



**agriculture, land reform
& rural development**

Department:
Agriculture, Land Reform and Rural Development
REPUBLIC OF SOUTH AFRICA

Chief Directorate:
National Geo-spatial Information

Standard for the South African Provincial Map Series

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SECTION A

Preliminary Informative Elements

A 1 Document Control

QLAS.SD.20_PROV

Standard for the South African Provincial Map Series

Acknowledgement

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Approval

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v3	Aslam Parker		24 March 2023	<i>Digital Copy</i>

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A 3 Foreword

This standard covers the requirements for the South African Provincial Map Series produced by the Chief Directorate: National Geo-spatial Information (CD: NGI), Department of Agriculture, Land Reform and Rural Development. The CD: NGI is mandated by the Land Survey Act, Act 8 of 1997 to provide mapping that covers the extent of the Republic of South Africa.

This document was drafted using the Provincial Map Style Chart as its basis together with current cartographic norms and practices applied by the CD: NGI. This document thus supersedes that document and forms the basis for future revision of its content and design.

An index reflecting the national map series is updated and published annually.

A 4 Terms and Definitions

[Refer to Glossary](#)

A 5 Symbols and Abbreviations

[Refer to Glossary](#)

A 6 Introduction

A 6.1 General

Name of the Standard

The standard described in this document shall be known as the Standard for the South African Provincial Map Series

The shortened name, Provincial Map Standard, may be used.

A 6.2 Scope and Purpose

The Standard for the Provincial Map Series comprises all the specifications required for cartographic production of a provincial map as required by the CD: NGI.

A 6.3 Audience

The primary audience of this document is the CD: NGI. The secondary audience of this document are map users.

A 6.4 Applicability

This document is applicable to all role players, activities and processes involved in the production and use of Provincial maps within the CD: NGI.

A 6.5 Assumptions

It is assumed that the provisions of this document may be applied by users outside CD: NGI.

A 6.6 Normative References, other standards and related documents

- The document Recommended Practice for the Structure and Drafting of Standards and Related documents is used to guide the format and structure of this document.
- Refer to C 1 for document references.

A 6.7 Maintenance Authority

Maintenance of the Standard for the Provincial Map is the responsibility of the Division: Quality Assurance of CD: NGI. Changes to this Standard will be instructed by the Chief Director as improvements or amendments become necessary, or as required. Any request for amendments to this Standard may be submitted by any institution, body or individual to the Chief Director for consideration. All such requests and any other comments on the Standard must be addressed to:

Chief Director: National Geo-spatial Information
Private Bag X10
Mowbray
7705

and be referenced as: Amendment - Standard for the South African Provincial Map Series

The Division: Quality Assurance shall maintain the provisions and structure of this document through amendment and revision activities.

A 6.8 Roles and Responsibilities

The roles and responsibilities of the main role players as it pertains to the drafting and maintenance of this document are stated below.

A 6.8.1 Sub- Dir.: Quality Assurance

- To maintain the provisions of this document.
- Keeping track of all amendments to this document
- Providing assistance and guidance to the Standards Development Committees and CD:NGI Management in interpreting the provisions of this document
- Provisionally approving a proposed revision of this standard with respect to its structure and format.
- Ensuring that the use and purpose of this document is communicated effectively.

A 6.8.2 Standards Development Committee – Standard for the South African Provincial Map Series

- To draft revised specifications to the provisions of this document
- To make recommendations on the update and amendment of the provisions of this document.
- Refer to the relevant section in the Terms of Reference of the Standards Development Committee for more details in this regard.

A 6.8.3 Manager: Quality Assurance

- Evaluate proposed amendments and revisions of this Standard.
- Provisionally approving proposed amendments to this Standard.
- Refer to the relevant section in the Terms of Reference pertaining to the Geomatics Manager: Quality Assurance for more details in this regard.

A 6.8.4 CD: NGI Senior Management

- To provide inputs into and recommend approval of this Standard.

A 6.8.5 Chief Director: NGI

- To approve this Standard.
- To authorise revision of this Standard.

