

REQUEST FOR QUOTATION (RFQ)

RFQ NUMBER: KZN/PRASA/2026/10/02/Q

REQUEST FOR QUOTATION (RFQ) FOR THE APPOINTMENT OF A SERVICE PROVIDER FOR THE EMERGENCY REPAIRS TO THE RAILWAY EMBANKMENT ON THE UMLAZI LINE BETWEEN ZWELETHU AND KWAMNYANDU

BRIEFING/SITE MEETING

Date: 19 October 2026

Time: 10H00

Venue: 65 Masabalala Yengwa Avenue, Greyville, Durban Station

SECTION 1: SBD1

Version 1

PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF PASSENGER RAIL AGENCY (PRASA)

BID NUMBER:	KZN/PRASA/2026/10/02/Q	CLOSING DATE:	26 October 2026	CLOSING TIME:	12H00
DESCRIPTION	REQUEST FOR QUOTATION (RFQ) FOR THE APPOINTMENT OF A SERVICE PROVIDER FOR THE EMERGENCY REPAIRS TO THE RAILWAY EMBANKMENT ON THE UMLAZI LINE BETWEEN ZWELETHU AND KWAMNYANDU				

BID RESPONSE DOCUMENTS SHALL BE ADDRESSED AS FOLLOWS:

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE **BID BOX NO.04** SITUATED AT (STREET ADDRESS):
PRASA OFFICES
65 MASABALALA YENGWA AVENUE
GREYVILLE
4001
DURBAN STATION

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO

CONTACT PERSON	Sihsenkosi Ngubane
TELEPHONE NUMBER	0318130139
E-MAIL ADDRESS	Sihsenkosi.Ngubane@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.....

2.1 ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]	2.2 ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ 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, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.

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 PRASA 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 INVALID.

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

2 COMMUNICATION

Bidder/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.

3 BIDDERS COMPLAINTS PROCESS

- 3.1 Bidders are advised utilize this email address (Complaints@prasa.com) for lodging of complaints to PRASA in relation to this bid process. The following minimum information about the bidder must be included in the complaint:
- 3.1.1 Bid/Tender Description;
 - 3.1.2 Bid/Tender Reference Number;
 - 3.1.3 Closing date of Bid/Tender;
 - 3.1.4 Supplier Name;
 - 3.1.5 Supplier Contact details; and
 - 3.1.6 The detailed complaint.

4 LEGAL COMPLIANCE

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

5 CHANGES TO QUOTATIONS

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

6 PRICING

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

7 BINDING OFFER

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

8 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)/works and request Bidders to re-bid on any changes;
- Reject any Quotation which does not conform to instructions and specifications which are detailed herein; and
- Reject Quotations submitted after the stated submission deadline or at the incorrect venue.

Should a contract be awarded on the strength of information furnished by the bidder, 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 bidder.

Should the preferred bidder 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 bidder provided that he/she/it is still prepared to provide the required goods at the quoted price.

9 LEGAL REVIEW

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

10 NATIONAL TREASURY'S CENTRAL SUPPLIER DATABASE

Bidders 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 bidder 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/>.

11 PROTECTION OF PERSONAL DATA

In responding to this bid, PRASA acknowledges that it may obtain and have access to personal data of the Bidders. PRASA agrees that it shall only process the information disclosed by Bidders 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 Bidders or disclose or permit the disclosure of any personal data to any Third Party without the prior written consent from the Bidders. Similarly, PRASA requires Bidders to process any personal information disclosed by PRASA in the bidding process in the same manner.

12 EVALUATION METHODOLOGY

PRASA will utilise the following criteria in choosing a Supplier/Service Provider:

Evaluation CRITERIA	WEIGHTING
Stage 1 – Compliance	
Stage 1A	Mandatory Requirements
Stage 1B	Other Mandatory Requirements
Stage 2	
Technical/Functional Requirements	80%
Stage 3	
Price	80
Specific Goals	20
TOTAL	100

13 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.

14 VALIDITY PERIOD

- 14.1 PRASA requires a validity period of **60 Working Days** from the closing date.
- 14.2 Bidders 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 delegated authority has approved the process the validity of the successful bidder(s)' bid will be deemed to remain valid until finalization of the of award.).

15 PUBLICATION OF INFORMATION ON THE NATIONAL TREASURY E-TENDER PORTAL

Bidders are to note that, bid awards, amendments and cancellations will be published on the e-tender portal and or media used to advertise the bid. For the award of business, PRASA is required to publish the prices and preferences claimed of the successful and unsuccessful Bidders *inter alia* on the National Treasury e-Tender Publication Portal, (www.etenders.gov.za), on CIDB website for construction related RFQ's. (*Where applicable*).

16 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 Bidders are urged to ensure that these documents are returned with the quotation based on the consequences of non-submission as indicated below:

16.1. Mandatory Returnable Documents

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

SECTION 3

1 Evaluation CRITERIA:

Stage 1A – Mandatory Requirements

If you do not submit the following mandatory documents/requirements, your bid will be automatically disqualified.

Only bidders who comply with stage 1A will be evaluated further.

No.	Description of requirement	
a)	Completion of ALL RFP documentation (includes ALL)	
b)	Briefing Session Form D. Bidders must also reflect on the Compulsory Briefing Session Attendance Register and Site Briefing Session Attendance.	

c)	Signed Joint Venture, Consortium Agreement or Partnering Agreement (whichever is applicable)	
d)	Proof of CIDB grading 4CE or higher	

Stage 1B –Other Mandatory Requirements

If you do not submit the following mandatory documents/requirements, PRASA may request the bidder to submit the information within three (3) working days. Should this information not be provided, your bid proposal will be disqualified.

Only bidders who comply with stage 1B will be evaluated further.

No.	Description of requirement	
a)	Letter of Good Standing: COID	
b)	Valid SARS Pin	
c)	CSD supplier registration number	

STAGE 2: TECHNICAL / FUNCTIONALITY REQUIREMENTS

Qualifying bidders shall then be evaluated on functionality after meeting all compliance requirements outlined above. The minimum threshold for the technical/functionality requirements is 80% as per the standard Evaluation Criteria presented in **Error! Reference source not found.** above. Bidders who score below this minimum requirement shall not be considered for further evaluation in stage 3. Details of the technical/functional requirements are presented in the Table 5 below.

ITEM	CRITERIA	WEIGHT
1.1	Organisational Experience	30
1.2	Resources (Personnel & Qualifications) (Civil Engineering Diploma/Bsc/Beng, Trackmaster with C green, two flagmen)	40
1.3	Methodology (Method Statement)	30
TOTAL		100

Table 5: Technical Evaluation Criteria

PERCENTAGES RELATING TO SCORING POINTS

The percentages relating to the scoring points is indicated in Table 6 below.

Scorings and their Relevant Percentage Allocation to Weight	
Scoring	Percentage
0	0%
1	10%
2	30%
3	60%
4	100%

Table 6: Scoring Percentages to Weights

The example of calculating points is: If one scores 3 on previous experience, he/she will receive a final weight of 30 points x 60% = 18 points

Functional Evaluation Criteria

Bidders are evaluated based on the functional criteria set out in this RFP. Only those Bidders which score [80] points or higher (out of a possible 100) during the functional evaluation will be evaluated during the second stage of the Bid. The evaluation criteria are indicated in Table 7 below.

WEIGHT	EVALUATION CRITERIA	ORGANISATIONAL EXPERIENCE				
		SCORING				
		0	1	2	3	4
30	Previous Experience for construction of Retaining Wall projects completed within the last 10 years (Completion/Reference letter in a client's letter head with description of works and date of completion)	No Submission or irrelevant information provided	Relevant experience in construction of Retaining Wall project with at least 1 completed project with a completion/reference letter in a client's letter head	Relevant experience in construction of Retaining Wall project with at least 2 completed projects with a completion/reference letter in a client's letter head	Relevant experience in construction of Retaining Wall project with at least 3 completed projects with a completion/reference letter in a client's letter head	Relevant experience in construction of Retaining Wall project with at least 4 completed projects with a completion/reference letter in a client's letter head
40	Personnel Qualifications ie valid certification (certified copies) (Civil Engineering Diploma/BSC/BEng, Trackmaster with C green, two flagmen)	No Submission or irrelevant information provided	0 Civil Engineering 0 Trackmaster with valid C Green certificate 2 flagmen (valid certificates)	1 Civil Engineering 0 Trackmaster with valid C Green certificate 2 flagmen (valid certificates)	1 Civil Engineering 1 Trackmaster with valid C Green certificate 1 flagmen (valid certificates)	1 Civil Engineering 1 Trackmaster with valid C Green certificate 2 flagmen (valid certificates)
30	Project Methodology (Method Statement)	No Submission or irrelevant information provided	Detailed technical approach (method statement, Functionality and Capabilities) that is aligned to the scope of work highlighting 10% of the elements (i.e., 1-2 elements) Site Establishment; Excavation; Shoring, Retaining Wall Construction; Hand Screening; Ballast laying Lifting and Packing, Tools; Health and Safety and a Preliminary Programme)	Detailed technical approach (method statement, Functionality and Capabilities) that is aligned to the scope of work highlighting 30% of the elements (i.e., 3-5 elements) Site Establishment; Excavation; Shoring, Retaining Wall Construction; Hand Screening; Ballast laying Lifting and Packing, Tools; Health and Safety and a Preliminary Programme)	Detailed technical approach (method statement, Functionality and Capabilities) that is aligned to the scope of work highlighting 60% of the elements (i.e., 6-9 elements) Site Establishment; Excavation; Shoring, Retaining Wall Construction; Hand Screening; Ballast laying Lifting and Packing, Tools; Health and Safety and a Preliminary Programme)	Detailed technical approach (method statement, Functionality and Capabilities) that is aligned to the scope of work highlighting 100% of the elements (i.e., 10 elements) Site Establishment; Excavation; Shoring, Retaining Wall Construction; Hand Screening; Ballast laying Lifting and Packing, Tools; Health and Safety and a Preliminary Programme)

Table7: Evaluation Criteria

Note: Bidders that fail to achieve the minimum overall qualifying score of 80% on functional/ technical requirements will not be considered for further Price and Specific Goals (Stage 3) evaluation

3.Stage 3- Price and Specific Goals

The following formula, shall be used to allocate scores to the interested bidders :

The maximum points for this tender are allocated as follows:

DETAILS	POINTS
PRICE	80
SPECIFIC GOALS	20
TOTAL POINTS FOR PRICE AND SPECIFIC GOALS	100

FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

POINTS AWARDED FOR PRICE

THE 80/20 PREFERENCE POINT SYSTEMS

A maximum of 80 points is allocated for price on the following basis:

80/20

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

POINTS AWARDED FOR SPECIFIC GOALS

- 3.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)	Acceptable Evidence
AT LEAST LEVEL 2 B-BBEE	10		BEE Certificate/Affidavit (in case of JV, a consolidate scorecard will be accept)
BLACK WOMAN OWNED	10		Certified copy of ID Documents of the Owners
TOTAL	20		

APPOINTMENTS OTHER THAN THE SUCCESSFUL BIDDER

- 1.1** PRASA may appoint a bidder other than the successful bidder under the following instances:
 - (i) When a successful bidder, after having been informed of the acceptance of its Bid, fails to sign a contract within a prescribe period of time e.g. 14 (fourteen) days after being called upon to do so;
 - (ii) When a successful bidder has failed to provide the necessary security, bonds or guarantees within the time required to do so by PRASA;
 - (iii) When a successful bidder fails to meet a condition precedent for the award of business (e.g. to obtain the necessary funding); and
 - (iv) When final contract negotiations with a preferred bidder fails and a contract is not agreed upon.
- 1.2** PRASA will only award a bid to a bidder other than the highest scoring bidder provided that such bid is still within the bid validity period.
- 1.3** Only if the second ranked bidder is also unable/unwilling, PRASA may proceed to the third ranked bidder.

