



prasa

PASSENGER RAIL AGENCY
OF SOUTH AFRICA

REQUEST FOR QUOTATION (RFQ)

RFQ NUMBER:

EP-01/12/2021 Gau-Per

**REQUEST FOR QUOTATION (RFQ) FOR GEOTECHNICAL INVESTIGATIONS AND SINKHOLE MITIGATION WORKS IN
THE PINEDENE STATION AREA.**

BIDDER FULL NAME:

EMAIL:

ADDRESS:

CONTACT PERSON:



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

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF PASSENGER RAIL AGENCY (PRASA)					
BID NUMBER:	EP-01/12/2021 Gau-Per	CLOSING DATE:	24 February 2022	CLOSING TIME:	10H00 AM
DESCRIPTION	Geotechnical investigations and sinkhole mitigation works in the Pinedene station area				
BID RESPONSE DOCUMENTS SHALL BE ADDRESSED AS FOLLOWS:					
Email: gauteng.quotation@prasa.com AND mmalovha@prasa.com and caxwell.mkhabele@prasa.com					
NB: BIDS MUST BE SEND TO BOTH EMAIL ADDRESSES ON OR BEFORE THE STIPULATED TIME. BIDS SENT ONLY TO ONE EMAIL WILL NOT BE CONSIDERED FOR EVALUTION OR AWARD.					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO					
CONTACT PERSON	Mashudu Malovha and Caxwell Mkhabele				
TELEPHONE NUMBER	011 085 7065				
E-MAIL ADDRESS	gauteng.quotation@prasa.com AND mmalovha@prasa.com and caxwell.mkhabele@prasa.com				
SUPPLIER INFORMATION					
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:		OR	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 THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]	
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS					
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?			<input type="checkbox"/> YES <input type="checkbox"/> NO		
DOES THE ENTITY HAVE A BRANCH IN THE RSA?			<input type="checkbox"/> YES <input type="checkbox"/> NO		
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?			<input type="checkbox"/> YES <input type="checkbox"/> NO		
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?			<input type="checkbox"/> YES <input type="checkbox"/> NO		
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?			<input type="checkbox"/> YES <input type="checkbox"/> NO		

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

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 PRESCRIBED IN THE BID DOCUMENT.**
- 1.3. 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.
- 1.4. **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.***

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

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

Not applicable

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

1. 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.

15.2 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.

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

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), 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:

1.1 Stage1

1.1.1 Stage 1 A: Mandatory Documents

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

No.	Description of requirement	Completed
a)	Price Schedule / Pricing form	Yes / No
b)	Completion of ALL RFQ declarations and Forms	Yes / No

NB: All forms and declarations must be completed and signed by duly authorized person.

1.1.3 Stage 1 B: Basic compliance Documents

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	Bidder to indicate documents submitted.
a)	Company Registration Documents	Yes / No
b)	Copies of Directors' ID documents;	Yes / No
c)	Valid BBBEE Certificate from a SANAS accredited rating agency (Original or Certified) or affidavit signed by the Commissioner of Oath	Yes / No
d)	Valid Tax Clearance Certificate (must be valid on closing date of submission of the proposal) and SARS Issued Pin	Yes / No
e)	CSD report / CSD reference number	Yes / No
f)	Proof of UIF registration	Yes / No
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)	Yes / No

1.2 Stage 2 - Price and B-BBEE

Evaluation criteria	Weighting
BBBEE	20
Price	80
TOTAL	100

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

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

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

Respondents are required to complete the attached Pricing Schedule **Annexure A**

- 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)

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.

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area



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.

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

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:

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area



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

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
PRICE	80
B-BBEE STATUS LEVEL OF CONTRIBUTION	20
Total points for Price and B-BBEE must not exceed	100

- 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

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

(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 19th 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.

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

- 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.
- 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

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

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 <input type="checkbox"/>	QSE <input type="checkbox"/>
Black people	<input type="checkbox"/>	<input type="checkbox"/>
Black people who are youth	<input type="checkbox"/>	<input type="checkbox"/>
Black people who are women	<input type="checkbox"/>	<input type="checkbox"/>
Black people with disabilities	<input type="checkbox"/>	<input type="checkbox"/>
Black people living in rural or underdeveloped areas or townships	<input type="checkbox"/>	<input type="checkbox"/>
Cooperative owned by black people	<input type="checkbox"/>	<input type="checkbox"/>
Black people who are military veterans	<input type="checkbox"/>	<input type="checkbox"/>
OR		
Any EME	<input type="checkbox"/>	<input type="checkbox"/>
Any QSE	<input type="checkbox"/>	<input type="checkbox"/>

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

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area



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
.....
.....

SECTION 9

CERTIFICATE OF ATTENDANCE OF COMPULSORY RFQ BRIEFING

It is hereby certified that _____ Representative(s)
of _____ [name of entity] has attended the
RFQ Briefing session to which this enquiry relates.

FOR / ON BEHALF OF PRASA

DESIGNATION

Name _____

Signature _____

Acknowledgement

It is hereby certified that the bidder has acquainted himself /themselves with the RFQ enquiry

THUS DONE and SIGNED at _____ on this _____ day of _____ 20.....

DULY AUTHORISED SIGNATORY(IES)

WITNESSES

Signature _____ Name _____

Signature _____ Name _____

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><i>The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</i></p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <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><i>The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.</i></p>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <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>	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input type="checkbox"/>
4.3.1	If so, furnish particulars:		

4.4	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?	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

.....

