community safety, roads & transport
Department of
Community Safety, Roads & Transport
FREE STATE PROVINCE

SPECIAL MAINTENANCE OF PRIMARY ROAD P71/1, BETWEEN TWEESPRUIT AND HOBHOUSE

TENDER NO. CSR&T/BID10/2023/24

CIDB LEVEL REQUIRED: CIDB 8CE PE AND HIGHER

Name of Tenderer: ……

MAAA:……

Bid Amount: ……

This tender closes at 11h00 on 13 - OCTOBER - 2023, at the SCM offices of the Department of Community Safety, Roads and Transport at 45 Charlotte Maxeke Street, Bloemfontein, 9300

LATE SUBMISSIONS WILL NOT BE CONSIDERED

Issued by:	**Prepared by:**
The Department of Community Safety, Roads and Transport 45 Charlotte Maxeke Street Perm building Bloemfontein 3201 Contact Name: SCM Offices Telephone: (051) 409 8891 or (051) 409 8899	**The Department of Community Safety, Roads and Transport** St Andrew Street Medfontein building Bloemfontein 3201 Contact Name: Roads Technical Telephone: (051) 409 8575

S'HAMBA SONKE

EXPANDED PUBLIC WORKS PROGRAMME

SPECIAL MAINTENANCE OF PRIMARY ROAD P71/1, BETWEEN TWEESPRUIT AND HOBHOUSE

CSR&T/BID10/2023/24

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FOREWORD

This document consists of two sections, namely the **TENDER** and the **CONTRACT.**

THE TENDER consists of two parts, namely:

1. **T1 : Tendering Procedures** ..... Volume 1
2. to be complied with by every Tenderer submitting a tender offer,

and

3. **T2 : Documents to be returned by the Tenderer** ..... Volume 1
4. including the returnable schedules and forms to be completed by each Tenderer, some of which will eventually be incorporated into the contract between the successful Tenderer and the Employer.

THE CONTRACT consists of four parts, namely:

1. **C1 : Agreements and Contract Data** ..... Volume 1

1. **C2 : Pricing Data**..... Volume 1
2.
1. **C3 : Scope of Work** ..... Volume 1
(Specifications and Project Specifications)

and

1. **C4 : Site Information** ..... Volume 1

SPECIAL MAINTENANCE OF PRIMARY ROAD P71/1, BETWEEN TWEESPRUIT AND HOBHOUSE

CSR&T/BID10/2023/24

THE TENDER

PART T1: TENDERING PROCEDURES

PART T1: TENDERING PROCEDURES

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T1.1 TENDER NOTICE AND INVITATION TO TENDER

T1.1.1 The Department of Community Safety, Roads and Transport, Free State Provincial Government, invites tenders for **SPECIAL MAINTENANCE OF PRIMARY ROAD P71/1: BETWEEN TWEESPRUIT AND HOBHOUSE. CSR&T/BID10/2023/24.**

T1.1.2 Tenderers should have a **CIDB** Contractor grading designation of **8 CEPE** or higher.

T1.1.3 Tenderers must be registered with the **CIDB** in a ***CE*** class of construction works.

T1.1.4 **Preferences**

The Tender will be subjected to **B-BBEE** preferential procurement policy framework as amended.

A minimum of 30% of the Contract Value **MUST** be sub-contracted to **local Contractors.**

Evaluation and Adjudication of bids: bid will be evaluated and adjudicated in terms of the Department of Community Safety, Roads and Transport *Supply Chain Management Policy and Preferential Procurement Framework Act No. 5 of 2010. The 90/10 in preferential procurement points system as outlined in the bid document will apply. Preferential points will be given in terms of the Preferential Procurement Regulations, 2017.*

T1.1.5 **Tender Documents**

1. The tender documents will be given to the respective contractors on the day of tender briefing

Queries relating to the issues of these documents may be addressed to:

Mr/Mrs/Ms RE Seate
Tel no. 051 409 8687
Cell no. 082 059 9706
E-mail: kmohami@yahoo.com

T1.1.6 A compulsory clarification meeting with representatives of the Employer will take place at the Regional Roads Office in**….**

T1.1.7 The closing time, date and venue for receipt of tenders will be **11h00 on 13th October 2023** at the Ground Floor of Perm Building, 45 Charlotte Maxeke, Bloemfontein **NO LATE TENDERS WILL BE ACCEPTED.**

T1.1.8 Telegraphic, telephonic, telex, facsimile and late tenders will not be accepted. Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

1. PART A
2. INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (*NAME OF DEPARTMENT/ PUBLIC ENTITY*)			
BID NUMBER:	**CSR&T/BID10/2023/24**	CLOSING DATE: **13-OCT-2023**	CLOSING TIME: **11:00**
DESCRIPTION	**SPECIAL MAINTENANCE OF PRIMARY ROAD P71/1 FOR A 39KM DISTANCE, BETWEEN TWEESPRUIT AND HOBHOUSE**		

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT *(STREET ADDRESS)*
45 PERM BUILDING
CHARLOTTE MAXEKE STREET
BLOEMFONTEIN
9301

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO		**TECHNICAL ENQUIRIES MAY BE DIRECTED TO:**	
CONTACT PERSON	**Me. W Makutoane / Mr. TE Sekwena**	CONTACT PERSON	**Mrs RE Seate**
TELEPHONE NUMBER	**051 409 8891**	TELEPHONE NUMBER	
CELL NUMBER	**066 476 2569 / 082 0599 721**	CELL NUMBER	**082 059 9706**
E-MAIL ADDRESS	**makutoanew@freetrans.gov.za/ SekwenaT@freetrans.gov.za**	E-MAIL ADDRESS	mohamik@freetrans.gov.za; kmohami@yahoo.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
1. ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES OFFERED?	☐Yes ☐No [IF YES ENCLOSE PROOF]		**2.** ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES OFFERED?		☐Yes ☐No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]

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.

3. PART B
4. TERMS AND CONDITIONS FOR BIDDING

	1. BID SUBMISSION:
1.	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
2.	**ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.**
3.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
	2. TAX COMPLIANCE REQUIREMENTS
1.	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.	BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
3.	APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
4.	BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
5.	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
6.	WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
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: ……...

T1.2 STANDARD CONDITIONS OF TENDER

The Conditions of Tender are the Standard Conditions of Tender as contained in Annexure F of the CIDB Standard for Uniformity in Construction Procurement.

The Standard Conditions of Tender make several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

Each item of data given below is cross-referenced to the clause in the Standard Conditions of Tender to which it mainly applies.

Clause number	Wording
F.1	**GENERAL**
F.1.1	**Actions**

The Employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently.

F.1.2 Tender documents

The documents issued by the Employer for the purpose of a tender offer are listed in the Tender Data.

F.1.3 Interpretation

F.1.3.1 The Tender Data and additional requirements contained in the Tender Schedules, that are included in the returnable documents, are deemed to be part of these Conditions of Tender.

F.1.3.2 These Conditions of Tender, the Tender Data and Tender Schedules, which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.

F.1.3.3 For the purposes of these conditions for the calling for expressions of interest, the following definitions apply:

a) **comparative offer** means the Tenderer's financial offer after the factors of non-firm prices, all unconditional discounts and any other tendered parameters that will affect the value of the financial offer have been taken into consideration

b) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the Employer or his staff or agents in the tender process; and

c) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the Employer, including collusive practices intended to establish prices at artificial levels

F.1.4 Communication and Employer's Agent

Each communication between the Employer and a Tenderer shall be to or from the Employer's Agent only, and in a form that can be read, copied and recorded. Writing shall be in the English language.

The Employer shall not take any responsibility for non-receipt of communications from or by a Tenderer. The name and contact details of the Employer's Agent are stated in the Tender Data.

F.1.5 The Employer's right to accept or reject any tender offer

F.1.5.1 The Employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The Employer shall not accept or incur any liability to a Tenderer for such cancellation and rejection, but will give reasons for such action upon written request to do so.

F.1.5.2 The Employer may not, subsequent to the cancellation or abandonment of a tender process or the rejection of all tender offers, re-issue a tender covering substantially the same scope of work within a period of six months unless only one tender was received and such tender was returned unopened to the Tenderer.

F.2 TENDERER'S OBLIGATIONS

F.2.1 Eligibility

Submit a tender offer only if the Tenderer complies with the criteria stated in the Tender Data and the Tenderer, or any of his principals, is not under any restriction to do business with Employer.

F.2.2 Cost of tendering

Accept that the Employer will not compensate the Tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements.

F.2.3 Check documents

Check the tender documents on receipt for completeness and notify the Employer of any discrepancy or omission.

F.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the Employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

F.2.5 Reference documents

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, Conditions of Contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

F.2.6 Acknowledge addenda

Acknowledge receipt of addenda to the tender documents, which the Employer may issue, and if necessary apply for an extension to the closing time stated in the Tender Data, in order to take the addenda into account.

F.2.7 Site visit and clarification meeting

Attend, where required, a site visit and clarification meeting at which Tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the Tender Data.

F.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the Employer at least **five working days** before the closing time stated in the Tender Data.

F.2.9 Insurance

Be aware that the extent of insurance to be provided by the Employer (if any) may not be for the full cover required in terms of the Conditions of Contract identified in the Contract Data. The Tenderer is advised to seek qualified advice regarding insurance.

F.2.10 Pricing the tender offer

F.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful Tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the Tender Data.

F2.10.2 Show VAT payable by the Employer separately as an addition to the tendered total of the prices.

F.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the Conditions of Contract identified in the Contract Data.

F.2.10.4 State the rates and prices in Rand unless instructed otherwise in the Tender Data. The Conditions of Contract identified in the Contract Data may provide for part payment in other currencies.

F.2.11 Alterations to documents

Not make any alterations or additions to the tender documents, except to comply with instructions issued by the Employer, or necessary to correct errors made by the Tenderer. All signatories to the tender offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

F.2.12 Alternative tender offers

F.2.12.1 Submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted. The alternative tender offer is to be submitted with the main tender offer together with a schedule that compares the requirements of the tender documents with the alternative requirements the Tenderer proposes.

F.2.12.2 Accept that an alternative tender offer may be based only on the criteria stated in the Tender Data or criteria otherwise acceptable to the Employer.

F.2.13 Submitting a tender offer

F.2.13.1 Submit a tender offer to provide the whole of the works, services or supply identified in the Scope of Work, unless stated otherwise in the Tender Data.

F.2.13.2 Return all returnable documents to the Employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing in black ink.

F.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the Tender Data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the Employer.

F.2.13.4 Sign the original and all copies of the tender offer where required in terms of the Tender Data. The Employer will hold all authorized signatories liable on behalf of the Tenderer. Signatories for Tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the Employer shall hold liable for the purpose of the tender offer.

F.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as “ORIGINAL” and “COPY”. Each package shall state on the outside the Employer’s address

and identification details stated in the Tender Data, as well as the Tenderer's name and contact address.

F.2.13.6 Where a two-envelope system is required in terms of the Tender Data, place and seal the returnable documents listed in the Tender Data in an envelope marked "Financial Proposal" and place the remaining returnable documents in an envelope marked "Technical Proposal". Each envelope shall state on the outside the Employer's address and identification details stated in the Tender Data, as well as the Tenderer's name and contact address.

F.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the Employer's address and identification details as stated in the Tender Data.

F.2.13.8 Accept that the Employer shall not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

F.2.14 Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the Employer as non-responsive.

F.2.15 Closing date and time

F.2.15.1 Ensure that the Employer receives the tender offer at the address specified in the Tender Data not later than the closing date and time stated in the Tender Data. Proof of posting shall not be accepted as proof of delivery. The Employer shall not accept tender offers submitted by telegraph, telex, facsimile or e-mail, unless stated otherwise in the Tender Data.

F.2.15.2 Accept that, if the Employer extends the closing date stated in the Tender Data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

F.2.16 Tender offer validity

F.2.16.1 Hold the tender offer(s) valid for acceptance by the Employer at any time during the validity period stated in the Tender Data after the closing date stated in the Tender Data.

F.2.16.2 If requested by the Employer, consider extending the validity period stated in the Tender Data for an agreed additional period.

F.2.17 Clarification of tender offer after submission

Provide clarification of a tender offer in response to a request to do so from the Employer during the evaluation of tender offers.

This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). ***No change in the total of the prices or substance of the tender offer is sought, offered, or permitted.*** The total of the prices stated by the Tenderer shall be binding upon the Tenderer.

F.2.18 Provide other material

F.2.18.1 Provide, on request by the Employer, any other material that has a bearing on the tender offer, the Tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the Employer for the purpose of a full and fair risk assessment.

Should the Tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the Employer's request, the Employer may regard the tender offer as non-responsive.

F.2.18.2 Dispose of samples of materials provided for evaluation by the Employer, where required.

F.2.19 Inspections, tests and analysis

Provide access during working hours to premises for inspections, tests and analysis as provided for in the Tender Data.

F.2.20 Submit securities, bonds, policies, etc.

If requested, submit for the Employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the Conditions of Contract identified in the Contract Data.

F.2.21 Check final draft

Check the final draft of the contract provided by the Employer within the time available for the Employer to issue the contract.

F.2.22 Return of other tender documents

If so instructed by the Employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the Tender Data.

F.2.23 Certificates

Include in the tender submission or provide the Employer with any certificates as stated in the Tender Data.

F.3 THE EMPLOYER'S UNDERTAKINGS

F.3.1 Respond to clarification

Respond to a request for clarification received up to ***five working days*** prior to the tender closing time stated in the Tender Data and notify all Tenderers who drew procurement documents.

F.3.2 Issue addenda

If necessary, issue addenda that may amend or amplify the tender documents to each Tenderer during the period from the date of the Tender Notice until ***seven calendar days*** before the tender closing date stated in the Tender Data.
If, as a result a Tenderer applies for an extension to the closing date stated in the Tender Data, the Employer may grant such extension and, will then notify it to all Tenderers who drew documents.

F.3.3 Return late tender offers

Return tender offers received after the closing date or time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the Tenderer concerned.

F.3.4 Opening of tender submissions

F.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of Tenderers' agents who choose to attend at the time and place stated in the Tender Data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

F.3.4.2 Announce at the opening held immediately after the opening of tender submissions, at a venue indicated in the Tender Data, the name of each Tenderer whose tender offer is opened, the total of his prices, preferences claimed and time for completion, if any, for the main tender offer only.

F.3.4.3 Make available the record outlined in F.3.4.2 to all interested persons upon request.

F.3.5 Two-envelope system

F.3.5.1 Where stated in the Tender Data that a two-envelope system is to be followed, open only the Technical Proposal of valid tenders in the presence of Tenderers' agents who choose to attend at the time and place stated in the Tender Data and announce the name of each Tenderer whose Technical Proposal is opened.

F.3.5.2 Evaluate the quality of the Technical Proposals offered by Tenderers, then advise Tenderers, who remain in contention for the award of the contract, of the time and place when the Financial Proposals will be opened. Open only the Financial Proposals of Tenderers, who score in the quality evaluation above the minimum number of points for quality stated in the Tender Data, and announce the score obtained for the Technical Proposals and the total price and any preferences claimed. Return unopened Financial Proposals to Tenderers who's Technical Proposals failed to achieve the minimum number of points for quality.

F.3.6 Non-disclosure

Not disclose to Tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful Tenderer.

F.3.7 Grounds for rejection and disqualification

Determine whether there has been any effort by a Tenderer to influence the processing of tender offers and instantly disqualify a Tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

F.3.8 Test for responsiveness

F.3.8.1 Determine, on opening and before detailed evaluation, whether each tender offer properly received:

1. meets the requirements of these Conditions of Tender,

2. has been properly and fully completed and signed, and

c) is responsive to the other requirements of the tender documents.

F.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

a) Detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,

b) Change the Employer's or the Tenderer's risks and responsibilities under the contract, or

c) Affect the competitive position of other Tenderers presenting responsive tenders, if it were to be rectified.

F.3.8.3 Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

F.3.9 Arithmetical errors

F.3.9.1 Check responsive tender offers for arithmetical errors, correcting them in the following manner:

1. Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.

2. If a Bill of Quantities (or Schedule of Quantities or Schedule of Rates) applies and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected.

3. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate will be corrected.

4. ***Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the Tenderer's addition of prices, the total of the prices shall govern and the Tenderer will be asked to revise selected item prices (and their rates if a Bill of Quantities applies) to achieve the tendered total of the prices***.

F.3.9.2 Consider the rejection of a tender offer if the Tenderer does not correct or accept the correction of his arithmetical errors in the manner described above.

F.3.10 Clarification of a tender offer

Obtain clarification from a Tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

F.3.11 Evaluation of tender offers

F.3.11.1 **General**

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate it using the tender evaluation method that is indicated in the Tender Data and described below:

Method 1 : Financial offer **(N/A)**	1)	Rank tender offers from the most favourable to the least favourable comparative offer.
	2)	Recommend highest ranked Tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 2 : Financial offer and preferences **(N/A)**	1)	Score tender evaluation points for financial offer.
	2)	Confirm that Tenderers are eligible for the preferences claimed and if so, score tender evaluation points for preferencing.
	3)	Calculate total tender evaluation points.
	4)	Rank tender offers from the highest number of tender evaluation points to the lowest.
	5)	Recommend Tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 3 : Financial offer and quality **(N/A)**	1)	Score quality, rejecting all tender offers that fail to score the minimum number of points for quality stated in the Tender Data.
	2)	Score tender evaluation points for financial offer.
	3)	Calculate total tender evaluation points.
	4)	Rank tender offers from the highest number of tender evaluation points to the lowest.
	5)	Recommend Tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 4 : Financial offer, quality and preferences	1)	Score quality, rejecting all tender offers that fail to score the minimum number of points for quality stated in the Tender Data.
	2)	Score tender evaluation points for financial offer.
	3)	Confirm that Tenderers are eligible for the preferences claimed, and if so, score tender evaluation points for preferencing.
	4)	Calculate total tender evaluation points.

	5) Rank tender offers from the highest number of tender evaluation points to the lowest. 6) Recommend Tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.

Score financial offers, preferences and quality, as relevant, to two decimal places.

F.3.11.2 **Evaluation Criteria**

F.3.12 Insurance provided by the Employer

If requested by the proposed successful Tenderer, submit for the Tenderer's information the policies and / or certificates of insurance which the Conditions of Contract identified in the Contract Data, require the Employer to provide.

F.3.13 Acceptance of tender offer

F.3.13.1 Accept tender offer only if the Tenderer satisfies the legal requirements stated in the Tender Data.

F.3.13.2 Notify the successful Tenderer of the Employer's acceptance of his tender offer by completing and returning one copy of the Form of Offer and Acceptance before the expiry of the validity period stated in the Tender Data, or agreed additional period. Providing the Form of Offer and Acceptance does not contain any qualifying statements, it will constitute the formation of a contract between the Employer and the successful Tenderer as described in the Form of Offer and Acceptance.

F.3.14 Notice to unsuccessful Tenderers

After the successful Tenderer has acknowledged the Employer's notice of acceptance, notify other Tenderers that their tender offers have not been accepted.

F.3.15 Prepare contract documents

If necessary, revise documents that shall form part of the contract and that were issued by the Employer as part of the tender documents to take account of:

a) addenda issued during the tender period,

b) inclusion of some of the returnable documents,

c) other revisions agreed between the Employer and the successful Tenderer, and

d) the Schedule of Deviations attached to the Form of Offer and Acceptance, if any.

F.3.16 Issue final contract

Prepare and issue the final draft of contract documents to the successful Tenderer for acceptance as soon as possible after the date of the Employer's signing of the Form of Offer and Acceptance (including the Schedule of Deviations, if any).

Only those documents that the conditions of tender require the Tenderer to submit, after acceptance by the Employer, shall be included.

F.3.17 Complete adjudicator's contract

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

F.3.18 Provide copies of the contract

Provide to the successful Tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the Form of Offer and Acceptance.

T1.3 TENDER DATA

T1.3.1 GENERAL

The Conditions of Tender in Section T1.2 are the Standard Conditions of Tender as contained in Annex F of SANS 294 – *Construction Procurement Processes, Methods and Procedures* which contain references to the Tender Data for details that apply specifically to this tender. The Tender Data in this Section T.1.3 shall be read with the Standard Conditions of Tender in order to expand on the Tenderer's obligations and the Employer's undertakings in administering the tender process in respect of the project under consideration. The Tender Data hereafter shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender. Each item of Tender Data given below is cross-referenced to the relevant clause in the Standard Conditions of Tender.

T1.3.2 TENDER DATA APPLICABLE TO THIS TENDER

Clause number	Wording
F1.	**GENERAL**
F.1.2	**Tender documents**

The tender documents issued by the Employer comprise of:

a) VOLUME 1: PROJECT DOCUMENT

This volume is the Project Document for the identified contract number C00000000 and contains the following sections:

THE TENDER

PART T1: TENDERING PROCEDURES

T1.1 TENDER NOTICE AND INVITATION TO TENDER
T1.2 STANDARD CONDITIONS OF TENDER
T1.3 TENDER DATA

PART T2: RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS
T2.2 RETURNABLE SCHEDULES

THE CONTRACT

PART C1: AGREEMENTS AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE
C1.2 CONTRACT DATA

PART C2: PRICING DATA

C2.1 PRICING INSTRUCTIONS
C2.2 BILL OF QUANTITIES

PART C3: SCOPE OF WORK

C3.1 STANDARD SPECIFICATIONS
C3.2 PROJECT SPECIFICATIONS
C3.3 PARTICULAR SPECIFICATIONS

PART C4: SITE INFORMATION

The following documents also form part of the tender and contract, but must be purchased by each of the Tenderers themselves:

d) VOLUME 3: ***General Conditions of Contract for construction works, 2nd edition 2015***, issued by the South African Institute of Civil Engineering.

e) VOLUME 4: ***The COTO Standard Specifications for Road and Bridge Works for State Road Authorities October 2020***, issued by the Committee of Land Transport Officials.

f) VOLUME 5: TG2 Third Edition August 2020 Technical Guideline: Bitumen Stabilised Materials, A Guideline for the Design and Construction of Bitumen Emulsion and Foamed Bitumen Stabilised Materials

g) ***The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the Construction Regulations GNR.929 of 25 June 2014 (Government Gazette No 25207 of 18 July 2014, Notice No R1010)*****, together with all COVID related regulations.** This document is obtainable separately, and Tenderers shall obtain their own copies.

h) In addition Tenderers are advised, in their own interest, to obtain their own copies of the following acts, regulations and standards referred to in this document as they are essential for the Tenderer to get acquainted with the basics of construction management, the implementation of preferential construction procurement policies and participation of targeted enterprises and labour.

1. The Construction Industry Development Board Act No 38 of 2000 and the Regulations in terms of the CIDB Act 38/2000, Government Notice No 692 of 9 June 2004, and amendments

2. SANS 10396:2003 Implementing Preferential Construction Procurement Policies using Targeted Procurement Procedures

(iii) SANS 1914:2003 Targeted Construction Procurement, Parts 1 to 6, dealing with Participation of Targeted Enterprises, Joint Ventures, Targeted Labour etc.

The Project Document and the drawings shall be obtained from the Employer or his authorized representative at the physical address stated in the Tender Notice, upon payment of the deposit stated in the Tender Notice.

(iv) Asphalt Academy May 2009 publication “TG2 Second Edition, Technical guideline: Bitumen Stabilised Materials”.

F.1.4 Communication and Employer’s Agent

The Employer’s Agent is: Mrs RE Seate

Address	:	Perm Building,45 Charlotte Maxeke Street, BLOEMFONTEIN.
Tel no	:	+27 82 059 9706
Fax no	:	
e-mail	:	kmohami@yahoo.com

The Engineer per GCC 2015 is Mrs RE Seate

Address : Medfontein Building, St. Andrew Street, BLOEMFONTEIN.
Tel no : +27 82 059 9706
Fax no :
e-mail : kmohami@yahoo.com

F2.1 Eligibility

F2.1.1 Only those Tenderers who have in their employ management and supervisory staff satisfying the requirements of the Scope of Work for labour intensive competencies for supervisory and management staff are eligible to submit tenders. NQF Level will be a minimum requirement for supervisors.

F2.1.2 The following Tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to submit tenders:

a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for **8 CEPE or higher** class of construction work; and

b) contractors registered as potentially emerging enterprises with the CIDB who are registered in one contractor grading designation lower than that required in terms of a) above

c) Tenderers need to ensure that they are registered in the grading in which they tender if their tender price differs from the grading as specified

F2.1.3 Joint Ventures are eligible to submit tenders provided that:

a) every member of the joint venture is registered with the CIDB;
b) the lead partner has a contractor grading designation in the **8 CEPE or higher** class of construction work; or

c) the combined contractor grading designation calculated in accordance with the Construction Industry Development Board Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a **8 CEPE or higher** class of construction work.

F2.7 Site visit and clarification meeting

Date: 26th September 2023
Venue: Hamilton Roads Office 26 Hartley Street, Bloemfontein
Time: 10H00 am

NOTE: NON-ATTENDANCE OF THIS MEETING WILL DISQUALIFY THE TENDER

1. The Attendance List will be accepted as the official attendance of the clarification meeting. Signing the Attendance List of this meeting is the responsibility of the Tenderer attending the meeting and site inspection.

   It is important for prospective Tenderers to note that the name of the company on the Attendance List will be accepted as the legitimate Tenderer, which was represented by the person who signed the Attendance List.

2. Addenda of additional or changed contractual information will only be forwarded to Tenderers who attended the official site visit and clarification meeting.

F2.12. Alternative tender offers

Should a Tenderer wish to submit an alternative tender offer, the only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements, the details of which may be obtained from the Employer's Agent.

Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.

Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the Tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements.

The modified Pricing Data must include an amount equal to 0% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.

F2.13 Submitting a tender offer

F2.13.5 Tender offers shall be submitted as an original only.

F2.13.7 **The Employer's address:**

The Head
Department of Community Safety, Roads and Transport
P O Box 690
Room 219
Perm Building
Charlotte Maxeke Street
BLOEMFONTEIN
9300

Location of tender box : **Ground Floor of** 45 Charlotte Maxeke Street, Perm Building, Bloemfontein

Identification details : Contract no

Description of project : **SPECIAL MAINTENANCE OF PRIMARY ROAD P71/1, BETWEEN TWEESPRUIT AND HOBHOUSE**

F2.15 Closing time

The closing date for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.

F2.16 Tender offer validity

The tender offer validity period is ***90 calendar*** days from the closing date for submission of tenders.

F2.18 Provide other material

The Tenderer shall, when requested by the Employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the labour-intensive portion of the works with satisfactory evidence that such staff members satisfy the eligibility requirements.

F2.23 Certificates

The following certificates need to be included in the Tender:

1. A valid Tax Pin or Clearance Certificate for the Tenderer or for each of the JV partners if tendered in a Joint Venture, issued by the South African Revenue Services;

2. The Tenderer's CIDB Registration Certificate or the Joint Venture's members' CIDB Registration Certificates with an indication of the senior partner.

F3.4 Opening of tender submissions

Tender submissions will be opened at 45 Charlotte Maxeke Street, Room 219, Perm Building.

F3.5 Two-envelope system

The two-envelope system will not be followed for this contract.

F3.11 Evaluation of tender offers

F3.11.1 Due to the nature of the tendering process, with negotiated rates, the tenders will be evaluated and the rates balanced to suit the particular Contractor's circumstance.

F3.11.2 **Scoring quality (Functionality)**

Points for functionality will be allocated according to the table below.

Mandatory Requirements

10.3.2 Provide a valid unique security Personal Identification number (PIN) issued by the South African Revenue Services (Where Joint Venture / Sub- Contractors are involved, each party to the association must submit a separate unique security personal Identification number);

10.3.3 Bidders must return all fully completed and duly signed standard bidding documents (SBD), returnable schedules and Contract Data forms. These forms must be completed with a black ink non-erasable and attach all returnable documents.

10.3.4 Bidders must be registered on the centralized supplier database (CSD) print out must be attached or must provide a CSD registration number (MAAA……)

10.3.5 In the case of a Joint Venture the Bidder must attach the following:

a. A joint venture agreement duly signed by both parties, and
b. Certificate of Authority for Signature (Power of Attorney).
c. The combined BBBEE certificate (SANAS ACCREDITED) issued in the name of the JV must be attached;
d. Centralized supplier database (CSD) registered in the name of the joint venture print out or must provide a CSD registration number (MAAA……)
e. The CIDB grading calculated in the name of the JV must also be attached.

f. Centralized supplier database (CSD) registered in the name of the joint venture print out or must provide a CSD registration number (MAAA……)

g. The CIDB grading calculated in the name of the JV must also be attached

F3.11 EVALUATION CRITERIA

The Bids will be evaluated on functionality; whereby potential service providers are **expected to score minimum points of 27 out of 45 for functionality**. Failure to score the required minimum requirements then the bidder will be disqualified. **It must be noted that, functionality will be evaluated separately from price and specific goals.** Further, all received bids will then be evaluated using 90/10 preference points system, as the anticipated that, project cost for the request to Bid is more than R50 000 000.00

NB: It must be noted that functionality will be evaluated separately from Price and Specific goals. This means that points scored for price will be added to points scored for specific goals, determine the highest scoring bidder.

The Bids will be evaluated on a Three phases Process:

10.2.1 Phase 1: Mandatory Requirements;
10.2.2 Phase 2: Functionality – 45 Points;
10.2.3 Phase 3: 90/10 Preference Points System (Price and Specific Goals)

F3.11.2 Phase 2 - Functionality

Functionality Assessment is based on the grid below:

Criterion	Description of criteria	Scoring	Points	Total Points Allocation
Experience	Bidders must submit 5 Copies of Appointment Letters and completion of similar scope of work from 1 January 2014, with traceable references to be attached as proof. Reference / Recommendation letters will only be considered valid if they meet the following criteria: ✓ If on an official client letterhead, ✓ If it refers to provision of similar goods or services provided. ✓ If not older than 3 years, ✓ If contains contact details, signed, and dated by authorised personnel (Project Manager).	5 Projects of similar type	15	**15**
		3-4 Projects of similar type	10	
		1-2 Projects of similar type	7	
		0 Projects of similar type	0	

Capacity **NB**: Years of experience on the CV must be indicated by correct dates (DD/MM/YYYY). Example: *01/07/2016 to 31/07/2021 (5 Years)*	**Contracts Manager:** Years of experience and qualification in Civil Engineering B. Tech or Degree. CV's and certified copies of qualifications must be attached of key staff for points to be allocated. Failure to attach will result in no points being allocated. ***NB: Attach employment contract of the member or form of contract agreement with the member in the event of the project acceptance (signed by both parties). Please note submitted CVs will be accepted as project team members for the duration. Department reserves the right to cancel the contract with immediate effect; if the submitted CVs personnel is not the team executing the project!!***	10 and more years in roads construction experience & qualification on similar works	8	**8**
		7 years to below 10 years' experience (not including 10 years' and more) in roads & qualification on similar works	5	
		3 to more years of experience in similar field	2	
	Site Agent: Years of experience and qualification in Civil Engineering Diploma. CV's and certified copies of qualifications must be attached of key staff for points to be allocated. Failure to attach will result in no points being allocated. ***NB: Attach employment contract of the member or form of contract agreement with the member in the event of the project acceptance (signed by both parties. Please note submitted CVs will be accepted as project team members for the duration. Department reserves the right to cancel the contract with immediate effect; if the submitted CVs personnel is not the team executing the project!!***	5 or more years in roads construction experience & qualification	7	**7**
		Applicable experience not exceeding 5 years in roads & qualification (in similar works)	4	
		Qualification in similar field, with no experience	2	

Plant/ Equipment	1. Ownership of a plant is critical and Bidders must attach proof (e-natis certificate of ownership in the name of the tenderer or JV partner where applicable) thereof. 2. In case of holding, company and its subsidiaries a memorandum of agreement must be attached for utilization of plant equipment. 3. In case of rental a lease agreement must be attached along with e-natis certificate of ownership of the leaser. ✓ **Ownership** (1 points per machine – recycling and chip spreader will count double points) ✓ **Rental** (0,5 points per machine - recycling and chip spreader will count double points)	2 x Grader	2	**10**
		2 x Tipper Trucks	2	
		2 x Excavator	2	
		1 x Recycling machine	2	
		1 x Chip spreader	2	
Locality: Locally based office within Free State	Municipal services (water, sanitation, rates, and electricity) clearance certificate or Lease Agreement with a Current Bill of Account not owing more than Ninety (90) days.	Free State based offices	5	**5**
		Outside Free State Province based offices	3	
		International	0	
Maximum possible score				**45**

NB: A bidder who fails to obtain the minimum qualifying score of 27 points for functionality as indicated in the GRID above will not be accepted. All bidders that obtained the minimum qualifying score for functionality will further be evaluated in terms of price and specific goals.

F3.11.3 Phase 3: Price and Specific Goals

Phase 3: Price and Specific Goals

Assessment for phase 3 will be evaluated on 90/10 preferential point system:

Price : 90

Specific Goals : 10

Price: 90: The lowest acceptable Bidder qualifies for maximum points of 90 for price. These points will be for the Total Bid Offer. The points for price will be calculated according to clause 5, item 1 of the PPR 2022 as follows:

$$P = 90 \times 1 - \frac{(Pt - P\,min)}{P\,min}$$

Where:

Ps = Points scored for price of tender under consideration.

Pt = Price of tender under consideration; and

Pmin = Price of lowest acceptable tender

Table 1: POINTS ALLOCATED FOR SPECIFIC GOALS

Specific goals for the bid 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 bidders: The bidder must indicate how they claim points for each preference point system.*)**

The specific goals allocated points in terms of this bid	**Number of points allocated (90/10 system) (To be completed by the organ of state)**	**Number of points claimed (90/10 system) (To be completed by the tenderer)**
Enterprise with ownership of 51% or more by person/s who are black person/s.	**2**	
Enterprise with ownership of 51% or more by person/s who are women.	**2**	
Enterprise with ownership of 51% or more by person/s who are youth.	**2**	
Enterprise with ownership of 51% or more by person/s with disability.	**2**	
Enterprise with ownership of 51% or more by Military Veterans.	**2**	
Total	**10**	

NB: The responsive bidder will then be evaluated on the following after Phases 1, 2 and 3 have be passed successfully before awarding of the tender:

- ✓ Resource verification exercise will be conducted by the department to assess equipment and all other resources required for the successful execution of the project.
- ✓ Should the service provider have arrangements to rent the equipment, all the necessary arrangements are to be made for the verification exercise.
- ✓ When the department is in the process of verification and not find any required resources, the service providers bid will be disqualified.

