

## REQUEST FOR QUOTATION (RFQ)

**RFQ NUMBER: 10332620**

**REQUEST FOR QUOTATION (RFQ): CLEANING OF PRASA'S RAIL RESERVE WITHIN PRASA'S BOUNDARY ALONG THE CENTRAL LINE CORRIDOR IN THE WESTERN CAPE METRORAIL REGION**

**NB!!! Quotations submitted by email must be limited to a maximum of 7MB, virus-free. They must be free from any form of virus or corrupted contents, or the quotations shall be rejected.**

**It shall remain your responsibility to ensure that your quotation will reach the email address below on or before the deadline.**

**Email Address for Quotations: [RFQWC@prasa.com](mailto:RFQWC@prasa.com)**

**Quotations that are received by Metrorail after the deadline, for whatever reason, shall not be considered for evaluation. Bidders are only to send their proposal directly to the above mentioned email address, and no other email as this will result in your proposal to be disqualified**

**SECTION 1: SBD1**  
**PART A INVITATION TO BID**

<b>YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF PASSENGER RAIL AGENCY (PRASA)</b>					
BID NUMBER:	<b>10332620</b>	CLOSING DATE:	<b>18 AUGUST 2022</b>	CLOSING TIME:	<b>10:00am</b>
<b>DESCRIPTION</b>	<b>CLEANING OF PRASA's RAIL RESERVE WITHIN PRASA's BOUNDARY ALONG THE CENTRAL LINE CORRIDOR IN THE WESTERN CAPE METRORAIL REGION</b>				
<b>BID RESPONSE DOCUMENTS SHALL BE ADDRESSED AS FOLLOWS:</b>					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT ( <i>STREET ADDRESS</i> ): <b>1 ADDERLEY STREET</b> <b>METRORAIL SUPPLY CHAIN MANAGEMENT</b> <b>6<sup>TH</sup> FLOOR, ROOM 622B</b> <b>PROPNET BUILDING</b> <b>CAPE TOWN</b> <b>Or</b> <b>Emailed to: <a href="mailto:RFQWC@prasa.com">RFQWC@prasa.com</a> (Note: Buyer not to be copied in the email as this will result in a disqualification)</b>					
<b>BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO</b>					
CONTACT PERSON	<b>SABELO MDLULI</b>				
TELEPHONE NUMBER	<b>021 449 3858</b>				
E-MAIL ADDRESS	<b>Sabelo.mdluli@prasa.com</b>				
<b>SUPPLIER INFORMATION</b>					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		<b>OR</b>	CENTRAL SUPPLIER DATABASE No:	MAAA.....
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No			B-BBEE STATUS LEVEL SWORN AFFIDAVIT	[TICK APPLICABLE BOX] <input type="checkbox"/> Yes <input type="checkbox"/> No

**[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]**

2.1 ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES/WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No  [IF YES ENCLOSE PROOF]	2.2 ARE YOU A FOREIGN BASED SUPPLIER FOR <b>THE GOODS /SERVICES /WORKS OFFERED?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]
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**QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS**

IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?       YES       NO

DOES THE ENTITY HAVE A BRANCH IN THE RSA?       YES       NO

DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?       YES       NO

DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?       YES       NO

IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?       YES       NO

**IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 BELOW.**

**PART B: TERMS AND CONDITIONS FOR BIDDING**

**1. BID SUBMISSION:**

- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED--(NOT TO BE RE-TYPED) OR IN THE MANNER**
- 1.3. **PRESCRIBED IN THE BID DOCUMENT.**
- 1.4. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
- 1.5. **THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7)**

**2. TAX COMPLIANCE REQUIREMENTS**

- 2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
- 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER’S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
- 2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.6 WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
- 2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE.”

**NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID NVALID.**

SIGNATURE OF BIDDER: .....

CAPACITY UNDER WHICH THIS BID IS SIGNED: .....

(Proof of authority must be submitted e.g. company resolution)

DATE: .....

**NB:**

- ***Quotation(s) must be addressed to PRASA before the closing date and time shown above.***
- ***PRASA General Conditions of Purchase shall apply.***

## SECTION 2

### NOTICE TO BIDDERS

#### 1. RESPONSES TO RFQ

Responses to this RFQ [**Quotations**] must not include documents or reference relating to any other quotation or proposal. Any additional conditions must be embodied in an accompanying letter.

Proposals must reach the PRASA before the closing hour on the date shown on SBD1 above, and must be enclosed in a sealed envelope.

#### 2. PREQUALIFICATION / ELIGIBILITY CRITERIA

2.1 Only those Respondents who satisfy the following pre-qualification or eligibility criteria are eligible to submit quotations as per section 3.

#### 3 CIDB Grading

Only those Respondents who are registered with the CIDB, or are capable of being so prior to the submission of the quotation, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a ...**N/A**..... or higher class of construction works, are eligible to have their quotations evaluated.

Joint ventures are eligible to submit tenders provided that:

- every member of the joint venture is registered with the CIDB;
- the lead partner has a contractor grading designation in the 9CE class of construction work; and
- the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum quoted for a .... class of construction works or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations

#### 4 COMMUNICATION

Respondent/s are warned that a response will be liable for disqualification should any attempt be made either directly or indirectly to canvass any SCM Officer(s) or PRASA employee in respect of this RFQ between the closing date and the date of the award of the business.

#### 5 LEGAL COMPLIANCE

The successful Respondent shall be in full and complete compliance with any and all applicable national and local laws and regulations.

#### 6 CHANGES TO QUOTATIONS

Changes by the Respondent to its submission will not be considered after the closing date and time.

#### 7 PRICING

All prices must be quoted in South African Rand on a fixed price basis, including VAT.

## **8 BINDING OFFER**

Any Quotation furnished pursuant to this Request shall be deemed to be an offer. Any exceptions to this statement must be clearly and specifically indicated.

## **9 DISCLAIMERS**

PRASA is not committed to any course of action as a result of its issuance of this RFQ and/or its receipt of a Quotation in response to it. Please note that PRASA reserves the right to:

- Modify the RFQ's goods / service(s) and request Respondents to re-bid on any changes;
  - Reject any Quotation which does not conform to instructions and specifications which are detailed herein;
  - Disqualify Quotations submitted after the stated submission deadline;
  - Not necessarily accept the lowest priced Quotation or an alternative bid;
  - Bids lodged at the incorrect venue that reach the correct venue late will be regarded as late.
  - Reject all Quotations, if it so decides;
  - Place an order in connection with this Quotation at any time after the RFQ's closing date;
  - Make no award at all.
  - Award only a portion of the proposed goods / service/s which are reflected in the scope of this RFQ;
  - split the award of the order/s between more than one Supplier/Service Provider should it at PRASA's discretion be more advantageous in terms of, amongst others, cost or developmental consideration;
- or

Should a contract be awarded on the strength of information furnished by the Respondent, which after conclusion of the contract, is proved to have been incorrect, PRASA reserves the right to cancel the contract. PRASA reserves the right to award business to the highest scoring bidder/s unless objective criteria justify the award to another Respondent.

Should the preferred fail to sign or commence with the contract within a reasonable period after being requested to do so, PRASA reserves the right to award the business to the next highest ranked Respondent provided that he/she is still prepared to provide the required goods at the quoted price.

## **10 LEGAL REVIEW**

A Proposal submitted by a Respondent will be subjected to review and acceptance or rejection of its proposed contractual terms and conditions by PRASA's Legal Counsel, prior to consideration for an award of business.

## **11 NATIONAL TREASURY'S CENTRAL SUPPLIER DATABASE**

Respondents are required to self-register on National Treasury's Central Supplier Database (CSD) which has been established to centrally administer supplier information for all organs of state and facilitate the verification of certain key supplier information. PRASA is required to ensure that price quotations are invited and accepted from prospective bidders listed on the CSD. Business may not be awarded to a respondent who has failed to register on the CSD. Only foreign suppliers with no local registered entity need not register on the CSD. The CSD can be accessed at <https://secure.csd.gov.za/>.

## **12 PROTECTION OF PERSONAL DATA**

In responding to this bid, PRASA acknowledges that it may obtain and have access to personal data of the Respondents. PRASA agrees that it shall only process the information disclosed by Respondents in their response to this bid for the purpose of evaluating and subsequent award of business and in accordance with any applicable law.

Furthermore, PRASA will not otherwise modify, amend or alter any personal data submitted by Respondents or disclose or permit the disclosure of any personal data to any Third Party without the prior written consent from the Respondents. Similarly, PRASA requires Respondents to process any personal information disclosed by PRASA in the bidding process in the same manner.

## **13 EVALUATION METHODOLOGY**

PRASA will utilise the following criteria [not necessarily in this order] in choosing a Supplier/Service Provider, if so required:

## **14 ADMINISTRATIVE RESPONSIVENESS**

The test for administrative responsiveness will include completeness of response and whether all returnable and/or required documents, certificates; verify completeness of warranties and other bid requirements and formalities have been complied with. Incomplete Bids will be disqualified.

## **15 VALIDITY PERIOD**

15.1 PRASA requires a validity period of **60 Business Days** from the closing date.

15.1 Respondents are to note that they may be requested to extend the validity period of their response, on the same terms and conditions, if the internal processes are not finalized within the validity period. However, once the adjudication body has approved the process and award of the business to the successful respondent(s), the validity of the successful respondent(s)' response will be deemed to remain valid until a final contract has been concluded.

## **16. DISCLOSURE OF PRICES QUOTED**

Respondents are to note that, on award of business, PRASA is required to publish the prices and preferences claimed of the successful and unsuccessful Respondents *inter alia* on the National Treasury e-Tender Publication Portal, ([www.etenders.gov.za](http://www.etenders.gov.za)), on CIDB website for construction related RFQ's.

## **17. RETURNABLE DOCUMENTS**

**Returnable Documents** means all the documents, Sections and Annexures, as listed in the tables below. There are three types of returnable documents as indicated below and Respondents are urged to ensure that these documents are returned with the quotation based on the consequences of non-submission as indicated below:

## **18. Mandatory Returnable Documents**

Failure to provide all these Mandatory Returnable Documents at the Closing Date and time of this RFQ will result in a Respondent's disqualification. Respondents are therefore urged to ensure that all these Documents are returned with their Quotations.

### SECTION 3

#### 1 EVALUATION CRITERIA:

**Stage1 & Stage2:** Adherence to Prequalification requirements and Compliance checklist

**NB:** Compliance Checklist Requirements **for all Services/Goods and works**

**Only Respondents who satisfy the following Pre-Qualification Criteria will be considered for next stage of the evaluation:**

No.	Description of requirement	
a)	Minimum B-BBEE level [Delete if not applicable]	N/A
b)	Exempted Micro Enterprises (EMEs) <b>and/or</b> Qualifying Small [Delete if not applicable]	N/A
c)	Declaration document for local content and production SBD 6.2 [Delete if not applicable]	N/A
d)	Annexure C – Local Content Declaration – Summary Schedule	N/A

**If you do not submit the following mandatory documents your Proposal/Quote will be disqualified automatically:**

No.	Description of requirement	
a)	Price Schedule / Pricing form	
b)	Completion of ALL RFQ declarations	
c)	Joint Venture / Consortium agreement / Trust Deed (if applicable)	
d)	Proof of CIDB grading of 2GB or higher	N/A
e)	Attendance certificate of compulsory briefing session	

**The following documents are non-mandatory and where not submitted, Prasa may request the documents and must be made available at the time of request:**

No.	Description of requirement	
a)	Company Registration Documents	
b)	Copies of Directors' ID documents;	
c)	Valid BBBEE Certificate from a SANAS accredited rating agency (Original or Certified) or affidavit signed by the Commissioner of Oath	
d)	Valid Tax Clearance Certificate (must be valid on closing date of submission of the proposal) and SARS Issued Pin	
e)	CSD report / CSD reference number	
f)	Proof of UIF registration	
g)	Annexure D – Imported Content Declaration – Supporting Schedule to Annex C	N/A
h)	Annexure E – Local Content Declaration – Supporting Schedule to Annex C	N/A
i)	Proof of Bank Account (i.e. cancelled cheque or letter issued by the bank)	
j)	Valid and Original, or certified copy of Letter of Good Standing (COID)	

## 2.1 Stage 3

### Technical / Functionality Requirements (If applicable)

#### Scoring of Functionality:

The minimum threshold for Technical/functionality criteria is **70%** and bidders who score below this minimum will not be considered for further evaluation in terms of price and B-BBEE.

CRITERIA	WEIGHT	SCORES
N/A		

## 2.2 Stage4- Price and B-BBEE

Evaluation criteria	Weighting
BBBEE	20
Price	80
<b>TOTAL</b>	<b>100</b>

$$PS = 80 \left( 1 - \frac{Pt - Pmin}{Pmin} \right)$$

Where:

$P_s$  = Score for the Bid under consideration

$P_t$  = Price of Bid under consideration

$P_{min}$  = Price of lowest acceptable Bid

### Evaluation of Preference

Evaluation and final weighted scoring

- a) Broad-Based Black Economic Empowerment criteria [weighted score 20 points] Preference Points will be awarded to a bidder for attaining the B-BBEE status level contribution in accordance with the table indicated in Section 8 B-BBEE claim form.

**SECTION 4**

**PRICING AND DELIVERY SCHEDULE (PLACE PRICING AND BOQ IN SEPARATE ENVELOPE MARKED AS ENVELOPE TWO)**

Respondents are required to complete the attached Pricing Schedule **Annexure:** .....

- 1 Prices must be quoted in South African Rand, inclusive of VAT.
- 2 Price offer is firm and clearly indicate the basis thereof.
- 3 Pricing Bill of Quantity is completed in line with schedule if applicable.
- 4 Cost breakdown must be indicated.
- 5 Price escalation basis and formula must be indicated.
- 6 To facilitate like-for like comparison bidders must submit pricing strictly in accordance with this price schedule and not utilise a different format. Deviation from this pricing schedule could result in a bid being declared non-responsive.
- 7 Please note that should you have offered a discounted price(s), PRASA will only consider such price discount(s) in the final evaluation stage on an unconditional basis.
- 8 Respondents are to note that if price offered by the highest scoring bidder is not market related, PRASA may not award the contract to the Respondent. PRASA may:
  - 9 negotiate a market-related price with the Respondent scoring the highest points or cancel the RFQ;
  - 10 if that Respondent does not agree to a market-related price, negotiate a market-related price with the Respondent scoring the second highest points or cancel the RFQ;
  - 11 If a market-related price is not agreed with the Respondent scoring the third highest points, PRASA must cancel the RFQ.
  - 12 if the Respondent scoring the second highest points does not agree to a market-related price, negotiate a market-related price with the Respondent scoring the third highest points or cancel the RFQ.

I / We \_\_\_\_\_ (Insert Name of Bidding Entity) of

\_\_\_\_\_ code \_\_\_\_\_

(Full address) conducting business under the style or title of: \_\_\_\_\_

represented by: \_\_\_\_\_ in my capacity as: \_\_\_\_\_

being duly authorised, hereby offer to undertake and complete the above-mentioned work/services at the prices quoted in the bills of quantities/schedule of quantities or, where these do not form part of the contract, at a lumpsum, of

R \_\_\_\_\_ (amount in numbers);

\_\_\_\_\_ (amount in words) Incl. VAT.

**DELIVERY PERIOD:** Suppliers are requested to offer their earliest delivery period possible.

Delivery will be effected within ..... working days from date of order. (To be completed by Service provider)

**PASSENGER RAIL AGENCY OF SOUTH AFRICA**

**Trading as Metrorail**

**SPECIFIC DUTIES AND REQUIREMENTS**

**PR NUMBER: 10332620**

**Cleaning of PRASA,s rail Reserve within PRASA.s boundary along the Central line Corridor in the Western Cape region**

**C1.1 Form of Offer and Acceptance**

**Offer**

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of: **Cleaning of PRASA,s rail Reserve within PRASA.s boundary along the Central line Corridor in the Western Cape region**

The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be fully authorized, signing of this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the contractor under the contract including compliance with all of its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the contract data.

**THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS:**

**TERM CONTRACT – Maximum value of ONE MILLION RAND or SIX MONTHS whichever comes first (in words)**

**Maximum value of R1 000 000 .00 or 6 months whichever comes first (in figures)**

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature ..... Date .....

Name .....

Capacity .....

**For the tenderer**

(Name and .....

Address of

Organization) .....

.....  
Name and

Signature

Of witness ..... .....

**Acceptance**

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderers offer. In consideration thereof, the employer shall pay the contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer’s offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is subject to this agreement.

The terms and conditions of the contract are contained in:

- Part C1: Agreement and contract data, (which includes this agreement)
- Part C2: Pricing data
- Part C3: Scope of work
- Part C4: Site information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C4 above.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance are contained in the schedule of deviations to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer’s agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now contractor) within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature ..... Date .....

Name .....

Capacity .....

**for the Employer** Passenger Rail Agency of South Africa, trading as Metrorail

Room 622A  
 1 Adderley Street  
 Cape Town

Name and .....

Signature

Of witness ..... Date .....

**Schedule of Deviations**

- 1** Subject .....
- Details .....
- .....
- .....
  
- 2** Subject .....
- Details .....
- .....
- .....
  
- 3** Subject .....
- Details .....
- .....
- .....
  
- 4** Subject .....
- Details .....
- .....
- .....
  
- 5** Subject .....
- Details .....
- .....
- .....

By the duly authorized representatives signing this agreement, the employer and the tenderer agree to and accept the foregoing schedule of deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the employer during this process of offer agreed by the tenderer and the employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

## C1.2 Contract Data

### Part 1

The General Conditions of Contract, T287 Minor Works Contract, hereinafter referred to as "the T287", of the Passenger Rail Agency of South Africa is applicable to this contract a copy of which is included in part C1.3 of the Contract Data

The T287 makes several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The variations and additional clauses in the contract data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the T287.

#### **Discrepancy in documents**

In the event of any conflict between the Contract Data stated below and the T287, The Contract Data shall prevail

The Employer is the Passenger Rail Agency of South Africa (hereinafter referred to as Metrorail) trading as Metrorail.

#### **The address of the Employer is:**

Physical: The Regional Manager  
Metrorail  
Room 622A  
Propnet Building  
1 Adderley Street  
Cape Town  
Tel. Number: (021) 449 2925  
Fax Number: (021) 449 6300

Postal: P.O. Box 5446  
Cape Town  
8000

**The name of the Project Manager is:** [Miss EM Malatji](#)

#### **The address of the Project Manager is:**

Physical: [The Acting Regional Engineer](#)  
[Infrastructure \(Perway\)](#)  
[Metrorail](#)  
[Off Malta Road](#)  
[Salt River](#)  
Tel. Number: (021) 507 2138

Fax Number: [N/A](#)  
Postal: P.O. Box 5446  
Cape Town  
8000

Each item of data given below is cross referenced to the clause in the T287 to which it mainly applies.

## **THE VARIATIONS TO THE T287 ARE:**

1. "Schedule of work and prices" shall mean Bill of rates/quantities

### **2. Cession, Delegation or Assignment**

2.1 Neither party shall cede or delegate any right or obligation under this agreement nor enter into any sub-contract of whatever nature for the execution thereof or part thereof without prior written consent of the other.

2.2 Should the Contractor be desirous to cede and/or assign any right or obligation in terms of this agreement to a third party or enter into a sub-contract in respect of the execution hereof, the Contractor shall forthwith supply Metrorail with such information as may be requested and required by Metrorail to enable it to make a decision.

2.3 The Contractor shall during the term of this agreement not be allowed to proceed with any of the following matters before the prior written consent of the Metrorail Divisional Acquisition Council has been obtained:

2.3.1 any transfer of any amount of shares of the Contractor;

2.3.2 any change in the composition of the Contractor;

2.3.3 any change in the ownership of the Contractor; or

2.3.4 any material change in the constitution, memorandum, articles of association of similar document providing for the creation, formation or incorporation of the Contractor.

2.3.5 any change on the BEE component of the contractor

### **3. Sufficiency of Tender**

The Contractor shall be held to have satisfied himself before tendering as to the correctness and sufficiency of his tender and of the hourly rates and % markup stated in the bill of rates/quantities. These rates and % markup shall be sufficient and shall be deemed to cover all the Contractor's obligations under the contract and everything necessary for the proper completion and maintenance of all assigned Works.

### **4. Hours of Work**

For the purposes of this contract the following definitions shall apply:

- "Normal Working-hours" shall mean the period from 07:00 to 16:30 on normal weekdays.
- "After hours" shall mean the period from 0:00 to 07:00 and 16:30 to 0:00 on normal weekdays as well as the whole of Saturdays.
- "Paid Public Holidays" shall mean all official holidays recognized by the Republic of South Africa as well as any additional holidays declared by the President of the Republic. For the purposes of compiling hourly rates a Sunday will be included under the rate for Paid Public Holidays.

### **5. Material and Labour to be supplied by Prasa/Metrorail**

5.1 Metrorail will supply no material for the construction and completion of the works

- a. Protection of the Contractor's workmen is the sole responsibility of the contractor. Metrorail will provide induction training as well as training of the contractors flagmen free of charge. Metrorail

will only provide protection of **trains** in instances where the safe passage of the trains is affected by the contractor's activities, e.g. when the track is obstructed by heavy machinery on the track that cannot

- b. be easily removed by one person,

## **6. Penalties for Late Completion**

Should the Contractor fail to complete the work by the date as agreed per callout or within the period stipulated, he shall pay to Metrorail as penalties in terms of the Conventional Penalties Act of 1962 (as amended) the amount of **R300.00 (three Hundred Rand)** for each day or part thereof during which the Work remains incomplete. In addition the Client shall have the right to complete the work and to recover from the Contractor all the expenditure incurred in so doing.

### **THE VARIATION CLAUSES TO THE T287 ARE:**

## **7. Payment**

### **7.1 Payments**

The Contractor shall supply to Metrorail its banking details for all payments. Payments will be made by Electronic Funds Transfer to the supplied Contractor's bank details. Should the Contractor change its bank details, new bank details will be supplied to Metrorail and an allowance of 30 days will be allowed to load the new bank details into Metrorail's system.

### **7.2 Settlement of account**

The contractor shall, on or before the end of each month, submit to Metrorail tax invoices per individual work request, to be certified by both the contractor and the Client as correct, specifying the services rendered as per the site instruction and detailing the amount due and payable to the contractor. Value Added tax shall be shown separately on each invoice. Invoices shall be settled within 30 days from date of receipt of invoice.

**THE ADDITIONAL CLAUSES TO THE T287 ARE:**

**8. Description of the Work**

This contract covers: **Cleaning of PRASA,s rail Reserve within PRASA.s boundary along the Central line Corridor in the Western Cape region,** hereinafter also referred to as the “Works,” and any other work arising out of or incidental to the above, or required of the contractor for the proper completion of the Works in accordance with the true meaning and intent of the contract.

**9. Business Name**

The Passenger Rail Agency of South Africa (PRASA) will for the purpose of this contract be trading and hereinafter also be referred to as Metrorail who, through its authorized representatives, shall execute the contract on behalf of the Passenger Rail Agency of South Africa.

**10. Special Authority**

Transnet Limited has granted special authority to Metrorail for the use of any of its standard or standardized specifications and documents in tenders/contracts entered into between Metrorail and the Contractor.

**11. Contract Duration**

The Contract will run for a period of **6 months or when the value of R1 000 000.00 been depleted whichever comes first including VAT.** The contract period will be determined by adding the period specified above to the date that the tenderer received one completed original copy of the “Form of Offer and Acceptance” of the tender for the Works.

**12. Work Cycle**

**12.1 Issue of Work (Part B of BOQ – Adhoc and / or Part C – Emergency work)**

Work will be issued to the contractor by the Project Manager or the Technical Officer only. The contractor shall be required to submit a quote for the work before receiving an instruction to proceed. Such instruction shall be in the form of a site instruction delivered by hardcopy, fax or email.

**12.2 Prioritisation and Response Time**

All work issued will be prioritised by Metrorail as follows and will require the response time as stated:

<b>Priority</b>	<b>Definition</b>	<b>Response time</b>	<b>Work Complete</b>
Urgent	Work that could result in loss of income for Metrorail or could become a danger to commuters or the public if not attended to.	Within 12 hours	Within 24 hours
Work request	Adhoc work	As per agreement	As per agreement

**12.3 Sub-contracting of Work**

The contractor will only be permitted to sub-contract portions of the works with the prior written consent of the project manager. In all instances this shall be limited to specialized work for which the contractor does not have the required registration/s, capability and **know-how** in-house with which to undertake the works. Notwithstanding what is stated in clause 2 of the T287 the manager may elect to pre-approve certain specialist sub-contractors as listed in the Schedule of Sub-Contractors under Returnable Documents in order to speed up response times. The manager also reserves the right to withdraw such approval in which case prior written approval will again be required for the use of those sub-contractors.

#### **12.4 Completion and Sign-off of Work**

Upon completion of the work the site instruction must be signed off by the contractor and the Technical Officer after they both inspected the work. The signed off site instruction must clearly indicate the starting and completion times of the work, the material used and the work sub-contracted.

### **13. Site Diary**

A book (size A5 with two carbon copies) is to be supplied by the contractor **if requested by the Technical Officer** and is to be kept on site, and is to be used daily by the Contractor to record events such as the weather, labour at work, progress etc. This book shall also be used for communication between the Contractor and the Technical Officer.

The contractor shall also record the following additional in the Site Diary on a daily basis:

- (i) All labour engaged on the site for each working day.
- (ii) All plant engaged on the site for each working day.
- (iii) Progress of the Works in (%) percent.

### **14. Construction In Confined Areas**

It may be necessary for the Contractor to work within confined areas and no additional payment will be made for work done in restricted areas. The method of construction in these confined areas will depend largely on the contractor's construction plan. The tendered rates and amounts shall include full compensation for all special equipment and construction methods and for all difficulties encountered during working in confined areas and narrow widths, and at, around or through obstructions, and that no extra payment will be made nor will any claim for additional payment be considered in such cases. The contractor will be held responsible when working in confined areas for the repair, at his own cost, of damage caused by him to any asset or service indicated to him.

### **15. Indemnity**

15.1 The Contractor hereby indemnifies and holds harmless the Client against any loss, liability, damage, harm, which the Client may suffer and/or any claim which may be brought against the Client whether it be a claim by the Contractor, the Contractor's members, employees, agents, or representatives, or by any third party, or the estate of such person or entity; arising from or connected directly or indirectly to:

- 15.1.1 the Contractor's performance, non-performance or malperformance of any of the terms of this agreement (including without limitation the provision, performance, rendering or supply of the Services, and the breach of any warranty contained in this agreement, or the use or occupation of the Premises, and/or the Service Area, or the Contractor not having disclosed any fact or circumstance material to this agreement, or the Contractor not having the necessary authority or approvals to enter into this agreement); and/or
- 15.1.2 any act or omission of any or all of the Contractor's members, employees, agents, representatives, and/or suppliers;
- 15.1.3 any damage to, loss of, and/or destruction of property belonging to or in the possession of a commuter, harm, loss, theft, or destruction to property belonging to, in the possession of, and/or under the control of the Client;
- 15.1.4 any harm, injury or death suffered or sustained by a commuter, where such harm arises from, is connected to or is caused by an act or omission of the Contractor's employees, agents, representatives, or by an act of any third party where such act occurs near or within the proximity of any employee, agent, representative of the Contractor and such employee, agent, representative could or should have prevented same from occurring.

15.2 Such indemnity shall extend also to all expenditure, disbursements, and all legal costs on an Attorney and Own-Client basis which may be incurred by the Client as result of such loss, liability, damage or claim including without limitation the cost of opposing any action, motion, or prosecuting any appeal, and the cost of obtaining professional opinion relating to any aspect of same, as well as but not limited to any of the following:

- 15.2.1 any damage to the Client's property, whether movable or immovable;
- 15.2.2 loss, harm, or destruction of property belonging to the Client, whether movable or immovable;
- 15.2.3 liability in respect of any damage, loss, harm or destruction of property, whether moveable or immovable, belonging to commuters and/or third parties;
- 15.2.4 liability in respect of death, injury, unlawful/wrongful arrest, malicious prosecution, assault, defamation, unlawful search, illness or disease to commuters, the Client employees and/or third parties.

## 16. Insolvency

Should the Contractor commit any act of insolvency or being a natural person be sequestered or assign, surrender or attempt to assign or surrender his estate or being a partnership be dissolved, or be liquidated or placed under judicial management or be wound up (whether provisionally or finally), no payments due and payable from that date shall be made by the Client to the Contractor direct, but only to the liquidator, trustee or judicial manager as the case may be of the estate.

## 17. Confidentiality

17.1 The Contractor expressly undertakes to keep confidential and not to disclose to any person:

- 17.1.1 the details of this contract, the details of the negotiations leading to this contract, and the information handed over to such party during the course of negotiations, as well as the details of all the transactions or agreements contemplated in his contract; and
- 17.1.2 all information relating to the business or the operations and affairs of the parties (together "confidential information"); without the prior written consent of the Client, which consent may be withheld.

17.2 The Contractor agrees to keep all information confidential and to disclose it only to those officers, directors, employees, consultants and professional advisors in its employ who:

- 17.2.1 have a need to know (and then only to the extent that each such person has a need to know);
- 17.2.2 are aware that the confidential information should be kept confidential;
- 17.2.3 are aware of the disclosing party's undertaking in relation to such information in terms of this contract; and
- 17.2.4 have been directed by the disclosing party to keep the confidential information confidential.

17.3 The undertakings given by parties in relation to the maintenance and non-disclosure of confidential information in terms of this contract, do not extend to information that is required by the provisions of any law, statute or regulation or during any court proceedings and subject to the provisions of this contract, the party required to make the disclosure has taken all responsible steps to oppose or prevent the disclosure of and to limit, as far as reasonably possible, the extent of such disclosure and has consulted Metrorail prior to making such disclosure.

## 41. Construction Programme

The Contractor shall submit a detailed construction programme and will only be for cyclic work only, Emergency and Adhoc work only if **requested by the Technical Officer**. The programme shall indicate commencement and completion dates in the form of a bar chart, together with all information relative to the sequence of operations and methods of construction as may be required by the Technical Officer.