Position

.....

Date

.....

Name of Company

CERTIFICATE OF INDEPENDENT RFQ DETERMINATION

1. This Standard Company Document (SBD) must form part of all RFQs¹ 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).² 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:

¹ Includes price quotations, advertised competitive RFQs, limited RFQs and proposals.

² 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 consortium³ 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

³ 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 13

SPECIFICATION/SCOPE OF WORK

1. INTRODUCTION

The railway section between Pretoria and Olifantsfontein station forms part of the super A corridor and is underlaid by Dolomite bedrock, being a carbonaceous rock slightly soluble in mildly acidic conditions (rainwater). The lines was closed due to the collapse of overlying soils into cavities after a period of intense rainfall in December 2021.

2. BACKGROUND INFORMATION

2.1 STATUS QUO

The site runs through a mapped dolomitic area and is therefore subject to a significant risk of sinkhole formation. The main purpose of this project is to protect the railway tracks and the surrounding area against existing and potential forming of new sinkholes. Perway department has identified problems with track on the railway section between Pinedene and Olifantsfontein Stations, which have presented themselves in the form of sinkholes. This deformation and sinkholes have been thought to be the result of trenching for underground cables causing degradation of the sub-ballast and opening of cavities. The deformations and questionable track integrity have also led to closure of the corridor on this section. This is causing undue delay to train operations, especially during peak times that in turn imply unnecessary costs to PRASA.

2.2 PROBLEM STATEMENT

Current conditions are conducive to pooling of water alongside the track .Land shaping and channelling is required to ensure free drainage everywhere. Drainage paths along the track should be protected against erosion to minimise the risk of future pooling of storm water, construction of concrete channels is required in order to minimise the formation of sinkholes and deformation of railway tracks.

2.3 PICTORIALS



Figure 1: The re-occurrence of sinkholes in the Pinedene station area, WA Km 35 to 36

3. SCOPE OF WORK AND AREAS OF FOCUS

The scope of work entails Geotechnical investigations and sinkhole mitigation works at various sites in the Metrorail Gauteng Province. The service provider shall do the work as directed by the Engineer or his/her representative and in accordance with the specifications set out in this tender/contract document.

I. SCOPE OF THE DESIRED SOLUTION

The appointed contractor will be required to undertake the following services;

- Investigation and report on the problems regarding the storm water control system, the stability of the track formation and retaining structures.
- Hydrological survey of the area to determine the relevant storm water characteristics shall be included.
- In addition investigate and report on the formation of sinkholes on PRASA servitude.
- Source the relevant as-built information. Information obtained/developed in this regard should be ratified with the Metropolitan Transport authorities and/or Gauteng South Region PRASA Rail.
- Preparation of concept/preliminary design and drawings based on items above.
- Detailed design and drawings of the optimised drainage systems.
- Compile a risk assessment matrix and manage the risk matrix on behalf of PRASA.
- Negotiate and compile service level agreements with relevant parties as and when required.
- Finalization and submission of completion documents, final accounts and as well as submission of "Close out" report.

The following studies and services are required from the Contractor conducting investigations in accordance with SABS 1936:

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

- Topographical Surveys;
- Geotechnical investigations;
- Occupation Health and Safety;
- Cadastral Surveys;
- Service Detection;
- Existing roads

II. DETAILS ON THE PREFERRED SOLUTION

The preferred solution shall be the appointment of a project management/consulting engineering company that will execute through engineering work and advise PRASA on the suitable design solution, new drainage upgrade and sinkhole mitigation works between Pinedene and Olifantsfontein Stations. The appointed company will also be responsible for project management during construction and project close out.

III. TARGETED AREA BY THIS PROJECT

The place of work shall be the Gauteng region, between Pinedene and Olifantsfontein stations, the sequence of work shall be determined on an on-going basis based on operational requirements and availability of sites for outages. This will be communicated in time to the service provider.

