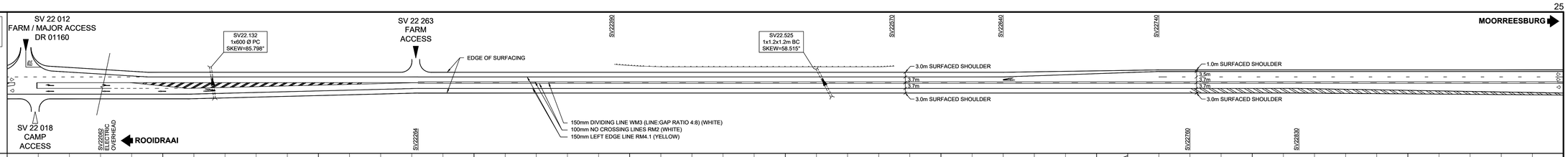
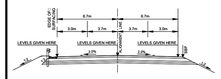
NOTE:
ALL DIMENSIONS TO BE CHECKED ON SITE BEFORE ANY WORK IS PUT IN HAND. REFER ANY DISCREPANCIES TO THE ENGINEER.



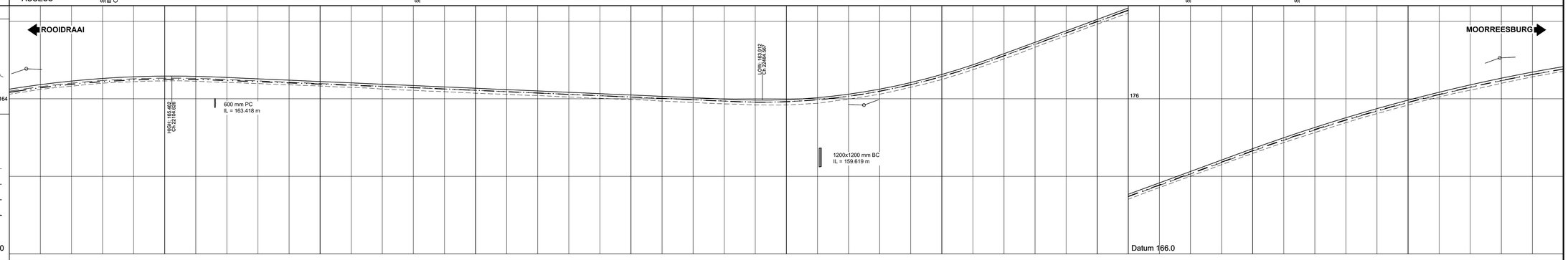


HORIZONTAL DESIGN SPEED : 100km/h
VERTICAL DESIGN SPEED : 100km/h
POSTED SPEED (Road Sings & Road Markings) : 120km/h