## **T287 GENERAL CONDITIONS OF CONTRACT (MINOR WORKS CONTRACTS)**

### **CLAUSE**

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## 1. DEFINITIONS

**Adjudicator** means any officer higher up in the Manager's hierarchy in the office of the **Executive manager, Infrastructure and Facilities** and appointed by PRASA to function as Adjudicator.

**Manager** means any person appointed by PRASA from time to time to supervise and take charge of the contract.

**Material** means any constructional substance or ingredient, which will form a permanent part of the Works.

**Normal Working-hours** means the hours of work as determined by a wage regulating measure or statutory enactment for any trade or activity, during which the basic minimum rate of pay is applicable and excludes all time for which a higher rate of pay is obligatory. Where no wage regulating measure is in force, the hours will be 07:00 to 17:00 Mondays to Fridays excluding a daily meal break.

**Site** means the land and any other place on, under, over, in or through which the Works are to be executed or carried out.

**Works** means the work to be performed in terms of the contract.

## 2. CONTRACT NOT TO BE CEDED OR ASSIGNED WITHOUT APPROVAL

The Contractor will not be allowed to cede or assign his rights and/or obligations under the contract or to sublet the contract work or any part thereof, without the consent of the Manager. Breach of this condition will entitle PRASA of cancel the contract forthwith.

## 3. EXECUTION OF WORK

The Contractor shall carry out the Works in a thorough and workmanlike manner and to the satisfaction of the Manager.

## 4. CONTRACTOR'S GENERAL OBLIGATIONS

The Contractor shall supply all necessary labour, tools, equipment and materials, except for such resources, which are to be supplied by PRASA in terms of any special contract conditions attached hereto.

## 5. INSPECTION OF SITE

The Contractor shall be held to have inspected the site and to have satisfied himself, before submitting his tender, as to the nature of the ground and subsurface, underground services, the form and nature of the site, the nature of the Works, the quantities and materials necessary for completion of the Works and the means of access to the site.

## 6. SUFFICIENCY OF TENDER

The Contractor shall be held to have satisfied himself before tendering as to the correctness and sufficiency of his tender and of the rates and prices stated in the schedule of quantities and prices. These rates and prices shall be sufficient and shall be deemed to cover all the Contractor's obligations under the contract and everything necessary for the proper completion and maintenance of the Works.

## 7. COMPLIANCE WITH STATUTES AND SAFETY RULES

7.1 The Contractor shall comply with all applicable legislation and PRASA safety requirements adopted from time to time and instructed by the Manager. Such compliance shall be entirely at his own cost, and shall be deemed to have been allowed for in the rates and prices in the contract.

7.2 The Contractor shall, in particular, comply with the following Acts: -

- (i) The Compensation for Occupational Injuries and Diseases Act, No. 130 of 1993; The Contractor shall produce proof of his registration and good standing with the Compensation Commissioner in terms of the Act.
  - (ii) The Occupational Health and Safety Act (Act 85 of 1993); The Contractor is, in terms of section 37(2) of Act 85 of 1993 deemed to be an employer in his own right with duties as prescribed in the said Act and agrees to ensure that all work will be performed or machinery and plant used in accordance with the provisions of the Act in respect of all persons in his employ, other persons on the premises or the site or place of the works or on the works to be executed by him and under his control in terms of the contract. The agreements in this contract and all documents attached or referred to, form an integral part of the arrangements and procedures mentioned in the aforementioned section.
  - (iii) The Explosive Act No. 26 of 1956 (as amended); The Contractor shall, when applicable, furnish the Manager with copies of the permits authorising him or his employee, to establish an explosives magazine on or near the site and to undertake blasting operations in compliance with the Act.( As discussed add other legislation appearing on general conditions of contract not mentioned here)
  - (iv) The Labour Relations Act, 1995 (Act No. 66 of 1995);
  - (v) The Basic Conditions of Employment Act, 1997 (Act No. 75 of 1997);
  - (vi) The Employment Equity Act, 1998 (Act No. 55 of 1998);
  - (vii) Value-added Tax Act, 1991 (Act. No. 89 of 1991);
  - (viii) Income Tax Act, 1962 (Act No. 58 of 1962);
  - (ix) National Railway Safety Regulator Act, 2002 (Act No. 16 of 2002); and
  - (x) Provincial Ordinances and Local Authority By-laws, and all relevant Regulations framed thereunder having an effect on his business or the operator provided in terms of this agreement.
  - (xi) Compliance with all applicable legislation shall be entirely at the Contractor's cost.
- 7.3 The Contractor shall comply with the current PRASA Specification E.4E, Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act, Act 85 of 1993 and Regulations and shall before commencement with the execution of the contract, which shall include site establishment and delivery of plant, equipment or materials, submit to the Manager. Documentary proof of his procedural compliance with the Act and particulars of the Health and Safety Programme to be implemented on the site in accordance with the Specification E.4E.
- 7.4 The Contractor's Health and Safety Programme shall be subject to agreement by the Manager, who may, in consultation with the Contractor, order supplementary and/or additional safety arrangements and/or different safe working methods to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act.
- The Contractor shall comply with the current Specification for Works On, Over, Under or Adjacent to Railway Lines and near High Voltage Equipment - E7/1, if applicable, and shall take particular care of the safety of his employees working on or in close proximity to a railway line during track occupations as well as under normal operational conditions. He shall also comply with all other safety rules, regulations and guidelines of PRASA applicable to the nature of Works carried out in terms of the contract, and shall obtain the particulars thereof from the Manager.
- 7.5 In addition to compliance with clause 7.2 hereof, the Contractor shall report all incidents in writing to the Manager. Any incident resulting in the death of or injury to any person on the Works shall be reported within 24 hours of its occurrence and any other incident shall be reported within 48 hours of its occurrence.

## **8. HOURS OF WORK**

The Contractor shall confine his work to normal working hours except when work outside these hours is permitted by the Manager at the Contractor's request or ordered by the Manager.

## **9. DELEGATION OF MANAGER'S POWERS**

The Manager may delegate in writing to any deputy or other person any of his powers or functions under the contract.

## **10. MATERIALS SUPPLIED BY PRASA**

Should any materials be supplied by PRASA, it will be conveyed to the nearest convenient station or siding, and shall thereafter be off-loaded and transported to the work site by the Contractor who will be held responsible there for until the satisfactory completion of the contract. All surplus materials shall be handed back to PRASA on completion of the Works and, if so required by the Manager, shall be transported by the Contractor to the nearest station or siding.

## **11. EQUIPMENT PROVIDED BY PRASA**

In the event of any equipment being provided by PRASA to facilitate the carrying out of this contract, the Contractor undertakes to return all such equipment to PRASA and, if required by the Manager, shall transport it to the nearest station or siding. The Contractor shall make good any loss of or damage to such equipment, whether or not caused by his negligence, except where the damage is due to ordinary wear and tear.

## **12. MAKING GOOD LOSS OF MATERIALS**

On completion or termination of the Works the Contractor shall be liable for the cost of making good any loss or deficiency in materials supplied by PRASA and not returned to PRASA or necessarily used on the Works.

## **13. CONTRACTOR'S SUPERVISION**

The Contractor shall exercise supervision over the Works at all times during hours of work, or shall be represented by an agent having full power and authority to act on his behalf.

## **14. ALTERATIONS, EXTRAS, ADDITIONS AND OMISSIONS**

The Manager may order alterations, extras, additions to or omissions from the Works. The Contractor shall carry out or give effect to such orders from the Manager. The rates for such work shall be agreed between the Contractor and the Manager and, where possible, rates quoted in the schedule of quantities shall form the basis, as far, as may be reasonable, of such agreement.

## **15. CARE OF THE WORKS**

The obligation to take care of and provide custody for the contract work and everything connected therewith shall rest solely with the Contractor who shall take all necessary precautions to prevent injury to persons or damage to property and to protect adjoining properties from trespass or damage during the progress of the Works.

## **16. BLASTING \***

~~Blasting in the vicinity of open lines shall be carried out in accordance with PRASA Specification for Works On, Over, Under or Adjacent to Railway lines and near High Voltage Equipment, E7/1 and will be permitted only during intervals between trains. A person appointed by PRASA will control blasting operations. Such person will be in telephonic communication with the nearest control station, and the Contractor shall carry out his instructions implicitly.~~

~~The Contractor shall have labour available to clear any stones or debris deposited on the track by blasting. Any damage to the track, overhead electrical equipment or other PRASA property caused by blasting will be repaired by PRASA at the Contractor's cost.~~

~~*\*Delete if not applicable.*~~

## **17. CONTRACTOR TO CLEAR SITE**

After expiry of the maintenance period and when all making good of defects has been completed the Contractor shall remove all remaining plant, equipment and material and leave the site in a clean, neat and tidy condition.

## **18. CONTRACTOR TO APPLY FOR ADDITIONAL TIME AND/OR ADDITIONAL EXPENSE**

If the Contractor suffers delay or incurs extra expense as a result of delay on the part of PRASA in supplying such materials as are to be provided by it, or for any other reasons, the Contractor may apply in writing to PRASA within fourteen days after such delay has ended for extra time and/or extra payment.

PRASA will, after investigation, grant such extension of time and/or authorise the payment of such sum as is reasonably adequate to cover the delay and/or compensate for the extra expense which, in its opinion, the Contractor has suffered or incurred directly as a result of any of the circumstances for which relief is sought, provided always that no payment will be authorised for any additional expense which does not arise from delays attributable to PRASA or from an increase in quantities in the schedule of quantities, or alterations, extras or additions ordered by PRASA.

## **19. CERTIFICATE OF COMPLETION AND REMOVAL OF PLANT AND EQUIPMENT**

When the Works have been completed to the satisfaction of the Manager and left in a clean, neat and tidy condition the Manager will give the Contractor a Certificate of Completion confirming that the Works have been completed and stating the date on which the maintenance period, referred to in clause 21, is to commence.

On receipt of the Certificate of Completion the Contractor shall remove from the site, all plant, equipment, material and temporary works not required for maintenance of the Works.

## **20. PENALTIES FOR LATE COMPLETION**

Should the Contractor fail to complete the work by the date or within the period stipulated, or by such extended date as may be allowed by PRASA in terms of clause 18, he shall pay to PRASA as penalties in terms of the Conventional Penalties Act of 1962 (as amended) for each day or part thereof during which the Work remains uncompleted, the amount stated in the Tender Enquiry/Contract Document.

Application for relief from the obligation to pay a penalty will be considered by PRASA, but shall be granted only if the Contractor can prove to the reasonable satisfaction of PRASA that the penalty is out of proportion to the prejudice suffered by PRASA by reason of the act or omission in respect of which the penalty was stipulated.

## **21. MAINTENANCE PERIOD**

The Contractor shall make good to the satisfaction of the Manager all defective material and workmanship which, in the opinion of the Manager, are not in accordance with the contract, and which may appear within a period of six months or such period stipulated in the Project Specification or drawings attached, after the date of completion as certified by the Manager.

## **22. RETENTION MONEY**

No Retention on this Tender is required

## **23. PAYMENT OF SALARIES AND WAGES**

Should the Contractor fail to pay the salary or wages of any person employed by him within 48 hours of the said salary or wages becoming due, the Manager may, in his discretion, and in addition to applying any other remedy which PRASA may have, pay such salary or wages to such person. In the event of any such payment being made by the Manager, PRASA may recover the same from the Contractor as hereinafter provided.

## **24. RECOVERY OF MONEY FROM CONTRACTOR**

Any and all money that may be payable to PRASA by the Contractor in terms of any clause of these conditions or any other condition incorporated in the contract, may be recovered from the Contractor by deduction or recovery –

- (i) from money, including retention money, due to or to become due to the Contractor under this or any other contract with PRASA or
- (ii) In any other manner decided upon by PRASA.

### **PAYMENT CERTIFICATES**

#### **24.1 Issue of certificate**

On or about the fifteenth day of each month either the Manager or the Contractor shall make a progress measurement or an estimate of the work done. Thereafter the Manager will issue a certificate authorising payment of such sum as he may consider represents the value of work completed.

#### **24.2 Authority for payment**

The Contractor shall be entitled to receive payment of the amount authorised in the said certificate subject to deduction of retention money in terms of clause 22. Any such payment, except the payment certified by the Manager as the "final payment", shall be regarded as an open payment and both the certificate and payment shall be subject to revision and adjustment by the Manager if at any time he is of the opinion that the certificate does not represent accurately the proportion or value of work completed having regard to the remaining portion of the Works still to be executed by the Contractor.

#### **24.3 Cheque Payments**

Except where expressly agreed to the contrary with PRASA, the Contractor requests and authorises PRASA to send any amount due to him by registered post to his known postal address or any other address requested in writing by the Contractor. The Contractor authorises the SA Post Office Limited to act as his representative and the risk that such payment does not reach him transfers to the Contractor after the posting thereof.

## **25. CONTRACT PRICE ADJUSTMENT**

The contract price will not be subject to cost escalation. All increases in cost from whatsoever cause shall be at the Contractor's risk and all decreases in cost shall be to his benefit.

## **26. TERMINATION OF CONTRACT**

Should the Contractor be grossly inefficient or negligent in the carrying out of the contract or should he fail to fulfil any term or condition of the contract, the Manager shall have the right to declare the contract cancelled and to invoke any safeguards in favour of PRASA in terms of the contract.

## **27. INSURANCE OF THE WORKS AND RELATED RISKS**

- 27.1 The Contractor shall take every precaution to protect the Works against damage of any kind and not to cause damage to property or injury to any person as a result of his execution of the Work.
- 27.2 Insurance of the Works and public liability insurance where considered necessary by the Manager, will be arranged by PRASA and at its costs.( Refer to the attached insurance Schedule).
- 27.3 The extent of cover, subject to the terms, conditions and exceptions of such insurance policy, shall be as follows: -
- (i) The Contract Works Section, Section I, if included, will provide cover against physical loss of or damage to the Works, temporary works and materials, plant and equipment to be incorporated into the Works up to the limits and subject to the exceptions stated in the Policy.(Refer to attached Insurance Schedule)
  - (ii) The Public Liability section, Section II, if included, will provide indemnity up to the limit stated in the Policy, against legal liability for accidental death of or injury to third party persons and accidental loss of or damage to third party property arising out of, or in connection with the carrying out of the contract. (Refer to the attached Insurance Schedule)
- 27.4 The Contractor shall, prior to submitting his tender, acquaint himself with the Policy included as to the scope of cover provided by it and shall observe all the conditions and requirements thereof.
- 27.5 In the event of any occurrence, which is likely, to give rise to a claim under the Policy the Contractor shall complete the necessary claims advice forms and submit all claims to the PRASA insurance brokers through the Manager. The Contractor shall be responsible for payment of all the amounts stated in the Policy as being the deductibles.
- 27.6 The Contractor shall, in his own interests, obtain insurance as indicated in the Insurance Schedule as attached.

## **28 RESOLUTION OF DISPUTES**

- 28.1 If a dispute of any kind whatsoever arises between the Manager and the Contractor in connection with any matter arising out of the contract the matter shall be referred in writing by the Contractor to the Adjudicator not later than 14 calendar days after the receipt by the Contractor of the decision of the Manager.
- 28.2 The Adjudicator shall within 21 calendar days of the date of referral of the matter to him decide the matter, and advise the Contractor and the Manager of his decision and of the facts and provisions of the Contract on which the decision is based.
- 28.3 The Adjudicator's decision shall be final and binding on the parties unless the Contractor has, within 14 calendar days of the date of the Adjudicator's decision, notified PRASA of his dissatisfaction with the Adjudicator's decision and of his election that the dispute be referred to arbitration. Any such reference shall be deemed to be a submission to the arbitration of a single arbitrator in terms of the Arbitration Act (Act 42 of 1965 as amended).  
The arbitration shall be conducted in accordance with the Rules for the Conduct of Arbitrations published by the Association of Arbitrators of South Africa.
- 28.4 The appointment of the arbitrator shall be made by agreement between the parties, after a written submission by either party to the other, of a shortlist containing the names of 3 suitably qualified persons.  
If the parties fail to agree within 14 calendar days of receipt of the request, either party may apply for the nomination of a suitably qualified person by the Chairperson for the time being of the Association of Arbitrators of South Africa or by the Vice Chairperson in the absence of the Chairperson.
- 28.5 The Arbitrator shall have unfettered discretion and jurisdiction to decide the dispute and the arbitration procedures to be followed, subject to the provisions of clause 29.3 hereof.

# INSURANCE SCHEDULE TO THE SMALL CONSTRUCTION CONTRACT: CONDITIONS OF CONTRACT

## 1. PRASA INSURANCE BROKERS:

Alexander Forbes

c/o Group Executive Manager: Risk and Legal  
Passenger Rail Agency of South Africa  
Umjantshi |House (Postal address:  
30 Woolmarans Street, Private Bag X101,  
BRAAMFONTEIN Braamfontein, 2017.)

Tel: 011 773 1600

Fax: 011 773 1622

## 2. INSURANCES ARRANGED BY PRASA

### 2.1 Contract Works Insurance:

In respect of loss or damage-

#### 2.1.1 Limit of indemnity

- Contract works - full value limited up to R 70 000 000.00 per contract.

#### 2.1.2 Deductibles

- |                     |                 |     |                  |             |
|---------------------|-----------------|-----|------------------|-------------|
| • Contracts up to   | R 2,500,000.00  | and | R 5,000.00       |             |
| • Contracts between | R 2,500,001.00  | and | R 5,000,000.00;  | R 10,000.00 |
| • Contracts between | R 5,000,001.00  | and | R 20,000,000.00; | R 15,000.00 |
| • Contracts between | R 20,000,000.00 | and | R 50,000,000.00; | R 20,000.00 |
| • Contracts between | R 50,000,001.00 | and | R 70,000,000.00; | R 30,000.00 |

### 2.2. Public Liability Insurance

2.2.1. Limit of indemnity – R 10 000 000.00

#### 2.2.2. Deductibles

In respect of Liability arising out of-

- |   |             |
|---|-------------|
| • Loss of or damage to public utilities   | R 10,000.00 |
| • Loss of or damage to any property       | R 5,000.00  |
| • Loss of or damage due to Spread of Fire | R 10,000.00 |

### 2.3. SASRIA Special Risk/ Riot Insurance: Arranged

**Note:** The above limits and deductibles are renewable annually. The new insurance policy is effective from 01/06/2022 to 31/05/2023.

### **3. INSURANCES TO BE ARRANGED BY CONTRACTORS**

#### **3.1 Insurance Effected by the Contractor**

The Contractor and Sub-contractor shall, where applicable, provide as a minimum the following:

- a) Insurance of Construction Plant and Equipment (including tools, offices and other temporary structures and contents) and other things (except those intended for incorporation into the Works) brought onto the site for a sum sufficient to provide for their replacement.
- b) Insurance in terms of the provisions of the Workmen's Compensation Act No. 30 of 1941 as amended.
- c) Employer's Common Law Liability Insurance
- d) Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger Liability indemnity with a limit of indemnity of not less than the amount specified in the Schedule hereto.
- e) Where the Contract involves manufacturing and/or fabrication of the Works or parts thereof at premises other than at the Contract Site the PRASA shall be entitled to require the Contractor to satisfy the PRASA that adequate Professional Indemnity Insurance in respect of liability arising from any act, omission or neglect in such design work has been arranged.

- 3.2 a) The insurances to be provided by the Contractor and his Sub-contractor shall be effected with Insurers and on terms approved by the PRASA (which approval shall not be unreasonably withheld) and shall be maintained in force for the duration required (including any period of maintenance). The Contractor shall within fourteen (14) days of commencement of the contract produce to the PRASA the relevant Policy of Policies of Insurance.
- b) If the Contractor fails to effect and keep in force the insurances referred to then the PRASA may effect and keep in force any such insurances and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount paid by the PRASA from any monies due or which may become due to the Contractor or recover same as a debt from the Contractor.

#### **3.3 Sub-contractors**

The Contractor shall:

- a) ensure that all potential and appointed Sub-contractors are aware of the whole contents of this clause, and
- b) enforce the compliance by Sub-contractors with this clause where applicable.

In addition to the Insurance policies required in clause 28 where the value of the contract works exceeds R70,000,000.00, contractors are required to insure the contract works for the difference between the value of the contract works and R 70,000,000.00.

**C3.1 DESCRIPTION OF THE WORKS**

**C3.1.1 Overview and extent of the works:**

This contract covers the cleaning of the Prasa rail reserve within Metrorail Western Cape Region along and between the railway lines including the stations within the train operational area of Cape Metrorail and any other work arising out of, or incidental to the above, or required from the Contractor for the proper completion of the Works in accordance with the true meaning and intent of the contract documents.

**C3.1.2 Location of the works**

The location and extent of the site of the Works is between the property boundaries of the Passenger Railroad Agency in Cape Metrorail Region. Sections that will be covered are as follows:

- Maitland to Ndabeni
- Ndabeni to Pinelands
- Pinelands to Langa
- Langa to Bonteheuwel
- Bonteheuwel to Netreg
- Netreg to Heideveld
- Heideveld to Nyanga
- Nyanga to Phillippi
- Bonteheuwel to Lavistown
- Nolungile to Nonkgubela
- Nonkubela to Khayelistha
- Lavistown to Belhar
- Belhar to Unibell

**C3.1.3 Completion of Work / Programme**

The work is required to be completed in one stages/cycles, ad-hoc and also some small emergency areas as follows:

- The sections to be cleaned per stage (cycle) are set out in the Schedule of Quantities and Prices as Part A
- Part B is an adhoc for the section that still required cleaning after the cycle been completed.
- Part C is Day labour rates which will be used for all the small emergency areas that can be done in few hours,
- The contract duration shall be a total 6 months from the date of notification of acceptance of tender or when the contract value is depleted whichever comes first.

No work shall be permitted during the builders' holidays during the period 16 December 2022 to 10 January 2023 (both dates inclusive).

**C3.1.4 Penalties for late Completion**

The Contractor together with Technical Officer will be agreed of the days that will be taken to complete the work. The Technical Officer will write a callout and in the call out date to complete callout will be stipulated. Should the contractor fail to complete the Works by the date stipulated in in the callout he shall pay an amount of R300 per day to Metrorail as penalties in terms of the Conventional penalties Act, 19962 as amended, the following amounts for each day or part thereof during which the Works or any stage thereof remains incomplete.

## **C3.2 ENGINEERING**

VOID

## **C3.3 PROCUREMENT**

### **C3.3.1 Preferential procurement procedure**

Procurement Works contract shall be done in accordance with Metrorail Policies and procedures

### **C3.3.2 Subcontracting**

VOID

## **C3.4 CONSTRUCTION**

### **C3.4.1 Applicable SANS 2001 Standards**

None

### **C3.4.2 Applicable national and international standards**

None

### **C3.4.3 Applicable Particular & Generic specifications for this contract:**

- Particular Specification: (also referred to as "Project Specification) : Cleaning of PRASA's rail Reserve within PRASA's boundary along the Central line Corridor in the Western Cape region
- E7/1: Specification for works on, over, under or adjacent to Railway lines and near High Voltage equipment. (Also referred to as the SPK7/1 specification.)
- E.4E Transnet (Jan 2004 - As adapted for PRASA): Safety arrangements and procedural compliance with the Occupational Health and Safety Act (Act 85 of 1993) and applicable Regulations. (Also referred to as the E4E specification.)

#### **C.3.4.3.1 Discrepancy between Specifications**

In the event of any discrepancy between the Particular specification and the Generic specifications the Particular specification shall prevail.

#### **C3.4.4 Plant and materials supplied by the Employer**

No material and plant will be supplied by Metrorail.

#### **C3.4.5 Plant and Material supplied by Contractor**

Except where otherwise specified, the Contractor shall provide all necessary labour, material, transport, plant equipments, consumables, tools and services of every description required to carry out to complete the works included in this contract and any other works arising from it. All materials and labour performed shall be subject to the approval of the Technical Officer, and shall be used in accordance with the manufacture's specifications.

### **C3.4.6 Site establishment**

#### **C3.4.6.1 Services and facilities provided by Metrorail**

No service or facilities will be provided by Metrorail

#### **C3.4.6.2 Services and facilities provided by the Contractor**

- Site storage / Camp sites

No site storage / camp sites will be available

- Housing of employees

No housing of employees of the contractor will be allowed on the property of PRASA and the contractor shall make his own arrangements for the housing of his employees.

- Contractor's agent and communication

The contractor or his duly authorised agent shall at all times be in possession of a cellular phone, in working condition, so as to enable the

Technical Officer to communicate with the contractor at all times during the duration of the contract.

- Security

The contractor shall provide his own security for the protection of his workmen and assets.

- Tidiness of site

The contractor shall continuously clear and dispose of rubbish, debris, waste and surplus materials to maintain the site in a tidy state.

### **3.4.7 Occupations and Work Permits**

No occupations and work permits will be granted and the contractor shall plan and execute the Work in such a manner that the safe passage of trains will not be affected. Clearances as set out in the E7/1 specification shall at all times be adhered to.

### **3.4.8 Safety clothing**

The Contractor shall supply all relevant safety clothing to all supervision and labour. The Contractor shall also supply reflective vests to all supervision and labour so that they are more visible to train drivers. No separate payment will be made for safety clothing, as the contractor shall allow for this in his rates tendered for the Works.

### **3.4.9 Security Arrangements**

The Contractor shall be responsible for arranging security for him and his personnel as well as equipment, tools and materials or any other safety precautions necessary for the execution and completion of the work. No separate payment shall be made for the above-mentioned services, and the Contractor shall allow for it in his rates tendered for the Works.

**C3.5.1 Management of the Works****C3.5.1.1 RAILWAY AUTHORITY**

- **Railway Owner:** The Passenger Railroad Agency of South Africa (PRASA) is the Railway Owner.
- **Railway Operator:** Metrorail is the Railway Operator of the Passenger Railroad Agency of South Africa
- **General:** All conditions and instructions set out in the Specifications and Agreement included in this contract governing work performed by the Contractor on the Property of the PRASA shall also be applicable with regard to all other assets and/or equipment of the PRASA maintained and operated by Metrorail.

**C3.5.1.2 Project Manager and Technical Officer**

The Project Manager for this contract will be the Regional Engineer, Perway Maintenance, Infrastructure, Metrorail Western Cape. The Technical Officer will be appointed by the Project Manager to administer the performance and the execution of the Works according to the powers and rights held by and obligations placed upon him in terms of the Contract.

**C3.5.1.3 Schedule of Quantities**

The quantities in the Schedule of Quantities and Prices, are estimated and may be more or less than stated and realistic rates should therefore be inserted against every item, as no adjustment of rates will be allowed in the event of any increase or decrease of the quantities in the Schedule of Work and Prices.

Tenderers shall submit with their tender the completed and detailed priced schedule (prepared in black ink) for the Works. All work covered by the schedule shall be measured and paid for according the completed schedule.

**C3.5.1.4 Programme of Works**

No Programme is required

**C3.5.1.5 Hours of Work**

Normal working hours shall mean the period from 07h00 to 16h30 on normal weekdays

**C3.5.1.6 Co-operation with Metrorail staff**

The contractor shall co-operate with Metrorail's and other workmen on site, to their mutual benefit. All necessary co-operations will be afforded the contractor to enable the speedy completion of his work. However, should any dispute regarding the sequence or priority of the work arise, the decision of the Manager in this matter shall be regarded as final.

#### **C3.5.1.7** Site meetings

The Technical Officer will arrange site liaison meetings as necessary. The contractor or his duly authorised representative shall be available when called upon to attend site meetings with the Technical Officer or his representative.

#### **C3.5.1.8** Site Instructions and Site Diary

All instructions to the Contractor shall be in writing and shall be deemed to have been received if left with the Contractor or his agent at the Works or at the business premises of the Contractor or at his office on the site. The Contractor shall supply and have available on the site at all times two triplicate carbon copy books. In one book, site instructions shall be recorded. The other book shall be used by the Contractor as a diary for recording day by day the state of the weather, the work done each day, labour and plant on the site of the Works and full details of any circumstance which may affect the progress of the Works. The original sheet of each set of 3 pages will be removed from both books and retained by the Technical Officer. The Contractor may remove the second sheet but the third sheet shall be retained on the site until completion of the Works.

#### **C3.5.1.9** Communication Facilities

The Contractor and his site agent/ supervisor must at all times be contactable via mobile cellular phone for the duration of the contract. The contractor shall allow for the provision and of this service in his rates tendered for the Works.

### **C3.5.2 Health and Safety**

#### **C3.5.2.1** Health and Safety specifications

Most of the activities pertaining to the Works will be executed on, over, under or adjacent to Railway lines and near High Voltage equipment.

Trains will be operated on the railway lines while work is in progress. The contractor shall at all times perform the work in such a manner that the tracks are safe for the passage of trains.

The contractor shall at all times be responsible for the safety of his personnel on the site of the works while paying special attention to the danger of them being struck by passing trains.

The following generic (Standard) PRASA specifications are applicable to this contract:

- E7/1: Specification for works on, over, under or adjacent to Railway lines and near High Voltage equipment. (Also referred to as the SPK7/1 specification)
- E.4E Transnet (Jan 2004 - As adapted for PRASA): Safety Arrangements and procedural compliance with the Occupational Health and Safety Act (Act 85 of 1993) and applicable Regulations. (Also referred to as the E4E specification)

#### **C3.5.2.2** Site Access Certificate

Refer Annexure 4 of the E4E specification. A Site Access Certificate will not be issued unless the contractor's Health and Safety Programme has been approved by the Technical Officer.

### **C3.5.2.3** Safety Committee Meetings

When required by the Technical Officer, the Contractor's Safety Representative shall attend the Manager's Safety Committee meetings.

### **C3.5.2.4** Training of the Contractor's Staff

Refer clause 5.2 of the SPK7/1 Specification: Training of the Contractor's flagmen will be done free of charge by Metrorail.

**Note:**

The number of flagmen will depend on the size of the teams and will be determined by the Technical Officer.

### **C3.5.2.5** Non-compliance to contractual safety conditions

Metrorail reserves the right to stop the Works and report the Contractor to the

Department of Labour should the Contractor fail to adhere to any of the contractual safety conditions. No extension of time claim or relief of penalties requests arising from the Works being stopped due to the Contractor's failure to comply with contractual safety conditions will be entertained.