IV. EXTENT AND COVERAGE OF THE PROPOSED PROJECT

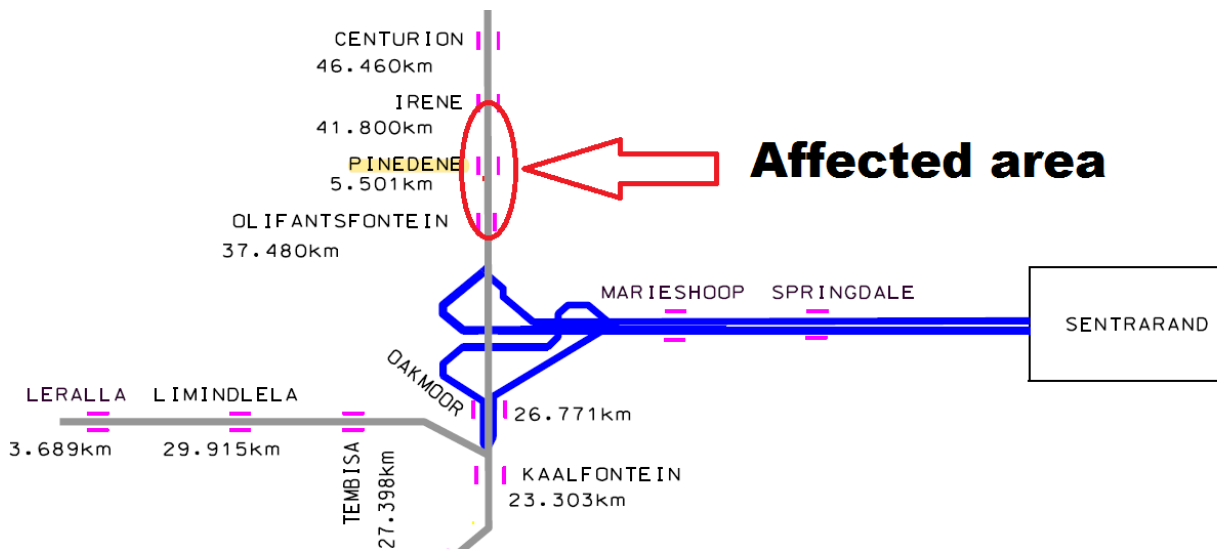


Figure 1: Area affected (Pinedene)

The above figure depicts the area affected, Pinedene is situated on the line of Pretoria to Kaalfontein corridor. There are two railway tracks /lines connecting the Pretoria to Johannesburg, both temporally closed. Trains that are affected; all trains service to and from Pretoria to transverse to Kaalfontein i.e EMU to the coastlines, Bluetrain, Rovos, Goods trains, MLPS service, diesels, trolleys etc. The alternative line to connect GS to GN is Marieshoop via Sentrarand, LED to Koedoesport the Pretoria, which is far and owned by TFR, not PRASA network.

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

4. SPECIFICATION OF THE WORK OR PRODUCTS OR SERVICES REQUIRED

This specification covers Geotechnical investigations and sinkhole mitigation works between WA Km 35 + 36 (2Km) Pinedene and Olifantsfontein Stations in the Metrorail Gauteng Province. The service provider shall do the work as directed by the Engineer or his/her representative and in accordance with the specifications set out in this tender/contract document.

5.1 SPECIFICATION OF THE SCOPE OF WORK

This contract covers the general principles and requirements for:

- Geotechnical investigations to determine the general suitability of the dolomite land developed for railway infrastructure operations
- the determination of the inherent hazard class of dolomite land, to be used in conjunction with other parts of SANS 1936 to ascertain the dolomite area designation and requirements for the development of such land; and
- Inspection and verification during the implementation phase of a project on dolomite land.

5.2 CONTRACT PERIOD

The contract period will be 1-2 month(s). Emergency work and geotechnical investigations to be conducted and safe reopening of the railway line to be determined within a week of commencement.

5.3 DAY WORKS

Before commencing with the day works, the operator and staff shall ensure that they are all wearing the correct personnel protective equipment (PPE) and that the required safety protocol has been completed (such as Tool Box talk and etc).

5.4 MAINTENANCE PERIOD

All tools and equipment should be serviced and maintained on a routine basis. This should include the replacement of diesel, hydraulic and engine oil filters, oils, lubricants, fan belts, worn parts and etc.

5.5 PROTECTION OF WORKS

- a) PRASA (in cooperation with the service provider) will arrange for the occupations during which the project will take place.
- b) The service provider shall comply with Prasa safety legislation and requirements in all respects, before the beginning of the works.
- c) The service provider shall provide his own security.

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

5.6 TO BE PROVIDED BY PRASA

- All welding work including rail-cutting, exothermic welding etc. (if applicable)
- Diesel traction (if applicable)
- Protection during occupations
- Rail trucks (DZ) for new and spoiled material (if applicable)
- Dumping site to offload the spoiled material.

5.7 TO BE PROVIDED BY THE CONTRACTOR

- The tenderer shall submit with his/her tender a detailed method statement and sequenced program based on evaluation criteria of how he/she proposes to execute the work. This shall include detail of number and grades of staff and equipment that he/she intends using. On award of the tender the successful tenderer's first task under the Contract shall be to agree with the Project Manager on a Final Work Program to be followed. This must be done within 1 day from date of award.
- A site book (in triplicate) to record all incidents as well as the progress of work done during the occupation.
- A record should be kept of the details of each stage including project details, level survey, slip circle crack dilation etc.
- All machinery, equipment, vehicles and labour that he shall need to successfully complete the project. He must maintain and operate during the contract period including all consumables, refer to figure 2: section sinkhole rehabilitation method.
- The contractor will have to ensure he is familiar with the E10 (General Specification for Railway Track work) and SPK 7/2 (General conditions and specification for works on, over, under or adjacent to railway lines and near high voltage equipment).

5.8 INTERPRETATIONS

This document is intended to cover the maintenance procedures of sinkholes which are not detailed or indicated in the "MANUAL FOR TRACK MAINTENANCE (Latest edition)". In accordance with SANS 1936, Intensive rehabilitation work is to be done before the temporary speed restrictions can be uplifted. It is urgent that more tests and rehabilitation work be done immediately in the vicinity were the sinkholes occurred to mitigate potential risks to the company's property.

5.9 MATERIAL

All material will be supplied by the contractor, and should be included in the Tendered rates. (E.g. boulders, concrete etc.) Refer to schedule of quantities.

5.10 PLANT, TOOLS AND EQUIPMENT

The service provider must provide his/her own vehicles and equipment needed to assess and rehabilitate the sinkhole. A daily check should be made for any oil leaks, exposed wires and loose (hot) electric

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

connections. If leaks occur, a drip tray or sheet should be placed beneath the rig. Any contaminants entering the soil should be scrapped up and safely disposed of.