SECTION B
Normative Elements

B 1 Provincial Map Series Requirements

B 1.1 General

The Provincial Map series consists of 9 map sheets providing full coverage of South Africa, with one map sheet per province. The map is designed mainly for administrative purposes and depicts the cities, towns, smaller urban centres, district municipalities, metropolitan councils, local municipalities and magisterial districts, as well as the main road and rail networks, main rivers and dams, protected areas and airports.

- a) The map scales and extent shall be determined based on the shape and size of the terrain of each Province.
- b) Each map of the Provincial Map Series shall be given a specific name.
- c) The name of the Province will be determined by the Constitution of the RSA.
- d) All Provincial maps shall be projected using the Lambert's Conformal Conic Projection with Two Standard Parallels (as per international standard projection parameter requirements). The two standard parallels will be chosen 1/6 south of the northern extent and 1/6 north of the southern extent of the province respectively.
- e) All maps produced by the Chief Directorate shall be referenced to the Hartebeesthoek94 Datum (WGS84 ellipsoid).

B 1.2 Accuracy

B 1.2.1 Accuracy for paper copy

- a) The horizontal positional accuracy of all graticule intersections depicted on the map shall not exceed 0.5mm at map scale, relative to the national control survey network, at the 95% confidence level.
- b) The horizontal positional accuracy of all remaining topographic features depicted on the map shall not exceed 0.78mm at map scale, relative to the national control survey network, at the 95% confidence level.
- c) All features depicted shall be correctly classified at the 95% confidence level.

B 1.2.2 Accuracy for digital copy

- a) The horizontal positional accuracy of all graticule intersections depicted on the map, shall not exceed 0.09mm at map scale relative to the national control survey network, at the 95% confidence level.
- b) The horizontal positional accuracy of all remaining topographic features depicted on the map (image) shall not exceed 0.78mm at map scale, relative to the national control survey network, at the 95% confidence level.
- c) All features depicted shall be correctly classified at the 95% confidence level.
- d) The raster image (Tiff format) shall be generated at a minimum resolution of 300 pixels per inch, complying with the minimum requirements as set in the Printing of Imagery and Maps standard.
- e) The image shall be geo-referenced in its projected state with the positional accuracy of the map face corners within an average RMS (root mean square) error of 0.09mm at map scale, during transformation.

B 1.3 Language

- a) All references and surrounding text (legends) shall be shown in English and the dominant languages of the Province, to a maximum of three (four including English), as determined by the latest full Statistics SA census sourced from www.statssa.gov.za.
- b) English shall take precedence for all descriptive terms.
- c) All feature names, formally approved by the Minister responsible for Geographical Names, shall be annotated as such and shall be deemed as approved names.

B 1.4 Data Sources

B 1.4.1 Names

- a) All approved names shall be sourced from the division/s responsible for acquiring ancillary data for use within the production processes of CD: NGI.

B 1.4.2 Features

- a) All topographical features listed in section B 3 shall be primarily sourced from the iTIS database and/or the approved small scale maps (original data sourced from the iTIS database).
- b) All administrative boundaries shall be sourced from the division/s responsible for acquiring ancillary data.
- c) The following features are cartographically generated features and therefore have no data source: Oceans and Route Symbols.

B 1.5 Nomenclature

- a) The spelling of names shall be in accordance with the accepted practice adopted by CD: NGI i.e. the spelling of names shall be that approved by the SAGNC or such other authoritative source.
- b) Approved names shall be shown in a distinctive type style according to the provisions of C2 of this standard.
- c) Descriptive terms shall be used in accordance with the Style Chart (see C3).

B 2 Map Sheet Layout

The map sheet layout for the provincial map series shall follow the provisions listed within this section. The map sheet layout, including the placement of surrounding text, is depicted in the Style Chart contained in C 3.