DURATION OF THE CONTRACT

The project will be executed over a period not exceeding ***Twenty-Four (24) Months***, starting from the day of the award by the Accounting Officer. The service providers will be expected to work on a full-time basis during this period. The defects liability period for the project will be 24 months after practical completion.

THE FOLLOWING CONDITIONS FORM PART OF SPECIAL CONDITIONS OF BID / CONDITIONS OF ACCEPTANCE.

10.3.7.1 Bidders must be registered on Central Suppliers Database (CSD)

10.3.7.2 Bids must be valid for **90 days**

10.3.7.3 Municipal services (water, sanitation, rates, and electricity) clearance certificate or Lease Agreement with a Current Bill of Account not owing more than Ninety (90) days

10.3.7.4 Proof of Municipal accounts rates Not older than 3 months, but also not in arrears for more than 3 months; or certified lease agreement or a rent invoice.

10.3.7.4 The service providers shall bear the cost associated with the preparation and submission of the bid.

10.3.7.5 The Department of Community Safety, Roads and Transport selection of qualifying tenders will be as per Department's Supply Chain Management policy and will be final.

10.3.7.6 The Department is not bound to accept any bid and reserves the right to annul the selection process at any time prior to contract award, without incurring any liability to the bidders.

10.3.7.7 The Department reserves the right to appoint more than one service provider.

10.3.7.8 Bidders who falsify any information will be disqualified, if it's discovered during the contract period, the Department reserves the right to terminate the contract immediately

10.3.7.9 Bidders must make provision of 30% for subcontracting work from the Contract Amount.

The following information must be attached to the bid document:

- ✓ Business profile.
- ✓ Certified copy of Companies and Intellectual Property Commission (CIPC).
- ✓ Certified copies of identity documents of all active members/shareholders of the company NOT older than 3 months, with clear dates of certification by SAPS.

e) List of proposed team/s to work on the project and their responsibilities as outlined on functionality under capacity.

f) Certificate of Authority for Signature (Power of Attorney);

g) In the case of a joint venture, bidders must submit a joint venture agreement duly signed by both parties entering in such agreement and BBBEE certificate issued in the name of the joint venture.

h) CIDB grading for Joint Ventures as determined by CIDB calculator as published on CIDB website must be submitted.

i) No late/faxed/e-mailed/posted submissions will be accepted or considered.

F3.13 Acceptance of tender offer

F3.13.1 **Tender offers will only be accepted if:**

a) the tender offer is signed by a person authorized to sign on behalf of the Tenderer;

b) the Tenderer submitted an original valid Tax Clearance Certificate issued by the South African Revenue Services;

c) Tenderer's declaration of compliance with the Occupational Health and Safety Act No 85 of 1993 and the Construction Regulations 2014 is included with his tender submission;

d) a Tenderer who submitted a tender as a Joint Venture has included an acceptable Joint Venture Agreement with his tender;

e) the Tenderer or a competent authorized representative of the contractor who submitted the tender has attended the compulsory clarification meeting or site inspection;

f) the Tenderer included with its tender the contractor's CIDB Registration Certificate (or certified copy thereof) as proof that it is registered in accordance with the Construction Industry Development Board Act No. 38 of 2000 and the Regulations 2003 promulgated in terms of the Act;

g) the Tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; and

h) the Tenderer has not:

1. abused the Employer's Supply Chain Management System; or

2. failed to perform on any previous contract and has been given a written notice to this effect

i) has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the Tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process.

F3.18 Provide copies of the contract

The Employer will provide the successful Tenderer, now the Contractor, with one copy of the complete, signed contract document.

SPECIAL MAINTENANCE OF PRIMARY ROAD P71/1, BETWEEN TWEESPRUIT AND HOBHOUSE
CONTRACT No: CSR&T/BID10/2023/24

PART T2 : RETURNABLE DOCUMENTS

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T2.1 LIST OF RETURNABLE DOCUMENTS

The Tender Document must be submitted as a whole. All forms must be properly completed as required, and the document shall not be taken apart or altered in any way whatsoever.

All the certificates and forms to be provided with the tender are listed in the Tender Data under F2.23: Certificates, and under the returnable schedules and forms in T2.2 hereafter.

The list of returnable documents comprises the following :

1. All the certificates listed in the Tender Data under F2.23 : Certificates ;
2. All the returnable schedules and forms listed in T2.2.1 : Returnable Schedules Required for Tender Evaluation Purposes ;
3. All the returnable documents listed in T2.2.2 : Preferential Procurement Schedules and Affidavits that will be incorporated into the Contract ;
4. All the agreements and forms listed in T2.2.3: Forms to be completed by the successful Tenderer ;
5. All the forms and agreements in the Contract Data in C1.2, where some of the forms (agreements) need to be completed only by successful Tenderer ;
6. Pricing Data in C2.2 : Bill of Quantities.

T2.2 RETURNABLE SCHEDULES

T2.2.1 RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES

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T2.2.3 FORMS TO BE SUBMITTED BY THE SUCCESSFUL TENDERER T2-36

NOTE: The Tenderer is required to complete each and every schedule and form listed above to the best of his ability, as the evaluation of tenders and the eventual contract will be based on the information provided by the Tenderer.
Failure of a Tenderer to complete the schedules and forms to the satisfaction of the Employer will inevitably prejudice the tender and may lead to rejection on the grounds that the tender is not responsive.

The same applies to the Preferential Procurement Schedule in T2.2.2.

SCHEDULE A: RECORD OF ADDENDA TO TENDER DOCUMENTS

I / We confirm that the following communication/s, amending the tender documents, received from the Employer or his representative before the closing date for submission of this tender offer, have been taken into account in this tender offer:

Addendum no.	Date	Title or details
1		
2		
3		
4		
5		
6		
7		
8		

SIGNATURE: .....……...……...

SCHEDULE B: CERTIFICATE OF AUTHORITY

Indicate the status of the Tenderer by ticking the appropriate box hereunder. The Tenderer must complete the certificate set out below for the relevant category.

(i) COMPANY	(ii) CLOSE CORPORATION	(iii) PARTNERSHIP	(iv) JOINT VENTURE	(v) SOLE PROPRIETOR

(i)CERTIFICATE FOR COMPANY

I, ..., Managing Director of the Board of Directors of ....., hereby confirm that by resolution of the Board (copy attached) taken on ..... 20....., Mr./Ms. ....., acting in the capacity of ....., was authorized to sign all documents in connection with this tender and any contract resulting from it, on behalf of the company.

Managing Director: .....

(ii)CERTIFICATE FOR CLOSE CORPORATION

We, the undersigned, being the key members in the business trading as .... hereby authorise Mr/Ms ..... , acting in the capacity of ....., to sign all documents in connection with this tender ..... and any contract resulting from it, on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

Note: This certificate is to be completed and signed by all of the key members upon whom rests the direction of the affairs of the Close Corporation as a whole.

(iii)CERTIFICATE FOR PARTNERSHIP

We, the undersigned, being the key partners in the business trading as, …..... …..... hereby authorize Mr. /Ms. …..... acting in the capacity of..... , to sign all documents in connection with this tender and any contract resulting from it, on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

NAME	ADDRESS	SIGNATURE	DATE

Note: This certificate is to be completed and signed by all of the key partners upon whom rests the direction of the affairs of the Partnership as a whole.

(iv) CERTIFICATE FOR JOINT VENTURE

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorize Mr/Ms ....., authorized signatory of the company ....., acting in the capacity of lead partner, to sign all documents in connection with this tender offer and any contract resulting from it, on our behalf.

This authorization is evidenced by the attached power of attorney signed by legally authorized signatories of all the partners to the Joint Venture.

NAME OF FIRM	ADDRESS	AUTHORIZING SIGNATURE, NAME AND CAPACITY
Lead partner		

Note: This certificate is to be completed and signed by all of the key partners upon whom rests the direction of the affairs of the Partnership as a whole.

(v) CERTIFICATE FOR SOLE PROPRIETOR

I, ..., hereby confirm that I am the sole owner of the business trading as.....

Signature of sole owner: .....

REGISTRATION CERTIFICATE / AGREEMENT / ID DOCUMENT

Important note to Tenderer:

Registration Certificates for Companies, Close Corporations and Partnerships, or Agreements and Powers of Attorney for Joint Ventures, or ID documents for Sole Proprietors, all as referred to in the foregoing forms and in T2.1, must be attached here.

SCHEDULE C : ` <u>COMPULSORY ENTERPRISE QUESTIONNAIRE</u>

The following particulars must be furnished. In the case of a Joint Venture, separate enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1 : Name of enterprise :
Section 2 : VAT registration number :
Section 3 : CIDB registration number :
Section 4 : Particulars of sole proprietors and partners in partnerships :

Name*	Identity number*	Personal income tax number*

***** Complete only if sole proprietor or partnership and attach separate page if more than 3 partners

Section 5 : Particulars of companies and close corporations

Company registration number . . . . . .

Close corporation number . . . . . .

Tax reference number . . . . . .

Section 6 : Record of service of the state

Indicate by marking the relevant boxes with a cross, if any sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months, in the service of any of the following:

1. a member of any municipal council
2. a member of any provincial legislature
3. a member of the National Assembly or the National Council of Province
1. a member of the board of directors of any municipal entity
2. an official of any municipality or municipal entity

- an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature

If any of the above boxes are marked, disclose the following :

Name of sole proprietor, partner, director, manager, principal shareholder or stakeholder	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		Current	Within last 12 months

Note : Insert separate page if necessary

Section 7 : Record of spouses, children and parents in the service of the state

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of a sole proprietor, partner in a partnership or director, manager, principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months, been in the service of any of the following:

3. a member of any municipal council
4. a member of any provincial legislature
5. a member of the National Assembly or the National Council of Province
6. a member of the board of directors of any municipal entity
7. an official of any municipality or municipal entity

- an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature

If any of the above boxes are marked, disclose the following :

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
		current	Within last 12 months

Note : Insert separate page if necessary

The undersigned, who warrants that he/she is duly authorized to do so on behalf of the enterprise :

i) confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;

ii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;

iii) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the Tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;

iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed ..... Date _____

Name ..... Position _____

Enterprise name .....

SCHEDULE D: PLANT AND EQUIPMENT

The following are a list of major items of relevant equipment that I / we presently own and will have available for this contract if my / our tender is accepted.

1. Details of major equipment that is owned by me / us and immediately available for this contract.

DESCRIPTION ***(type, size, capacity etc.)***	**QUANTITY**	**YEAR OF MANUFACTURE**

Attach additional pages if more space is required

(b) Details of major equipment that will be hired, or acquired for this contract if my / our tender is accepted

DESCRIPTION ***(type, size, capacity etc.)***	**QUANTITY**	**HOW ACQUIRED**	
		HIRE/ BUY	**SOURCE**

Note: Attach additional pages if more space is required

The Tenderer undertakes to bring onto site without additional cost to the Employer any additional plant not listed but which may be necessary to complete the contract within the specified contract period.

SIGNATURE: .....……..……...

ATTACH THE PLANT AND EQUIPMENT LIST/S HERE

SCHEDULE E: EXPERIENCE OF TENDERER

The following is a statement of work of similar nature recently successfully executed by myself / ourselves:

EMPLOYER: CONTACT PERSON AND TELEPHONE NUMBER	CONSULTING ENGINEER: CONTACT PERSON AND TELEPHONE NUMBER	NATURE OF WORK	VALUE OF WORK (inclusive of VAT)	DATE COMPLETED OR EXPECTED TO BE COMPLETED

SIGNATURE: .....……...……...

ATTACH THE LIST HERE IF SEPARATE LIST IS PROVIDED

SCHEDULE G: TENDERERS' KEY PERSONNEL

NAME	POSITION	NQF QUALIFICATION

SIGNATURE: .....……...……...

ATTACH COPIES OF NQF CERTIFICATES FOR LABOUR INTENSIVE CONSTRUCTION OF RELEVANT SUPERVISORS

SCHEDULE H: PRELIMINARY PROGRAMME

The Tenderer shall detail below or attach a preliminary programme reflecting the proposed sequence and tempo of execution of the various activities comprising the work for this Contract. The programme shall be in accordance with the information supplied in the Contract, requirements of the Project Specifications and with all other aspects of his Tender.

PROGRAMME

ACTIVITY	MONTHS													

[Note: The programme must be based on the completion time as specified in the Contract Data. No other completion time that may be indicated on this programme will be regarded as an alternative offer, unless it is listed in Table (b) of Form I hereafter and supported by a detailed statement to that effect, all as specified in the Tender Data]

SIGNATURE: .....……...……...

ATTACH PRELIMINARY PROGRAM HERE

SCHEDULE I: AMENDMENTS, QUALIFICATIONS AND ALTERNATIVES

The Tenderer should record any amendments and alternatives he may wish to make to the tender documents in this schedule. Alternatively a Tenderer may state such amendments and alternatives in a covering letter to his tender and reference such letter in this schedule.

The Tenderer's attention is drawn to clause F3.3 if the Standard Conditions of Tender referenced in the Tender Data regarding the Employer's handling of material deviations and qualifications.

These amendments and qualifications, if accepted by the Employer, will be incorporated in the Form of Offer and Acceptance, Schedule of Deviations.

(a)AMENDMENTS AND QUALIFICATIONS

PAGE	CLAUSE OR ITEM NO	PROPOSED AMENDMENT AND QUALIFICATIONS

[Notes: (1) Amendments to the General and Special Conditions of Contract are not acceptable;
(2) The Tenderer must give full details of all the financial implications of the amendments and qualifications in a covering letter attached to his tender.

(b) ALTERNATIVES

PROPOSED ALTERNATIVE	DESCRIPTION OF ALTERNATIVE

[Notes: (1) Individual alternative items that do not justify an alternative tender, and an alternative offer for time for completion should be listed here.

(2) In the case of a major alternative to any part of the work, a separate Bill of Quantities, programme, etc, and a detailed statement setting out the salient features of the proposed alternatives must accompany the tender.

(3) Alternative tenders involving technical modifications to the design of the works and methods of construction shall be treated separately from the main tender offer.]

SIGNATURE: .....……...……...

ATTACH ALTERNATIVES HERE

SCHEDULE J: CONTRACTOR'S HEALTH AND SAFETY PLAN AND DECLARATION

In terms of Clause 4(4) of the OHSA 1993 Construction Regulations 2003 (referred to as "the Regulations" hereafter), a Contractor may only be appointed to perform construction work if the Employer is satisfied that the Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993 and the OHSA 1993 Construction Regulations 2003.

To that effect a person duly authorized by the Tenderer must complete and sign the declaration hereafter in detail.

Declaration by Tenderer

1. I the undersigned hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and the OHSA 1993 Construction Regulations 2003.
2. I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.
3. I hereby undertake, if my tender is accepted, to provide, before commencement of the works under the contract, a suitable and sufficiently documented Health and Safety Plan in accordance with Regulation 5(1) of the Construction Regulations, which plan shall be subject to approval by the Employer.
4. I confirm that copies of my company's approved Health and Safety Plan, the Employer's Safety Specifications as well as the OHSA 1993 Construction Regulations 2003 will be provided on site and will at all times be available for inspection by the Contractor's personnel, the Employer's personnel, the Engineer, visitors, and officials and inspectors of the Department of Labour.
5. I hereby confirm that adequate provision has been made in my tendered rates and prices in the Bill of Quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSA 1993 Construction Regulations 2003, including the cost for specific items that may be scheduled in the Bill of Quantities.
6. I hereby confirm that I will be liable for any penalties that may be applied by the Employer in terms of the said Regulations for failure on my part to comply with the provisions of the Act and the Regulations as set out in Regulation 30 of the Regulations.
7. I agree that my failure to complete and execute this declaration to the satisfaction of the Employer will mean that I am unable to comply with the requirements of the OHSA 1993 Construction Regulations 2003, and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer.
8. I am aware of the fact that, should I be awarded the contract, I must submit the notification required in terms of Regulation 3 of the OHSA 1993 Construction Regulations 2003 before I will be allowed to proceed with any work under the contract.

SIGNATURE: .....

CONTRACTOR'S SAFETY PLAN

The Tenderer shall attach to this page (or submit it separately) the Contractor's Health and Safety Plan as required in terms of Regulation 5 of the Occupational Health and Safety Act 1993 Construction Regulations 2014, including COVID 19 OHS regulations 2020, and referred to in Form K.

The Contractor's Health and Safety Plan shall cover at least the following aspects as applicable:

1. Safety of subcontractors (Refer Construction Regulations 2003 Clause 5: Principal Contractors and Contractors)

    1. Methods to ensure the approval, implementation and maintenance of all health and safety aspects regarding his subcontractors.

2. Monitoring the health and safety on the construction site on a regular basis (Refer Clause 6: Supervision of Construction Work)

    1. Details of the Construction Supervisor and his appointed assistants (if any);
    2. Details of the Construction Safety Officer, full-time or part-time;
    3. Details of the suitability and competency of the Construction Supervisor and Construction Safety Officer regarding health and safety aspects of the construction works.

3. Assessment of risks on the construction site (Refer Clause 7: Risk Assessment)

    1. Details of a proper risk assessment on which his health and safety plan is based;
    1. Ways in which all construction employees are informed, instructed and trained regarding the work procedures and the related hazards.

1. Risk items (Refer Clauses 8 to 28: Risk items to be addressed)

    1. Details of the design, management, responsibilities, worker training, work methods, procedures, maintenance and any other requirements necessary for him and his subcontractor, if applicable, to work safely and in a healthy environment as stipulated in these clauses.

Contractor's OHS Management System checklist

1.OHS Policy and Management

		Yes		No
1.1	Is there a written company health and safety policy?			
1.2	Does the company have an OHS Management System?			
1.3	Is there a company OHS Management Manual or Plan?			
1.4	Are health and safety responsibilities clearly identified for all levels of staff?			

2.Safe Work Practices and Procedures

		Yes		No
2.1	Has the company prepared safe operating procedures or specific safety instructions relevant to its operations?			
2.2	Does the company have any permit to work systems?			
2.3	Is there a documented incident investigation procedure?			
2.4	Are there procedures for maintaining, inspecting and assessing the hazards of plant operated/owned by the company?			
2.5	Are there procedures for storing and handling hazardous substances?			
2.6	Are there procedures for identifying, assessing and controlling risks associated with manual handling?			

3.**OHS Training**

		Yes		No
3.1	Is health and safety training conducted in the company?			
3.2	Is a record maintained of all training and induction programs undertaken for employees in the company?			

4.**Health and Safety Workplace Inspection**.

		Yes		No
4.1	Are regular health and safety inspections at worksites undertaken?			
4.2	Are standard workplace inspection checklists used to conduct health and safety inspections?			
4.3	Is there a procedure by which employees can report hazards at workplaces?			

5.**Health and Safety Consultation**.

		Yes		No
5.1	Is there a workplace health and safety committee?			
5.2	Are employees involved in decision making over OHS matters?			
5.3	Are there employee elected health and safety representatives?			

6.**OHS Performance Monitoring.**

		Yes		No
6.1	Is there a system for recording and analyzing health and safety performance statistics?			
6.2	Are employees regularly provided with information on company health and safety performance?			
6.3	Has the company ever been convicted of an occupational health and safety offence?			

7. **Does your company's health and safety plan contain the following elements?**

		Yes		No
7.1	Description of the contract			
7.2	OHS Structure of work undertaken under this contract			
7.3	Induction and safety training			
7.4	Safe work practices and procedures for specific work undertaken			
7.5	Risk assessments for specific works undertaken			
7.6	Workplace inspection schedule for duration of contract			
7.7	OHS consultative processes to be followed			
7.8	Emergency procedure for this specific contract			
7.9	Incident recording and investigation on procedures			
7.10	Health and safety performance monitoring arrangements to be implemented during contract			

SCHEDULE K: CONTRACTOR'S CERTIFICATE OF REGISTRATION WITH CIDB

[The Tenderer shall attach hereto the Contractor's Certificate of Registration with CIDB. Failure to submit the certificate with the tender document will lead to the conclusion that the Tenderer is not registered with the CIDB and therefore not eligible to tender].

SCHEDULE L: TAX CLEARANCE REQUIREMENTS

It is a condition of bid that the taxes of the successful bidder must be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the bidder's tax obligations.

1. In order to meet his requirement bidders are required to complete in full the attached form TCC 001 "Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The Tax Clearance Certificate Requirements are also applicable to foreign bidders / individuals who wish to submit bids.

2. SARS will then furnish the bidder with a Tax Clearance Certificate that will be valid for a period of 1 (one) year from the date of approval.

3. The original Tax Pin or Tax Clearance Certificate must be submitted together with the bid. Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be acceptable.

4. In bids where Consortia / Joint Venture / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate.

5. Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za.

    2. Applications for the Tax Clearance Certificates may also be made via E-Filing. In order to use this provision, taxpayers will need to register with SARS as E-Filers through the website www.sars.gov.za.

    3. Tax pin document with updated information can be attach to verify the validity of SARS bid status

SBD 6.1

SCHEDULE M: SBD 6.1- 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

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1. GENERAL CONDITIONS

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

(a) 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** (*delete whichever is not applicable for this tender*).

(a) The applicable preference point system for this tender is the 90/10 preference point system.

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.

1.4 **To be completed by the organ of state:**

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	**90**
SPECIFIC GOALS	**10**
Total points for Price and Specific Goals	**100**

1.5 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.

1.6 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

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 **or** **90/10**

$$Ps = 80\left(1 - \frac{Pt - P\,min}{P\,min}\right) \text{ or } \quad Ps = 90\left(1 - \frac{Pt - P\,min}{P\,min}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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

3.2.1. POINTS AWARDED FOR PRICE

A maximum of 80 or 90 points is allocated for price on the following basis:

80/20 **or** **90/10**

$$Ps = 80\left(1 + \frac{Pt - P\,max}{P\,max}\right) \text{ or } \quad Ps = 90\left(1 + \frac{Pt - P\,max}{Pmax}\right)$$

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 (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
SPECIFIC GOALS	**10**	**N/A**		
Total	**10**	**N/A**		

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:……
……
……
……

SECTOR DESIGNATION

1. The stipulated minimum threshold percentages for local production and content in respect of bagged and bulk cement produced using locally produced raw materials areas follows:

Cement Type	Description	Application	Stipulated Minimum Threshold
Road Cem I	Pure Portland cement with a 95-100% clinker.	All civil and building construction as Appropriate	100%
Road Cem II	Portland cement containing varying additions of secondary materials, i.e. fly ash, pozzolana, slag, silica fume, or limestone	All civil and building construction as appropriate	100%
Road Cem III	blast furnace cement, 50% OPC, 50% blast furnace slag	All civil and building construction as appropriate	100%
Road Cem IV	pozzolanic cement, OPC and fly ash	All civil and building construction as Appropriate	100%
Road Cem V	Composite cement: slagand ash cement. Blended cements with more than one blending material	All civil and building construction as appropriate	100%
Masonry cement	Mixture of Portland cement and plasticizing materials such as limestone to improve setting time	use in mortar, brick, block, and stone masonry construction	100%

2. In the designation, all the cement types contained in the above table must be manufactured using locally produced clinker and locally sourced secondary materials (e.g. gypsum, fly ash, ground granulated blast furnace slag, limestone and silica fume.

3. In terms of bagged cement, the imported component of the packaging bag used in the manufacture and packaging of cement will be deemed to have been sourced locally. These inputs should be imported in raw material form for further fabrication in South Africa. The imported input raw materials (paper), as specified above, used in the packaging of cement will be deemed to have been sourced locally for the purposes ofcalculating local content.

All the cement types in the above table must comply with the requirements of SANS 50197 or SANS 50413 and are required to have a Letter of Authority (LoA) issued by the National Regulator for Compulsory Standards (NRCS)

SCHEDULE N: SBD 3.1 PRICING SCHEDULE – FIRM PRICE (PURCHASES)

NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of bidder……Bid number: CSR&T/BID10/2023/24
Closing Time: 11:00 Closing date: 13-OCTOBER -2023

OFFER TO BE VALID FOR 90 DAYS FROM THE CLOSING DATE OF BID.

ITEM NO. | QUANTITY | DESCRIPTION | BID PRICE IN RSA CURRENCY ** (ALL APPLICABLE TAXES INCLUDED)

- Required by:……..

-At:…….

……

- Brand and model……..

- Country of origin……..

-Does the offer comply with the specification(s)?*YES/NO

- If not to specification, indicate deviation(s)……..

- Period required for delivery…….
*Delivery: Firm/not firm

- Delivery basis ……

Note:All delivery costs must be included in the bid price, for delivery at the prescribed destination.

** “all applicable taxes” includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

SCHEDULE O: ANNEXURE B - SBD 4 BIDDERS 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.

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**

2.4 If so, furnish particulars:
……
……

Full Name	Identity Number	Name of State institution

2 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 consortium2 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 and 3 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
……...	……
Position	Name of bidder

TENDER NO:. CSR&T/BID10/2023/24

SPECIAL MAINTENANCE OF PRIMARY ROAD P71/1, BETWEEM TWEESPRUIT AND HOBHOUSE FROM CHAINAGE 0+000 TO CHAINAGE 39.000 FOR THE DEPARTMENT OF COMMUNITY SAFETY, ROADS AND TRANSPORT

THE CONTRACT

PART C1 : AGREEMENTS AND CONTRACT DATA

PART C2 : PRICING DATA

PART C1 : AGREEMENTS AND CONTRACT DATA

CONTENTS

SECTION	DESCRIPTION	PAGE
C1.1	FORM OF OFFER AND ACCEPTANCE	C1-3
C1.2	CONTRACT DATA	C1-7

C1.1 Form of Offer and Acceptance

OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

SPECIAL MAINTENANCE OF PRIMARY ROAD P71/1, BETWEEN TWEESPRUIT AND HOBHOUSE. FROM CHAINAGE 0+000 TO CHAINAGE 39+000 FOR THE DEPARTMENT OF COMMUNITY SAFETY, ROADS AND TRANSPORT

The Bidder, identified in the Offer signature block below, has examined the documents listed in the Bid Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Bid.

By the representative of the Bidder, deemed to be duly authorized, signing this part of this Form of Offer and Acceptance, the Bidder offers to perform all of the obligations and liabilities of the Contractor under the Contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

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

…… Rand (in words);

R …… (in figures)

WHICH WILL INCLUDE A MINIMUM SUBCONTRACTING VALUE OF:

……Rand (in words):

R ……...
(in figures, which will be equivalent to 30% of the contract amount in line with item 33 of the Contract Data)

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the Bidder before the end of the period of validity stated in the Bid Data, whereupon the Bidder becomes the party named as the Contractor in the Conditions of Contract identified in the Contract Data.

For the Bidder:	Witness:
. . . . . Signature . . . . . Name and Surname . . . . . Capacity	. . . . . Signature . . . . . Name

Name and address of organization . . . . . .

. . . .

Date: . . . . . .

ACCEPTANCE

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the Bidder's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract identified in the Contract Data. Acceptance of the Bidder's Offer shall form an agreement between the Employer and the Bidder upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement.

The terms of the contract, are contained in:

Part C1: Agreements and Contract Data, (which includes this Agreement)
Part C2: Pricing Data
Part C3: Scope of Work.
Part C4: Site Information

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

Deviations from and amendments to the documents listed in the Bid Data and any addenda thereto as listed in the Bid Schedules as well as any changes to the terms of the Offer agreed by the Bidder and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorized representative(s) of both parties.

The Bidder shall within two weeks after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data. Failure to fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Bidder receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Bidder (now Contractor) within five days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

For the Employer:

. . . . . .
Signature

. . . . . .
Name

. . . . . .
Capacity

Name and address of Organization: . . . . . .

. . . . . .

. . . . . .

Signature and name of witness:. . . . . .
Signature

. . . . . .
Name

Date: . . . . . .

Schedule of Deviations

Notes:

1. The extent of deviations from the Bid documents issued by the Employer prior to the Bid closing date is limited to those permitted in terms of the Conditions of Bid,

2. A Bidder's covering letter shall not be included in the final contract document. Should any matter in such, letter, which constitutes a deviation as aforesaid become the subject of agreements reached during the process of, offer and acceptance, the outcome of such agreement shall be recorded here,

3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to Bid documents and which it is agreed by the Parties becomes and obligation of the contract shall also be recorded here,

4. Any change or addition to the Bid documents arising from the above agreements and recorded here, shall also be incorporated into final draft or the Contract,

1. Subject . . . . . .

   Details . . . .

2. Subject . . . . . .

   Details . . . .

By the duly authorized representatives signing this Schedule of Deviations, the Employer and the Bidder agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Bid Data and addenda thereto as listed in the Bid Schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Bidder and the Employer during this process of offer and acceptance.

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

For the Bidder:For the Employer:

……Signature……

……Name……

……Capacity……

Name and address of organization:Name and address of organization:

……

……

……

…… Witness Signature……

…… Witness Name……

…… Date……

Confirmation of Receipt

The Bidder, (now Contractor), identified in the Offer part of this Agreement hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including Schedule of Deviations (if any) today:

The …….. (Day) of …….. (Month)

20 …….. (Year) at …….. (Place)

For the Contractor:.. . . . . .
Signature

. . . . . .
Name

. . . . . .
Capacity

Signature and name of witness:

. . . . . .
Signature

. . . . . .
Name

C1.2 CONTRACT DATA

CONTENTS

SECTIONDESCRIPTION PAGE

C1.2.1CONDITIONS OF CONTRACTC1-8

C1.2.2CONTRACT SPECIFIC DATAC1-10

C1.2.3DATA PROVIDED BY THE TENDERERC1-16

C1.2.1 CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT

This Contract will be based on the "General Conditions of Contract for Construction Works – 3rd Edition 2015", issued by the South African Institution of Civil Engineering. (Short title: "General Conditions of Contract 2015").

It is agreed that the only variations from the General Conditions of Contract 2015 are those set out hereafter under "Contract Specific Conditions".

CONTRACT SPECIFIC CONDITIONS

1. GENERAL

These Contract Specific Conditions (CSC) form an integral part of the Contract. The Contract Specific Conditions shall amplify, modify or supersede, as the case may be, the General Conditions of Contract 2015 to the extent specified below, and shall take precedence and shall govern.

The clauses of the Special Conditions hereafter are numbered "CSC" followed in each case by the number of the applicable clause or subclause in the General Conditions of Contract 2015, and the applicable heading, or (where a new special condition that has no relation to the existing clauses is introduced) by a number that follows after the last clause number in the General Conditions, and an appropriate heading.

1. AMENDMENTS TO THE GENERAL CONDITIONS OF CONTRACT

CSC 2.2 Specific Approval of the Employer required

"*The Engineer or Contractor must obtain special approval or consent from the Employer for the decisions in the following clauses:*

Clauses 2.2.3, 3.1.2, 3.2.1, 3.2.4, 4.7, 4.12.1,4.11.2, 5.7.3, 5.8.1, 5.10.1, 5.11.2, 5.11.3, 5.12.1, 5.13.2, 5.14.1, 5.16.1, 6.3.2, 6.4, 6.5.1, 6.6.1, 6.10.1, 6.10.6, 6.11, 7.8.2.2, 8.2.2.2, 10.1.5."

3.1 *Add the following*

"after approval by the Employer"

CSC 2.1.2 Compliance with applicable laws

CSC 2.1.2.5 **Health and safety**

Add the following :

"The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the Construction Regulations GNR.929 of 25 June 2017 (Government Gazette No 25207 of 18 July 2003, Notice No R1010***)** will in all respects be applicable to this contract, including all regulations pertaining to the COVID 19 compliance."

CSC CONTRACT PRICE ADJUSTMENT SCHEDULE

Paragraph 1

Adjust the definitions of "L", "P", "M" and "F" in the 4th to the 7th sub-paragraphs with the following:

Definition of “L”:

Insert “(Consumer Price Index)” *after* “P0141.1” *in the third line.*

Insert “(Consumer Price Index and Percentage Change according to Urban Area)” *after* “Table 21“in *the third line.*

Definition of “P”:

Insert “(Production Price Index)” *after* “P0142.1” *in the second line.*

Insert “(Production Price Index for Selected Materials, item ‘Civil Engineering Plant’)” *after* “Table 16“in *the second line.*

Definition of “M”:

Insert “(Production Price Index)” *after* “P0142.1” *in the second line*

Insert “(Production Price Index for Materials used in Certain Industries, item ‘Civil Engineering Plant’)” *after* “Table 15“in *the second line*

Definition of “F”:

Insert “(Production Price Index)” *after* “P0142.1” *in the second line*

Insert “(Production Price Index for Selected Materials, item Diesel Oil – Coast and

Witwatersrand)” *after* “Table 16“in *the second line*

[Note: The indices are obtainable in www.statssa.gov.za*. The latest indices for L (certain urban areas only), P, M and F, are more readily obtainable in* www.safcec.org.za *under "CPAF Indices"] upon registration with Safcec*

Paragraph 2 : Assessment of amount subject to adjustment

Add the following to the paragraph defining "E" :

"Where the amount is based on current costs de-escalated to the base month, or where daywork is calculated at rates tendered in a daywork schedule, the costs shall not be included in the value of "E".