5.11 MAINTENANCE PROCEDURES

The sinkhole structure is usually composed of two parts.

- A funnel section which is normally cone shaped and extends from an irregular shaped edge at the surface, narrowing downwards to the floor of the cavity.
- The funnel leads downwards into the throat, which usually changes orientation compared to the funnel. The throat is usually in the form of a small diameter, semi-vertical tunnel of variable length. This tunnel acts as the conduit for the soil material to leave the funnel and migrate downwards into cavities or fissures deeper below the sinkhole.

The design principle of sinkhole backfilling is therefore carried out in stages in accordance with SABS 1936.

5.12 OVERALL TEAM COMPOSITION AND KEY PROFESSIONAL STAFF

The service provider to provide details of a team he will be using for this project which must consist of not less than the following:

- Project Director / Project Manager
- Civil / Structural Engineer
- Geotechnical Engineer
- Track Master
- Flag Personnel
- Construction Health and Safety Officer
- Plant Operator
- General Labours

Details of the minimum qualifications for the professional staff listed above are outlined below:

- **Project Director / Project Manager**

The desired minimum qualifications for the Team Leader/Project Director are as outlined below:

- BSc. Degree / B.Tech in Engineering
- ECSA registered as Professional Engineer/Technologist
- Above 1 year post graduate experience,
- Project Management qualification and above 1 year experience.
- South African Council for the Project and Construction Management Professions (SACPCMP) Registration and /or Project Management Professional (PMP) Certification
- Above 1 year leadership of multi-disciplinary teams on large similar or related projects.
- Above 1 year experience in the planning and design of multi-disciplinary similar or related projects

- **Civil / Structural Engineer**

The desired minimum qualifications for the Civil / Structural Design Engineer are as outlined below:

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

- BSc. Degree / B.Tech in Civil / Structural Engineering
- ECSA registered as a Professional Engineer/Technologist
- Above 1 year Post Graduate experience in design of similar projects

- **Geotechnical Engineer**

The desired minimum qualifications for the Geotechnical Engineer are as outlined below:

- BSc. Degree / B.Tech in Geotechnical Engineering or a related discipline
- Registered with the relevant professional body.
- Above 1 year relevant work experience in managing and conducting Geotechnical studies and assessments.

- **Track Master**

The desired minimum qualifications for the Track master are as outlined below:

- A valid Track master Certificate
- Above 1 year Track master experience in railway projects

- **Flag personnel**

The desired minimum qualifications for the Flag personnel are as outlined below:

- A valid Flagman Certificate (TETA -ASSR 463972 (Accreditation no: TETA 1186) and Transnet 407 – Item Number 37/270451 - "Certificate of Competency") certified by either PRASA or Transnet competent person.
- Above 1 year flag person experience in railway projects.
- Provision for flag personnel refresher training by PRASA will be available.

- **Construction Health and safety Officer**

The desired minimum qualifications for a Construction health and Safety Officer are as outlined below:

- Registered with professional body (SACPCMP)
- Minimum of 3 years industry experience as a health and safety officer.

- **Plant Operator**

The desired minimum qualifications for a Plant Operator are as outlined below:

- All plant must be operated by a qualified plant operator with valid plant operation licence/certificates.
- Minimum 3 years' experience as a plant operator.

- **General Labours**

The desired minimum qualifications for the General Labours are as outlined below:

- All general labours must be medical fit with a valid medical certificate.

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

5.13 MEASUREMENTS AND PAYMENTS

The unit of measurement will be per linear units as per items in the schedule of quantities.

- No down time claim for inclement weather will be paid.
- No escalation will be paid. Allowance for escalation cost must be provided for in the tendered price
- The contractor shall submit his/her claim certificate which will be checked and certified by the Project Manager before payment can be processed. The Project Manager shall check claimed quantities against actual completed quantities and make necessary adjustments before payment can be processed.
- Only approved invoices will be paid within 30 days of approval.
- The tendered rates shall include the provision of at least three (3) trained and certified flagmen supplied by the contractor and they should be certified by PRASA.

5.14 SAFETY

- All work in this contract shall comply with the Occupational Safety Act No 85 of 1993, National Environmental management Act 107 of 1997 Act and construction regulation 2014. These items shall all be included in the tendered rates.
- A copy of the act as well as an approved safety file shall be kept on site for the duration of the project.
- The Contractor shall comply with all applicable legislation and PRASA's safety requirements adopted from time to time and instructed by the Project Manager. Such compliance shall be entirely at the contractor's cost and shall be deemed to have been allowed for in the rates or total prices in the contract.
- The Contractor shall report all incidents in writing to the Project Manager. Any incident resulting in the death of or injury to any person on the works shall be reported within 1 hour of its occurrence and any other incident shall be reported within 24 hours of its occurrence.
- All personnel employed by the Contractor shall have undergone a Health and Safety Induction.
- Permits to work (in line with Covid-19 regulations) shall be issued at the cost of the contractor to all personnel on that shall be signed and stamped by the authorized PRASA Official responsible for Risk Management.
- The contractor shall ensure that all COVID - 19 protocols are adhered to.
- The Contractor shall make necessary arrangements for sanitation, water and electricity at these relevant sites during the installation of the equipment.
- The safety file will be approved only after all the requirements on the checklist are met. WITS_LIB/RISK_MGT/SHE File Checklist (version 3) is attached in this regard.
- All work shall at all times comply with the E7/1 Specification attached hereto.
- Normal protection measures in accordance with the Protection Manual shall apply.
- An effective safety procedure to be followed by all personnel on any work site in the case of approaching rail traffic shall be compiled by the service provider and implemented before any work commences. This procedure shall be updated whenever the need arises and any changes shall be

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

communicated to all employees on a works site before work proceeds.

