

Annexure 2:

Particular Technical Requirements

Contents

1	GENERAL	3
1.1	Purpose of the Document	3
1.2	Introduction	3
1.3	Executive Overview	3
1.4	Technical Requirements Overview	4

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 planning, design, supply, construction, installation, testing, commissioning and maintenance of a new fully integrated, functional, complete and future-proofed PRASA Train Control System ("PTCS") in PRASA's KwaZulu-Natal ("KZN") service region ("the Project") that the Bidder shall meet and deliver at the Bidder's cost therefore within the Bid Price.

1.2 Introduction

- 1.2.1 In conjunction with the contractual definitions and requirements of this Request for Proposal ("the RFP"), this document contains Conditions of Invitation and Instructions to Bidders to which the Bidder shall comply. The Bidder shall confirm unequivocal compliance with these Conditions of Invitation and Instructions to Bidders in the Statements of Compliance. PRASA Requirements, Conditions of Invitation and Instructions to Bidders are, at a minimum, comprised of the following sets of documents that shall be read in conjunction:
- a) The General Technical Requirements ("GTR"), which defines overarching requirements, needs, expectations and outputs of the Project which the Bidder shall meet and achieve.
 - b) The Particular Technical Requirements ("PTR"), which defines specific requirements, needs, expectations and outputs of the Project which the Bidder shall meet and achieve.
 - c) The Commercial and Financial Requirements ("CFR"), which defines specific requirements, needs, expectations and outputs of the Project which the Bidder shall meet and achieve.

1.3 Executive Overview

- 1.3.1 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.
- 1.3.2 The Works is, at a minimum, summarised as follows:
- a) Provision of a Train Control System ("ETCS Level 2") with an integrated Railway Signalling System ("RSS").
 - b) Resignalling of all specified railway lines according to the stated headways and flexibility.
 - c) Completion of all enabling and specified Telecommunication, Track, Electrical, Civil and other works.

- d) Establishment of a new Centralised Traffic Control Centre (“CTCC”) at Rossburgh.
- e) Classification and upgrading of all level crossings in accordance with the latest standards and specifications.
- f) Provision of all required solutions (to be approved by PRASA) and resources (to be approved by PRASA) to deliver and maintain the Works.
- g) Signalling all the yards access.
- h) Any other works, activities and resources required to achieve a fully integrated, functional, complete and future-proofed PTCS and meet any other requirements and specifications as requested throughout the RFP or as otherwise instructed in writing by PRASA.
- i) The PTRs shall be read in conjunction with the GTRs and it is the responsibility of the Bidder to ensure the final delivered solution complies with the requirements, specifications and Works stated throughout the RFP.

1.4 Technical Requirements Overview

1.4.1 The Technical Requirements are defined in the following documents, that should all be read in conjunction with each other:

- a) General Technical Requirements:
 - Annexure 1: GTR
 - Annexure 1.1: GTR Signalling
 - Annexure 1.2: GTR ETCS Level 2
 - Annexure 1.3: GTR CTCC
 - Annexure 1.4: GTR Telecommunication
 - Annexure 1.5: GTR Electrical
 - Annexure 1.6: GTR Civil & Track
 - Annexure 1.7: Main Technical References
 - Annexure 1.8: Glossary of Terms
 - Annexure 1.9: Returnable Documents
- b) Particular Technical Requirements:
 - Annexure 2: PTR
 - Annexure 2.1: PTR Rossburgh to Pinetown
 - Annexure 2.2: PTR KwaMashu to Temple
 - Annexure 2.3: PTR Avoca to Springfield
 - Annexure 2.4: PTR Clairwood to Crossmoor

- Annexure 2.5: PTR Reunion to Umlazi
- Annexure 2.6: PTR Isipingo to Kelso
- Annexure 2.7: PTR Congela to Durban