C1.2.2CONTRACT SPECIFIC DATA

ITEM No:	REFERENCE TO:	CLAUSE	INFORMATION
1	Contractor	1.1.1.9	……..
2	Defects Liability Period	1.1.1.13	24 Months from issuing of Certificate of Practical Completion
3	Practical Completion	1.1.1.14	The time for achieving Practical Completion is calculated from commencement date to the time when the entire road is ready for public use without posing risk to users.
4	Employer	1.1.1.15	Free State Provincial Government represented by Head of Department: Department of Police, Roads and Transport
5	Engineer	1.1.1.16	Department of Police, Roads and Transport
6	Address of the Employer	1.2.1.2	Physical: 45 Charlotte Maxeke Street Bloemfontein 9300 Postal: P.O Box 690 Bloemfontein 9300 Telephone No: (051) 409 8575
7	Address of the Contractor	1.2.1.2	Physical Address:…… …… Postal Address: …… …… Telephone Number (Office): …… Facsimile Number (Office): …… E-mail Address (Office): ……
8	Commencement of Work	5.2	Within 45 days after site hand over, contractual obligations, compliance with Construction Regulations 2014 and Environmental Compliance

9	Documentation required before commencement of the Works	5.3.1	Health & Safety Plan (Refer to CR 2014) Revised Programme & Cash flow Projection (Refer to Clause 5.6) Security (Performance and retention guarantee 6.2) Insurance (CAR Construction All Risk to Clause 8.6) Construction Permit (CR 2014) Environmental compliance i.e. (mining permit, water usage etc.)
10	Time to submit the documentation required before commencement of the Works	5.3.2	14 Days for all above documents excluding the Construction permit
11	Completion of the Works	5.6.2.1	**12 Months** starting from the date of site hand over
12	Special non-working times	5.8	Sundays and all public holidays as well as year-end builder's break.
13	Suspension of Works	5.11	Planned Annual allocated budget available can be reduced at the Employer's discretion. In the event that annual budget is reduced or exhausted, the Contractor shall not be allowed to stop the Works and or claim interest on the unpaid Works. **No claim shall be submitted to the Department once the budget is depleted.**
14	Penalty for failing to complete the Works on time	5.13.1	**R10,000** per calendar day (R0,000 to R50,000) million project value **R15,000** per calendar day (R51,000 to R1000,000) million project value **R50,000** per calendar day (R100,000 to unlimited) million project value
15	Latent Defects Liability Period	5.16.3	Should there be any structural defects within Fifteen (15) years after final completion, the Contractor will be fully liable for latent defects
16	Security	6.2.1	Two Performance Guarantee of 10% (normal performance guarantee and Mining permit guarantee) of the value of the Works which will be handed back after practical completion, to be submitted within 14 days after the site hand over date. Expiry date should state **"until the issuing of Practical Completion certificate"** Rehabilitation quantum guarantee should be deducted from the performance guarantee upon full computation of the amount by Department of Mineral Resources and Energy (DMRE). Guarantee should be addressed to DMRE.
17	Dayworks	6.5.1.2.3	Refer to A1.2.3.11 of the Specifications (Ordering of daywork)
18	Rates and Prices are final and	6.8	All rate items on the Bill of Quantity must be priced in Rand value except only where the rate is stipulated as **Rate Only**

	binding		item. Items that will be priced not with Rand value will be termed or taken as incomplete tender and will be disqualified. Rather price Zero Rand for any uncounted action
19	Contract Price Adjustment	6.8.2	The following values for the different factors are to be used: X = 0.10 a = 0.10 - Labour b = 0.55 - Equipment c = 0.15 - Material d = 0.20 - Fuel The different values for the calculation of the price adjustment factor shall be for the area of Free State: Other urban areas. The Diesel index shall be for the Witwatersrand Area. The Base month is one month prior to submission of quotations / Bid document.
20	Special Materials	6.8.3	Price adjustments for variations in the costs of special materials are allowed. Special materials shall be limited to bitumen and bituminous products.
21	Materials on Site	6.10.1.5	80% Of materials on site
22	Retention Money	6.10.3	10% Of Contract Amount. Two retention Guarantees of 50% each of the value of the retention money are compulsory as part of documentation to be submitted within 14 days after the commencement date; one will be handed back at practical completion and the other **24 months** after final completion. There will be no retention monies deducted on interim certificates.
23	Quality of materials and workmanship	7.2	The source of supply of all materials including all stone, sand, gravel, water or soil or any other natural material required in the execution of the Works shall be located by the Contractor. The quality of the material relies solely to the Contractor. **No material shall be used until it has been approved by the Engineer**
24	Defects	7.8	In the event of the Contractor not completing all the outstanding work within the period specified by the Employer in terms of the contract, the Employer shall have the right to extend the Period of Maintenance by the additional time taken by the Contractor to complete such outstanding work to the satisfaction of the Employer. The full retention applicable to the Period of Maintenance shall apply to such extension.
25	Insurances	8.6	R0-00
26	Limit of Indemnity	8.6.1.3	R10,000,000-00 per claim, number of claims unlimited
27	Other Insurances	8.6.1.5	R0-00
28	Dispute Resolution	10.5.1	Dispute Adjudication Board (DAB), Mediation,
29	Rules for Adjudication and Members	10.5.3	Only Three members required

30	Dispute Resolution	10.7.1	Adjudication (If there are no agreements, then court proceeding will be preferred)
31	Tender Validity Period		90 days
32	Scope	B.1	The Special Maintenance (Milling and Reseal) of Mangaung Access Road, M10 in Motheo Region
33	Targeted Subcontractors (ABE's)	B.2	Part C3: Scope of Works: C3.7.1.2 (3.1) - 30% of Nett Contract Value excluding Professional Services (Laboratory, OHS practitioners, environmental and engineer's requirement) must be subcontracted to Local Contractors appointed in terms of attached specification.
34	Targeted Local labour	B.3	1. Net Contract amount less 25% for minimum daily rate on R1Million per 4 employees for conventional project should be appointed with a minimum of six months at a payment rate of **R186/day,** subjected to increase annually to be communicated by the client. 2. Recruitment of annual labour target shall be as follows: 1. 30% - at the beginning of the financial year 2. 30% - three months after the initial appointment 3. 40% - at midway into the financial year 4. The employment demographics are as follows: 1. Youth – 55% 2. Women – 60% 3. Disabled – 2% Labour target must be achieved as planned, failure to this will lead into penalties
35	Socio – Economic of Community	B.4	1% of (Contract Value) excluding special services e.g. testing, environmental and OHS and Engineering facilities shall be invested into local Community as social responsibility or contribution
36	Skills Development	B.5	1. Two (2) Civil Engineering Students shall be appointed for experiential Training with stipend of R15 000.00 each per month, signed off reports must be submitted to respective Departmental Project Managers. 2. Members of Community must also be trained in Labor Intensive Works
37	Approved Professionals	B.6	All the approved and submitted CV for professionals during tendering/ bidding stage must be available on site during the project implementation. Failure to bring at least 80% of all professionals that were presented via CV's during the bidding process will lead to termination of the Contract. Should it be found that people / professionals' CV used were only for

			tendering purpose the appointment will be terminated. During the signing of the Service Level Agreement (SLA) all CV's for professionals submitted and the valid Employment Contract must be re-submitted as a Special Condition of this Contract. Failure to adhere to this will result in appointment termination. Any replacement of professional, should be replaced by an employee with equivalent experience and qualifications, subject to approval by the client.
38	Skills Developments	B.7	0.2% Of the contract amount to the maximum of R2,000,000.00 to be allocated and pay out to CIDB for external entity identified by the CIDB
39		B.8	
40		B.9	

……..
SIGNATURE

C1.2.3 DATA PROVIDED BY THE TENDERER

Clause 6.8.3 of the GCC:

Variation in Cost of Special Materials	Unit on which variation will be determined *	Rate or price for the base Month (excluding VAT) **

Notes:

* Indicate whether the material will be delivered in bulk or in containers.

** The price for special materials is only the price for the material and does not include the cost of transport, labor or any other costs. When called upon to do so, the Tenderer shall substantiate the above prices with acceptable documentary evidence.

……..
SIGNATURE

PART C2 PRICING DATA

DEPARTMENT OF COMMUNITY SAFETY, ROADS AND TRANSPORT

SPECIAL MAINTENANCE OF PRIMARY ROAD P71/1, BETWEEN TWEESPRUIT (KM 0.0) AND HOBHOUSE (KM 39.0)
PRICING DATA C2.1

PRICING INSTRUCTIONS

This Bill of quantities forms part of the contract documents and must be read in conjunction with all the other documents comprising the contract documents. For the purposes of this bill of quantities, the following words shall have the meanings hereby assigned to them.

Unit: The unit of measurement for each item of work as defined in the standard specifications or the project specifications.

Quantity: The number of units of work for each item.

Rate : The payment per unit of work for which the tenderer tenders to do the work. Amount:

The product of the quantity and the rate tendered for an item.

Lump Sum: An amount tendered for an item, the extent of which is described in the schedule of quantities, the specifications or elsewhere, but of which the quantity of work is not measured in units.

Bill of Quantities

1 Measurement and payment shall be in accordance with the relevant provisions of the COTO Standard Specifications for Road and Bridge Works for South African Road Authorities (2020 Edition), subject to the following amendments and additions:

2 The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

mm	=	millimetre
m	=	metre
km	=	Kilometer
m2	=	square metre
m2.pass	=	square metre-pass
ha	=	Hectare
m3	=	cubic metre
m3.km	=	cubic metre-kilometre
l	=	Litre
kl	=	Kiloliter
MPa	=	Megapascal
h	=	Hour
kg	=	Kilogram
t	=	ton (1000 kg)
No.	=	Number
sum	=	lump sum
MN	=	Meganewton
MN.m	=	meganewton-metre
P C sum	=	Prime Cost sum
Prov sum	=	Provisional sum

%	=	per cent
kW	=	Kilowatt
man-month	=	Man per Month
man-shift	=	Man per Shift
Person.Month	=	Person per Month

3 For the purposes of the Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit: The unit of measurement for each item of work as defined in the COTO Standard Specifications for Road and Bridge Works for South African Road Authorities (2020 Edition), Quantity: The number of units of work for each item.
Rate: The agreed payment per unit of measurement.
Amount: The product of the quantity and the agreed rate for an item.
Lump sum: An agreed amount for an item, the extent of which is described in the Bill of Quantities but the quantity of work of which is not measured in any units.

4 Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste. Attention is directed to the provisions of clause 1220 of the standard specifications regarding the measurements of quantities for payment. Except where specified otherwise than in clause 1220, the net measurement or mass of the finished work in place shall be taken for payment, and any volume or mass of work in excess of that prescribed, shall be excluded.

5 The prices and rates to be inserted in the Bill of Quantities are to be the full inclusive prices for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and for all the risks, obligations and responsibilities specified in the general conditions of contract, special conditions of contract, standard specifications and project specifications shall be considered as provided for collectively in the items of payment given in the bill of quantities.

Such prices and rates shall also cover full compensation for completing and maintaining, during the defects liability period, all the work shown on the drawings and specified in the standard specifications and project specifications and the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. Reasonable prices shall be inserted, as these will be used as a basis for assessment of payment for additional work that may have to be carried out.

6 A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered shall not be paid for but will be considered to be covered by other prices or rates elsewhere in the Bill of Quantities.

If the tenderer should group a number of items together and tender one lump sum for each group of items, this single tendered lump sum shall apply to that group of items and not to each individual item, or should he indicate that full compensation for any item has been included in the rate for another item, the rate for the item included in another item shall be deemed to be nil.

The tendered lump sums and rates shall be valid irrespective of any change in the quantities during the execution of the contract

7 Reasonable compensations will be received where no pay item appears in respect of work required in terms of the Contract, which is not covered in any other pay item.

8 The short descriptions of the items of payment given in the Bill of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work under each item appear in the scope of work, Reference shall, inter alia, be made to the drawings, standard specifications, project specifications, general conditions of contract and special conditions of contract for more detailed information regarding the extent of work entailed under each item.

9. The item numbers appearing in the Bill of Quantities refer to the corresponding item numbers in the COTO Standard Specifications for Road and Bridge Works for South African Road Authorities (2020 Edition),. Item numbers prefixed by the letter B refer to payment items described under part B of the project specifications, those with C to payment items described under part C, and so on for further parts of the project specifications.

Item numbers in schedule B of the schedule of quantities are, in addition, preceded by the number of each separate part of schedule B of the schedule of quantities, e.g. payment item 62.02 described in the standard specifications (clause 6210), when used in part 3 of schedule B of the schedule of quantities, would be numbered 3/62.02, and if this payment item had been amended in part B of the project specifications, the payment item would be indicated as 3/B62.02.

10 The quantities set out in the schedule of quantities are only approximate quantities. The quantities of work finally accepted and certified for payment, and not the quantities given in the schedule of quantities, will be used to determine payments to the Contractor

The validity of the contract shall in no way be affected by differences between the quantities in the schedule of quantities and the quantities finally certified for payment. Work is valued at the rates or lump sums tendered, subject only to the provisions of sub clause 1209 (a) of the standard specifications.

11 The amount of work or the quantities of material stated in the schedule of quantities shall not be considered as restricting or extending the amount of work to be done or quantity of material to be supplied by the Contractor

12 The statement of quantities of material or the amount of work in the schedule of quantities shall not be regarded as authorization for the Contractor to order material or to execute work. The Contractor shall obtain the Engineer's detailed instructions for all work before ordering any materials or executing work or making arrangements in this regard

13 The provisions of clause10.1 of the general conditions of contract shall apply to provisional sums and prime cost sums.

14 Subject to the conditions stated in paragraph 15 below, the rates and lump sums filled in by the tenderer in the schedule of quantities shall be final and binding with regard to submitting the tender, and may not be adjusted should there be any mistakes in the extensions thereof and in the total sums appearing in the tender. Should there be any discrepancies between the tender sum and the correctly extended and totalled bill of quantities, the tendered sum will be regarded as being correct, and the Employer shall have the right to make adjustments to the tender rates to reconcile the tender sum with the total of the bill of quantities. In such an event the Contractor will be consulted but, failing agreement between the parties, the decision of the Employer shall be final and binding. Adjustment of the tender rates will take place prior to the signing of the contract. In their own interest tenderers must make doubly sure of the correctness of their tendered rates, the extensions and the tender sum.

15 A tender may be rejected if the unit rates or lump sums for some of the items in the schedule of quantities are, in the opinion of the Employer, unreasonable or out of proportion, and if the tenderer fails, within a period of seven (7) days of having been notified in writing by the Employer to adjust the unit rates or lump sums for such items, to make such adjustments.

16 Those parts of the contract to be constructed using labour-intensive methods have been marked in the bill of quantities with the letters LI in a separate column filled in against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of work, is a variation to the contract. The items marked with the letters LI are not necessarily an exhaustive list of all the activities, which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour intensive specification in the Scope of Works.

17 Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works) will not be made unless they are constructed using labour-intensive methods. Any unauthorized use of plant to carry out work, which was to be done labour-intensively will not be condoned, and any works so constructed will not be certified for payment.

C2.2 BILL OF QUANTITIES

CONTENTS

PARTHEADINGPAGE NO.

C1.2GENERAL REQUIREMENTS AND PROVISIONS

C1.3CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS

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C9.1ASPHALT LAYERS

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C10.1GENERAL REQUIMENTS FOR THE SURFACE TREATMENTS

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C11.3GUIDE STRUCTURAL AND KILOMETERE MARKERS

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C11.6ROAD SIGNS

C11.7ROAD MARKINGS AND ROAD STUDS

C11.9FINISHING THE ROAD AND ROAD RESERVE AND GREATING OLD ROADS

QUALITY ASSURANCE

C20.1TESTING MATERIAL AND JUDGEMENT OF WORKMANSHIP

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D1010TRAINING, COACHING, GUIDANCE, MENTORING AND ASSISTANCE

C1.2		GENERAL REQUIREMENTS AND PROVISIONS			
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
C1.2.1	**Environmental Management**				
	Monitoring of compliance with and reporting on the EMP	month	24	R 38 000,00	R 912 000,00
	Dedicated environmental officer *(if specified in the Contract Documentation)*	month	24		R -
C1.2.2	**Programming and Reporting**				
C1.2.3	**Routine road maintenance of existing public roads within the Site of the Works or other public roads outside the Site of the Works which are used as detours**				
	Drain cleaning	(km)	18		R -
	Cleaning out culverts	(m^3)	800		R -
	Collection of rubbish / litter	(km)	28		R -
	Replacement of damaged guardrails including posts	(m)	80		R -
	Grading of temporary gravel deviations and existing roads used as detours	(km)	400		R -
	Watering of temporary gravel deviations and existing roads used as detours	(kℓ)	64000		R -
	Other road maintenance work ordered by the Engineer	PC sum	1	R 840 000	R 840 000
	Handling cost, profit and all other charges in respect of item C1.2.3.11	(%)	R 840 000		R -
	Liaison with the routine road maintenance	month			
C1.2.4	**Stakeholder liaison**	month			
C1.2.5	**Safety**				
	Health and safety plan	lump sum	1	R 100 000,00	R 100 000,00
	Implementation of health and safety plan	month	24	R 38 000,00	R 912 000,00
C1.2.8	**Dayworks**				
	Personnel				
	Unskilled labourer	hour (h)	88,32		R -
	Semi-skilled labourer	hour (h)	88,32		R -
	Skilled labourer	hour (h)	88,32		R -
	Gang leader	hour (h)	44,16		R -
	Foreman	hour (h)	22,08		R -
	Skilled artisan	hour (h)	22,08		R -
	Construction equipment *(specify size and/or*				
	Motor grader	hour (h)	55		R -
	Vibratory roller	hour (h)	55		R -
	Pneumatic roller	hour (h)	55		R -
	Front end loader	hour (h)	110		R -
	Tractor loader backhoe	hour (h)	55		R -
	Excavator	hour (h)	55		R -
	Compressor	hour (h)	55		R -
	Other equipment *(specify)*	hour (h)			
	Vehicles *(specify size)*				
	Light delivery vehicle	(km)	4000		R -
	Flatbed truck	(km)	4000		R -
	Dump truck	(km)	4000		R -
	Other vehicles *(specify)*	(km)	4000		R -
	Materials				
	Procurement of materials	PC sum	1	R 100 000	R 100 000
	Contractor's handling costs, profit and all other charges in respect of item C1.2.8.4(a)	(%)	R 100 000,00	10%	R 10 000
BC1.2.11	(i) Laboratory Tests for Engineer's Quality assurance/acceptance Control	Prov Sum	1	R 4 000 000,00	R 4 000 000
	(ii) Contractors handling cost and profit in respect to Sub-item BC1.2.11 (i)	%	R 4 000 000,00	10%	R 400 000
BC1.2.11	(i) Survey for Engineer's Quality assurance/acceptance Control	Prov Sum	1	R 2 800 000,00	R 2 800 000
	(ii) Contractors handling cost and profit in respect to Sub-item BC1.2.11 (i)	%	R 2 800 000,00	10%	R 280 000

BC1.2.12	(i) Occupational Health and Safety Agent for Engineer's quality assurance/acceptance control	Prov Sum	1	R 1 200 000,00	R 1 200 000
	(ii) Contractors handling cost and profit in respect to Sub-item BC1.2.12 (i)	%	R 1 200 000,00	10%	R 120 000
BC1.2.13	(i) Environmental Compliance agent for Engineer's quality assurance/acceptance control	Prov Sum	1	R 1 200 000,00	R 1 200 000
	(ii) Contractors handling cost and profit in respect to Sub-item BC1.2.13 (i)	%	R 1 200 000,00	10%	R 120 000
PC1.2.10	**Dispute Adjudication Board (DAB)**	*Note to compiler: If a DAB will be appointed add this payitem C1.2.10 for 50% of the*			R -
	Employer's contribution to DAB (50%)	prime cost (PC)	Prime	Cost	R 100 000
TOTAL CARRIED FORWARD TO SUMMARY					

C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
PC1.3	**The Contractor's general obligations**				
	Fixed obligations	lump sum	1		R -
	Time-related obligations				
	Execution of the works	month	24		R -
C1.3.2	**Contract sign boards**	square metre (m^2)	30		R -
TOTAL CARRIED FORWARD TO SUMMARY					**R -**

C1.4		FACILITIES FOR THE ENGINEER			
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
C1.4.1	**Site accommodation**				
	Offices and conference room	(m^2)	140		R -
	Laboratories	(m^2)	140		R -
	Open concrete working floors and verandas	(m^2)	200		R -
	Roofs over open concrete working floors and verandas	(m^2)	90		R -
	Store rooms inside the laboratory	(m^2)	50		R -
	Car ports	(No.)	5		R -
	Ablution unit *(equipped as specified)*	(No.)	2		R -
	Change room with a shower	(No.)	2		R -
	Kitchen unit *(equipped as specified)*	(No.)	2		R -
	Rented housing paid for by the Contractor	PC Sum	1	R 84 000	R 84 000,00
	Contractor's handling costs, profit and all other charges in respect of item C1.4.1.13	(%)	R 84 000		R -
C1.4.2	**Items measured by area**				R -
	Shelving as specified, complete with brackets	(m^2)	10		R -
	Work benches with a concrete slab top	(m^2)	15		R -
	Work-benches with a wooden top	(m^2)	15		R -
	Constant-temperature baths of concrete and/or plastered brick	(m^2)	10		R -
	Concrete footings and pedestals for laboratory equipment	(m^2)	10		R -
	Roller blinds, opaque type	(m^2)	10		R -
	Venetian blinds	(m^2)	10		R -
	Notice boards	(m^2)	10		R -
	White boards	(m^2)	10		R -
	Galvanised wire mesh fencing for store rooms	(m^2)	10		R -
	Galvanised wire mesh store room gate with a padlock	(m^2)	10		R -
C1.4.3	**Items measured by number**				R -
	Office swivel chair	(No.)	2		R -
	Office chair	(No.)	10		R -
	Draughtsman's stool	(No.)	1		R -
	Laboratory high chair	(No.)	4		R -
	Office desk with 3 drawers *(at least one lockable drawer)*	(No.)	3		R -
	Typist desk *(L-shaped)*	(No.)	1		R -
	Drawing table	(No.)	1		R -
	Conference table	(No.)	1		R -
	Bookcase	(No.)	1		R -
	Filing cabinet	(No.)	3		R -
	General purpose steel cabinet with shelves	(No.)	2		R -
	Wall mounted pivot plan filing system	(No.)	2		R -
	220/250 volt power outlet plug point	(No.)	2		R -
	400/231 volt 3-phase power outlet plug point	(No.)	2		R -
	Single 1500m, 58 watt fluorescent tube ceiling light	(No.)	10		R -
	Single 1500mm, 22 watt LED tube ceiling light	(No.)	10		R -
	11 watt compact fluorescent bulb ceiling light	(No.)	10		R -
	7 watt LED bulb ceiling light	(No.)	5		R -
	Wash-hand basin	(No.)	2		R -

	Laboratory basin	(No.)	1		R	-
	Extractor fan	(No.)	2		R	-
	Fume cupboard	(No.)	2		R	-
	Fire extinguisher 9,0 kg, dry powder type	(No.)	3		R	-
	Air-conditioning unit	(No.)	2		R	-
	Heater	(No.)	2		R	-
	Concrete specimen curing bath	(No.)	3		R	-
	Waste paper basket	(No.)	2		R	-
	UPS / Voltage stabiliser	(No.)	2		R	-
	A3 / A4 colour printer, copier, scanner	(No.)	2		R	-
	A4 colour printer, copier, scanner	(No.)			R	-
	Rain gauge	(No.)	3		R	-
	Minimum/maximum atmospheric temperature gauge	(No.)	2		R	-
	Digital thermometer	(No.)	2		R	-
	Mobile outdoor weather station	(No.)	2		R	-
	3,0m aluminium straight edge complete with two measuring wedges	(No.)	2		R	-
	Measuring wheel	(No.)	2		R	-
	First aid kit	(No.)	2		R	-
	Standpipe complete with 30m of 19mm dia. heavy duty hose pipe	(No.)	2		R	-
C1.4.4	**Prime cost items**				R	-
	Cell phones costs, including pro-rata rentals, for calls made in connection with contract administration	(PC) sum	1	48000	R	48 000,00
	Handling costs and profit in respect of item C1.4.4.1	(%)	R 48 000		R	-
	The provision of internet connectivity and WiFi data for Engineer's site staff	(PC) sum	R 1	48000	R	48 000,00
	Handling costs and profit in respect of item C1.4.4.5	(%)	R 48 000		R	-
	The provision of paper and ink for a combination colour printer/copier/scanner	(PC) sum	R 1	25000	R	25 000,00
	Handling costs and profit in respect of item C1.4.4.7	(%)	R 25 000		R	-
	The provision of a complete 220/250 volt single phase electrical power installation, including all poles, insulators, wiring, switchboards, mains connections, meters etc.	(PC) sum	R 1	30000	R	30 000,00
	Handling costs and profit in respect of item C1.4.4.9	(%)	R 30 000		R	-
	The provision of a complete 440/231 volt three phase electrical power installation, including all poles, insulators, wiring, switchboards, mains connections, meters etc.	(PC) sum	R 1	35000	R	35 000,00
	Handling costs and profit in respect of item C1.4.4.11	(%)	R 35 000		R	-
	Provision of a 440/231 volt three phase electricity generator if electricity from a power supply authority is not available on site	(PC) sum	R 1	45000	R	45 000,00
	Handling costs and profit in respect of item C1.4.4.13	(%)	R 45 000		R	-
	The provision of all gas installations required at the site offices, laboratories and at the Engineer's staff accommodation (if required), including gas storage cylinders, tubing, regulators, gas burners and shut-off cocks	(PC) sum	R 1	80000	R	80 000,00
	Handling costs and profit in respect of item C1.4.4.15	(%)	R 80 000		R	-
C1.4.5	**Services at site offices, laboratories and site accommodation**				R	-
	Fixed costs	lump sum	1	R 84 000	R	84 000,00
	Running costs	month	24		R	-
C1.4.6	**Office staff**				R	-
	Secretary / receptionist	month	24		R	-
	Technical assistant	month	24		R	-

C1.4.7	**Site inspection transport**					R	-
	Provision of a bus, mini-bus or combi van for site inspection purposes *(specify type and size of vehicle)*	per month	24			R	-
	Travel on site	(km)	60			R	-
C1.4.8	**Site security measures for the Engineer's**					R	-
	Supply and installation of all required security measures at the Engineer's site offices and laboratories	lump sum	1	R	80 000	R	80 000,00
	Supply and installation of all required security measures at the Engineer's site accommodation	lump sum	1	R	60 000	R	60 000,00
	Handling costs and profit related to item C1.4.8	%	R60 000,00			R	-
	Provision of an armed response service at the Engineer's rented accommodation *(5 HOUSES)*	month	24			R	-
TOTAL CARRIED FORWARD TO SUMMARY							

C1.5			ACCOMMODATION OF TRAFFIC			
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
		The applicable payment items required for the construction of temporary deviations shall be taken from the relevant chapters and sections in Chapters 1, 3, 5, 9 and 10 and inserted into the Pricing Schedule here. Each payment item for the construction of temporary deviations shall be preceded by the main payment item number C1.5.4 / followed by the payment number for the applicable payment item	(km)	39		
C1.5.5		**Maintenance of temporary deviations**				
	C1.5.5.1	Grass cutting	(ha)	31,2		R -
	C1.5.5.2	Drain cleaning	(km)	39		R -
	C1.5.5.3	Cleaning out culverts	(m^3)	500		R -
	C1.5.5.8	Replacement of damaged guardrails	(m)	120		R -
	C1.5.5.9	Grading of temporary deviations and existing roads used as detours	(km)	102		R -
	C1.5.5.10	Watering of temporary deviations and existing roads used as detours	(k*ℓ*)	20		R -
	C1.5.5.11	Other road maintenance work ordered by the Engineer	P Sum	1	R 1 300 000,00	R 1 300 000,00
	C1.5.5.12	Handling cost, profit and all other charges in respect of item C1.5.6.11	(%)	R 1 300 000,00		R -
C1.5.6		**Removal of temporary deviations**	(km)			R -
C1.5.7		**Temporary traffic control facilities**				R -
	C1.5.7.1	Delineators including mounting bases and ballast:				R -
		Single sided, reversible left or right *(size indicated)*	(No.)	1320		R -
		Double sided, reversible left or right *(size indicated)*	(No.)	2280		R -
	C1.5.7.2	Traffic cones, minimum height 750mm	(No.)	380		R -
	C1.5.7.3	Flagmen	man-shift	12040		R -
	C1.5.7.4	Traffic controllers	man-shift	60		R -
	C1.5.7.5	Provision of illuminated traffic signs:				R -
		Sign mounted flashing amber lights *(2 lights with the specified power supply)* mounted on a backing board which is:				R -
		900mm wide x 150mm high	(No.)	2		R -
		1200mm wide x 200mm high	(No.)	2		R -
		Flashing LED illuminated arrow board	(No.)	2		R -
		Illuminated road sign – R & TR series *(diameter indicated)*	(No.)	44		R -
		Illuminated road sign – TW series *(length of sides indicated)*	(No.)	44		R -
		Mobile variable message sign	(No.)	2		R -
		Mobile variable message sign with a speed measuring and display capability	month	24		R -
	C1.5.7.6	Maintenance of illuminated traffic signs:				R -
		Sign mounted flashing amber lights *(a pair of two lights mounted on a separate backing board)*	month	24		R -
		Flashing LED illuminated arrow board	month	24		R -
		Illuminated road sign – R & TR series *(diameter indicated)*	month	24		R -
		Illuminated road sign – TW series *(length of sides indicated)*	month	24		R -
		Mobile variable message sign	month	24		R -
		Mobile variable message sign with a speed measuring and display capability	month	24		R -

	C1.5.7.7	**Traffic calming devices:**				R	-
		25mm high x 100mm wide asphalt rumble strips	(m)	390		R	-
		50mm high x 500m wide asphalt rumble strips	(m)	390		R	-
		150mm high x 3m wide asphalt speed control humps	(m)	390		R	-
	C1.5.7.8	Traffic control stations	month	24		R	-
	C1.5.7.9	Cleaning of traffic control facilities	month	60		R	-
C1.5.8		**Traffic safety officer**	man-month	60		R	-
C1.5.9		**Traffic safety vehicle**	month	24		R	-
C1.5.10		**Tow trucks**				R	-
C1.5.11		**Provision of safety equipment for visitors**				R	-
	C1.5.11.1	Provision of reflective safety vests for visitors	(No.)	100		R	-
	C1.5.11.2	Provision of hard hats for visitors	(No.)	100		R	-
C1.5.12		**Additional traffic accommodation facilities ordered by the Engineer:**				R	-
	C1.5.12.1	Provision of additional traffic accommodation facilities	PC Sum	1	R 200 000	R	200 000,00
	C1.5.12.2	Handling cost, profit and all other charges in respect of item C1.5.12.1	(%)	R 200 000,00		R	-
TOTAL CARRIED FORWARD TO SUMMARY							

C1.6			CLEARING AND GRUBBING			
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
C1.6.1		**Clearing**				
	C1.6.1.1	Clearing with machines and some hand labour where necessary	(ha)	36		R -
C1.6.2		**Grubbing**				R -
	C1.6.2.1	Grubbing with machines and some hand labour where necessary	(ha)	36		R -
	C1.6.10.1	Disposal of hazardous waste material at an approved hazardous waste material facility	PC sum	1	R 500 000	R 500 000,00
	C1.6.10.2	Handling cost, profit and all other charges in respect of item C1.6.10.1	(%)	R 500 000		R -
TOTAL CARRIED FORWARD TO SUMMARY						

C1.7 LOADING AND HAULING

ITEM		DESCRIPTION	UNIT	QTY	RATE	AMT
C1.7.1		**Loading**				
	C1.7.1.2	Loading from heaps or windrows using machines and/some hand labour where necessary	(m^3)	10000		R -
C1.7.2		**Hauling**				
	C1.7.2.1	**Hauling material for use in the Works and off-loading it on the site of the Works:**				
		Gravel for pavement layer material	(m^3 - km)	80000		R -
TOTAL CARRIED FORWARD TO SUMMARY						**R -**

C2.1 GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES

ITEM		DESCRIPTION	UNIT	QTY	RATE	AMT
C2.1.1		**Location, identification, protection and relocation of existing services**				
	C2.1.1.1	Contractor's obligations	lump sum	1	R 200 000,00	R 200 000,00
	C2.1.1.2	Permanent services relocation or protection work by others	(PC) sum	1	120000	R 120 000,00
	C2.1.1.3	Handling costs and profit in respect of item C2.1.1.2 above	(%)	R 120 000,00		R -
C2.1.3		**Obtaining construction or work permits**	lump sum	1	R 100 000,00	R 100 000,00
C2.1.4		**Provision of guarantees or deposits for services**				R -
	C2.1.4.1	Providing guarantees and deposits	(PC) sum	1	200000	R 200 000,00
	C2.1.4.2	Handling costs and profit in respect of item C2.1.4.1 above	(%)	R 200 000,00		R -
C2.1.5		**Provision of record drawings and applicable data**	lump sum	1	R 50 000,00	R 50 000,00
C2.1.6		**Trench excavation (in soft material)**				R -
		Up to 1,0m deep	(m^3)	250		R -
		Over 1,0m and up to 2,0m deep	(m^3)	300		R -
		Over 2,0m deep etc. to be inserted, increased by additional 1,0m depths as required	(m^3)	350		R -
	C2.1.6.2	Trenches over 1,0m and up to 2,0m wide				R -
		Up to 1,0m deep	(m^3)	200		R -
		Over 1,0m and up to 2,0m deep	(m^3)	300		R -
		Over 2,0m deep etc., increased by additional 1,0m depths as required	(m^3)			R -
	C2.1.6.3	Trenches over 2,0m wide and up to 3,0m etc., increased by additional 1,0m widths as required				R -
		Up to 1,0m deep	(m^3)	250		R -
		Over 1,0m and up to 2,0m deep	(m^3)	350		R -
		Over 2,0m deep etc., increased by additional 1,0m depths as required	(m^3)	400		R -
C2.1.7		**Extra over items C2.1.6, C2.1.8 and C2.1.16 for excavating in:**				R -
	C2.1.7.1	Hard material irrespective of depth	(m^3)	450		R -
	C2.1.7.2	Stabilised material irrespective of depth	(m^3)	450		R -
TOTAL CARRIED FORWARD TO SUMMARY						

C3.1		DRAINS				
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
C3.1.1		**Excavation for open drains:**				
	C3.1.1.1	Excavating all material situated within the following depth ranges below the surface level using conventional methods:				
		0m to 1,5m	(m^3)	1500		R -
		Exceeding 1,5m and up to 3,0m	(m^3)	300		R -
		Etc. in increments of 1,5m	(m^3)	250		R -
	C3.1.1.2	Extra over sub-item C3.1.1.1 for excavation in hard and boulder material, irrespective of depth	(m^3)	300		R -
	C3.1.1.3	Extra over sub-item C3.1.1.1 for excavation in stabilised existing road layers, irrespective of depth	(m^3)	100		R -
	C3.1.1.4	Excavating soft material situated 0m to 1,5m below the surface level using labour enhanced construction methods	(m^3)	100		R -
	C3.1.1.5	Excavating intermediate material situated 0m to 1,5m below the surface level using labour enhanced construction methods	(m^3)	100		R -
C3.1.2		**Clearing, shaping and disposal of accumulated sediment in existing unlined open drains**				R -
	C3.1.2.2	Using labour enhanced construction methods	(m^3)	5000		R -
C3.1.3		**Excavation, clearing and disposal of accumulated sediment in existing lined drains and drainage systems**				R -
C3.1.15		**Repairing or replacing existing drainage systems**	P sum	1	R 300 000,00	R 300 000,00
C3.1.15		Handling costs and profit in respect of item C3.1.15	%		R 300 000,00	R -
C3.1.24		**Submission of as built drawings by the Contractor**	P sum	1	R 100 000,00	R 100 000,00
C3.1.24.1		Handling costs and profit in respect of item C3.1.24	%		R 100 000,00	R -
TOTAL CARRIED FORWARD TO SUMMARY						