- The service provider shall be responsible for the safety of personnel on site.
The following shall also form part of the safety plan:
 - Transportation of equipment and personnel.
 - Transportation, storage and handling of hazardous equipment
 - The site access certificate shall only be issued (to the successful bidder) after the evaluation and approval of the safety file.
- It is the requirement of this contract that the contractor should provide PRASA with a detailed safety plan prior to being issued with a site access certificate, in accordance with the latest version of the OHS Act and the SPK7 and the E4E.

6 GENERAL

- The Contractor shall ensure that all staff working on or with the contract are adequately trained, to comply with any relevant safety and quality requirements.
- Flagman must be officially trained, evaluated and certified competent, (TETA -ASSR 463972 (Accreditation no: TETA 1186) and Transnet 407 – Item Number 37/270451 - "Certificate of Competency") by a designated competent person, before being used on protection duties. This certificate of competency shall remain valid for two (2) years only after, which re-testing and re-certification of competency will be required.
- PRASA RAIL shall assist the contractor with the training of flagman.
- Flagmen that are already qualified will be tested by PRASA representative and if found not competent will not be allowed to form part of the contractor's team.
- PRASA Rail Regional Engineer remains ultimately responsible in terms of the requirements of Act 85 for the safe working environment of his/her own personnel as well as contractor's personnel within the track maintenance environment on his/her depot.
- The Regional Engineer is therefore also responsible for ensuring that any changes in the Protection Procedures that may occur over time are effectively communicated to any flagmen prior to them being used for Protection Duties.

7 METHOD STATEMENT

The service provider is requested to submit together with their tender a method statement, in it the following should be outlined in detail:

- Procedure in carrying out the work (construction methods)
- Technical and Engineering capability (Certificates of Engineering staff)
- All Resources (Labour, Plant, Equipment, Support and Outside Services) that the contractor proposes to use in the execution of the works

8 HOURS AND DAYS OF DUTY / OCCUPATION

- It is mandatory that the railway line is opened for traffic within a week after award

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

- The railway line to closed to traffic and all hours are available for construction.
- It should be agreed upon by the Project Manager in writing before the start of the any project task, the duration it will take to open the railway line for traffic.

9 GUARANTEES

- All work done shall be guaranteed for a period of 6 months after the successful handover
- All completion certificate will be given in writing after all contract obligations are met and approved by PRASA Project Manager.
- Formal completion certificate will be given in writing after all contract obligations are met and approved by PRASA Project Manager.
- Corrective action to be taken by the Contractor during the guarantee period at his/her own cost and expense.
- Project Manager will, where practicable be entitled to take corrective action of its own should the Contractor not be able to give immediate attention at the time a fault occurs and recover from the contractor any costs and expenses reasonably incurred by it in doing so as per penalty clauses.

10 PAYMENT CERTIFICATE

- On or after the assessment date, the Supervisor and the Contractor will together assess the quantities of the progress on each item in the Bill of Quantities and complete the Progress Assessment Detail form, where after the Progress Assessment Certificate will be issued.
- The Contractor shall then submit a VAT invoice and attach the above Progress Certificate for payment by the Employer.
- Claims for payment will only be made on a monthly basis and payments will be made within 30 days of approved invoices.
- Contractor to provide the Employer with the necessary details regarding banking details to enable the Employer to make electronic payments.

11 PRICING OF THE WORKS

- The contractor is required to provide firm prices/ rates for material and labor for the duration of the contract.
- The Contractor is advised to study the requirements of the SPK 7/1 and ensure that all works can be completed in accordance with these requirements.
- The contract offer shall be based on the rates as indicated in the bill of quantities. The quantities shall be agreed during construction per section.

12 PENALTIES

- If the Contractor fails to complete the Services within the time a stipulated in this Contract for completion of Services or a part or portion of Services, the Contractor shall be liable to the Employer

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

for an amount calculated at 0.05% of the Contract Price per delayed Day per order, which shall be paid for every day which shall elapse between the time for due completion and completion of the relevant Services. However, the total amount due under this sub-clause shall not exceed the maximum of 10% of the Contract Price.

- The imposition of such penalty shall not relieve the Contractor from its obligation to complete Services or from any of its obligations and liabilities under the Contract,
- PRASA may set off or deduct from the fees due to the Contractor any penalty amounts due and owing by the Contractor.