B 2.1 Map Title and Metadata

- Map Title name e.g. GAUTENG
- Nationality statement

B 2.2 Legend Insert – reference and statements

- Statistical data.
- Legend
- State copyright
- Spatial Reference System (including projection and ellipsoid)
- Map edition statement
- Scale bar depicted in kilometres.
- Scale statement

B 2.3 Location Insert

B 2.4 North Arrow Insert

B 2.5 Demarcation disclaimer statement Insert

B 2.6 Official logo

B 3 Topographical Information and Dimensions

B 3.1 Topographical Information to be shown:

- a) Features shall be symbolised without annotation as far as possible, but exceptions could occur where annotations might be necessary.
- b) The Style Chart (contained in C 3) contains the graphical depiction of the features listed within this section.
- c) The features have been divided into the following categories as tabled below:

Feature Classes
ADMN_BOUNDARIES
ADMN_GEONAMES
HYDR_AREAS
HYDR_COASTAL_AREAS
HYDR_COASTAL_LINES
HYDR_LINES
LCLU_LANDUSE
PHYS_LANDFORM_NATURAL
TRAN_FACILITIES
TRAN_RAILWAY_LINES
TRAN_ROADS

ADMN_BOUNDARIES

Cartographic Feature Class	Feature Type ID	Comment	Symbol Type	Dimensions	
International Boundary	2	Shall be shown. Ancillary data source: www.demarcation.org.za	Line	Line type	Pecked
				Colour	Black
				Line Width	0.6mm
				Dash and Gap Length	9.5mm 8.5mm
				Dot	1.3mm
			Area	Band width	1.6mm
	Band colour	14(Red)			
Provincial Boundary	14	Shall be shown. Ancillary data source: www.demarcation.org.za	Line	Line type	Pecked
				Colour	Black
				Line Width	0.6mm
				Dash and Gap Length	6.6mm 5.5mm
				Dot	1.3mm
Conservation Area	4/6/8/12/13/16	Shall be shown and annotated where names are available.	Line	Line type	Solid
				Colour	15(Green)
				Width	0.1mm
			Area	Band width	1.5mm
	Band colour	31(Green)			
Magisterial District Boundary	7	Shall be shown. Ancillary data source: www.demarcation.org.za	Line	Line type	Solid
				Line width	0.45mm
				Colour	25(Brilliant Blue)
District Municipality / Metropolitan Boundary	3	Shall be shown. Ancillary data source: www.demarcation.org.za	Line	Line type	Solid
				Colour	26(Purple)
				Width	0.8mm
Local Municipality Boundary	11	Shall be shown. Ancillary data source: www.demarcation.org.za	Line	Line type	Solid
				Colour	28(Orange)
				Width	1.6mm
				Colour (Inside)	27(Brown)
				Width(Inside)	0.8mm

ADMN_GEONAMES

Cartographic Feature Class	Feature Type ID	Comment	Symbol Type	Dimensions
Cartographic Text	26	Shall be shown where names are available.	Point	Refer to Provincial Map Text Requirements (contained in C2).

HYDR_AREAS

Cartographic Feature Class	Feature Type ID	Comment	Symbol Type	Dimensions	
Dam	196	Shall be shown and annotated where names are available.	Area	Outline type	Solid
				Colour	16(Blue)
				Outline width	0.1mm
				Filling	4(Blue)
Dry Pan	197	Shall be shown and annotated where names are available.	Area	Outline type	Pecked
				Colour	3(Blue)
				Outline width	0.1mm
				Length of dash	
				Length of gap	
				Filling	(Brown)
Lake	201	Shall be shown and annotated where names are available.	Area	Outline type	Solid
				Colour	16(Blue)
				Outline width	0.1mm
				Filling	4(Blue)
Marsh and Vlei	202/208	Shall be shown and annotated where names are available.	Area	Pictorial Filling	16(Blue)

HYDR_COASTAL LINES

Cartographic Feature Class	Feature Type ID	Comment	Symbol Type	Dimensions	
Coastline	218	Shall be shown.	Line	Outline type	Solid
				Colour	16(Blue)
				Outline width	0.1mm

HYDR_LINES

Cartographic Feature Class	Feature Type ID	Comment	Symbol Type	Dimensions	
Perennial River	473	Shall be shown and annotated where names are available.	Line	Line type	Solid
				Colour	16(Blue)
				Width	0.1mm

LCLU_LANDUSE

Cartographic Feature Class	Feature Type ID	Comment	Symbol Type	Dimensions	
City/Town	278	Shall be shown and annotated	Area	High Urban Density	
				Outline type	Solid
				Outline Colour	Black
				Outline width	0.15mm
				Filling	12(Yellow)
Town/Small Centre	278	Shall be shown and annotated	Point	Outline type	Solid
				Outline Colour	Black
				Outline Width	0.15mm
				Circle Diameter	2mm and 1.8mm
				Filling	12(Yellow)