SECTION 5

PRICING AND DELIVERY SCHEDULE

Bidders are required to complete the attached Pricing Schedule **Annexure:**

- 1 Prices must be quoted in South African Rand, inclusive of all applicable taxes.
- 2 Price offer is firm and clearly indicate the basis thereof.
- 3 Pricing Bill of Quantity is completed in line with schedule if applicable (delete if not 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 Bidders are to note that if price offered by the highest scoring bidder is not market related, PRASA may not award the contract to the Bidder. PRASA may:
 - 9 Negotiate a market-related price with the Bidder scoring the highest points;
 - 10 If that Bidder does not agree to a market-related price, negotiate a market-related price with the Bidder scoring the second highest points;
 - 11 If the Bidder scoring the second highest points does not agree to a market-related price, negotiate a market-related price with the Bidder scoring the third highest points;
 - 12 If a market-related price is not agreed with the Bidder scoring the third highest points, PRASA must 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.

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 successful Bidder awarded the contract may only enter into a subcontracting arrangement with PRASA's prior approval.

The contract will be concluded between the successful Bidder and PRASA, therefore, the successful Bidder and not the sub-contractor will be held liable for performance in terms of its contractual obligations.

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.

BIDDER'S DISCLOSURE**1. PURPOSE OF THE FORM**

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

- 2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state? **YES/NO**

- 2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

- 2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

- 2.2.1 If so, furnish particulars:

.....

- 2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

- 2.3.1 If so, furnish particulars:

.....

¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

3 Bidder's declaration regarding PEPs/PIPs

PRASA requires bidders to disclose if they have Politically Exposed Persons ("PEP")² or Prominent Influential Persons ("PIP")³ and related individuals in their organisation and/or beneficial owners / shareholders who are PEP/PIP.

PRASA reserves the right not to enter into a business relationship with such person, official or entity, provided there are objective factors that justify the conclusion of such business relationship, and the decision is based on achieving the best interest of PRASA.⁴

3.1 Is the bidder a PEP/PIP? **YES/NO**

3.2 Does the bidder have an existing relationship with a PEP/PIP? **YES/NO**

3.3 Where a relationship with a PEP/PIP exists, the bidder is required to furnish particulars of the nature of the exposure, term of the office and description of activities relating to exposure, in table below.

Name of PEP/PIP & Nature of the Exposure/Influence	Term of the office	Description of activities relating to Exposure/Influence

3.4 Declaration:

I/We the undersigned _____ (Name) hereby certify that the PEP/PIP information furnished in this bid document is true and correct. We further certify that we understand that where it is found that we have made a false declaration or statement in this bid, PRASA may disqualify our bid or terminate a contract we may have with PRASA where we are successful in this tender.

Signature

Date

Position

Name of bidder

² Both foreign and domestic politically exposed person as specified in Schedule 3A and 3B of the Financial Intelligence Centre Act No. 38 of 2001 as amended. (refer to Annexure 2 of the PRASA Code of Conduct for dealing with Politically Exposed Persons, Prominent Influential Persons and Related Parties).

³ As reflected in Schedule 3C of the Financial Intelligence Centre Act No.38 of 2001 (refer to Annexure 2.1.2 of the PRASA Code of Conduct for dealing with Politically Exposed Persons, Prominent Influential Persons and Related Parties).

⁴ Clause 4.5 of the PRASA Code of Conduct for dealing with Politically Exposed Persons, Prominent Influential Persons and Related Parties.

4 DECLARATION

I, the undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium⁵ will not be construed as collusive bidding.
- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids 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.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2, 3 and 4 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

⁵ 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.

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 **To be completed by the organ of state**

The applicable preference point system for this tender is the 80/20 preference point system.

- a) Either the 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

- (a) Price; and
- (b) Specific Goals.

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
Total points for Price and Specific Goals	100

1.4 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.5 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (b) **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (c) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;
- (d) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and
- (e) **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.2. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 PREFERENCE POINT SYSTEMS

A maximum of 80 points is allocated for price on the following basis:

80/20

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

3.3. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.3.1. POINTS AWARDED FOR PRICE

A maximum of 80 points is allocated for price on the following basis:

80/20

$$Ps = 80 \left(1 + \frac{Pt - P_{max}}{P_{max}} \right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
- (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)	Acceptable Evidence
AT LEAST LEVEL 2 B-BBEE	10		BEE Certificate/Affidavit (in case of JV, a consolidate scorecard will be accept)
BLACK WOMAN OWNED	10		Certified copy of ID Documents of the Owners
TOTAL	20		

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm.....

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company
- ☐ State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I 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 paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –
 - (a) disqualify the person from the tendering 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) recommend that the tenderer or contractor, its shareholders and directors, or only the

shareholders and directors who acted on a fraudulent basis, be restricted 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

- (e) forward the matter for criminal prosecution, if deemed necessary.

.....
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

.....

.....

.....

PROJECT SPECIFICATION FOR EMBANKMENTS STABILISATION BETWEEN ZWELETHU AND KWAMNYANDU

PART A: GENERAL

CONTENTS

- A.1 SCOPE OF WORK
- A.2 ADMINISTRATION OF THE CONTRACT
- A.3 CHANGE OF NAME
- A.4 STANDARD SPECIFICATIONS AND INSTRUCTIONS OF PRASA KZN
- A.5 CONSTRUCTION REGULATION REQUIREMENTS
- A.6 DOCUMENTS THAT MUST BE RETURNED AS PART OF THE TENDER
- A.7 CONSTRUCTION PROGRAMME
- A.8 SECURITY AND RETENTION
- A.9 DURATION OF CONTRACT
- A.10 PENALTIES FOR LATE COMPLETION
- A.11 MATERIAL AND LABOUR TO BE SUPPLIED BY PRASA KZN
- A.12 MATERIAL AND LABOUR TO BE SUPPLIED BY THE CONTRACTOR
- A.13 PENALTIES FOR DELAYS TO RAILWAY WAGONS
- A.14 SITE
- A.15 SITE SERVICES
- A.16 SERVICES
- A.17 CLEARING OF SITE
- A.18 HOURS OF WORK
- A.19 OCCUPATIONS AND WORK PERMITS
- A.20 PENALTIES FOR ILLEGAL OCCUPATION
- A.21 CO-OPERATION WITH PRASA KZN 'S TRAIN SERVICES PERSONNEL
- A.22 PENALTIES FOR DELAYS TO TRAINS
- A.23 SAMPLES AND TESTING
- A.24 SITE MEETINGS
- A.25 DAY WORK
- A.26 PLANT HIRE
- A.27 LABOUR AND PLANT RETURNS
- A.28 SITE INSTRUCTION BOOK AND SITE DIARY
- A.29 MEASUREMENT AND PAYMENT
- A.30 INCREASE OR DECREASE IN COSTS OR ESCALATION
- A.31 VALUE-ADDED TAX
- A.32 INSURANCE

PART A: GENERAL

A.1 SCOPE OF WORK

This Contract encompasses the rehabilitation and stabilisation of an embankment between Zwelethu and KwaMnyandu. The scope further includes all associated, incidental, and ancillary works arising from these activities, as well as any other work required of the Contractor to ensure the proper and complete execution of the WORKS in accordance with the intent, requirements, and provisions of the Contract Documents.

A.2 ADMINISTRATION OF THE CONTRACT

For this contract, "Engineer" means the Regional Perway Engineer, PRASA KZN region or his duly authorised representative or any person lawfully acting in that capacity.

A.3 CHANGE OF NAME

Wherever reference is made to "South African Railways"; "South African Railways and Harbours"; "South African Transport Services"; "Administration"; "SPOORNET" or "Transnet" in the Standard Specifications, as listed in Clause A.14 below, it shall be changed to read "PRASA KZN".

A.4 STANDARD SPECIFICATIONS AND INSTRUCTIONS OF PRASA KZN

The following specifications, instructions and documents shall, inter alia, form part of this contract:

- (i) The project specification.
- (ii) The schedule of quantities.
- (iii) Specification for safety arrangements and procedural compliance with the Occupational Health and Safety Act: Act 85 of 1993 and Construction Regulations (2014).
- (iv) General Conditions of Contract (2015).

A.5 CONSTRUCTION REGULATION REQUIREMENTS

- A.5.1 The Construction Regulations, 2014, promulgated under the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), shall apply to this Contract. The Contractor shall ensure that it is fully familiar with, and complies with, all applicable requirements of the Regulations for the duration of the Contract.

The Contractor shall make adequate provision in its tendered rates and prices for all costs associated with compliance with the applicable requirements of the Construction Regulations. PRASA KZN region will deem the tendered rates and prices to include full provision for such compliance, and no additional payment will be made in this regard

- A.5.2 As part of the Construction Regulations, 2014, the PRASA KZN region must provide the following documentation to the Contractor:

- (i) Risks on site

A preliminary risk assessment has been done by the Technical Officer in charge of this contract. This can be found in Annexure 1. This serves to highlight to the Contractor, the risks and hazards on the site of works. This will assist with the compilation of the health and safety programme, the method statement as well as the prices tendered by the Contractor.

- (ii) Aspects that must be covered in the Health and Safety Programme

To assist with the compilation of the Health and Safety Programme by the Contractor, PRASA KZN region has provided a list of elements which should be found in the plan. This can be found in Annexure 2. This list is not necessarily complete, and the Contractor is allowed to include other elements which are deemed important. Refer to Clause A.6.1.1.3 for further details of the composition of the Health and Safety Programme. The Health and Safety Programme, as submitted by the Contractor, will be discussed and amended, if necessary, before work on site begins (Refer to Clause A.6.1.1.4).

- (iii) Safety specifications of PRASA KZN region

The E7/1 and the GCC specifications are included as part of the tender document.