## **C3.6 ANNEXES**

### **C3.6.1 Particular Specifications:** (Also referred to as "Project Specifications")

- Cleaning of PRASA's rail Reserve within PRASA's boundary along the Central line Corridor in the Western Cape region

### **C3.6.2 Generic Specifications:** (also referred to as "Standard Specifications")

- E7/1: Specification for works on, over, under or adjacent to Railway lines and near High Voltage equipment. (Also referred to as the SPK7/1 specification.)
- E.4E Transnet (Jan 2004 - As adapted for PRASA): Safety arrangements and procedural compliance with the Occupational Health and Safety Act (Act 85 of 1993) and applicable Regulations. (Also referred to as the E4E specification.)

**PARTICULAR (PROJECT) SPECIFICATIONS**

**PASSENGER RAIL AGENCY OF SOUTH AFRICA LIMITED**

**CLEANING OF PRASA's RAIL RESERVE WITHIN PRASA's BOUNDARY ALONG THE CENTRAL LINE  
CORRIDOR IN THE WESTERN CAPE METRORAIL REGION**

**CLEANING OF PRASA's RAIL RESERVE WITHIN PRASA's BOUNDARY ALONG THE CENTRAL LINE  
CORRIDOR IN THE WESTERN CAPE METRORAIL REGION  
PROJECT SPECIFICATION**

**1. DESCRIPTION OF THE WORKS**

The sections of rail reserve to be cleaned are set out in the Schedule of Quantities and Prices. The Contractor shall clear the site from all types of refuse, litter and waste e.g. tins, rags, paper, and plastic bags, including garden and kitchen refuse whether windblown or dumped on the site by third parties.

The Contractor shall gather all the above mentioned litter in refuse bags ("black bags"), load it onto road trucks and transport it by road for dumping at an approved municipal dumping site.

The removal of dumped builders type rubble e.g. bricks, stones and concrete/cement blocks as well as human excrement is not included in the scope of the Works.

The sections of rail reserve shall be cleaned between the fence/boundary lines of the PRASA including the areas between the railway lines unless otherwise instructed by the Technical Officer or the Technical Officer's Deputy. The start and end of each section of track reserve between stations will be determined by the ends of the station platforms at the stations.

**2. PROGRAMME AND PROCEDURAL REQUIREMENTS**

Once the Contractor has been awarded, he/she will only work when been called and issued the instructions by a Technical Officer. The contractor will visit the site first together with the Technical Officer and deciding how long will the job take place, depending on the nature of the work, once that been decided the estimated time to complete the job will be stipulated and recorded on the minutes of the site meeting.

**3. TO BE SUPPLIED BY THE CONTRACTOR**

**Refer clause 4 of the T287, General Conditions of Contract.** Litter/refuse bags and vehicular road transport of the litter/refuse to dumping sites are also to be provided by the Contractor.

The Contractor shall obtain "dumping permits/tickets" from the dumping site as proof of the dumping of the litter/refuse on an approved dumping site and submit signed copies of such to the Technical Officer when called upon to do so.

The Contractor shall make allowance for the above mentioned in his rates tendered for the Works.

**4. CLEANING: STANDARDS AND QUALITY CONTROL**

The contractor shall clean the track reserve from all litter/rubble as described in clause 1 above. The Technical Officer will carry out regular inspections of the Works to assess the effectiveness of the cleaning work in progress.

The Contractor shall notify the Technical Officer in writing after he has completed the cleaning of a section of track reserve. The Technical Officer shall inspect the cleaned section of track reserve within two days after receipt of this notice. The Technical Officer Deputy will reject any areas or sections, which has not been properly cleaned. The responsibility shall rest upon the Contractor to clean the rejected areas or sections in his own time before payment will be made for the cleaning of the particular section. The Technical Officer will issue a

Certificate of completion for each section that has been accepted as "cleaned".

## **5. STACKING OF FILLED REFUSE BAGS**

No filled refuse bags may be left overnight on the property of the PRASA. All filled refuse bags shall be loaded and transported to a legal dumpsite on the same day that it was filled. No refuse bags shall be stacked close to any signal cables/equipment whilst awaiting transport. The Contractor will be held responsible for the repairs and/or the costs incurred in effecting such repairs to any damages to the property of the PRASA and/ or any train- delays or cancellations caused by non-compliance to this specification.

## **6. RESTRICTIONS**

The Contractor shall not be allowed to carried out work on more than 2 (two) sites simultaneously at any specific time.

## **7. MEASUREMENT AND PAYMENT**

All work completed as per issued certificates of completion shall be measured and paid for as per the Schedule of Quantities and Prices.

- **Track Reserve:**

Payment will be made per hector of Track Reserve and/or station cleaned.

- **Additional Work:**

See clause 14 of the T287 General Conditions of Contract

The contractor in his rates shall also include cost of equipment and material used (e.g. refuse bags), traveling, dumping at a legal sites and also his day labour rates.

**Part C2- PRICING DATA**

**C2.1 - Pricing Instructions**

**C2.1.1 Bill / Schedule of Quantities**

- i) The quantities in the Schedule of Work and Prices are estimated (provisional) and may be more or less than stated. The contractor shall submit with his tender a complete and detailed priced schedule (**prepared in black ink**) for the Works. All work covered by the schedule including work resulting from modifications or alterations to drawings shall be measured and paid for according to the completed schedule.
- ii) The absence of stated quantities in the schedule is no guarantee that none will be required. Reasonable and sufficient rates and/or prices shall therefore be inserted to every item, as such prices will be considered when awarding the contract
- iii) In the event that a tenderer leaves any item/s blank which are materially important for the award of the contract/business or fails to tender in an amount expressed or calculable in Rands and cents (e.g. total amount, unit price, hourly rate), Metrorail reserves the right to disqualify such a tender.
- iv) Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted with the project manager's written approval.

**C2.1.2 Schedule of Quantities and Prices**

**C2.1.2.1 Measurement and Payment**

- C2.1.2.1.1** Measurement will only be made in terms of items listed in the Schedule of Quantities and Prices and payment will be done after invoices have been certified by the Manager or Technical Officer.
- C2.1.2.1.2** Payment will be made within 30 days of invoice approval. Only fully completed sections will be measured/considered for payment

**SCHEDULE OF QUANTITIES AND PRICES: CLEANING OF PRASA's RAIL RESERVE WITHIN PRASA's BOUNDARY ALONG THE CENTRAL LINE CORRIDOR IN THE WESTERN CAPE METRORAIL REGION**

<b>SCHEDULE OF QUANTITIES AND PRICES</b>					
<b>ITEM</b>	<b>SECTION TO BE CLEANED</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>RATE (R )</b>	<b>AMOUNT (R )</b>
	<b>PART A: TRACK RESERVE (cyclic)</b>				
A.1	Maitland to Ndabeni	ha	5.77		
A.2	Ndabeni to Pinelands	ha	4.75		
A.3	Pinelands to Langa	ha	4.38		
A.4	Langa to Bonteheuwel	ha	4.16		
A.5	Bonteheuwel to Netreg	ha	10.63		
A.6	Netreg to Heideveld	ha	15.73		
A.7	Heideveld to Nyanga	ha	8.77		
A.8	Nyanga to Phillippi	ha	14.07		
A.9	Bonteheuwel to Lavistown	ha	12.02		
A.10	Nolungile to Nonkgubela	ha	4.59		
A.11	Nonkubela to Khayelista	ha	2.30		
A.12	Lavistown to Belhar	ha	12.55		
A.13	Belhar to Unibell	ha	8.49		
	<b>Sub-Total</b>				
	<b>PART B: EMERGENCY CALLOUT (Adhoc)</b>				
B.1	Nyanga to Phillippi	ha	5		
B.2	Langa to Bonteheuwel	ha	4.16		
B.3	Nolungile to Nonkgubela	ha	2.00		
B.4	Bonteheuwel to Netreg	ha	10.63		
	<b>Sub-Total</b>				
	<b>PART C: DAY LABOUR (Emergency/small works)</b>				
C.1	Fore-man/supervisor	hour	250		
C.2	General Workers	Hour	500		
C.3	Flagmen	hour	250		
	<b>Sub-Total</b>				
	<b>Total Amount (Excl. V.A.T)</b>				
	<b>Amount of V.A.T (15%)</b>				
	<b>Total Amount (Incl. V.A.T)</b>				

SUMMARY OF BoQ		
Part	Description	Rand
A	TRACK RESERVE (cyclic)	
B	EMERGENCY CALLOUT (Adhoc)	
C	DAY LABOUR (Emergency/small works)	
Total amount (Excl V.A.T.)		
Amount of V.A.T. (15%)		
Total Tendered Amount (incl. V.A.T.)		

**Tenderer:** \_\_\_\_\_ **Witness:** (1) \_\_\_\_\_

(2) \_\_\_\_\_

**Date:** \_\_\_\_\_

**Part C4 - SITE INFORMATION**

**C4.1 LOCATION AND ACCESS TO THE SITE OF THE WORKS**

Access to the site of the Works is by public roads joining up with the service/mechanisation roads of PRASA along the railway line. The Contractor shall not make use of private roads to gain access to the service/mechanisation roads unless he can produce documentary proof of consent from the owner of such road and indemnifies PRASA against any claims that may arise from the use of such private roads.

Vehicle access to certain sections is restricted. The Contractor shall make his own arrangements with regard to access to the sites and shall allow for this in his rates tendered for the Works.

Attached drawing no. CMR-A.100-1-A.3 provides a rough indication of available service/mechanisation roads.



## **ANNEXURE P**

### **SPECIFICATION E4E PRASA (2004)**

#### **PASSENGER RAIL AGENCY OF SOUTH AFRICA**

#### **SAFETY ARRANGEMENTS AND PROCEDURAL COMPLIANCE**

#### **WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 OF 1993) AND APPLICABLE REGULATIONS**

### **1. General**

- 1.1 The Contractor and PRASA are individual employers, each in its own right, with their respective duties and obligations set out in the Occupational Health and Safety Act, Act 85 of 1993 (the Act) and applicable Regulations.
- 1.2 The Contractor accepts, in terms of the General Conditions of Contract and in terms of the Act, his obligations as an employer in respect of all persons in his employ, other persons on the premises or the Site or place of work or on the work to be executed by him, and under his control. He shall, before commencement with the execution of the contract work, comply with the provisions set out in the Act, and shall implement and maintain a Health and Safety Plan as described in the Construction Regulations, 2003 and as approved by PRASA, on the Site and place of work for the duration of the Contract.
- 1.3 The Contractor accepts his obligation to complying fully with the Act and applicable Regulations notwithstanding the omission of some of the provisions of the Act and the Regulations from this document.
- 1.4 PRASA accepts, in terms of the Act, its obligations as an employer of its own employees working on or associated with the site or place of work, and the Contractor and Technical Officer or his deputy shall at all times, co-operate in respect of the health and safety management of the site, and shall agree on the practical arrangements and procedures to be implemented and maintained during execution of the Services.
- 1.5 In the event of any discrepancies between any legislation and this specification, the applicable legislation will take precedence.

### **2. Definitions**

- 2.1 In this Specification any word or expression to which a meaning has been assigned in the Construction Regulations, shall have the meaning so assigned to it, unless the context otherwise indicates: -
- 2.2 The work included in this Contract shall for the purposes of compliance with the Act be deemed to be

**"Construction Work"**, which, in terms of the Construction Regulations, 2003 means any work in connection with: -

- (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
- (b) the installation, erection, dismantling or maintenance of fixed plant where such work includes the risk of a person falling;
- (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
- (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;

2.3 **"competent person"** in relation to construction work, means any person having the knowledge, training and experience specific to the work or task being performed:

Provided that where appropriate qualifications and training are registered as per the South African Qualifications Authority Act, 1995 these qualifications and training shall be deemed to be the required qualifications and training;

1.4 **"contractor"** means principal contractor and "subcontractor" means contractor as defined by the Construction Regulations, 2003.

2.5 **"fall protection plan"** means a documented plan, of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods applied to eliminate the risk;

2.6 **"health and safety file"** means a file, or other record in permanent form, containing the information required to be kept on site in accordance with the Act and applicable Regulations;

2.7 **"Health and Safety Plan"** means a documented plan which addresses the hazards identified and include safe work procedures to mitigate, reduce or control the hazards identified;

2.8 **"Risk Assessment"** means a programme to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard;

2.9 **"the Act"** means the Occupational Health and Safety Act No. 85 of 1993.

### **3. Procedural Compliance**

- 3.1 The Contractor who intends to carry out any construction work shall, before carrying out such work, notify the Provincial Director in writing if the construction work:-
- (a) includes the demolition of a structure exceeding a height of 3 metres; or
  - (b) includes the use of explosives to perform construction work; or
  - (c) includes the dismantling of fixed plant at a height greater than 3m,
- and shall also notify the Provincial Director in writing when the construction work exceeds 30 days or will involve more than 300 person days of construction work and if the construction work:-
- (a) includes excavation work deeper than 1m; or
  - (b) includes working at a height greater than 3 metres above ground or a landing.
- 3.2 The notification to the Provincial Director shall be on a form similar to Annexure A of the Construction Regulations, 2003, also shown in Annexure 1 of this Specification. The Contractor shall ensure that a copy of the completed notification form is kept on site for inspection by an inspector, Technical Officer or employee.
- 3.3 The Contractor shall, in accordance with the Act and applicable Regulations, make all the necessary appointments of competent persons in writing on a form similar to Annexure 2 of this Specification and deliver copies thereof to the Technical Officer. Copies should also be retained on the health and safety file.
- 3.4 Subcontractors shall also make the above written appointments and the Contractor shall deliver copies thereof to the Technical Officer.
- 3.5 In the case of a self-employed Contractor or any subcontractor who has the appropriate competencies and supervises the work himself, the appointment of a construction supervisor in terms of regulation 6.1 of the Construction Regulations, 2003 will not be necessary. The Contractor shall in such a case execute and sign a declaration, as in Annexure 3, by which he personally undertakes the duties and obligations of the "Chief Executive Officer" in terms of section 16(1) of the Act.
- 3.6 The Contractor shall, before commencing any work, obtain from the Technical Officer an access certificate as in Annexure 4 executed and signed by him, permitting and limiting access to the designated site or place of work by the Contractor and any subcontractors under his control.
- 3.7 Procedural compliance with Act and Regulations, as above, shall also apply to any subcontractors as employers in their own right. The Contractor shall furnish the Technical Officer with full particulars of such subcontractors and shall ensure that they comply with the Act and Regulations and Protekon's safety requirements and procedures.

#### **4. Special Permits**

Where special permits are required before work may be carried out such as for hotwork, isolation permits, work permits and occupations, the Contractor shall apply to the Technical Officer or the relevant authority for such permits to be issued. The Contractor shall strictly comply with the conditions and requirements pertaining to the issue of such permits.

#### **5. Health and Safety Programme**

5.1 The Quotationer shall, with his quotation, submit a Health and Safety Programme setting out the practical arrangements and procedures to be implemented by him to ensure compliance by him with the Act and Regulations and particularly in respect of: -

- (i) The provision, as far as is reasonably practical, of a working environment that is safe and without risk to the health of his employees and subcontractors in terms of section 8 of the Act;
- (ii) the execution of the contract work in such a manner as to ensure in terms of section 9 of the Act that persons other than those in the Contractor's employment, who may be directly affected by the contract work are not thereby exposed to hazards to their health and safety;
- (iii) ensuring, as far as is reasonably practical, in terms of section 37 of the Act that no employee or subcontractor of the Contractor does or omits to do any act which would be an offence for the Contractor to do or omit to do.

5.2 The Contractor's Health and Safety Programme shall be based on a risk assessment in respect of the hazards to health and safety of his employees and other persons under his control that are associated with or directly affected by the Contractor's activities in performing the contract work and shall establish precautionary measures as are reasonable and practical in protecting the safety and health of such employees and persons.

5.3 The Contractor shall cause a risk assessment contemplated in clause 5.2 above to be performed by a competent person, appointed in writing, before commencement of any Construction Work and reviewed during construction. The Risk Assessments shall form part of the Health and Safety programme to be applied on the site and shall include at least the following:

- (a) The identification of the risks and hazards that persons may be exposed to;
- (b) the analysis and evaluation of the hazards identified;
- (c) a documented Health and Safety Plan, including safe work procedures to mitigate, reduce or control the risks identified;
- (d) a monitoring and review plan.

- 5.4 The Health and Safety Plan shall include full particulars in respect of: -
- (a) The safety management structure to be instituted on site or place of work and the names of the Contractor's health and safety representatives and members of safety committees where applicable;
  - (b) the safe working methods and procedures to be implemented to ensure the work is performed in compliance with the Act and Regulations;
  - (c) the safety equipment, devices and clothing to be made available by the Contractor to his employees;
  - (d) the site access control measures pertaining to health and safety to be implemented;
  - (e) the arrangements in respect of communication of health and safety related matters and incidents between the Contractor, his employees, subcontractors and the Technical Officer with particular reference to the reporting of incidents in compliance with Section 24 and General Administrative Regulation 8 of the Act and with the pertinent clause of the General Conditions of Contract forming part of the Contract and
  - (f) the introduction of control measures for ensuring that the Safety Plan is maintained and monitored for the duration of the Contract.
- 5.5 The Health and Safety programme shall be subject to the Technical Officer's approval and he may, in consultation with the Contractor, order that additional and/or supplementary practical arrangements and procedures be implemented and maintained by the Contractor or that different working methods or safety equipment be used or safety clothes be issued which, in the Technical Officer's opinion, are necessary to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act and Regulations. The Technical Officer or his deputy shall be allowed to attend meetings of the Contractor's safety committee as an observer.
- 5.6 The Contractor shall take reasonable steps to ensure that each subcontractor's Health and Safety Plan is implemented and maintained on the construction site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed to between the them, but at least once every month.
- 5.7 The Contractor shall stop any subcontractor from executing any construction work, which is not in accordance with the Contractor's, and/or subcontractor's Health and Safety Plan for the site or which poses a threat to the health and safety of persons.
- 5.8 The Contractor shall ensure that a copy of the Health and Safety Plan is available on site for inspection by an inspector, Technical Officer, agent, subcontractor, employee, registered employee organisation, health and safety representative or any member of the health and safety committee.

- 5.9 The Contractor shall consult with the health and safety committee or, if no health and safety committee exists, with a representative group of employees, on the development, monitoring and review of the Risk Assessment.
- 5.10 The Contractor shall ensure that all employees under his control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.11 The Contractor shall ensure that all subcontractors are informed regarding any hazard as stipulated in the Risk Assessment before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.12 The Contractor shall ensure that all visitors to a construction site undergoes health and safety induction pertaining to the hazards prevalent on the site and shall be provided with the necessary personal protective equipment.

## **6. Fall Protection Plan**

- 6.1 In the event of the risk and hazard identification, as required in terms of clause 5.3 of this Specification, revealing risks relating to working from an elevated position the contractor shall cause the designation of a competent person, responsible for the preparation of a fall protection plan;
- 6.2 The Contractor shall implement, maintain and monitor the fall protection plan for the duration of Contract. The Contractor shall also take such steps to ensure the continued adherence to the fall protection plan.
- 6.3 The fall protection plan shall include: -
- (a) a Risk Assessment of all work carried out from an elevated position;
  - (b) the procedures and methods to address all the identified risks per location;
  - (c) the evaluation of the employees physical and psychological fitness necessary to work at elevated positions;
  - (d) the training of employees working from elevated positions; and
  - (e) the procedure addressing the inspection, testing and maintenance of all fall protection equipment.

## **7. Hazards and Potential Hazardous Situations**

The Contractor and the Technical Officer shall immediately notify one another of any hazardous or potentially hazardous situations which may arise during performance of the Contract by the Contractor or any subcontractor and, in particular, of such hazards as may be caused by the design, execution and/or location and any other aspect pertaining to the contract work.

## **8. Health and Safety File**

- 8.1 The Contractor shall ensure that a health and safety file is opened and kept on site and shall include

all documentation required as per the Act and applicable regulations, and made available to an inspector, the Technical Officer, or subcontractor upon request.

- 8.2 The Contractor shall ensure that a copy of the both his Health and Safety Plan as well as any subcontractor's Health and Safety Plan is available on request to an employee, inspector, contractor or the Technical Officer.
- 8.3 The Contractor shall hand over a consolidated health and safety file to the Technical Officer upon completion of the Construction Work and shall in addition to documentation mentioned in the Act and applicable Regulations include a record of all drawings, designs, materials used and other similar information concerning the completed structure.

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993**

**Regulation 3(1) of the Construction Regulations**

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**NOTIFICATION OF CONSTRUCTION WORK**

1(a) Name and postal address of principal contractor:

---

(b) Name and tel. no of principal contractor's contact person:

---

2. Principal contractor's compensation registration number:

---

3(a) Name and postal address of client:

---

(b) Name and tel no of client's contact person or agent:

---

4(a) Name and postal address of designer(s) for the project:

---

(b) Name and tel. no of designer(s) contact person:

---

5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 6(1).

---

6. Name/s of principal contractor's construction sub-ordinate supervisors on site appointed in terms of regulation 6(2).

---

7. Exact physical address of the construction site or site office:

8. Nature of the construction work:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. Expected commencement date: \_\_\_\_\_

10. Expected completion date: \_\_\_\_\_

11. Estimated maximum number of persons on the construction site: \_\_\_\_\_

12. Planned number of contractors on the construction site accountable to the principle contractor:  
\_\_\_\_\_

13. Name(s) of contractors already chosen.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
**Principal Contractor**  
\_\_\_\_\_

\_\_\_\_\_  
**Date**  
\_\_\_\_\_

**Client**

**Date**

\* THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.

\* **ALL PRINCIPAL CONTRACTORS** THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.

(COMPANY LETTER HEAD)

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993):

SECTION/REGULATION: \_\_\_\_\_

REQUIRED COMPETENCY: \_\_\_\_\_

In terms of \_\_\_\_\_ I, \_\_\_\_\_

representing the Employer) do hereby appoint

As the Competent Person on the premises at

(physical address) to assist in compliance with the Act and the applicable Regulations.

Your designated area/s is/are as follows: -

\_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Designation:** \_\_\_\_\_

**ACCEPTANCE OF DESIGNATION**

***I, \_\_\_\_\_ do hereby accept this Designation and acknowledge that I understand the requirements of this appointment.***

**Date** \_\_\_\_\_

**Signature** \_\_\_\_\_

**Designation:** \_\_\_\_\_

**(COMPANY LETTER HEAD)**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993):**

**DECLARATION**

In terms of the above Act I, \_\_\_\_\_ am personally assuming the duties and obligations as Chief Executive Officer, defined in Section 1 of the Act and in terms of Section 16(1), I will, as far as is reasonably practicable, ensure that the duties and obligations of the Employer as contemplated in the above Act are properly discharged.

***Signature:*** \_\_\_\_\_

***Date:*** \_\_\_\_\_

**(LETTER HEAD OF BUSINESS DIVISION OR UNIT OF PRASA LIMITED)**

**SITE ACCESS CERTIFICATE**

Access to: \_\_\_\_\_(Area)

Name of Contractor/Builder \_\_\_\_\_

Contract/Order No.: \_\_\_\_\_

The contract Services site/area described above are made available to you for the carrying out of associated Services

In terms of your contract/order with  
(Company)\_\_\_\_\_

Kindly note that you are at all times responsible for the control and safety of the Services Site, and for persons under your control having access to the site.

As from the date hereof you will be responsible for compliance with the requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended, and all conditions of the Contract pertaining to the site of the Services as defined and demarcated in the contract documents including the plans of the site or work areas forming part thereof.

**Signed:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**TECHNICAL OFFICER**

**ACKNOWLEDGEMENT OF RECEIPT**

**Name of Contractor/Builder:**

\_\_\_\_\_ I,  
\_\_\_\_\_ do hereby  
**acknowledge and accept the duties and obligations in respect of the Safety of the site/area  
of Work in terms of the Occupational Health and Safety Act; Act 85 of 1993.**

**Name:** \_\_\_\_\_ **Designation:** \_\_\_\_\_

**Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

# PASSENGER RAIL AGENCY OF SOUTH AFRICA

**SPECIFICATION FOR SERVICES ON, OVER, UNDER OR ADJACENT TO RAILWAY  
LINES AND NEAR HIGH VOLTAGE  
EQUIPMENT  
(E7/1 2012)**



ISSUED BY : The Executive Manager  
Asset Management and Development  
PRASA

*September 1999*

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*Issue 1*

**PASSENGER RAIL AGENCY OF SOUTH AFRICA**

**ANNEXURE R**

**SPECIFICATION FOR SERVICES ON, OVER, UNDER OR ADJACENT TO RAILWAY  
LINES AND NEAR HIGH VOLTAGE EQUIPMENT  
(E7/1 2012)**

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*September 1999*

*Page ii of iii*

*Issue 1*

# PASSENGER RAIL AGENCY OF SOUTH AFRICA

## APPROVAL SHEET

<b>DESIGNATION</b>	<b>SIGNATURE</b>	<b>DATE</b>
Approved by: PRASA –MANAGEMENT BOARD		
Issued by: PRASA – Executive Manager (AM&D)		
Understood and accepted by: PRASA – INFRA		

# PASSENGER RAIL AGENCY OF SOUTH AFRICA

**E7/1 2012**

SPECIFICATION FOR SERVICES ON, OVER, UNDER OR ADJACENT TO RAILWAY LINES AND NEAR HIGH  
VOLTAGE EQUIPMENT

(This specification shall be used in PRASA contracts)

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11. Blasting
12. High-voltage electrical equipment not maintained and/or operated by PRASA or PRASA's contractors

## DEFINITIONS

The following definitions shall apply:

**Authorised Person:** A person whether an employee of PRASA or not, who has been specially authorised to undertake specific duties in terms of Spoornet's publication ELECTRICAL SAFETY INSTRUCTIONS, and who holds a certificate or letter of authority to that effect.

**Barrier:** Any device designed to restrict access to and prevent inadvertent contact with exposed "live" high-voltage electrical equipment.

**Bond:** A short conductor installed to provide electrical continuity.

**Responsible Representative:** The responsible person in charge, appointed by a contractor, who has undergone specific training (and holds a certificate) to supervise staff under his control to work on, over, under or adjacent to railway lines and in the vicinity of high-voltage electrical equipment.

**Contractor:** Any person or organisation appointed by PRASA to carry out work on its behalf.

**Dead:** Isolated and earthed.

**Electrical Officer (Contracts):** The person appointed in writing by the responsible Electrical Engineer in PRASA or PRASA'S maintenance Contractor as the person who shall be consulted by the Contractor in all electrical matters to ensure that adequate safety precautions are taken by the Contractor.

**Engineer:** The person, firm or company appointed by PRASA to act as Engineer for the purposes of the contract and designated as such in the Special Conditions of Contract, or any other Engineer appointed from time to time by PRASA and notified in writing to the Contractor.

**Executive Officer:** The person appointed by PRASA from time to time as the Executive Officer to act according to the rights and powers held by and obligations placed upon him in terms of the Contract.

**High-Voltage:** A voltage normally exceeding 1 000 volts.

**Live:** A conductor is said to be "live" when it is at a potential different from that of the earth or any other conductor of the system of which it forms a part.

**Near:** To be in such a position that a person's body or the tools he is using or any equipment he is handling may come within 3 metres of live exposed high-voltage electrical equipment.

**Occupation:** An authorisation granted by PRASA or PRASA'S maintenance and/or operating Contractor for work to be carried out under specified conditions on, over under or adjacent to railway lines.

**Occupation Between Trains:** An occupation during an interval between successive trains.

**Project Manager:** The person or juristic person appointed by PRASA from time to time as the Project Manager, to administer the Contract according to the powers and rights held by and obligations placed upon him in terms of the Contract.

**Total Occupation:** An occupation for a period when trains are not to traverse the section of line covered by the occupation.

**Work on:** Work undertaken on or so close to the equipment that the specified working clearances to the live equipment cannot be maintained.

**Work Permit:** A combined written application and authority to proceed with work on or near dead electrical equipment.

## **PART A - GENERAL SPECIFICATION**

### **2. AUTHORITY OF OFFICERS OF PRASA OR PRASA'S MAINTENANCE AND/OR OPERATING CONTRACTOR**

2.1 The Contractor shall co-operate with the authorised personnel of PRASA or PRASA'S maintenance and/or operating Contractor and shall comply with all instructions issued and restrictions imposed with respect to the Services which bear on the presence and operation of PRASA or PRASA'S railway lines and high-voltage equipment.

2.2 Without limiting the generality of the provisions of 2.1, any duly authorised representative of PRASA or PRASA, having identified himself, may stop the work if, in his opinion, the safe passage of trains or the safety of PRASA or PRASA assets or any person is affected. **CONSIDERATIONS OF SAFETY SHALL TAKE PRECEDENCE OVER ALL OTHER CONSIDERATIONS.**

### **3. CONTRACTOR'S REPRESENTATIVES**

3.1 The Contractor shall nominate Responsible Representatives of whom at least one shall be available at any hour for call-out in cases of emergency. The Contractor shall provide the Engineer with the names, addresses and telephone numbers of the representatives.

3.2 The Contractor guarantees that he has satisfied himself that the Responsible Representative is fully conversant with this specification and that he shall comply with all his obligations in respect thereof.

3.3 The Responsible Representative shall be familiar with the contents and provisions of the ELECTRICAL SAFETY INSTRUCTIONS, copies of which they shall keep in their possession for the duration of the contract.

#### 4. OCCUPATIONS AND WORK PERMITS

- 4.1 Work to be done during total occupation or during an occupation between trains or under a work permit shall be done in a manner decided by the Engineer and at times to suit the requirements of PRASA or PRASA'S maintenance and/or operating Contractor.
- 4.2 The Contractor shall organise the Services in a manner, which will minimise the number and duration of occupations and work permits required.
- 4.3 PRASA shall not be liable for any financial or other loss suffered by the Contractor arising from his failure to complete any work scheduled during the period of an occupation or work permit.
- 4.4 The Contractor shall submit to the Engineer, in writing, requests for occupations or work permits together with details of the work to be undertaken, at least 21 days before they are required. PRASA or PRASA'S maintenance and/or operating Contractor does not undertake to grant an occupation or work permit for any particular date, time or duration.
- 4.5 PRASA or PRASA'S maintenance and/or operating Contractor reserves the right to cancel any occupation or work permit at any time before or during the period of occupation or work permit. If, due to cancellation or change in date or time, the Contractor is not permitted to start work under conditions of total occupation or work permit at the time arranged, all costs caused by the cancellation shall be born by the Contractor except as provided for in clauses 4.6 to 4.8 above.
- 4.6 When the Contractor is notified less than 2 hours before the scheduled starting time that the occupation or work permit is cancelled, he may claim reimbursement of his direct financial losses caused by the loss of working time up to the time his labour and plant are employed on other work, but not exceeding the period of the cancelled occupation or work permit.
- 4.7 When the Contractor is notified less than 2 hours before the scheduled starting time, or during an occupation or work permit, that the duration of the occupation or work permit is reduced, he may claim reimbursement of his direct financial losses caused by the loss of working time due to the reduced duration of the occupation or work permit, but not exceeding the balance of the reduced occupation or work permit.
- 4.8 Reimbursement of the Contractor for any loss of working time in terms of 4.6 and 4.7, shall be subject to his claims being submitted within 14 days of the event with full details of labour and plant involved, and provided that the Engineer certifies that no other work on which the labour and plant could be employed was immediately available.
- 4.9 Before starting any work for which an occupation has been arranged, the Contractor shall obtain from the Engineer written confirmation of the date, time and duration of the occupation including the specified conditions applicable.

