

Annexure 2.3:
PTR Gauteng West

Contents

1	GENERAL	3
1.1	Purpose of the Document	3
1.2	Executive Overview	3
1.3	Location and Minimum Extent of the Works	3
2	MINIMUM REQUIREMENTS	4
2.1	General	4
2.2	Park SER – Langlaagte SER	4
2.3	Langlaagte SER – Randfontein SER	5
2.4	Langlaagte SER – New Canada SER	6
2.5	New Canada SER – Vereeniging SER	7
2.6	New Canada SER – Naledi SER	8

1 GENERAL

1.1 Purpose of the Document

- 1.1.1 The purpose of this document is to provide the Particular Technical Requirements (“PTR”) which form part of the minimum Requirements of the Passenger Rail Agency of South Africa (“PRASA”) for the Gauteng (“GP”) West related Works that form part of the planning, design, supply, construction, installation, testing, commissioning and maintenance of a new fully integrated, functional, complete and future-proofed expanded PRASA OTN in PRASA’s GP and Western Cape (“WC”) service regions (“the Project”) that the Bidder shall meet and deliver at the Bidder’s cost therefore within the Bid Price.

1.2 Executive Overview

- 1.2.1 Notwithstanding any other PRASA Requirements stated throughout the RFP, the Bidder shall uncompromisingly deliver the whole of the Works required to achieve successful delivery of the Project.

1.3 Location and Minimum Extent of the Works

- 1.3.1 The boundaries of the Site are the Gauteng West region rail servitude.
- 1.3.2 Figure 1.3.1 below gives a layout of the Gauteng South PRASA Network, which includes the Gauteng West region.

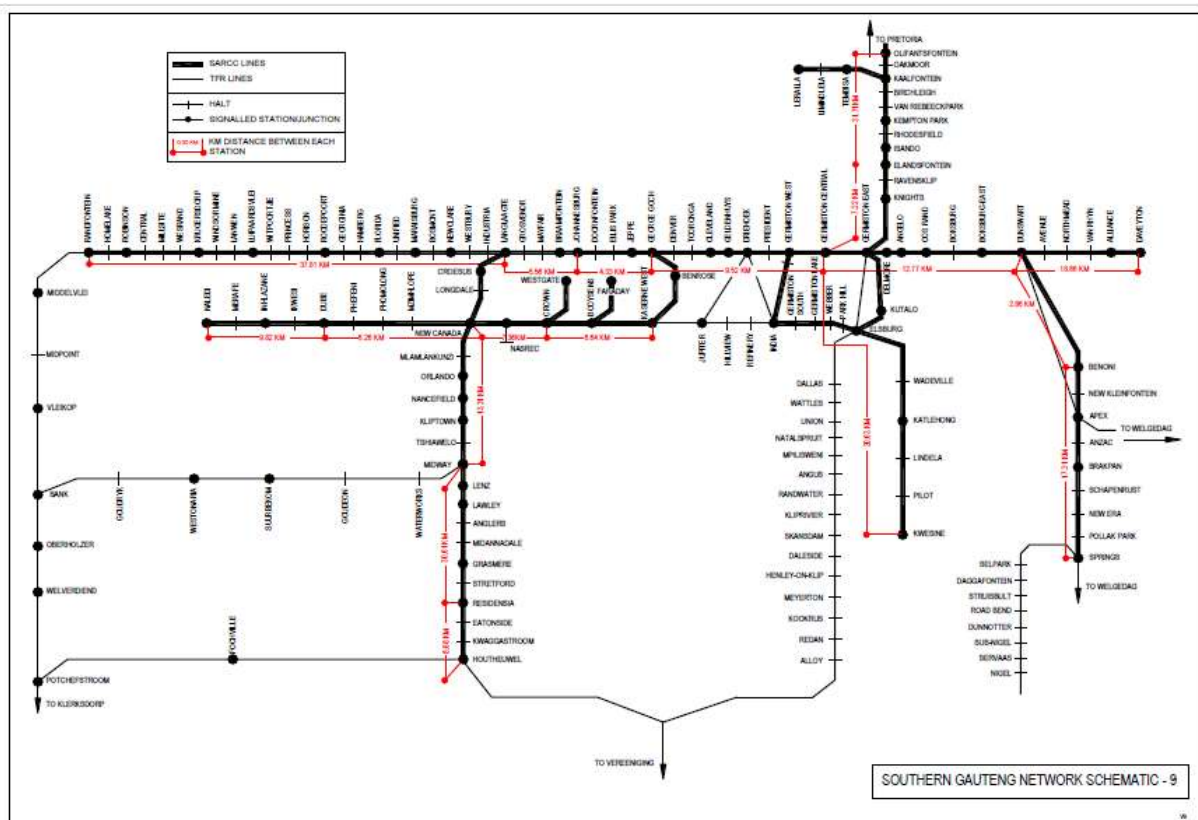


Figure 1.3.1: Gauteng South Network

2 MINIMUM REQUIREMENTS

2.1 General

- 2.1.1 The OTN-1 shall at a minimum be connected as illustrated in Figure 2.1 below.
- 2.1.2 The OTN-2 shall at a minimum be connected in the Ticket Office (a.k.a. Passenger Station Equipment Room), IT Data Centre, Traction Substation and Security Equipment Room.