A.6 DOCUMENTS THAT MUST BE RETURNED AS PART OF THE TENDER

- A.6.1 The following documents must be returned by the Contractor as part of the tender submitted:

A.6.1.1 As per Clause 6 of the E4E as well as Clause 28.3 of the GCC *the* Contractor is responsible for the development of and adherence to a health and safety programme as detailed below: Health & Safety Programme Health & Safety Programme.

A.6.1.1.1 The Contractor 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,
- (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.

A.6.1.1.2 The Contractor 's Health and Safety Programme shall be based on a risk analysis in respect of the hazards to health and safety of his employees and other persons under their 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.

A.6.1.1.3 The Health and Safety Programme shall include full particulars in respect of: -

- (i) 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.
- (ii) The safe working methods and procedures to be implemented to ensure the work is performed in compliance with the Act and Regulations;
- (iii) The safety equipment, devices and clothing to be made available by the Contractor to his employees;
- (iv) The site access control measures pertaining to health and safety to be implemented,
- (v) The arrangements in respect of communication of health and safety related matters and incidents between the Contractor, his employees, subcontractor s and the Technical Officer with particular reference to the reporting of incidents in compliance with Section 24 and General Administrative Regulation 6 of the Act and with the pertinent Clause of the General Conditions of Contract forming part of the Contract and
- (vi) The introduction of control measures for ensuring that the Safety Programme is maintained and monitored for the duration of the Contract.

A6.1.1.4 The Health and Safety programme shall be subject to the Technical Officer's agreement 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, 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.

A.6.1.2 **Proof of Registration with Compensation Commissioner**

As per Clause 28.2 of the GCC the Contractor shall submit proof of registration and good standing with the Compensation Commissioner, in terms of Act 130 of 1993.

A.6.1.3 **Method Statement**

The Contractor shall submit, with his tender, a detailed method statement indicating the method or process the Contractor will use to complete the works. Mention will have to be made of the machinery, tools and equipment that the Contractor intends using for each stage of the works.

A.6.2 Failure to provide these documents with the tender submitted will render the tender incomplete and the tender will therefore not be considered for award of business.

A.7 CONSTRUCTION PROGRAMME

The Contractor shall submit a detailed programme indicating the tasks and duration within one week once tender awarded.

A.8 SECURITIES AND RETENTION

A.8.1 Void.

A.9 DURATION OF CONTRACT

- A.9.1 This contract shall commence within 2 weeks of its award and continue for a period of **one months** which period shall include any statutory and builder's holidays falling within this period specified.

A.10 PENALTIES FOR LATE COMPLETION

Should the Contractor fail to complete the WORKS by the date stipulated in the contract or such extended period as may be allowed, they shall pay PRASA KZN Region as penalties in terms of the Conventional Penalties Act of 1962, as amended, the sum of R1 000.00 one thousand Rand) South African currency, per day of part thereof beyond the completion date, as defined in A.9.1.

A.11 MATERIAL AND LABOUR TO BE SUPPLIED BY PRASA KZN

Void.

A.12 MATERIAL AND LABOUR TO BE SUPPLIED BY THE CONTRACTOR

- A.12.1 The Contractor shall provide all Supervision and Labour necessary for the proper execution and completion of the WORKS.
- A.12.2 PRASA KZN Region support B.B.B.E.E. The Contractor shall make extensive use of labour of the local communities. When called upon by the Engineer, the Contractor shall provide documentary proof in this regard.
- A.12.3 The Contractor shall supply a protection and supervision in the form of qualified Track Masters with valid trains working rules and category C certificate and qualified flagmen with (the certification for these Protection personnel to be inclusive of valid certification and proof of refresher training received) for the personnel at the working site/s

A.13 PENALTIES FOR DELAYS TO RAILWAY WAGONS

Void

A.14 SITE

The Site is located along the Umlazi Line within the PRASA KZN Region, between Chainage QE 3/323 and QE 3/354. The location and extent of the Works will be identified during the Site Visit.

Access to the Site is available via public roads and service roads running alongside the railway line. The Contractor shall, during the Site Inspection, familiarise itself with the available means of access to the Site, including the location, condition, suitability, and limitations of the existing access and service roads.

The Contractor shall be responsible for making all necessary arrangements for access to the Site for the execution of the Works. PRASA KZN Region shall not be responsible for providing or maintaining all-weather access along the service roads, and the Contractor shall make adequate provision in its tendered rates and prices for any measures necessary to facilitate access for the duration of the Contract.

A.15 SITE SERVICES

The Contractor shall make his own arrangements for the supply of water (for all purposes), light, power, sanitation and telephones, as required on the site.

A.16 SERVICES

Where the position of a known service cannot be determined with sufficient accuracy, by visual inspection, the Contractor shall open up and make further investigation before commencing with any of his activities related to the works along the Umlazi line in the PRASA KZN region in that vicinity, so that the position of such services may be determined with sufficient accuracy. Thereafter the Contractor shall assume responsibility for all known services.

The Contractor shall take all reasonable precautions to protect existing services during his activities on the site, and any known service damaged as result of the Contractor's operations, shall be repaired and reinstated by the Contractor or the Authority concerned, all at the expense of the Contractor and to the satisfaction of the Engineer. If a known service is damaged, the Engineer must be notified immediately and all work on site must stop until the extent of the damage is quantified.

A.17 CLEARING OF SITE

The Contractor shall clear the site for his camp, and the cost thereof shall be included in the rates tendered. The Contractor is to ensure that each site on which he works is cleared of all waste on completion of the day's work. The waste must be disposed of at a registered dumping site. Final payment will not be made unless all waste is removed from site and the site is clean.

A.18 HOURS OF WORK

- Attention is directed to the provision of Clause 23.4 of GCC. No work will be permitted outside normal working hours, on Sundays, Saturdays and Public Holidays, unless the permission of the Engineer has been obtained in writing.
- The permission will only be granted to suit occupation periods granted or in other exceptional circumstances and under such conditions the Engineer may decide.
-
- Normal working hours shall mean the period from 08:00 to 16:00 on normal weekdays.
-
- Overtime working hours shall mean the period from 08:00 to 17:00 on weekends and public holidays

A.19 OCCUPATIONS AND WORK PERMITS

A combination of between trains and total occupations will be granted for all works. Total occupation will be granted from 08:00 to 15:30 on weekdays and weekends. The Contractor through the Project manager shall apply for occupations 14 days in advance. Late applications will not be considered. Penalties for late completion will not be waived should the Contractor not apply for occupations in time. Also refer to Clause A.7 and B.1.1.

A.20 PENALTIES FOR ILLEGAL OCCUPATION

The Contractor is not allowed to work on site without an occupation notice or the required protection. Should the Contractor perform any work on site, without an occupation notice or without the required protection, then the Contractor shall pay to PRASA KZN Region, a penalty of R10, 000.00 (Ten Thousand Rands). The decision as to the penalty for illegal occupation will be made by the Engineer.

A.21 CO-OPERATION WITH PRASA KZN REGION TRAIN SERVICES PERSONNEL

The contractor personnel shall always liaise and co-operate with the staff of PRASA KZN region during any type of occupation and in all respects, to obviate any delays. Should any train service be affected due to the negligence on the part of the Contractor, penalties will be raised in terms of Clause 33 of the E7/1 Specification. See Clause A.22 for amounts that will be charged for delays to the train service.

A.22 PENALTIES FOR DELAYS TO TRAINS

Should the Contractor cause delays to the train service, either by late finish of daily occupation or inability to comply with the working programme and scheduled occupations, then the Contractor shall pay to PRASA KZN Region, and a penalty of R80.00 per minute per train that was delayed.

A.23 SAMPLES AND TESTING

The Contractor shall make available, free of charge, a sufficient quantity of material supplied by him, which are to be used for the WORKS, for testing by Spoornet's Laboratory, when so required by the Engineer.

A.24 SITE MEETINGS

Site liaison meetings will be arranged by the Engineer as necessary. The Contractor or his duly authorised representative shall be available when called upon to attend site meetings with the Engineer or his representative.

A.25 DAY WORK

No work shall be performed on a day work basis, General, ordered by the Engineer.

Day work rates tendered per hour should include all overhead charges, transport to and from the site, use of tools and equipment and any direct costs.

A.26 PLANT HIRE

In the Schedule of Quantities and Prices, provision has been made for plant required to be used on the WORKS.

Tendered rates per hour shall include all costs for the operation of such plant, including operator, fuel, incidentals and any other indirect costs to tender such plant operational in terms of Clause 11.1 of the E.4E

A.27 LABOUR AND PLANT RETURNS

Labour and Plant returns are required to be submitted weekly by the Contractor to the Engineer giving the following information:

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

A.28 SITE INSTRUCTION BOOK AND SITE DIARY

A.28.1 PRASA KZN Region provides a site instruction book for any instructions that need to be issued to the Contractor. The Contractor will have to sign for all instructions issued and will be issued with copies of the instructions.

A.28.2 The Contractor will be responsible for keeping a site diary with all information related to the contract. This diary will have to be kept making record of rain delays, production for the day, visitors to the site, expected date of material delivery, material delivered daily, labour and plant on site each day, etc. This will have to be filled in daily and will be called for should there be a request for an extension in contract period.

This contract and the Contractor's performance will be evaluated. The evaluation will be done every 2 weeks by the Project Manager/Engineer in conjunction with the Contractor. This performance will be documented.

A.29 MEASUREMENT AND PAYMENT

Measurement and payment will be as per the schedule of quantities. See Clause **B3** for details of the schedule of quantities.

A.30 INCREASE OR DECREASE IN COSTS OR ESCALATION

No contract adjustment or escalation factors are applicable to this contract.

A.31 VALUE-ADDED TAX

- (i) Value added tax in terms of the Value-added Tax Act No. 89 of 1991 should not be included in the tendered rates. Provision is made in the Schedule of Prices/Summary of Prices for the lump sum addition of value added tax.
- (ii) The total price inclusive of Value-added Tax shall be carried forward to the Tender form.
- (iii) Value-added Tax shall be reflected on monthly contract payment certificate but paid separately on the presentation of a VAT-invoice by the Contractor.
- (iv) The value of work reflected on the VAT-invoice must correspond with the nett amount indicated on the contract payment certificate.

A.32 INSURANCE

The Contractor will be responsible for insurance of all tools, equipment, vehicles and labour that will be used on this contract, as per Clause 34 of the GCC

PART B: PROJECT SPECIFICATION

B.1 SCOPE

This specification covers the rehabilitation and stabilisation of embankments and cuttings, track rehabilitation, and all associated works between Zwelethu and KwaMnyandu on the Umlazi Line within the PRASA KZN Region, including the embankments located between km QE 3/323 and km QE 3/354.

The scope further includes all associated, ancillary, and incidental works arising from the above activities, together with any other work required of the Contractor for the proper and complete execution of the WORKS, in accordance with the requirements, provisions, and intent of the Contract Documents.