13 CONSTRUCTION RELATED SECURITIES

MANDATORY SECURITY REQUIREMENTS

- All security companies used by the Contractor shall be PSIRA registered with valid letter of good standing.
- Security personnel shall all be PSIRA registered with a clear criminal record no criminal pending cases and preferably be sourced from the local community.
- All security officials utilised in this project shall be South African Citizens.
- All personnel employed by the Contractor including sub-contractors shall have undergone a Health and Safety Induction.
- Permits to work (in line with Covid-19 regulations) shall be issued at the cost of the contractor to all personnel on that shall be signed and stamped by the authorized PRASA Official responsible for Risk Management.
- The security to be provided by the contractor shall be responsible for both the appointed contractor's assets and PRASA's assets on site until the site is handed over to PRASA. A list of all functioning equipment that do not form part of this scope of work will be shared with the successful bidder and shall be signed off by both the successful bidder and PRASA's representative.
- PRASA assets that shall be guarded by the contracted security includes Permanent way assets, All Train Authorisation on track elements, all train stations (with all assets included) along the section and all functioning equipment along the corridor.
- Any lost or stolen material shall be replaced by the contractor at his own cost.
- The contractor shall provide on-site security for personnel and material stock and should ensure that patrols are in place at the section handed over to the contractor and until the completed work is handed over to PRASA. No claims of material or losses shall be lodged with the client for stolen goods during the construction before the completed work is handed over to PRASA.
- Furthermore, it is the contractor's responsibility to ensure that valuable metal i.e. copper is adequately protected while in transit to and from site.
- The contractor shall make sure that all material removed from site is quantified, counted, logged in the site diary and that it is co-signed by a PRASA representative on site before it is removed from site.
- Scrap metal removed from the section shall be adequately protected until it is delivered to PRASA's stores.
- PRASA reserves the right to conduct ad-hoc inspections to ensure Compliance

RISK

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

- Tabulated below are the associated security Risks and proposed mitigation measures. It should be noted that these are minimum risks identified and bidders shall be responsible for conducting their own risk assessment that will influence their quotations.

Risk	Probability	Mitigation
Project Hi-jacking – Regulation 9; 30% Subcontracting. This includes the provision of security.	High	Social Facilitation to ensure community involvement and buy in. PRASA recommends an approach that involves the local community. Failure to ensure local involvement can result in serious work stoppages.
Theft of Installed equipment	High	Fit for purpose security with an integrated plan for assets installed and physical security at site office. Ensure protective measures for site with an access gate.
Hi-jacking of site personnel vehicles	High	Armed Escorts to and from the site
Armed Robbery of personnel on site and Storage Facility at site	High	Armed Guarding at site and site office with an armed response for mobilisation

PROPOSED INTERVENTIONS

- Minimum of 2 vehicles with armed response officers (2-4) per vehicle strategically deployed within the site. To supplement the vehicles, a suitable number of day and night visible officers on foot patrol is required.
- Requisite equipment:
 - Bullet proof vests;
 - Spotlight;
 - Night vision equipment;
 - Torches;
 - Tactical Radios (PTT with GPS and Panic Button). This should be the primary communication for all personnel on site.
 - Handcuffs (disposable type) and other standard equipment;
 - Firearms with extra magazine; and
 - Any other equipment identified though the risk assessment.

14 APPLICABLE SPECIFICATIONS

The design and execution of this project shall meet technical capabilities and performance requirements for all specifications and standards approved and adopted by PRASA. A list of the technical specifications is outlined below:

- SANS 3000 - *Railway Safety Management*;
- Manual for Track Maintenance 2000

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

- Safety Arrangements and Procedural Compliance with the Occupational Health and Safety Act (Act 85 of 1993) and Applicable Regulations (E4E);
- Specification for Works On, Over, Under or Adjacent to Railway Lines and Near High Voltage Equipment (SPK7/1);
- *SANS 1200A - Standardised Specification for Civil Engineering Construction, Section A: General;*
- *SANS 2100C - Standardised Specification for Civil Engineering Construction, Section C: Site Clearance;*
- *SANS 2100D- Standardised Specification for Civil Engineering Construction, Section D: Earthworks;*
- *Municipal Management Act*
- *National Water Act no 36 of 1998*
- S410: Specification for Railway Earthworks (December 2003)
- Railway Safety Regulator Act (Act 16 of 2002).
- Norms, Standards and Guidelines.
- National Environmental Management Act No. 107 of 1998