- 4.10 Before starting any work for which a work permit has been arranged, the Responsible Representative shall read and sign portion C of Annexure 8.1 of the ELECTRICAL SAFETY INSTRUCTIONS, presented by an authorised person, signifying that he is aware of the limits within which work may be undertaken. After the work for which the permit was granted has been completed, or when the work permit is due to be terminated, or if the permit is cancelled after the start, the same person who signed portion C shall sign portion D of Annexure 8.1 of the ELECTRICAL SAFETY INSTRUCTIONS, thereby acknowledging that he is aware that the electrical equipment is to be made "live". The Responsible Representative shall advise all his workmen accordingly.

## 5. **SPEED RESTRICTIONS AND PROTECTION**

- 5.1 When speed restrictions are imposed by PRASA or PRASA'S maintenance and/or operating Contractor because of the Contractor's activities, the Contractor shall organise and carry out his work so as to permit the removal of the restrictions as soon as possible.
- 5.2 When the Engineer considers protection to be necessary the Contractor shall, provide all protection including flagmen, other personnel and all equipment for the protection of PRASA or PRASA's personnel and assets, the public and including trains. The Contractor shall arrange training and PRASA accreditation of the Contractor's flagmen and other personnel performing protection duties. The cost of the training shall be to the Contractor's account. It remains the responsibility of the Contractor to protect his personnel and assets at all times.
- 5.3 The Contractor shall consult with the Engineer, whenever he considers that protection will be necessary, taking into account the minimum permissible clearances set out in PRASA's publication, PERMANENT WAY INSTRUCTIONS.
- 5.4 The Contractor shall appoint a Responsible Representative to receive and transmit any instruction, which may be given by PRASA or PRASA'S maintenance and/or operating Contractor personnel providing protection.

## 6. **ROADS ON PRASA OR PRASA PROPERTY**

- 6.1 The Contractor shall use every reasonable means to prevent damage to any of the roads or bridges communicating with or on the direct route to the site and shall select routes, use vehicles, and restrict loads so that any extraordinary traffic as may arise from the moving of plant or material to or from the site shall be limited as far as reasonably possible.
- 6.2 The Contractor shall not occupy or interfere in any way with the free use of any public or private road, right-of-way, path or street unless the Engineer has obtained the approval of the road authority concerned.

## 7. CLEARANCES

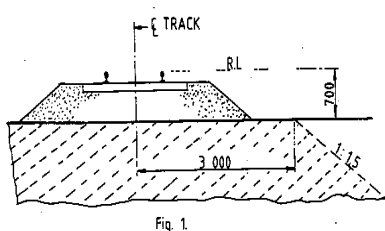
- 7.1 No temporary Services shall encroach on the appropriate minimum clearances set out in PRASA's publications, PERMANENT WAY INSTRUCTIONS and ELECTRICAL SAFETY INSTRUCTIONS.

## 8. STACKING OF MATERIAL

- 8.1 The Contractor shall not stack any material closer than 3 metres from the centre line of any railway line or within 2.5 metres of the boundary fence without prior approval of the Engineer and considering the presence of any trackside equipment.
- 8.2 All stacking of material shall take place in accordance with the Occupational Health and Safety Act No. 85 of 1993, and Regulations and Instructions, and the ELECTRICAL SAFETY INSTRUCTIONS.

## 9. EXCAVATION, SHORING, DEWATERING AND DRAINAGE

- 9.1 Unless otherwise approved by the Engineer any excavation adjacent to a railway line shall not encroach on the hatched area shown in Figure 1.



Formation level

- 9.2 The Contractor shall provide, at his own cost, any shoring, dewatering or drainage of any excavation unless otherwise stipulated elsewhere in the Contract.
- 9.3 Where required by the Engineer, drawings of shoring for any excavation under or adjacent to a railway line shall be submitted and permission to proceed obtained, before the excavation is commenced.
- 9.4 The Contractor shall prevent ingress of water to the excavation but where water does enter, he shall dispose of it as directed by the Engineer.
- 9.5 The Contractor shall not block, obstruct or damage any existing drains either above or below ground level unless he has made adequate prior arrangements to deal with drainage.

## 10. FALSEWORK FOR STRUCTURES

- 10.1 Drawings of falsework for the construction of any structure over, under or adjacent to any railway line shall be submitted to the Engineer and his permission to proceed obtained before the falsework is erected. Each drawing shall be given a title and a distinguishing number and shall be signed by a

registered professional engineer certifying that he has checked the design of the falsework and that the drawings are correct and in accordance with the design.

- 10.2 After the falsework has been erected and before any load is applied, the Contractor shall submit to the Engineer a certificate signed by a registered professional engineer certifying that he has checked the falsework and that it has been erected in accordance with the drawings. Titles and numbers of the drawings shall be stated in the certificate. Notwithstanding permission given by the Engineer to proceed, the Contractor shall be entirely responsible for the safety and adequacy of the falsework.

## 11. **PILING**

- 11.1 The Engineer will specify the conditions under which piles may be installed on PRASA or PRASA property.

## 12. **UNDERGROUND SERVICES**

- 12.1 No pegs or stakes shall be driven or any excavation made before the Contractor has established that there are no underground services, which may be damaged thereby.
- 12.2 Any damage shall be reported immediately to the Engineer, or to the personnel in charge at the nearest station, or to the traffic controller in the case of centralised traffic control.
- 12.3 Any previously uncharted underground services encountered by the Contractor during the course of his activities shall be reported immediately to the Engineer who shall ensure the necessary inclusion in the "as built" drawings.

## 13. **BLASTING**

- 13.1 No blasting in the vicinity of a railway line shall be carried out except with the prior written permission of the Engineer and under such conditions as he may impose.
- 13.2 The Contractor shall make arrangements for the supply, transport, storage and use of explosives.
- 13.3 The Contractor shall have labour, tools and plant, to the satisfaction of the Engineer, available on the site to clear immediately any stone or debris deposited on the track or formation by blasting, and to repair any damage to the track or formation immediately after blasting. Repairs to the track shall be carried out only under the supervision of a duly authorised representative of the PRASA's maintenance and/or operating Contractor.
- 13.4 The Contractor shall advise the Engineer of his intention to blast at least 21 days prior to the commencement of any blasting operations.

- 13.5 Before any blasting is undertaken, the Contractor and the Engineer shall jointly examine and measure up any buildings, houses or structures in the vicinity of the proposed blasting to establish the extent of any cracking or damage that exists. The Contractor, at his own expense shall make good any deterioration of such buildings, houses, or structures, which, in the opinion of the Engineer, is a direct result of the blasting.
- 13.6 All claims shall be settled by the Contractor as soon as possible. Should unreasonable delays occur, the PRASA will have the right to settle any such claims and recover the costs from the Contractor.
- 13.7 Within a reasonable time after completion of the blasting, the Contractor shall obtain a written clearance from each land owner in the vicinity of the blasting operations to the effect that all claims for compensation in respect of damage caused by the blasting operations to their respective properties have been settled.
- 13.8 The Contractor shall provide proof that he has complied with the provisions of clauses 10.17.1 to 10.17.4 of the Explosives Regulations (Act 26 of 1956 as amended).
- 13.9 Blasting within 500 metres of a railway line will only be permitted during intervals between trains. A person appointed by the Engineer, assisted by flagmen with the necessary protective equipment, will be in communication with the controlling railway station. Only this person will be authorised to give the Contractor permission to blast, and the Contractor shall obey his instructions implicitly regarding the time during which blasting may take place.
- 3.10 The flagmen described in clause 13.9 above, where provided by PRASA or PRASA'S maintenance and/or operating Contractor, are for the protection of trains and PRASA or PRASA property and personnel only, and their presence does not relieve the Contractor in any manner of his responsibilities in terms of Explosives Act or Regulations, or any obligation in terms of this Contract.
- 13.11 The person described in clause 13.9 above will record in a book provided and retained by the Engineer the dates and times:
- (i) when each request is made by him to the controlling station for permission to blast;
  - (ii) when blasting may take place;
  - (iii) when blasting actually takes place; and
  - (iv) when he advises the controlling station that the line is safe for the passage of trains.
- 13.12 Before each blast the Contractor shall record in the same book, the details of the blast to be carried out. The person appointed by the Engineer and the person who will do the blasting shall both sign the book whenever an entry described in clause 13.11 above is made.
- 13.13 The terms of clause 27 hereof shall be strictly adhered to.

14. **RAIL TROLLEYS**

14.1 The use of rail trolleys on a railway line will be permitted only if approved by the Engineer and under the conditions stipulated by him.

14.2 All costs in connection with such trolley working requested by the Contractor shall, unless otherwise agreed, be borne by the Contractor, including the costs of any train protection services required.

15. **ANCILLARY TRACKSIDE EQUIPMENT AND FACILITIES.**

15.1 Where signal track circuits are installed, the Contractor shall ensure that no material capable of conducting an electrical current makes contact between rails of a railway line/lines.

15.2 No signal connections on track-circuited tracks shall be severed without the Engineer's knowledge and consent.

15.3 No ancillary trackside equipment or facilities such as axle counters, bonds, wiring runs, connection boxes, points machines, signals, drainage systems etc. shall be disconnected, removed, altered or in any way interfered with without the Engineer's knowledge and consent.

16. **PENALTY FOR DELAYS TO TRAINS**

16.1 If any trains are delayed by the Contractor and the Engineer is satisfied that the delay was avoidable, a penalty will be imposed on the Contractor in terms of the Special Conditions of Contract.

17. **COMPLIANCE WITH STATUTES AND REGULATIONS**

17.1 The Contractor shall comply with the provisions of the following:

(i) the OHS Act 85 of 1993, as amended;

(ii) the Explosive Act 26 of 1956, as amended;

(iii) the Workmen's Compensation Act, 1941, as amended;

(iv) the Mines Health and Safety Act 29 of 1996, as amended;

(v) the ELECTRICAL SAFETY INSTRUCTIONS, as amended;

and all regulations framed under these acts.

17.2 The Contractor shall prepare and submit to the PRASA's maintenance and operating contractor for acceptance, a Safety Case clearly explaining his Safety Management System. A site access certificate will not be issued to the Contractor unless this Safety Case has been accepted.

17.3 The Contractor shall comply with the provisions of the OHS Act 85 of 1993, as amended. For the purpose of this Act, the site occupied by the Contractor is transferred, for the duration of the contract, to the control of the Contractor as if it were his property. Prior to commencement of any work, and following the acceptance of a Safety Case, a site access certificate shall be issued to the Contractor by the PRASA's maintenance and/or operating Contractor. As employer, the Contractor is in every respect responsible for compliance with the provisions of this Act.

17.4 Compliance with all applicable legislation shall be entirely at the Contractor's cost.

## 18. **TEMPORARY LEVEL CROSSINGS**

18.1 Applications for temporary level crossings shall be submitted by the Contractor in writing for approval to the PRASA's maintenance and/or operating Contractor. These applications shall include a plan and cross-sectional view of the site including all affected services and proposed temporary alterations thereto.

18.2 The PRASA's maintenance and/or operating Contractor may permit the construction of a temporary level crossing over the railway line at any approved site. The period for which the level crossing is permitted will be at the discretion of the PRASA's maintenance and/or operating Contractor.

18.3 The Contractor at his own cost, shall arrange the construction by a nominated specialist subcontractor of the entire approved temporary level crossing, including all level crossing signs and height gauges and alterations to communication, power and signal equipment as well as drainage.

The constructed temporary level crossing shall be subject to the inspection and approval of the PRASA's maintenance and/or operating Contractor. After the temporary level crossing has served its purpose, the Contractor, at its own cost, shall arrange its removal by a nominated specialist Contractor and return the infrastructure assets to normal to the approval of PRASA's maintenance and/or operating contractor.

18.4 The Contractor shall, at his own cost, take all necessary steps including the provision of gates, locks and, where necessary, watchmen to restrict the use of the level crossing to himself and his employees, his sub-contractors and their employees, the staff of the PRASA and its maintenance and/or operating Contractor and to such other persons as the PRASA may permit, of whose identity the Contractor will be advised.

If ordered by the PRASA's maintenance and/or operating Contractor, the Contractor shall, at his own cost, appoint persons to control road traffic using any temporary level crossing. Such persons shall stop all road traffic when any approaching train is within 750 m of the level crossing and shall not allow the road traffic to proceed over the level crossing until the lines are clear.

## **PART B - ADDITIONAL SPECIFICATION FOR WORK NEAR HIGH-VOLTAGE**

### **ELECTRICAL EQUIPMENT**

#### **1 GENERAL**

- 1.1 This specification is based on the contents of Spoornet's publication ELECTRICAL SAFETY INSTRUCTIONS, as amended, a copy of which will be made available on loan to the Contractor for the duration of the contract on request only. These instructions apply to all work near live high-voltage equipment maintained and/or operated by PRASA or PRASA'S maintenance contractor, and the onus rests on the Contractor to ensure that he obtains a copy.
- 1.2 The Contractor's attention is drawn in particular to the contents of Sections 1 and 2 of the publication ELECTRICAL SAFETY INSTRUCTIONS.
- 1.3 The publication ELECTRICAL SAFETY INSTRUCTIONS covers the minimum safety precautions which must be taken to ensure safe working on or near high-voltage electrical equipment, and must be observed at all times. Should additional safety measures be considered necessary because of peculiar local conditions, these may be ordered by and at the discretion of the Electrical Officer (Contracts).
- 1.4 This specification must be read in conjunction with and not in lieu of the publication ELECTRICAL SAFETY INSTRUCTIONS.
- 1.5 The Contractor shall obtain the approval of the Electrical Officer (Contracts) before any work is done which causes or could cause any portion of a person's body or the tools he is using or any equipment he is handling, to come within 3 metres of any live high-voltage equipment.
- 1.6 The Contractor shall regard all high-voltage equipment as live unless a work permit is in force.
- 1.7 Safety precautions taken or barriers erected shall comply with the requirements of the Electrical Officer (Contracts), and shall be approved by him before the work to be protected is undertaken by the Contractor. The Contractor shall, unless otherwise agreed, bear the cost of the provision of the barriers and other safety precautions required, including the attendance of PRASA or PRASA's maintenance contractor where this is necessary.
- 1.8 No barrier shall be removed unless authorised by the Electrical Officer (Contracts).

#### **2. WORK ON BUILDINGS OR FIXED STRUCTURES**

- 2.1 Before any work is carried out or measurements are taken on any part of a building, fixed structure or earth Services of any kind above ground level situated within 3 metres of live high voltage equipment, the Electrical Officer (Contracts) shall be consulted to ascertain the conditions under which the work may be carried out.

- 2.2 No barrier erected to comply with the requirements of the Electrical Officer (Contracts) shall be used as temporary staging or shuttering for any part of the Services.
- 2.3 The shuttering for bridge piers, abutments, retaining walls or parapets adjacent to or over any track may be permitted to serve as a barrier, provided that it extends at least 2,5 metres above any working level in the case of piers, abutments and retaining walls and 1,5 metres above any working level in the case of parapets.

**3. WORK DONE ON OR OUTSIDE OF ROLLING STOCK, INCLUDING LOADING AND/OR UNLOADING**

- 3.1 No person shall stand, climb or work whilst on any platform, surface or foothold higher than the normal unrestricted places of access, namely:-
- (i) the floor level of trucks;
  - (ii) external walkways on diesel, steam and electric locomotives, steam heat vans, etc. and
  - (iii) walkways between coaches and locomotives.

When in these positions, no person may raise his hands or any equipment or material he is handling above his head.

- 3.2 In cases where the Contractor operates his own rail mounted equipment, he shall arrange for the walkways on this plant to be inspected by the Electrical Officer (Contracts) and approved, before commencement of work.
- 3.3 The handling of long lengths of material such as metal pipes, reinforcing bars, etc. should be avoided, but if essential they shall be handled as nearly as possible in a horizontal position below head height.
- 3.4 The Responsible Representative shall warn all persons under his control of the danger of being near live high-voltage equipment, and shall ensure that the warning is fully understood.
- 3.5 Where the conditions in clauses 3.1 to 3.3 above cannot be observed the Electrical Officer (Contracts), shall be notified. He will arrange for suitable safety measures to be taken. The Electrical Officer (Contracts), may in his discretion and in appropriate circumstances, arrange for a suitable employee of the Contractor to be specially trained by the relevant authority at the Contractor's costs, as an Authorised Person to work closer than 3 metres from live overhead conductors and under such conditions as may be imposed by the responsible Electrical Engineer in PRASA or PRASA'S maintenance contractor.

## **4. USE OF EQUIPMENT**

### **4.1 MEASURING TAPES AND DEVICES.**

- 4.1.1 Measuring tapes may be used near live high-voltage equipment provided that no part of any tape or a person's body comes within 3 metres of the live equipment.
- 4.1.2 In windy conditions the distance shall be increased to ensure that if the tape should fall it will not be blown nearer than 3 metres from the live high-voltage equipment.
- 4.1.3 Special measuring devices longer than 2 metres such as survey staves and rods may be used if these are of non-conducting material and approved by the senior responsible Electrical Engineer in PRASA or PRASA'S maintenance contractor, but these devices must not be used within 3 metres of live high-voltage equipment in rainy or wet conditions.
- 4.1.4 The assistance of the Electrical Officer (Contracts) shall be requested when measurements within the limits defined in clauses 4.1.1 to 4.1.3 above are required.

### **4.2 PORTABLE LADDERS.**

- 4.2.1 Any type of portable ladder longer than 2 metres may only be used near live high-voltage equipment under the direct supervision of the Responsible Representative. He shall ensure that the ladder is always used in such a manner that the distance from the base of the ladder to any live high-voltage equipment is greater than the fully extended length of the ladder plus 3 metres. Where these conditions cannot be observed, the Electrical Officer (Contracts) shall be advised, and he will arrange for suitable safety measures to be taken.

### **4.3 SERVICES FROM INSULATED VEHICLES AND TRESTLE TROLLEYS.**

- 4.3.1 Where specially constructed insulated vehicles or trestle trolleys are available for use, authorised persons, category A, or a person issued with a letter of authority (clause 303.0 of the ELECTRICAL SAFETY INSTRUCTIONS) may be permitted to work from the top of such vehicles under "live" overhead track equipment.

## **5. CARRYING AND HANDLING MATERIAL AND EQUIPMENT**

- 5.1 Pipes, scaffolding, iron sheets, reinforcing bars and other material, which exceeds 2 metres in length, shall be carried completely below head height near live high-voltage equipment. For maximum safety such material should be carried by two or more persons so as to maintain it as nearly as possible in a horizontal position. The utmost care must be taken to ensure that no part of the material comes within 3 metres of any live high-voltage equipment.

5.2 Long lengths of wire or cable shall never be run out in conditions where a part of a wire or cable can come within 3 metres of any live high-voltage equipment unless the Electrical Officer (Contracts) has been advised and has approved appropriate safety precautions.

5.3 The presence of overhead power lines shall always be considered, especially when communications lines or cables or aerial cables, stay wires, etc. are being erected above ground level.

## **6. PRECAUTIONS TO BE TAKEN WHEN ERECTING OR REMOVING POLES, ANTENNAE, TREES ETC.**

6.1 A pole may be handled for the purpose of erection or removal near high-voltage equipment under the following conditions:

(i) If the distance between the point at which the pole is to be erected or removed and the nearest live high-voltage equipment is more than the length of the pole plus 3 metres, the work shall be supervised by the Responsible Representative.

(ii) If the distance described in (i) is less than the length of the pole plus 3 metres, the Electrical Officer (Contracts) shall be consulted to arrange for an Authorised Person to supervise the work and to ensure that the pole is earthed where possible. The pole shall be kept in contact with the point of erection, and adequate precautions shall be taken to prevent contact with live high-voltage equipment.

6.2 The cost of supervision by an Authorised Person and the provision of earthing shall, unless otherwise agreed, be borne by the Contractor.

6.3 The provisions of clauses 6.1 and 6.2 above shall also apply to the erection or removal of columns, antennae, trees, posts, etc.

## **7. USE OF WATER**

7.1 No water shall be used in the form of a jet if it can make contact with any live high-voltage equipment or with any person working on such equipment.

## **8. USE OF CONSTRUCTION PLANT**

8.1 "Construction plant" entails all types of plant including cranes, piling frames, boring machines, excavators, draglines, dewatering equipment and road vehicles with or without lifting equipment.

8.2 When work is being undertaken in such a position that it is possible for construction plant or its load to come within 3 metres of live high-voltage equipment, the Electrical Officer (Contracts) shall be consulted. He will arrange for an Authorised Person to supervise the work and to ensure that the plant is adequately earthed. The Electrical Officer (Contracts) will decide whether further safety measures are necessary.

- 8.3 The cost of any supervision by an Authorised Person and the provision of earthing shall, unless otherwise agreed, be borne by the Contractor.
- 8.4 When loads are handled by cranes, non-metallic rope hand lines shall be used, affixed to such loads so as to prevent their swinging and coming within 3 metres of live high-voltage equipment.
- 8.5 Clauses 8.1 to 8.4 above shall apply mutatis mutandis to the use of maintenance machines of any nature.

## **9. WORK PERFORMED UNDER DEAD CONDITIONS UNDER COVER OF A WORK PERMIT**

- 9.1 If the Responsible Representative finds that the work cannot be done in safety with the high voltage electrical equipment live, he shall consult the Electrical Officer (Contracts) who will decide on the action to be taken.
- 9.2 If a work permit is issued the Responsible Representative shall:
- (i) before commencement of work ensure that the limits within which work may be carried out have been explained to him by the Authorised Person who issued the permit to him, and that he fully understands these limits.
  - (ii) sign portion C of the permit before commencement of work;
  - (iii) explain to all persons under his control the limits within which work may be carried out, and ensure that they fully understand these limits;
  - (iv) care for the safety of all persons under his control whilst work is in progress; and
  - (v) withdraw all personnel under his control from the equipment on completion of the work before he signs portion D of the work permit.

## **10. TRACTION RETURN CIRCUITS IN RAILS**

- 10.1 Dangerous conditions can be created by removing or severing any bond.
- 10.2 Broken rails with an air gap between the ends, and joints, at which fishplates are removed under "broken bond" conditions, are potentially lethal. The rails on either side of an air gap between rail ends on electrified lines shall not be touched simultaneously until rendered safe by an Authorised Person.
- 10.3 The Contractor shall not break any permanent bonds between rails or between rails and any structure. He shall give the Engineer at least 21 days written notice when removal of such bonds is necessary.
- 10.4 No work on the track, which involves interference with the traction return rail circuit, either by cutting or removing the rails, or by removal of bonds shall be done unless the Electrical Officer (Contracts) is consulted. He will take such precautions as may be necessary to ensure continuity of the return circuit before permitting the work to be commenced.

**11. BLASTING**

- 11.1 The Contractor shall obtain the permission of the Electrical Officer (Contracts) before blasting, and shall give at least 21 days' notice of his intention to blast. The Electrical Officer (Contracts) shall then decide whether it is necessary to have an Authorised Person in attendance during such operations.
- 11.2 The terms of clause 13 of SPK7/1 Part A or clause 15 of the SPK7/2 Part A, as applicable, shall be strictly adhered to.

**12. HIGH-VOLTAGE ELECTRICAL EQUIPMENT NOT MAINTAINED AND/OR OPERATED BY PRASA OR PRASA'S MAINTENANCE CONTRACTOR**

Where the work is undertaken on or near high-voltage electrical equipment which is not maintained and/or operated by PRASA or PRASA'S maintenance contractor, the Occupational Health and Safety Act No. 85 of 1993, and Regulations and Instructions, and/or the Mines Health and Safety Act (Act 29 of 1996), shall apply.

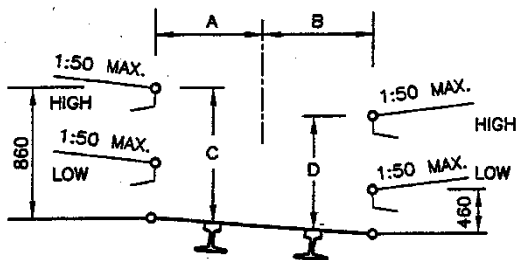
Such equipment includes:

- (i) Equipment of Electricity Suppliers;
- (ii) the Contractor's own power supplies;
- (iii) Equipment being installed by, but not yet taken over from the Contractor, and
- (iii) Electrified Private Siding equipment.

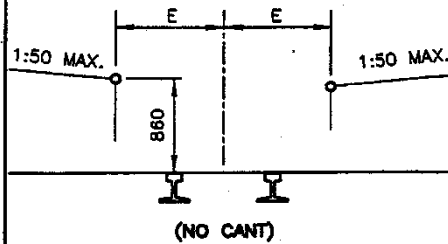


PLATFORMS : TRACK GAUGE 1 065mm

PASSENGERS



GOODS

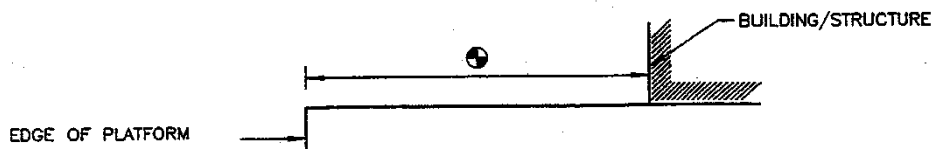


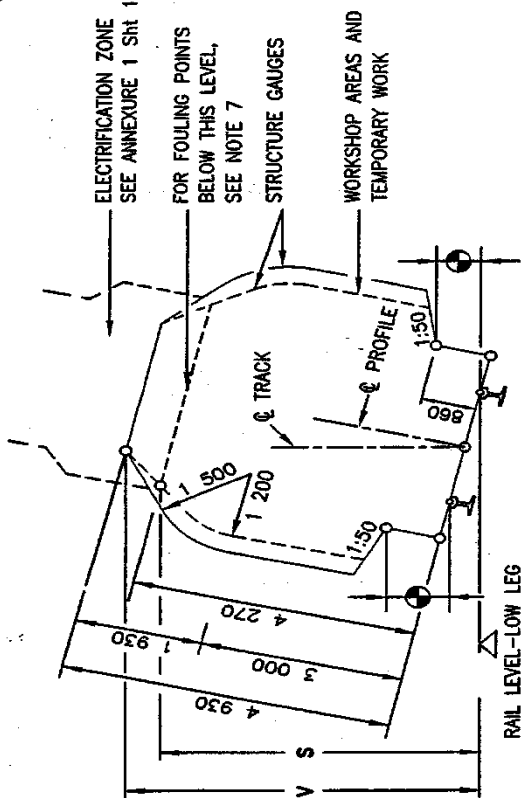
RADIUS (m)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
90	1 690	1 820	890	810	1 840
100	1 650	1 790	890	810	1 810
120	1 610	1 740	890	810	1 780
140	1 580	1 700	890	810	1 720
170	1 550	1 660	890	810	1 690
200	1 530	1 630	890	820	1 670
250	1 520	1 600	890	820	1 640
300	1 520	1 580	890	830	1 620
350	1 520	1 560	880	830	1 600
400	1 520	1 550	880	840	1 590
500	1 520	1 540	880	850	1 580
600	1 520	1 530	870	850	1 570
800	1 520	1 520	860	860	1 560
1 200	1 520	1 520	860	860	1 550
2 000	1 520	1 520	860	860	1 540
3 000	1 520	1 520	860	860	1 530
STRAIGHT	1 520	1 520	860	860	1 520

REMARKS:

1. NO CANT TO BE APPLIED EXCEPT WHEN THE GOODS PLATFORM IS ON A RUNNING LINE.
2. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
3. 8m TO MAIN STATION—BUILDINGS AND 3m TO ALL OTHER STRUCTURES.
4. TOLERANCES : SEE CLAUSE 8.0.10.

STRUCTURES ON PLATFORMS : 1 065mm AND 810mm TRACK GAUGE





LOCATION	RADIUS (mm)	NOT ELECTRIFIED S (mm)	ELECTRIFIED (PRESENT OR FUTURE)	
			3kV & 25kV V (mm)	50kV V (mm)
* ALL AREAS OTHER THAN THOSE INDICATED BY BELOW *	100	4 470	5 050	5 400
	300	4 410	5 020	5 370
	600	4 370	5 000	5 350
	1 000	4 350	4 990	5 340
	1 500	4 310	4 960	5 310
	2 000	4 290	4 940	5 290
	>3 000	4 270	4 930	5 280
* OVER OR NEAR POINTS AND CROSSING IF REQUIRED BY ELECTRICAL IRRESPECTIVE OF RADIUS			5 650	6 000

REMARKS:

1. V IS THE REQUIRED VERTICAL CLEARANCE EXCEPT WHERE REDUCED CLEARANCE S APPLIES.
2. S IS THE MINIMUM VERTICAL CLEARANCE FOR STRUCTURES AND TEMPORARY WORK OVER NON-ELECTRIFIED LINES.
3. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
4. FOR APPLICATION AT CURVES
  - 4.1 APPLY INCREASED CLEARANCES FOR CURVES TO POINTS 3m BEYOND THE ENDS OF THE CIRCULAR CURVE.
  - 4.2 REDUCE CLEARANCES AT A UNIFORM RATE OVER THE REMAINDER OF THE TRANSITION CURVE.
  - 4.3 FOR NON-TRANSITIONED CURVES REDUCE AT A UNIFORM RATE OVER A LENGTH OF 15m ALONG STRAIGHTS.
5. NEW STRUCTURES: SEE BRIDGE CODE.
6. TUNNELS: SEE DRAWING BE 82-35.
7. FOULING POINTS: SEE CLAUSE 8.1.
8. CLEARANCES ARE BASED ON 15m BOGIE CENTRES AND 21.2m VEHICLE BODY LENGTH.
9. SEE ANNEXURE 1 SHEET 3 FOR PLATFORM CLEARANCES.

