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

Physical Address: 48 Tambotie Avenue,
Val de Grace Pretoria
Po Box 415, Pretoria, 0001

Tel: +27(0)12 844 8000
Fax: +27(0)12 844 8200
Reg No: 1998/009584/30

Bridge Management System
BRIDGE Inventory Sheet

Structure No	R023_02N_B1930
Structure Name	Road over Rail at Greylingstad

Location Details

N-Route No. :	R023	**Primary Feature :**	Railway
Section No. :	02N	**Feature Name :**	Main railway to Gauteng
Route Description :		**Feature Road No. :**	
Route km :	56.81	**Featue Road km :**	
N-Route Over/Under :	Over	**Farm :**	
Province :	Mpumalanga	**Secondary Feature :**	Rural Road (surfaced)
Magisterial District :		**Secondary Feature Name :**	Secondary route Greylingstad to Balfour.
Other Authority :	Local Authority	**Other Bridge No. :**	
Orientation :	North/South	**Elevation (m) :**	
		Direction of River Flow :	N/A

1:50,000 TOPOGRAPHICAL MAP

Map Name :	
Map No. :	
Survey System :	

GIS Coordinates

	Latitude (South)	Longitude (East)
Start :	26d 44m 32.80s	28d 44m 5.00s
End :	26d 44m 31.10s	28d 44m 4.80s

Contract Details

Design Engineers :		**Contract Number :**	
Contractors :		**Year Built :**	1970
Contract Price :		**Completion Time :**	
Escalated Cost :			
Total Cost (Design & Construct) :			

Structural Features

No. of Spans :	5	**No. of Piers :**	4	**No. of Abutments :**	2
Facility Carried :	Road			**Approach Slabs :**	Unknown
Structure Type :	Continuous with drop in spans			**Abutment Gallery :**	No
Bridge Description :	Road over Road & Rail			**fcu Slabs :**	MPa
Deck Constr. Method :	Cast insitu and precast beam with infill concrete			**fcu Beams :**	MPa
Parapet Handrails :	Spoornet type solid balustrade (not NJ)			**fcu Piers :**	MPa
No of arches :	0	**Arch Span (m) :**	0	**fcu Abutments :**	MPa
Springer Thickness (m) :	0			**fcu Arches :**	0 MPa
Crown Thickness (m) :	0				

Deck Cross Section

Position	Type	Material	Span Length	Deck Soffit Profile	Avg Deck Depth (m)	Min Deck Depth (m)	Max Deck Depth (m)
S1	Voided slab	Reinforced concrete	8.6	Straight	1.30	1.3	1.3
S2	Beam and slab	Reinforced concrete	16.7	Straight	0.60	0.6	0.6
S3	Voided slab	Reinforced concrete	12.2	Straight	1.30	1.3	1.3
S4	Voided slab	Reinforced concrete	16.7	Straight	1.30	1.3	1.3
S5	Voided slab	Reinforced concrete	12.6	Straight	1.30	1.3	1.3

Bearings

Position	Type	Fixity
NA	Elastomeric neoprene	Friction
P1,P3	Elastomeric neoprene	Friction
P3,P4	Monolithic	Fixed
SA	Malthoid (slip membrane)	Fixed

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

Physical Address: 48 Tambotie Avenue,
Val de Grace Pretoria
Po Box 415, Pretoria, 0001

Tel: +27(0)12 844 8000
Fax: +27(0)12 844 8200
Reg No: 1998/009584/30

Bridge Management System
BRIDGE Inventory Sheet

Structure No	R023_02N_B1930
Structure Name	Road over Rail at Greylingstad

Expansion Joints

Position	Type	Dir Movement	Photos
AP,BA	Asphaltic plug	Longitudinal	

Piers

Position	Type	Material	Foundation Type	Founding Material	Hmax	Dmax
P1	Multiple column with capping beam	Reinforced Concrete	Unknown	Unknown	4.10	0.80
P2	Multiple column with capping beam	Reinforced Concrete	Unknown	Unknown	6.10	0.80
P3	Multiple column with capping beam	Reinforced Concrete	Unknown	Unknown	6.20	0.80
P4	Multiple column with capping beam	Reinforced Concrete	Unknown	Unknown	6.40	0.80

Abutments

Position	Type	Material	Foundation Type	Founding Material	Hmax	Dmax
BA	Spill through	Reinforced Concrete	Unknown	Unknown		