SECTION 14

PRICING SCHEDULE

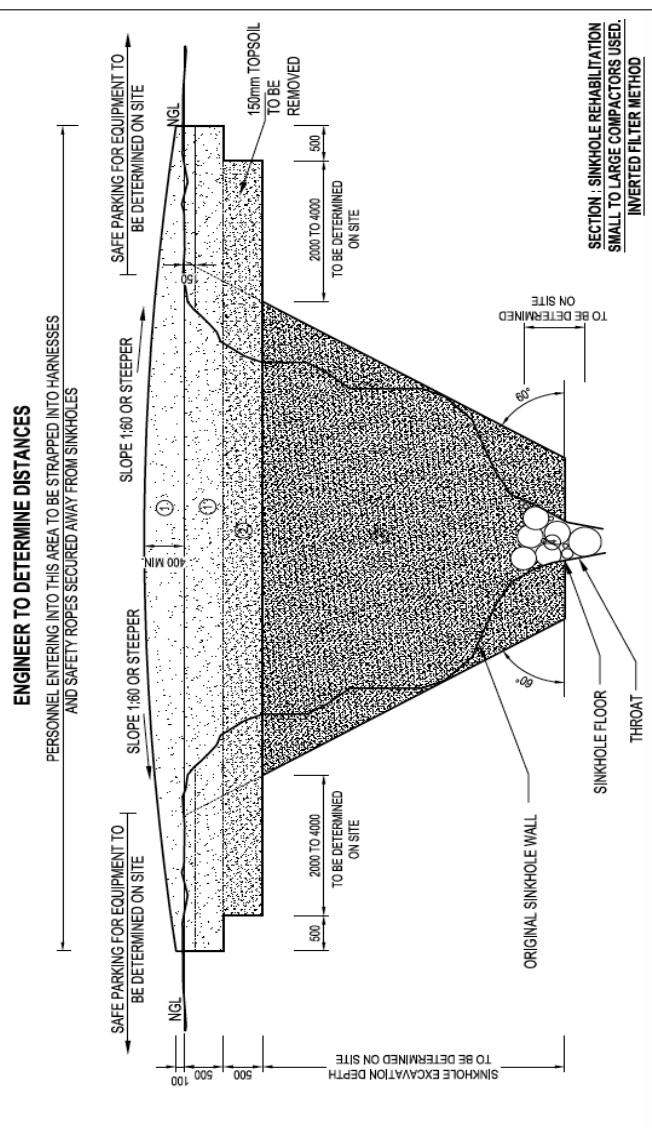
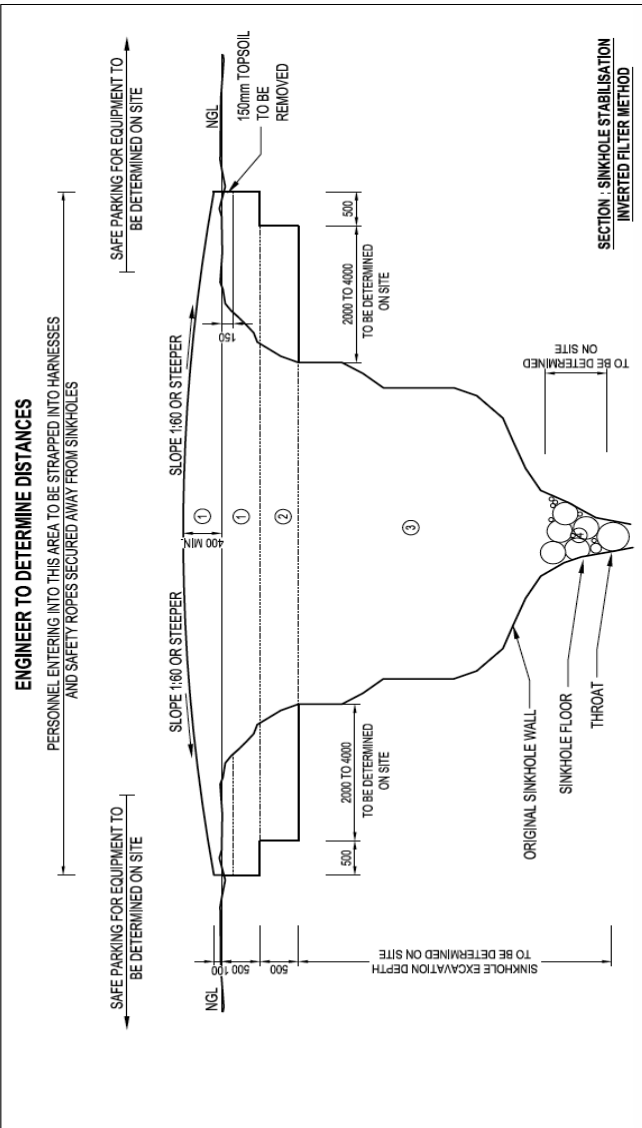
SCHEDULE OF QUANTITIES AND RATES/PRICES

Phase 2: Emergency Management, Engineers and Supervision + Extra Works				
	Unit measure	Quantity	Rate	Total
Site supervision	Week	3.4		
Design Fees 3%	Sum	1		
Overtime and holiday work	Sum	1		
Survey	Sum	1		
Preliminary and General items including emergency site establishment	Sum	1		
Extra over for Readymix plant to open and supply concrete public holidays	Sum	1		
Phase 1: Investigate, assess and report on dolomite cavities along railway line 500m North and South of the original sinkhole				
	Unit measure	Quantity	Rate	Total
PRASA Liaison, Literary review, Field mapping and Drilling Supervision and Borehole Logging				
Engineering Geologist	day			
Junior Engineering Geologist	day			
Report preparation				
Engineering Geologist	Hr			
Pr Engineer	Hr			
Geophysicist	Hr			
Draughtsman	Hr			
Geophysical Surveys				
Gravity survey (5 Traverses using 5m chainages)	sum			
Resistivity (2 traverses using 3m chainages)	sum			
Summary				
Phase 1: Emergency management, Engineers and supervision + extra works				
Phase 2 – Investigate, assess and report on dolomite cavities along railway line 500m North and South of the original sinkhole				
Sub total				
VAT @15%				
Total				

Annexure A

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area

TYPICAL DETAILS



1. TOP SELECTED FILLING:

- 150mm LAYERS COMPACTED WITH WALK BEHIND COMPACTOR (90mm) TO 95% MOD AASHTO DENSITY.
- SILTY SAND OR CLAY (PARTICLE SIZE 1,55mm AND SMALLER)

2. LOWER SELECTED FILLING

- 150mm LAYERS COMPACTED WITH WALK BEHIND COMPACTOR (90mm) TO 95% MOD AASHTO DENSITY.
- MAXIMUM COARSE MATERIAL SIZE NOT TO EXCEED 63mm IN DIAMETER.