B.1.1 CIVILS

The Works to be carried out by the Contractor under this Contract comprise mainly, but are not limited to, the following:

- Cutback the bank, remove vegetation and re-profile adequately.
- Construction of an approximately 3 m high gabion wall and 14 m in length, as detailed on Drawing No. J42000_35/100/B. The sizes to be used are as follows:
 - 2.0m x 1.0m x 1.0m
 - 1.5m x 1.0m x 1.0m
- Application of plaster to the gabion structure by pressing the plaster into the gabion baskets to fill the voids between the outer layer of rockfill. The plaster shall provide a minimum cover of 50 mm over the gabion basket mesh.
- Supply and installation of geotextile, with a minimum mass per unit area of 270 g/m², beneath the mattress foundation and behind the gabion wall.
- Supply and placement of sandbags and all associated ancillary materials for use as backfill behind the gabions. The sandbags shall be filled using suitable excavated material or, where necessary, imported material.
- Supply and installation of Geosynthetic Cementitious Composite Mats (GCCMs) over the sandbags and on the slope below the gabions.
- Protection of all existing services affected by or within the vicinity of the Works for the duration of the Contract.
- Supply and installation of a 1.0 m × 0.9 m × 0.5 m precast concrete channel, complete with a medium-duty cover.
- Correction of defects in the Works in accordance with the requirements of the Contract Documents.
- Construction and maintenance of temporary access to the Site for the full duration of the Contract, including the removal of temporary access works and reinstatement of affected areas upon completion.
- Remove all type of waste complete from site to a Municipality dumping site.
- Clear access excavated material.
- Backfill and re-profile the cutting

B.2 SPECIFICATION AND ACCEPTANCE OF WORK

B.2.1 SPECIFICATION EROSION PROTECTION

B.2.1.1 Site Clearance

The Contractor shall clear the area required for the construction and installation of the gabion structures to the limits indicated on the approved construction drawings or as otherwise directed by the Engineer. Clearing shall be restricted to the minimum area necessary for the safe and proper execution of the WORKS and shall include the removal of vegetation, roots, debris, loose material, and any other obstructions that may interfere with the construction of the gabion structures.

Where the WORKS are undertaken within or adjacent to the railway reserve, all clearing activities shall be carefully controlled to prevent unnecessary disturbance, damage, or interference with existing railway infrastructure and operations, including the railway formation, track structure, drainage systems, signalling and communication infrastructure, electrical services, fencing, access and service roads, and any other existing railway assets.

No clearing beyond the approved limits of the working area shall be undertaken without the prior written approval of the Engineer and, where applicable, by PRASA representative.

Prior to commencing any clearing activities, the Contractor shall identify and verify the location of all existing services and infrastructure within or adjacent to the working area. The Contractor shall take all necessary precautions to protect and maintain such services and infrastructure throughout the execution of the WORKS and shall immediately report any damage or interference to the Engineer.

All cleared material and unsuitable debris shall be removed, handled, and disposed of appropriately in accordance with the Contract Documents and applicable requirements.

B.2.1.2 Excavation for Gabions Foundations

Excavation for gabion baskets and gabion retaining walls shall be carried out to the lines, levels, dimensions, depths, and slopes indicated on the approved construction drawings or as otherwise directed by the Engineer.

The excavation shall provide sufficient working space to allow for the safe and proper assembly, positioning, filling, tying, and completion of the gabion units, including any associated foundation preparation and geotextile installation.

Where gabions are to be installed adjacent to railway tracks, embankments, cuttings, or other railway infrastructure, excavation shall be undertaken in a controlled and suitably staged manner to ensure that the stability and integrity of the existing railway formation and associated infrastructure are not adversely affected. Excavation shall not undermine or compromise the track formation, ballast, sleepers, drainage structures, foundations, existing services, retaining structures, or any other railway infrastructure.

Suitable excavated material intended for reuse shall be placed into sandbags, unless otherwise directed by the Engineer. Sandbags shall be filled to approximately 75% of their capacity to allow for proper placement, shaping, and compaction. Filled sandbags and any stockpiled excavated material shall be placed at a safe distance from the edges of excavations and existing railway infrastructure to prevent surcharge loading that could result in instability, collapse, settlement, or deformation of the excavation, adjacent slopes, or railway formation.

Where excavation is undertaken on or adjacent to slopes, the Contractor shall implement appropriate measures to prevent loose material, excavated material, debris, or construction materials from falling, rolling, or being displaced towards neighbouring private properties, the railway track, or other operational railway infrastructure.

The Contractor shall maintain excavations in a safe and stable condition for the duration of the WORKS and shall provide all necessary temporary support, protection, and other measures required to safeguard personnel, adjacent property, existing infrastructure, and railway operations.

B.2.1.3 Preparation for Gabion Foundations

The foundation area for the gabion structures shall be excavated, trimmed, levelled, and prepared to the required lines, levels, dimensions, and gradients indicated on the approved construction drawings or as otherwise directed by the Engineer.

The prepared founding surface shall be firm, stable, and capable of providing continuous and uniform support to the gabion structure. Any loose, soft, saturated, organic, highly compressible, or otherwise unsuitable material encountered at founding level shall be removed to the depth and extent directed or approved by the Engineer. The resulting excavation shall be backfilled with approved selected material, rockfill, or other specified foundation material, placed in suitable layers and compacted to the requirements of the Contract Documents or as directed by the Engineer.

All rock projections, large stones, roots, debris, and other objects that may prevent the uniform seating of the gabion units, or that may damage the gabion mesh or geotextile, shall be removed. The prepared surface shall be even and free from sharp projections, depressions, and other irregularities that may adversely affect the installation and performance of the gabion structure.

Where required, the prepared founding surface and any replacement foundation material shall be compacted to the specified density prior to the installation of the gabion units.

Excavations shall be maintained in a sufficiently dry and stable condition to permit the proper preparation and inspection of the foundation and the subsequent installation of the gabion units. The Contractor shall provide and maintain all necessary measures to control surface water, groundwater, seepage, and existing railway drainage during construction. Such measures shall prevent erosion, scour, softening, saturation, or instability of the prepared foundation, adjacent slopes, and existing railway formation.

Where specified on the approved construction drawings or in the Contract Documents, an approved geotextile filter layer, with a minimum mass per unit area of 270 g/m², shall be installed beneath the mattress foundation and/or between the gabion structure and the adjacent natural ground or backfill, as applicable. The geotextile shall be laid without folds, tears, or damage and shall be suitably overlapped and secured to prevent displacement during the placement of gabion stone and backfill. The geotextile shall serve as a filter to minimise the migration of fine soil particles while permitting the free passage of water.

Any damage to the prepared foundation or geotextile caused by construction activities, water ingress, erosion, or other causes shall be rectified by the Contractor prior to the placement of the gabion units.

The Contractor shall request and obtain the Engineer's acceptance of the completed founding surface and, where

applicable, the installed geotextile before commencing with the placement of any gabion units. Acceptance of the foundation by the Engineer shall not relieve the Contractor of its responsibility for the proper execution and performance of the WORKS.

B.2.1.4 Foundation Trench

Foundation trenches along the toe of gabion retaining structures, mattresses, or erosion-protection work shall be excavated to the dimensions, lines, levels, gradients, and profiles indicated on the approved construction drawings or as otherwise directed by the Engineer.

The foundation trench shall be of sufficient width and depth to accommodate the gabion units and any associated geotextile, bedding, foundation material, or other specified components, and to provide adequate working space for the proper installation and connection of the gabion units.

The bottom of the foundation trench shall be trimmed, levelled, and prepared to provide a firm, stable, and uniform bearing surface. Any loose, soft, saturated, organic, highly compressible, or otherwise unsuitable material encountered at founding level shall be removed and replaced with approved foundation material, placed and compacted in accordance with the Project Specifications and to the requirements of the Engineer.

Foundation trenches shall be maintained in a safe, stable, and sufficiently dry condition throughout construction. Surface water, groundwater, seepage, and existing drainage shall be controlled to prevent erosion, softening, scour, washout, or instability of the founding surface and surrounding ground.

Where foundation trenches are excavated within or adjacent to the railway formation, embankment, cutting, drainage structures, or operational railway infrastructure, excavation shall be undertaken in a controlled and suitably staged manner. The Contractor shall ensure that the excavation does not undermine, destabilise, or adversely affect the track formation, ballast, sleepers, embankments, structural foundations, existing services, drainage systems, or other railway infrastructure.

Where necessary, the Contractor shall provide suitable shoring, bracing, battering, benching, or other temporary support measures to maintain the stability of the trench and adjacent ground.

Excavated material, plant, equipment, and construction materials shall be kept at a safe distance from the edge of the foundation trench to prevent excessive surcharge loading, collapse, or deformation of the trench and surrounding ground.

Where specified, an approved geotextile filter layer with a minimum mass per unit area of 270 g/m² shall be installed over the prepared foundation surface prior to the placement of the gabion units. The geotextile shall be suitably overlapped, secured, and protected from damage or displacement during construction.

The Contractor shall request and obtain the Engineer's acceptance of the completed foundation trench and prepared founding surface before the placement of gabion units commences. Any deficiencies identified shall be rectified before proceeding with the installation.

B.2.1.5 Backfilling Behind and Around Gabions

Backfilling behind and around gabion structures shall commence only after the gabion baskets have been correctly assembled, positioned, aligned, securely tied, filled with approved stone, and closed in accordance with the approved construction drawings, manufacturer's requirements, and project specifications.

Sandbags shall be used as backfill behind the gabion structures. The sandbags shall be filled to approximately 75% of their capacity and shall be placed progressively in a controlled and systematic manner. Where applicable, the placement of sandbags shall proceed concurrently with the construction of successive gabion courses to minimise unsupported heights and maintain the stability of the gabion structure during construction.

The sandbags shall be closely packed and arranged in controlled layers, with joints staggered where practicable, to minimise voids and provide a stable and uniform backfill. Where required to provide a suitable and even surface between successive layers of sandbags, an approved smoothing layer of suitable soil or selected material shall be placed and compacted before the next layer of sandbags is installed.

Care shall be exercised during the placement of sandbags, backfilling, and compaction to prevent displacement, bulging, distortion, deformation, or damage to the gabion baskets, mesh, diaphragms, lacing wires, geotextile, and any other associated components.

Heavy compaction equipment shall not be operated immediately adjacent to, or in direct contact with, the gabion structures unless specifically approved by the Engineer. Suitable light compaction equipment or other approved compaction methods shall be used in areas immediately adjacent to the gabion baskets to prevent damage or

displacement of the completed gabion structure.

The completed backfill shall be shaped and graded to prevent the accumulation or ponding of water behind the gabion structures and to promote effective surface drainage. Existing and proposed drainage systems shall be protected and maintained in a functional condition throughout the execution of the WORKS.

