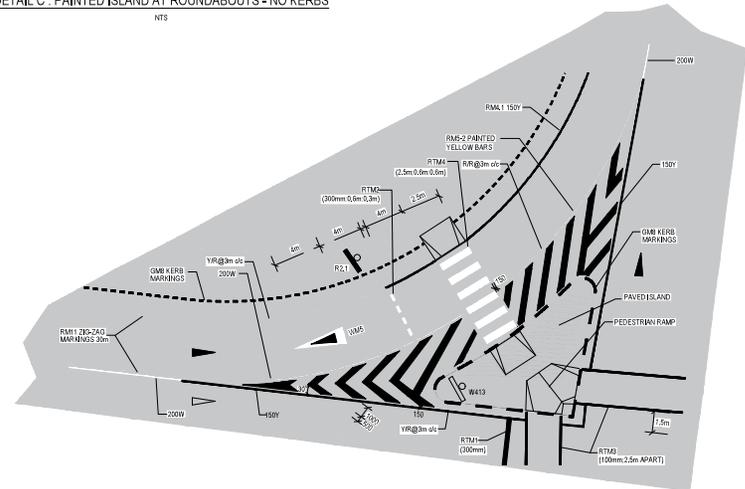
DETAIL C : PAINTED ISLAND AT ROUNDABOUTS - NO KERBS

NTS



DETAIL D : PAINTED ISLAND AT ROUNDABOUTS WITH KERBS

NTS



DETAIL E : SPLIT LANE WITH PEDESTRIAN CROSSING

REVISION		CONSULT. ENG.		APPROVAL		HEAD OFFICE		NORTHERN REGION		PROJECT DESCRIPTION		PROJECT NUMBER					
NO.	DATE	REVISION	CONSULT. ENG.	NAME	DESIGNED BY	NAME	CHECKED BY	48 Tambotie Avenue Vig die Graaf Pretoria 0184 PO Box 415 Pretoria 0001 South Africa Tel: (012) 844 8000	38 8da Street Mole Park Pretoria 0001 Private Bag X17 Lynwood Ridge 0040 Tel: (012) 428 2000	THE ACCEPTANCE FOR PROCEEDURE AND ASSESSMENT OF THE ROAD MARKINGS AND ANY OTHER TRAFFIC LEGAL LIABILITY OR LIABILITY OF ANY INDIVIDUAL OR OTHERS SHALL BE THE RESPONSIBILITY OF THE USER OF THIS DRAWING.	CONTRACT SANRAL NRA 2025/0106 RESURFACING ON NATIONAL ROUTE N11 SECTION 12 FROM KM 76.1 TO KM 85.59	PROJECT NUMBER NRA 2025/0106	DRAWING LOCATION DATA ROUTE SECTION DRAWING km DISTANCE DRAWING TYPE BRIDGE/STRUCTURE No. CONSULTANT DRAWING No.	START N11 12 7&1	END N11 12 85.59	DRAWING INDEX CONSOLE/DWG No. DWG 004/TD/12	VER V3