EXISTING ROAD LEVEL
LEFT EDGE
CENTRE LINE LEVEL
RIGHT EDGE

HOR. SCALE 1:1000
VER. SCALE 1:100

Datum 154.0



STAKE VALUE	EXIST ROAD LEVELS ON ALIGNMENT	LEFT OFFSET	LEFT EDGE	CENTRE LINE	RIGHT EDGE	RIGHT OFFSET
22000	164.290	-8.70	164.485	164.617	164.409	10.40
22020	164.695	-8.70	164.775	164.909	164.701	10.40
22040	164.807	-8.70	165.006	165.140	164.932	10.40
22060	165.006	-8.70	165.174	165.309	165.101	10.40
22080	165.099	-8.70	165.282	165.416	165.208	10.40
22100	165.153	-8.70	165.327	165.461	165.253	10.40
22120	165.134	-8.70	165.310	165.444	165.238	10.30
22140	165.092	-8.70	165.236	165.370	165.174	9.80
22160	164.979	-8.70	165.149	165.283	165.097	9.30
22180	164.896	-8.70	165.062	165.196	165.020	8.80
22200	164.921	-8.70	164.975	165.109	164.943	8.30
22220	164.733	-8.70	164.888	165.022	164.866	7.80
22240	164.626	-8.70	164.802	164.936	164.790	7.30
22260	164.541	-8.70	164.715	164.849	164.713	6.80
22280	164.459	-8.70	164.628	164.762	164.628	6.70
22300	164.357	-8.70	164.541	164.675	164.541	6.70
22320	164.288	-8.70	164.454	164.588	164.454	6.70
22340	164.208	-8.70	164.367	164.501	164.367	6.70
22360	164.112	-8.70	164.281	164.415	164.281	6.70
22380	164.026	-8.70	164.194	164.328	164.194	6.70
22400	163.954	-8.70	164.107	164.241	164.107	6.70
22420	163.849	-8.70	164.020	164.154	164.020	6.70
22440	163.758	-8.70	163.933	164.067	163.933	6.70
22460	163.668	-8.70	163.846	163.980	163.846	6.70
22480	163.599	-8.70	163.760	163.914	163.780	6.70
22500	163.596	-8.70	163.807	163.941	163.807	6.70
22520	163.703	-8.70	163.934	164.068	163.934	6.70
22540	163.970	-8.70	164.159	164.293	164.159	6.70
22560	164.294	-8.70	164.484	164.618	164.484	6.70
22580	164.742	-8.70	164.907	165.041	164.907	6.70
22600	165.337	-8.70	165.430	165.564	165.430	6.70
22620	165.899	-8.70	166.053	166.187	166.053	6.70
22640	166.599	-8.70	166.788	166.922	166.788	6.70
22660	167.325	-7.00	167.497	167.637	167.503	6.70
22680	168.061	-7.30	168.227	168.373	168.239	6.70
22700	168.806	-7.60	168.956	169.108	168.974	6.70
22720	169.522	-7.90	169.686	169.844	169.710	6.70
22740	170.274	-8.20	170.415	170.579	170.445	6.70
22760	171.008	-8.20	171.150	171.314	171.180	6.70
22780	171.792	-8.20	171.886	172.050	171.918	6.70
22800	172.479	-8.20	172.619	172.783	172.649	6.70
22820	173.172	-8.20	173.322	173.486	173.352	6.70
22840	173.821	-8.20	173.986	174.150	174.015	6.78
22860	174.456	-8.20	174.612	174.776	174.638	6.92
22880	175.042	-8.20	175.199	175.363	175.221	7.08
22900	175.595	-8.20	175.747	175.911	175.767	7.22
22920	176.105	-8.20	176.257	176.421	176.273	7.38
22940	176.550	-8.20	176.727	176.891	176.741	7.53
22960	176.990	-8.20	177.159	177.323	177.170	7.67
22980	177.411	-8.20	177.553	177.717	177.560	7.83
23000	177.770	-8.20	177.907	178.071	177.913	7.97