Signed by THE CONTRACTOR at CAPE TOWN on this ..... day of ..... 20....  
in the presence of the undersigned witnesses.

\_\_\_\_\_ AS WITNESSES: (1) \_\_\_\_\_

THE BIDDER

(.....)

who warrants that he/she is  
duly authorized to sign

(2) \_\_\_\_\_

Signed on behalf of THE CLIENT at ..... on this .... day of  
..... 20.... in the presence of the undersigned witnesses.

\_\_\_\_\_ AS WITNESSES: (1) \_\_\_\_\_

THE CLIENT

(PASSENGER RAIL AGENCY  
OF SOUTH AFRICA)

(2) \_\_\_\_\_

.....

## **E.10 Gen: GENERAL**

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## 1. SCOPE

This specification covers the general requirements for all types and methods of railway trackwork.

## 2. INTERPRETATIONS

This specification must be read together with all contract documents and specifications, (specifically with the E7/1 Specification for work on, over, under or adjacent to railway lines and near high voltage equipment), the specific supplementary specifications hereof applicable to the project as well as the Project Specification.

### 2.1 SUPPORTING SPECIFICATIONS

The following specifications shall form part of the contract documents.

- a) Spornet's Track Welding Specification SSS-8.

### 2.2 DEFINITIONS

To ALIGN TRACK means to correct the horizontal geometry of a track to a defined centre line, to within the specified geometric standards.

BALLAST means broken stone used to support sleepers.

To BOX IN AND TRIM means to place the correct quantity of ballast between the sleepers and on the ballast shoulders to form the specified ballast profile.

To CLEAN BALLAST means to remove all ballast and fouling matter to a specified depth below the required rail level, screen the ballast and return it to the track.

CONSTRUCTION SIDING means a railway line built for the purpose of handling construction traffic, or an incomplete new line on which construction traffic is handled.

CONSTRUCTION TRAFFIC means wagons carrying material required by the Contractor or others for construction purposes.

CONTINUOUS WHEEL SPIN DAMAGE means wheel spin damage to the rail crown occurring continuously over a length of more than 150 mm.

Cr Mn RAILS means chrome - manganese rails.

CROSSING FROG means that part of the crossing of a set which enables a train wheel on one rail to cross over another rail at the same level. (See Annexure B).

To CURVE a RAIL means to give a rail a permanent set of the required radius, by bending of the rail.

DESTRESSING means the process whereby rails are relieved from all internal stresses existing in them at that moment in time.

To DISTRIBUTE MATERIAL means to place material on the formation clear, of the structure gauge of open lines and drains, in the required quantities along the track to suit the Works.

FORMATION, when referring to the laying of new track, means the prepared layer works on which railway tracks are to be laid. When referring to an existing track on which work must be done, FORMATION means the earthworks to a specified width at a specified depth below the required rail level.

FREE HAUL DISTANCE means the distance specified in the Project Specification over which the Contractor moves material without separate compensation for distance travelled.

GAUGE, when referring to a railway track, means the shortest distance between the running edges of a pair of rails which are fastened to the sleepers, measured as shown in Annexure F hereof.

BROAD GAUGE TRACK means track with a nominal gauge of 1065 mm, and NARROW GAUGE TRACK means track with a nominal gauge of 610 mm.

HEAVY MACHINE means an on-track machine which may not be operated on open lines without a prior notice having been issued by an operating office of the Railway Authority.

INSULATING JOINT, INSULATED RAIL JOINT or BLOCK JOINT means a rail joint at which the adjacent rails are electrically insulated from each other.

To LAY TRACK means to lay sleepers on the formation, place rails on the sleepers, apply or tighten sleeper and rail fastenings, adjust the gauge and expansion gaps, and pack.

To LIFT means to raise the track from one level to another level.

LIGHT MACHINE means a machine which may be operated on open lines, without a prior notice having been issued by an operating office of the Railway Authority.

LONG WELDED RAILS (LWR) or CONTINUOUS WELDED RAILS (CWR) means rails which have been welded into lengths longer than 36m.

To MAINTAIN means to do the day-to-day repairs and adjustments necessary to keep earthworks and drains in good order and to keep the track at the required standard for trains to run at the prescribed speeds.

MATERIAL TRAIN means a train of wagons and a locomotive for loading or offloading of material at a construction siding, or open lines.

MULTIPLE LINES means a group of tracks of which the maximum distance between any 2 adjacent tracks does not exceed 7,5 m.

OPEN LINE means a railway track that is already in use by the Railway Authority for its everyday business, and under control of its operating department.

To OPEN UP a TRACK means to remove all ballast and fouling matter above the level of the bottom of the sleepers.

To PACK means to insert approved material under a sleeper in such a way that the sleeper will have even bearing over at least 450mm of its length under each rail seat for the full width of the sleeper, and will carry a train without damage to the permanent way material or the formation.

RAILWAY AUTHORITY means the owner and his appointed operator of the railway system designated in the Project Specification.

RAILWAY TRACK, TRACK or LINE means a route on which trains travel on steel rails.

RAIL FASTENINGS means the components used to fasten rails to rails.

To REALIGN TRACK means to align the track on the specified centre line, where the horizontal movements are not more than 100mm.

To RELAY means to perform the combined operations defined as RESLEEPER, RERAIL, LIFT, TAMP and ALIGN.

To RERAIL means to remove the rails and rail fastenings from the track and to replace them with other rails and rail fastenings of the same or different mass and/or length with minimum disturbance of the sleepers or ballast.

To RESLEEPER means to remove designated sleepers and sleeper fastenings from the track, and replace them with other sleepers and sleeper fastenings, at the same or a different spacing.

To RESPACE SLEEPERS means to loosen the sleeper fastenings, move the sleepers along the length of the track to the required spacing, thereafter tighten the sleeper fastenings, and tamp the sleepers.

SET means the arrangement of permanent way material, assembled so as to form a unit which enables a train to switch from one railway line to another, or to cross another railway line at the same level. Turnouts, slips and diamond crossings are examples of sets.

SLEEPER means an item of permanent way material designed to support the rails and to hold them at the correct gauge.

SLEEPER FASTENINGS means the components used to fasten rails to sleepers or other railbeds.

To SLEW TRACK means to move a track horizontally by more than 100mm to a different defined centre line of the track.

SPLICE JOINT means an expansion joint inserted in the track.

STABILISED TRACK means track of which the ballast remaining loose after completion of tamping, has been compacted either by the passing of a sufficient number of trains, or by mechanical means designed to expedite the compacting action.

SUPERELEVATION or CANT means the difference in level between the two rails of a track.

To TAMP, TAMP BALLAST or TAMP TRACK means to place and compact sufficient ballast under the sleepers to form a firm interlocking mass which will support the sleepers at the correct level and enable trains to run at the permissible speed.

TOTAL OCCUPATION - is defined in specification E7/1.

TRANSITION CURVE means a curve of decreasing or increasing radius used to connect a straight track to a curved track of uniform radius, or a curved track of one uniform radius to a curved track of another uniform radius.

WAGON means a goods-carrying on-track vehicle.

WORK, OR OCCUPATION, BETWEEN TRAINS - is defined in specification E7/1.

WORK PERMIT - is defined in specification E7/1.

### **3. MATERIALS**

- 3.1 The Railway Authority will supply all permanent way material and ballast required for the Works except that detailed in the Project Specification and in 3.2 hereof.
- 3.2 Unless otherwise stated in the Project Specification, the Contractor shall supply the following:-
- i) Exothermic portions and moulds for welding of rail joints.
  - ii) Welding rods.
  - iii) Cleaning materials, oil, grease, black lead and graphite for treating contact surfaces and sliding surfaces of items of permanent way material.
  - iv) Track thermometers for measuring rail temperature.
  - v) Shims for setting expansion gaps at rail joints.
  - vi) Tar.
  - vii) Dowels and creosote for plugging holes in wood sleepers.
  - viii) Grease for rail and flange lubricators in accordance with Transnet specification CSS 181/63/1315.
  - ix) White P.V.A. paint for switch boxes, tumbler mass pieces, clearance marks, scotch blocks, derailleurs, stop blocks and cattle guards.
  - x) Steel pegs at least 10mm diameter and 300mm long for survey and setting out.
  - xi) Concrete materials and ingredients for fixing steel pegs in position.
  - xii) Suitable carbon books with detachable sheets, as required.
  - xiii) Other miscellaneous items as stated in the Project Specification.
- 3.3 All material delivered for the works prior to the Contractor starting work on site, will be distributed or stacked by the Technical Officer, as detailed in the Project Specification.
- 3.4 Should the Contractor fail to start work by the time specified in the Project Specification, the Technical Officer may, at his sole discretion, offload and stack or distribute material, and recover money as a penalty from the Contractor, as specified in the Project Specification.
- 3.5 Immediately after he starts work, the Contractor shall check the quantities of all the material distributed or stacked by the Technical Officer and give the Technical Officer a receipt therefore, and thereafter, accept responsibility for the protection and safe custody of such material. Should the Technical Officer agree that it is necessary, the Contractor shall move the material in order to check the quantities.
- 3.6 The Contractor shall provide the Technical Officer together with all construction programs, a detailed Schedule of required dates of delivery of materials, for approval. When approved the Technical Officer will base orders for material thereon. The Contractor shall continuously ascertain whether the material provided by the Technical Officer satisfies his needs, and he shall advise the Technical Officer of any shortages which might delay progress in terms of his approved tender programme. All requests for and advice concerning material shall be made in writing, numbered consecutively and dated. Should the Contractor require material outside his approved schedule, he shall provide the Technical Officer with detail and a revised schedule for approval. The Technical Officer will not be obliged to approve the revised schedule, if the material cannot be supplied in accordance therewith.
- 3.7 The Contractor shall give the Technical Officer receipts for material offloaded from wagons. These receipts shall show the date on which the material was offloaded and the numbers of the wagons from which it was offloaded. The wagon labels shall be attached to the receipts.

3.8 The Contractor shall bring to the notice of the Technical Officer any shortages or defects in any material supplied, and shall endorse the relevant receipt accordingly. If steel or concrete sleepers or second hand permanent way material is supplied, the Contractor shall examine each and every item and shall not use any item which he considers damaged or sub-standard unless the Technical Officer instructs otherwise.

#### **4. PLANT**

4.1 The Contractor shall submit with his tender a list of vehicles, heavy machines, light machines and other tools and equipment he intends to use, with a statement of how these will be applied in his proposed method of construction.

4.2 The Contractor shall submit for the approval of the Technical Officer, a list of any additional heavy machines he intends using prior to the use thereof.

4.3 The Technical Officer may by his written instructions, hire the Contractor's vehicles or plant, including operators at the rates quoted in the Schedule of Quantities and Prices.

4.4 When laying track on new formation the Contractor shall not use machines that may damage the formation.

4.5 The Contractor shall make his own arrangements with the relevant Railway Authorities, for transport of heavy machines to and from the site. Such transport shall be at the cost of the Contractor. Delays due to whatever reasons, occurring while the Contractor's heavy machines travel to the site on open lines as trains controlled by the operating department of the Railway Authority shall be at the risk of the Contractor, subject to extension of time claims in accordance with the Contract document.

4.6 Once the use of heavy machines have been accepted in terms of 4.1 or 4.2, the risk of delays caused by actions of the Technical Officer or the Railway Authority to these machines once they are on the worksite or travelling to the worksite from the specified or approved staging point, will be on the Railway Authority.

The estimated cost to the Railway Authority of hauling these machines on site, during the execution of the works, will be taken into account to the extent as specified in the Project Specification.

4.7 Heavy machines used on the works, shall comply with the following basic requirements:-

4.7.1 All machinery shall be in good condition initially, and the Contractor shall maintain the machinery in good condition for the duration of the contract.

4.7.2 Axle loads shall not exceed 20 tons.

4.7.3 All machines shall have service brakes and independent emergency brakes capable of providing retardation of not less than 12,5% and 6% of gravitational acceleration respectively, on dry rail.

4.7.4 All machines shall actuate all signalling equipment used by the Railway Authority for traffic control.

4.7.5 Each machine shall be operated by a qualified operator.

## **5. CONSTRUCTION**

### **5.1 GENERAL**

- 5.1.1 The Contractor may use machine based or labour based methods, or a combination thereof, for the execution of the Works. He shall submit with his tender a method statement of how he proposes to carry out the work.
- 5.1.2 The Technical Officer and the Contractor may agree on normal working hours other than those defined in the contract, to suit local conditions.
- 5.1.3 The Contractor shall only employ supervisors with knowledge and experience of railway trackwork construction and maintenance, and capable of supervising all phases of the work. Their competence to undertake the work will be assessed by the Technical Officer.
- 5.1.4 The Technical Officer will have the right to stop any work where adequate supervision is not present and no claims will be considered in respect of such stoppage.
- 5.1.5 The Contractor shall record daily in a triplicate carbon copy book sufficient information (and any additional information requested by the Technical Officer), to enable the contract to be efficiently managed and to have available all relevant facts for payment purposes. Each and every sheet of the book must be signed and dated, on the day it is completed, by the Contractor and by the Technical Officer who will remove and retain the original of each set of sheets immediately after he signs it. The Contractor may remove the first copy but the book with the second copy shall remain on site.
- 5.1.6 When the Contractor causes work planned to be done during normal working hours, to extend to outside normal working hours, the cost of overtime payable to the Technical Officer's staff, will be recovered from the Contractor, at the rates specified in the Project Specification. Vice versa, when the work is caused to go outside normal working hours by actions of the Technical Officer or the Railway Authority, the Contractor's cost of overtime will be paid for at the extra-over rate quoted for in the Schedule of Quantities and Prices.

### **5.2 SAFETY PRECAUTIONS**

- 5.2.1 The safety of the public, the employees of the Railway Authority and the Technical Officer's and the Contractor's own staff shall be the primary consideration of the Contractor.
- 5.2.2 The Contractor shall not do any work on an open line without the knowledge and consent of the Technical Officer.
- 5.2.3 The Technical Officer will decide whether a temporary speed restriction is required or not and will arrange for it to be applied. The Contractor shall keep the track safe for the passage of trains at the maximum speed allowed, and he and his workmen shall be prepared to stand aside to allow trains to pass.
- 5.2.4 The Contractor shall ensure that he obtains the temporary speed restriction notices applicable to the site and that he does no work outside the limits given in such notices. The Contractor shall check that the temporary speed-reduction boards have been erected and that the speed shown on the boards agrees with the notice. If there is any discrepancy, the Contractor shall immediately advise the Technical Officer.
- 5.2.5 During and after completion of each day's work, the Technical Officer will evaluate the safety of the track, and the Contractor shall do all work deemed necessary by the Technical Officer to make it safe for the passage of trains at the arranged speed. The line will not be reopened until the Technical Officer certifies in writing that it is safe to do so.

- 5.2.6 Before the start of any occupation, the Contractor shall ensure that he has sufficient workmen, tools and material on site to complete the work planned to be done during the occupation.
- 5.2.7 The Contractor shall not move any clearance mark or obscure it unless work is being done in its immediate vicinity, in which case he shall replace or clear it as soon as it is physically possible to do so and before the end of each working day. Clearance marks shall be replaced in position where the adjacent track centres are 3,45m or 2,75m apart for broad-gauge and narrow-gauge tracks respectively. If the rails are bonded, the Technical Officer must be advised before a clearance mark is moved, and it shall be repositioned as directed by him.
- 5.2.8 The Contractor shall not move any electrified track vertically or horizontally unless the Technical Officer gives permission to do so.

### **5.3 PROGRAMME**

- 5.3.1 Details of available occupation times and other limitations will be given in the Project Specification, around which the Contractor shall plan his programme.
- 5.3.2 The Contractor shall submit with his tender a proposed programme of work. The Contractor shall indicate, as part of this programme, the total number of occupations required, as well as for each occupation, the duration thereof, and the production rate for and type of work intended during that occupation.  
The above information will be taken into account when adjudicating the tender.
- 5.3.3 Before he starts work, the Contractor shall, if requested by the Technical Officer, elaborate on the proposed programme, in writing, for approval by the Technical Officer. Work on open lines tends to disrupt railway traffic, and the work itself is subject to disruption due to the needs of the Railway Authority. The programme must therefore allow for work to be limited as specified in the Project Specification. Should the Contractor be prevented from carrying out a particular activity, he must be prepared to carry on with other activities, when and where possible.

### **5.4 METHODS AND PROCEDURES**

#### **5.4.1 HANDLING OF MATERIAL**

- 5.4.1.1 After he has started work, the Contractor shall load, offload, transport, stack as directed by the Technical Officer, and distribute permanent way material and ballast as required for the works and as approved by the Technical Officer. The sites at which material is to be stacked shall be cleared of all rubbish and vegetation by the Contractor.
- 5.4.1.2 Failure on the part of the Contractor to offload wagons built specially for the conveyance of ballast or rails could result in delays in delivery of subsequent consignments of such materials and this aspect will be taken into consideration if a claim for late supply is made. The Contractor shall as far as is reasonably possible plan and execute the Works so that it will not be unduly delayed by the late arrival of any specific item of material. Demurrage charges as specified in the Project Specification will be applicable to delaying of wagons.
- 5.4.1.3 The Contractor shall take the utmost care when off-loading wagons, that offloaded material or ballast does not damage or interfere with drainage, cables, wires, the movement of the wagons or the running of trains after offloading is complete.

5.4.1.4 If permanent way material or ballast is incorrectly offloaded and/or distributed by the Contractor, he shall bear all costs of rectifying the errors. If material has been incorrectly distributed by the Railway Authority, the Contractor shall rectify the errors as directed by the Technical Officer. Payment at daywork rates will be made for such correction of errors.

5.4.1.5 The Contractor shall obtain the approval of the Technical Officer for the route over which he intends conveying material.

5.4.1.6 The Contractor shall record at least the following information about material handled on site:-

- (a) Wagon numbers and details of contents of any wagons loaded or offloaded.
- (b) The kilometre distances at or over which materials were loaded or offloaded.
- (c) The type and quantity of material handled.
- (d) Deficiencies in quality of material.
- (e) Delays in delivery.
- (f) Shortages of material.

5.4.1.7 The Contractor shall provide the driver of each lorry with a suitable triplicate carbon book with detachable numbered sheets. All such books shall be written up in the same manner. Each time a lorry is loaded, one set of 3 sheets of the book shall be legibly completed by the Contractor or his representative to show the following:

- a) The lorry registration number.
- b) The date.
- c) The time loading was completed.
- d) The quantity and type of material loaded.
- e) The odometer reading.
- f) The signature of the driver.

The driver shall also record the time of arrival and odometer reading on the same set of sheets in the book. Both the driver and the Technical Officer's representative shall sign the book and the Technical Officer's representative will retain the original sheet.

5.4.1.8 Should the odometer of any lorry become defective, the lorry shall be withdrawn from service until the odometer has been repaired.

#### 5.4.2 **LEVEL CROSSINGS**

5.4.2.1 When it is necessary for the Contractor to disturb the road surface at a level crossing, he shall give the Technical Officer 3 weeks' written notice, or such other period specified in the Project Specification, and shall carry out all instructions and comply with all requirements laid down by the road authority as directed by the Technical Officer and as specified in the Project Specifications. When the crossing is fitted with precast concrete slabs, they shall be uplifted and replaced by the Contractor as directed by the Technical Officer. On lines within 30 m of an electrified line, the Contractor shall paint the buried lengths of rail at level crossings with tar.

5.4.2.2 The Contractor shall remove cattle guards, repaint them with white P.V.A. paint and reattach them as shown on the drawings and shall correct the drainage if necessary. While any portion of a cattle guard is not in its proper position, the Contractor shall, at his own cost, ensure that no animals gain access to the right-of-way.

### 5.4.3 MATERIAL TRAINS

- 5.4.3.1 The Technical Officer will arrange material trains for off-loading of material, under the same conditions specified in clause 3.6. The Contractor shall order material trains for loading of released material timeously, as specified in the Project Specifications. The Technical Officer will give the Contractor at least 24 hours notice of the date and time for which a material train has been arranged and give details of types and approximate quantities of material to be offloaded.
- 5.4.3.2 The Contractor shall supply sufficient supervision and labour to offload or load all the wagons in material trains during the hours which the trains are scheduled to work. The Contractor shall close all doors before the train departs whether he opened them or not.
- 5.4.3.3 If a material train is delayed in any way by any act of the Contractor, he will be held liable for demurrage charges on any wagons so delayed at the rates specified in the Project Specifications for the full period of such delay.
- 5.4.3.4 The Technical Officer will keep the Contractor informed as to the running times of material trains and their expected arrival times. The Contractor shall arrange his work to avoid, as far as possible, any loss of working time while waiting for a material train to arrive. The Contractor will be compensated for time lost due to a material train being late only if the material train arrives more than 30 minutes late, or is cancelled, and provided that the Technical Officer certifies that no other work was available within a reasonable distance of where the train was arranged to stop first.
- 5.4.3.5 The Contractor shall record at least the following information about material trains:-
- a) The time a material train was due.
  - b) The time a material train stopped at the site.
  - c) All interruptions in excess of 30 minutes in working a material train.
  - d) The time a material train left the site.
  - e) The names of the Contractor's and the Technical Officer's representatives attending to a material train.
  - f) The number of the Contractor's workmen assigned to work with a train.

### 5.4.4 PLATELAYING

- 5.4.4.1 The Technical Officer will provide the Contractor with survey information as specified in specification E10/11, as well as in the Project Specification, for alignment of the works.
- 5.4.4.2 Before any items of permanent way material subject to movement are assembled, all contact surfaces shall be cleaned, oiled, greased or blacklead and polished as required. The contact surfaces between the rails, sleepers and sleeper fastenings shall be kept free of oil, grease and foreign matter.
- 5.4.4.3 Unless self-locking nuts are supplied, spring washers must be fitted under the nuts.
- 5.4.4.4 Permanent way material shall be assembled as shown on the relevant drawings.
- 5.4.4.5 When curved track is aligned, the high leg must be positioned at 533 mm from the centre line pegs for broad gauge track, and at 305 mm for narrow gauge track.
- 5.4.4.6 The Contractor shall destress the rails after certain operations on open lines, as specified in the Project Specification.

- 5.4.4.7 The Contractor shall at all times ensure that sleepers are adequately packed to avoid derailments or damage to perway material or the formation. Any such damage will be for the Contractor's account.
- 5.4.4.8 If there is a mismatch at a fish-plated railjoint of more than 1 mm, this mismatch shall be reduced to less than 1 mm, as specified in Track Welding Specification SSS-8.
- 5.4.4.9 When joints in rails, which are to be welded, are temporarily fishplated the following shall apply:
- a) The joint shall be midway between sleepers, to be achieved by either moving of sleepers or cutting off short sections of rail.
  - b) The cutting of rails shall generally be in accordance with specification E10/1.
  - c) The joint may be fishplated by either:-
    - i) Using joggle type fishplates (painted yellow), together with four clamps; or
    - ii) Using conventional fishplates with drilling and bolting, except that this method may not be used on CrMn - rails.
  - d) On open lines, temporarily fishplated joints may not be left in the track for longer than three days.
  - e) The Contractor shall obtain the Technical Officer's approval of the position of the joints. The Technical Officer will only certify payment for the joint if the joint was made at his request or instruction, and not when it was provided for the convenience of the Contractor.
- 5.4.4.10 The Contractor shall record daily at least the following information about work performed :-
- a) The amount of work performed per scheduled item.
  - b) Whether the work was done under total occupation, occupation between trains or work permit.
  - c) The weather conditions.
  - d) The state of the work site and roads.
  - e) Details of any occurrence which may have a bearing on any claim which the Contractor may wish to make. No claims will be considered unless supported by an entry in the diary containing all the facts on which the claim is based.

#### 5.4.5 **FINISHING**

- 5.4.5.1 After the track has been brought to the final level, the Contractor shall check and correct the running top, the expansion gaps, gauge and superelevation. He shall arrange with the Technical Officer to check, together with the Signalling Technician of the Railway Authority, turnouts, slips, scissors and diamond crossings and derailleurs to ensure that they have been installed correctly and operate correctly. He shall realign the track, tighten all fastenings, check and correct the quantity of ballast, and box in and trim.
- 5.4.5.2 The Contractor shall be responsible for all maintenance of the Works until such time as the track is taken over by the Technical Officer, when the standard of the track shall be as specified.

#### 5.4.6 **RELEASEMENTS AND SURPLUS MATERIAL**

- 5.4.6.1 The Contractor shall dispose of released and surplus material in accordance with the Project Specification.
- 5.4.6.2 Released material shall not be stacked or loaded into wagons together with new or second-hand material supplied surplus to requirements for the works. Each type of permanent way material shall be stacked separately. Material shall be loaded into wagons as directed by the Technical Officer.
- 5.4.6.3 Material trains for the loading of released and surplus material will be arranged as provided for in the Project Specification.

- 5.4.6.4 To achieve safe working conditions at the site, clearing and loading of released material shall be a continuous operation which shall be done as the work proceeds. Small items of released rail and sleeper fastenings, as well as wood sleepers, shall be cleared out of the section before the end of each day, as specified in the Project Specifications.
- 5.4.6.5 The Contractor shall, on every day that material is loaded, give the Technical Officer a signed, dated list in duplicate for each wagon, detailing the type and quantity of material in each wagon and giving the wagon number and place where loaded. The Technical Officer will sign the lists and return the duplicate to the Contractor as a receipt.
- 5.4.6.6 If the Technical Officer instructs that material is to be left in stacks, the Contractor and Technical Officer shall together count it. The Contractor shall give the Technical Officer a signed list in duplicate of all such material. The list shall indicate where and on what date the stack was made. The Technical Officer will sign the list and return the duplicate to the Contractor as a receipt. Thereafter the Railway Authority will be responsible for that material.

## **5.5 STANDARDS**

### **5.5.1 GENERAL**

#### **5.5.1.1 Lines are classified into the following classes:-**

- Class S
- Class N1
- Class N2
- Class N3
- Yard lines

5.5.1.2 An outline of the track design standard applicable to each class of line is shown in Annexure C Sheet 1 hereto.

5.5.1.3 For each class of line, A, B or C categories of track condition standards are defined herein and in the supplementary specifications. The condition standards with which completed trackwork shall comply, are as specified in the Project Specification.

#### **5.5.1.4 During construction, the following interim condition standards shall apply:-**

- a) For opened up track, to allow trains to run at the temporary restricted speed. - C standard.
- b) For distressing of rails - B standard, unless C standard has been specified for the completed trackwork.

**5.5.2 TRACK GAUGE**

- 5.5.2.1 The nominal gauge on the straight for broad-gauge track shall be 1 065 mm and for narrow-gauge track 610 mm.
- 5.5.2.2 The gauge for track on curves shall be as follows:

RADIUS OF CURVE	NOT CHECK-RAILED	CHECK-RAILED
<b>BROAD-GAUGE TRACK</b>		
Under 135 m	1 085 mm	1 090 mm
135 m - 150 m	1 080 mm	1 085 mm
151 m - 175 m	1 075 mm	-
176 m - 200 m	1 070 mm	-
Over 200 m	1 065 mm	-
<b>NARROW-GAUGE TRACK</b>		
Under 201 m	620 mm	
201 m - 300 m	615 mm	
Over 300 m	610 mm	

- 5.5.2.3 Gauge widening on circular and transition curves, shall be provided in accordance with Annexure F hereof.

**5.5.3 SUPERELEVATION**

- 5.5.3.1 The Contractor shall provide superelevation as specified in the Project Specification or as directed by the Technical Officer. In the absence of such directives, it shall be provided in accordance with the clauses below.
- 5.5.3.2 Superelevation shall be provided on curves on open lines in accordance with annexure G hereof. In yard tracks the superelevation shall be 10 mm on all curves.
- 5.5.3.3 On curves without transitions, two thirds of the full superelevation shall be provided at the beginning and ends of the curves. The superelevation shall be increased to the full amount towards the middle of the curve and decreased to zero into the straight at a rate not exceeding 20 mm in 10 m.
- 5.5.3.4 On curves with transitions, application of superelevation shall commence at the point where the transition curve meets the straight and be provided at a uniform rate over the transition curve, to reach the required value for the curve at the beginning of the circular curve, provided that the rate of application of superelevation does not exceed 20 mm in 10 m. If it is not possible to reach the required superelevation at the beginning of the circular curve at the abovementioned maximum rate, the increase of superelevation at this maximum rate shall be continued into the circular curve until the required superelevation is reached.

5.5.3.5 On reverse curves where the intervening straight is less than 40 m, zero superelevation shall be provided for a distance of 6 m between the two curves.

#### 5.5.4 **TORQUE**

Unless otherwise specified in the Project Specification or supplementary specification E.10/12, all rail and sleeper fastenings, bolts and screws, shall be tightened to a torque of 340 N.m.

#### 5.5.5 **CLEARANCES**

At specific points, the Technical Officer may instruct that clearances less than the minimum specified in specification E7/1 shall apply.

### 5.6 **COMPLETION**

#### 5.6.1 **TAKING OVER**

5.6.1.1 The Contractor shall complete trackwork ready for taking over, at the rates and in quantities as specified in the Project Specification. The Technical Officer may at his sole discretion, take over portions of the work under lesser conditions than those specified in the Project Specifications, of which he will advise the Contractor.

5.6.1.2 Work will only be taken over after it has been tested and found to be satisfactory.

#### 5.6.2 **MAINTENANCE PERIOD**

Notwithstanding the requirements in the contract dealing with maintenance of the Works after completion thereof, the Contractor will be relieved of all responsibilities for the maintenance of any portion of the trackwork after the Technical Officer has taken it over, except that latent defects shall be rectified.

### 6. **TOLERANCES**

Unless otherwise specified in the Project Specification, the permissible deviations from the specified standards shall be within the limits specified hereinafter.

#### 6.1 **HORIZONTAL ALIGNMENT**

##### 6.1.1 **TRACK CENTRELINE**

The centreline of the track shall be aligned correctly to within 20 mm from the staked line, on all classes and standards of lines.