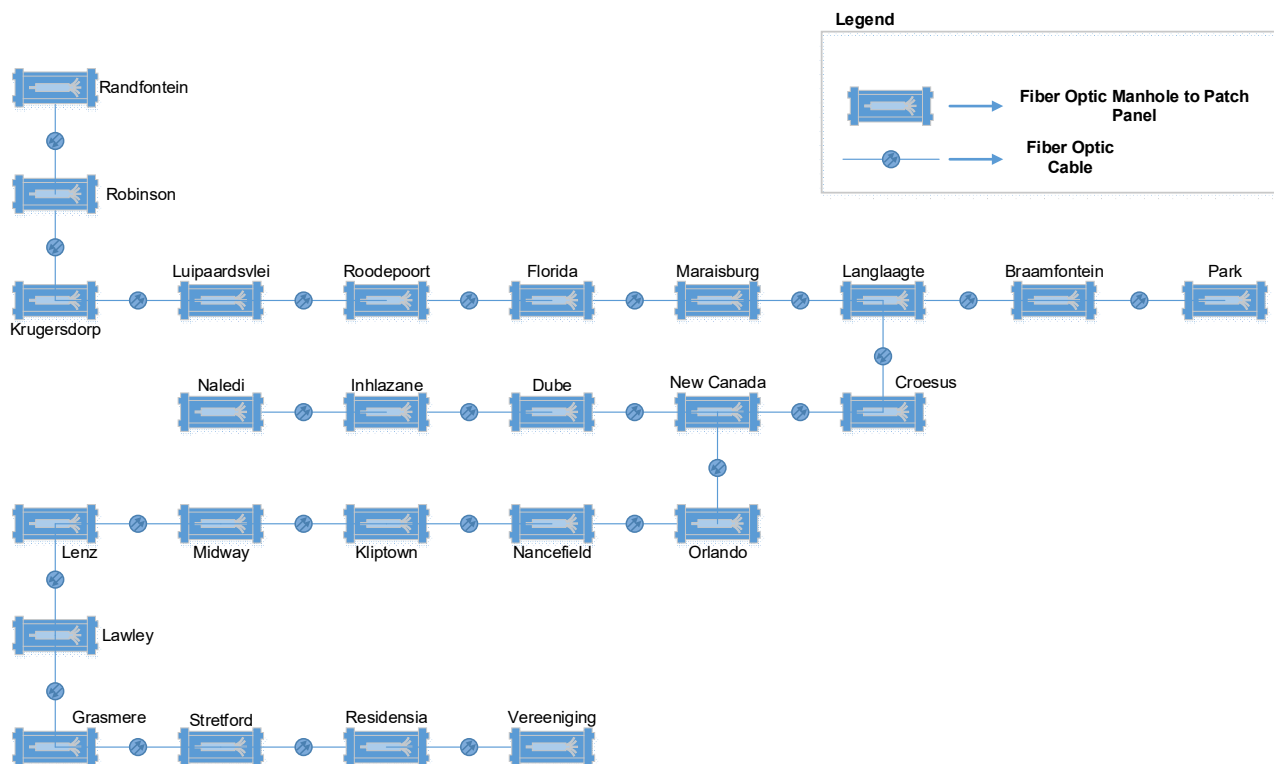


Figure 2.1: Concept Gauteng West SER Optical Transmission Network Layout

2.2 Park SER – Langlaagte SER

- 2.2.1 Install new OFC between Park SER and Langlaagte SER according to the requirements in the RFP.
- 2.2.2 Terminate the new OFC to the following sites according to the standards described in the RFP:
- a) Park SER.
 - b) Park GSM-R.
 - c) Braamfontein SER.
 - d) Braamfontein Ticket Office.
 - a) Mayfair Sub-Station.
 - b) Mayfair Ticket Office.

- c) Langlaagte SER.
- d) Langlaagte GSM-R.
- e) Langlaagte Ticket Office.
- f) Langlaagte Sub-Station.

2.3 Langlaagte SER – Randfontein SER

- 2.3.1 Install new OFC between Langlaagte SER and Randfontein SER according to the requirements in the RFP.
- 2.3.2 Terminate the new OFC to the following sites according to the standards described in the RFP:
 - a) Langlaagte SER.
 - b) Industrial Sub-Station.
 - c) Westbury Ticket Office.
 - d) Newclare SER.
 - e) Newclare Ticket Office.
 - f) Bosmont Ticket Office.
 - g) Maraisburg SER.
 - h) Maraisburg GSM-R.
 - i) Maraisburg Ticket Office.
 - j) Maraisburg Sub-Station.
 - k) Unified Ticket Office.
 - l) Florida SER.
 - m) Florida GSM-R.
 - n) Florida Ticket Office.
 - o) Hamburg Ticket Office.
 - p) Roodepoort 6.6 kV Sub-Station.
 - q) Roodepoort SER.
 - r) Roodepoort GSM-R.
 - s) Roodepoort Ticket Office.
 - t) Roodepoort 3 kV Sub-Station.
 - u) Horison Ticket Office.
 - v) Princess Ticket Office.
 - w) Witpoortjie 3 kV Sub-Station.
 - x) Witpoortjie Ticket Office.