C3.3	CONCRETE KERBING AND CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, AS WELL AS CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS				
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
C3.3.1	**Concrete kerbing:**				
	As shown on drawing	(m)	600		R -
TOTAL CARRIED FORWARD TO SUMMARY					**R -**

C4.1				BORROW MATERIALS			
ITEM			**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
C4.1.1			**Compiling and implementing M&U plans**				
	C4.1.1.1		For borrow pits *(list all borrow pits separately)*	number (No.)	12		R -
	C4.1.1.2		For quarries *(list all quarries separately)*	number (No.)	12		R -
C4.1.2			**Additional material investigations during the**				
	C4.1.2.1		Cost of additional trial pits and/or drilling and	provisional sum	Prov	sum	R 64 000,00
	C4.1.2.2		Handling costs and profit in respect of item	percentage (%)	R 64 000,00		R -
C4.1.3			**Construction and maintenance of temporary**				
	C4.1.3.1		Temporary unsealed roads	kilometre (km)			R -
	C4.1.3.2		Cost to repair existing public roads or streets	provisional sum	Prov	sum	R 860 000,00
	C4.1.3.3		Handling cost and profit in respect of item	percentage (%)	R 860 000,00		R -
C4.1.4			**Removing of the overburden**				
	C4.1.4.1		In borrow pits	cubic metre (m^3)	2400		R -
	C4.1.4.2		In quarries:				
		(a)	Soft material	cubic metre (m^3)	2400		R -
		(b)	Hard material (by blasting)	cubic metre (m^3)	1200		R -
C4.1.5			**Excavating of materials in the borrow pits and**				
	C4.1.5.1		Soft excavation	cubic metre (m^3)	72000		R -
	C4.1.5.2		Boulder excavation class A	cubic metre (m^3)	2000		R -
	C4.1.5.3		Boulder excavation class B	cubic metre (m^3)	2000		R -
C4.1.15			**Shaping and finishing the borrow pit and**				
	C4.1.15.1		Shaping and finishing the borrow pit and quarry				
		(a)	Borrow pits *(list all borrow pits separately)*	hectare (ha)	1		R -
		(b)	Quarries *(list all quarries separately)*	hectare (ha)	1		R -
		(c)	Stockpile sites	hectare (ha)			R -
C4.1.16			**Personnel**				
	C4.1.16.1		Materials manager	month	4		R -
	C4.1.16.2		Excavation controller	month	4		R -
	C4.1.16.3		Stockpile controller	month	4		R -
TOTAL CARRIED FORWARD TO SUMMARY							

C4.2			CUT MATERIALS					
ITEM			**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**	
C4.2.1			**Compiling and implementing M&U plans for**					
	C4.2.1.1		Cuttings exceeding 5 000 m^3 up to 10 000 m^3	number (No.)	12		R	-
	C4.2.1.2		Cuttings exceeding 10 000 m^3 up to 20 000 m^3	number (No.)	12		R	-
	C4.2.1.3		Cuttings exceeding 20 000 m^3 up to 50 000 m^3	number (No.)	12		R	-
	C4.2.1.4		Cuttings exceeding 50 000 m^3 up to 100 000 m^3	number (No.)	12		R	-
	C4.2.1.5		Cuttings larger than 100 000 m^3	number (No.)			R	-
C4.2.2			**Additional material investigations during the**				R	-
	C4.2.2.1		Cost of additional trial pits and/or drilling and	provisional sum	1	500000	R	500 000,00
	C4.2.2.2		Handling costs and profit in respect of item	percentage (%)	R 500 000,00		R	-
C4.2.3			**Excavating of materials in cuttings, material**				R	-
	C4.2.3.1		Soft excavation	cubic metre (m^3)	2000		R	-
	C4.2.3.2		Boulder excavation class A	cubic metre (m^3)	200		R	-
	C4.2.3.3		Boulder excavation class B	cubic metre (m^3)	120		R	-
C4.2.12			**Finishing the side slopes**				R	-
	C4.2.12.1		Cuttings:				R	-
		(a)	In soft material	square metre (m^2)	2000		R	-
		(b)	In boulder material class A and B	square metre (m^2)			R	-
TOTAL CARRIED FORWARD TO SUMMARY								

C4.4			COMMERCIAL MATERIALS				
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**	
C4.4.1		**Commercial materials identified by the Employer from commercial, private or other non-commercial suppliers (*specify the source/s*)**					
	C4.4.1.1	Pavement layer material:					
	(a)	Type G1 material	cubic metre (m^3)			R	-
	(b)	Type G2 material	cubic metre (m^3)			R	-
	(c)	Etc. for other Type G3 to G9 materials	cubic metre (m^3)	2800		R	-
C4.4.2		**Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers**				R	-
	C4.4.2.1	Pavement layer material:				R	-
	(a)	Type G1 material (Double Seal)	cubic metre (m^3)	27000		R	-
	(b)	Type G2 material	cubic metre (m^3)	200		R	-
C4.4.3		**Cost to procure commercial materials**				R	-
	C4.4.3.1	Cost of procuring	provisional sum	1	R 2 000 000,00	R	2 000 000,00
	C4.4.3.2	Handling cost and profit in respect of item	percentage (%)	R 2 000 000,00		R	-
C4.4.4		**Cementitious stabilising agents**				R	-
	C4.4.4.1	Cement	ton (t)			R	-
	C4.4.4.2	Road lime	ton (t)	600		R	-
	C4.4.4.3	Etc. for other agents	ton (t)			R	-
C4.4.5		**Bituminous stabilising agents**				R	-
	C4.4.5.1	Penetration grade bitumen *(specify grade)*	ton (t)			R	-
	C4.4.5.2	Emulsion stable grade *(specify type)*	ton (t)			R	-
C4.4.6		**Fillers for bituminous stabilisation** *(specify*	ton (t)			R	-
C4.4.7		**Sampling and material testing by a**				R	-
	C4.4.7.1	Cost of sampling and material testing	provisional sum	1	820000	R	820 000,00
	C4.4.7.2	Handling cost and profit in respect of item	percentage (%)	R 820 000,00		R	-
TOTAL CARRIED FORWARD TO SUMMARY							

C5.3			ROAD PAVEMENT LAYERS				
ITEM			**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
C5.3.1			**Compiling and implementing M&U plans for**	number (No.)	24		R -
C5.3.2			**Construction of pavement layers**				R -
	C5.3.2.1		Construction of layers using conventional				R -
		(d)	Upper selected subgrade layer *(150mm)*	cubic metre (m^3)			R -
		(e)	Sand layer *(layer thickness indicated)* compacted	cubic metre (m^3)			R -
		(f)	Sand layer *(layer thickness indicated)* compacted	cubic metre (m^3)			R -
		(g)	Gravel wearing course layer *(150mm)*	cubic metre (m^3)	45000		R -
		(h)	Gravel shoulder layer *(layer thickness indicated)*	cubic metre (m^3)			R -
		(i)	Lower subbase gravel layer (unstabilised) *(layer*	cubic metre (m^3)			R -
		(j)	Lower subbase gravel layer (chemically	cubic metre (m^3)	15000		R -
		(k)	Upper subbase gravel layer (unstabilised) *(layer*	cubic metre (m^3)			R -
		(l)	Upper subbase gravel layer (chemically stabilised)	cubic metre (m^3)	20000		R -
		(aa)	G1 crushed stone base layer *(150 mm)*	cubic metre (m^3)	19800		R -
		(bb)	Bound macadam layer *(layer thickness indicated)*	cubic metre (m^3)			R -
		(cc)	PMPL wet lean-mix concrete layer *(cube*	cubic metre (m^3)			R -
C5.3.5			**Breaking down oversize layer material on the**				R -
	C5.3.5.1		By additional normal grid rolling as per clause	square metre-pass (m^2-pass)	85000		R -
	C5.3.5.2		By tamping roller	square metre-pass (m^2-pass)			R -
	C5.3.5.3		By pad foot vibratory roller	square metre-pass (m^2-pass)	24000		R -
	C5.3.5.4		By vibratory roller	square metre-pass (m^2-pass)			R -
	C5.3.5.5		By any other roller type	square metre-pass (m^2-pass)	24000		R -
C5.3.6			**Removal of oversize material**	cubic metre (m^3)	5000		R -
C5.3.7			**Recombining recovered material**	cubic metre (m^3)			R -
C5.3.8			**Processing of coarse gravel subbase or base**	cubic metre (m^3)			R -
C5.3.9			**Construction of a trial section:**				R -
	C5.3.9.1		Construction of a trial section using conventional				R -
		(a)	Stabilised gravel layer *(layer thickness indicated)*	cubic metre (m^3)	200		R -
		(b)	Crushed stone subbase layer *(150 mm)* trial	cubic metre (m^3)			R -
		(c)	Crushed stone base layer *(150 mm)* trial section	cubic metre (m^3)	200		R -
C5.3.10			**Removal of a completed trial section**				R -
	C5.1.10.1		Stabilised layer	cubic metre (m^3)	200		R -
	C5.3.10.2		PMPL layer	cubic metre (m^3)			R -
	C5.3.10.3		Crushed stone layer	cubic metre (m^3)	200		R -
C5.3.11			**Riding quality measurements:**				R -
	C5.3.11.1		Using a 3,0m straight edge	kilometre (km)	10		R -
	C5.3.11.2		Using a rolling straight edge	kilometre (km)	10		R -
	C5.3.11.3		Using an inertial profilometer	kilometre (km)			R -
C5.3.12			**Surface regularity payment adjustments**	provisional sum	1		R -
TOTAL CARRIED FORWARD TO SUMMARY							**R -**

C5.4		STABILISATION				
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
C5.4.2		**Chemical stabilisation:**				
	C5.4.2.1	Chemical stabilisation *(using a new G5 to a depth of 250mm)* of pavement layers *(to a C3 Subbase)*	(m^3)	36000		R -
		Cement (for pavement layer)	(t)	2300		R -
C5.4.10		**Provision and application of water for curing**	(k*ℓ*)	80000		R -
C5.4.14		**Trial section for a chemically stabilised layer**	(m^3)	200		R -
TOTAL CARRIED FORWARD TO SUMMARY						**R -**

C8.1			PRIME COAT			
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
C8.1.1		**Prime coat:**				
	C8.1.1.2	MC -30 cut-back bitumen	(ℓ)	337000		R -
C8.1.2		**Aggregate for blinding:**				
	C8.1.2.1	Natural sand	(m^3)	4000		R -
	C8.1.2.2	Crusher sand	(m^3)	7400		R -
C8.1.3		**Extra over item C8.1.1 for applying the prime coat accessible only to hand-held or light equipment**	(ℓ)	1350		R -
TOTAL CARRIED FORWARD TO SUMMARY						**R -**

C8.2		COVER SPRAYS, FOG SPRAYS AND REJUVENATION SPRAYS			
ITEM	**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
C8.2.1	**Cover sprays, fog sprays and rejuvenation sprays**				
	Indicate dilution (Diluted 50% Emulsion 50% Water)	(ℓ)	210000		R -
TOTAL CARRIED FORWARD TO SUMMARY					**R -**

C8.8 C8.8 PATCHING AND EDGE BREAK REPAIR

Item	Description	Unit	QTY	RATE	Amount
C8.8	PATCHING AND EDGE BREAK REPAIR				
C8.8.1	Saw cutting pavement layers for patching:				
C8.8.1.1	Asphalt or bituminous surfacing to an average depth:				
	(a) Not exceeding 50 mm	m	1 200,00		-
	(b) Exceeding 50 mm but not exceeding 100 mm	m	1 000,00		-
	(c) Exceeding 100 mm	m	200,00		-
C8.8.1.2	Cemented pavement layers to an average depth:				-
	(a) Not exceeding 100 mm	m	1 200,00		-
	(b) Exceeding 100 mm but not exceeding 200 mm	m	1 000,00		-
	(c) Exceeding 200 mm	m	200,00		-
C8.8.1.3	Granular layers to an average depth:				-
	(a) Not exceeding 100 mm	m	1 200,00		-
	(b) Not exceeding 200 mm	m	1 000,00		-
	(c) Exceeding 200 mm	m	200,00		-
C8.8.2	Excavation in existing pavements for patching (non-milling):				-
C8.8.2.1	Asphalt layers:				-
	(a) Not exceeding 10 m² including for edge repairs wider than 250 mm	m³	100,00		-
	(b) Exceeding 10 m² but not exceeding 50 m² including for edge repairs wider than 250 mm	m³	200,00		-
	(c) Exceeding 50 m² up to 100 m² including for edge repairs wider than 250 mm	m³	400,00		-
	(d) Exceeding 100 m²	m³	800,00		-
C8.8.2.2	Cemented layers:				-
	(a) Not exceeding 10 m² including for edge repairs wider than 250 mm	m³	120,00		-
	(b) Exceeding 10 m² but not exceeding 50 m² including for edge repairs wider than 250 mm	m³	400,00		-
	(c) Exceeding 50 m² up to 100 m² including for edge repairs wider than 250 mm	m³	800,00		-
C8.8.2.3	Other layers (specify type):				-
	(a) Not exceeding 10 m² including for edge repairs wider than 250 mm	m³	240,00		-
	(b) Exceeding 10 m² but not exceeding 50 m² including for edge repairs wider than 250 mm	m³	100,00		-
Total Carried Forward					R -

C8.8 PATCHING AND EDGE BREAK REPAIR

Item	Description	Unit	QTY	RATE	Amount
Brought Forward					R -
					-
C8.8.3	Compacting the floor of excavations for patching (95% Mod AAstho)	m²	6 000,00		-
					-
C8.8.4	Backfilling of excavations for patching with:				-
C8.8.4.2	Bitumen Stabilised Material (**BTB**) for a patch with a surface area:				-
					-
	(a) Not exceeding 10 m² including for edge repairs wider than 250 mm	m³	400,00		-
					-
	(b) Exceeding 10 m² but not exceeding 50 m² including for edge repairs wider than 250 mm	m³	800,00		-
					-
C8.8.4.3	Asphalt for a patch with a surface area (state type and density):				-
					-
	(a) Not exceeding 10 m² including for edge repairs wider than 250 mm	t	60,00		-
					-
	(b) Exceeding 10 m² but not exceeding 50 m² including for edge repairs wider than 250 mm	t	120,00		-
					-
	(c) Exceeding 50 m² up to 100 m² including for edge repairs wider than 250 mm	t	240,00		-
					-
Total Carried Forward					**R -**

Item	Description	Unit	QTY	RATE	Amount
Brought Forward					**R -**
					-
C8.8.6	Repairing edge breaks in surfacing:				-
					-
C8.8.6.1	Cutting back the edges of the existing surfacing for the repairing of edge breaks	m	200,00		-
					-
C8.8.6.2	Prime coat (state type and rate of application)	ℓ	240,00		-
					-
C8.8.6.3	Reconstructing edges using:				-
					-
	(a) Continuously-graded hot asphalt (state type and density)	t	36,00		-
					-
	(b) Continuously-graded cold asphalt (Agrèment SA certified -state class and density)	t	20,00		-
					-
	(c) Bitumen Stabilised Material (state type and level of compaction)	m³	40,00		-
Total Carried Forward To Summary					**R -**

C9.1			ASPHALT LAYERS				
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**	
C9.1.1		**Asphalt mix designs**					
	C9.1.1.1	Stone skeletal mixes:					
		Continuously graded base or surfacing *((40mm nominal thickness and A-E2 grade binder))*	lump sum	1		R	-
C9.1.5		**Asphalt surfacing**					
	C9.1.5.1	New construction					
		Stone skeletal mix – continuously graded as defined (40mm nominal thickness and A-E2 grade binder)	(m^2)	8000		R	-
C9.1.6		**Extra over pay items C9.1.4.1 and C9.1.5.1 for placing small quantities of asphalt of less than 10 tons specially produced as specified in terms of Clause A9.1.7.1(d)**	(t)	10		R	-
	C9.1.13.1	100mm diameter	(No.)	6		R	-
TOTAL CARRIED FORWARD TO SUMMARY						**R**	**-**

C10.1	GENERAL REQUIREMENTS FOR SURFACE TREATMENTS						
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**	
C10.1.3		**Multiple stone seals including a cover spray, if specified using:**					
	C10.1.3.1	20mm and 10mm aggregate *(using a hot applied type SE-1 homogeneous modified binder)*	(m^2)	337000		R	-
C10.1.4		**Embargo period effects**				R	-
	C10.1.4.1	Re-establishment of sealing team after embargo period	lump sum	1		R	-
	C10.1.9.11	Precoating fluid *(Petrleum Based Products)*	(ℓ)	200000		R	-
C10.1.10		**Aggregate variation** *(state grade)* **:**				R	-
	C10.1.10.3	10mm aggregate	(m^3)	300		R	-
	C10.1.10.5	20mm aggregate	(m^3)	300		R	-
	C10.1.11.3	Diluted Cationic spray-grade emulsion *(A 60% cationic spray-grade emulsion (diluted with 50% water) fog spray as final binder application)*	(ℓ)	170000		R	-
C10.1.16		**Addition of wetting agent:**				R	-
C10.1.17		**Aggregate for blinding:**				R	-
	C10.1.18.2	Crusher sand	(m^3)	3500		R	-
	C10.1.19.2	Multiple stone seals	(m^2)	8000		R	-
C10.1.26		**Trial sections for all seal types specified** *(See Section C10.1.3.1)*	lump sum	1	R300 000	R	300 000,00
C10.1.27		**Provision of Performance Guarantee in respect of the Surfacing**	lump sum	1	50000	R	50 000,00
TOTAL CARRIED FORWARD TO SUMMARY							

C11.1	PITCHING, STONEWORK, CAST IN SITU CONCRETE FOR PROTECTION AGAINST EROSION						
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**	
	C11.1.2.2	Grouted stone pitching with mortar	(m^2)	1050		R	-
C11.1.6		**Concrete edge beams** *(class 30/19 concrete)*	(m^3)	66,96		R	-
C11.1.7		**Provision of approved herbicide and ant poison:**				R	-
	C11.1.7.1	Provision of materials	(PC) sum	1	R 20 000,00	R	20 000,00
	C11.1.7.2	Contractor's charges and profit added to the prime cost sum	(%)	R 20 000		R	-
TOTAL CARRIED FORWARD TO SUMMARY							

C11.3 GUIDE BLOCKS AND KILOMETRE MARKERS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMT
C11.3.3	**Kilometre markers mounted on concrete reinforced pipes** *(diameter to be specified)*	(No.)	39		R -
TOTAL CARRIED FORWARD TO SUMMARY					**R -**

C11.5		FENCING				
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
C11.5.1		**Supply and erect new fencing material for new fences and for supplementing material in existing fences which are being repaired or removed:**				
	C11.5.1.1	Zinc-coated barbed wire *(3.2 x 2.5mm high tensile grade single strand)*	(km)	84		R -
	C11.5.1.7	Standards *(1850 x 2.5 kg/m "Y" section complete with holes at 50 mm c/c)*	(No.)	6000		R -
	C11.5.1.8	Droppers *(1400 x 0.56 kg/m Ridgeback Pattern)*	(No.)	10400		R -
		Steel stays and anchors *(2130 x 60 x 3mmmild steel tubing)*	(No.)	50		R -
TOTAL CARRIED FORWARD TO SUMMARY						**R -**

C11.6			ROAD SIGNS				
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**	
C11.6.1		**Road signboards with painted or coloured semi-matt background. Symbols, lettering and borders in semi- matt black or in Class I retro-reflective material, where the sign board is constructed from:**					
	C11.6.1.3	**Prepainted galvanized steel plate: (chromadek or approved equivalent)**					
		Area exceeding 0,5 m^2 but not 2,0 m^2	(m^2)	50		R	-
		1200mm size *(signboard material, background and symbol retro-reflective class indicated)*	(No.)	55		R	-
	C11.6.3.2	Timber *(diameter and type indicated)*	(m)	688		R	-
C11.6.4		**Kilometre Markers**				R	-
	C11.6.4.1	Kilometre markers on posts *(triangular concrete post (Class 25/13) embedded in 1200mm high x 450mm)*	(No.)	39		R	-
	C11.6.4.2	Replace marker boards on existing kilometre posts	(m^2)	20		R	-
C11.6.5		**Excavation and backfilling for road sign supports (not applicable to kilometre posts)**				R	-
	C11.6.5.1	Excavating soft material and backfilling	(m^3)			R	-
	C11.6.5.2	Excavating soft or intermediate material and backfilling using labour enhanced construction methods	(m^3)	10		R	-
	C11.6.5.3	Extra over item C11.6.5.1 and C11.6.5.2 for cement-treated soil backfill	(m^3)	5		R	-
	C11.6.5.4	Extra over item C11.6.5.1 for hard material excavation	(m^3)	5		R	-
	C11.6.5.5	Imported backfill material from commercial sources	(m^3)	6		R	-
C11.6.6		**Dismantling, storing and re-erecting road signs with a surface area of:**				R	-
	C11.6.6.2	Area exceeding 0,5 m^2 but not 2,0 m^2	(m^2)	50		R	-
C11.6.8		**Danger plates at culverts/structures**				R	-
	C11.6.8.2	Size 200 x 800mm (*(Galvanised Square Tubing Post (50 x 50 x 2))*	(No.)	180		R	-
C11.6.9		**Installation of traffic signals**				R	-
	C11.6.9.1	Specialist installation of traffic signals	(PC) sum	1	R 50 000	R	50 000,00
	C11.6.9.2	Handling cost, profit and all other charges of sub item C11.6.9.1	ercentage (%	R 50 000		R	-
C11.6.10		**Disposing of road signs with a surface area of:**				R	-
	C11.6.10.1	Area 0 to 0,5 m^2	(m^2)	50		R	-
	C11.6.10.2	Area exceeding 0,5 m^2 but not 2,0 m^2	(m^2)	50		R	-
	C11.6.10.3	Exceeding 2,0 m^2 but not 10 m^2	(m^2)	50		R	-
	C11.6.10.4	Exceeding 10 m^2	(m^2)	50		R	-
TOTAL CARRIED FORWARD TO SUMMARY							

C11.7 ROAD MARKINGS AND ROAD STUDS

ITEM		DESCRIPTION	UNIT	QTY	RATE	AMT
C11.7.1		**Road marking:**				
C11.7.2		**Retro-reflective road marking:**				
	C11.7.2.1	White lines broken or unbroken *(Retro-reflective road-marking paint at 150mm wide)*	(km)	100		R -
	C11.7.2.2	Yellow lines broken or unbroken *(Retro-reflective road-marking paint at 150mm wide)*	(km)	120		R -
	C11.7.2.4	White lettering and symbols *(Retro-reflective road-marking paint at 150mm wide)*	(m^2)	150		R -
	C11.7.2.5	Yellow lettering and symbols *(Retro-reflective road-marking paint at 150mm wide)*	(m^2)	150		R -
C11.7.5		**Variations in rate of application:**				
	C11.7.5.1	White paint	(ℓ)	200		R -
	C11.7.5.2	Yellow paint	(ℓ)	200		R -
C11.7.7		**Road studs**				
	C11.7.7.2	Permanent road studs compliant to SANS 1463 *(classification & colours stated)*	(No.)	5850		R -
C11.7.8		**Setting out and premarking the lines (excluding traffic island markings, lettering and symbols)**	(km)	120		R -
C11.7.9		**Re-establishing the painting unit during the defects notification period and at other instances on instruction of the Engineer**	(No.)	2		R -
TOTAL CARRIED FORWARD TO SUMMARY						**R -**

C11.9 FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS

ITEM		DESCRIPTION	UNIT	QTY	RATE	AMT
C11.9.1		**Finishing the road and road reserve:**				
	C11.9.1.2	Single carriageway road	(km)	39		R -
C11.9.2		**Treatment of old roads and temporary deviations**				R -
	C11.9.2.1	Conventional construction methods	(km)	39		R -
TOTAL CARRIED FORWARD TO SUMMARY						**R -**

C20.1		TESTING MATERIALS AND JUDGEMENT OF WORKMANSHIP				
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
	C20.1.2.2	**Employer's contribution to other special tests**				
		To be specified by the Engineer:	(PC) sum	Prime	Cost	R 400 000
		Handling costs and profit in respect of item C20.1.2.2(a)	(%)	R 400 000		R -
C20.1.3		**Providing testing equipment:**				
	C20.1.3.1	Core drill	(No.)	6		R -
PC20.1.5		**Financial contribution for an independent site laboratory**	month	24		R -
PC20.1.6		**Payment of independent site laboratory**	*Note to compiler: Add this pay item C20.1.6 if the site laboratory is to be paid by the contractor (See Clause C4.7 of the Site laboratory pro-forma document):*			
	C20.1.6.1	Direct payment by contractor	(PC) sum	Prime	Cost	R 650 000
		Handling cost and profit in respect of item C20.1.6.1	(%)	R 650 000		R -
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION D - D1000		TRAINING, COACHING, GUIDANCE, MENTORING AND ASSISTANCE				
ITEM		**DESCRIPTION**	**UNIT**	**QTY**	**RATE**	**AMT**
D10.01		**Target Group Participation**				
	(a)	Contract Participation Performance bonus	(PC) sum	Prime		R 200 000,00
D10.02		**Stakeholder and Community Liaison and Social Facilitation**				
	(a)	Cost of liaison, social facilitation and PLC support	(PC) sum	Prime	Cost	R 200 000,00
	(b)	Handling cost and profit in respect of sub-item D10.02(a)	(%)	R 200 000,00		R -
D10.03		**Tender Process for Targeted Enterprises**				
	(a)	Contractor's charge for the management and execution of the Targeted Enterprise procurement process:				
		Procurement process for the totality of all tenders concluded for the appointment of Targeted Enterprise subcontractors of CIDB 1 and 2 contractor grading	(No.)	5		R -
		Procurement process for the totality of all tenders concluded for the appointment of Targeted Enterprise subcontractors of CIDB 3 and 4 contractor grading	(No.)	5		R -
		Procurement process for the totality of all tenders concluded for the appointment of Targeted Enterprise subcontractors of CIDB 5 and higher contractor grading	(No.)	1		R -
		Procurement process for the totality of all tenders concluded for the appointment of Targeted Enterprise suppliers	(No.)	1		R -
	(b)	Targeted Enterprise Procurement Coordinator	month	2		R -
D10.04		**Responsibilities of the Contractor towards**				
	(a)	Contractor's establishment, management, management support, assistance, coaching, guidance, mentoring and supervision of Targeted Enterprises	month	24		R -
	(b)	Targeted Enterprise Construction Manager	Person.Month	24		R -
	(c)	Targeted Enterprise Site Supervisors	Person.Month	24		R -
D10.05		**Construction Works by Targeted Enterprises**				
	(a)	Payments associated with the construction works carried out by Targeted Enterprise subcontractors of CIDB 1 and 2 contractor grading designation appointed in terms of Section D	P sum	Prov	Sum	R 100 000,00
	(b)	Handling costs and profit in respect of payment associated with sub-item D10.05(a)	(%)	R 100 000		R -
	(c)	Fluctuation between the main contractor's rates and that of the Targeted Enterprise subcontractors	lump sum	lump	sum	R 300 000,00
	(d)	Preliminary and General Obligations of Targeted Enterprise sub-contractors appointed in terms of Section D	lump sum	lump	sum	
D10.06		**Training, coaching, guidance, mentoring and assistance**				
	(a)	Training Costs				
		Accredited NQF training	P sum	Prov	Sum	R 150 000,00
		Accredited generic skills training	P sum	Prov	Sum	R 150 000,00
		Community skills training	P sum	Prov	Sum	R 150 000,00
		Handling cost and profit in respect of subitems D10.06(a)(i), (ii) and (iii)	(%)	R 450 000,00		R -
	(b)	Student experiential training				
		Student stipends	(PC) sum	Prime	Cost	R 480 000,00
		Provision of experiential training	Person.Month	48	10000	R 480 000,00
	(c)	Other costs during training	P sum	Prov	Sum	R 12 000,00
	(d)	Training venue	lump sum	lump	sum	R 20 000,00
TOTAL CARRIED FORWARD TO SUMMARY						

C2.3 SUMMARY OF PRICING SCHEDULE			
CONTRACT :.....COMMUNITY SAFETY, ROADS AND TRANSPORT			
FOR: SPECIAL MAINTENANCE OF ROAD P37/1 BETWEEN TWEESPRUIT AND EXCELSIOR FOR 44.00 KM'S			
GENERAL			
C1.2	GENERAL REQUIREMENTS AND PROVISIONS	R	-
C1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS	R	-
C1.4	FACILITIES FOR THE ENGINEER	R	-
C1.5	ACCOMMODATION OF TRAFFIC	R	-
C1.6	CLEARING AND GRUBBING	R	-
C1.7	LOADING AND HAULING	R	-
SERVICES			
C2.1	GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES	R	-
DRAINAGE			
C3.1	DRAINS	R	-
C3.3	CONCRETE KERBING AND CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, AS WELL AS CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS	R	-
EARTHWORKS AND PAVEMENT LAYERS MATERIALS			
C4.1	BORROW MATERIALS	R	-
C4.2	CUT MATERIALS	R	-
C4.4	COMMERCIAL MATERIALS	R	-
EARTHWORKS AND PAVEMENT LAYERS CONSTRUCTION		R	-
C5.3	ROAD PAVEMENT LAYERS	R	-
C5.4	STABILISATION	R	-
PRETREATMENT AND REPAIR EXISTING LAYERS		R	-
C8.1	PRIME COAT	R	-
C8.2	COVER SPRAYS, FOG SPRAYS AND REJUVENATION SPRAYS	R	-
C8.8	PATCHING AND EDGE BREAK REPAIR	R	-
C9.1	ASPHALT LAYERS	R	-
C10.1	GENERAL REQUIREMENTS FOR SURFACE TREATMENTS	R	-
C11.1	PITCHING, STONEWORK, CAST IN SITU CONCRETE FOR PROTECTION AGAINST EROSION	R	-
C11.3	GUIDE BLOCKS AND KILOMETRE MARKERS	R	-
C11.5	FENCING	R	-
C11.6	ROAD SIGNS	R	-
C11.7	ROAD MARKINGS AND ROAD STUDS	R	-
C11.9	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	R	-
QUALITY ASSURANCE			
C20.1	TESTING MATERIALS AND JUDGEMENT OF WORKMANSHIP	R	-
SECTION D: STAKEHOLDER AND COMMUNITY LIAISON, AND TARGET LABOUR AND TARGETED ENTERPRISES UTILISATION AND DEVELOPMENT			
D1000	TRAINING, COACHING, GUIDANCE, MENTORING AND ASSISTANCE	R	-
	SUBTOTAL A	**R**	**-**
	Note to compiler: Insert the following if the contract works period exceeds 12 months. In addition, add a formula for the amount to be calculated automatically as 0.25% of the total tender amount:		
	CONTRACT SKILLS DEVELOPMENT GOAL:		
	0.25% of Subtotal A	R	-
	SUBTOTAL B	**R**	**-**
	(Contingencies @3%)	**R**	**-**
	SUBTOTAL C	**R**	**-**
	CPA@ 5%	**R**	**-**
	SUBTOTAL D	**R**	**-**
	Disbursments @ 3%	**R**	**-**
	SUBTOTAL E	**R**	**-**
	VALUE ADDED TAX:		
	15% of Subtotal	**R**	**-**
	TOTAL CARRIED TO C.1.1.1 : FORM OF OFFER	**R**	**-**
	SIGNED BY PROJECT MANAGER:		

SPECIAL MAINTENANCE OF PRIMARY ROAD P71/1, BETWEEN TWEESPRUIT AND HOBHOUSE. FROM CHAINAGE 0.000 TO CHAINAGE 39.000

Part C3 Specification for the Work

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PART C3SCOPE OF WORKS

SECTION C3.1STANDARD SPECIFICATIONS

The standard specifications on which this contract is based are the **"Standard Specifications for Road and Bridge Works for State Road Authorities – October 2020 Edition"** prepared and drafted by COTO.

The following SANS specifications are also referred to in this document and the Contractor is advised to obtain them from Standards South Africa (a division of SABS) in Pretoria

SANS 1914-1 to 6 (2002):Targeted Construction Procurement

SANS 1921-1 (2004):	Construction and Management Requirements for Works Contracts Part 1: General Engineering and Construction Works and where accommodation of traffic is involved.
SANS 1921-2 (2004):	Construction and Management Requirements for Works Contracts; and Part 2: Accommodation of Traffic on Public Roads Occupied by the Contractor.
SARTSM regulations	Road Signs and Road Marking Manuals

All references to SABS Standards which are replaced with corresponding SANS Specifications, have to be read in their new format.

SECTION C3.2:PROJECT SPECIFICATIONS

The Project Specifications, consisting of two parts, form an integral part of the Contract and supplements the Standard Specifications.

PART A contains a general description of the works, the site and the requirements to be met.

PART B contains variations, amendments and additions to the Standard Specifications and, if applicable, the Particular Specifications.

PART C contains specifications to be followed for 30% subcontracting and local SMME's participation.

PART D contains specifications for Occupational Health and Safety including the baseline risk assessment.

PART E contains specifications for Environmental Compliance.

In the event of any discrepancy between a part or parts of the Standardized or Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer with a consultation to the Employer before the execution of the work under the relevant item (in the form of Addendum).

PART A: GENERAL

PS1 EMPLOYER'S OBJECTIVES

The Employer's general objective is to Maintain and rehabilitate the P71/1 route between KM0.00 to KM39.00 for a total remaining scope of 39 km. 13km Full Rehabilitation and the remaining 26km Base Correction and full reseal.

1.The project offers employment job opportunities and also uplift the local community.

2.To deliver suitable public infrastructure in a cost effective way,

3.Create employment and up-improve job opportunities for local communities and contractors.

4.To improve mobility and access to nearby towns for transportation facilities as part of economic growth.

This project has the following particular objectives:

1. Create employment for 4 labourers for every one million spent.
2. Create employment opportunities for local subcontractors, with a total of 30% of contract value (excl. CPA and Contingencies).
3. Provide work experience for two departmental students.
4. To provide training for local labourers in social as well as in labour intensive construction skills.