##### 6.1.2 **STRAIGHT TRACK AND CURVES**

On straight track and curves, the mid-ordinate measured on the gauge side of both rails from a chord of 10 m, shall not exceed the value calculated from the formulae specified in table A1 of Annexure A hereto. In addition, the number of measurements allowed to be one standard lower, is also specified in the above table.

## **6.2 VERTICAL ALIGNMENT**

### **6.2.1 TRACK LEVEL.**

Track levels shall be within 10 mm of the specified levels.

### **6.2.2 RUNNING TOP AND VERTICAL CURVES**

The maximum permissible deviation from the theoretical grade measured by means of a standard track gauge measuring instrument, shall not exceed the values calculated from the formulae specified in table A1 Annexure A hereof. In addition the number of measurements allowed to be one standard lower, is also specified in the above table.

### **6.2.3 SUPERELEVATION**

The superelevation at any point, shall not differ from the required superelevation by more than the values in table A1 of Annexure A hereof.

In addition, the number of measurements allowed to be one standard lower, is also specified in the above table.

### **6.2.4 TWIST**

The algebraic difference between the measured superelevations at any two measuring points, shall not exceed the theoretical difference by more than the values calculated from the formulae in table A1 of Annexure A hereof. The values given in brackets in the table, is the calculated value for measuring points 5 m apart.

## **6.3 TRACK GAUGE**

The algebraic difference between the actual gauge and the required gauge shall not be more than the maximum nor less than the minimum shown in table A2 of Annexure A hereof. In addition, the algebraic difference between the deviations at any two measuring points 5 m apart, shall not be more than the maximum values in the above mentioned table.

## **6.4 SLEEPER SPACING**

The spacing between any two adjacent sleepers shall not exceed the specified spacing by more than the values shown in table A3 of Annexure A hereof.

In addition, the total number of sleepers on a 50 m portion of track, shall not differ from the specified number of sleepers by more than the numbers shown in table A4 of Annexure A hereof.

## **6.5 SQUARENESS OF SLEEPERS**

Sleepers shall not be out of square relative to the centreline of the track, by more than 25 mm for A Standard and 50 mm for B and C Standard lines, measured at the running edges of the rail crowns.

## **6.6 BALLAST PROFILE**

The dimensions Y, K and Z defined in the diagram in Annexure C sheet 2, shall not be less than the minimum nor more than the maximum values in the table in that Annexure, unless otherwise specified in the Project Specification.

## **6.7 STRUCTURE GAUGE**

The horizontal and vertical clearances shall be not less than those specified in specification E7/1. The horizontal distance from track centreline to a platform shall not exceed the specified distance by more than 20 mm.

## **7. TESTING**

### **7.1 QUALITY**

7.1.1 Testing of the trackwork will take the form of the checking of construction generally to comply with the specifications, and by measuring the items listed in 6 hereof.

7.1.2 The Contractor shall measure and mark the track at 5 meter intervals and indicate the kilometre distance at each 20 m mark. The horizontal and vertical track alignment, and the gauge shall be measured at each 5 m station, clearance to obstructions where necessary, and the rest at 20 m stations. The results shall be recorded and evaluated by the Contractor before handing them to the Technical Officer. On open lines, this shall be done before the end of each day and prior to the opening of the track to traffic. Final measurements shall be made not longer than 24 hours before final handover, or as detailed in the Project Specification.

7.1.3 The Contractor shall advise the Technical Officer in writing (stating kilometre distances), when he considers that he has completed all the work on a section which he wishes the Technical Officer to take over, and after he has done his own inspection and measuring of the work. The Technical Officer will, within 3 days of receipt of such notification, inspect the section in the company of the Contractor. The Technical Officer will point out any defects he sees to the Contractor who shall record such defects in duplicate. On completion of the inspection, both parties shall sign the record and the Technical Officer will endorse the record that either he is prepared to take over the track immediately subject to the defects being remedied within a specified time or that the Contractor shall remedy the defects and then ask for another inspection. The Technical Officer will retain the original of the record.

7.1.4 At the start of any inspection by the Technical Officer in accordance with 7.1.3 hereof, the Technical Officer may define a sample test portion of that section that the Contractor wants him to take over. When inspection of that sample portion indicates defects at more than 5% of the number of measurements, the Technical Officer may abandon the inspection and will endorse the record accordingly. Before requesting another handover of that section, the Contractor shall re-inspect the section, and rectify all faults.

7.1.5 The testing of the track will be deemed to be successful, if all measurements are within the specified tolerances.

### **7.2 PRODUCTION**

7.2.1 The production rate tendered for work to be done under occupations, will be used as the basis to test the production actually achieved, for which penalties or bonuses will be calculated in terms of the Project Specification.

## TOLERANCES ON TRACK GEOMETRY STANDARDS

TYPE	METHOD	PERMISSIBLE DEVIATION FROM STANDARD			NUMBER OF PERMISSIBLE MEASUREMENTS ONE STANDARD LOWER	
		A	B	C	Per 500 m portion	per each set
<u>VERTICAL ALIGNMENT</u>						
Top - All track	Gauge measuring instrument	1:1000	1:250	1:180	3	1
Superelevation - all track	Gauge measuring instrument	3 mm	12 mm	16 mm	10	10%
Twist - transition curves	Gauge measuring instrument	1:500 (10 mm)	1:400 (12,5 mm)	1:288 (17,5 mm)		
Twist - all other track	Calculated from superelevation	1:1000 (5 mm)	1:400 (12,5 mm)	1:288 (17,5 mm)		
	Calculated from superelevation					
<u>HORIZONTAL ALIGNMENT</u>						
Versine - curves	10 m chord	2,5 mm + 5% of Correct versine	2,5 mm + 20% of correct versine	2.5 mm + 30% of correct versine	8	10%
Alignment - straight track	10 m chord	1:2000	1:500	1:360	8	10%

**ANNEXURE E****SLEEPER SPACING**

	Permissible deviation from specified spacing (mm)		
	A - Standard	B - Standard	C - Standard
At rail joints	10	30	40
Rest of Track	25	100	150

**SLEEPER PER 50 m TRACK**

	Permissible deviation from specified number		
	A - Standard	B - Standard	C - Standard
Insufficient sleepers	0	2	4
Too many sleepers	0	4	8

**PARTICULAR SPECIFICATION**

**PASSENGER RAIL AGENCY OF SOUTH AFRICA LIMITED**

**PART 3 - E7/1 (July 1998)**

**SPECIFICATION FOR WORKS ON, OVER, UNDER OR ADJACENT TO RAILWAY LINES AND NEAR  
HIGH VOLTAGE EQUIPMENT**

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### **APPENDIXES**

1. Horizontal clearances 1 065 mm gauge
2. Vertical clearances 1 065 mm gauge
3. Clearances 610 mm gauge
4. Platform clearances

#### **1. DEFINITIONS**

The following definitions shall apply:

**Authorised Person.** A person whether an employee of PRASA or not, who has been specially authorised to undertake specific duties in terms of Metrorail's publication SAFETY INSTRUCTIONS: HIGH-VOLTAGE ELECTRICAL EQUIPMENT, and who holds a certificate or letter of authority to that effect.

**Barrier.** Any device designed to restrict access to "live" high-voltage electrical equipment.

Bond. A short conductor installed to provide electrical continuity.

Contractor. Any person or organisation appointed by PRASA to carry out work on its behalf.

Dead. Isolated and earthed.

Electrical Officer (Contracts). The person appointed in writing by the responsible Electrical Engineer in PRASA as the person who shall be consulted by the Contractor in all electrical matters to ensure that the Contractor takes adequate safety precautions.

Executive Officer. The person appointed by PRASA from time to time as the Executive Officer to act according to the rights and powers held by and obligations placed upon him in terms of the Contract.

High-Voltage. A voltage normally exceeding 1 000 volts.

Live. A conductor is said to be "live" when it is at a potential different from that of the earth or any other conductor of the system of which it forms a part.

Near. To be in such a position that a person's body or the tools he is using or any equipment he is handling may come within 3 metres of live exposed high-voltage electrical equipment.

Occupation. An authorisation granted by PRASA for work to be carried out under specified conditions on, over under or adjacent to railway lines.

Occupation Between Trains. An occupation during an interval between successive trains.

Project Manager. The person or juristic person appointed by PRASA from time to time as the Project Manager, to administer the Contract according to the powers and rights held by and obligations placed upon him in terms of the Contract. Responsible Representative. The responsible person in charge, appointed by a contractor, who has undergone specific training (and holds a certificate) to supervise staff under his control to work on, over, under or adjacent to railway lines and in the vicinity of high-voltage electrical equipment.

Technical Officer. The person or juristic person appointed by PRASA from time to time as the Technical Officer, to administer the Contractor's performance and execution of the Works according to the powers and rights held by and obligations placed upon the Technical Officer in terms of the Contract.

Total Occupation. An occupation for a period when trains are not to traverse the section of line covered by the occupation.

Work on. Work undertaken on or so close to the equipment that the specified working clearances to the live equipment cannot be maintained.

Work Permit. A combined written application and authority to proceed with work on or near dead electrical equipment.

## 2. **PART 1 - GENERAL SPECIFICATION**

### **AUTHORITY OF OFFICERS OF PRASA**

- 2.1 The Contractor shall co-operate with the officers of PRASA and shall comply with all instructions issued and restrictions imposed with respect to the Works which bear on the existence and operation of PRASA's railway lines and high-voltage equipment.
- 2.2 Without limiting the generality of the provisions of 2.1, any duly authorised representative of PRASA, having identified himself, may stop the work if, in his opinion, the safe passage of trains or the safety of PRASA assets or any person is affected. **CONSIDERATIONS OF SAFETY SHALL TAKE PRECEDENCE OVER ALL OTHER CONSIDERATIONS.**

### 3. **CONTRACTOR'S REPRESENTATIVES**

- 3.1 The Contractor shall nominate Responsible Representatives of whom at least one shall be available at any hour for call-out in cases of emergency. The Contractor shall provide the Technical Officer with the names, addresses and telephone numbers of the representatives.
- 3.2 The Contractor guarantees that he has satisfied himself that the Responsible Representative is fully conversant with this specification and that he shall comply with all his obligations in respect thereof.

### 4 **OCCUPATIONS AND WORK PERMITS**

- 4.1 Work to be done during total occupation or during an occupation between trains or under a work permit shall be done in a manner decided by the Technical Officer and at times to suit PRASA requirements.
- 4.2 The Contractor shall organise the Works in a manner which will minimise the number and duration of occupations and work permits required.
- 4.3 PRASA will not be liable for any financial or other loss suffered by the Contractor arising from his failure to complete any work scheduled during the period of an occupation or work permit.
- 4.4 The Contractor shall submit to the Technical Officer, in writing, requests for occupations or work permits together with details of the work to be undertaken, at least 14 days before they are required. PRASA does not undertake to grant an occupation or work permit for any particular date, time or duration.
- 4.5 PRASA reserves the right to cancel any occupation or work permit at any time before or during the period of occupation or work permit. If, due to cancellation or change in date or time, the Contractor is not permitted to start work under conditions of total occupation or work permit at the time arranged, all costs caused by the cancellation shall be born by the Contractor except as provided for in clauses 4.6 to 4.8.
- 4.6 When the Contractor is notified less than 2 hours before the scheduled starting time that the occupation or work permit is cancelled, he may claim reimbursement of his direct financial losses caused by the loss of working time up to the time his labour and plant are employed on other work, but not exceeding the period of the cancelled occupation or work permit.
- 4.7 When the Contractor is notified less than 2 hours before the schedule starting time, or during an occupation or work permit, that the duration of the occupation or work permit is reduced, he may claim reimbursement of his direct financial losses caused by the loss of working time due to the reduced duration of the occupation or work permit.
- 4.8 Reimbursement the Contractor for any loss of working time in terms of 4.6 and 4.7, shall be subject to his claims being submitted within 14 days of the event with full details of labour and plant involved, and provided that the Technical Officer certifies that no other work on which the labour and plant could be employed was immediately available.
- 4.9 Before starting any work for which an occupation has been arranged, the Contractor shall obtain from the Technical Officer written confirmation of the date, time and duration of the occupation.
- 4.10 Before starting any work for which a work permit has been arranged, the Responsible Representative shall read and sign portion C of form No. T.1276 signifying that he is aware of the limits within which work may be undertaken. After the work for which the permit was granted has been completed, or when the work permit is due to be terminated, or if the permit is cancelled after the start, the same person who signed portion C shall sign portion D of the T.1276 form, thereby acknowledging that he is aware that the electrical equipment is to be made "live". The Contractor shall advise all his workmen accordingly.

5. **SPEED RESTRICTIONS AND PROTECTION**

- 5.1 When speed restrictions are imposed by PRASA because of the Contractor's activities, the Contractor shall organise and carry out his work so as to permit the removal of the restrictions as soon as possible.
- 5.2 When the Technical Officer considers protection to be necessary the Contractor shall, unless otherwise agreed, provide all protection including flagmen, other personnel and all equipment for the protection of PRASA's and the Contractor's personnel and assets, the public and including trains.

PRASA will provide training free of charge of the Contractor's flagmen and other personnel performing protection duties. The Contractor shall consult with the Technical Officer, whenever he considers that protection will be necessary, taking into account the minimum permissible clearances set out in appendixes 1 to 4.

- 5.2 The Contractor shall appoint a Responsible Representative to receive and transmit any instruction, which may be given by PRASA personnel providing protection.

6. **ROADS ON PRASA PROPERTY**

The provision of clause 25 of the E.5, General Conditions of Contract, or clause 23 of the E.5 (MW), General Conditions of Contract for Maintenance Works, shall apply to the use of existing roads on PRASA's property.

7. **CLEARANCES**

- 7.1 No temporary works shall encroach on the appropriate minimum clearances set out in Appendixes 1 to 4.

8. **STACKING OF MATERIAL**

- 8.1 The Contractor shall not stack any material closer than 3 m from the centre line of any railway line without prior approval of the Technical Officer.

9. **EXCAVATION, SHORING, DEWATERING AND DRAINAGE**

- 9.1 Unless otherwise approved by the Technical Officer any excavation adjacent to a railway line shall not encroach on the hatched area shown in Figure 1.

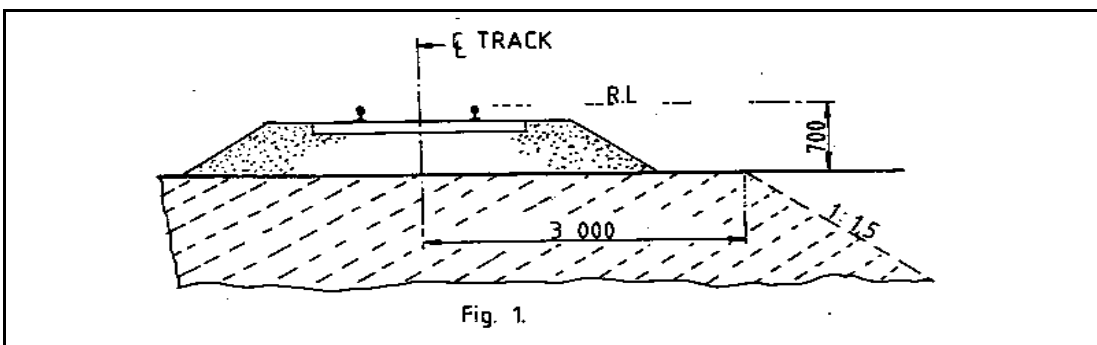


Fig. 1.

- 9.2 The Contractor shall provide at his own cost any shoring, dewatering or drainage of any excavation unless otherwise stipulated elsewhere in the Contract.
- 9.3 Where required by the Technical Officer, drawings of shoring for any excavation under or adjacent to a railway line shall be submitted and permission to proceed, obtained before the excavation is commenced.

- 9.4 The Contractor shall prevent ingress of water to the excavation but where water does enter, he shall dispose of it as directed by the Technical Officer.
- 9.5 The Contractor shall not block, obstruct or damage any existing drains either above or below ground level unless he has made adequate prior arrangements to deal with drainage.

10. **FALSEWORK FOR STRUCTURES**

- 10.1 Drawings of falsework for the construction of any structure over, under or adjacent to any railway line shall be submitted to the Technical Officer and his permission to proceed obtained before the falsework is erected. Each drawing shall be given a title and a distinguishing number and shall be signed by a registered professional engineer certifying that he has checked the design of the falsework and that the drawings are correct and in accordance with the design.
- 10.2 After the falsework has been erected and before any load is applied, the Contractor shall submit to the Technical Officer a certificate signed by a registered professional engineer certifying that he has checked the falsework and that it has been erected in accordance with the drawings. Titles and numbers of the drawings shall be stated in the certificate. Notwithstanding permission given by the Technical Officer to proceed, the Contractor shall be entirely responsible for the safety and adequacy of the falsework.

11. **PILING**

- 11.1 The Technical Officer will specify the conditions under which piles may be installed on PRASA property.

12. **UNDERGROUND SERVICES**

- 12.1 No pegs or stakes shall be driven or any excavation made before the Contractor has established that there are no underground services, which may be damaged thereby.
- 12.2 Any damage shall be reported immediately to the Technical Officer, or to the official in charge at the nearest station, or to the traffic controller in the case of centralised traffic control.

13. **BLASTING**

- 13.1 The provisions of clause 23 of the E.5, General Conditions of Contract or clause 21 of the E.5 (MW), General Conditions of Contract for Maintenance Work, shall apply to all blasting operations undertaken in terms of the Contract.
- 13.2 The Contractor shall provide proof that he has complied with the provisions of clauses 10.17.1 to 10.17.4 of the Explosives Regulations (Act 26 of 1956 as amended).
- 13.3 Blasting within 500m of a railway line will only be permitted during intervals between trains. A person appointed by the Technical Officer, assisted by flagmen with the necessary protective equipment, will be in communication with the controlling railway station.

Only this person will be authorised to give the Contractor permission to blast, and the Contractor shall obey his instructions implicitly regarding the time during which blasting may take place.

- 13.4 The flagmen described in 13.3, where provided by PRASA, are for the protection of trains and PRASA property only, and their presence does not relieve the Contractor in any manner of his responsibilities in terms of Explosives Act or Regulations, or any obligation in terms of this Contract.
- 13.5 The person described in 13.3 will record in a book provided and retained by PRASA the dates and times –
- (i) when each request is made by him to the controlling station for permission to blast;
  - (ii) when blasting may take place;

(iii) when blasting actually takes place; and

iv) when he advises the controlling station that the line is safe for the passage of trains.

13.6 Before each blast, the Contractor shall record in the same book, the details of the blast to be carried out. The person appointed by the Technical Officer and the person who will do the blasting shall both sign the book whenever an entry described in 13.5 is made.

13.7 The terms of clause 27 hereof shall be strictly adhered to.

#### 14. **RAIL TROLLEYS**

14.1 The use of rail trolleys or trestle trolleys on a railway line for working on high voltage equipment will be permitted only if approved by the Technical Officer and under the conditions stipulated by him.

14.2 All costs in connection with such trolley working requested by the Contractor shall, unless otherwise agreed, be borne by the Contractor, excluding the costs of any train protection services normally provided free of charge by PRASA.

#### 15. **SIGNAL TRACK CIRCUITS**

15.1 Where signal track circuits are installed, the Contractor shall ensure that no material capable of conducting an electrical current makes contact between rails of a railway line/lines.

15.2 No signal connections on track-circuited tracks shall be severed without the Technical Officer's knowledge and consent.

#### 16. **PENALTY FOR DELAYS TO TRAINS**

16.1 If any trains are delayed by the Contractor and the Technical Officer is satisfied that the delay was avoidable, a penalty will be imposed on the Contractor of R5 000 per hour or part thereof for the period of delay, irrespective of the number of trains delayed.

### **PART B - ADDITIONAL SPECIFICATION FOR WORK NEAR HIGH-VOLTAGE ELECTRICAL EQUIPMENT**

#### 17. **GENERAL**

17.1 This specification is based on the contents of Metrorail's publication SAFETY INSTRUCTIONS, HIGH-VOLTAGE ELECTRICAL EQUIPMENT, as amended, a copy of which will be made available on loan to the Contractor for the duration of the contract.

These instructions apply to all work near live high-voltage equipment maintained and/or operated by PRASA, and the onus rests on the Contractor to ensure that he obtains a copy.

17.2 The Contractor's attention is drawn in particular to the contents of Part I, Sections 1 and 2 of the Safety Instructions: High-Voltage Electrical Equipment.

17.3 The Safety Instructions: High-Voltage Electrical Equipment cover the minimum safety precautions which must be taken to ensure safe working on or near high-voltage electrical equipment, and must be observed at all times. Should additional safety measures be considered necessary because of peculiar local conditions, these may be ordered by and at the discretion of the Electrical Officer (Contracts).

17.4 This specification must be read in conjunction with and not in lieu of the Safety Instructions: High-Voltage Electrical Equipment.

- 17.5 The Contractor shall obtain the approval of the Electrical Officer (Contracts) before any work is done which causes or could cause any portion of a person's body or the tools he is using or any equipment he is handling, to come within 3 metres of any live high-voltage equipment.
- 17.6 The Contractor shall regard all high-voltage equipment as live unless a work permit is in force.
- 17.7 Safety precautions taken or barriers erected shall comply with the requirements of the Electrical Officer (Contracts), and shall be approved by him before the work to be protected is undertaken by the Contractor. The Contractor shall unless otherwise agreed bear the cost of the provision of the barriers and other safety precautions required, including the attendance of PRASA staff where this is necessary.
- 17.8 No barrier shall be removed unless authorised by the Electrical Officer (Contracts).

18. **WORK ON BUILDINGS OR FIXED STRUCTURES**

- 18.1 Before any work is carried out or measurements are taken on any part of a building, fixed structure or earthworks of any kind above ground level situated within 3 metres of live high-voltage equipment, the Electrical Officer (Contracts) shall be consulted to ascertain the conditions under which the work may be carried out.
- 18.2 No barrier erected to comply with the requirements of the Electrical Officer (Contracts) shall be used as temporary staging or shuttering for any part of the Works.
- 18.3 The shuttering for bridge piers, abutments, retaining walls or parapets adjacent to or over any track may be permitted to serve as a barrier, provided that it extends at least 2,5 metres above any working level in the case of piers, abutments and retaining walls and 1,5 metres above any working level in the case of parapets.

19. **WORK DONE ON OR OUTSIDE OF ROLLING STOCK, INCLUDING LOADING OR UNLOADING**

- 19.1 No person shall stand, climb or work whilst on any platform, surface or foothold higher than the normal unrestricted places of access, namely:-
- (i) the floor level of trucks;
  - (ii) external walkways on diesel, steam and electric locomotives, steam heat vans, etc. and
  - (iii) walkways between coaches and locomotives.

When in these positions, no person may raise his hands or any equipment or material he is handling above his head.

- 19.2 In cases where the Contractor operates his own rail mounted equipment, he shall arrange for the walkways on this plant to be inspected by the Electrical Officer (Contracts) and approved, before commencement of work.
- 19.3 The handling of long lengths of material such as metal pipes, reinforcing bars, etc should be avoided, but if essential they shall be handled as nearly as possible in a horizontal position below head height.
- 19.4 The Responsible Representative shall warn all persons under his control of the danger of being near live high-voltage equipment, and shall ensure that the warning is fully understood.
- 19.5 Where the conditions in 19.1 to 19.3 cannot be observed the Electrical Officer (Contracts), shall be notified. He will arrange for suitable Safety measures to be taken. The Electrical Officer (Contracts), may in his discretion and in appropriate circumstances, arrange for a suitable employee of the Contractor to be specially trained by METRORAIL and at its costs, as an Authorised Person to work closer than 3 metres from live overhead conductors and under such conditions as may be imposed by the Senior responsible Electrical Engineer in PRASA.

## 20. **USE OF EQUIPMENT**

### 20.1 Measuring Tapes and Devices

- 20.1.1 Measuring tapes may be used near live high-voltage equipment provided that no part of any tape or a person's body comes within 3 metres of the live equipment.
- 20.1.2 In windy conditions the distance shall be increased to ensure that if the tape should fall it will not be blown nearer than 3 metres from the live high-voltage equipment.
- 20.1.3 Special measuring devices longer than 2 metres such as survey staves and rods may be used if these are of non-conducting material and approved by the responsible Electrical Engineer in PRASA, but these devices must not be used within 3 metres of live high-voltage equipment in rainy or wet conditions.
- 20.1.4 The assistance of the Electrical Officer (Contracts) shall be requested when measurements within the limits defined in 20.1.1 to 20.1.3 are required.
- 20.1.5 The restrictions described in 20.1.1 to 20.1.3 do not apply on a bridge deck between permanent parapets nor in other situations where a barrier effectively prevents contact with the live high-voltage equipment.

### 20.2 Portable Ladders

- 20.2.1 Any type of portable ladder longer than 2 metres may only be used near live high-voltage equipment under the direct supervision of the Responsible Representative. He shall ensure that the ladder is always used in such a manner that the distance from the base of the ladder to any live high-voltage equipment is greater than the fully extended length of the ladder plus 3 metres. Where these conditions cannot be observed, the Electrical Officer (Contracts) shall be advised, and he will arrange for suitable safety measures to be taken.

## 21. **CARRYING AND HANDLING MATERIAL AND EQUIPMENT**

- 21.1 Pipes, scaffolding, iron sheets, reinforcing bars and other material that exceeds 2 metres in length shall be carried completely below head height near live high-voltage equipment. For maximum safety two or more persons to maintain it as nearly as possible in a horizontal position should carry such material. The utmost care must be taken to ensure that no part of the material comes within 3 metres of any live high-voltage equipment.
- 21.2 Long lengths of wire or cable shall never be run out in conditions where a part of a wire or cable can come within 3 metres of any live high-voltage equipment unless the Electrical Officer (Contracts) has been advised and has approved appropriate safety precautions.
- 21.3 The presence of overhead power lines shall always be taken account of especially when communications lines or cables or aerial cables, stay wires, etc. are being erected above ground level.

## 22. **PRECAUTIONS TO BE TAKEN WHEN ERECTING OR REMOVING POLES, ANTENNAE, TREES ETC.**

- 22.1 A pole may be handled for the purpose of erection or removal near high-voltage equipment under the following conditions:
  - 12.4.1.1 If the distance between the point at which the pole is to be erected or removed and the nearest live high-voltage equipment is more than the length of the pole plus 3 metres, the work shall be supervised by the Responsible Representative.

(ii) If the distance described in (i) is less than the length of the pole plus 3 metres, the Electrical Officer (Contracts) shall be consulted to arrange for an Authorised Person to supervise the work and to ensure that the pole is earthed where possible. The pole shall be kept in contact with the point of erection, and adequate precautions shall be taken to prevent contact with live high-voltage equipment.

22.2 The cost of supervision by an Authorised Person and the provision of earthing shall, unless otherwise agreed, be borne by the Contractor.

22.3 The provisions of clauses 22.1 and 22.2 shall also apply to the erection or removal of columns, antennae, trees, posts, etc.

23. **USE OF WATER**

23.1 No water shall be used in the form of a jet if it can make contact with any live high-voltage equipment or with any person working on such equipment.

24. **USE OF CONSTRUCTION PLANT**

24.1 "Construction plant" entails all types of plant including cranes, piling frames, boring machines, excavators, draglines, dewatering equipment and road vehicles with or without lifting equipment.

24.2 When work is being undertaken in such a position that it is possible for construction plant or its load to come within 3 metres of live high-voltage equipment, the Electrical Officer (Contracts) shall be consulted. He will arrange for an Authorised Person to supervise the work and to ensure that the plant is adequately earthed. The Electrical Officer (Contracts) will decide whether further safety measures are necessary.

24.3 The cost of any supervision by an Authorised Person and the provision of earthing shall, unless otherwise agreed, be borne by the Contractor.

24.4 When loads are handled by cranes, non-metallic rope hand lines shall be used, affixed to such loads so as to prevent their swinging and coming within 3 metres of live high-voltage equipment.

24.5 Clauses 24.1 to 24.4 shall apply mutatis mutandis to the use of maintenance machines of any nature.

25. **WORK PERFORMED UNDER DEAD CONDITIONS UNDER COVER OF A WORK PERMIT**

25.1 If the Responsible Representative finds that the work cannot be done in safety with the high-voltage electrical equipment live, he shall consult the Electrical Officer (Contracts) who will decide on the action to be taken.

25.2 If a work permit is issued the Responsible Representative shall:-

(i) before commencement of work ensure that the limits within which work may be carried out have been explained to him by the Authorised Person who issued the permit to him, and that he fully understands these limits.

(ii) sign portion C of the permit before commencement of work;

(iii) explain to all persons under his control the limits within which work may be carried out, and ensure that they fully understand these limits;

(iv) care for the safety of all persons under his control whilst work is in progress; and

(v) withdraw all personnel under his control from the equipment on completion of the work before he signs portion D of the work permit.

26. **TRACTION RETURN CIRCUITS IN RAILS**

- 26.1 DANGEROUS CONDITIONS CAN BE CREATED BY REMOVING OR SEVERING ANY BOND.
- 26.2 Broken rails with an air gap between the ends, and joints, at which fishplates are removed under "broken bond" conditions, are potentially lethal. The rails on either side of an air gap between rail ends on electrified lines shall not be touched simultaneously until rendered safe by PRASA personnel.
- 26.3 The Contractor shall not break any permanent bonds between rails or between rails and any structure. He shall give the Technical Officer at least 7 days written notice when removal of such bonds is necessary.
- 26.4 No work on the track which involves interference with the traction return rail circuit either by cutting or removing the rails, or by removal of bonds shall be done unless the Electrical Officer (Contracts) is consulted. He will take such precautions as may be necessary to ensure continuity of the return circuit before permitting the work to be commenced.