On completion and acceptance of the sandbag backfill, the exposed surface of the sandbags shall be covered with an approved Geosynthetic Cementitious Composite Mat (GCCM), such as Concrete Canvas or an approved equivalent, in accordance with the approved construction drawings, project specifications, and manufacturer's installation requirements. The GCCM shall be properly positioned, overlapped, secured, and pinned to the underlying surface to prevent movement or displacement.

Following installation and securing, the GCCM shall be hydrated in accordance with the manufacturer's requirements to activate the cementitious material and allow it to cure and form a durable protective layer. The Contractor shall protect the GCCM from displacement, damage, disturbance, or premature loading during installation and curing.

No backfill, sandbags, or associated materials shall be placed in standing or flowing water unless an appropriate dewatering or construction methodology has been submitted to and accepted by the Engineer.

B.2.1.6 Material for Backfilling

Unless otherwise specified on the approved construction drawings or directed by the Engineer, suitable material obtained from the excavations may be reused for filling the sandbags forming the backfill behind and adjacent to the gabion structures. Where the excavated material is unsuitable or insufficient, the Contractor shall provide approved imported material meeting the requirements of the Contract Documents.

Material used for filling the sandbags shall be suitable, stable, and capable of being placed and consolidated without excessive settlement or deformation. The material shall be free from excessive organic matter, vegetation, refuse, construction debris, highly expansive material, and any other deleterious matter that may adversely affect the integrity or performance of the completed backfill.

Oversized rock fragments, sharp objects, or other hard materials that may damage or puncture the sandbags, gabion mesh, geotextile, GCCM, or associated drainage components shall not be incorporated into the backfill unless otherwise approved by the Engineer.

Sandbags shall be filled to approximately 75% of their capacity. The filled sandbags shall be capable of being shaped and closely packed to form a stable, uniform, and well-supported backfill, with voids between adjacent bags kept to a minimum.

Where the gabion structure supports or protects an existing railway formation, embankment, cutting, or track structure, the backfill material and construction methodology shall comply with the requirements indicated on the approved construction drawings and the applicable project and railway earthworks specifications. The completed backfill shall not result in unacceptable settlement, deformation, or instability of the gabion structure or adjacent railway formation.

Where a geotextile separator, filter layer, or other specified drainage material is required behind or beneath the gabion structure, it shall be installed prior to the placement of the sandbag backfill. The Contractor shall ensure that such materials are adequately protected against tearing, puncturing, displacement, or contamination during backfilling operations.

Where specified, the completed sandbag backfill shall be covered with the approved Geosynthetic Cementitious Composite Mat (GCCM) and the approved construction drawings.

Backfilling shall be carried out in a controlled and progressive manner to maintain the required railway formation profile, stability of the embankment or cutting, and effective drainage characteristics throughout construction and upon completion of the WORKS.

B.2.1.7 Disposal of Unsuitable Material

Excavated material that is unsuitable for reuse, or that becomes surplus as a result of excavation, replacement with selected material, preparation of foundations, or construction of the gabion structures, shall be removed from the Site and transported to an approved disposal or spoil area.

The Contractor shall be responsible for the loading, handling, transportation, and disposal of all unsuitable and surplus excavated material. Disposal shall be undertaken in accordance with the requirements of the Contract Documents and all applicable statutory, environmental, and local authority requirements.

Unsuitable or surplus material shall not be dumped, deposited, or stockpiled indiscriminately within the railway reserve, against railway embankments or cuttings, within drainage channels, culverts or watercourses, or at any location where such material may:

- Obstruct or adversely affect existing drainage;
- Cause erosion, sedimentation, or environmental degradation;
- Impose additional loading that may affect the stability of an embankment, cutting, excavation, or retaining structure;
- Encroach upon the railway track or required railway clearances;
- Restrict access to railway infrastructure or maintenance routes; or
- Interfere with the safe operation of the railway.

Where temporary stockpiling of excavated material is necessary, stockpiles shall be located only within designated or approved areas and shall be positioned at a safe distance from excavations, slopes, railway tracks, access and service roads, drainage infrastructure, existing services, and other operational railway assets. Stockpiles shall be maintained in a safe and stable condition and shall not create a hazard to personnel, adjacent properties, railway infrastructure, or railway operations.

Suitable excavated material identified for reuse, including material intended for filling sandbags, shall be stockpiled separately from unsuitable or surplus material to prevent contamination.

The Contractor shall take all necessary precautions during the handling, transportation, and disposal of material to prevent spillage, dust, erosion, contamination, or damage to existing roads, railway infrastructure, drainage systems, and adjacent properties. Any material spilled or deposited outside the approved areas shall be promptly removed by the Contractor.

Upon completion of the WORKS, all surplus excavated material, waste, construction debris, and temporary stockpiles shall be removed from the Site. Areas affected by excavation, stockpiling, loading, haulage, or disposal activities shall be cleaned, trimmed, graded, and reinstated to an acceptable condition, in accordance with the Contract Documents and to the satisfaction of the Engineer.

B.2.1.8 Safeguarding of Excavations

The Contractor shall be responsible for the safety, stability, and protection of all excavations associated with the gabion works. The Contractor shall provide and maintain suitable shoring, bracing, battering, benching, temporary drainage, or other temporary support and protection measures as may be necessary to ensure the stability of the excavations and the safety of personnel, adjacent properties, existing services, and railway infrastructure.

Care shall be exercised where excavations are undertaken adjacent to operational railway tracks, embankments, cuttings, structures, or other railway infrastructure, where excavation activities may affect the stability or integrity of the railway formation or interfere with safe railway operations.

- Where the depth of excavation, ground conditions, groundwater conditions, surcharge loading, or proximity to railway infrastructure presents a risk of collapse, instability, or ground movement, the Contractor shall provide adequate temporary support or adopt an appropriate safe excavation profile. Where required by the Engineer, the Contractor shall submit the proposed excavation and temporary support methodology for acceptance prior to commencing the affected work. Under no circumstances shall excavation activities undermine, destabilise, or otherwise adversely affect the existing railway formation, track structure, foundations, retaining structures, drainage infrastructure, existing services, or adjacent structures.
- The Contractor shall immediately make safe and rectify any collapse, erosion, washout, settlement, or ground movement resulting from rainfall, flooding, groundwater, inadequate temporary support, or construction activities. Where any such condition has affected, or has the potential to affect, the railway track, railway formation, or associated infrastructure, work shall immediately cease in the affected area. The Contractor shall secure the area and notify the Engineer and the authorised railway representative immediately. Work shall not recommence in the affected area until the condition has been assessed, and the necessary corrective or protective measures have been implemented and accepted
- Without relieving the Contractor of its responsibility for the safety and stability of the WORKS, the Engineer may require additional temporary support, flatter excavation slopes, benching, staged excavation, temporary drainage, dewatering, or other protective measures where ground conditions, weather conditions, or proximity to railway infrastructure warrant additional precautions.
- During excavation operations, the Contractor shall continuously observe and monitor conditions that may affect the stability of the excavation, adjacent slopes, or railway formation. Attention shall be given to the following:

- Seepage or groundwater;
 - Soft, saturated, or highly compressible material;
 - Loose or unstable soil or rock;
 - Tension cracks or signs of progressive ground movement;
 - Rock discontinuities, joints, fractures, or bedding planes that may adversely affect stability;
 - Erosion, scour, or washout;
 - Movement, bulging, sloughing, or deformation of excavation faces;
 - Settlement, movement, cracking, or deformation of the adjacent railway formation or other infrastructure; and
 - Any other condition that may compromise the safety or stability of the excavation, the WORKS, or railway operations.
- Any adverse or potentially unsafe condition identified during excavation shall be reported immediately to the Engineer. Where such a condition presents a risk to personnel, the WORKS, adjacent property, or railway infrastructure, work in the affected area shall cease until appropriate corrective or protective measures have been implemented
 - Temporary shoring, bracing, and other excavation support systems shall be maintained in an effective condition for as long as necessary to ensure the stability of the excavation and adjacent railway infrastructure.
 - Temporary support shall only be removed when it is safe to do so and when the gabion structure, associated backfill, and surrounding works have achieved sufficient stability to remain self-supporting without such temporary measures. Removal shall be undertaken in a controlled and progressive manner so as not to cause ground movement, settlement, or instability.
 - Any temporary support proposed to remain permanently in place shall be subject to the prior written acceptance of the Engineer.
 - Where gabion works are undertaken adjacent to an operational railway line, the Contractor shall plan, coordinate, and execute the WORKS so that construction activities do not compromise the safety or continuity of railway operations.
 - Construction plant, equipment, excavated material, sandbags, gabion baskets, rockfill, tools, and other materials shall be positioned, stored, secured, and controlled so that they do not encroach upon the operational railway area or required railway clearances, and cannot fall, roll, slide, or otherwise move towards the railway track or operational infrastructure.
 - Where required, construction activities shall be coordinated with the PRASA and shall be undertaken in accordance with approved railway access arrangements, work permits, work windows, occupations or possessions, and any other applicable railway safety requirements.
 - The Contractor shall ensure that all excavations are adequately protected, barricaded, and clearly identified for the duration of the WORKS. Where excavations remain open outside normal working hours, the Contractor shall implement appropriate measures to prevent unauthorised access and protect personnel, railway staff, the public, and adjacent railway operations.

B.2.1.9 Gabion Works

- Gabion works shall be constructed in accordance with the applicable requirements of SANS 1200DK, the Project Specifications, approved construction drawings, manufacturer's recommendations. Where any discrepancy or inconsistency exists between these requirements, the Contractor shall refer the matter to the Engineer for clarification before proceeding with the affected work.
- Gabion boxes and mattresses shall comply with the specified requirements of SANS 1580 and shall be of the dimensions, configurations, types, and locations indicated on the approved construction drawings or specified in

the Bill of Quantities. No substitution or alteration to the specified gabion units shall be made without the prior written approval of the Engineer.