PS2 LOCATION OF THE WORKS

Refer to the locality plan included in Part C4 of this document.

SECTION 1.2: GENERAL REQUIREMENTS AND PROVISIONS

BA1.2.3GENERAL

Replace Clause A1.2.3 with the following:

"The General Conditions of Contract for Construction Works, 3rd Edition 2015, published by the South African Institute of Civil Engineering, together with the Special Conditions of Contract, forming part of the contract, will be applied".

All references in the COTO Standard Specifications have been amended accordingly to reflect the appropriate General Conditions of Contract relevant for the Contract. Each COTO clause reference is tabulated in Table 1.2/1 below (context of reference is also given) together with the relevant equivalent clause in the SAICE General Conditions of Contract for Construction Works applicable for this contract. All references to the "schedule of quantities" in the Standard Specifications shall be amended to the "Bill of Quantities".

Whereas every effort has been made to include all of the affected clauses in the table, there may be some omissions. In every case, however, the SAICE General Conditions of Contract for Construction Works, as amended by the Special Conditions of Contract in Part C1.2: Contract Data of this Volume, shall apply and the Contractor shall be responsible for the interpretation of the equivalent clause.

TABLE 1.2/1

REFERENCES IN COTO STANDARD SPECIFICATIONS TO THE RELEVANT SAICE GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS 2015

COTO Standard Specifications for Road and Bridge Works for South African Road Authorities (Draft Standard) (October 2020)		**SAICE General Conditions of Contract for Construction Works 3rd Edition 2015**	
Clause no.	**Description or Reference**	**Clause no.**	**Description or Reference**
A1.2.3.4	Extension of time for delays caused by rainfall	5.12	Extension of time for Practical Completion
A1.2.3.5	Handing-over of the site of the works	5.4	Access to site
A1.2.3.7	Legal and Contractual requirements and responsibility to the public and Employer	4.3	Legal Provisions
A1.2.3.10	Notices, signs and advertisements	4.5	Notices and Fees
A1.2.3.11	Ordering of daywork	6.5	Dayworks
A1.2.3.14	Remedial Work	7.9	Urgent remedial work
A1.2.3.19	Temporary drainage and dewatering	8.1& 8.2	Protection of works & Care of the works
A1.2.7.1	Programme of work	5.6	Programme

BI.2.7.1 PROGRAMME OF WORK

Add the following after the title:

"The Contractor shall include with his tender a preliminary programme. The programme shall be in the form of a simplified bar chart with sufficient details to show clearly how the works will be performed within the time for completion as stated in the Contract Data.

The Contractor shall be deemed to have allowed fully in his tendered rates and prices as well as in his programme for all possible delays due to adverse weather conditions and special non-working days as specified in the Project Specifications and in the Contract Data.

It is essential that the construction programme, which shall conform in all respects to Clause
5(6) of the General Conditions of Contract, be furnished within the time stated in the Contract

Data. The preliminary programme to be submitted with the tender shall be used as basis for this programme."

(a) General

Insert the following at the beginning of the clause:

"The Contractor shall submit his programme at the closing of the tender together with his billed tender document. The programme shall be in the form of a bar chart (Gantt chart) or any other time-activity form acceptable to the Engineer, and shall clearly show:

i) The proposed rate of progress in order to complete the works within the required period as tendered, showing the various activities, their durations and proposed resourcing levels (major plant and labour) for each element of the works. Sufficient detail shall be provided to enable the Engineer to be able to gauge construction progress. All activities, including establishment on site, trimming and finishing and the completion of all minor ancillary works are to be included in the programme.

i) The sequence of activities and any dependencies (time or resource related) between them.

ii) The critical path activities.

v) Key dates in respect of work to be carried out, or information, etc., to be provided, by others.

v) Other information specifically required by the Engineer.

When compiling his programme, the Contractor shall, inter alia, take into consideration and make allowance for :

i) Unexpected weather conditions and their effects.

ii) Known physical conditions or artificial obstructions.

iii) The accommodation and safeguarding of public traffic.

v) Restrictions of the total length of deviation open to traffic at any one time. Simultaneous work on adjacent sections shall not be allowed.

v) All special non-working days as defined in Part Cl .2: Contract Data.

vi) All training, especially safety training, to be completed before an activity is commenced.

The following details shall be submitted together with the programme:

i) The number of working hours per day, working days per week, assumed holiday or shut down periods on which the programme is based.

i) The overall labour and major plant resource levels on which the programme is based.

ii) The detailed traffic accommodation proposals on which the programme is based (road or lane closures, lengths of sections to be worked, timing etc).

iv) A budget forecast of the value of completed work, excluding CPA and contingencies but including VAT, month by month, for the full contract period.

These additional items shall also be revised when any revision is made to the programme. Failure to comply with these requirements entitles the Engineer to use a programme based on his own assumptions to evaluate claims for extension of time for completion of the works, or for additional compensation.

Minor revisions to the approved programme may be introduced from time to time by mutual agreement between the Contractor and the Engineer. Should the Engineer believe that a major revision of the programme is required, the Contractor will be notified in writing and an updated programme shall be submitted within two weeks of receipt of such notification.

It should be noted that it is in the Contractor's interest to provide a comprehensive programme giving as much information as possible about the times allowed for the various activities as well as resource or other limitations affecting the programme, since the approved programme may be used to evaluate any claims in terms of the General Conditions of Contract for extension of time.

The Contractor shall submit to the Engineer, at least three working days before each monthly site meeting, copies of the following:

i) The contract programme with progress charts and programme graphs updated to reflect the actual progress to date.

i) A summary of progress on site over the month preceding the site meeting. The report shall be in the form of a detailed narrative to the contract programme.

ii) Details of activities running late, indicating what steps have been or will be taken to ensure that the work is completed within the specified time.

iv) A report on all labour, plant and materials on site.

v) All other appendices to the monthly site meeting minutes as required by the Employer."

BA 1.2.7.2 THE SETTING OUT OF WORK AND PROTECTION OF BEACONS (where required)

Add the following before the last paragraph:

"The sections to be rehabilitated or constructed have not been set out.

Benchmarks required for construction control shall be established by the Contractor. The Contractor shall survey the existing benchmarks and submit the results for checking and approval by the Engineer within 14 days after the Commencement date.

Where instructed by the Engineer, the Contractor shall stake the road at 20m point intervals along the road before the start of any construction activities. Cross sections shall be taken to the width of the road reserve, indicated by the existing fence line or as prescribed by the Engineer either side of the road centre line at the 20m point intervals. The cross sections have to be submitted to the Engineer for checking and approval in the format required by the Engineer (including electronic format).

The Contractor shall submit written notice to the Engineer in the form of "job requests" of at least three working days before the intention of setting out or commencing any portion of the Works especially if the Works are to be checked. Such notice shall include the time, location and type of Work to be set out or checked. The Contractor shall complete setting out or surveying any part of the works ahead of his submitted construction programme to allow the Engineer adequate time to check the setting out or the survey and to give his approval to proceed or give instructions for alterations, additions and omissions."

Add the following before the first sentence of the last paragraph:

"No separate payment will be made for any setting-out, staking, taking cross sections, checking benchmarks, referencing existing road markings or any work described in this clause."

Add the following paragraph:

"The Contractor shall take care that property beacons, trigonometrical survey beacons or setting-out beacons are not displaced or destroyed without the consent of the Engineer.

Property beacons and trigonometrical survey beacons that have been displaced or destroyed shall be replaced by a registered Land Surveyor, who shall certify such replacement.

The cost of replacing all beacons displaced or destroyed during the course of the contract without the consent of the Engineer shall be the Contractor's responsibility and included in the tender rates."

Bl .2.8 WORKMANSHIP AND QUALITY CONTROL

Add the following after the title:

"The Contractor shall implement a quality assurance system in accordance with ISO 9001 and appoint a quality manager who shall ensure that members of the Contractor's staff comply with the requirements of the quality system. The quality system and the methods used to implement it shall be described in a quality plan produced by the Contractor. The quality manager shall be resident on site full time. No construction activities shall take place on site before the
Engineer approves the quality plan".

a) Process control

The Contractor shall arrange for all tests required for process control to be done by a laboratory acceptable to and approved by the Engineer.

The Contractor may establish his own laboratory on site or he may employ the services of an independent commercial laboratory. The costs for these tests shall be deemed to be included in the relevant rates and no additional payment will be made for testing as required.

Add the following:

"The Contractor shall submit the quality assurance system he proposes using to the Engineer, for his approval, within two weeks of the site handover. Once accepted by the Engineer the Contractor shall not deviate from it unless written notification of proposed changes have similarly been submitted and approved. The system shall record the lines and levels of responsibility and indicate the method by which testing procedures will be conducted.

b) Acceptance control

add the following:

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Engineer for acceptance control.

However, before accepting any work, the Engineer may have further control tests carried out by a laboratory of his choice. The cost of such additional tests will be covered by a Provisional
Sum provided under Section 20 in the Bill of Quantities, but tests that failed to confirm compliance with the specifications, will be for the account of the Contractor.

An acceptance control system will be set up by the Engineer (Employer), which will include scheduled checks of the contractor's quality control system by means of various schedules to be submitted in a weekly and/or in a monthly basis.

The schedules will include but not limited to the following:

1. Quality acceptance control testing
2. Electronic Daily Diaries which include photographic evidence of work done submitted on a daily basis.
3. Hard copy daily diaries prepared for signing on a weekly or bi-weekly basis.
   - Inspection requests submitted electronically and backed up with hard copies for signing on site. (Requests to be submitted 24hr in advance)
4. Monthly labour and Progress reports."

Add the following:

"The Contractor's place of testing and laboratories shall be subject to inspection and approval by the Engineer.

No routine levelling or material testing will be executed by the Engineer on behalf of the Contractor. The Engineer will only check the levels and laboratory test results of the Contractor after the information has been submitted to him in writing. The Engineer may however perform acceptance control testing.

No work executed will be measured for payment unless the results submitted have been checked and approved."

Bl .2.8.2 ACCEPTANCE QUALITY CONTROL

Remove the second, third and fourth sentences and replace with the following:

The engineer may carry out testing at the cost of the Employer in either the Engineer's laboratory or one approved by him.

An acceptance control system will be set up by the Engineer (Employer), which will include scheduled checks of the contractor's quality control system by means of various schedules to be submitted in a weekly and/or in a monthly basis.

The schedules will include but not limited to the following:

1. Quality acceptance control testing
2. Electronic Daily Diaries which include photographic evidence of work done submitted on a daily basis.
   - Hard copy daily diaries prepared for signing on a weekly or bi-weekly basis.
3. Inspection requests submitted electronically and backed up with hard copies for signing on site. (Requests to be submitted 24hr in advance)
4. Monthly labour and Progress reports.

BAI .2.8.3 CERTIFICATE OF PRACTICAL COMPLETION OF THE WORKS

Notwithstanding that there might be natural or programmed sections of the works that will result in them being completed in their entirety before other sections, no consideration shall be given to the issuing of practical completion certificates for portions of the works. The use of any completed roadway or portions of the work, whether for unhindered use by the public or for accommodation of traffic while other portions are being constructed, shall not constitute use or occupation by the Employer.

In addition to the listed specified items of work and regardless of the degree of beneficial occupation by the Employer, the works shall be considered for practical completion only if the following criteria also have been met:

i) The estimated cost to complete the outstanding work is less than 2% of the tendered value of work plus the cost of any variation or extra work orders, but excluding CPA and VAT.

The written list of outstanding items of work can be completed within 28 days of the list having been accepted in writing by the Contractor.

Any information in the Contractor's possession, which is required by the Engineer and has been requested in writing, has been supplied.

All road work and storm water drainages have been completed in accordance with the project specification.

The contents of this General Conditions of Contracts, together with the above amendment, shall be applied equally to the issue of a Certificate of Practical Completion.

INFORMATION FURNISHED BY THE EMPLOYER

BA.I .2.8.4

Add the following new clause:
"Quantities regarding the distribution and extent of repair work items were compiled and calculated to the best of the Engineer's knowledge and available information at the time of the design and could be subject to significant variations at the construction stage. Such variations shall, however, not form grounds for a claim by the Contractor in terms of the General Conditions of Contract."

BA 1.2.3.4 EXTENSION OF TIME FOR DELAYS CAUSED BY RAINFALL

Change the existing heading of clause BA 1.2.3.4 to read as above and wherever the expression "rainfall" is encountered replace it with "inclement weather"

Delete the entire clause and replace with the following:

"For the purposes of calculating an extension of time due to climatic conditions in terms of clause 5(12)(2) of the General Conditions of Contract, the number of days more than the number of working days anticipated to be lost due to climatic conditions shown in Table B1215/1 shall be taken into account:

TABLE B1215/1
ANTICIPATED DAYS LOST DUE TO INCLEMENT WEATHER CONDITIONS

EXPECTED NUMBER OF WORKING DAYS LOST			
January	3	July	2
February	3	August	2
March	3	September	3
April	3	October	3
May	2	November	3
June	2	December	3

The following climatic conditions can be classified as inclement weather conditions:

1. Cold weather conditions,
2. Windy conditions,
3. Misty conditions,
4. Excessive dust storms, and
5. Rainy conditions (more than 10 mm rain per day).

The Engineer will certify a day lost due to the above climatic conditions or inclement weather conditions only if:

1. no work on the critical path (delay in critical path) according to the latest approved programme for completion of the works could be carried out during that specific working day or if

2. only 30% or less of the work force and plant planned for that specific day, could work.

The extension of time as a result of inclement weather and/or abnormal climatic conditions will be calculated monthly as being equal to the absolute value of the number of days certified by the Engineer as lost due to climatic conditions, less the number of

days in Table B1215/1. The total extension of time for the contract will be the sum of the monthly extensions.

Extension of time for portions of a month shall be calculated pro-rata.

If approved extensions of time extend the completion date beyond the start of the Contractor's holiday in December, the holiday period shall not be considered as working days, as defined in the Contract Data. Any remaining extension of time at this date shall be calculated from the first statutory working day in January the following year, provided that the contractor has shown in his programme that he intends to close during the traditional Christmas / New Year break."

BAI .2.3.5 HANDING-OVER OF THE SITE OF THE WORKS

Add the following:

"Upon the handing-over of the site the Contractor shall immediately assume responsibility for the road reserve within the limits of this contract as set out in the specifications.

Prior to the commencement of work the Contractor and the Engineer shall together carry out a joint inspection of the road section. During such an inspection, notes shall be made of all damaged fences, guardrails, signs and any other notable problems or features that exist at the time of hand-over. The following matters should be agreed at the time of handing-over:

i) The limits, lengths, widths and areas of construction.

The location of kilometer markers and reference beacons

The location of stockpile areas and the responsibilities of the Contractor with regard to the road reserve area and the stockpile sites (fencing, re-establishment, height of stockpile, etc.).

The method of accommodation of public traffic with regard to safety, sight distances, interference with existing road signs and road markings both within the work area and providing advance warning before the work area.

v) The method of construction and supervisory control measures."

BAI .2.3.6 LEGAL PROVISIONS

Add the following new paragraph:

"The Contractor shall take note of the new Construction Regulations 2003 recently promulgated under the Occupational Health and Safety Act (Act 85 of 1993) and it's Regulations, in particular the Construction Regulations 2017 No.
R. 1010 promulgated 18 July 2003 as well as the COVID 19 Occupational Health and Safety Measures in Workplaces COVID 19 (C19 OHS), 2020, issued by the department of

Employment and Labour. The Contractor shall in terms of sub clause 5(1) of these regulations provide a comprehensive health and safety plan detailing the hazards identified on this project and the procedures required to mitigate, reduce and/or control the said hazards.

The scope of the work to be carried out under this contract is indicated, but not limited to, this section and in other sections of this document and on the drawings and shall include the health and safety specification as well as COVID 19 OHS Specifications.

The Contractor shall at all times be responsible for full compliance with the approved plan as well as the Construction Regulations."

BA 1.2.3.10 NOTICES, SIGNS AND ADVERTISEMENTS

Delete the last sentence and replace with the following:

"All signboards erected in accordance with the drawings or as approved advertisements for the Contractor's establishment, shall be removed at the same time as the de-establishment of the Contractor's camp. Payment under sub-item 13.01 for the final installment of 15% of the tendered lump sum shall not be made unless all the advertisements, notices and temporary signs have been removed."

3. GENERAL REQUIREMENTS AND PROVISIONS
PART C: MEASRUREMENT AND PAYMENT

Add the following new payment items ..

ITEM		UNIT
BC1.2.10	Protection, removal, realignment and replacement of services	
	a) Utility Services	
	b) Contractor's handling cost and profit in respect of sub-item B12.01 (a)(i)(ii)(iii)	Percentage (^{0}/0)

The prime cost item shall be paid in accordance with the provisions of the General Conditions of Contract.

The tendered percentage is a percentage of the amount actually spent under the prime-cost item, which shall include full compensation for the profit in connection with providing the specified service."

ITEM		UNIT
BCI .2.11	i) Laboratory tests for Engineer's quality assurance acceptance control ……..Provisional (Prov. Sum)	

BCI .2.11 (ii) Contractor's handling cost and profit in respect of sub-item BCI .211 (i) _____Percentage (^{0}/0)

Quality assurance control testing will be carried out by an external laboratory as nominated by the Engineer.

Any payment claimed under this provisional sum item shall be certified on the engineer's receipt of the Contractor's submitted tax invoice(s) as received from the Engineer's selected external laboratory. No payment will be considered without an attached associated tax invoice.

The tendered percentage is a percentage of the amount actually spent under the provisional sum item, for the Contractor's handling cost and profit in respect of sub-item Bl 2.11 (i)."

ITEM			UNIT
BC1.2.12	¡	Site Surveyor for Engineer's quality Assurance/ acceptance control ……..Provisional (Prov. Sum)	
BC1.2.12	(ii)	Contractor's handling cost and profit in respect of sub-item BCI 2.120 _____Percentage (^{0}/0)	

Quality assurance control testing will be carried out by an external laboratory as nominated by the Engineer.

Any payment claimed under this provisional sum item shall be certified on the engineer's receipt of the Contractor's submitted tax invoice(s) as received from the Engineer's selected external laboratory. No payment will be considered without an attached associated tax invoice.

The tendered percentage is a percentage of the amount actually spent under the provisional sum item, for the Contractor's handling cost and profit in respect of sub-item Bl 2.120)."

ITEM			UNIT
BC1.2.13	(i)	Occupational Health and Safety Agent for Engineer's quality Assurance/ acceptance control ……..Provisional (Prov. Sum)	
BC1.2.13	ii	Contractor's handling cost and profit in respect of sub-item BCI 2.130 _____Percentage (^{0}/0)	

Quality assurance control testing will be carried out by an external laboratory as nominated by the Engineer.

Any payment claimed under this provisional sum item shall be certified on the engineer's receipt of the Contractor's submitted tax invoice(s) as received from the Engineer's selected external laboratory. No payment will be considered without an attached associated tax invoice.

The tendered percentage is a percentage of the amount actually spent under the provisional sum item, for the Contractor's handling cost and profit in respect of sub-item Bl .2.130."

ITEM			UNIT
BC1.2.14	i	environmental compliance agent for Engineer's quality Assurance/ acceptance control ……..Provisional (Prov. Sum)	
BC1.2.14	(ii)	Contractor's handling cost and profit in respect of sub-item BCI .2.140 _____Percentage (^{0}/0)	

Quality assurance control testing will be carried out by an external laboratory as nominated by the Engineer.

Any payment claimed under this provisional sum item shall be certified on the engineer's receipt of the Contractor's submitted tax invoice(s) as received from the Engineer's selected external laboratory. No payment will be considered without an attached associated tax invoice.

The tendered percentage is a percentage of the amount actually spent under the provisional sum item, for the Contractor's handling cost and profit in respect of sub-item Bl 2.140."

ITEM		UNIT
BC1.2.15	(i) Portion of the Works identified by the Employer or Engineer to be completed by Local Subcontractors ...Provisional(Prov. Sum)	
BC1.2.15	(ii) Contractor's handling cost and profit in respect of sub-item BCI .2.15(i) allowed for the Main Contractor's interaction with local subcontractors as well as facilitation of monthly payments to the nominated subcontractor for works completed under this pay item……..Percentage (^{0}/0)	

The local subcontractor will submit an itemised claim and an associated invoice to the Contractor. Payment under Item BCI 2.15 (ii) will be considered upon the submission of a claim by the Main Contractor to the Engineer.

Note: Implementation of all subcontracting program will be done in line with PART C4 of the project specification, which looks into the procurement, appointment and payment of all local subcontractors appointed in the contract.

BAI.3 GENERAL REQUIREMENTS

Add the following new clause::

AI .3.9 Legal and contractual requirements and responsibilities to the public

There has been recent legislation promulgated by Government that improves mutual obligations on the Employer and Contractor in the performance of their duties to society and to the built and natural environment.

To assist the Contractor in understanding and assessing his obligations, and thus to make allowances for the cost of compliance with this legislation, the following additional specifications are included in the Project Specifications, C3.3:

- Section D: Particular Specification contains the specification that regulates the Contractor's construction methods so far as to ensure the health and safety of his employees and of the public.

  A new pay item has been made available under this section to allow the Contractor to make separate provision for the cost of health and safety measures during the construction process.

1. Section E: Particular Specification contains the Environmental

Management Programme for this project. Its provisions regulate the Contractor's construction methods to ensure responsible conduct and treatment of the environment relevant to the project. No separate payment mechanism has been made available for the Contractor to allow for his compliance with relevant environmental legislation. The Contractor shall include such costs in the existing payment items under section 1.2 Payment. However, non-compliance with the provisions of this section may lead to the imposition of penalties.

2. Section G: Particular Specification contains guidelines for subcontracting and labour enhancement.

BC 1.3.1
SECTION 1.3 : CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS
BC1.3.
1

The Contractor's general obligations

:

Add the following payment sub-item

"BCI .3.1.4) Health and safety obligationmonth" Add the following paragraphs after the as paragraphs

Payment for time related costs arising from extensions of time granted by the Employer, where the Contractor is fairly entitled to such compensation in terms of the Conditions of Contract, will be calculated by taking account only of pay items for which the unit of measurement is "month". All pay items for which the unit of measurement is "month" are deemed to be based on 22 working days per month. Account shall be taken of all time related items scheduled in Section 1.3, 1.4 and 1.5."

Should the combined total tendered for sub items (Cl .3.1.1) and (Cl .3.1.3) exceed 15% of the tender sum (excluding CPA, contingencies and VAT), the Tenderer shall state his reasons in writing for tendering in this manner.

The Tenderer's attention is drawn to Form I: Amendments, Qualifications and Alternatives (to be completed by the Tenderer). If the Tenderer should require additional compensation for his obligations under section 1.3 (over and above the total tendered for item Bl .3.1) by including such additional compensation in the tendered rates and/or lump sum of items in the Bill of Quantities, these items and the value of such additional compensation shall also be indicated in writing in a letter attached to Form l.

Payment of the rate per month for sub-item (1.3.1.4) shall include full compensation for all the Contractor's obligations relevant to health and safety legislation and all safety requirements.

A Contractor who tenders zero for this pay item shall not be relieved of his statutory obligations. A nil rate offered shall be deemed not as an omission but as deliberate notice that costs have been included in the tendered rates for individual items of work or in the other Preliminary and General pay items.

SECTION 1.5: ACCOMMODATION OF TRAFFIC

BAI.5.1 SCOPE

Add the following to the end of this clause ..

"It is a condition of this contract that traffic is accommodated taking into account the provisions of the latest edition of the South African Road Traffic Signs Manual (SARTSM). The latest version for use in the accommodation of traffic is Volume 2, Chapter 13 of the June 1999 edition. Copies of this publication are available from the South African National Roads Agency
Limited, P O Box 415, Pretoria 0001.

BAI .5.3.2 GENERAL REQUIREMENTS

Add the following after the last paragraph:

Failure to maintain road signs, warning signs or flicker lights, etc. in a good condition shall constitute ample reason for the Engineer to stop the works until the road signs, etc. have been repaired and are operating to his satisfaction.

The Contractor may not commence constructional activities before adequate provision has been made to accommodate traffic in accordance with the requirements of the drawings, specifications and the South African Road Traffic Signs Manual.

The Contractor is to supply, erect, operate and maintain all the road signs and other equipment shown on the drawings or in the specifications or as directed by the Engineer, necessary to safely carry out his traffic control responsibilities.

The Engineer may instruct the Contractor to carry out minor works at isolated positions outside the limits of the site. The Contractor shall be

responsible for the safety of the traveling public at those positions during the contract period.

BAI.5.7.12 Traffic safety Officer

Add the following to the end:

"The Contractor shall submit a CV of the candidate to the Engineer for approval before the candidate is appointed as the Traffic Safety Officer".

BAI.5.6.1 TEMPORARY TRAFFIC-CONTROL FACILITIES

Temporary signs, Traffic Cones and traffic signals

Add the following after the last paragraph:

"The Contractor shall be responsible for the protection and maintenance of all signs and barricades and shall at his own cost replace any that have been damaged, lost, or stolen.

All temporary road signs required to remain in position for some time shall be pole mounted as shown on the drawings.

The covering of permanent road signs, if applicable, shall be by utilizing a Hessian bag that shall be pulled over the sign in the form of a hood and fastened to the signposts.

Plastic bags or other materials and fastened by means of adhesive tape shall not be permitted.

BA 1.5.6.2 ILLUMINATED TRAFFIC SIGNS AND SAFETY DEVICES

Delete the specification and replace with the following:

"The Engineer has the authority and responsibility to enforce compliance with the approved Accommodation of Traffic Plan as submitted by the Contractor and approved for execution by the Engineer.

i) Vehicle mounted flashing lights

All construction vehicles and plant used on the works, including vehicles and plant operated by subcontractors and/or suppliers, shall be equipped with rotating amber flashing lights and warning signs as prescribed by law.

Rotating lights shall have an amber lens of minimum height of 200 mm and shall be mounted in such a way as to be highly visible from all directions. The lights on construction vehicles shall always be switched on while vehicles are being operated. All LDV's and cars operating on site shall also be equipped with rotating amber flashing lights which shall be placed so as to be highly visible and operated
continuously while the vehicles are maneuvering in or out of traffic or are travelling or parked alongside roads open to public traffic.

Rotating lights and the "CONSTRUCTION VEHICLE" signs on the Contractor's vehicles and plant shall not be paid for separately but shall be included in the rates covering the use of the vehicles.

The Contractor shall supply and maintain rotating amber lights together with temporary mounting brackets to the Engineer and supervisory personnel for the duration of the contract period.

Vehicles and plant that do not comply with these requirements shall be removed from the site.

i) Sign mounted flashing lights

Two amber flashing lights shall be vertically mounted on top of the traffic signs at each end of each traffic accommodation section as shown on the drawings. The lights shall be operated during the hours of darkness when in operation."

BAI .5.6.5 FLAGMEN

During the daytime, at least two flagmen shall be provided at each traffic control point in addition to the traffic signal operator, one flagman at the 80 km/h sign and a second roving flagman to indicate to the traffic at the end of the queue to stop. At night time only one roving flagman equipped with a "Stromberg Lightman" xenon strobe, or similar approved, and a torch is required at each traffic control point as well as the traffic light operator. No flagman shall be on duty for a period of more than 10 hours per day.

Flagmen shall have in their possession, at all times, certification that they have attended and passed an accredited course in flagging techniques before being allowed onto the construction site.

Flags shall be made from bright red material and shall be square with a minimum side length of 600 mm. The flag shall be attached to a staff at least 1,0 m in length.

In terms of lateral clearance and safety, flagmen shall stand on the shoulder of the lane of traffic that is being controlled and under no circumstances shall flagmen be

permitted to stand within the traffic lane. In order to obtain maximum visual impact for the travelling public, flagmen shall stand alone."

i) Temporary rumble strips

Where ordered by the Engineer, the Contractor shall install temporary rumble strips. The distances between units will be as directed by the Engineer."

(j) Traffic signals

A traffic signal control system shall consist of four traffic signals, each with three aspects, and shall include the control devices, power supply and mountings.

Temporary traffic signals and control shall comply with the following requirements:

(a) the signals and power supply shall be capable of operating under all weather conditions for uninterrupted periods of at least 24 hours

1. standard signal faces with 210mm diameter red, amber and green aspects shall be provided by the Contractor

2. traffic signal lights shall comply with SABS 1450-1988. Aspects shall be fitted with 50W tungsten halogen lamps

3. two standard signal faces, erected on opposite sides of the road, shall be provided to control each direction of traffic flow

(e) two 1000W floodlights, mounted on 3,5m timber posts shall be provided at the start and end of each section where traffic is controlled by means of traffic signals

(f) in the event of failure of the traffic signals an immediate system of STOP and GO control, with operators equipped with two-way radios, shall be available.

Sufficient personnel, equipped with two-way radios in good order and additional batteries, shall be provided to operate the traffic signal control system in shifts not exceeding 8 hours. The same personnel shall not be on duty throughout an entire night.

All traffic signals shall be under constant supervision of at least two operators to ensure that there is no interruption of the service, that any malfunction of the traffic signal equipment is immediately detected and the safety of road users ensured by implementing manual traffic control operations.

No separate payment shall be made for operators controlling the traffic signals. The tendered rate for item B15.11 shall include full compensation for such operators. No separate payment shall be made for relocating the signals."

BA 1.5.7.6 MAINTENANCE OF EXISTING ROADS USED AS DETOURS

Add the following:

"The Contractor shall indemnify the Employer against all proceedings, claims, actions, damages and costs which may arise from or be related to damage to vehicles or property or injury to persons as a result of loose stones or aggregates on the road surface or as a result of bituminous applications during the construction of the works.

The Contractor shall arrange his activities so that construction traffic and equipment do not unnecessarily obstruct public traffic or force it to a complete standstill. The flow of public traffic shall always take precedence and the Contractor shall not stop or delay public traffic to make way for construction traffic."

CHARPTER 5: EARTHWORK & PAVEMENT LAYERS CONSTRUCTIONS

SECTIONS 5.1: ROADBED

BA5.1.3.1 ROADBED MATERIAL INVESTIGATION

Add the following:

'Visual assessments for existing road conditions have been done of the gravel roads, it is envisaged that ground conditions are favourable. However additional testing of suspect ground conditions will be conducted in certain areas and roadbed treatment adjusted accordingly.„

BA 5.3.3.2 USE OF MATERIAL

Add the following after the first paragraph:

The material classification for pavement layers under this contract shall be as follows:

- C3, bitumen stabilisde base compacted to 100% MOD AASHTO density, comprising of existing base material with a 100mm makeup material of G2 classification.

BA 5.4.5.3 Cementitious Stabilising Agents

Remove the las sentence and replace with the following:

"Samples of all materials to be stabilised will be provided to the Engineer's laboratory for testing and compilation of stabilisation mix design, prior to commencement of any trial sections."

Add the following:

"Where reference is made in this Specification or the Standard Specifications to the cement specifications, e.g. SABS 471: Portland cement and rapid hardening Portland cement, it shall be replaced with the new specification:

SABS ENV 197-1 "Cement compositions, specifications and conformity criteria, Part 1 : Common cements.

On this Contract CEM II 32.5 AL or available approved alternative shall be used for stabilisation purposes"

BA 5.4.5.5 Water for Stabilisation

Add the following:

"Provision of construction water is the responsibility of the contract and thus all tests and quality assurance procedures are to be done by him/her. No additional cost will be made in leu of testing possible water sources."

BA 5.4.7.3 Chemical Pre-treatment and Stabilisation

Amend as follows:

"Apply of cementitious agent by mechanical means will not apply on this contract unless prior approval is granted by the project manager, in leu of time constraints on the contract. All stabilisation and/or modifying agents are to be applied by hand to increase job creation."

BA 5.4.7.7 Protection and curing of chemically stabilised layers

Amend as follows:

'items b,c,d will not apply unless prior approval has been granted by the project manger on a case by case basis."

CHARPTER 10: SURFACE TREATMENTS

SECTION 10.1 : GENERAL REQUIREMENTS FOR SURFACE TREATMENTS

BAIO.I.I SCOPE

Add the following:

'ton this project the double seal shall consist of a precoated 20,0 mm aggregate (ALD > 12,0 mm) with tack coats of Class S-EI modified binder, followed by a precoated 10 mm aggregate with penetration layers of Class SE-1 modified binder. The final fog spray shall be a 30% spray-grade anionic emulsion.„

BAIO.1.3.1 REQUIREMENTS PERTAINING TO ALL SURFACE TREATMENTS

Add the following:

„ all plant and equipment to be utilised for sealing operations are to be thoroughly inspected for any diesel and oil leaks by the engineer prior to sealing operations. The contractor is to submit with his method statement a list of back-up plant for any plant and equipment utilised on sealing operations."

BA 10.1.3.2 Weather Limitations

Add the following limitations:

"Seal work using bitumen rubber or polymer modified binder shall not be permitted during the months of May, June, July and August.

Winter grade binders shall not be used in any seal work and the Contractor's programme shall reflect this limitation.

Extra care shall however be necessary during the winter period (April to September) to ensure the success of the temporary seal and surfacing on the milling sections and the minimum measures that the Contractor shall adhere to includes the following:

1. Sealing during daytime (spray application): 10 ^{o}c rising surface temperature.

2. Do not seal during windy conditions and/or eminent raining conditions

3. Ensuring that the chip spreader is right behind the sprayer. If not, the operation shall immediately be halted by the Engineer

4. The backfilling teams shall complete a section prior to commencement of spraying the following section

- Maximum length to be sprayed will be restricted to 200m

5. Recommended rolling methods:

-	Firstly	Steel wheel rollers
1.	Secondly	Drag broom
2.	Thirdly	Pneumatic rollers
-	Fourthly	Normal mechanical broom
-	Fifthly	2nd rolling by steel rollers, before application of fog spray.

3. Trucks shall not interfere / obstruct any rollers on the sprayed sections. Rollers must be able to cover the full extent of the sprayed section

4. All excess stone must be swept off the road between 1 8 and 24 hours after construction of the seal

These precautions are necessary to ensure proper adhesion before the binder becomes too cold to be receptive to the stone and to minimize the risk of trapping water under the strain-alleviating membrane interlayer (SAMI). In terms of the temperatures, the day and overnight temperatures will be dictating whether such construction is at all possible or not.