Wing/Retaining Walls

Position	Type	Material	Foundation Type	Founding Material	Hmax	Dmax

Embankment Protection

Position	Type	Material	Thickness	Slope
BA	Paving bricks or blocks	Concrete blocks	0.30	45

Arches

No Arches	Span Length	Springer Thickness	Crown Thickness	FCU
0	0	0	0.00	0.00

Design Characteristics

Design Live Load :			**Perc. Overloading :**		
Design Codes :			**Wind Load :**		kN/m2
Temp. Range From :		0C	**Frequency :**		Hz
Temp. Range To :		0C			
Temp. Gradients :					

Hydraulic Data

Peak Discharge :		m3/sec	**Scour Protection :**	N/A	
Design Discharge :	0	m3/sec	**Risk of Scour :**	N/A	
Design Flood Level :	0		**Design Scour Depth :**		m
Soffit Level :	0	m ASL	**Ht Above/Below Soffit :**		m
Clearance (Freeboard) :	0	m	**Catchment Area :**		km2
Peak Year :			**Angle Between :**		
Return Period :	0	yrs	**Max Scour Depth :**		m
Depth of Design Flow :		m			

Drainage

Support Drainage :	Unknown
Superstructure Drainage :	Chutes before and-or after bridge
Seepage Drains :	

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

Physical Address: 48 Tambotie Avenue,
Val de Grace Pretoria
Po Box 415, Pretoria, 0001

Tel: +27(0)12 844 8000
Fax: +27(0)12 844 8200
Reg No: 1998/009584/30

Bridge Management System
BRIDGE Inventory Sheet

Structure No	R023_02N_B1930
Structure Name	Road over Rail at Greylingstad

Dimensions, Geometry and Road Clearances

Overall Length :	66.9	m		Vertical Alignment :		
Overall Width :	15.2	m		Horizontal Alignment :		
Kerb Width :	13.6	m		Camber/Crossfall :		
Carriageway :	Single			Angle of Skew :	30	degrees
Direction Trafic :	N			Ht of highest Pier/Abutment :	6.4	m
Min Road Width :	7.4	m	0 m	Opening Area :		m2
Approach Width :	13.6	m	m			

Minimum Horizontal Clearances

ID	Date Recorded	Clearance (m)	Description

Minimum Vertical Clearances

ID	Date Recorded	Clearance (m)	Description
3	2016/06/23	6.1	S3
3	2012/02/11	5.1	S4
3	2012/02/11	6.2	S3

Services

Type	Description	Location	Authority

Road Type, Traffic Volumes and Surfacing

	Road Over	Road
Class of Road :	1- Strategically important route	3- Secondary road
No. of Carriageways :	1	1
Names of Carriageways :		
No./Dimensions of Lanes (m) :	2x3.7	2x3.6
No./Dimensions of Shoulders (m) :	2x3	2x0.9
No./Dimensions of Sidewalks (m) :		
Average Daily Traffic :		
Year ADT Recorded :		
Truck Factor (%) :		
Detour Length (km) :		
Minimum Class of Detour :	1- Strategically important route	Not applicable
Surface Slab :	Asphalt	
Surface Approach :	Asphalt	

Archive Details

Project No. : Correspondence File : Strip Map :

Drawing No.	Title	Location	Type

Microfilm No.	Title	Location

Maintenance Agreements and Responsibilities

Responsibilities :	
Agreement No. :	
Share of Costs :	
Agreement Location :	

Maintenance History

Details	Design Engineer	Contractor	Completion Date	Cost

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

Physical Address: 48 Tambotie Avenue,
Val de Grace Pretoria
Po Box 415, Pretoria, 0001

Tel: +27(0)12 844 8000
Fax: +27(0)12 844 8200
Reg No: 1998/009584/30

Bridge Management System
BRIDGE Inventory Sheet

Structure No	R023_02N_B1930
Structure Name	Road over Rail at Greylingstad

Widening, Strengthening, Retrofitting

Details	Design Engineer	Contractor	Completion Date	Cost

Additional Remarks

Remarks :

Factors Influencing Field Inspection

Access Factors :

Piers :	Easy access - binoculars adequate	**Deck Soffit :**	Easy Access or binoculars
Bearings :	Require 6 m ladder	**Abutment Gallery :**	No galleries
Box Girder :	No Box	**Traffic Volume :**	Medium
Effective Bridge Area :	1017 m2		
Availability of Drawings :			

General Info : Piers monolithic with deck and rubber bearings at drop-in spans.