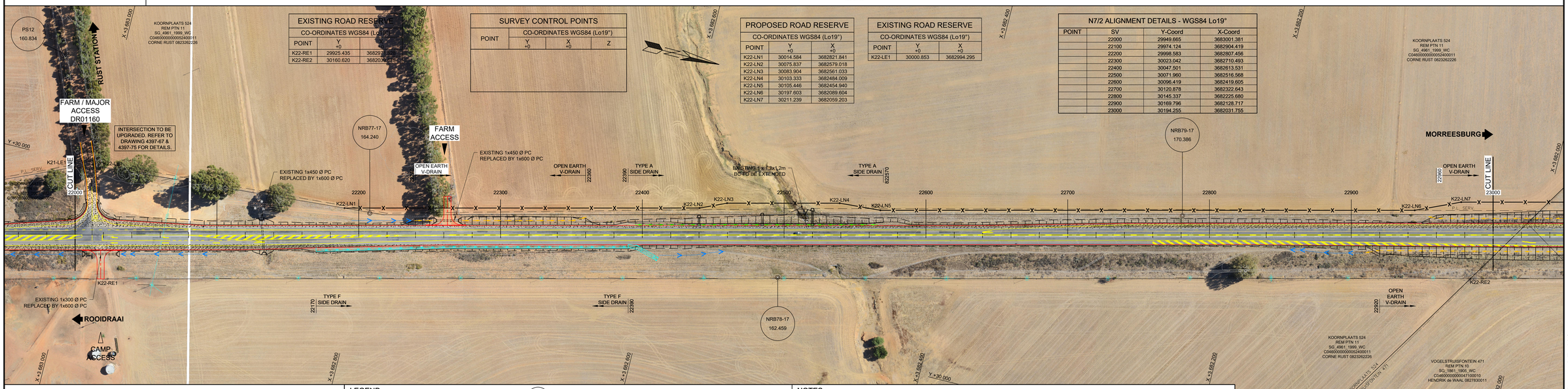
VERTICAL ALIGNMENT — DESIGN ROAD LEVELS

GRADES: 22010.961 165.930; 3.329%; -0.434 %; 22549.944 163.590; 3.677 %; 22959.043 178.634; 0.468 %; 23000.000 182.242

VERTICAL CURVES: 244m VC K=65; 21133 E.V.C.; B.V.C. 22467; 166m VC K=40; 22633 E.V.C.; B.V.C. 22793; 332m VC K=103

SUPERELEVATION: LHS EDGE; RHS EDGE; -2.0

HORIZONTAL CURVES: Direction 165°50'33"



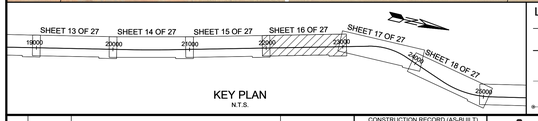
EXISTING ROAD RESERVE		
CO-ORDINATES WGS84 (Lo19°)		
POINT	Y +0	X +0
K22-RE1	29925.435	3682[illegible]
K22-RE2	30160.620	3682[illegible]

SURVEY CONTROL POINTS			
POINT	CO-ORDINATES WGS84 (Lo19°)		
	Y +0	X +0	Z

PROPOSED ROAD RESERVE		
CO-ORDINATES WGS84 (Lo19°)		
POINT	Y +0	X +0
K22-LN1	30014.584	3682821.841
K22-LN2	30075.837	3682579.018
K22-LN3	30083.904	3682561.033
K22-LN4	30103.333	3682484.009
K22-LN5	30105.446	3682454.940
K22-LN6	30197.603	3682089.604
K22-LN7	30211.239	3682059.203

EXISTING ROAD RESERVE		
CO-ORDINATES WGS84 (Lo19°)		
POINT	Y +0	X +0
K22-LE1	30000.853	3682994.295

N7/2 ALIGNMENT DETAILS - WGS84 Lo19°			
POINT	SV	Y-Coord	X-Coord
	22000	29949.665	3683001.381
	22100	29974.124	3682904.419
	22200	29998.583	3682807.456
	22300	30023.042	3682710.493
	22400	30047.501	3682613.531
	22500	30071.960	3682516.568
	22600	30096.419	3682419.605
	22700	30120.878	3682322.643
	22800	30145.337	3682225.680
	22900	30169.796	3682128.717
	23000	30194.255	3682031.755



KEY PLAN
N.T.S.

LEGEND

- EXISTING ROAD RESERVE
- PROPOSED ROAD RESERVE
- GATE
- FENCE
- EXISTING GUARDRAIL
- POWER LINE & POLE
- TELEPHONE LINE & POLE
- EXISTING ROAD SIGN
- NEW ROAD SIGN
- CAMP / MINOR ACCESS
- FARM / MAJOR ACCESS
- PROPOSED ROAD WIDENING
- SURVEY CONTROL POINT (NRB1-15 268.332)
- CUT SLOPE
- FILL SLOPE
- NEW CULVERT AND DIRECTION OF FLOW
- TYPE F SIDE DRAIN & DOWN CHUTE
- TYPE A SIDE DRAIN & DOWN CHUTE
- TYPE A DRAIN WITH INLET AND DOWNPIPE
- NEW GUARDRAIL
- RESHAPE EXISTING SIDE DRAIN
- OPEN EARTH V-DRAIN LINED / UNLINED
- V SHAPED TOE DRAIN

NOTES :