- y) Luipaardsvlei GSM-R.
- z) Luipaardsvlei Ticket Office.
- aa) Luipaardsvlei SER.
- bb) Krugersdorp 6.6 kV Sub-Station.
- cc) Krugersdorp 3 kV Sub-Station.
- dd) Krugersdorp GSM-R.
- ee) Krugersdorp Ticket Office.
- ff) Krugersdorp SER.
- gg) Westrand Ticket Office.
- hh) Milside GSM-R.
- ii) Robinson GSM-R.
- jj) Robinson SER.
- kk) Robinson Ticket Office.
- ll) Robinson Sub-Station.
- mm) Homelake Ticket Office.
- nn) Randfontein Ticket Office.
- oo) Randfontein Sub-Station.
- pp) Randfontein SER.

2.4 Langlaagte SER – New Canada SER

- 2.4.1 Install new OFC between New Canada SER and Croesus SER according to the requirements in the RFP.
- 2.4.2 Terminate the new OFC to the following sites according to the standards described in the RFP:
 - a) Langlaagte SER.
 - b) Croesus SER.
 - c) Croesus Ticket Office.
 - d) Longdale Ticket Office.
 - e) Wibsey Sub-Station.
 - f) New Canada Ticket Office.
 - g) New Canada SER.
 - h) New Canada GSM-R.
 - i) New Canada 6.6 kV Sub-Station.

2.5 New Canada SER – Vereeniging SER

- 2.5.1 Install new OFC between New Canada SER and Houtheuwel SER according to the requirements in the RFP.
- 2.5.2 Terminate the new OFC to the following sites according to the standards described in the RFP:
- a) Mamlankuzi Ticket Office.
 - b) Orlando SER.
 - c) Orlando GSM-R.
 - d) Orlando Ticket Office.
 - e) Orlando Sub-Station.
 - f) Nancefield 6.6 kV Sub-Station.
 - g) Nancefield SER.
 - h) Nancefield GSM-R.
 - i) Nancefield Ticket Office.
 - j) Nancefield 3 kV Sub-Station.
 - k) Kliptown SER.
 - l) Kliptown Ticket Office.
 - m) Tshiawelo Ticket Office.
 - n) Midway Management Office.
 - o) Midway GSM-R.
 - p) Midway SER.
 - q) Midway Sub-Station.
 - r) Lenz SER.
 - s) Lenz Ticket Office.
 - t) Lawley GSM-R.
 - u) Lawley Ticket Office.
 - v) Lawley SER.
 - w) Angelers Sub-Station.
 - x) Midannadale Ticket Office.
 - y) Grasmere Ticket Office.
 - z) Grasmere GSM-R.
 - aa) Grasmere SER.
 - bb) Stretford GSM-R.

- cc) Stretford SER.
- dd) Stretford Ticket Office.
- ee) Stretford Sub-Station.
- ff) Residensia Ticket Office.
- gg) Residensia SER.
- hh) Residensia Sub-Station.
- ii) Residensia GSM-R.
- jj) Eatonside Ticket Office.
- kk) Houtheuwel Sub-Station.
- ll) Houtheuwel Ticket Office.
- mm) Houtheuwel SER.
- nn) Houtheuwel GSM-R.
- oo) Vereeniging Ticket Office.

2.6 New Canada SER – Naledi SER

- 2.6.1 Install new OFC between New Canada SER and Naledi SER according to the requirements in the RFP.
- 2.6.2 Terminate the new OFC to the following sites according to the standards described in the RFP:
 - a) New Canada SER.
 - b) Mzimhlophe Ticket Office.
 - c) Phomolong Ticket Office.
 - d) Phefeni Ticket Office.
 - e) Dube 6.6 kV Sub-Station.
 - f) Dube GSM-R.
 - g) Dube Ticket Office.
 - h) Dube SER.
 - i) Dube 3 kV Sub-Station.
 - j) Ikwezi GSM-R.
 - k) Ikwezi Ticket Office.
 - l) Inhlazane Ticket Office.
 - m) Inhlazane SER.
 - n) Inhlazane Sub-Station.
 - o) Merafe Ticket Office.



- p) Naledi 3 kV Sub-Station.
- q) Naledi GSM-R.
- r) Naledi Ticket Office.
- s) Naledi SER.
- t) Naledi 6.6 kV Sub-Station.