The Contractor is advised that weather information from the closest weather station should be gathered and the typical average, maximum and minimum on a month-to-month basis be evaluated to predict what can typically be expected. The day — night sinusoidal temperature curves will give the Contractor an indication when work typically can commence and should be stopped. This information shall be required to accompany the weekly programme of the SAMI work.

Whilst the above measures are mainly aimed at the winter period (April to September), they shall also apply to the summer period, with the exception of the sprayer pull restriction of 200m."

BA 10.1.3.7 Decatron of working area

Remove second paragraph and replace with the following:

"Before the tack coat and first application of aggregate may be applied, the centreline of the road shall be demarcated by means of a clearly visible weatherable fibre rope, pegged down with nails driven into the existing surface at intervals of 15 m on straight sections and 3 m apart on curves.

The demarcating rope shall be removed prior to the application of the tack coat and aggregate on the adjacent lane. Payment for the demarcation shall be deemed to be included in the rates."

BA 10.1.3.11 Opening to Traffic

"add the following paragraphs:

Recommended opening of road to traffic:

1. Seal to be exposed gradually (in stages) to traffic

2. On first night after completion of seal, low traffic on the seal

- On the following two days during day time, only open to traffic when road temperatures exceed IO^{O}C. Close section during night

3. On third day following completion of seal, open road again in the morning. Depending on temperature of the seal, road can remain open onwards from this night.

BA 10.1.5.14 Precoating of hydrophilic aggregates

(c) Precoating of aggregate stockpiles

Add the following:

Pre-coating of aggregate shall be undertaken a minimum of 4 days ahead of sealing operations to allow the aggregates to dry out properly before application. No free pre-coating fluid shall be observed when the aggregate is inspected by hand.

PART C3 SCOPE OF WORKS

PART C3: SCOPE OF WORK

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PART C3 SCOPE OF WORKS

The scope of work will entail but not be limited to the following:

16km Full Rehabilitation and **23km** Base correction and Reseal

Part I (16km Rehabilitation: From N8 towards Hobhouse)

- ✓ Construction of a 20/10 double seal
- ✓ Construction of a G1 base
- ✓ Construction of a C3/C4 Subbase
- ✓ AC Medium Asphalt (On critical sections & Intersections)
- ✓ Construction of Gravel Shoulders to 95% Mod Aashto
- ✓ Installation of road signs
- ✓ Reinstatement of road markings
- ✓ Drainage reinstatement and maintenance
- ✓ Guardrails installation
- ✓ Roadside furniture repair and replacement
- ✓ Vegetation control
- ✓ Fence repairs and replacement

Part II (Reseal: From Ch16.00 to CH39)

- ✓ Construction of a 20/10 double seal
- ✓ AC Medium Asphalt (On critical sections & Intersections)
- ✓ Construction of Gravel Shoulders to 95% Mod Aashto
- ✓ Installation of road signs
- ✓ Reinstatement of road markings
- ✓ Drainage reinstatement and maintenance
- ✓ Guardrails installation
- ✓ Roadside furniture repair and replacement
- ✓ Vegetation control
- ✓ Fence repairs and replacement

The scope of works is in line with the department project classification guidelines, TRH22 and DORA as a **special maintenance project**.

SECTION C3.1 STANDARD SPECIFICATIONS

COTO Standard Specifications for Road and Bridge Works for South African Road Authorities (2020 Edition)

The following SANS specifications are also referred to in this document and the Contractor is advised to obtain them from Standards South Africa (a division of SABS) in Pretoria

SANS 1914-1 to 6 (2002):	Targeted Construction Procurement
SANS 1921-1 (2004):	Construction and Management Requirements for Works Contracts Part 1 : General Engineering and Construction Works and where accommodation of traffic is involved.

SANS 1921-2 (2004):	Construction and Management Requirements for Works Contracts; and Part2: Accommodation of Traffic on Public Roads Occupied by the Contractor.

All references to SABS Standards which are replaced with corresponding SANS Specifications, have to be read in their new format.

SECTION C3.2: PROJECT SPECIFICATIONS

The Project Specifications, consisting of two parts, form an integral part of the Contract and supplements the Standard Specifications.

PART A contains a general description of the works, the site and the requirements to be met.

PART B contains variations, amendments and additions to the Standard Specifications and, if applicable, the Particular Specifications.

In the event of any discrepancy between a part or parts of the Standardized or Particular Specifications (Part A) and the Project Specification (Part B), the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

PART A : GENERAL

PS1 EMPLOYER'S OBJECTIVES

The Employer's general objective is to repair Primary Road P99/1 to a safe standard for public use.

The project offers employment opportunities and upliftment of the local community.

This project has the following particular objectives:

- To improve road safety
- Create as many job opportunities for local people as economically feasible
- Create employment opportunities for local small contractors
- To provide training for local labour in social as well as in labour intensive construction skills.
-

PS2 LOCATION OF THE WORKS

Refer to the locality plan included in Part C4 of this document.
Tweespruit - Hobhouse road P71/1 is classified as a primary road based in Mantsopa Local Municipality. It links the small towns of Tweespruit R709 to Hobhouse, also links road R26 to Wepener, and Ladybrand. The road serves as a major alternative route. The road was recently assessed and laboratory tests conducted. It is in a very poor condition, barely drivable, and now for years the Department has been receiving complaints from the road users about its poor condition.

Position	South	East
Start km 0.0		
End km 39.0		

Refer to PART C4 for the Site Locality Plan.

PS3 EXTENT OF THE WORKS

This section of the Project Document is a basic outline of the works, and does not limit the work to be carried out under this contract.

The works required under this contract consist of the following activities:

- Establishment on site
- Accommodation of traffic

  The road will be constructed in half-widths in the fills and full-widths on flat terrain. The traffic will be accommodated on the existing road reserve where possible. The use of robot closures is permitted and may be utilized to maximize labouron theproject.

- **Construction of pavement layers (P71/1)**

  1. **SURFACING:**
     a) Double Seals: All sections of the P71/1 Road will be surfaced utilizing a 20/10 double seal.

  2. BASE LAYER:
     a) In general, the existing alignment will be lifted to allow for a new G3 Base with no adjustments to the vertical and horizontal alignment.

  3. SUBBASE LAYER:
     a) The subbase will be constructed by spreading 100 mm of G5A quality material onto the existing road followed by recycling to a depth of 150 mm. The layer will be stabilized using cement to produce a 250 mm subbase of C4 quality.

- Clearing and grubbing the road reserve
- Clearing out of existing hydraulic structures
- Repair or construction of concrete-lined storm water channels
- Installation of kerbing and channeling
- Minor road structure/surface repairs
- Construction of erosion protection (gabions/stone pitching)
- Erection/repair of guardrails
- Erection/repair of fencing
- Extending concrete culverts and construction of inlet/outlet structures
- Erection/repair of road signs
- Road markings
- Finishing off road reserve

Where required, material from local Departmental borrow pits will be required to reconstruct road layers and eroded shoulders. In addition, all excess material from finishing operations shall be disposed of at approved spoil sites. Special attention must be given to the finishing off of existing borrow pits used for construction.

PS4 NATURE OF GROUND AND SUBSOIL CONDITIONS

Ground and subsoil conditions will be evaluated during the construction phase.

Existing publication:

The new COTO Standard Specifications for Road and Bridge Works for South African Road Authorities was approved by COTO on 18 August 2020 as a Draft Standard (DS) and will be replacing the COLTO Standard Specifications for Road and Bridge Works for State Road Authorities (1998 Edition).

Existing contracts and tenders in the design phases based on the COLTO Standard Specifications (1998 Edition) will remain unaffected but will be phased out during the next 6 months and the COTO Standard Specifications (2020 Edition) will be mandatory for use in procurement documents advertised as from 1 March 2021.

A1.2 GENERAL REQUIREMENTS AND PROVISIONS

PART A: SPECIFICATIONS

A1.2.1 SCOPE

This Section covers matters which relate to this Standard Specification and/or the Contract Documentation as a whole. It establishes generic requirements that may also be applicable to other sections of this Standard Specification to avoid repetition in the other sections.
It includes payment items for general items that are not included elsewhere in this Chapter 1 or in the other Chapters and for day works that are applicable to all the Chapters.

A1.2.2 DEFINITIONS

Acceptance Quality Control - encompasses those actions carried out by the Employer and/or the Engineer to inspect, sample, test and measure each constructed part or section of the Works to determine whether the quality and workmanship is acceptable in terms of the Specifications.

Process Quality Control -encompasses those actions carried out by the Contractor to assess and control materials and construction processes to ensure that the quality of the final product/s meets all the specified requirements. It includes a quality plan with defined actions, inspections, sampling, testing and measurement for each construction process to ensure that the quality control process is carried out effectively.

Stakeholder liaison - the process whereby the Employer and the Contractor engage with interested and affected parties, in particular the local authorities, local residents, schools etc., in order to inform them how the Works will affect the local community, to discuss how any adverse effects of the Works on the local community and/or environment can be eliminated or alleviated and to provide any health and safety information that is relevant to the local community regarding construction of the Works.

A1.2.3 GENERAL

The following Clauses include specifications for various general items which are not included in any of the other specific Chapters and Sections.

A1.2.3.1 Contractor's activities in respect of property outside the road reserve provided by the Employer

The Contractor may occupy and make use of property outside the road reserve that is provided by the Employer for purposes of executing the contract, on condition that:

1. The Contractor complies strictly with the requirements of such statutory provisions, particularly with respect to the matters relating to serving written notice to the owner before the Contractor enters the property.
2. The Contractor shall provide the Engineer with a copy of the written notice and inform the Engineer of any further consultations that may have taken place, or additional agreements reached, with the property owner.
3. The Contractor adheres to all the written agreements made by the Employer with owners of the property outside the road reserve in respect of the following matters:

−The location, extent and use of borrow pits, haul roads, construction roads and bypasses outside the road reserve,

- any compensation paid by the Employer or the Contractor, if applicable, for land or materials taken or for land temporarily used or occupied,
- the reinstatement of property occupied, used, damaged or destroyed, or compensation therefor in lieu of reinstatement,
- the procedures for the moving of fencing, services and any other items and
- any similar matter directly related to the Contractor's activities on the property.

The Contractor shall comply with all the environmental requirements and all other current legislation and regulations which are applicable to the land outside the road reserve which is being used by the Contractor for carrying out the Works.
On completion of his operations the Contractor shall obtain from the owner concerned a written statement to the effect that:

4. The Contractor has fulfilled his obligations under any written agreement that the Employer has made with the owner.
5. The owner is satisfied that all property occupied, including borrow pits, haul roads and construction roads, has been properly restored and is in a satisfactory condition.
6. With respect to fences, services or any other items moved, altered, damaged or affected in any way the owner is satisfied that everything has been handed back to him by the Contractor in a satisfactory condition.

All such statements shall be signed and dated and copies shall be delivered to the Engineer. The obtaining of any such written statements will not relieve the Contractor of the execution of any of his obligations to the satisfaction of the Employer or the owner or authority concerned.

A1.2.3.2 Contractor's activities in respect of property which is not provided by the Employer

Should the Contractor use property which is not provided by the Employer, for haul roads, site offices and workshops, the Engineer's offices and laboratory, or for storing of equipment or materials required for construction or disposal, it shall be subject to the following:

1. The Engineer shall agree to the use of any property selected for this purpose.
2. Such property shall be physically separated from any production plant or activities and suitably fenced in.
3. The area used for the aforesaid purpose shall be surveyed, and, where the land does not belong to the Contractor, he shall sign a lease agreement with the owner of such property in respect of the full period for which such property shall be used for such purpose. The lease agreement shall stipulate that the property owner shall not have any right whatsoever to any material stockpiled on such property during the duration of the contractual lease agreement.
4. A lease agreement shall be concluded by the Contractor with the owner or owners of such property for the full period that such property is required. The lease agreement shall provide for possible extensions to match the duration of the contract. The lease agreements shall also provide for the contract being terminated by Contractor's default or liquidation and the resulting possibility for the lease agreement to be taken over by a succeeding Contractor.
5. Copies of all lease agreements shall be submitted to the Engineer for comment prior to signature by the signing parties and copies of the final signed agreements shall lodged with the Engineer. Notwithstanding the Engineer's comments on the conditions of a lease the Contractor shall be solely responsible for adhesion to the terms of the lease agreements.
6. Suitable permanent reference beacons shall be placed next to any material storage area, at the cost of the Contractor, to demarcate the storage area and, if applicable, for use by the Engineer for taking cross-sections for determining quantities.
7. Only material that is to be used for the Works shall be stored on such property.
8. The Contractor shall comply with all the requirements of the environmental and any other legislation which is applicable to the property being used.

On completion of his operations, the Contractor shall obtain, from the owner concerned, a written statement to the effect that:

9. The Contractor has fulfilled his obligations under any written agreement that he made with the owner.
10. The owner has received all the compensation he is entitled to and is also satisfied that all property that was occupied, including borrow pits, haul roads and construction roads, has been properly restored and handed over to the owner in a satisfactory condition.

11. With respect to fences, services or any other items moved, altered, damaged or affected in any way the owner is satisfied that everything that was affected has been handed back to him by the Contractor in a satisfactory condition.

All such statements shall be signed and dated and copies shall be delivered to the Engineer. The obtaining of any such written statements will not relieve the Contractor of the execution of any of his obligations to the satisfaction of the Employer or the owner or authority concerned.

A1.2.3.3 Environmental management

The Contractor shall ensure that the project complies with all the requirements that have been set out in the Environmental Authorisation (EA), the Environmental Management Plan (EMP), the Water Use Licenses (WUL) for the extraction of water as well as for working within a certain distance of watercourses and their associated specific conditions and permits.

Before any construction may commence the Contractor shall ensure that he has a copy of all licenses and permits required in terms of the EA, the EMP and for the WULs that were obtained by the Employer prior to the Contract being awarded. The Contractor shall also ensure that he obtains all other outstanding permits required to comply with the requirements of the EA, the EMP and the WULs, in particular the WUL for the extraction of the amount of water he requires from rivers and streams. The Contractor shall supply a copy of all required licenses and permits to the Engineer for his records.

A1.2.3.4 Extension of time for delays caused by rainfall

This Clause specifies the conditions under which extensions of time for rainfall delays will be measured.
Any delays caused by rainfall shall be determined in terms of one of the three methods given below. The applicable method for a particular contract shall be specified in the Contract Documentation. The rainfall delay determined by using the specified method shall entitle the Contractor to an equivalent extension of the time for completion without the need for formal claim procedures. (If none of the methods given below are specified in the Contract Documentation then any claims for rainfall related extensions of time will be dealt with according to the applicable Conditions of Contract.)

Any other delays caused by exceptionally adverse weather conditions that have not already been taken into account as specified above shall be dealt with in accordance with the applicable Conditions of Contract.
The Contractor shall take cognisance of all the temperature, wind speed, moisture content and curing related limitations and/or restrictions that are applicable to some items of the Works as specified in the relevant clauses of this Standard Specification. No extensions of time will be measured or granted for any delays caused by the Contractor's compliance with these limitations and/or restrictions.

a) Method 1 (Rainfall formula)

If specified in the Contract Documentation the formula below shall be used to calculate separately the delay for each calendar month or part thereof due to rainfall. It shall be calculated each month during the period referred to in the Conditions of Contract as the time for completion of the Works (including any extension thereof that may have been granted), or until the issue date of the Taking-over Certificate, whichever is the shorter period. The delay calculated for a given month shall be used to determine the interim extension of time granted for that month. At the end of the applicable period referred to above, the aggregate of the monthly delays will be taken into account for the final determination of the total extension of time for the Contract. Such determination will not be subject to normal claim procedures.

V = (Nw - Nn) + [(Rw - Rn) □ X]
If any value of V is negative and its absolute value exceeds Nn, then V shall be taken as equal to minus Nn.
The delay for a part of a month shall be calculated by substituting pro rata values for the variables in the equation.
The symbols in the above rainfall formula shall have the following meanings:
V = Delay due to rain in calendar days in respect of the calendar month under consideration.
Nw = Actual number of days during the calendar month on which a rainfall of Y mm or more per day has been recorded.
Rw = Actual rainfall in mm for the calendar month under consideration.
Nn = Average number of days in the relevant calendar month, as derived from existing rainfall records providin the Contract Documentation, on which a rainfall of Y mm or more per day has been recorded.

Rn = Average total rainfall in mm for the calendar month, as derived from existing rainfall records supplied in the Contract Documentation.

X = 20, unless specified otherwise in the Contract Documentation.Y =10, unless specified otherwise in the Contract Documentation.

A1.2.3.5 Handing-over of the Site of the Works

The Site of the Works will be handed over to the Contractor for construction purposes, subject to such conditions as may be specified in the Contract Documentation regarding matters such as:

1. The sequence in which sections of the Works will be handed over and must be completed.
2. The maximum total length of temporary deviations that will be allowed to be in operation at any time.
3. The number of half or partial width construction sections that will be permitted on the Site of the Works at any one time.
4. The minimum length of existing or newly completed full width, unrestricted road sections that must be open to traffic between any half or partial width construction sections.
5. Any other matters relating to the Contractor's use and occupation of the road reserve.

A1.2.3.6 Health and safety

The Contractor shall always comply with the requirements of the health and safety plan, drawn up by the Contractor in compliance with all current and applicable health and safety legislation, the Employer's health and safety specification and the Contractor's own health and safety requirements to ensure that the Contractor complies fully with all current legislation and regulations as well as with any additional health and safety requirements that may be specified in the Contract Documentation. The Contractor's health and safety plan shall be developed to address all risks specific to the Works as identified in risk assessments carried out by the Contractor and/or by the Employer.

The Employer and /or his construction health and safety agent may also monitor the Contractor's compliance with the requirements stipulated in the Employer's health and safety specification as well as the requirements set out in the Contractor's health and safety plan.

A1.2.3.7 Legal and contractual requirements and responsibility to the public and the Employer

The Contractor shall comply with all the legislative and regulatory requirements of all the relevant statutory bodies pertaining to his site establishment and to the execution of the Works. The Contractor shall also comply with the requirements given in the Contract Documentation and with his legal and general obligations to the public, particularly with regard to obtaining and maintaining all the insurances and sureties required for the duration of the Contract and the Defects Notification Period.

A1.2.3.8 Tolerances

The work specified in all the chapters of this Standard Specification shall comply with the various dimensional and other tolerances specified in each case. No representation is made that the full specified tolerances will be available independently of each other, and the Contractor is cautioned that the liberal or full use of any one or more tolerances may deprive him of the full or any use of tolerances relating to other aspects of the work. The latter would apply particularly in respect of level tolerances on layer work and the related requirements regarding layer thicknesses.

Where no tolerances are specified, the standard of workmanship shall be in accordance with normal good practice.

A1.2.3.9 Monthly reports

The Contractor shall prepare monthly reports on progress, delays incurred, plant returns, OHS and EMP compliance, staff training, empowerment, capacity building, small Contractor development, labour and staff returns and any other information required by the Employer and/or the Engineer which is specified in the Contract Documentation.
The Contractor's monthly reports shall be submitted to the Engineer at least two working days prior to the applicable scheduled monthly site meetings.

A1.2.3.10 Notices, signs and advertisements

The Contractor shall not erect any signs, notices or advertisements on the Works or the site of the Works without the written approval of the Engineer.
Details of the official contract sign boards (if any) that should be erected will be given in the Contract Documentation or issued by the Engineer. These signs are to be erected in positions determined by the Engineer not later than one month after the Contractor has been given access to the site. They shall be maintained in a clean and legible condition throughout the contract and removed immediately upon completion of the Works.
No signboards other than those specified above will be permitted on or adjacent to the Works, except that the Contractor may permit each of his subcontractors to display one signboard, and one only, of less than 2 m² at the Works office. All advertisements, notices and temporary signs shall be removed by the Contractor immediately upon completion of the Works.

A1.2.3.11 Ordering of daywork

Daywork shall be undertaken strictly in accordance with the provisions of the Conditions of Contract. No daywork shall be undertaken unless specified by the Engineer. Such a written instruction shall include a full description of the work to be carried out. Before commencing any daywork the Contractor shall obtain the Engineer's agreement regarding the estimated duration of the dayworks, the numbers of each category of staff to be employed, the materials to be used and the construction equipment and vehicles that will be required to carry out the work.
The Contractor shall provide the Engineer with a daily report that records the actual duration, numbers of staff and materials, equipment and vehicles used each day for approval of the dayworks.

A1.2.3.12 Ownership of assets and disposal of non-useable assets

Unless otherwise stated in the Contract Documentation the Employer is the owner of all existing moveable and immoveable assets in the road reserve.
Non-useable assets are assets that have reached the end of their economic life, are no longer needed or need to be replaced. A disposal plan for these non-useable assets will be given in the Contract Documentation. The Contractor shall submit rates for the disposal of each of the identified non-useable assets listed in the Contract Documentation. The tendered rates could be positive or negative depending on the cost of disposing of them against the value that the Contractor may wish to place upon them.
A provisional sum may also be provided to cover the cost of the disposal of any non-useable assets that may be identified during the construction of the Works. A record must be kept of all such non-useable assets that are disposed of. Any income derived from the sale of these assets will be offset against the provisional sum.

A1.2.3.14 Remedial work

The Contractor shall replace, repair or make good any part of the Works or any equipment or material that is found not to conform to the specified requirements, or is damaged so that it no longer conforms to the specified requirements, in accordance with the Conditions of Contract before the Taking-over Certificate will be issued.

A1.2.3.16 Site meetings

The Contractor shall attend regular (at least monthly) meetings on the site with the Employer and the Engineer, at dates and times to be determined by the Employer and/or the Engineer. Such meetings will be held for evaluating the progress of the Works, compliance with the environmental management and the health

and safety regulations and for discussing matters pertaining to the contract which any of the parties represented may wish to raise. To this effect the Contractor will be obliged to compile a formal monthly report, drafted in consultation with the Engineer where necessary, and to submit these monthly reports to the Engineer at least two working days before each site meeting.

A1.2.3.17 Site security

The Contractor is responsible for keeping unauthorized persons off the Site of the Works in accordance with the requirements of the Conditions of Contract. The Contractor shall therefore carefully assess the security measures of whatever nature that may be required at the location of the Engineer's site office and laboratory, the Contractor's offices, stores and workshops, the Site of the Works including quarries, borrow pits, stockpile sites and manufacturing yards as well as any traffic accommodation site facilities and equipment which may be placed on the approaches to / exits from the Site of the Works.

A1.2.3.18 Stakeholder liaison

The initial stakeholder liaison required will normally be undertaken by the Employer and/or the Engineer. The outcomes and agreements resulting from all such stakeholder liaison will be taken into account and included in the Contract Documentation. This process may involve the establishment of a Project Liaison Committee (PLC) and the employment of a Project Liaison Officer (PLO) by the Employer.

A1.2.3.19 Temporary drainage and dewatering

The Contractor shall be responsible for the provision of temporary drainage works such as drains, open channels, banks etc., and for providing and operating temporary pumps and such other equipment as may be necessary for adequately protecting, draining and dewatering the Works and any temporary Works, deviations and detours on existing roads if required.
The Contractor shall ensure that any temporary drainage works and/or dewatering operations do not cause erosion or flooding of other parts of the Works or adversely affect the stability of any excavated trenches or slopes. If the Contractor becomes aware of any potential signs of slope / trench instability he shall immediately suspend the work and withdraw all personnel from the area and fence and/or barricade it to prevent access. The Contractor, who remains responsible for compliance with the OHS regulations, shall then propose, design and implement all measures required to rectify the situation.
Unless specifically reflected in the pricing schedule, all such measures shall be deemed to be included in the rates for the Works.

A1.2.3.20 Road safety audits

If stated in the Contract Documentation, two types of road safety audits shall be carried out on the Contract, namely a work zone traffic management audit before any construction work commences and a pre-opening stage road safety audit when the construction work is almost complete.

A1.2.3.21 Water

The Contractor shall make his own arrangements for procuring, transporting, storing, distributing and applying the water needed for construction and other purposes, except where otherwise specified.
Obtaining water from streams, rivers, dams or boreholes shall be subject to the Contractor obtaining the required permit from the relevant authority.
Obtaining water from a municipal or other water supply authority shall be subject to the Contractor entering into a supply agreement with the relevant supply authority.
The suitability of water for construction purposes shall be determined in accordance with the acceptance parameters given in the following clauses of this Standard Specification:

1. Water for earthworks and pavement layers
2. Water for stabilization of pavement layers –
3. Water for diluting bitumen emulsion –
4. Water for grout
5. Water for shotcrete
6. Water for concrete structures
7. Water for cementitious repair mortar or concrete

8. Water for sprayed concrete

A1.2.7 EXECUTION OF THE WORKS

A1.2.7.1 Programme of work

a) General

This Clause describes the requirements for the preparation, submittal, update and revision of the Contractor's programme. These requirements are in addition to, or expand upon, the requirements for programming the Works which are given in the Conditions of Contract or elsewhere in the Contract Documentation.
The Contractor's programme shall be used by the Contractor to plan and execute the Works. The programme will also be used by the Engineer to monitor progress and it may be used as the basis for the assessment of extensions of time and the effect of any delays on the progress of the Works.
The Contractor's original baseline programme shall be reviewed and updated monthly, or as required in the Contract Documentation, to ensure that the programme always reflects the actual progress of the Works.
Scheduling of work and monitoring of progress can be done to various degrees. Extensive scheduling has its benefits in controlling progress and in the evaluation of delay claims, but the amount of effort involved in this can be considerable and may not be required on all contracts, especially on relatively small Works. This specification makes provision for two schemes: Scheme 1 where the programme may be kept relatively simple, and Scheme 2 with more extensive requirements for complex or high value projects.
Whether a Scheme 1 or Scheme 2 programme is required will be indicated in the Contract Documentation. Scheme 1 will apply if nothing is indicated in the Contract Documentation. If only a Scheme 1 programme is indicated the Contractor shall still be able to incorporate some or all the requirements applicable to Scheme 2 in the programme if he so wishes.

A1.2.7.2 Setting out of the Works and the protection of beacons

The Contractor shall check the condition of all reference and level beacons provided and shall satisfy himself that they have not been displaced and that they are all correct with respect to both their position and level. If beacons have been destroyed, displaced or damaged before the site is handed over to the Contractor, the Engineer will arrange to have new beacons installed, unless such beacons are declared non-essential. A beacon which has been displaced shall not be used unless it's true position and level have been re-established and the new values verified by the Engineer.

A1.2.7.3 Services

The specifications relating to the location, identification, protection of and/or moving and reinstating of existing services that may be affected by the construction of the Works are given in Clause A2.1.3.2 b), c) & d) of Chapter 2.

PART C: MEASUREMENT AND PAYMENT

1. Items to be measured and paid for using items specified elsewhere in the specifications

For activities in Table C1.2-1 payment items specified in other Chapters or Sections of the specifications, where they relate to work under this Section, will be listed in the Pricing Schedule.

Table C1.2-1: Payment items from other Chapters or Sections

2. Items specifically for this Section of the specifications

Item Description Unit

C1.2.1 Environmental Management

C1.2.1.1 Monitoring of compliance with and reporting on the EMP month

C1.2.1.2 Dedicated environmental officer (if specified in the Contract Documentation) month

The unit of measurement for item C1.2.1.1 is the month or part thereof that the service is required and provided during the approved contract period. The contract rate shall include full compensation for the regular monitoring of compliance with and reporting on the EMP in accordance with the specified requirements.

The unit of measurement for item C1.2.1.2 is the month or part thereof that the service is provided during the approved contract period. The contract rate shall include full compensation for the provision of a dedicated environmental officer including all employment costs, accommodation and transport costs and all other associated overhead costs.

The unit of measurement for item C1.2.2.1 shall be the lump sum. The lump sum shall include full compensation for preparing and submitting a Scheme 1 Programme, including providing software and tutorials to the Engineer if required.

Employer.

Item	Description	Unit
C1.2.5	**Safety**	
C1.2.5.1	Health and safety plan	lump sum
C1.2.5.2	Implementation of health and safety plan	month

The unit of measurement for item C1.2.5.1 shall be the lump sum. The lump sum shall include full compensation for assessing the risks associated with the Works, reviewing and taking cognisance of the Employer's health and safety specifications and/or requirements, preparing the Contractor's health and safety plan and for the submission of a copy of the plan to the Engineer.

The unit of measurement for item C1.2.5.2 shall be the month, or part thereof for the duration of the approved contract period. Part of a month shall be calculated to two decimal places. The contract rate shall include full compensation for implementing the health and safety plan, including the provision of a dedicated, full time health and safety officer, carrying out all the required site health and safety training and briefings, staff medical evaluations, monitoring and administrating the health and safety plan and for supplying all transport, personal protection safety items, other health and safety equipment, safety notices and any other health and safety related items that are required on site. The contact rate shall also include the provision of a monthly health and safety compliance report to the Engineer.

The percentage tendered under item C1.2.9.3 is a percentage of the amount spent under item C1.2.9.2 which shall include full compensation for all handling costs, profit and all other charges in connection with arranging and disposing of the non-useable or not required road furniture assets. If the provisional sum agreed under item C1.2.9.2 is a negative amount, then this item C1.2.9.3 will not be applicable.

A1.3 CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS

PART A: SPECIFICATIONS

A1.3.1 SCOPE

This Section covers the establishment of the Contractor's organization, construction camps and constructional plant and their removal on completion of the contract.
It also includes payment items to cover certain general obligations, risks and liabilities and general items of cost that are included in, but not covered directly by the payment items in the other chapters.

A1.3.3 GENERAL

A1.3.3.1 Construction camps

The Contractor shall establish the construction camps either at the specific sites and borrow areas identified in the Contract Documentation or at locations chosen by the Contractor. The exact location of these facilities shall be subject to the approval of the Engineer and such approval will not be unreasonably withheld.
The Contractor shall make his own arrangements for the use of any property outside the road reserve for erection of the construction camp/s, as well as for the provision of adequate means of access, security and the installation and supply of water, electricity and telephone services required by the Contractor.
Before commencing with the construction of any camps the Contractor shall comply with all the requirements specified in Clauses A1.2.3.2 and/or A1.2.3.3.
If Employer-owned land can be made available for the use of the Contractor for the construction camps, the use of such land will not be treated as a lease but will form part of the contract. In this regard the Contractor shall complete the prescribed agreement and comply with all the conditions thereof as if it is part of the Contract. The availability of any Employer owned land will be indicated in the Contract Documentation.
On completion of the Works, all constructional plant, buildings, fencing and other temporary structures erected by the Contractor shall be removed and the construction camp site shall be restored to its original condition and left neat and tidy. The Contractor shall also comply with all the requirements related to the completion of the operations specified in Clause A1.2.3.2 and/or Clause A1.2.3.3.

A1.3.3.2 Housing

The Contractor shall not erect any housing or other accommodation facilities on the site in urban areas and shall make all the necessary arrangements for accommodation of his personnel and site staff off the site, unless otherwise stated in the Contract Documentation.
The Contractor shall not erect any housing or other accommodation facilities on the site before he has obtained the written permission of the Employer and, where applicable, the land owner and has complied fully with all applicable legislative and regulatory requirements.

A1.3.3.3 Maintenance of the Contractor's facilities

The Contractor shall maintain the construction camps and all the Contractor's other facilities in a clean, neat and tidy condition for the duration of the Contract. The Contractor shall also maintain all the access roads to the Contractor's site facilities including any publicly or privately owned roads that the Contractor is making use of. Depending on the initial condition of the access roads this may entail repairing any potholes and edge breaks of surfaced roads or the re-gravelling of the road and subsequently the regular watering, blading and rolling of the surface to maintain a firm surface without excessive corrugations and loose materials. The Contractor shall ensure that the access roads to the Contractor's facilities are always in a safe and passable condition for normal cars under all weather conditions.

A1.3.3.4 Contractor's own security arrangements

The Contractor shall provide all the security measures required for the Contractor's own facilities and equipment on the Site of the Works, including quarries, borrow pits, and for the traffic accommodation site facilities and equipment, as he deems necessary. The provision of security measures for the duration of the Works shall be included in the Contractor's General Obligations as defined in Clause A1.3.2.

A1.3.8 WORKMANSHIP

The Contractor shall control the quality of materials and workmanship used for the construction and fitting out of the construction camps to ensure that the applicable legislative and regulatory requirements related to building standards and to health and safety are adhered to.

C1.3 CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS PART C: MEASUREMENT AND PAYMENT

(i) Preamble

The tendered rate for each item shall include full compensation for providing, operating, maintaining and decommissioning upon completion, of all the construction equipment, labour, tools, incidentals and supervision to carry out the activity or construct the works in the item, unless otherwise stated.
Any prime cost or provisional sums shall be paid in accordance with the provisions of the Conditions of Contract. The charge or mark-up tendered or allowed for is a percentage of the amount actually paid under the prime cost or provisional sum. This percentage shall cover all the Contractor's handling, supervision, profit and liability costs to provide the services in the prime cost or provisional sum item. **(ii) Items that will not be measured separately**
There are no activities mentioned in this section that are not measured in this Section.

(iii) Items to be measured and paid for using items specified elsewhere in the specifications

There are no payment related items mentioned in this Section that are measured in other Sections of the specifications. **(iv) Items specifically for this Section of the specifications**

Item	Description	Unit
C1.3.1	**The Contractor's general obligations**	
C1.3.1.1	Fixed obligations	lump sum
C1.3.1.2	Value-related obligations	lump sum
C1.3.1.3	Time-related obligations	month

The lump sums under items C1.3.1.1 and C1.3.1.2 and the contract rate per month for item C1.3.1.3 shall together include full compensation for all the Contractor's costs, charges, overheads and profits in respect of all the Contractor's General Obligations as specified in Clause A1.3.2.

The unit of measurement for item C1.3.1.1 is the lump sum. The lump sum shall include full compensation for the fixed part of the Contractor's general obligations, i.e. that part which is substantially fixed and is not a function of the value of the Works or of the time required for the completion of the Contract.

Payment of this lump sum will be made in three instalments, as follows:

1. The first instalment, 50 % of the lump sum, will be paid after the Contractor has completed the establishment of the construction camps, site offices, laboratories and housing, has provided the personnel, staff and equipment required to commence the

Works in accordance with all the specified requirements and has made a substantial start with construction of the Works in accordance with the approved programme.

2. The second instalment, 35 % of the lump sum, will be paid when the value of the Work done reaches one half of the Contract Amount, excluding contingencies and price adjustments in terms of the Contract Documentation.

3. The third and final instalment, 15 % of the lump sum, will be paid when the Works have been completed and taken over by the Employer.