1. ALL EXISTING FEATURES ARE GHOSTED.
2. BATTER SLOPES SHOWN ON STANDARD CROSS-SECTIONS AND AS DETERMINED ON SITE.
3. THE CONTRACTOR IS TO APPLY FOR ALL NECESSARY WAYLEAVES, PLANS AND PERMITS FROM THE VARIOUS SERVICE AUTHORITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
4. FARM/MINOR ACCESSES TO BE 5m WIDE (SEE TYPICAL DRAWINGS - ROADWORKS DRG. No. 4397-R-JI-200-V1).
5. FINAL POSITIONS OF ACCESSES, SERVICE ROADS AND EDGE BEAMS TO BE DETERMINED ON SITE.
6. EXISTING ROAD SIGNS TO BE REMOVED AND REPLACED WHERE REQUIRED.
7. WIRE FENCE GATES TO BE PROVIDED AT ALL FARM/MINOR ACCESSES.
8. STOCK PROOF FENCING TO BE PROVIDED ON ROAD RESERVE BOUNDARY 9 STRAND BARBED WIRE WITH STEEL STRAINING POSTS AND STEEL STANDARDS AND DROPPERS).
9. REFER TO 20m INTERVAL CROSS SECTIONS FOR LANDSCAPING AND FURTHER DRAINAGE DETAILS.
10. ALL ROADMARKING AS PER SARTSM AND STANDARD DRAWINGS.
11. THE LINING OF OPEN, TOE AND CUT-OFF DRAINS TO BE APPROVED BY ENGINEERS REPRESENTATIVE.

50 mm 0 mm 50 mm 100 mm

DRAFT
FINAL DESIGN

No.	DATE	REVISION	CONSULT. ENG.
V1	28/06/2019	ORIGINAL VERSION	DM MURPHY

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

JG AFRIKA
CAPE TOWN
14 CENTRAL SQUARE PINELANDS 7405
P.O. BOX 38561 PINELANDS 7430
Tel: +27 21 530-1800 Fax: +27 21 532-0950
E-MAIL: capetown@jgafrika.com
© COPYRIGHT RESERVED

Daveng CONSULTING ENGINEERS
7 Digtebij Avenue, Mabille Park, Kuils River, 7580
P.O. Box 190, Kuils River, 7579
Tel: +27 21 906 5602
Fax: +27 21 906 5603

DESIGNED BY	
NAME	J GENTZ
Prof. Reg. No.	20080319
CHECKED BY	
NAME	DM MURPHY
Prof. Reg. No.	950446
DRAWN BY	
NAME	C BRAND

CONSULTANT APPROVAL
Name : DM MURPHY
Prof. Reg. No. : 950446
Date : 28/06/2019

HEAD OFFICE
46 Tambotie Avenue
Val de Grace
Pretoria
0184

PO Box 415
Pretoria 0001
South Africa

Tel: (012) 844 8000

SANRAL
SOUTH AFRICAN NATIONAL ROADS AGENCY SOC LTD
BUILDING SOUTH AFRICA THROUGH BETTER ROADS

WESTERN REGION
1 Havenga Street
Oakdale
Bellville
7530

Private Bag X19
Bellville
7535

Tel: (021) 957 4600

ACCEPTANCE
THIS ACCEPTANCE IS FOR PROCEDURAL AND ADMINISTRATIVE REVIEW PURPOSES ONLY AND DOES NOT ATTRACT LEGAL LIABILITY OR LIABILITY OF ANY KIND FROM WHATSOEVER CAUSE OR HOWEVER ARISING
for the SA NATIONAL ROADS AGENCY SOC LTD.
Date:

THE IMPROVEMENT OF NATIONAL ROUTE 7, SECTION 2, BETWEEN ROOIDRAAI (km 7.49) AND MOORREESBURG (km 33.90)

DRAWING NAME
GENERAL ARRANGEMENT AND LONG-SECTION
ROUTE 7, SECTION 2: SV 22 000 - SV 23 000

SCALE : 1:1000 SHEET 16 OF 27

PROJECT NUMBER	NRA N.007-020-2020/1F	
DRAWING LOCATION DATA	START	END
ROUTE	N7	N7
SECTION	2	2
DRAWING km DISTANCE	22 000	23 000
DRAWING TYPE	ROADS - LAYOUTS	
BRIDGE/STRUCTURE No.		
CONSULTANT DRAWING No.	4397-25	VER
SANRAL DOCUMENT #		V1

G:\Projects_2019\NRA\4397 N7 Rooidraai to Moorreesburg (PDR)\Drawings\Rev\4397-25-27.dwg\Layouts\ss 16 to 18 - Colour.dwg
2019-06-11 10:44:11