PHYS_LANDFORM_NATURAL

Cartographic Feature Class	Feature Type ID	Comment	Symbol Type	Dimensions	
Island in water – sea	321	Shall be shown	Line	As depicted by the surrounding water	
				Outline type	Solid
				Outline Colour	16(Blue)
				Outline Width	0.1mm
			Area	Filling	White

TRAN_FACILITIES

Cartographic Feature Class	Feature Type ID	Comment	Symbol Type	Dimensions	
Aerodrome	350	Shall be shown	Point	Colour	Black
				Diameter	3.5x3.2mm
Airport	352	Shall be shown	Point	Colour	Black
				Diameter	3.6x3.8mm
International Airport	352	Shall be shown	Point	Colour	Black
				Diameter	3.8x3.8mm
Toll Plaza	370	Shall be shown.	Point	Outline Type	Solid
				Outline Colour	Black
				Outline Width	0.12mm
				Diameter	3mm
				Filling	12(Yellow)

TRAN_RAILWAY_LINE

Cartographic Feature Class	Feature Type ID	Comment	Symbol Type	Dimensions	
Standard Railway	387	Shall be shown where multiple tracks are interpreted as two or more tracks. Both types shall be shown through built-up areas.	Line	Line type	Solid
				Colour	Black
				Width	0.45mm

TRAN_ROADS

Cartographic Feature Class	Feature Type ID	Comment	Symbol Type	Dimensions	
National Freeway	395	Shall be shown.	Line	Casing Width	0.3mm
				Colour	3(Blue)
				Space Between Casing	0.4mm
				Route symbol	5.8.mm x 5.8mm
				Annotation	Black typeface
National Route	396	Shall be shown.	Line	Casing Width	0.3mm
				Colour	34(Red)
				Space Between Casing	0.4mm
				Route symbol	5.8mm x 5.8mm
				Annotation	Black typeface
Arterial Route	390	Shall be shown.	Line	Line type	Solid
				Colour	34(Red)
				Width	0.6mm
				Route symbol	6mm x 6mm
				Annotation	Black typeface
Main Road	394	Shall be shown	Line	Line type	Solid
				Colour	34(Red)
				Width	0.35mm
Secondary Road	399	Shall be shown.	Line	Line type	Solid
				Colour	34(Red)
				Width	0.1mm

OTHER FEATURES

Cartographic Feature Class	Feature Type ID	Comment	Symbol Type	Dimensions	
Outer Border	-	Shall be shown	Line	Line type	Solid
				Colour	13(Brown)
				Width	0.5mm
Graticule	-	Shall be shown	Line	Line type	Solid
				Colour	32(Blue)
				Width	0.2mm

SECTION C

Supplementary Informative Elements

C 1 References

Chief Directorate: National Geo-spatial Information, 2015. *Provincial Map Style Chart*. [unpublished] South Africa: National Geo-spatial Information

Chief Directorate: National Geo-spatial Information, 2012. *Standard for the Printing of Imagery and Maps (QLAS.SD.6_PRINT)*. [unpublished] South Africa: National Geo-spatial Information

Chief Directorate: National Geo-spatial Information, 2013. *Standard for the Capture of Topographical Data (QLAS.SD.4_TOPO)*. [unpublished] South Africa: National Geo-spatial Information

C 2 Provincial Map Text Requirements

SURROUNDS

Feature	Font Size	Font Style	Colour	Text Example
FACE OF MAP				
Sheet Name	55	Arial Bold Italic	Black	WESTERN CAPE
Series Name	24	Arial Regular	Black	SOUTH AFRICA PROVINCIAL SERIES
Edition	9	Arial Italic	Black	THIRD EDITION
Scale (representative fraction)	17	Univers 55 Regular	Black	1:900 000
Capital City	11	Arial Regular	Black	CAPE TOWN
Area	10	Univers 55 Regular	Black	160 000km ²
Legend/Statistics Heading (heading)	12	Univers 55 Regular	Black	LEGEND
All general reference notes		Univers ISOLatin 1	Black	International Boundaries
State Copyright note	8	Univers 55 Regular	Black	© State Copyright 2000
North Arrow	12	Clarendon Condensed Bold	Black	N, S, E and W
Disclaimer Statement (Part 1)	10	Univers(TT)Bold	Black	Chief Directorate: National Geo-spatial Information
Disclaimer Statement (Part 2)	8	Univers 55 Regular	Black	Whilst every effort is made etc.
BORDER				
Degree Value	12	Univers ISOLatin 1	Blue	30°