The unit of measurement for item C1.3.1.2 is the lump sum. The lump sum shall include full compensation for that part of the Contractor's general obligations which is a function of only the value of the Works, but not of the period of completion of the Works.

Should the final value of the Works (excluding any contract price and special material adjustment payments made in terms of the Contract Documentation) increase or decrease in relation to the tendered contract price (less any allowances, if any, in the tendered contract price for contract price adjustment and special material adjustment payments), the lump sum for payment item C1.3.1.2 will be increased or decreased accordingly pro rata. The adjusted lump sum will be the full settlement of any difference in value-related general obligations resulting from an increased or decreased value of the work.

Payment of this lump sum will be made in instalments in each payment certificate (usually issued monthly). The value of each instalment will be in proportion to the value of Work done up to the date that the payment certificate is prepared (excluding the value of any price adjustments made in terms of the Contract Documentation).

The unit of measurement for item C1.3.1.3 is the month or part thereof that the services are provided for the approved duration of the contract. Part of a month shall be calculated to two decimal places.

The contract rate shall include full compensation for that part of the Contractor's general obligations which are mainly a function of construction time. The contract rate will be paid monthly, pro rata for parts of a month, from the date of commencement in terms of the Contract Documentation until the end of the original Contract Period specified for completion of the Works.

If the original Contract Period for completion has been extended in terms of the Contract Documentation, then time-related obligations for the extensions shall be compensated for as stipulated by the Contract Documentation.

The following conditions also apply to the time related payment made under item C1.3.1.3:

1. Should the Works be certified as having been completed before the original contractual date for completion of the Works the Contractor will then be entitled to payments of the monthly time related amount for the unexpired original Contract Period specified for completion of the Works.

2. Should the progress of the Contractor, calculated in terms of the value of the work done to date, be in arrears by more than 10 % relative to the accepted cash flow estimate (suitably adjusted for any change in the scope of work and/or extension of time granted) then the payments in respect of this item may be limited to a total payment to date which is in the same ratio as the actual value of Work done relative to the estimated total value of all the Work that has to be done.

A1.5 ACCOMMODATION OF TRAFFIC

PART A: SPECIFICATIONS

A1.5.1 SCOPE

A1.5.3 GENERAL

A1.5.3.1 Access to properties

The Contractor shall provide and maintain access to all public and private properties which fall within or adjoin the Works at all times, unless alternate provision is specified in the Contract Documentation.

A1.5.3.2 General requirements

The Contractor may not commence any part of the Works until adequate provision has been made for the accommodation of vehicular, non-motorized and pedestrian traffic. Traffic shall be accommodated in accordance with the requirements given in the Contract Documentation unless the Contractor has submitted an alternative incorporating an amended method of traffic accommodation and this alternate method has been accepted by the Employer.

A1.6 CLEARING AND GRUBBING
PART A: SPECIFICATIONS

A1.6.1 SCOPE

A1.6.2 DEFINITIONS

Clearing -is the removal, loading and disposal of all trees (including designated and protected trees if approved for removal), grass, brush, shrubs, other vegetation, rubbish/litter, rocks and boulders of up to 0,15 m^3 in size which are exposed or lying on the surface and all other unsuitable or waste material on or above ground level.
Clearing shall also include the removal of existing buildings, walls and other structures which encroach on or obstruct the Works and which can be broken down and removed with a medium sized bulldozer. (Breaking down of reinforced concrete shall be specified separately in the Contract Documentation if required.)
Removal of temporary works installed by the Contractor shall not be measured or paid for as clearing.
The removal, loading, transport, offloading and stacking (or disposal if specified in the Contract Documentation or by the Engineer) of existing fences, road signs, guardrails, kerbing, channelling etc. shall be carried out as specified in the relevant sections of this Standard Specification.
Designated trees -are indigenous trees or heritage trees that may not be removed without the approval of the relevant local authority.
Designated spoil areas -are spoil or dump sites identified by the Employer in the Contract Documentation or identified by the Engineer on site and those identified by the Contractor in the Contractor's materials

management and utilisation plan, as prepared in accordance with the environmental regulations and the environmental management plan.

There are two types of designated spoil areas:

1. Unsuitable material spoil areas identified on or near the site of the Works and which have been agreed to by the Engineer. In urban or peri-urban areas the use of the spoil areas shall be approved by the local municipal authority in writing before any general unsuitable material is deposited there.
2. Hazardous waste spoil areas which shall be commercial or municipal waste sites that are registered to receive and dispose of hazardous waste material.

Grubbing - is the removal and loading of all stumps and roots in areas where clearing has been carried out and the Engineer has confirmed in writing that grubbing is also required. Grubbing also includes the removal and loading of all non-reinforced building foundations and floor slabs, buried rubbish and other unsuitable or waste material.

Hazardous waste material - material that is cleared and grubbed shall be classified as hazardous waste material if it falls into the hazardous waste categories identified in SANS 10228.

Protected trees - are trees as listed in the Schedule of Protected Trees given in the Government Gazette dated 8th September 2017 (or any later amendments) issued in terms of Clause 15.3 in Chapter 3, Part 3 of the National Forests Act No. 84 of 1988. In terms of this Act protected trees may not be pruned or removed without the permission of the Minister of Agriculture, Fisheries and Forestry.

Stockpile - is a pile of material pushed into a large heaped pile or off-loaded onto a heaped pile so that the material can be temporarily stored for later re-use in the Works. Where specified the material to be placed in a stockpile shall be placed in evenly spread layers of a specified layer thickness, up to the specified maximum height and to the specified shape.

Stockpile site - is a designated site that shall be prepared as specified in Chapter 4, Clause A4.1.7.3a).

Topsoil -is fertile, loamy soil obtained from areas with good soil coverage of natural vegetation, preferably grasses. It shall be free of deleterious matter, such as stiff/heavy clays, large stones, large roots, refuse, rubble and construction material or waste, which will adversely affect its suitability for the planting of grass.

Windrow -is a pile of material which has been excavated and pushed a relatively short distance to a prepared area alongside the borrow pit, quarry, cutting or roadbed area so that the material can be temporarily stored for re-use, usually close to where it is windrowed.

A1.7 LOADING AND HAULING

PART A: SPECIFICATIONS

A1.7.1 SCOPE

This Section covers the loading and hauling of construction materials on the site of the Works.

A1.7.2 DEFINITIONS

Hauling -is the moving of loaded construction material from the point of excavation, or from a stockpile or windrow, to the point of use on the site or to designated spoil areas. The hauling operation shall include the off-loading of the material at the point of use on site, at the temporary stockpiles or at the designated spoil sites as applicable.

Haul roads -are temporary roads constructed by the Contractor, or existing public or privately owned roads, or any part or section of the road under construction, used for the purposes of hauling construction materials or for carting material to spoil.

Loading -is the operation of picking up the material from an excavation, stockpile or windrow and placing it in a haul vehicle.

A1.7.3 GENERAL

A1.7.3.1 Measurement of haul distance

The haul distance shall usually be measured from the centre of volume (centroid) of the excavation in the cutting (or part of a cutting), trench or borrow pit, or from the centre of the stockpile position where applicable, to the centroid of the fill (or part of a fill), to the mid-point along the road centreline of the section of the road layer where the material is placed, to the centre of the temporary stockpile position in a borrow pit, quarry or on site or to the centre of the designated spoil area where the material is off loaded as applicable. The haul distance will be measured to the nearest 0,1 km.

For those operations where the material is usually disposed of, and/or reused, near the source of the material the relevant pay item may state that the cost of hauling the material for the first 1,0 km shall be included in the contract rate for that pay item. For these operations the hauling of the material shall only be measured if the actual haul distance exceeds 1,0 km and the haul distance to be measured for payment shall be measured from a point starting 1,0 km from the centre of volume (centroid) of the excavation in the trench or borrow pit, or from the centre of the stockpile position where applicable, up to the centroid of the fill (or part of a fill), up to the mid-point along the road centreline of the section of the road layer where the material is placed or up to the centre of the designated spoil area where the material is off loaded as applicable. The haul distance will be measured to the nearest 0,1 km.

The haul distance shall be measured along the shortest route as instructed by the Engineer as being safe and practical. The haul distance shall include any distance that the haul vehicle must travel to make use of a safe turning point or the next off ramp before making the return trip. Should the Contractor choose to haul material over some other longer route, computations for payment shall nevertheless be based on the haul distance measured along the shortest route instructed by the Engineer.

A1.7.3.2 Haul and construction access roads

The construction, use and later closure / reinstatement of any haul roads and construction access roads that are required by the Contractor shall be carried out in accordance with the requirements given in Clause A4.1.7.1 of Chapter 4.

The requirements for the use of any existing public roads by the Contractor to haul material are given in Clause A4.1.7.1a) of Chapter 4.

The requirements for the use of haul roads not on existing public roads are given in Clause A1.2.3.2.

C1.7 LOADING AND HAULING

PART C: MEASUREMENT AND PAYMENT

1. **Preamble**

The tendered rate for each item shall include full compensation for providing, operating, maintaining and decommissioning upon completion, of all the construction equipment, labour, tools, incidentals and supervision to carry out the activity or construct the works in the item, unless otherwise stated.
Any prime cost or provisional sums shall be paid in accordance with the provisions of the conditions of contract. The charge or mark-up tendered or allowed for is a percentage of the amount actually paid under the prime cost or provisional sum. This percentage shall cover all the Contractor's handling, supervision, profit and liability costs to provide the services in the prime cost or provisional sum item.

2. **Items that will not be measured separately**

The following required activities will not be measured or paid for separately and the Contractor shall include the cost of these activities in other pay items as already specified for the appropriate pay item or as deemed appropriate by the Contractor:

1. The loading and hauling of commercial materials from either Employer or Contractor identified suppliers/sources shall not be measured for payment.
2. The loading of materials on site will not be measured and paid for separately except for loading already stockpiled material and for loading material that has been placed in heaps or windrows where the relevant payment item in other Chapters specifically states that the loading will be paid for separately.
3. The hauling of materials on site will not be measured and paid for separately where the relevant payment item specifically states that the hauling operation is included in that payment item.
4. The hauling of materials on site over a localised distance of up to 1,0 km will not be measured and paid for separately where the relevant payment item specifically states that the initial haul of the material over a distance of up to 1,0 km is included in the pay item.

1. **Items to be measured and paid for using items specified elsewhere in the specifications**

There are no items mentioned in this section that are measured and paid for elsewhere in this Standard Specification.

2. **Items specifically for this Section of the specifications**

The following payment items will be inserted in the Pricing Schedule under the relevant payment section where loading and/or hauling of materials is applicable. The payment item shall commence with the relevant section number followed by / and then by the applicable loading and hauling payment item numbers given here.

Item Description Unit

A4.1 BORROW MATERIALS

PART A: SPECIFICATIONS

A4.1.1 SCOPE

This Section covers the work requirements for sourcing natural or crushed compliant materials that can be used for the construction of earthworks and road pavement layers from borrow pits and quarries that are developed and operated to supply materials for a specific road construction project or projects. It contains the following specifications:

1. Definitions applicable for Chapters 4 and 5.
2. Responsibilities and duties of the Employer and the Contractor in providing geotechnical information, and information on the preparation of management and utilisation plans for the borrow pits and quarries.
3. The material specifications for the earthworks and road pavement layers.

4. The requirements for the control, excavation, selection of material, and closure of borrow pits and quarries, as well as definitions for the different classes of excavation.
5. Producing of the road construction materials by crushing and/or screening.
6. The preparation of stockpile sites and the stockpiling of materials.

Operations at quarries of commercial suppliers to produce commercial materials are excluded from the requirements in this Section A4.1, except for the material specifications in Clause A4.1.5.
Specifications for aggregate to be used in subsoil drains, asphalt, seals, gabions and concrete are not included in this Chapter 4 but are included in the relevant Chapters where these works are specified.
The sourcing of materials from road cuttings, box cuts and designated excavations, from existing roads, from commercial sources, and the use of alternative materials are covered in the other Sections of this Chapter 4.
Chapter 5 – Earthworks and Pavement layers: Construction, covers the construction of the road pavement layers.
SANS test methods published by the South African Bureau of Standards (SABS) are listed in Chapter 20.

A4.1.7.2 Borrow pit and quarry operations

a) General control at the borrow pits and quarries

The Contractor shall be responsible for controlling operations at every borrow pit and quarry to ensure compliance with all the requirements of the statutory authorisation, approvals and the Contract Documentation. Sufficient tests shall be conducted on the excavated material to ensure that the quality of the material complies with the specified requirements for the particular layer for which it will be used. The test results shall be delivered to the Engineer for review.
When specified in the Contract Documentation, the Contractor shall have a full time or part time materials manager to conduct and manage the duties for the control at the borrow pits and quarries. The requirements for the materials manager, whether the person shall be an engineering geologist, engineer, a senior materials technician or a senior general foreman, and the required qualifications and experience of the materials manager, shall then also be specified.

b) Classes of excavation

The excavation of borrow material shall be classified as follows:

1. *Soft excavation*

Soft excavation class is excavation of material that can be efficiently removed by the reference construction equipment specified in the Contract Documentation, without prior breaking down.
Very dense granular or sand material and stiff to very stiff cohesive clay material, which can still be removed by the reference construction equipment without prior breaking up as specified for hard material but that do not comply with the definition of efficient removal of the equipment, shall also be classed as soft excavation.
In the absence of any construction equipment specified to reference the efficient removal of the material, a hydraulic crawler excavator in good mechanical order with nett horsepower (flywheel power) generally between 180 kW and 225 kW, also known as a 30 ton excavator, and equipped with a heavy duty bucket shall be the reference construction equipment. A minimum continuous production rate of 160 m^3/h of the excavated material will be taken as the benchmark for the excavator's capacity and efficiency.

2. *Boulder excavation class A*

Where material contains in excess of 40 % by volume of boulders, core stones, floaters and lumps of hard material larger than 200 mm but volume less than 20 m^3 in size, in a matrix of soft material, then the full volume excavated shall be classed as boulder excavation class A.
Excavation in dolomite formations other than solid dolomite shall also be classed as boulder excavation class A if the formations contain in excess of 40 % by volume of lumps of hard dolomite larger than 200 mm but volume less than 20 m^3 in size, in a matrix of softer material or smaller lumps of hard dolomite.
Excavation of fissured or fractured rock shall not be classed as boulder excavation but as soft or hard excavation according to the nature of the material.

3. *Boulder excavation class B*

Where material contains 40 % or less by volume of boulders, core stones, floaters and lumps of hard material larger than 200 mm but volume less than 20 m^3 in a matrix of soft material, then the volume of the individual boulders, core stones, floaters and lumps of hard material shall be classed as boulder excavation class B.
The volume of the rest of the material shall be classed as soft excavation.

C4.4 COMMERCIAL MATERIALS

PART C: MEASUREMENT AND PAYMENT

1. **Preamble**

The tendered rate for each item shall include full compensation for providing, maintaining and decommissioning upon completion, of all the plant, equipment, labour, tools, incidentals and supervision to carry out the activity or construct the works in the item, unless otherwise stated.
Any prime cost or provisional sums shall be paid in accordance with the provisions of the conditions of contract. The charge or mark-up tendered or allowed for is a percentage of the amount actually paid under the prime cost or provisional sum. This percentage shall cover all the Contractor's handling, supervision, profit and liability costs to provide the services in the prime cost or provisional sum item.
The requirements of Section C1.1 of Chapter 1 shall apply.
Where pay item descriptions include any wording in brackets, it is an indication that contract specific information is to be inserted in the Pricing Schedule included in the Contract Documentation.

Items that will not be measured separately
Loading of the commercial materials at the source, hauling it to the road, and off-loading will not be measured and paid for separately.

Items to be measured and paid for using items specified elsewhere in the specifications
For commercial materials from private or non-commercial suppliers identified by the Employer and that must still be excavated, produced and/or stockpiled, the Employer may decide to have a cost breakdown of the individual activities such as excavation, crushing and so forth. The pricing of item C4.4.1 will then not be applicable, and measurement and payment shall be made in accordance with the applicable items in Section C4.1.

2. **Items specifically for this Section of the specifications**

Item Description Unit

C4.4.1 Commercial materials identified by the Employer from commercial, private or other non-commercial suppliers (specify the source(s))

C4.4.1.1 Pavement layer material:

1. Type G1 material cubic metre (m^3)
2. Type G2 material cubic metre (m^3)
3. – (l) Etc, for other Type G3 to G9 materials cubic metre (m^3)

The unit of measurement shall be the cubic metre of material.
The quantities for items C4.4.1.1 to C4.4.1.4 shall be measured in place in the compacted pavement layers and calculated from the authorised dimensions of the layers.

The tendered rates shall include full compensation for negotiations, taking of samples and laboratory testing of the natural material to prove compliance with the specified properties, procuring and furnishing the commercial materials, for loading the material at the source, hauling it to the road, and for off-loading. Temporary stockpiling of the material after procurement by the Contractor shall not be paid for.

Item	Description	Unit
C4.4.4	**Cementitious stabilising agents**	
C4.4.4.1	Cement	ton (t)
C4.4.4.2	Road lime	ton (t)

The unit of measurement shall be the ton of stabilising agent.
The quantity of stabilising agent shall be determined in accordance with the authorised application rate. No over application or wastage shall be measured for payment.
The tendered rates shall include full compensation for procuring, transporting and delivering the stabilising agent to the site. No distinction shall be made between providing the stabilising agent in bulk or in pockets.
For providing the stabilising agent in pockets, the tendered rates shall also include full compensation for off-loading the pockets, for short term and/or long term storage.
All haul costs shall be included in the tendered rates of item C4.4.4.
Placing, spreading and mixing in the stabilising agent(s) on the road shall be measured and paid for under the applicable items in Chapter 5.

A5.3.3.3 Requirements prior to the construction of any pavement layer

The first pavement layer shall not be constructed until the following construction work has been completed:

1. Construction of the fill must be completed;
2. Construction of the cut must be completed;
3. Construction of the roadbed through a cutting in soft or hard material, must be completed;
4. All over-built material on fill slopes must be removed.

A5.3.3.4 Compaction of pavement layer material

All material used for the construction of pavement layers shall be mixed with water to the required compaction optimum moisture content prior to being processed and compacted to the specified thickness, level and density. The material shall be compliant with the material requirements for each specific layer.
Compaction shall be carried out in a series of continuous processing and compacting operations covering the full width of the layer concerned. The length of any section of a layer being compacted shall not be more than what can be properly compacted with the available equipment in a single-operation or shorter period when specified in the Contract Documentation.
The Contractor shall reduce the length of any layer compacted in any single-operation, and/or change the compaction process and/or change the number of, or type of, equipment being used, if the specified thickness, level or density of the layer is not being achieved.
The type of compaction equipment used and the amount of rolling done shall be such as to ensure that the specified density, or the specified number of roller-passes, is obtained without damage being done to any of the underlying layers due to breakdown or settlement of the underlying layer.
The compacted layer shall be completed to the required density, thickness, levels, shape and cross-section specified in the Contract Documentation and within the tolerances specified in this Section. All oversize material, lamination layers and any excess material shall be removed from the compacted surface before any further pavement layers or surfacing is carried out.

A5.3.3.11 Water for pavement layers

Water for the construction of pavement layers shall comply with the requirements of Clause A4.1.5.18 of Chapter 4.

A5.3.5 MATERIALS

A5.3.5.1 Material information

The required material properties for each individual pavement layer for a specific pavement design shall be clearly specified in the Contract Documentation.
The Contract Documentation shall specify which types of materials are to be used for a PMPL layer.
Any anticipated mechanical modification of material shall be stated in the Contract Documentation.

A5.3.5.2 Pavement layer thickness and compaction requirements

1. **Pavement layer thickness requirements**

The compacted pavement layer thickness shall be as specified in the Contract Documentation.
The thickness tolerances specified in Clause A5.3.8.4b) shall apply.

2. **Gravel and soil pavement layer compaction requirements (G4B to G9 material)**

The minimum compacted dry density of a gravel or soil pavement layer shall be as specified in Table A5.3.5-1 unless specified otherwise in the Contract Documentation.

Table A5.3.5-1: Minimum compaction densities for gravel and soil pavement layers

Layer	Compaction as % of maximum dry density (MDD)
Lower selected layer	93 %
Upper selected layer	95 % for gravel layers
	100 % for sand layers (97 % when specified in Contract Documentation)
Wearing course layer	95 %
Shoulder layer	95 %
Lower subbase layer	95 % for unstabilised layers
	95 % for chemically stabilised layers
	100 % for sand layers
Upper subbase layer	97 % for unstabilised layers
	95 % for chemically stabilised layers
	100 % for sand layers
Base layer	100 % for unstabilised layers
	97 % for chemically stabilised layers

In restricted areas the compacted dry density of the individual pavement layers shall also comply with the requirements given in Table A5.3.5-1 unless specified otherwise in the Contract Documentation.

3. **Crushed stone pavement layer compaction requirements (G1 to G4A and G5A materials)**

The minimum compacted dry density of a crushed stone pavement layer shall be as specified in Table A5.3.5-2 unless specified otherwise in the Contract Documentation.

Table A5.3.5-2: Minimum compaction densities for crushed stone pavement layers

Layer	Compaction as % Maximum Dry Density (MDD) or as % Bulk Density (BD) or as % Apparent Density (AD)
G4A and G5A lower subbase layer	95 %of MDD for unstabilised layers
	95 % of MDD for chemically stabilised layers
G3, G4A and G5A upper subbase layer	97 %of MDD for unstabilized layers
	97 % of MDD for chemically stabilised layers
G3 and G4A base layer	98 % to 100 % of MDD (for G3 and G4A) or 85 % of BD for G3 only
G2 base layer	88 % of BD for Road category C and D (TRH 4, Table 1) 86 % of AD for Road category A and B (TRH 4, Table 1)
G1 base layer	86 % of AD for Road category C and D (TRH 4, Table 1 for road categories) 88 % of AD for Road category A and B (TRH 4, Table 1 for road categories)
PMPL pavement layer (lean mix concrete)	Cube crushing strength as specified in Contract Documentation. No density requirement.

The density of the compacted crushed stone base layers (G1 and G2 layers only) shall be tested to the full depth of the layer using a nuclear gauge.
In restricted areas the in-situ dry density of the crushed stone subbase and base layers shall also comply with the requirements given in Table A5.3.5-2 unless specified otherwise in the Contract Documentation.

A5.3.7 EXECUTION OF THE WORKS

A5.3.7.4 Processing coarse gravel subbase or base layer

Coarse gravel containing mostly non-plastic or slightly plastic soil fines and used in the construction of a gravel subbase or base layer, shall require slushing and rolling in addition to the specified compaction, in order to obtain a firm, well-knit surface.
After being processed and compacted, the layer may require to be well watered by the Contractor over short sections at a time and then slushed and rolled with pneumatic and/or vibratory compactors. Watering and rolling shall continue over a section until excess fines have been brought to the surface of the layer. Such excess fines shall be uniformly spread over the entire surface of the layer by means of stiff mechanical or hand brooms.
Watering, rolling and brooming shall continue until all surface areas deficient in fines have been corrected. All excess fines shall then be broomed off the surface of the layer without loosening the surface texture of the completed layer.

A5.3.7.5 Construction of gravel shoulder

Shoulder material shall be spread, watered, processed and compacted in accordance with the specifications for a pavement layer.
Where the gravel shoulder layer is to be constructed with the same gravel material as for the base layer, it shall be constructed simultaneously with the base layer.

Where a base is to be constructed with different gravel or with crushed stone material, the shoulders shall first be constructed and then neatly cut to the required line and level to provide lateral support for the edges of the new base layer material while it is being compacted. Care shall be taken not to contaminate the base material with the shoulder material. The Contractor shall ensure that the subbase layer and the base material that has not yet been compacted is adequately drained at all times by means of temporary drainage channels or pipes passing through the gravel shoulder layer.
Where an asphalt base layer is to be constructed, the shoulders shall be constructed after the completion of the asphalt base layer.

A5.3.7.6 Construction of crushed stone layer

a) Transportation of crushed stone subbase and base material

Compliant crushed-stone material shall be loaded at source, hauled to the road and off-loaded along the middle of the road width being constructed, in a pre-determined heap volume and spacing to ensure sufficient quantity so that the completed layer will comply with all the requirements in regard to layer thickness, level, cross-section and compaction density. Allowance shall also be made when determining the heap volume and spacing for sufficient additional material to be off-loaded to enable the layer to be properly mixed and cut to shape without segregation of the material taking place. Segregation is manifest by fine and/or coarse areas that develop in the exposed surface of the layer. **b) Processing of crushed stone subbase and base layer**

A5.3.7.7 Initial compaction of a G1 crushed stone base layer

Initial compaction of the crushed stone base layer shall commence immediately after completion of the spreading, dampening, mixing and shaping of the material as per Clause A5.3.7.6b). The Contractor shall provide compaction equipment that is capable of compacting the crushed stone layer to the required density using the process specified below.
Only a vibratory smooth drum roller or a combination of smooth drum and pneumatic tyre rollers shall be used for the initial compaction. Normally no grid or pad foot rollers shall be used as these rollers will alter the grading. The first pass of the vibratory roller shall be in static mode in order to smooth out the surface of the layer prior to compaction. Thereafter vibration at low frequency and high amplitude for compaction of the lower part of the layer shall be carried out, followed by vibration at high frequency and low amplitude for final compaction of the upper part of the layer.
To prevent shoving of the crushed stone, rollers shall always initiate compaction of a crushed stone layer from the outside edge of the road adjacent to the shoulder material towards the middle of the layer width on straight sections where there is a cross-fall. In a super elevation in a curve, the compaction shall commence from the lower or inner edge of the road towards the higher or outer edge.
The roller shall cover the entire road width equally. Compaction shall continue until the material is stable and displays no movement under the roller wheels and leaves no tyre marks of the roller in the crushed stone layer.
After the compaction is completed, a final slight full-width cut shall be carried out when necessary to ensure that the layer has no coarse or stony patches but an evenly-graded surface matrix. The layer must then again be rolled with pneumatic tyre or smooth drum static rollers to ensure that it is stable enough and ready for the final slush-compaction. The maximum compacted thickness of any crushed-stone layer compacted in one process shall be 150 mm, unless specified otherwise in the Contract Documentation.

A5.3.7.8 Slush-compaction of a G1 crushed stone base layer

After completion of the initial compaction of the crushed stone base layer, short sections of the layer surface, each section about 40 m to 60 m long, shall be thoroughly watered, rolled and slushed by means of steel wheeled rollers or a combination of steel wheel rollers and pneumatic tyre rollers. The Contractor shall provide compaction equipment that is capable of slush compacting the crushed stone layer to the required density using the process specified below.
Slush-compaction shall start at the high side of the road so that the water can flow to the low side. No movement of the layer under the roller wheels shall be observable during the initiation of the slush-compaction. If the layer becomes unstable, it is an indication that insufficient bearing capacity has been achieved during the initial compaction. The slush-compaction shall then be halted, and the layer allowed to dry and subsequently to receive additional initial compaction before commencing again with the slush-compaction process.
The slush-compaction process shall continue until fines are brought to the surface. Fines shall mean sand or material larger than 0,075 mm up to 5,0 mm, and silt material smaller than 0,075 mm. The slush-compaction process is completed when the slushing water becomes clean and there is subsequently an absence of air bubbles being expelled from the layer.

The slush thus formed, shall be uniformly broomed over the surface to simultaneously correct any areas still deficient in fines, whereupon the excess fines shall be broomed from the surface of the layer. Brooming shall be done by using hand brooms, or by using mechanical rotary brooms with soft to medium stiffness bristles, or a combination of hand and mechanical brooms. Care shall be taken not to dislodge the coarse aggregate in the surface of the layer during the brooming process or otherwise disturb the aggregate mosaic.

During slushing operations, the surface must not be rolled out of shape. The slushing process shall be carried out on each short section in one continuous process, and each section shall be completed before the next section is commenced. After completion of the slushing and brooming process, when the surface of the layer is wind dry, the surface shall be given a one roller-pass with a static steel-wheeled roller. This finally embeds the surface aggregate.

The completed layer shall be firm and stable with a closely-knit surface of aggregate exposed in a mosaic pattern. The surface must have a good particle distribution without segregated areas of either excessive fines or of coarse material with a shortage of fines. The surface must be free from any lamination layers and free from corrugations. The following characteristics are indicative of a well-constructed crushed stone layer:

1. Most of the coarse aggregate lies on its largest surface dimension which is the most stable orientation.
2. The exposed surface of the layer, although textured, feels smooth.
3. All sizes of coarse aggregate larger than 5,0 mm can be seen.
4. The surface has a uniform appearance across and along the road.
5. The surface has a tightly interlocked mosaic of the coarse aggregate and less than 5 % of the mosaic area has only fine aggregate visible.
6. Less than 5 % breakdown of the larger particles by area.
7. The dried slush broomed off the road only comprises P0,075 mm silt.
8. Tapping the layer with a geological hammer produces a distinct high frequency or ringing sound.

Slush-compaction of the crushed stone base layer is mandatory and shall be carried out within 48 hours after completion of the initial compaction. Even if the specified density is achieved without slushing or before completion of the slushing process, the full slush-compaction process must still be completed.

A5.3.7.12 Construction of trial sections

a) Trial sections

The trial section shall demonstrate the capability of the Contractor to construct the pavement layer or layers in accordance with the specification. The trial section shall be constructed with the same materials and equipment as those intended for use by the Contractor for the final pavement layer in the works. The surface regularity of any base layer in a trial section shall be checked for compliance.

A trial section shall be a full layer-width and at least 150 m long with a maximum length of 200 m. The minimum quantity of material to be crushed, stockpiled or hauled to site prior to the construction, testing and approval of the trial section shall be determined by the Contractor. Sufficient material should be produced or obtained from commercial sources so that the compliant material shall be representative of what will ultimately be produced for the entire project. The use of compliant material for the trial section shall not relieve the Contractor of the responsibility to produce a compliant finished layer.

The final length and width of the trial section which shall be specified in the Contract Documentation, shall be constructed in one continuous operation and shall then be submitted for approval. The Contractor shall also demonstrate the proposed method(s) to be used for making the construction joints.

The Contractor shall programme to proceed with the construction of the actual pavement layer in the works, at least 10 working days after the completion of the compliant trial section or such earlier time when testing of the trial section has been completed and the trial section has been accepted by the Engineer. In the event of a non-compliant trial section, the Engineer shall instruct the Contractor to construct a further trial section, which shall then be regarded as the initial trial section.

A non-compliant trial section shall be removed and disposed of by the Contractor at no cost to the Employer.

A compliant trial section shall be reimbursed only when it complies with all the requirements of the specification and has been accepted. The mixing process and equipment shall remain unaltered for all subsequent layer construction for which the trial section was constructed, unless otherwise instructed by the Engineer.

When the Contractor:

1. changes the method of construction, or

2. changes the construction equipment, or
3. changes the materials, or
4. changes the mix used, or
5. changes the rate of paving for the construction of the layers in the works,

after the acceptance of a compliant trial section, the Engineer may instruct that a new trial section be constructed as specified in the Contract Documentation.

1. **Compliant supporting layer for a trial section**

The trial section for a stabilised layer, a crushed stone layer, a PMPL layer or a BM layer shall be constructed on a compliant supporting selected- or subbase layer. The supporting layer must be properly compacted to the specified density and be free from any defects.
If there are no constructed, compliant lower pavement layers ready to allow for the construction of the specific trial section at the programmed time in terms of the construction programme, the Contractor shall prepare a trial section area off the site of the works. This will enable the construction, testing and approval of a trial section to be carried out before excessive quantities of material are crushed and stockpiled.
The surface of the supporting or lower layer shall be dampened prior to placing and spreading the pavement layer material for the construction of the trial pavement layer on it.

C5.3 ROAD PAVEMENT LAYERS
PART C: MEASUREMENT AND PAYMENT

1. **Preamble**

The tendered rate for each item shall include full compensation for providing, maintaining and decommissioning upon completion, of all the constructional plant, equipment, labour, tools, incidentals and supervision to carry out the activity or construct the works in the item, unless otherwise stated.
Any prime cost or provisional sums shall be paid in accordance with the provisions of the conditions of contract. The charge or mark-up tendered or allowed for is a percentage of the amount actually paid under the prime cost or provisional sum. This percentage shall cover all the Contractor's handling, supervision, profit and liability costs to provide the services in the prime cost or provisional sum item.
The requirements of Section C1.1 of Chapter 1 shall apply.
Where pay item descriptions include any wording in brackets it is an indication that contract specific information is to be inserted in the Pricing Schedule included in the Contract Documentation.

2. **Items that will not be measured separately**

The following required activities will not be measured or paid for separately and the Contractor shall include the cost thereof in other items as deemed appropriate:

1. All surveying, setting out and level control required for the construction of the pavement layers.
2. Drainage and protection of the pavement layers from all damage that may occur for any reason until the Employer has taken over the works.
3. Protection of all existing or new kerbs, channels, sidewalks, lined drains, catch pits, kerb inlets, gratings, culverts, bridges, structures, buildings, road signs, guard rails, street lights, fencing, service pipes or cables and any other items adjacent to, over or under the road that could be damaged by the Contractor's vehicles, construction equipment, or by public traffic being accommodated on or alongside the pavement layers, during the construction of the pavement layers, until the Employer has taken over the works.
4. Compaction immediately adjacent to existing or new kerbs, channels, sidewalks, lined drains, catch pits, kerb inlets, gratings, culverts, bridges, structures, buildings, road signs, guard rails, street lights, fencing, service pipes or cables etc. using hand operated compaction equipment.
5. Repair of all damage to the pavement layers and any new or existing structures, buildings, road furniture and services that may occur for any reason before, during or after the construction of the pavement layers up until the Employer has taken over the works.

6. Provision of additional material in excess of the compacted volume of the layers calculated using the layer dimensions given in the Contract Documentation for whatever reason including additional material required for the correct placing, mixing, levelling and compaction of the layers.
7. Removal of additional material required for the correct mixing and working of the layers and left in windrow or on the sides of the road.
8. Breaking down and removal of oversize material up to 5 % of the compacted layer volume. Payment will only be made to remove any oversize material in excess of 5 % of the compacted layer volume that cannot be broken down on the road when instructed by the Engineer.
9. Loading and hauling of commercial pavement material identified by the Employer or by the Contractor.
10. Loading and hauling of alternative material identified by the Contractor.
11. Construction of tie-in joints to new or existing road layers or surfacing.