27. **BLASTING**

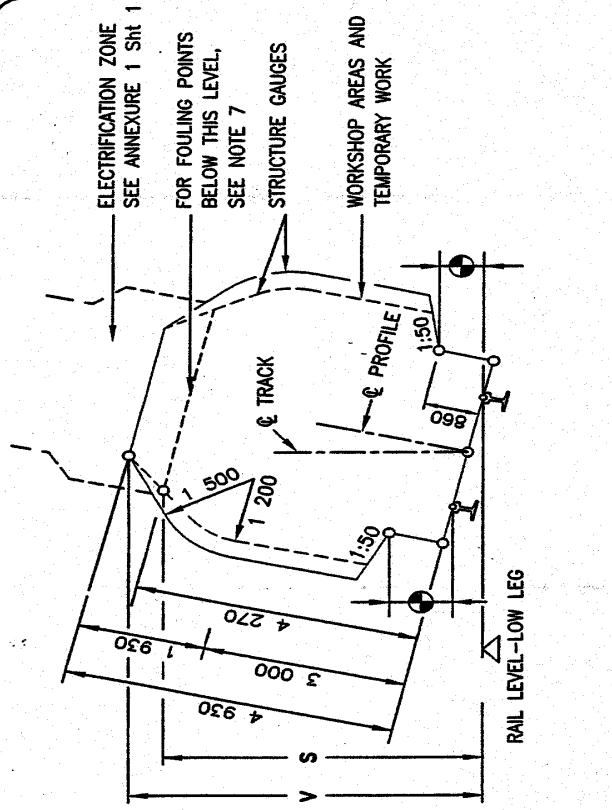
- 27.1 The Contractor shall obtain the permission of the Electrical Officer (Contracts) before blasting, and shall give at least 14 days notice of his intention to blast.
- 27.2 No blasting shall be done in the vicinity of electrified lines unless a member of PRASA's electrical personnel is present.
- 27.3 The terms of clause 13 hereof shall be strictly adhered to.

28. **HIGH-VOLTAGE ELECTRICAL EQUIPMENT NOT MAINTAINED AND/OR OPERATED BY PRASA**

Where the work is undertaken on or near high-voltage electrical equipment which is not maintained and/or operated by PRASA, the Occupational Health and Safety Act No. 85 of 1993, and Regulations and Instructions, or the Mines Health and Safety Act (Act 29 of 1996), shall apply. Such equipment includes:-

- (i) Eskom and municipal equipment;
- (ii) the Contractor's own power supplies; and
- (iii) electrical equipment being installed but not yet taken over from the Contractor.





LOCATION	NOT ELECTRIFIED	ELECTRIFIED (PRESENT OR FUTURE)	
		3KV & 25KV	50KV
RADIUS (mm)	S (mm)	V (mm)	V (mm)
100	4 470	5 050	5 400
300	4 410	5 020	5 370
600	4 370	5 000	5 350
1 000	4 350	4 990	5 340
1 500	4 310	4 960	5 310
2 000	4 290	4 940	5 290
>3 000	4 270	4 930	5 280
* OVER OR NEAR POINTS AND CROSSING IF REQUIRED BY ELECTRICAL IRRESPECTIVE OF RADIUS			
ALL AREAS OTHER THAN THOSE INDICATED BY * BELOW		5 650	6 000

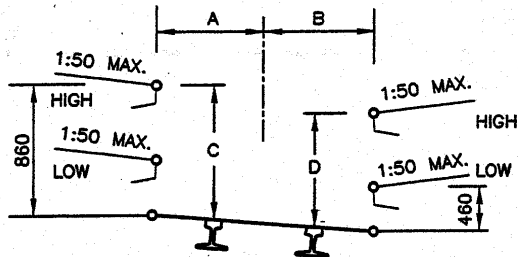
**REMARKS:**

1. V IS THE REQUIRED VERTICAL CLEARANCE EXCEPT WHERE REDUCED CLEARANCE S APPLIES.
2. S IS THE MINIMUM VERTICAL CLEARANCE FOR STRUCTURES AND TEMPORARY WORK OVER NON-ELECTRIFIED LINES.
3. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
4. FOR APPLICATION AT CURVES
  - 4.1 APPLY INCREASED CLEARANCES FOR CURVES TO POINTS 3m BEYOND THE ENDS OF THE CIRCULAR CURVE.
  - 4.2 REDUCE CLEARANCES AT A UNIFORM RATE OVER THE REMAINDER OF THE TRANSITION CURVE.
  - 4.3 FOR NON-TRANSITIONED CURVES REDUCE AT A UNIFORM RATE OVER A LENGTH OF 15m ALONG STRAIGHTS.
5. NEW STRUCTURES: SEE BRIDGE CODE.
6. TUNNELS: SEE DRAWING BE 82-35.
7. FOULING POINTS: SEE CLAUSE 8.1.
8. CLEARANCES ARE BASED ON 15m BOGIE CENTRES AND 21,2m VEHICLE BODY LENGTH.
9. SEE ANNEXURE 1 SHEET 3 FOR PLATFORM CLEARANCES.

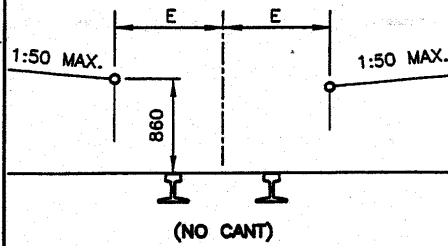
CLEARANCES : PLATFORMS

PLATFORMS : TRACK GAUGE 1 065mm

PASSENGERS



GOODS

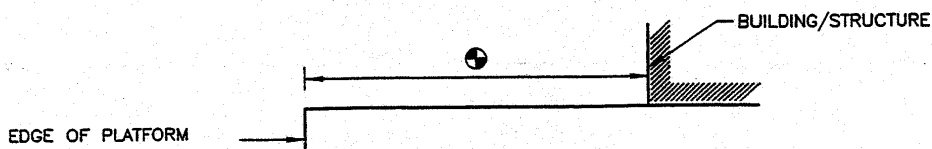


RADIUS (m)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)
90	1 690	1 820	890	810	1 840
100	1 650	1 790	890	810	1 810
120	1 610	1 740	890	810	1 760
140	1 580	1 700	890	810	1 720
170	1 550	1 660	890	810	1 690
200	1 530	1 630	890	820	1 670
250	1 520	1 600	890	820	1 640
300	1 520	1 580	890	830	1 620
350	1 520	1 560	880	830	1 600
400	1 520	1 550	880	840	1 590
500	1 520	1 540	880	850	1 580
600	1 520	1 530	870	850	1 570
800	1 520	1 520	860	860	1 560
1 200	1 520	1 520	860	860	1 550
2 000	1 520	1 520	860	860	1 540
3 000	1 520	1 520	860	860	1 530
STRAIGHT	1 520	1 520	860	860	1 520

REMARKS:

1. NO CANT TO BE APPLIED EXCEPT WHEN THE GOODS PLATFORM IS ON A RUNNING LINE.
2. INTERMEDIATE VALUES MAY BE INTERPOLATED BY THE ENGINEER IN CHARGE.
3. 8m TO MAIN STATION-BUILDINGS AND 3m TO ALL OTHER STRUCTURES.
4. TOLERANCES : SEE CLAUSE 8.0.10.

STRUCTURES ON PLATFORMS : 1 065mm AND 610mm TRACK GAUGE



## PART 4 - E4E

### **SAFETY ARRANGEMENTS AND PROCEDURAL COMPLIANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT 85 OF 1993) AND APPLICABLE REGULATIONS**

#### **1. General**

- 1.1 The Contractor and Passenger Rail Agency of South Africa Ltd (hereinafter referred to as " PRASA are individual employers, each in its own right, with their respective duties and obligations set out in the Occupational Health and Safety Act, Act 85 of 1993 (the Act) and applicable Regulations.
- 1.2 The Contractor accepts, in terms of the General Conditions of Contract and in terms of the Act, his obligations as an employer in respect of all persons in his employ, other persons on the premises or the Site or place of work or on the work to be executed by him, and under his control. He shall, before commencement with the execution of the contract work, comply with the provisions set out in the Act, and shall implement and maintain a Health and Safety Plan as described in the Construction Regulations, 2003 and as approved by PRASA, on the Site and place of work for the duration of the Contract.
- 1.3 The Contractor accepts his obligation to complying fully with the Act and applicable Regulations notwithstanding the omission of some of the provisions of the Act and the Regulations from this document.
- 1.4 PRASA. accepts, in terms of the Act, its obligations as an employer of its own employees working on or associated with the site or place of work, and the Contractor and Technical Officer or his deputy shall at all times, co-operate in respect of the health and safety management of the site, and shall agree on the practical arrangements and procedures to be implemented and maintained during execution of the Works.
- 1.5 In the event of any discrepancies between any legislation and this specification, the applicable legislation will take precedence.

#### **2. Definitions**

- 2.1 In this Specification any word or expression to which a meaning has been assigned in the Construction Regulations, shall have the meaning so assigned to it, unless the context otherwise indicates: -
- 2.2 The work included in this Contract shall for the purposes of compliance with the Act be deemed to be "**Construction Work**", which, in terms of the Construction Regulations, 2003 means any work in connection with: -
  - (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
  - (b) the installation, erection, dismantling or maintenance of fixed plant where such work includes the risk of a person falling;
  - (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
  - (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;

- 2.3 **"competent person"** in relation to construction work, means any person having the knowledge, training and experience specific to the work or task being performed: Provided that where appropriate qualifications and training are registered as per the South African Qualifications Authority Act, 1995 these qualifications and training shall be deemed to be the required qualifications and training;
- 2.4 **"contractor"** means principal contractor and "subcontractor" means contractor as defined by the Construction Regulations, 2003.
- 2.5 **"fall protection plan"** means a documented plan, of all risks relating to working from an elevated position, considering the nature of work undertaken, and setting out the procedures and methods applied to eliminate the risk;
- 2.6 **"health and safety file"** means a file, or other record in permanent form, containing the information required to be kept on site in accordance with the Act and applicable Regulations;
- 2.7 **"Health and Safety Plan "** means a documented plan which addresses the hazards identified and include safe work procedures to mitigate, reduce or control the hazards identified;
- 2.8 **"Risk Assessment"** means a programme to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard;
- 2.9 **"the Act"** means the Occupational Health and Safety Act No. 85 of 1993.

### **3. Procedural Compliance**

- 3.1 The Contractor who intends to carry out any construction work shall, before carrying out such work, notify the Provincial Director in writing if the construction work:-
- (a) includes the demolition of a structure exceeding a height of 3 metres; or
  - (b) includes the use of explosives to perform construction work; or
  - (c) includes the dismantling of fixed plant at a height greater than 3m,
- and shall also notify the Provincial Director in writing when the construction work exceeds 30 days or will involve more than 300 person days of construction work and if the construction work:-
- (a) includes excavation work deeper than 1m; or
  - (b) includes working at a height greater than 3 metres above ground or a landing.
- 3.2 The notification to the Provincial Director shall be on a form similar to Annexure A of the Construction Regulations, 2003, also shown in Annexure 1 of this Specification. The Contractor shall ensure that a copy of the completed notification form is kept on site for inspection by an inspector, Technical Officer or employee.
- 3.3 The Contractor shall, in accordance with the Act and applicable Regulations, make all the necessary appointments of competent persons in writing on a form similar to Annexure 2 of this Specification and deliver copies thereof to the Technical Officer. Copies should also be retained on the health and safety file.
- 3.4 Subcontractors shall also make the above written appointments and the Contractor shall deliver copies

thereof to the Technical Officer.

- 3.5 In the case of a self-employed Contractor or any subcontractor who has the appropriate competencies and supervises the work himself, the appointment of a construction supervisor in terms of regulation 6.1 of the Construction Regulations, 2003 will not be necessary. The Contractor shall in such a case execute and sign a declaration, as in Annexure 3, by which he personally undertakes the duties and obligations of the "Chief Executive Officer" in terms of section 16(1) of the Act.
- 3.6 The Contractor shall, before commencing any work, obtain from the Technical Officer an access certificate as in Annexure 4 executed and signed by him, permitting and limiting access to the designated site or place of work by the Contractor and any subcontractors under his control.
- 3.7 Procedural compliance with Act and Regulations, as above, shall also apply to any subcontractors as employers in their own right. The Contractor shall furnish the Technical Officer with full particulars of such subcontractors and shall ensure that they comply with the Act and Regulations and PRASA safety requirements and procedures.

#### **4. Special Permits**

Where special permits are required before work may be carried out such as for hotwork, isolation permits, work permits and occupations, the Contractor shall apply to the Technical Officer or the relevant authority for such permits to be issued. The Contractor shall strictly comply with the conditions and requirements pertaining to the issue of such permits.

#### **5. Health and Safety Programme**

- 5.1 The Tenderer shall, with his tender, submit a Health and Safety Programme setting out the practical arrangements and procedures to be implemented by him to ensure compliance by him with the Act and Regulations and particularly in respect of: -
  - (i) The provision, as far as is reasonably practical, of a working environment that is safe and without risk to the health of his employees and subcontractors in terms of section 8 of the Act;
  - (ii) the execution of the contract work in such a manner as to ensure in terms of section 9 of the Act that persons other than those in the Contractor's employment, who may be directly affected by the contract work are not thereby exposed to hazards to their health and safety;
  - (ii) ensuring, as far as is reasonably practical, in terms of section 37 of the Act that no employee or subcontractor of the Contractor does or omits to do any act which would be an offence for the Contractor to do or omit to do.
- 5.2 The Contractor's Health and Safety Programme shall be based on a risk assessment in respect of the hazards to health and safety of his employees and other persons under his control that are associated with or directly affected by the Contractor's activities in performing the contract work and shall establish precautionary measures as are reasonable and practical in protecting the safety and health of such employees and persons.
- 5.3 The Contractor shall cause a risk assessment contemplated in clause 5.2 above to be performed by a competent person, appointed in writing, before commencement of any Construction Work and reviewed during construction. The Risk Assessments shall form part of the Health and Safety programme to be applied on the site and shall include at least the following:

- (a) the identification of the risks and hazards that persons may be exposed to;
- (b) the analysis and evaluation of the hazards identified;
- (c) a documented Health and Safety Plan, including safe work procedures to mitigate, reduce or control the risks identified;
- (d) a monitoring and review plan.

5.4 The Health and Safety Plan shall include full particulars in respect of: -

- (a) The safety management structure to be instituted on site or place of work and the names of the Contractor's health and safety representatives and members of safety committees where applicable;
- (b) the safe working methods and procedures to be implemented to ensure the work is performed in compliance with the Act and Regulations;
- (c) the safety equipment, devices and clothing to be made available by the Contractor to his employees;
- (d) the site access control measures pertaining to health and safety to be implemented;
- (e) the arrangements in respect of communication of health and safety related matters and incidents between the Contractor, his employees, subcontractors and the Technical Officer with particular reference to the reporting of incidents in compliance with Section 24 and General Administrative Regulation 8 of the Act and with the pertinent clause of the General Conditions of Contract forming part of the Contract and
- (f) the introduction of control measures for ensuring that the Safety Plan is maintained and monitored for the duration of the Contract.

5.5 The Health and Safety programme shall be subject to the Technical Officer's approval and he may, in consultation with the Contractor, order that additional and/or supplementary practical arrangements and procedures be implemented and maintained by the Contractor or that different working methods or safety equipment be used or safety clothes be issued which, in the Technical Officer's opinion, are necessary to ensure full compliance by the Contractor with his obligations as an employer in terms of the Act and Regulations. The Technical Officer or his deputy shall be allowed to attend meetings of the Contractor's safety committee as an observer.

5.6 The Contractor shall take reasonable steps to ensure that each subcontractor's Health and Safety Plan is implemented and maintained on the construction site: Provided that the steps taken, shall include periodic audits at intervals mutually agreed to between the them, but at least once every month.

5.7 The Contractor shall stop any subcontractor from executing any construction work, which is not in accordance with the Contractor's, and/or subcontractor's Health and Safety Plan for the site or which poses a threat to the health and safety of persons.

5.8 The Contractor shall ensure that a copy of the Health and Safety Plan is available on site for inspection by an inspector, Technical Officer, agent, subcontractor, employee, registered employee organization, health and safety representative or any member of the health and safety committee.

5.9 The Contractor shall consult with the health and safety committee or, if no health and safety committee exists, with a representative group of employees, on the development, monitoring and review of the Risk Assessment.

- 5.10 The Contractor shall ensure that all employees under his control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.11 The Contractor shall ensure that all subcontractors are informed regarding any hazard as stipulated in the Risk Assessment before any work commences, and thereafter at such times as may be determined in the Risk Assessment.
- 5.12 The Contractor shall ensure that all visitors to a construction site undergoes health and safety induction pertaining to the hazards prevalent on the site and shall be provided with the necessary personal protective equipment.

## **6. Fall Protection Plan**

- 6.1.1 In the event of the risk and hazard identification, as required in terms of clause 5.3 of this Specification, revealing risks relating to working from an elevated position the contractor shall cause the designation of a competent person, responsible for the preparation of a fall protection plan;
- 6.1.2 The Contractor shall implement, maintain and monitor the fall protection plan for the duration of Contract. The Contractor shall also take such steps to ensure the continued adherence to the fall protection plan.
- 6.1.3 The fall protection plan shall include: -
- (a) A Risk Assessment of all work carried out from an elevated position;
  - (b) the procedures and methods to address all the identified risks per location;
  - (c) the evaluation of the employees physical and psychological fitness necessary to work at elevated positions;
  - (d) the training of employees working from elevated positions; and
  - (e) the procedure addressing the inspection, testing and maintenance of all fall protection equipment.

## **7. Hazards and Potential Hazardous Situations**

The Contractor and the Technical Officer shall immediately notify one another of any hazardous or potentially hazardous situations which may arise during performance of the Contract by the Contractor or any subcontractor and, in particular, of such hazards as may be caused by the design, execution and/or location and any other aspect pertaining to the contract work.

## **8. Health and Safety File**

- 8.1 The Contractor shall ensure that a health and safety file is opened and kept on site and shall include all documentation required as per the Act and applicable regulations, and made available to an inspector, the Technical Officer, or subcontractor upon request.
- 8.2 The Contractor shall ensure that a copy of the both his Health and Safety Plan as well as any subcontractor's Health and Safety Plan is available on request to an employee, inspector, contractor or the Technical Officer.

8.3 The Contractor shall hand over a consolidated health and safety file to the Technical Officer upon completion of the Construction Work and shall in addition to documentation mentioned in the Act and applicable Regulations include a record of all drawings, designs, materials used and other similar information concerning the completed structure.

**ANNEXURE 1**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993**

**Regulation 3(1) of the Construction Regulations**

**NOTIFICATION OF CONSTRUCTION WORK**

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1. (a) Name and postal address of principal contractor:  
\_\_\_\_\_
- (b) Name and tel. no of principal contractor's contact person:  
\_\_\_\_\_
2. Principal contractor's compensation registration number: \_\_\_\_\_
3. (a) Name and postal address of client:  
\_\_\_\_\_
- (b) Name and tel no of client's contact person or agent:  
\_\_\_\_\_
4. (a) Name and postal address of designer(s) for the project:  
\_\_\_\_\_
- (b) Name and tel. no of designer(s) contact person:  
\_\_\_\_\_
5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 6(1). \_\_\_\_\_
6. Name/s of principal contractor's construction sub-ordinate supervisors on site appointed in terms of regulation 6(2). \_\_\_\_\_
7. Exact physical address of the construction site or site office:  
\_\_\_\_\_
8. Nature of the construction work:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. Expected commencement date: \_\_\_\_\_
10. Expected completion date: \_\_\_\_\_
11. Estimated maximum number of persons on the construction site: \_\_\_\_\_
12. Planned number of contractors on the construction site accountable to the principle contractor:  
\_\_\_\_\_
13. Name(s) of contractors already chosen.  
\_\_\_\_\_  
\_\_\_\_\_

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**Principal Contractor**

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**Date**

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**Client**

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**Date**

\* THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR  
**PRIOR TO COMMENCEMENT** OF WORK ON SITE.

\* **ALL PRINCIPAL CONTRACTORS** THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER  
PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF  
WORK.

**ANNEXURE 2**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993):**

**SECTION/REGULATION:** \_\_\_\_\_

**REQUIRED COMPETENCY:** \_\_\_\_\_

In \_\_\_\_\_ terms \_\_\_\_\_ of \_\_\_\_\_ I, \_\_\_\_\_

representing the Employer) do hereby appoint \_\_\_\_\_

As the Competent Person on the premises at \_\_\_\_\_

(physical address) to assist in compliance with the Act and the applicable Regulations.

Your designated area/s is/are as follows: -

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature: -** \_\_\_\_\_

**Designation: -** \_\_\_\_\_

---

**ACCEPTANCE OF DESIGNATION**

***I, \_\_\_\_\_ do hereby accept this Designation and acknowledge that I understand the requirements of this appointment.***

**Date:** \_\_\_\_\_

**Signature: -** \_\_\_\_\_

**Designation: -** \_\_\_\_\_

**ANNEXURE 3**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) :**

**DECLARATION**

In terms of the above Act \_\_\_\_\_ am personally assuming the  
I, \_\_\_\_\_ duties

and obligations as Chief Executive Officer, defined in Section 1 of the Act and in terms of Section 16(1), I will, as far as is reasonably practicable, ensure that the duties and obligations of the Employer as contemplated in the above Act are properly discharged.

**Signature: -** \_\_\_\_\_

**Date:** \_\_\_\_\_

**ANNEXURE 4**

**SITE ACCESS CERTIFICATE**

**(Area)**

Access to: \_\_\_\_\_  
Name of \_\_\_\_\_  
Contractor/Builder: - \_\_\_\_\_  
Contract/Order No.: \_\_\_\_\_

The contract works site/area described above are made available to you for the carrying out of associated works  
In terms of your contract/order  
with  
(company) \_\_\_\_\_

Kindly note that you are at all times responsible for the control and safety of the Works Site, and for persons under your control having access to the site.

As from the date hereof you will be responsible for compliance with the requirements of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended, and all conditions of the Contract pertaining to the site of the works as defined and demarcated in the contract documents including the plans of the site or work areas forming part thereof.

**Signed:** \_\_\_\_\_ **Date:** \_\_\_\_\_  
**TECHNICAL OFFICER**

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**ACKNOWLEDGEMENT OF RECEIPT**

*I,*

**Name** of \_\_\_\_\_  
**Contractor/Builder: -** \_\_\_\_\_  
*do hereby acknowledge and accept the duties  
and obligations in respect of the Safety of the site/area of Work in terms of the Occupational Health and Safety Act; Act 85 of 1993.*

**Name :** \_\_\_\_\_ **Designation** \_\_\_\_\_ :

**Signature :** \_\_\_\_\_ **Date :** \_\_\_\_\_

## SECTION 5

### PRASA GENERAL CONDITIONS OF PURCHASE

#### General

PRASA and the Supplier enter into an order/contract on these conditions to supply the items (goods/services/works) as described in the order/contract.

#### Conditions

These conditions form the basis of the contract between PRASA and the Supplier. Notwithstanding anything to the contrary in any document issued or sent by the Supplier, these conditions apply except as expressly agreed in writing by PRASA.

No servant or agent of PRASA has authority to vary these conditions orally. These general conditions of purchase are subject to such further special conditions as may be prescribed in writing by PRASA in the order/contract.

#### Local Content Obligations

Respondents are to note that the Local Content commitments made by the successful Respondent(s) will be incorporated as a term of the contract and monitored for compliance. Should the successful Respondent fail to meet its Local obligations, non-compliance penalties shall be applicable. Breach of Local Content obligations also provide PRASA cause to terminate the contract in certain cases where material non-compliance with Local Content requirements are not achieved.

#### Price and payment

The price or rates for the items stated in the order/contract may include an amount for price adjustment, which is calculated in accordance with the formula stated in the order/contract.

The Supplier may be paid in one currency other than South African Rand. Only one exchange rate is used to convert from this currency to South African Rand. Payment to the Supplier in this currency other than South African Rand, does not exceed the amounts stated in the order/contract. PRASA pays for the item within 30 days of receipt of the Suppliers correct tax invoice.

#### Delivery and documents

The Supplier's obligation is to deliver the items on or before the date stated in the order/contract. Late deliveries or late completion of the items may be subject to a penalty if this is imposed in the order/contract. No payment is made if the Supplier does not provide the item as stated in order/contract.

Where items are to be delivered the Supplier:

Clearly marks the outside of each consignment or package with the Supplier's name and full details of the destination in accordance with the order and includes a packing note stating the contents thereof; On dispatch of each consignment, sends to PRASA at the address for delivery of the items, an advice note specifying the means of transport, weight, number of volume as appropriate and the point and date of dispatch; Sends to PRASA a detailed priced invoice as soon as is reasonably practical after dispatch of the items, and states on all communications in respect of the order the order number and code number (if any).

### **Containers / packing material**

Unless otherwise stated in the order/contract, no payment is made for containers or packing materials or return to the Supplier.

### **Title and risk**

Without prejudice to rights of rejection under these conditions, title to and risk in the items passes to PRASA when accepted by PRASA.

### **Rejection**

If the Supplier fails to comply with his obligations under the order/contract, PRASA may reject any part of the items by giving written notice to the Supplier specifying the reason for rejection and whether and within what period replacement of items or re-work are required.

In the case of items delivered, PRASA may return the rejected items to the Supplier at the Supplier's risk and expense. Any money paid to the Supplier in respect of the items not replaced within the time required, together with the costs of returning rejected items to the Supplier and obtaining replacement items from a third party, are paid by the Supplier to PRASA.

In the case of service, the Supplier corrects non-conformances as indicated by PRASA.

### **Warranty**

Without prejudice to any other rights of PRASA under these conditions, the Supplier warrants that the items are in accordance with PRASA's requirements, and fit for the purpose for which they are intended, and will remain free from defects for a period of one year (unless another period is stated in the Order) from acceptance of the items by PRASA.

### **Indemnity**

The Supplier indemnifies PRASA against all actions, suits, claims, demands, costs, charges and expenses arising in connection therewith arising from the negligence, infringement of intellectual or legal rights or breach of statutory duty of the Supplier, his subcontractors, agents or servants, or from the Supplier's defective design, materials or workmanship.

The Supplier indemnifies PRASA against claims, proceedings, compensation and costs payable arising out of infringement by the Supplier of the rights of others, except an infringement which arose out of the use by the Supplier of things provided by PRASA.

**Assignment and sub-contracting**

The Supplier may not assign or subcontract any part of this order/contract without the written consent of PRASA.

**Termination**

PRASA may terminate the order/contract at any time (without prejudice to any right of action or remedy which has accrued or thereafter accrues to PRASA):

If the Supplier defaults in due performance of the order/contract, or if the Supplier becomes bankrupt or otherwise is, in the opinion of PRASA, in such financial circumstances as to prejudice the proper performance of the order/contract, or for any other reason in which case the Supplier will be compensated for all costs incurred.

**Governing law**

The order/contract is governed by the law of the Republic of South Africa and the parties hereby submit to the non-exclusive jurisdiction of the South African courts.

## SECTION 6

### DECLARATION OF INTEREST

**SBD4**

1. Any legal person, including persons employed by the state\*, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes a price quotation, advertised competitive bid, limited bid or proposal). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest, where-
  - the bidder is employed by the state; and/or
  - the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.
2. **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

2.1 Full Name of bidder or his or her representative:

.....

2.2 Identity Number:

.....

2.3 Position occupied in the Company (director, shareholder etc):

.....

2.4 Company Registration Number:

.....

2.5 Tax Reference Number:

.....

2.6 VAT Registration Number:

.....

\* "State" means –

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) Provincial legislature;
- (d) National Assembly or the national Council of provinces; or
- (e) Parliament.

2.7 Are you or any person connected with the bidder presently employed by the state? **YES / NO**

2.7.1 If so, furnish the following particulars:

Name of person / director / shareholder/ member: .....

Name of state institution to which the person is connected: .....

Position occupied in the state institution: .....

Any other particulars:

.....  
.....  
.....

2.8 Did you or your spouse, or any of the company's directors **YES / NO**  
shareholders / members or their spouses conduct business  
with the state in the previous twelve months?

### DECLARATION

I, THE UNDERSIGNED (NAME).....

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2.1 TO 2.11.1 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME IN TERMS OF PRASA'S GENERAL CONDITIONS OF TENDER AS STIPULATED IN THE RFQ SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....  
SIGNATURE

.....  
DATE

.....  
POSITION

.....  
NAME OF BIDDER

## SECTION 7

### B-BBEE PREFERENCE POINTS CLAIM FORM

This preference form must form part of all bids invited. It contains general information and serves as a claim for preference points for Broad-Based Black Economic Empowerment [**B-BBEE**] Status Level of Contribution.

**NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.**

#### 1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to all bids:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included);
- and

1.2 The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the ..... preference point system shall be applicable.

1.3 Either the **80/20** preference point system shall be applicable to this bid.

1.4 Preference points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contribution.

1.5 The maximum points for this bid are allocated as follows:

	POINTS
<b>PRICE</b>	<b>80</b>
<b>B-BBEE STATUS LEVEL OF CONTRIBUTION</b>	<b>20</b>
<b>Total points for Price and B-BBEE must not exceed</b>	<b>100</b>

1.5.1 Failure on the part of a bidder to submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System [**SANAS**], or a sworn affidavit confirming annual turnover and level of black ownership in case of all EMEs and QSEs with 51% black ownership or more together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

## 2. DEFINITIONS

- 2.1 **“all applicable taxes”** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- 2.2 **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- 2.3 **“B-BBEE status level of contributor”** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- 2.4 **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- 2.5 **“Black designated group”** has meaning assigned to it in codes of good practice issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act.
- 2.6 **“Black People”** meaning assigned to in Section 1 of Broad-Based Black Economic Empowerment Act.
- 2.7 **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- 2.8 **“CIPC”** means the Companies and Intellectual Property Commission, formerly known as CIPRO, the Companies and Intellectual Property Registration Office.
- 2.9 **“comparative price”** means the price after the factors of a non-firm price and all unconditional discounts that can be utilized have been taken into consideration;
- 2.10 **“consortium or joint venture”** means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract;
- 2.11 **“contract”** means the agreement that results from the acceptance of a bid by an organ of state;
- 2.12 **“co-operative”** means a co-operative registered in terms of section 7 of Cooperatives Act, 2005 (Act No. 14 of 2005)
- 2.13 **“Designated Group”** means - i) Black designated groups; ii) Black People; iii) Women; iv) people with disabilities or v) Small enterprise, as defined in Section 1 of National Small Enterprise Act, (102 of 1996)
- 2.14 **“Designated Sector”** means, sub-sector or industry or product designated in terms of regulation 8(1)(a)
- 2.15 **“EME”** means an Exempted Micro Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

- 2.16 **"firm price"** means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;
- 2.17 **"functionality"** means the ability of a bidder to provide goods or services in accordance with specification as set out in the bid documents;
- 2.18 **"Military Veteran"** has meaning assigned to it in Section 1 of Military Veterans Act, 2011 (Act No. 18 of 2011);
- 2.19 **"National Treasury"** has meaning assigned to it in Section 1 of Public Finance Management Act, 1999 (Act No. 1 of 1999);
- 2.20 **"non-firm prices"** means all prices other than "firm" prices;
- 2.21 **"person"** includes a juristic person;
- 2.22 **"People with disabilities"** meaning assigned to it in terms of Section 1 of Employment Equity Act, 1998 (Act No. 55 of 1998)
- 2.23 **"Price"** includes all applicable taxes less all unconditional discounts.
- 2.24 **"Proof of B-BBEE Status Level of Contributor"** i) the B-BBEE status level certificate issued by an unauthorised body or person; ii) a sworn affidavit as prescribed by the B-BBEE Codes of Good Practice; or iii) any other requirement prescribed in terms of the Broad-Based Black Economic Empowerment Act.
- 2.25 **"Rural Area"** i) a sparsely populated area in which people farm or depend on natural resources, including villages and small towns that are dispersed through the area; or ii) an area including a large settlement which depends on migratory labour and remittances and government social grants for survival, and may have traditional land tenure system.
- 2.26 **"QSE"** means a Qualifying Small Enterprise as defined by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- 2.27 **"rand value"** means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties;
- 2.28 **"sub-contract"** means the primary contractor's assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract;
- 2.29 **"total revenue"** bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the *Government Gazette* on 9 February 2007;
- 2.30 **"Township"** means an urban living area that any time from the late 19<sup>th</sup> century until 27 April 1994, was reserved for black people, including areas developed for historically disadvantaged individuals post 27 April

1994

- 2.31 **“Treasury”** meaning assigned to it in Section 1 of the Public Finance Management Act, 1999 (Act No. 1 of 1999)
- 2.32 **“trust”** means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and
- 2.33 **“trustee”** means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.
- 2.34 **“Youth”** meaning assigned to it in terms of Section 1 of National youth Development Agency Act, 2008 (Act No. 54 of 2008).

### **3. ADJUDICATION USING A POINT SYSTEM**

- 3.1 The bidder obtaining the highest number of total points will be awarded the contract.
- 3.2 Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts.
- 3.3 Points scored must be rounded off to the nearest 2 decimal places.
- 3.4 In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of preference points for B-BBEE.
- 3.5 However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for B-BBEE, the successful bid must be the one scoring the highest score for functionality.
- 3.6 Should two or more bids be equal in all respects, the award shall be decided by the drawing of lots.

#### 4. POINTS AWARDED FOR PRICE

##### 4.1 THE 80/20 PREFERENCE POINT SYSTEMS

A maximum of 80 points is allocated for price on the following basis:

##### 80/20

$$P_s = 80 \left( 1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

$P_s$  = Points scored for comparative price of bid under consideration

$P_t$  = Comparative price of bid under consideration

$P_{\min}$  = Comparative price of lowest acceptable bid

#### 5. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTION

5.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (80/20 system)
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

5.2 A bidder who qualifies as an EME in terms of the B-BBEE Act must submit a sworn affidavit confirming Annual Total Revenue and Level of Black Ownership. Furthermore EMEs may also obtain a sworn affidavit from CIPC (formerly CIPRO) Self Service Terminals when registering a business or filing annual returns. In these instances PRASA would require proof of turnover as well as proof of ownership. Sworn affidavits must substantially comply with the format that can be obtained on the DTI's website at [www.dti.gov.za/economic\\_empowerment/bee\\_codes.jsp](http://www.dti.gov.za/economic_empowerment/bee_codes.jsp).

5.3 QSEs that are at least 51% Black owned or higher are only required to obtain a sworn affidavit on an annual basis confirming that the entity has an Annual Total Revenue of R50 million or less and the entity's Level of Black ownership.

5.4 A Bidder other than EME or a QSE that is at least 51% Black owned must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating a Verification Agency accredited by SANAS.

- 5.5 A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Status Level verification certificate for every separate bid.
- 5.6 Tertiary Institutions and Public Entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.
- 5.7 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.
- 5.8 A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.
- 5.9 Bidders are to note that the rules pertaining to B-BBEE verification and other B-BBEE requirements may be changed from time to time by regulatory bodies such as National Treasury or the DTI. It is the Bidder's responsibility to ensure that his/her bid complies fully with all B-BBEE requirements at the time of the submission of the bid.

**6. BID DECLARATION**

6.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

**6.1.1 B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 5.1**

6.2 B-BBEE Status Level of Contribution: . = .....(maximum of 20 points)  
(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 5.1 and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or a sworn affidavit.

**7. SUB-CONTRACTING**

7.1 Will any portion of the contract be sub-contracted?

*(Tick applicable box)*

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

7.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted.....%
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME.

*(Tick applicable box)*

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations,2017:

Designated Group: An EME or QSE which is at last 51% owned by:	EME √	QSE √
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
OR		
Any EME		
Any QSE		

**8. DECLARATION WITH REGARD TO COMPANY/FIRM**

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

**8.4 TYPE OF COMPANY/ FIRM**

- Partnership/Joint Venture / Consortium
- One person business/sole propriety
- Close corporation
- Company
- (Pty) Limited

[TICK APPLICABLE BOX]

**8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES**

.....  
 .....  
 .....

**8.6 COMPANY CLASSIFICATION**

- Manufacturer
- Supplier
- Professional service provider
- Other service providers, e.g. transporter, etc.

[ TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution indicated in paragraph 7 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraph 7, the contractor may be required to furnish documentary proof to the satisfaction of the
  - iv) purchaser that the claims are correct;
  - v) If a bidder submitted false information regarding its B-BBEE status level of contributor, local production and content, or any other matter required in terms of the Preferential Procurement Regulations, 2017 which will affect or has affected the evaluation of a bid, or where a bidder has failed to declare any subcontracting arrangements or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have.
    - (a) disqualify the person from the bidding process;
    - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
    - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
    - (d) if the successful bidder subcontracted a portion of the bidder to another person without disclosing it, PRASA reserves the right to penalise the bidder up to 10 percent of the value of the contract;
    - (e) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
    - (f) forward the matter for criminal prosecution.

WITNESSES

- 1. ....
- 2. ....

.....  
SIGNATURE(S) OF BIDDERS(S)

DATE: .....

ADDRESS .....

.....

.....

**6.2**

**SECTION 9**

**SBD 8**

**DECLARATION OF COMPANY'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES**

- 1 This Standard Company Document must form part of all RFQs invited.
- 2 It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The RFQ of any Company may be disregarded if that Company, or any of its directors have-
  - a. abused the institution's supply chain management system;
  - b. committed fraud or any other improper conduct in relation to such system; or
  - c. failed to perform on any previous contract.
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the RFQ.**

Item	Question	Yes	No
4.1	<p>Is the Company or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p><b><i>The Database of Restricted Suppliers now resides on the National Treasury's website (<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>) and can be accessed by clicking on its link at the bottom of the home page.</i></b></p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	<p>Is the Company or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?</p> <p><b><i>The Register for Tender Defaulters can be accessed on the National Treasury's website (<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>) by clicking on its link at the bottom of the home page.</i></b></p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	<p>Was the Company or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	<p>Was any contract between the Company and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

4.4.1 If so, furnish particulars:

**CERTIFICATION**

**I, THE UNDERSIGNED (FULL NAME) ..... CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.**

**I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.**

.....

**Signature**

.....

**Date**

.....

**Position**

.....

**Name of Company**

**CERTIFICATE OF INDEPENDENT RFQ DETERMINATION**

1. This Standard Company Document (SBD) must form part of all RFQs<sup>1</sup> invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive Company (or RFQ rigging).<sup>2</sup> Collusive Company is a *pe se* prohibition meaning that it cannot be justified under any grounds.
3. Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
  - a. disregard the RFQ of any Company if that Company, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
  - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the Company process or the execution of that contract.
4. This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when RFQs are considered, reasonable steps are taken to prevent any form of RFQ-rigging.
5. In order to give effect to the above, the attached Certificate of RFQ Determination (SBD 9) must be completed and submitted with the RFQ:

<sup>1</sup> *Includes price quotations, advertised competitive RFQs, limited RFQs and proposals.*

<sup>2</sup> *RFQ rigging (or collusive Company) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a Company process. RFQ rigging is, therefore, an agreement between competitors not to compete.*

## CERTIFICATE OF INDEPENDENT RFQ DETERMINATION

I, the undersigned, in submitting the accompanying RFQ: \_\_\_\_\_ (Quotation Number and Description) in response to the invitation for the RFQ made by: \_\_\_\_\_ (Name of Institution) do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: \_\_\_\_\_ (Name of Company) that:

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying RFQ will be disqualified if this Certificate is found not to be true and complete in every respect; I am authorized by the Company to sign this Certificate, and to submit the accompanying RFQ, on behalf of the Company;
3. Each person whose signature appears on the accompanying RFQ has been authorized by the Company to determine the terms of, and to sign the RFQ, on behalf of the Company;
4. For the purposes of this Certificate and the accompanying RFQ, I understand that the word "competitor" shall include any individual or organization, other than the Company, whether or not affiliated with the Company, who:
  - a. has been requested to submit a RFQ in response to this RFQ invitation;
  - b. could potentially submit a RFQ in response to this RFQ invitation, based on their qualifications, abilities or experience; and
  - c. provides the same goods and services as the Company and/or is in the same line of business as the Company
5. The Company has arrived at the accompanying RFQ independently from, and without consultation, communication, agreement or arrangement with any competitor.
6. However communication between partners in a joint venture or consortium<sup>3</sup> will not be construed as collusive Company.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - a. prices;
  - b. geographical area where product or service will be rendered (market allocation)
  - c. methods, factors or formulas used to calculate prices;
  - d. the intention or decision to submit or not to submit, a RFQ;
  - e. the submission of a RFQ which does not meet the specifications and conditions of the RFQ; or
  - f. Company with the intention not to win the RFQ.

8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this RFQ invitation relates.
9. The terms of the accompanying RFQ have not been, and will not be, disclosed by the Company, directly or indirectly, to any competitor, prior to the date and time of the official RFQ opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to RFQs and contracts, RFQs that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

.....  
Signature

.....  
Date

.....  
Position

.....  
Name of Company

<sup>3</sup> Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

## SECTION 11

### COMMISSIONER OF OATH

*I certify that the above has acknowledged that he/she knows and understands the contents of this document, that he/she does not have any objection to taking the oath, and that he/she considers it to be binding on his/her conscience, and which was sworn to and signed before me at \_\_\_\_\_ on this the \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, and that the administering oath complied with the regulations contained in Government Gazette No. R 1258 of 21 July 1972, as amended.*

\_\_\_\_\_ (Sign – SERVICE PROVIDER)

\_\_\_\_\_ (Name – SERVICE PROVIDER)

COMMISSIONER OF OATHS STAMP AND DETAILS OF PERSON

*STAMP :*

*NAME & SURNAME:*

*DESIGNATION/RANK :*

*PERSAL/EMPLOYEE NO:*

*PLACE/DATE:*

## SECTION 12

### SPECIFICATION/SCOPE OF WORK

#### Part C3- SCOPE OF WORK

#### C3.1 DESCRIPTION OF THE WORKS

##### C3.1.1 Overview and extent of the works:

This contract covers the cleaning of the Prasa rail reserve within Metrorail Western Cape Region along and between the railway lines including the stations within the train operational area of Cape Metrorail and any other work arising out of, or incidental to the above, or required from the Contractor for the proper completion of the Works in accordance with the true meaning and intent of the contract documents.

##### C3.1.2 Location of the works

The location and extent of the site of the Works is between the property boundaries of the Passenger Railroad Agency in Cape Metrorail Region. Sections that will be covered are as follows:

- Maitland to Ndabeni
- Ndabeni to Pinelands
- Pinelands to Langa
- Langa to Bonteheuwel
- Bonteheuwel to Netreg
- Netreg to Heideveld
- Heideveld to Nyanga
- Nyanga to Phillippi
- Bonteheuwel to Lavistown
- Nolungile to Nonkgubela
- Nonkubela to Khayelitha
- Lavistown to Belhar
- Belhar to Unibell

##### C3.1.3 Completion of Work / Programme

The work is required to be completed in stages/cycles, ad-hoc and also some small emergency areas as follows:

- The sections to be cleaned per stage (cycle) are set out in the Schedule of Quantities and Prices as Part A
- Part B is an adhoc for the section that still required cleaning after the cycle been completed.
- Part C is Day labour rates which will be used for all the small emergency areas that can be done in few hours,

- The contract duration shall be a total 6 months from the date of notification of acceptance of tender or when the contract value is depleted whichever comes first.

No work shall be permitted during the builders' holidays during the period 16 December 2022 to 10 January 2023 (both dates inclusive).

#### **C3.1.4 Penalties for late Completion**

The Contractor together with Technical Officer will be agreed of the days that will be taken to complete the work. The Technical Officer will write a callout and in the call out date to complete callout will be stipulated. Should the contractor fail to complete the Works by the date stipulated in in the callout he shall pay an amount of R300 per day to Metrorail as penalties in terms of the Conventional penalties Act, 19962 as amended, the following amounts for each day or part thereof during which the Works or any stage thereof remains incomplete.

### **C3.2 ENGINEERING**

VOID

### **C3.3 PROCUREMENT**

#### **C3.3.1 Preferential procurement procedure**

Procurement Works contract shall be done in accordance with Metrorail Policies and procedures

#### **C3.3.2 Subcontracting**

VOID

### **C3.4 CONSTRUCTION**

#### **C3.4.1 Applicable SANS 2001 Standards**

None

#### **C3.4.2 Applicable national and international standards**

None

#### **C3.4.3 Applicable Particular & Generic specifications for this contract:**

- Particular Specification: (also referred to as " Project Specification) : Cleaning of PRASA,s rail Reserve within PRASA.s boundary along the Central line Corridor in the Western Cape region
- E7/1: Specification for works on, over, under or adjacent to Railway lines and near High Voltage equipment. (Also referred to as the SPK7/1 specification.)
- E.4E Transnet (Jan 2004 - As adapted for PRASA): Safety arrangements and procedural compliance with the Occupational Health and Safety Act (Act 85 of 1993) and applicable Regulations. (Also referred to as the E4E specification.)

##### **C.3.4.3.1 Discrepancy between Specifications**

In the event of any discrepancy between the Particular specification and the Generic specifications the Particular specification shall prevail.

### **C3.4.4 Plant and materials supplied by the Employer**

No material and plant will be supplied by Metrorail.

### **C3.4.5 Plant and Material supplied by Contractor**

Except where otherwise specified, the Contractor shall provide all necessary labour, material, transport, plant equipments, consumables, tools and services of every description required to carry out to complete the works included in this contract and any other works arising from it.

All materials and labour performed shall be subject to the approval of the Technical Officer, and shall be used in accordance with the manufacture's specifications.

### **C3.4.6 Site establishment**

#### **C3.4.6.1 Services and facilities provided by Metrorail**

No service or facilities will be provided by Metrorail

#### **C3.4.6.2 Services and facilities provided by the Contractor**

- Site storage / Camp sites

No site storage / camp sites will be available

- Housing of employees

No housing of employees of the contractor will be allowed on the property of PRASA and the contractor shall make his own arrangements for the housing of his employees.

- Contractor's agent and communication

The contractor or his duly authorised agent shall at all times be in possession of a cellular phone, in working condition, so as to enable the

Technical Officer to communicate with the contractor at all times during the duration of the contract.

- Security

The contractor shall provide his own security for the protection of his workmen and assets.

- Tidiness of site

The contractor shall continuously clear and dispose of rubbish, debris, waste and surplus materials to maintain the site in a tidy state.

### 3.4.7 Occupations and Work Permits

No occupations and work permits will be granted and the contractor shall plan and execute the Work in such a manner that the safe passage of trains will not be affected. Clearances as set out in the E7/1 specification shall at all times be adhered to.

### 3.4.8 Safety clothing

The Contractor shall supply all relevant safety clothing to all supervision and labour. The Contractor shall also supply reflective vests to all supervision and labour so that they are more visible to train drivers. No separate payment will be made for safety clothing, as the contractor shall allow for this in his rates tendered for the Works.

### 3.4.9 Security Arrangements

The Contractor shall be responsible for arranging security for him and his personnel as well as equipment, tools and materials or any other safety precautions necessary for the execution and completion of the work. No separate payment shall be made for the above-mentioned services, and the Contractor shall allow for it in his rates tendered for the Works.

## C3.5 MANAGEMENT

### C3.5.1 Management of the Works

#### C3.5.1.1 RAILWAY AUTHORITY

- **Railway Owner:** The Passenger Railroad Agency of South Africa (PRASA) is the Railway Owner.
- **Railway Operator:** Metrorail is the Railway Operator of the Passenger Railroad Agency of South Africa
- **General:** All conditions and instructions set out in the Specifications and Agreement included in this contract governing work performed by the Contractor on the Property of the PRASA shall also be applicable with regard to all other assets and/or equipment of the PRASA maintained and operated by Metrorail.

#### C3.5.1.2 Project Manager and Technical Officer

The Project Manager for this contract will be the Regional Engineer, Perway Maintenance, Infrastructure, Metrorail Western Cape. The Technical Officer will be appointed by the Project Manager to administer the performance and the execution of the Works according to the powers and rights held by and obligations placed upon him in terms of the Contract.

#### C3.5.1.3 Schedule of Quantities

The quantities in the Schedule of Quantities and Prices, are estimated and may be more or less than stated and realistic rates should therefore be inserted against every item, as no adjustment of rates will be allowed in the event of any increase or decrease of the quantities in the Schedule of Work and Prices.

Tenderers shall submit with their tender the completed and detailed priced schedule (prepared in black ink) for the Works. All work covered by the schedule shall be measured and paid for according the completed schedule.

**C3.5.1.4** Programme of Works

No Programme is required

**C3.5.1.5** Hours of Work

Normal working hours shall mean the period from 07h00 to 16h30 on normal weekdays

**C3.5.1.6** Co-operation with Metrorail staff

The contractor shall co-operate with Metrorail's and other workmen on site, to their mutual benefit. All necessary co-operations will be afforded the contractor to enable the speedy completion of his work. However, should any dispute regarding the sequence or priority of the work arise, the decision of the Manager in this matter shall be regarded as final.

**C3.5.1.7** Site meetings

The Technical Officer will arrange site liaison meetings as necessary. The contractor or his duly authorised representative shall be available when called upon to attend site meetings with the Technical Officer or his representative.

**C3.5.1.8** Site Instructions and Site Diary

All instructions to the Contractor shall be in writing and shall be deemed to have been received if left with the Contractor or his agent at the Works or at the business premises of the Contractor or at his office on the site. The Contractor shall supply and have available on the site at all times two triplicate carbon copy books. In one book, site instructions shall be recorded. The other book shall be used by the Contractor as a diary for recording day by day the state of the weather, the work done each day, labour and plant on the site of the Works and full details of any circumstance which may affect the progress of the Works. The original sheet of each set of 3 pages will be removed from both books and retained by the Technical Officer. The Contractor may remove the second sheet but the third sheet shall be retained on the site until completion of the Works.

**C3.5.1.9** Communication Facilities

The Contractor and his site agent/ supervisor must at all times be contactable via mobile cellular phone for the duration of the contract. The contractor shall allow for the provision and of this service in his rates tendered for the Works.

**C3.5.2 Health and Safety****C3.5.2.1** Health and Safety specifications

Most of the activities pertaining to the Works will be executed on, over, under or adjacent to Railway lines and near High Voltage equipment.

Trains will be operated on the railway lines while work is in progress. The contractor shall at all times perform the work in such a manner that the tracks are safe for the passage of trains.

The contractor shall at all times be responsible for the safety of his personnel on the site of the works while paying special attention to the danger of them being struck by passing trains.

The following generic (Standard) PRASA specifications are applicable to this contract:

- E7/1: Specification for works on, over, under or adjacent to Railway lines and near High Voltage equipment. (Also referred to as the SPK7/1 specification)
- E.4E Transnet (Jan 2004 - As adapted for PRASA): Safety Arrangements and procedural compliance with the Occupational Health and Safety Act (Act 85 of 1993) and applicable Regulations. (Also referred to as the E4E specification)

#### **C3.5.2.2** Site Access Certificate

Refer Annexure 4 of the E4E specification. A Site Access Certificate will not be issued unless the contractor's Health and Safety Programme has been approved by the Technical Officer.

#### **C3.5.2.3** Safety Committee Meetings

When required by the Technical Officer, the Contractor's Safety Representative shall attend the Manager's Safety Committee meetings.

#### **C3.5.2.4** Training of the Contractor's Staff

Refer clause 5.2 of the SPK7/1 Specification: Training of the Contractor's flagmen will be done free of charge by Metrorail.

#### **Note:**

The number of flagmen will depend on the size of the teams and will be determined by the Technical Officer.

#### **C3.5.2.5** Non-compliance to contractual safety conditions

Metrorail reserves the right to stop the Works and report the Contractor to the

Department of Labour should the Contractor fail to adhere to any of the contractual safety conditions. No extension of time claim or relief of penalties requests arising from the Works being stopped due to the Contractor's failure to comply with contractual safety conditions will be entertained.

### **C3.6 ANNEXES**

#### **C3.6.1 Particular Specifications:** (Also referred to as "Project Specifications")

- Cleaning of PRASA's rail Reserve within PRASA's boundary along the Central line Corridor in the Western Cape region

#### **C3.6.2 Generic Specifications:** (also referred to as "Standard Specifications")

- E7/1: Specification for works on, over, under or adjacent to Railway lines and near High Voltage equipment. (Also referred to as the SPK7/1 specification.)
- E.4E Transnet (Jan 2004 - As adapted for PRASA): Safety arrangements and procedural compliance with the Occupational Health and Safety Act (Act 85 of 1993) and applicable Regulations. (Also referred to as the E4E specification.)

**PARTICULAR (PROJECT) SPECIFICATIONS**

**PASSENGER RAIL AGENCY OF SOUTH AFRICA LIMITED**

**CLEANING OF PRASA'S RAIL RESERVE WITHIN PRASA'S BOUNDARY ALONG THE CENTRAL LINE  
CORRIDOR IN THE WESTERN CAPE METRORAIL REGION**

## **CLEANING OF PRASA'S RAIL RESERVE WITHIN PRASA'S BOUNDARY ALONG THE CENTRAL LINE CORRIDOR IN THE WESTERN CAPE METRORAIL REGION**

### **PROJECT SPECIFICATION**

#### **8. DESCRIPTION OF THE WORKS**

The sections of rail reserve to be cleaned are set out in the Schedule of Quantities and Prices. The Contractor shall clear the site from all types of refuse, litter and waste e.g. tins, rags, paper, and plastic bags, including garden and kitchen refuse whether windblown or dumped on the site by third parties.

The Contractor shall gather all the above mentioned litter in refuse bags ("black bags"), load it onto road trucks and transport it by road for dumping at an approved municipal dumping site.

The removal of dumped builders type rubble e.g. bricks, stones and concrete/cement blocks as well as human excrement is not included in the scope of the Works.

The sections of rail reserve shall be cleaned between the fence/boundary lines of the PRASA including the areas between the railway lines unless otherwise instructed by the Technical Officer or the Technical Officer's Deputy. The start and end of each section of track reserve between stations will be determined by the ends of the station platforms at the stations.

#### **9. PROGRAMME AND PROCEDURAL REQUIREMENTS**

Once the Contractor has been awarded, he/she will only work when been called and issued the instructions by a Technical Officer. The contractor will visit the site first together with the Technical Officer and deciding how long will the job take place, depending on the nature of the work, once that been decided the estimated time to complete the job will be stipulated and recorded on the minutes of the site meeting.

#### **10. TO BE SUPPLIED BY THE CONTRACTOR**

**Refer clause 4 of the T287, General Conditions of Contract.** Litter/refuse bags and vehicular road transport of the litter/refuse to dumping sites are also to be provided by the Contractor.

The Contractor shall obtain "dumping permits/tickets" from the dumping site as proof of the dumping of the litter/refuse on an approved dumping site and submit signed copies of such to the Technical Officer when called upon to do so.

The Contractor shall make allowance for the above mentioned in his rates tendered for the Works.

#### **11. CLEANING: STANDARDS AND QUALITY CONTROL**

The contractor shall clean the track reserve from all litter/rubble as described in clause 1 above. The Technical Officer will carry out regular inspections of the Works to assess the effectiveness of the cleaning work in progress.

The Contractor shall notify the Technical Officer in writing after he has completed the cleaning of a section of track reserve. The Technical Officer shall inspect the cleaned section of track reserve within two days after receipt of this notice. The Technical Officer Deputy will reject any areas or sections, which has not been properly cleaned. The responsibility shall rest upon the Contractor to clean the rejected areas or sections in

his own time before payment will be made for the cleaning of the particular section. The Technical Officer will issue a

Certificate of completion for each section that has been accepted as "cleaned".

## **12. STACKING OF FILLED REFUSE BAGS**

No filled refuse bags may be left overnight on the property of the PRASA. All filled refuse bags shall be loaded and transported to a legal dumpsite on the same day that it was filled. No refuse bags shall be stacked close to any signal cables/equipment whilst awaiting transport. The Contractor will be held responsible for the repairs and/or the costs incurred in effecting such repairs to any damages to the property of the PRASA and/or any train- delays or cancellations caused by non-compliance to this specification.

## **13. RESTRICTIONS**

The Contractor shall not be allowed to carry out work on more than 2 (two) sites simultaneously at any specific time.

## **14. MEASUREMENT AND PAYMENT**

All work completed as per issued certificates of completion shall be measured and paid for as per the Schedule of Quantities and Prices.

- **Track Reserve:**

Payment will be made per hector of Track Reserve and/or station cleaned.

- **Additional Work:**

See clause 14 of the T287 General Conditions of Contract

The contractor in his rates shall also include cost of equipment and material used (e.g. refuse bags), traveling, dumping at a legal sites and also his day labour rates.

## QUANTITIES

### Part C2- PRICING DATA

#### C2.1 - Pricing Instructions

##### C2.1.1 Bill / Schedule of Quantities

- i) The quantities in the Schedule of Work and Prices are estimated (provisional) and may be more or less than stated. The contractor shall submit with his tender a complete and detailed priced schedule (**prepared in black ink**) for the Works. All work covered by the schedule including work resulting from modifications or alterations to drawings shall be measured and paid for according to the completed schedule.
- ii) The absence of stated quantities in the schedule is no guarantee that none will be required. Reasonable and sufficient rates and/or prices shall therefore be inserted to every item, as such prices will be considered when awarding the contract
- iii) In the event that a tenderer leaves any item/s blank which are materially important for the award of the contract/business or fails to tender in an amount expressed or calculable in Rands and cents (e.g. total amount, unit price, hourly rate), Metrorail reserves the right to disqualify such a tender.
- iv) Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted with the project manager's written approval.

##### C2.1.2 Schedule of Quantities and Prices

###### C2.1.2.1 Measurement and Payment

**C2.1.2.1.1** Measurement will only be made in terms of items listed in the Schedule of Quantities and Prices and payment will be done after invoices have been certified by the Manager or Technical Officer.

**C2.1.2.1.2** Payment will be made within 30 days of invoice approval. Only fully completed sections will be measured/considered for payment

**SCHEDULE OF QUANTITIES AND PRICES: CLEANING OF PRASA'S RAIL RESERVE WITHIN PRASA'S BOUNDARY ALONG THE CENTRAL LINE CORRIDOR IN THE WESTERN CAPE METRORAIL REGION**

<b>SCHEDULE OF QUANTITIES AND PRICES</b>					
<b>ITEM</b>	<b>SECTION TO BE CLEANED</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>RATE (R )</b>	<b>AMOUNT (R )</b>
	<b>PART A: TRACK RESERVE (cyclic)</b>				
A.1	Maitland to Ndabeni	ha	5.77		
A.2	Ndabeni to Pinelands	ha	4.75		
A.3	Pinelands to Langa	ha	4.38		
A.4	Langa to Bonteheuwel	ha	4.16		
A.5	Bonteheuwel to Netreg	ha	10.63		
A.6	Netreg to Heideveld	ha	15.73		
A.7	Heideveld to Nyanga	ha	8.77		
A.8	Nyanga to Phillippi	ha	14.07		
A.9	Bonteheuwel to Lavistown	ha	12.02		
A.10	Nolungile to Nonkgubela	ha	4.59		
A.11	Nonkubela to Khayelista	ha	2.30		
A.12	Lavistown to Belhar	ha	12.55		
A.13	Belhar to Unibell	ha	8.49		
	<b>Sub-Total</b>				
	<b>PART B: EMERGENCY CALLOUT (Adhoc)</b>				
B.1	Nyanga to Phillippi	ha	5		
B.2	Langa to Bonteheuwel	ha	4.16		
B.3	Nolungile to Nonkgubela	ha	2.00		
B.4	Bonteheuwel to Netreg	ha	10.63		
	<b>Sub-Total</b>				
	<b>PART C: DAY LABOUR (Emergency/small works)</b>				
C.1	Fore-man/supervisor	hour	250		
C.2	General Workers	Hour	500		
C.3	Flagmen	hour	250		
	<b>Sub-Total</b>				
	<b>Total Amount (Excl. V.A.T)</b>				
	<b>Amount of V.A.T (15%)</b>				
	<b>Total Amount (Incl. V.A.T)</b>				

<b>SUMMARY OF BOQ</b>		
<b>Part</b>	<b>Description</b>	<b>Rand</b>
<b>A</b>	<b>TRACK RESERVE (cyclic)</b>	
<b>B</b>	<b>EMERGENCY CALLOUT (Adhoc)</b>	
<b>C</b>	<b>DAY LABOUR (Emergency/small works)</b>	
<b>Total amount (Excl V.A.T.)</b>		
<b>Amount of V.A.T. (15%)</b>		
<b>Total Tendered Amount (incl. V.A.T.)</b>		

**Tenderer:** \_\_\_\_\_ **Witness:** (1) \_\_\_\_\_  
(2) \_\_\_\_\_

**Date:** \_\_\_\_\_