- Gabion mesh shall be manufactured from Class A galvanised wire with a minimum wire diameter of 2.7 mm and shall be provided with a polyvinyl chloride (PVC) coating having a minimum thickness of 0.5 mm, unless otherwise specified on the approved construction drawings or in the Project Specifications. The mesh shall be free from defects and shall provide the required durability and corrosion protection for the installed environment.
- Binding, lacing, and connecting wire shall comprise PVC-coated galvanised wire with a minimum diameter of 2.2 mm, or as otherwise specified by the gabion manufacturer and approved by the Engineer. Lacing and connecting wire shall be compatible with the gabion mesh and its protective coating and shall be of sufficient strength and durability to securely connect adjoining baskets, diaphragms, lids, and other components.
- Where gabions are installed within or adjacent to an operational railway environment, all activities associated with the gabion works shall be planned, coordinated, and executed so as not to adversely affect the stability, drainage, operational clearances, or safe operation of the railway infrastructure.
- Gabion baskets, rockfill, sandbags, construction materials, tools, plant, and equipment shall always be properly positioned, stored, secured, and controlled to prevent encroachment into the operational railway area or movement, falling, rolling, or displacement towards the railway track or other operational infrastructure.
- Gabion baskets, mesh, binding wire, and associated components shall be handled, transported, stored, assembled, and installed in a manner that prevents damage to the galvanised and PVC protective coatings.
- Any damage to the gabion mesh, galvanised coating, PVC coating, binding or lacing wire, or other components identified during transportation, handling, storage, assembly, filling, or installation shall be immediately reported to the Engineer.
- Damaged components shall be repaired using a method approved by the Engineer and, where applicable, in accordance with the manufacturer's recommendations. Where the damage is considered excessive or where the effectiveness of the corrosion protection or structural integrity of the component has been compromised, the affected component shall be removed and replaced at the Contractor's cost prior to acceptance of the WORKS.
- No damaged or inadequately repaired gabion unit shall be incorporated into the permanent WORKS without the prior acceptance of the Engineer.
- Prior to the delivery or incorporation of gabion materials into the WORKS, the Contractor shall submit to the Engineer, where required, manufacturer's product data, certificates of compliance, and other relevant documentation demonstrating that the gabion baskets, mattresses, mesh, coatings, lacing wire, and associated components comply with the requirements of the Contract Documents. Materials shall not be incorporated into the permanent WORKS until the required submissions have been accepted by the Engineer.

B.2.1.10 Blinding and Connecting Wire

- Sufficient lacing, binding, bracing, and connecting wire shall be supplied with the gabion cages to enable the complete assembly, erection, securing, and construction of all gabion structures forming part of the WORKS.
- The wire shall be suitable for all wiring operations, including the connection of adjoining gabion units, securing of diaphragms and lids, internal bracing, tying of adjacent baskets, and fastening of gabion mattresses and associated components, as required.
- All binding, lacing, bracing, and connecting wire shall comply with the requirements of the Project Specifications and approved construction drawings and shall be compatible with the gabion mesh and its protective coating.
- The Contractor shall provide enough wire to complete all gabion retaining walls, erosion protection works, aprons, mattresses, and other gabion structures indicated on the approved construction drawings, without the need for unapproved alternative fastening methods.

B.2.1.11 Lacing of Cage

- Using enough approved connecting, binding, and lacing wire, the Contractor shall assemble, position, and lace the gabion cages in accordance with the manufacturer's instructions, Project Specifications, and approved construction drawings.
- All adjoining edges of gabion boxes and mattresses, including side panels, end panels, diaphragms, and adjacent gabion units, shall be securely connected and laced to ensure that the individual units are firmly joined. Lids shall be securely closed and laced following completion of the rock filling and any necessary adjustment of the gabion units.
- Lacing shall be carried out in a continuous and secure manner so that adjoining gabion units, diaphragms, and lids are effectively interconnected and the completed gabion structure acts as an integrated, stable, and coherent system. Connections shall be sufficiently tight to prevent opening, separation, excessive deformation, or displacement if the gabion units during filling and subsequent service.
- Where specified in the Contract Documents, the completed laced connections shall provide a minimum resistance to separation of 13 kN/m or such other value as may be specified by the gabion manufacturer or approved by the Engineer.
- Attention shall be given to the connection of adjacent gabion units and successive courses, especially where the gabion structure provides retaining support, erosion protection, or protection to railway embankments, cuttings, formations, drainage structures, or other railway infrastructure. Connections shall be completed progressively as construction proceeds to maintain the stability, alignment, and integrity of the overall gabion structure.
- The Contractor shall ensure that lacing and connecting wires are properly tensioned without damaging the gabion mesh or its protective coating. Any damaged wire, mesh, or protective coating resulting from lacing or assembly shall be repaired or replaced in accordance with the requirements of the Project Specifications and to the satisfaction of the Engineer.
- Upon completion of the lacing, all wire ends shall be securely twisted, trimmed where necessary, and turned into the gabion structure so that no sharp or protruding ends remain exposed. Care shall be taken to ensure that no wire ends protrude into railway personnel access areas, maintenance walkways, working areas, or any other location where they may present an injury or snagging hazard.
- The completed cages shall be inspected for **alignment, dimensions, connections, bracing, and general integrity** before rock filling proceeds. Any deficiencies identified shall be rectified before the affected gabion unit is filled.
- All connections shall be securely formed to maintain the shape, alignment, stability, and integrity of the gabion units during filling, construction, and throughout their intended service.

B.2.1.12 Geotextile or Geomembrane

i) General Requirements

- Where specified, an approved geotextile or geomembrane shall be supplied and installed at the locations and to the lines, levels, and extents indicated on the approved construction drawings and in accordance with the Project Specifications and manufacturer's recommendations.
- The geotextile or geomembrane may be required beneath the gabion structure, behind or against the sides of the gabion structure, between the gabions and the railway embankment or natural ground, or at any other locations indicated on the approved construction drawings.
- Where geotextile is specified as a filter or separator, it shall prevent or minimise the migration of fine soil particles into or through the gabion rockfill while permitting the passage of water and maintaining the intended drainage function.
- Unless otherwise specified, geotextile used in association with the gabion works shall have a minimum mass per unit area of 270 g/m² and shall comply with the requirements of the Project Specifications and approved construction drawings.

- Prior to installation, the surface receiving the geotextile or geomembrane shall be properly prepared, trimmed, and cleared of protruding rocks, roots, sharp objects, debris, and other materials or irregularities that may puncture, tear, abrade, or otherwise damage the material.
- The geotextile or geomembrane shall be installed without excessive wrinkles, folds, or slack and shall be temporarily secured, where necessary, to prevent displacement during the placement of gabion cages, rockfill, sandbags, backfill, or other construction materials.
- Installation of Geotextile
- Where adjoining sheets are overlapped, a minimum overlap of 300 mm shall be provided, unless a greater overlap is indicated on the approved construction drawings, required by the Project Specifications, or recommended by the manufacturer. Overlaps shall be arranged and secured to prevent separation, movement, folding, or displacement during construction.
- Where adjoining sheets are sewn, bonded, or otherwise mechanically joined using an approved method, a minimum overlap of 75 mm shall be provided, subject to the Project Specifications and manufacturer's recommendations. The completed joint shall provide sufficient strength and continuity to withstand the stresses imposed during installation and construction.
- Construction plant, vehicles, or equipment shall not travel directly over exposed geotextile. Where access over installed geotextile is unavoidable, suitable protective material or an approved working layer shall first be provided to prevent puncturing, tearing, displacement, or other damage.
- The Contractor shall take particular care during the placement of gabion cages, rockfill, sandbags, and backfill to prevent tearing, puncturing, dragging, folding, or displacement of the geotextile.
- Any geotextile damaged during transportation, handling, installation, or subsequent construction activities shall be repaired or replaced using an approved method before it is covered by gabion cages, rockfill, sandbags, or backfill. Repairs shall extend sufficiently beyond the damaged area to restore the required filtration and separation function.
- The Contractor shall obtain the Engineer's acceptance of the installed geotextile before it is covered or concealed by subsequent construction activities.

ii) Installation of Geomembrane

- Where a geomembrane is specified, it shall be installed in accordance with the approved construction drawings, Project Specifications, and manufacturer's recommendations.
- Adjoining geomembrane sheets shall be joined by an approved welding process, adhesive system, or other compatible jointing method appropriate to the type and material of the membrane.
- The completed joints shall provide the required continuity and integrity of the membrane system and shall be free from defects that may impair its intended function.
- The geomembrane shall be adequately protected during the installation of gabion cages, rockfill, sandbags, backfill, and other associated materials. Construction activities shall be carried out in a manner that prevents puncturing, tearing, abrasion, displacement, or damage to joints.
- Any damaged geomembrane or defective joint shall be repaired or replaced using an approved method and, where required, tested or inspected to demonstrate the integrity of the repair before being covered by subsequent construction.
- The Contractor shall obtain the Engineer's acceptance of the completed geomembrane installation before it is covered or concealed.

B.2.1.13 Erection, Alignment and Bracing of Gabion Cages

Prior to the placement of rockfill, each gabion cage shall be unfolded, formed, stretched, positioned, and aligned to the required lines, levels, dimensions, and batter indicated on the approved construction drawings. The cages shall be securely connected to adjoining cages in accordance with the Project Specifications and the manufacturer's requirements.

All adjoining gabion cages shall be securely laced or connected along their common edges, including corners and contact surfaces, to form a continuous, stable, and integrated structure. The connections shall be completed progressively as erection proceeds and shall be sufficiently secure to maintain the required alignment during filling.

The Contractor shall provide and install internal bracing wires between opposing vertical faces of the gabion cages in sufficient number and at appropriate positions to prevent excessive bulging, deformation, spreading, or distortion during placement and packing of the rockfill.

Unless otherwise specified by the gabion manufacturer or on the approved construction drawings:

- Lower braces shall be installed and adequately tensioned before filling proceeds beyond approximately one-third of the basket height; and
- Upper braces shall be installed and adequately tensioned before filling proceeds beyond approximately two-thirds of the basket height.

Bracing wires shall be securely attached to the gabion mesh and tensioned sufficiently to maintain the required cage dimensions and face alignment without damaging the mesh, lacing wire, or protective coating.

Additional internal bracing, stiffening, temporary formwork, or other approved measures shall be provided where necessary to maintain the specified dimensions, alignment, batter, and appearance of the gabion structure, particularly where:

- Gabions form retaining structures supporting or protecting a railway embankment, cutting, or formation;
- High or multi-course gabion walls are constructed;
- Gabions are located within watercourses or areas subject to concentrated drainage;
- gabions are exposed to flowing water, erosion, or scour;
- A neat and uniform exposed face is required; or
- Additional bracing or support is indicated on the approved construction drawings or directed by the Engineer.

Where practicable and where consistent with the approved construction drawings, consecutive courses of gabion cages shall be positioned so that vertical joints are staggered and do not align continuously through successive courses. Each successive course shall be securely connected to the course below to maintain the stability and integrity of the completed structure.

During erection and filling, the Contractor shall regularly check the line, level, batter, dimensions, and alignment of the gabion structure. Any displacement, bulging, distortion, or misalignment shall be corrected before further filling or construction of subsequent courses proceeds.

Where gabion structures are constructed adjacent to operational railway infrastructure, the Contractor shall ensure that the completed and partially constructed gabions maintain all specified railway clearances. No part of the structure, temporary bracing, construction material, plant, or equipment shall encroach into areas required for the safe operation, inspection, access, or maintenance of the railway.