3. BULK FILLING (UNCONTROLLED COMPACTION):

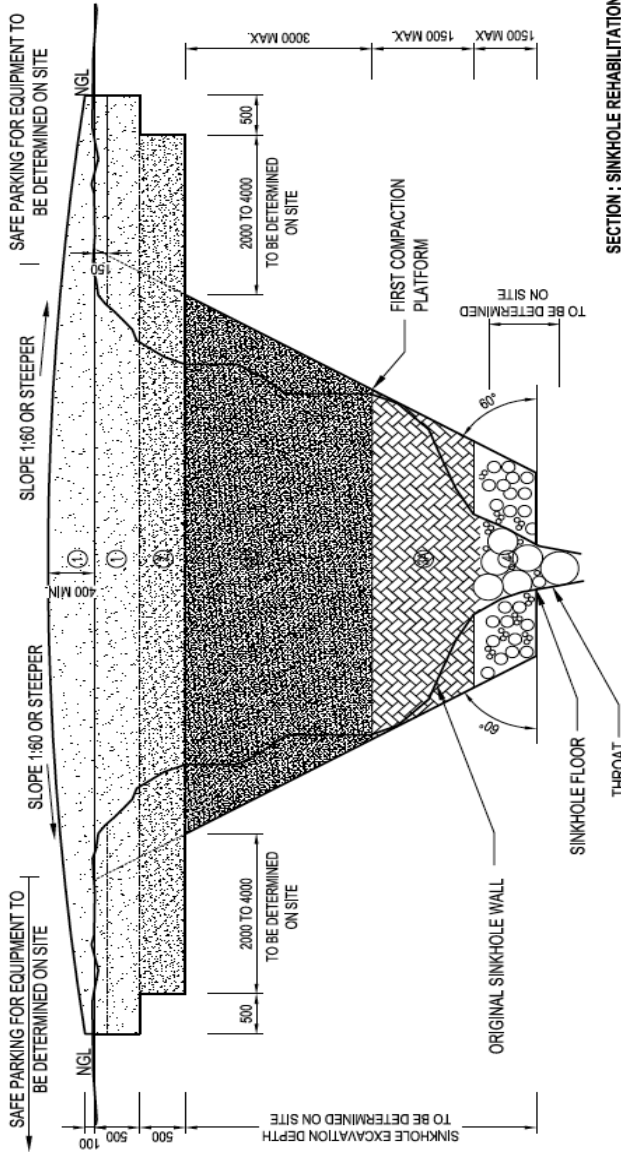
- 200mm LAYERS COMPACTED WITH TAMPING OF 32 TON EXCAVATOR BUCKET OR SIMILAR
- MATERIAL TO BE TYPE G8 WITH MAXIMUM SIZE OF MATERIAL NOT EXCEEDING 125mm IN DIAMETER.

4. CHOKING OF SINKHOLE THROAT:

- TYPE 1. BOULDERS OF 500mm DIAMETER OR LARGER FOR OPEN THROAT.
- TYPE 2. BOULDERS OR BUILDING RUBBLE UP TO 400mm DIAMETER MIXED WITH 30% SOIL FINES
- COMPACT TYPE 1 AND 2 WITH EXCAVATOR BUCKET.
- TYPE 3. REINFORCED CONCRETE SLAB (20MPa/19mm).
- TYPE 4. PUMP 1:15 CEMENT:SOIL MIX INTO THROAT.
- TYPE CHOKING TO BE DETERMINED BY ENGINEER AFTER EXCAVATION OF SINKHOLE FLOOR.

ENGINEER TO DETERMINE DISTANCES

PERSONNEL ENTERING INTO THIS AREA TO BE STRAPPED INTO HARNESSES AND SAFETY ROPES SECURED AWAY FROM SINKHOLES



1. TOP SELECTED FILLING:
 - 150mm LAYERS COMPACTED TO 95% MOD AASHTO DENSITY,
 - SILTY SAND OR CLAY (PARTICLE SIZE 1,55mm AND SMALLER,
2. DYNAMIC COMPACTION FINISHING PLATFORM:
 - LAST 0,5m UNCOMPACTED LAYER OF COARSE MATERIAL, SIZE NOT TO EXCEED 63mm IN DIAMETER,
 - DYNAMIC COMPACTION, CONSISTING OF PRIMARY, SECONDARY AND FINISHING COMPACTION,
3. DYNAMIC COMPACTION BULK FILLING:
 - FILL IN 3m UNCOMPACTED LAYERS OF TYPE G8 MATERIAL WITH MAXIMUM SIZE OF COARSE MATERIAL NOT EXCEEDING 125mm IN DIAMETER,
 - DYNAMIC COMPACTION, CONSISTING OF PRIMARY AND SECONDARY COMPACTION,
4. CHOKING OF SINKHOLE THROAT:
 - TYPE 1. BOULDERS OF 500mm DIAMETER OR LARGER FOR OPEN THROAT,
 - TYPE 2. BOULDERS OF BUILDING RUBBLE UP TO 400mm IN DIAMETER MIXED WITH 30% SOIL FINES,
 - TYPE CHOKING TO BE DETERMINED BY ENGINEER,

Request for Quotation for Geotechnical investigations and sinkhole mitigation works in the Pinedene station area