FACE OF MAP

Feature	Font Size	Font Style	Colour	Text Example
Point, Cape and Island names	1.8mm	Univers 45 Light	Black	Robben Island
Route Numbers	1.8mm 1.5mm	Univers 57 Condensed caps	Black	N R 2 21
Cities and Towns (Built-up area)	2.3mm-3.5mm	Helvetica Bold caps	Black	WORCESTER DURBAN
Towns (Built-up area)	2mm	Helvetica Bold	Black	Plettenberg Bay
Small Centres	1.8mm	Helvetica Bold	Black	Tulbagh Stilbaai
Conservation Area names	1.8mm-3mm	Memphis Medium caps	Green	GROOT SWARTBERG
Ocean names	2mm-4mm	Univers 55 Oblique caps spaced	Blue	INDIAN OCEAN
Main River and Bay names	2mm	Univers 55 Oblique, caps	Blue	ORANGE RIVER FALSE BAY
River, Bay, Lake, Pan and Dam names	2mm	Univers 55 Oblique	Blue	Palmiet River
Magisterial District names	1.8-3mm	Helvetica Bold, caps	Brilliant Blue	MONTAGO
District Municipality names	5mm	Helvetica Bold, caps	Purple	SMALLVILLE DISTRICT MUNICIPALITY
Local Municipality names	3mm	Helvetica Bold, caps	Orange	PRINCE ALBERT

C 3 Style Chart

[Style Chart](#)

All features to be found on a Provincial map is shown on this style chart in its Cartographic context and therefore indicates the accepted means of depicting features on this map.

C 4 COLOUR PALLET

Provincial Map Series Colour Pallet

0 - 255			% in LAMPS2 Mapping System			Colour		
R	G	B	R	G	B	Example		
1	255	255	255	100	100	100		1
2	0	0	0	0	0	0		2
3	0	0	255	0	0	100		3
4	179	217	255	70	85	100		4
5	204	128	179	80	50	70		5
6	219	222	145	86	87	57		6
7	0	235	0	0	92	0		7
8	140	222	153	55	87	60		8
9	201	166	112	79	65	44		9
10	255	0	0	100	0	0		10
11	255	163	176	100	64	69		11
12	255	245	120	100	96	47		12
13	199	140	64	78	55	25		13
14	255	0	0	100	0	0		14
15	0	184	0	0	72	0		15
16	5	255	255	2	100	100		16
17	224	145	140	88	57	55		17
18	230	204	166	90	80	65		18
19	237	217	181	93	85	71		19
20	255	255	184	100	100	72		20
21	255	214	204	100	84	80		21
22	255	217	255	100	85	100		22
23	255	224	163	100	88	64		23
24	199	255	219	78	100	86		24
25	158	102	255	62	40	100		25
26	179	77	153	70	30	60		26
27	230	128	26	90	50	10		27
28	191	168	74	75	66	29		28
29	179	179	179	70	70	70		29
30	196	217	166	77	85	65		30
31	161	212	150	63	83	59		31
32	102	196	255	40	77	100		32
33	224	232	224	88	91	88		33
34	255	0	127	100	0	50		34

C5 Schedules of Language Translations

Schedule of Language Translations Afrikaans
Schedule of Language Translations Sepedi
Schedule of Language Translations IsiZulu
Schedule of Language Translations IsiXhosa
Schedule of Language Translations IsiNdebele
Schedule of Language Translations Sesotho
Schedule of Language Translations IsiSwati
Schedule of Language Translations Xitsonga
Schedule of Language Translations Setswana
Schedule of Language Translations Tshivenda