Gabion baskets shall generally be erected and positioned before being filled with rockfill. Pre-filling of gabion baskets prior to positioning shall not be permitted without the prior written approval of the Engineer. Where pre-filling is approved, the Contractor shall submit a suitable lifting, handling, and placement methodology demonstrating that the operation can be carried out safely without causing distortion, deformation, damage to the mesh or protective coating, failure of connections, or loss of rockfill.

The Contractor shall obtain the Engineer's acceptance of the erected, aligned, connected, and braced gabion cages before rock filling commences. Any deficiencies identified shall be rectified prior to filling.

B.2.1.14 Rock Filling to Gabion Boxes in Retaining Walls

- Gabion rockfill shall consist of sound, hard, durable, and suitably graded natural stone of the quality and size specified in the Project Specifications and approved construction drawings. The stone shall be free from significant quantities of soil, clay, organic matter, friable material, and other deleterious substances. Individual stones shall be of sufficient size to prevent migration or loss through the openings of the gabion mesh.
- Rockfill shall be placed carefully within the gabion baskets to achieve a dense, stable, and well-interlocked arrangement with minimum practicable voids. Placement shall be carried out in a manner that prevents damage,

excessive deformation, or displacement of the gabion mesh, diaphragms, lacing and connecting wires, internal bracing, and protective coatings.

- Rockfill shall not be tipped or dropped from an excessive height into the gabion baskets where such placement may result in damage to the baskets, segregation of the rockfill, displacement of the cages, or excessive deformation of the gabion faces.
- Care shall be exercised when filling gabion faces that will remain exposed in the completed WORKS. Selected stones of suitable size and shape shall be individually positioned and hand-packed along the exposed faces to achieve a neat, uniform, tightly packed, and fair-faced appearance. Large voids immediately behind the exposed face shall be minimised by carefully arranging the adjoining rockfill.
- Successive gabion boxes shall be filled progressively, uniformly, and in stages to minimise differential loading and prevent excessive deformation, bulging, or displacement of the baskets. Where adjoining gabion baskets form part of the same course, filling shall proceed generally evenly across the adjoining baskets. Individual baskets shall not be filled to their full height while adjacent interconnected baskets remain substantially empty, unless an alternative filling sequence has been accepted by the Engineer.
- During filling, the Contractor shall continuously monitor the line, level, batter, dimensions, and alignment of the gabion structure. Any bulging, distortion, displacement, or misalignment shall be corrected before further filling proceeds.
- The baskets shall initially be filled to approximately the level of the lower internal braces, after which the braces shall be properly tensioned and secured before filling continues. Where upper bracing is required, filling shall proceed in accordance with the staged bracing requirements. Braces shall remain adequately tensioned throughout the filling operation.
- Gabion baskets shall be slightly overfilled, where necessary, to allow for initial settlement of the rockfill and to ensure that the lids bear firmly against the stone after closure. Overfilling shall not be excessive and shall not prevent the lids from being closed, aligned, and securely laced without distortion or undue tension in the mesh.
- Before closing the lids, the top layer of rockfill shall be levelled and arranged to provide an even bearing surface. The lids shall then be drawn into position and securely laced to the sides, ends, diaphragms, and adjoining units, as applicable.
- The lids of each completed course shall be properly closed and securely laced before construction of the subsequent course commences, unless an alternative construction sequence has been approved by the Engineer.
- Where gabions are constructed adjacent to an operational railway track, the Contractor shall handle, transport, and place rockfill in a controlled manner so that stones cannot fall, roll, slide, bounce, or otherwise move towards the railway track, signalling equipment, electrical or communication cables, drainage structures, or other railway infrastructure.
- Rockfill shall not be stockpiled at locations where it may:
 - Encroach upon the required railway operational clearances;
 - Impose excessive surcharge loading on the railway formation, embankment, excavation, or adjacent slope;
 - Obstruct existing or temporary drainage;
 - Interfere with railway access, inspection, or maintenance activities; or
 - Create a rockfall or other safety hazard to personnel, adjacent properties, or railway operations.
- Any rockfill displaced outside the approved working area during handling or filling operations shall be immediately removed or made safe by the Contractor.

B.2.1.15 Railway-Specific Construction Requirements

The Contractor shall plan, coordinate, and execute all gabion and associated works in a manner that protects the safe operation, stability, integrity, and functionality of the existing railway infrastructure. This shall include, but not be limited to, the railway track, formation, ballast, embankments, cuttings, culverts, drainage systems, signalling and telecommunications infrastructure, electrical services, access and service roads, fencing, and other railway assets.

The following minimum requirements shall apply:

i) Railway Clearances

Plant, equipment, vehicles, gabion baskets, rockfill, sandbags, excavated material, tools, temporary works, and other construction materials shall be positioned, operated, stored, and controlled outside the prescribed operational railway clearances, unless access or work within such areas has been specifically authorised in accordance with the applicable railway procedures.

The Contractor shall ensure that no material, equipment, or temporary works encroach upon the operational railway area or obstruct access required for railway operations, inspections, maintenance, or emergency activities.

ii) Stability of the Railway Formation

Excavation and construction activities associated with the gabion works shall not undermine, destabilise, overload, or cause unacceptable settlement or deformation of the railway formation, ballast, embankments, cuttings, adjacent structures, foundations, or other railway infrastructure.

Where ground conditions, excavation depth, surcharge loading, groundwater, or proximity to railway infrastructure presents a risk of instability, the Contractor shall undertake excavation in controlled and suitably staged sections and shall provide appropriate shoring, bracing, battering, benching, temporary drainage, or other support measures as necessary.

Any indication of movement, settlement, cracking, erosion, or instability that may affect the railway infrastructure shall be reported immediately to the Engineer and authorised railway representative, and work in the affected area shall cease until appropriate corrective measures have been implemented.

iii) Control of Loose Materials

All rockfill, wire, gabion components, sandbags, excavated material, tools, construction debris, and other loose materials shall be adequately contained, secured, and controlled throughout construction.

Loose material shall not be permitted to fall, roll, slide, blow, or otherwise move towards or onto the operational railway track, drainage infrastructure, signalling or telecommunications equipment, electrical infrastructure, or adjacent properties.

Any material inadvertently entering an operational railway area shall be reported and dealt with immediately in accordance with the applicable railway safety requirements.

iv) Protection of Railway Services

Prior to commencing excavation or other activities that may affect existing services, the Contractor shall identify and verify the location of all known buried and above-ground railway services within or adjacent to the work area.

The Contractor shall take all necessary precautions to protect existing signalling, telecommunications, electrical, drainage, and other railway services from damage or disruption. Excavation or construction within the vicinity of identified services shall be undertaken in accordance with the approved construction methodology and applicable railway working procedures.

Any unidentified, damaged, exposed, or potentially affected service encountered during the WORKS shall be immediately reported to the Engineer and authorised railway representative, and work in the affected area shall cease where continued operations could result in damage or create a safety risk.

v) Construction Adjacent to Operational Tracks

Where construction is undertaken adjacent to an operational railway track, the Contractor shall coordinate all relevant activities with the authorised railway representative and comply with the approved railway access, protection, and safety requirements.

Any construction activity that requires access to the operational railway area or that may impose restrictions on normal train operations shall only proceed under the applicable approved railway arrangements, including authorised work permits, work windows, occupations or possessions, where required.

The Contractor shall ensure that personnel, plant, equipment, temporary works, and materials always remain within the approved working limits.

vi) Inspection and Hold Points

The Contractor shall provide the Engineer with adequate opportunity to inspect the WORKS at the relevant stages of construction and before subsequent activities cover, conceal, or prevent inspection of completed work.

Inspection and acceptance shall include, where applicable:

- Prepared gabion foundations and foundation trenches;
- Installed geotextile or geomembrane;
- Assembled, aligned, connected, and braced gabion baskets and mattresses prior to filling;
- Rockfill materials and filling operations;
- Completed and laced gabion baskets and mattresses;
- Sandbag backfill prior to covering;
- Installed GCCM prior to and, where required, following hydration and curing;
- Drainage provisions; and
- Completed gabion structures and associated works.

Where an inspection or acceptance constitutes a specified hold point, the Contractor shall not proceed with subsequent work until the required inspection has been completed and the Contractor has been authorised to proceed.

Acceptance or inspection by the Engineer shall not relieve the Contractor of responsibility for the quality, safety, stability, or compliance of the WORKS.

vii) Drainage

Existing railway drainage systems shall be protected and maintained in an effective and operational condition throughout construction, unless temporary diversion or alternative drainage arrangements have been accepted by the Engineer and, where applicable, the authorised railway representative.

Temporary and permanent drainage arrangements shall prevent ponding, erosion, scour, washout, saturation, or uncontrolled concentration of surface water that may affect the railway formation, gabion structures, embankments, cuttings, existing infrastructure, or adjacent private properties.

Upon completion, the gabion works and associated backfill shall be shaped, graded, and integrated with the existing and proposed drainage systems to ensure that stormwater is safely collected, conveyed, and discharged without adversely affecting railway infrastructure or neighbouring properties.

viii) Protection of Railway Operations

The Contractor shall continuously assess construction activities for potential risks to railway operations. Where an unsafe condition develops or construction activities have the potential to compromise the track, railway formation, infrastructure, prescribed clearances, or safe operation of trains, the Contractor shall immediately suspend the affected activity, make the area safe, and notify the Engineer and authorised railway representative.

Construction shall only resume once the unsafe condition has been addressed and the necessary railway and contractual requirements for recommencement have been satisfied.

B.8 VALUE ADDED TAX

V.A.T shall be calculated and written down as a separate subtotal to the contract value

B.9 TO BE SUPPLIED BY THE CONTRACTOR

- B.9.1 The Contractor shall supply all labour, plant, consumable materials, tools, safety equipment, disposal certificate and fuel necessary for the completion of the works unless otherwise stipulated elsewhere in this specification.
- B.9.2 The Contractor shall provide all measuring teams and equipment and shall perform and record all measurements, relating to work, deemed necessary by the Engineer.
- B.9.3 The Contractor or his teams will not be allowed into the operating tunnel without the necessary personal protective equipment necessary such as high visibility vests, safety boots, and gloves.
- B.9.4 The Contractor must supply all material all necessary tools to carry out the work specified on the specification and bill of quantities.
- B.9.5 The Contractor will be required on instruction of the Engineer to supply more labour or teams than specified in the schedule of quantities within 48 hrs of notice in the event of emergencies or extra work. Failing to respond within the required time, penalties will be charged.

PRASA KZN region reserves the right to inspect all tools and equipment on site at any given time.

B.10 TO BE SUPPLIED BY PRASA KZN REGION

PRASA KZN region will supply the Contractor with location of the works.

B.11 SAFETY

Safety will not be compromised and the Contractor to ensure that all safety equipment including reflective vests to be worn at all times. Work area to be demarcated with reflective tape.

B.12 STANDARDS OF WORKMANSHIP

- B.12.1 The standards as specified in this specification for upgrading of erosion protection and drainage system will apply.
- B.12.2 The site shall be left neat and tidy on completion.

B.13 CLEARING OF SITE

All excess and discarded material shall be totally removed from the site. The works will not be deemed completed unless the site is cleared to the satisfaction of the Technical officer.

B.14 MEASUREMENT AND PAYMENT

- B.14.1 The unit of measurement will be as per unit of measure or part thereof.
- B.14.2 Payment will only be made for those items mentioned in the Schedule of Prices, after being certified by the Project Manager.
- B.14.3 Payment will be made per unit of measure or part thereof that the Contractor is on site and engaged in tasks given by PRASA KZN Region only.

B.15 SITE ACCESS

The Contractor must make all arrangements to the necessary authorities. No access to site via PRASA KZN Region property will be granted without permission from the Technical Officer / Project Leader.

**BILL OF QUANTITIES AND PRICES EMERGENCY WORKS
STABILISATION OF EMBANKMENTS BETWEEN ZWELETHU AND KWAMNYANDU STATIONS**

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1		SECTION 1: PRELIMINARY AND GENERAL				
1.1	SABS1200 CL4.2	Establish facilities on site for a Contractor including offices, storage sheds, laboratories, living accommodation, ablution and latrine facilities, tools and equipment, water supplies, electric power, communication, setting out of works, dealing with water and access	Sum	1		
1.2	SABS1200 CL4.2	Removal of Contractor 's site establishment on completion and cleaning of site	Sum	1		
1.3		Allow for compliance with all time-related conditions of contract	Sum	1		
1.4		Operate and maintain facilities on sites	Sum	1		
1.5		Comply with all environmental requirements	Sum	1		
1.6		Comply with all health and safety requirements	Sum	1		
1.7	SABS 1200, CL 5	Existing services: Working in close proximity to a live electric cable	Sum	1		
1.8		Provision of armed security services	Day	30		
1.9		Community Liaison Officers for the site (Provisional)	Sum	1		
1.10		Provisions for a Track Master and 2 Flag Persons (with appropriate valid railway certifications)	Day	20		
Total Carried Forward to Summary						

ITEMNO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2		SECTION 2: EARTHWORKS (RAILWAY SIDING)				
2.1	SABS 1200 DN	SITE CLEARANCE AND PREPARATION				
2.1.1	8.3.1	Clear Site incl. removal trees up to 1 m girth to approved areas off Site	m ²	338		
2.2	SABS 1200DA	EXCAVATION				
2.2	8.3.4	EXCAVATION				
2.2.1		Excavate and fill sandbags	m ³	126		
2.2.2		Cut to spoil	m ³	30		
2.3	8.3.8	FINISHING				
2.3.1		Insert / press plaster into the gabion structure so that it fills the voids between the outer layer of rockfill. Plaster is to have minimum cover of 50mm to the gabion basket mesh.	m ²	70		
2.4		TREATMENT OF ROAD-BED				
	8.3.3(a)	Road-bed preparation and compaction of material				
2.4.1		Compact to 98 % proof density	m ²	338		
2.5		TEMPORARY WORKS				
2.5.1		Construct and maintain temporary access to site for the full duration of the contract period and make good upon completion.	Sum	1		
Total Carried Forward to Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3		SECTION 3: GABIONS AND PITCHING				
3.1	SABS 1200DK	GABIONS AND PITCHING				
3.1.1	8.2.1	Surface preparations for bedding of gabions	m ²	31		
	8.2.2	Gabions: Hexagonal nominal diameter 80mm galvanised and PVC coated wire mesh. Rate to include for the supply of the mesh cages, binders, connectors, stone and the cost of loading, transporting, offloading, assembling and filling of the cages				
3.1.2		a) Gabion baskets 2.0m x 1,0m x 1,0m. Rate to include for packing selected stone at exposed face and levelling out of cavities in top of packed baskets	m ³	38		
3.1.3		b) Gabion baskets 1.5m x 1,0m x 1,0m. Rate to include for packing selected stone at exposed face and levelling out of cavities in top of packed baskets	m ³	20		
	8.2.4	Supply and lay geotextile (minimum 270g/m ²)				
3.1.4		a) Below foundation mattresses	m ²	26		
3.1.5		b) On slope behind wall	m ²	46		
3.2		SANDBAGS BACKFILL				
3.2.1		Supply sandbags and all ancillary materials, including handling and placing as backfill behind gabions, using the excavated material to fill the sandbags	m ³	126		
3.2.2		Supply sandbags and all ancillary materials, including filling, handling and placing as backfill behind gabions, using imported material to fill the sandbags	m ³	322		
3.2.3		Fill voids on top of each sandbag layer with imported G7 material	m ³	55		
3.2.4		Supply and lay Geosynthetic Cementitious Composite Mats (GCCMs) over the sandbags	m ²	406		
3.2.5		Excavate earth drain 40m x 0.3m x 0.3m at the toe of the embankment to the natural stream.	m	40		
Total Carried Forward to Summary						
4		SECTION 4: CABLE DUCTS				
4.1	SANS 1200LC	EXCAVATION				

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4.1.1	8.2.2	Excavate in all material for 1000mm x 900mm x 500mm for precast concrete channel	m	20		
4.2	SANS 1200LC	CABLE PROTECTION				
4.2.1		Supply and lay 1000mm x 900mm x 500mm for precast concrete channel with medium duty cover	m	34		
Total Carried Forward to Summary						

ZWELETHU EMERGENCY WORKS: REPAIR OF EMBANKMENT

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT
1	SECTION 1: PRELIMINARY AND GENERAL	
2	SECTION 2: EARTHWORKS (RAILWAY SIDING)	
3	SECTION 3: GABIONS AND PITCHING	
4	SECTION 4: CABLE DUCTS	
	SUBTOTAL	
	Add 10% Contingencies	
	SUBTOTAL	
	Add 15% VAT	
	TOTAL TENDER SUM	

ANNEXURE 1

Risk Assessment

Place Between Zwelethu and KwaMnyandu

Km Distance QE

Proposed Project Erosion Protection

Risk Assessment Completed by Philisiwe Ngubane

Other Personnel Involved/Assisting with Assessment & Decision Making

HAZARD AND RISK ASSESSMENT						
	Identified Risk	RAM before action	Action	RAM after action	PRASA KZN Department responsible	Person responsible
1	Contractor will be working in close proximity to the overhead electric cables	C4	Apply for total occupation and overheads to be switched off	A1	Perway, Electrical, Network Planning	Technical Officer
2	Contractor will be working in close proximity to the lines where trains will run	C4	<u>Determine if total or between trains occupation is required</u>	A1	Perway, Network Planning	Technical Officer/Track Manager
			Induction by PRASA KZN must be done before Contractor starts work		Perway	Technical Officer
			Contractor 's employees to wear PPE (high visibility vests and safety boots)		Perway	Technical Officer & Contractor
			<u>Determine level of protection required - track master & flagmen or lookout.</u>		Perway	Technical Officer/Track Manager

3	Contractor s employees will have to cross tracks with material & equipment to get to work site	C4	Track Master and flagmen must be on site to provide protection.	A1	Perway	Technical Officer & Contractor
			Safety talks to be done each morning by Contractor to remind employees of dangers at the work site			Contractor
			Contractor 's employees to wear PPE (high visibility vests and safety boots)			Technical Officer & Contractor
			Contractor to appoint protection company			Technical Officer & Contractor
4	Working close to private property	C3	Liaise with private property owner/s and Contractor to stay away from private property and boundaries	A1	Perway	Technical Officer & Contractor
5	Security of materials on site	D4	Contractor to provide security or site establishment or remove materials from site daily	A1	Perway	Contractor
6	Obstacles that must be worked around	C2	Technical Officer to point it out in spec, at site meeting and ensure that method statement and safety plan deal with condition.	A1	Perway	Technical Officer
			Contractor to include it in method statement and safety plan			Contractor
7	Contractor 's employee can be injured while working	D2	First aid equipment and first aider to be available	B2	Perway	Contractor
			If injury is serious, emergency numbers must be on site, and employees must know where to find them			Contractor
			Construction supervisor, who is to be on site at all times must be appointed in writing			Technical Officer & Contractor
			Construction supervisor to contact Technical Officer immediately			Contractor

RISK ASSESSMENT MATRIX

Catas-trophic	Collision/Derailment Speed > 50km/h	Major loss of life, Major equipment damage	5					
Critical	Collision/Derailment Speed<50>30km/h	Loss of life, Equipment damage	4					
Serious	Collision/Derailment on open line	Injuries / Extensive damage	3					
Medium	Minor collision / derailment	Injuries / damage	2					
Minimal	Run through points / yard derailments, etc.	No injuries	1					
				A	B	C	D	E
				Rare	Low Likelihood	Can Happen	Probable	Regular

Probability of Occurrence

ANNEXURE 2

Aspects that must be covered in the Health & Safety Programme by the Contractor:

- 1 Submission of notification to the Department of Labour of the works to be undertaken as per the Construction Regulation 2014, if applicable to the Contract
- 2 The appointment by the Contractor of a full-time competent employee as the Construction Supervisor
- 3 The method of mitigating or terminating the risks already identified in Annexure 1
- 4 A sample risk assessment that the Contractor will have to complete before commencing the works or a plan for the completion of the risk assessment
- 5 The provision of PPE to all employees – listing the types of PPE required for the different activities that the Contractor's employees will be involved in
- 6 Method of controlling access to the work site
- 7 The appointment of a competent person in charge of scaffolding, if necessary for the completion on the contract
- 8 Method of ensuring good housekeeping on the construction site
- 9 Name of registered dump site where waste will be taken to be disposed of.
- 10 Daily check of employees PPE – this check must be done and recorded daily
- 11 Method of ensuring employees do not cross tracks
- 12 Emergency procedures and telephone numbers - state where these numbers will be available on site daily
- 13 Name and appointment of competent First Aider and certificate to prove that the person has undergone First Aid training
- 14 Provision of first aid equipment – Contractor to state if there will be a first aid kit on site
- 15 Site diary update – Contractor to state how often the site diary will be updated and what will be recorded in the diary.
- 16 Frequency of safety talks – Contractor to state when and how often safety talks will be held and how these talks will be recorded for audit purposes
- 17 Minutes of safety talks – Contractor to state where the minutes will be kept and how often they will be taken and who is responsible for ensuring they are completed and filed.
- 18 Safety related appointments – Contractor to state what appointments will be made and which member of his staff will be appointed for the various functions.
- 19 Incident recording and investigation - Contractor to state what method will be used to report and investigate all incidents which occur on site and who will be responsible for this activity
- 20 On site substance abuse monitoring - Contractor to state how often this will take place and how it will be recorded.
- 21 Notification of and by service provider to be used in terms of provision of Track Master and Flagmen if required