1. **Items to be measured and paid for using payment items specified elsewhere in the specifications**

For activities in Table C5.3-1 payment items specified in other Chapters or Sections of the specification, where they relate to work under this Section, will be listed in the Pricing Schedule.

Table C5.3-1: Payment items from other Chapters or Sections

Activity	Section 5.3 reference	Section item reference
Loading and hauling	A5.3.1	Section C1.7 of Chapter 1 – All applicable items
Stabilisation	A5.3.1	Section C5.4 of Chapter 5 – All applicable items
Subsoil drainage	A5.3.3.8	Section C3.1 of Chapter 3 – All applicable items
Asphalt base layer	A5.3.7.5	Section C9.1 of Chapter 9 – All applicable items
Bound macadam surfacing	A5.3.7.10g)	C10.1.2 of Chapter 10
Construction of edge constraints for BM	A5.3.7.10a)	Section C11.1 of Chapter 11 – All applicable items
Priming	A5.3.3.9 / 10	Chapter 10 – All applicable items
Screening material	A5.4.7.2d)	Section C4.1 of Chapter 4 – All applicable items
Emulsion slurry	Table A5.3.5-4	Section C10.1 of Chapter 10 – All applicable items

A5.4.3 GENERAL

A5.4.3.1 Stabilization agents

The type and quantity of cementitious or bituminous stabilisation agent to be used for each layer of material shall be determined as described in Clauses A4.4.7.1c) and A4.4.7.1d) of Chapter 4.

The different types of cementitious and stabilisation agents are specified in Clauses A4.4.5.2, A4.4.5.3 and A4.4.5.4 respectively of Chapter 4.

Should a non-traditional stabilising or soil treatment agent be proposed by the Contractor, it will only be considered if the requested details specified in Clause 4.4.5.4 of Chapter 4 are provided.

A5.4.3.2 Work in restricted areas

Work in restricted areas is specified in Clauses A1.1.3.2 and A1.2.3.23 of Chapter 1.
Where pavement layers are to be treated or stabilised in restricted areas such as widenings, no cementitious or bituminous agent may be spread or mixed beyond the required width. The Contractor shall not be permitted to mix the material being stabilised on an adjacent paved surface.
Where restricted areas are such that mixing in the restricted area is impractical and mixing on adjacent surfaces is not permitted, mixing shall be done in a central mixing plant. In the case of small quantities, suitable portable concrete mixers may be used.
Treatment and stabilisation of layer work materials in restricted areas shall not be measured separately for payment unless specified otherwise in the Contract Documentation.

A5.4.3.3 Construction limitations

The Contractor shall programme all construction work to take into account all the construction limitations which are applicable to soil treatment and stabilisation work.

1. **Size of area**

The cementitious and/or bituminous agent shall only be applied to a surface area the size of which will permit all processing, watering, compacting and finishing to be completed within the time periods specified in Table A5.4.3-1.

2. **Processing time**

The construction methods and programme of the Contractor shall take into account and ensure compliance with the processing times specified in Table A5.4.3-1.

Table A5.4.3-1: Construction time limitations for treatment and stabilisation(1)

Chemical agent	Maximum continuous period allowed from the time the application of the chemical agent onto the top of the layer commences up until the completion of the stabilisation process
Material modification	
Lime	10 hours. The treated layer shall subsequently remain undisturbed for 24 hours.
Material cementation	
Cement blends	6 hours until the completion of the compacted layer
Lime	10 hours until the completion of the compacted layer
Material improvement	
Bitumen emulsion	12 hours until the completion of the compacted layer
Bitumen emulsion with cement	8 hours until the completion of the compacted layer
Foamed bitumen with or without cement	10 hours until the completion of the layer
PMPL stabilised crushed stone material	
Cement blends	1 hour until the commencement of compaction plus 4 hours until the completion of the compacted layer.
Wet lean-mix concrete	150 minutes until the completion of the compacted/vibrated layer (reference temperature = 20°C This time shall be reduced by 30 minutes for every 5°C that the mix temperature exceeds 20°C

Note (1): The construction time limitations shall not exceed the field working time established during the stabilisation design in Clause A4.4.7.1 of Chapter 4.

3. **Trial section approval and testing time**

The construction programme and methods of the Contractor shall take into account and ensure compliance with the limitations applicable to the construction, testing and acceptance of the trial section/s as specified.

4. **Weather restrictions**

No stabilisation shall be done during windy conditions, wind speed more than 15 km/h (4 m/s), wet weather and cold weather when the air temperature is below 3°C or with falling air temperatures, 7°C and falling.
No stabilisation work shall be commenced if the surface temperature of a compacted stabilised layer may fall below 1°C during the first three (3) days after stabilisation. The Contractor shall take the necessary precautions and the construction programme for the stabilisation work shall take the actual and predicted weather conditions into account.
All stabilised layers damaged by rain, frost or by the formation of ice in the layer shall be removed and replaced by the Contractor at no cost to the Employer.

5. **Traffic limitations**

No vehicles or construction equipment except that used for mixing the stabilising agent into the layer shall be allowed to travel over the spread stabilising agent.
No traffic or construction equipment except that required for curing or priming shall be allowed to travel over the compacted stabilised layer during the specified curing period as per Clause A5.4.7.6, unless specified otherwise in the Contract Documentation.

C5.4. STABILISATION
PART C: MEASUREMENT AND PAYMENT

1. **Preamble**

The tendered rate for each item shall include full compensation for providing, maintaining and decommissioning upon completion, of all the constructional plant, equipment, labour, tools, incidentals and supervision to carry out the activity or construct the works in the item, unless otherwise stated.
Any prime cost or provisional sums shall be paid in accordance with the provisions of the conditions of contract. The charge or mark-up tendered or allowed for is a percentage of the amount actually paid under the prime cost or provisional sum. This percentage shall cover all the Contractor's handling, supervision, profit and liability costs to provide the services in the prime cost or provisional sum item.
The requirements of Section C1.1 of Chapter 1 shall apply.
Where pay item descriptions include any wording in brackets it is an indication that contract specific information is to be inserted in the Pricing Schedule included in the Contract Documentation.

2. **Items not measured in this Section**

The following required activities will not be measured or paid for separately and the Contractor shall include the cost thereof in other items as deemed appropriate:

1. All surveying, setting out and level control required for the stabilisation of the pavement layers.
2. Protection of all existing or new kerbs, channels, sidewalks, lined drains, catch pits, kerb inlets, gratings, culverts, bridges, structures, buildings, road signs, guard rails, street lights, fencing, service pipes or cables and any other items adjacent to, over or under the road to prevent damage by any stabilising agent.
3. Repair of all damage to surfacing and any new or existing structures, buildings and road furniture caused by the stabilising agents.
4. All setting out work required for the accurate application of the stabilising agent specified in the Contract Documentation.

C5.4.6 Addition of cementitious stabilisation agents (specify agent separately) **for a PMPL layer**

C5.4.6.1 Cement ton (t)

C5.4.6.2 And so forth for other agents ton (t)

The unit of measurement shall be the ton of cementitious stabilising agent mixed into the material at a central mixing plant at the specified application rate.
The tendered rates shall include full compensation for delivery of the agent from storage to the mixing plant and introducing the specified amount of cementitious agent and water into the mixing plant for the PMPL layer and all materials, supervision, labour, equipment, tools and incidentals necessary for completing the specified

work. No distinction shall be made in respect of the type of cementitious stabilisation agent used, the time for completion or the specific layer being produced whether that is a wet lean-mix concrete or a chemically stabilised crushed stone material.

Item	Description	Unit
C5.4.7	**Bituminous stabilisationof pavement layers**	**cubic metres (m^3)**
C5.4.7.1	Bituminous stabilisation (layer thickness indicated) of pavement layers (layer to be indicated)	litres (ℓ)
C5.4.7.2	Bituminous stabilisation (layer thickness indicated) of pavement layers (layer to be indicated) using labour enhanced methods of construction	litres (ℓ)

The unit of measurement shall be the cubic metre of stabilised material, the quantity of which shall be determined in accordance with the authorised dimensions of the bituminous stabilised compacted layer.

The tendered rates for bituminous stabilisation shall include full compensation for watering and compacting the surface of the placed material prior to spreading the stabilising agent, for mixing the specified amount of stabilisation agent and material and shall include full compensation for all incidentals. No distinction shall be made with regard to the type of bituminous stabiliser used, the time for completion, and the particular layer to be stabilised with bitumen. The tendered rate shall apply to any combination thereof.

The layer thickness can be varied by up to 20 mm, and the rate for this cementitious stabilisation work shall remain applicable.

A distinction shall be made between spreading the cementitious soil stabilisation agents by mechanical bulk spreaders or using labour enhancement methods.

Item	Description	Unit
C5.4.8	**Bituminous stabilisation agent** (specify agents separately)	
C5.4.8.1	60 % anionic emulsion	litres (ℓ)
C5.4.8.2	60 % cationic emulsion	litres (ℓ)
C5.4.8.3	Foamed bitumen	litres (ℓ)
C5.4.8.4	Any other	litres (ℓ)

The unit of measurement shall be the litre of bituminous stabilising agent mixed into the road layer at the specified application rate. For bitumen emulsion this shall be the litre of 60 % emulsion mixed into the material. For foamed bitumen this shall be the litre of bitumen that is foamed.

A8.1 PRIME COAT

PART A: SPECIFICATIONS

A8.1.1 SCOPE

This Section covers the work in connection with the application of a prime coat.

A8.1.2 DEFINITIONS

Prime coat - consists of a low viscosity bituminous binder, applied in a single application on a granular, cemented or treated base or subbase to facilitate a good bond between the base and the bituminous surfacing or subbase and bitumen treated base.

A8.1.3 GENERAL

A8.1.3.1 Weather limitations

No prime shall be applied under the following adverse conditions:

1. During foggy or wet conditions;
2. When rain is imminent;
3. When wind is blowing sufficiently hard to cause uneven spraying;
4. When the surface of the layer is visibly wet, i.e. more than damp;

5. When the temperature of the surface immediately prior to commencing with the application of the prime is below, or in the opinion of the Engineer, likely to fall below 10°C;
6. After sunset;
7. When at any position within the layer the moisture content of a granular base layer is more than 50 % of the optimum moisture content determined according to SANS 3001 No GR30. In the event of rain after priming, the base shall be allowed to dry out to meet the above moisture content requirements prior to surfacing. Limiting moisture contents for treated layers before priming shall be specified in the Contract Documentation.

A8.1.3.2 Nominal rate of prime coat application

The nominal rate of application, for tender purposes, shall be 0,8 l/m^2.

A8.1.5 MATERIALS

A8.1.5.1 Bituminous material

The priming material shall be one of the following as specified in Part C: Measurement and Payment:

Table A8.1.5-1: Bituminous binder for priming the excavated area

Bituminous binder for priming the excavated area	Specification
MC-10 cut-back bitumen	SANS 4001 – BT2
MC-30 cut-back bitumen	SANS 4001 – BT2
Inverted bitumen emulsion	SANS 4001 – BT5
Other appropriate product containing solvents	Certified by independent certification agency
Other appropriate product containing no solvents	Certified by independent certification agency

The type of prime and application rate best suited for the base shall be determined after construction of the base. The Contractor shall provide about 20 ℓ of at least three prime products and apply it at different application rates with a brush on the base. The Engineer shall evaluate the performance of the prime in accordance with the latest version of TRH1/SABITA Manual 26 and then instruct the type of prime and application rate to be applied. No payment shall be made for tests to determine the appropriate priming product.

A8.1.5.2 Aggregate for blinding primed layers

Where so instructed, blinding material shall consist of crusher sand or natural sand, with 100 % passing the 7,1 mm sieve and not more than 10 % passing the 2,0 mm sieve. The aggregate shall be clean, hard and free from excessive dust and shall contain no clay, loam or other deleterious matter.
Blinding of the primed surface with such aggregate at a nominal rate of 285 m²/m³ shall only be permitted to facilitate traffic accommodation or access arrangements.

A8.1.7 EXECUTION OF THE WORKS

A8.1.7.1 Preparation of the layer to be primed

Not longer than 24 hours before spraying, the layer to be primed shall be broomed and cleaned of all loose or deleterious material by means of a controlled rotary broom and/or hand brooms. Sweeping shall be done carefully so as not to cause any damage to the layer. A light spray of water, sufficient to dampen the surface, shall be uniformly applied to the layer immediately before the application of the prime. If the water is over applied, resulting in standing water, the layer shall be allowed to dry until a uniform damp surface is obtained.
Before any priming material is sprayed, the layer to be primed shall be checked for conformance with the surface and other requirements specified.

A8.1.7.2 Storage and application of the prime coat

The temperatures for storage and spraying shall be in accordance with the relevant SANS 4001 specifications or be in accordance with the manufacturer's specifications or as required by a product's certification documentation.
All prime materials stored in a heated condition shall be stored in a tank with a properly functioning circulation system and having a securely fitting lid.
All layers where the application of a prime is specified or ordered shall be primed using a mechanical distributor complying with Clause A10.1.6.1 of Chapter 10. The edges of the previously constructed or existing surfacing shall be adequately protected by approved means to ensure that an overlap of prime not exceeding 50 mm is achieved.
A mat of reinforced paper or other suitable approved material shall be used at all joints at the beginning and end of all sprays to obtain a neat start and cut-off.

A8.1.8 WORKMANSHIP

A8.1.8.1 Tolerances

The actual spray rates measured at spraying temperature shall not deviate by more than 8,0 % from that ordered by the Engineer. The Engineer may conditionally accept application rates falling outside this tolerance at reduced payment in accordance with Table A8.1.8-1. Conditional acceptance shall not relieve the Contractor of his contractual obligations.

A8.1.8.2 Testing

The Contractor shall give the Engineer at least 24 hours' notice of his intention to spray prime material so that the actual spray rates can be verified and approved by the Engineer. Unless otherwise agreed in advance, the Contractor shall only spray when the Engineer's representative is present.
The Contractor shall provide, at his cost, representative samples of every batch of prime delivered onto site.

Table A8.1.8-1: Payment reduction factors for conditionally accepted prime coat

Deviation specified spray rate at spraying temperature (%)	Payment reduction factor of tendered rate
±8,0	1.00
±9,0	0.97
±10,0	0.95
±11,0	0.90
±12,0	0.85
±13,0	0.80

Any deviation outside these limits shall not be paid for however, the Engineer shall have the right to instruct the Contractor to make up any deficiency, or blind excessive prime without additional payment. If under-spraying occurs, and it is accepted by the Engineer, only the actual quantities applied shall be paid for.

1. **Items to be measured and paid for using items specified elsewhere in the specifications**

Not applicable to this Section.

2. **Items specifically for this Section of the specifications**

Item Description Unit C8.1.1 Prime coat:

C8.1.1.1 MC -10 cut-back bitumen litre (ℓ)

C8.1.1.2 MC -30 cut-back bitumen litre (ℓ)

C8.1.1.3 Inverted bitumen emulsion litre (ℓ)

C8.1.1.4 Certified product containing solvents (State name) litre (ℓ)

C8.1.1.5 Certified product containing no solvents (State name) litre (ℓ)

The unit of measurement shall be the litre of priming material measured at spraying temperature and sprayed as required.
The tendered rates shall include full compensation for supplying the priming material, cleaning and watering the layer to be primed, applying the priming material and maintaining the primed surface as specified.

Item	Description	Unit
C8.1.2	**Aggregate for blinding:**	
C8.1.2.1	Natural sand	cubic metre (m^3)
C8.1.2.2	Crusher sand	cubic metre (m^3)

The unit of measurement shall be the cubic metre of aggregate used for blinding on the instructions of the Engineer.
The tendered rate shall include full compensation for procuring, furnishing and applying the aggregate for blinding where directed by the Engineer
and for maintenance of the blinding layer, as specified.

Item	Description	Unit
C8.1.3	**Extra over item C8.1.1 for applying the prime coat accessible only to hand-held or light equipment**	**litre (ℓ)**

The unit of measurement shall be the litre of priming material measured at spraying temperature and sprayed in accordance with the requirements for areas accessible only to hand-held or light equipment and shall include for all additional costs.

A8.2 COVER SPRAYS, FOG SPRAYS AND REJUVENATION SPRAYS

PART A: SPECIFICATIONS

A8.2.1 SCOPE

This Section covers the work in connection with the application of cover sprays, fog sprays and rejuvenation sprays.

A8.2.2 DEFINITIONS

Cover spray - refers to the application of a diluted emulsion as a final binder application on single or double seals or before application of the slurry, in case of Cape seals.
Fog spray or rejuvenation spray - is used for the application of diluted anionic emulsion or rejuvenator for purposes of adding additional binder to the seal or rejuvenating the seal at a later stage of the seal life.
The convention for describing diluted emulsion in this document is to state the type of emulsion with the proportion of emulsion and water in brackets e.g. 65 % cationic emulsion (60/40), which defines the mix as 60 % of the cationic emulsion and 40 % water.

A8.2.3 GENERAL

Fog sprays in the form of diluted anionic emulsion or inverted bitumen emulsion are applied during the service life of an existing bituminous surfacing to add additional binder or to rejuvenate the existing binder. Fog sprays using stable grade diluted anionic emulsions are applied as a pretreatment prior the application of a surfacing seal, if specified.
Diluted cationic spray grade emulsions are used as cover sprays during seal construction or shortly thereafter where the seal is sensitive to aggregate loss.

A8.2.3.1 Weather limitations

Weather limitations as specified in Clause A10.1.3.2 of Chapter 10 shall apply.

A8.2.3.2 Nominal rate of application for cover sprays, fog sprays and rejuvenation sprays

The nominal rate of application for tender purposes shall be:

1. Diluted cationic emulsion cover spray at 1,0 l/m^2
2. Diluted anionic or cationic emulsion cover spray, in the case of Cape seals, at 0,8 l/m^2
3. Diluted anionic emulsion fog spray as enrichment treatment at 0,8 l/m2
4. Rejuvenation spray with cut-back inverted emulsion or other Agrément certified products at 0,5 l/m^2

A8.2.5 MATERIALS

A8.2.5.1 Bitumen

1. **Cover spray**

Diluted 65 % cationic spray grade emulsion, or 60 % anionic stable grade emulsion, with the dilutions as specified in Part C: Measurement and Payment.

2. **Fog spray as enrichment treatment**

A diluted 60 % anionic stable-grade emulsion (50/50) shall be used.

c) Rejuvenation spray

Agrément SA certified products or inverted bitumen emulsion complying with SANS 4001 – BT5, with the exception that the Viscosity at 60 °C on residue from distillation shall be between 10 and 20 Pas.

(iv) Items specifically for this Section of the specifications

Item	Description	Unit
C8.2.1	**Cover sprays, fog sprays and rejuvenation sprays**	
C8.2.1.1	65 % Cationic spray grade emulsion	
(a)	Indicate dilution (Diluted ..% Emulsion/…% Water)	litre (ℓ)
C8.2.1.2	60 % Anionic stable grade emulsion	
(a)	Indicate dilution (Diluted ..% Emulsion/…% Water)	litre (ℓ)
C8.2.1.3	Cutback Inverted bitumen emulsion	litre (ℓ)
C8.2.1.4	Certified rejuvenator (State type and certification)	litre (ℓ)

The unit of measurement shall be the litre of binder measured at spraying temperature and sprayed in accordance with the requirements.
The tendered rates shall include full compensation for cleaning and preparing the existing surface, for furnishing the material and applying the binder and for all other incidentals necessary for completing the work as specified.

Item	Description	Unit
C8.2.2	**Extra over item C8.2.1 for labour enhanced application**	
C8.2.2.1	65 % Cationic spray grade emulsion	
(a)	Indicate dilution (Diluted ..% Emulsion/…% Water)	litre (ℓ)
C8.2.2.2	60 % Anionic stable grade emulsion	
(a)	Indicate dilution (Diluted ..% Emulsion/…% Water)	litre (ℓ)
C8.2.2.3	Cutback inverted bitumen emulsion	litre (ℓ)
C8.2.2.4	Certified rejuvenator (State type and certification)	litre (ℓ)

A10.1.7 EXECUTION OF THE WORKS

A10.1.7.2 Multiple stone seals

1. **Preparation**

All specifications as stated in Clause A10.1.3 shall be met.

2. **Application of tack coat and first layer of aggregate**

The binder of the type and grade and the aggregate of the size and grade specified in the schedule of quantities and according to the design approved by the Engineer, shall be applied as specified in Clause A10.1.7.1b).

3. **Application in case of geosynthetic membrane**

Following compliance with all relevant specifications in Clause A10.1.3, a tack coat of cationic 65 % bitumen emulsion (without solvents) or SC-E1(t) shall be applied at a spray rate of 0,8//m² by means of a hand applicator or distributor. The geosynthetic shall then be applied to the wet tack coat by hand or a suitable mechanical applicator and rolled with a suitable roller to ensure satisfactory bonding between the geosynthetic and the road surface. All wrinkles shall be smoothed out.

The nominal rate of the binder for the seal shall be as specified in the Contract Documentation. **d) Initial rolling**

Initial rolling shall be carried out as specified in Clause A10.1.7.1d).

1. **Broom drag and final rolling of aggregate**

Dragging and final rolling of aggregate shall be carried out as specified in Clause A10.1.7.1e).

2. **Second application of bituminous binder and aggregate**

The second bituminous binder shall be applied and followed by the second layer of aggregate of the size specified, in accordance with the approved method statement.

Where hot binders are used, all the aggregate shall be applied immediately but not more than 2 minutes after the application of the tack coat.

The second application of binder shall preferably take place within 48 hours of the application of the tack coat.

Where a 20 mm + double 7,1 mm split application seal is to be constructed, the application of the 7,1 mm aggregate shall be carried out in two separate operations. The first application of the 7,1 mm aggregate shall be placed before application of the second binder application, at the application rate determined during construction of the trial section and then slowly dragged with a drag broom to ensure an even distribution. **g) Initial rolling of second and final layer**

Initial rolling of the second layer of aggregate, or final layer in case of the 20 mm and double 7,1 mm split application seal, shall be carried out as specified in Clause A10.1.7.1d) or as per approved method statement

h) Broom drag and final rolling of second layer

Dragging and final rolling of the second layer of aggregate shall be carried out as specified in Clause A10.1.7.1e) or as per approved method statement. **i) Cover spray**

When required by the Contract Documentation or if so directed by the Engineer in writing, a cover spray of diluted SC-E1 or diluted cationic spray grade emulsion shall be applied to the surface of the aggregate by means of a pressure distributor at the rate and dilution specified in the Contract Documentation or as directed by the Engineer.

C11.9 FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS PARTC:MEASUREMENTANDPAYMENT

(i) Preamble

The tendered rate for each item shall include full compensation for providing, maintaining and decommissioning upon completion, of all the plant, equipment, labour, tools, incidentals and supervision to carry out the activity or construct the works in the item, unless otherwise stated.
Any prime cost or provisional sums shall be paid in accordance with the provisions of the conditions of contract. The charge or mark-up tendered or allowed for is a percentage of the amount actually paid under the prime cost or provisional sum. This percentage shall cover all the Contractor's handling, supervision, profit and liability costs to provide the services in the prime cost or provisional sum item.
The requirements of Section C1.1 of Chapter 1 shall apply.
Where pay item descriptions include any wording in brackets it is an indication that contract specific information is to be inserted in the Pricing Schedule included in the Contract Documentation.

(ii) Notes on measurement and pay items

None.

(iii) Items that will not be measured separately

The following activities, whether required to complete the specified work or not, will not be measured and paid for separately and the Contractor shall include the cost thereof in other pay items as he deems appropriate:

1. No separate payment will be made for backfilling excess excavations/trimming and disposing of surplus material not removed previously, etc. or any other contingent work, unless the work is specifically specified or ordered.
2. No separate payment will be made for setting out the works.
3. No separate payment will be made for the protection or repair as required of any existing or new road furniture, infrastructure or services damaged by the Contractor's activities.
4. No additional payment shall be made, nor shall any claim for additional payment be considered, for any specified work in confined or restricted areas. Any additional costs associated with working in confined or restricted areas shall be deemed to be included in the standard applicable pay items.
5. No separate payment will be made for the hauling of any materials where the material is moved over a distance of less than, and up to 1,0 km.
6. No separate payment will be made for transporting materials from commercial sources irrespective of the haul distance.
7. No separate payment will be made for the removal or any surplus material imported to complete the works.
8. For all Works performed, precautionary measures required in terms of the Occupational Health and Safety Act (Act 85 of 1993) and the latest amendments thereof as well as the latest Construction Regulations shall be deemed included in the rates tendered for the relevant products.

C1003 LEGAL REQUIREMENTS

(a) General

Construction shall be according to the best industry practices, as identified in the project documents. This EMPl, which forms an integral part of the contract documents, informs the contractor as to his duties in the fulfilment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with the

project. The contractor should note that obligations imposed by the EMPl are legally binding in terms of this contract. In the event that any rights and obligations contained in this EMPl contradict those specified in the standard or project specifications then the latter shall prevail.

(b) Statutory and other applicable legislation

The contractor is deemed to have made himself conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the contract.

Major environmental legislation, as amended from time to time, includes but is not limited to the following:

(i) Conservation of Agricultural Resources Act (Act No. 43 of 1983)

This act provides for control over the utilisation of the natural agricultural resources of South Africa in order to promote the conservation of soil, water sources and vegetation, as well as combating weeds and invader plants.

(ii) The Constitution (Act 6 of 1996)

The Constitution states that everyone has the right to an environment that is not harmful to their health or well-being, and to have the environment protected through reasonable legislative and other measures to prevent pollution and ecological degradation; promote conservation and ensure ecologically sustainable development and use of natural resources.

(iii) Mineral and Petroleum Resources Development Act (Act No. 28 of 2002)

This act makes provision for equitable access to, and sustainable development of, minerals and petroleum resources.

(iv) National Environmental Management Act (NEMA), (Act No. 107 of 1998)

This act supports the Bill of Rights within the Constitution and highlights principles of sustainable development including preservation of ecosystems and biological diversity and avoidance, minimisation and remediation of pollution and environmental degradation. It also sets the stage for the EIA Regulations.

(v) National Environmental Management: Air Quality Act (Act No. 39 of 2004)

This act provides reasonable measures for the prevention of pollution and ecological degradation; and provides for specific air quality measures; for national norms and standards regulating air quality monitoring, management and control by all spheres of government.

(vi) National Environmental Management: Biodiversity Act (Act No. 10 of 2004)

This act makes provisions to accomplish the objectives of the United Nations' Convention on Biological Diversity. The Employer may be required to apply for permits to conduct certain listed activities which, together with the listed threatened or protected species, may be identified by the Minister.

Section 73 (3) of this act empowers a competent authority to direct a person to take steps to remedy any harm to biodiversity resulting from the actions of that person or as a result of occurrence of listed invasive species occurring on land on which that person is the owner. Thus the Employer may be directed to remedy harm caused by listed invasive species.

(vii) National Environmental Management: Protected Areas Act (Act No. 57 of 2003)

This act provides for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity, natural landscapes and seascapes.

(viii) National Environmental Management: Waste Act (Act No. 59 of 2008)

This act aims to regulate waste management practices through provision of national norms and standards, specific waste measures, licensing and control of waste activities, remediation of contaminated land as well as providing for compliance and law enforcement.

(ix) National Forests Act (Act No. 84 of 1998)

This act makes provision for promoting the sustainable management and development of forests, and for the protection of certain forests and trees for environmental, economic, educational, recreational, cultural, health and spiritual purposes.

(x) National Heritage Resources Act (Act No. 25 of 1999)

This act provides for an integrated and interactive system for identification, assessment and management of South Africa's heritage resources, and empowers civil society to nurture and conserve their heritage resources.

(xi) National Water Act (Act No. 36 of 1998)

This act makes provision for the protection of surface water and groundwater and their sustainable management for the prevention and remediation of the effects of pollution, as well as for the management of emergency situations.

C1004 ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS

Copies of this EMPl shall be kept at the site office and must be distributed to all senior contract personnel who shall familiarise themselves with its contents.

Implementation of this EMPl requires the involvement of several stakeholders, each fulfilling a different but vital role as outlined herein, to ensure sound environmental management during the construction phase of a project.

(a) The Employer

The Employer is the holder of authorisations issued by the relevant environmental regulating authorities responsible for authorising and enforcing environmental compliance. The Employer and anyone acting on the Employer's behalf is accountable for the potential impacts of the activities that are undertaken and is responsible for managing these impacts.

(b) The Engineer

The engineer has been appointed by, and acts for, the Employer as its on-site implementing agent and carries the responsibility to ensure that the contractor

undertakes its construction activities in such a way that the Employer's environmental responsibilities are not compromised.

The engineer will, within seven days of receiving a contractor's request for approval of a nominated Designated Environmental Officer (DEO), approve, reject or call for more information on the nomination. The engineer will be responsible for issuing instructions to the DEO where environmental considerations call for action to be taken.

If in the opinion of the engineer the DEO is not fulfilling his/her duties in terms of this EMPl, the engineer may, in writing and clearly setting out reasons, exercise his powers under NEC3 and instruct replacement of the DEO.

(c) The Contractor

The contractor is responsible for project delivery in accordance with the prescribed specifications, among which this EMPl shall be included.

The contractor shall receive and implement any instruction issued by the engineer relating to compliance with the EMPl including the removal of personnel or equipment.

Compliance with the provisions contained herein or any condition imposed by the environmental approvals shall become the responsibility of the contractor through an approved Designated Environmental Officer (DEO). The contractor shall nominate a person from among his site personnel to fulfil this function and submit to the engineer for his approval the *curriculum vitae* of the proposed DEO. This request for approval shall be given, in writing, at least fourteen days before the commencement of any construction activity clearly setting out reasons for the nomination, and with sufficient detail to enable the engineer to make a decision.

(d) The Designated/Dedicated Environmental Officer (DEO)

Once a nominated representative of the contractor has been approved he/she shall become the DEO and shall be the responsible person for ensuring that the provisions of this EMPl are complied with during the life of the contract. The DEO shall submit regular written reports to the engineer, but not less frequently than once a month.

The DEO may undertake other construction duties unless the Appendix to Tender prescribes this position as 'dedicated' as opposed to the standard position being 'designated'. However, the DEO's environmental duties shall hold primacy over other contractual duties and the engineer has the authority to instruct the contractor to reduce the DEO's other duties or to replace the DEO if, in the engineer's opinion, he/she is not fulfilling his/her duties in terms of the requirements of this EMPl. Such instruction will be in writing clearly setting out the reasons why a replacement is required.

As a minimum the DEO shall have an accredited diploma qualification in environmental or natural sciences or equivalent. Alternatively, the DEO shall have a minimum of 2 years' experience in a similar role in construction or other environmental regulatory field.

In addition to the compliance duties relating to EMPl the DEO shall also provide full cooperation whenever the contractor is subjected to regular environmental audits.

C1007 ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES

The contractor shall undertake “good housekeeping” practices during construction as stated in the COLTO Standard Specifications for Roads and Bridges and the NEC3. This will help avoid disputes on responsibility and allow for the smooth running of the contract as a whole. Good housekeeping extends beyond the wise practice of construction methods that leaves production in a safe state from the ravages of weather to include the care for and preservation of the environment within which the site is situated.

The construction activities addressed below shall become part of the contractor’s obligations regarding his programme of work and incorporated into the required method statements for workmanship and quality control.

a) Site establishment

i) Site Plan

The site refers to an area with defined limits on which the project is located. The contractor shall establish his construction camps, offices, workshops, staff accommodation and testing facilities on the site in a manner that does not adversely affect the environment. However, before any site establishment can begin, the contractor shall submit to the engineer for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the contractor proposes to put in place.

The plans shall detail the locality as well as the layout of the waste management facilities for litter, kitchen refuse, sewage and workshop-derived effluents. The site offices should not be sited in close proximity to steep areas, as this will increase soil erosion. Preferred locations would be flat areas along the route. If the route traverses water courses, streams and rivers, it is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course. Regardless of the chosen site, the contractor’s intended mitigation measures shall be indicated on the plan. The site plan shall have been submitted and approved before establishment commences. Detailed, electronic colour photographs shall be taken of the proposed site before any clearing may commence. These records are to be kept by the engineer for consultation during rehabilitation of the site in order that rehabilitation is, as a minimum, done to a standard similar to pre-construction activities.

ii) Vegetation

The contractor has a responsibility to inform his staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.

h) On site plant

Table 7/1: Mechanisms that Cause Environmental Impacts during Construction Activities

Section	Contents	Environmental Impacts				
		Pollution Type	Deformation of Landscape	Soil erosion	Alien Vegetation	Sensitive Areas
1300	Camp Establishment	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	None identified
1400	Housing, Offices and laboratories	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	None identified
1500	Accommodation of Traffic	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	None identified
1600	Overhaul	Spillage Storage Noise/lights Dust control Exhaust fumes Washing waste	Turning circles Parking areas	Restrict access to sensitive areas	Protection of indigenous vegetation Preserve topsoil	None identified
1700	Clearing and grubbing	Waste treatment Hazardous waste Water supply Noise /lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Protection of indigenous vegetation Preserve topsoil	None identified

2100 - 2400	Drainage	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	None identified
3100	Borrow pits	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	None identified
3200	Stockpiling	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	None identified
3300	Mass Earthworks	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	None identified
3400 - 3900	Pavement layers	Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	None identified
4100	Asphalt works / sealing operations	Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control Smoke control Storage of materials	Selection of site Preserve indigenous vegetation Preserve topsoil Turning circles Parking areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil	None identified

5000	Ancillary roadworks	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	None identified
6000	Structures	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	None identified
7000	Concrete pavements etc	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	None identified

SECTION D: REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS

Note to tenderer:
Wherever reference is made in this section of the Scope of Works to contractor this is the equivalent of the *principal contractor* in the Occupational Health and Safety Act and Regulations. Similarly, reference to subcontractors is equivalent to *other contractors*.

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D1001 SCOPE

This part of the specification has the objective to assist the contractor entering into contracts with the Employer that they comply with the Occupational Health and Safety (OH&S) Act, No. 85 of 1993, propagated on 7 February 2014, as well as all applicable Regulations**.** Compliance with this document does not absolve the contractor from complying with minimum legal requirements and the contractor remains responsible for the health and safety of his employees and those of his Mandataries. The contractor shall therefore include this part of the specification to any contract that he may have with subcontractors and/or suppliers.

This section covers the development of a health and safety specification that addresses all aspects of occupational health and safety as affected by this contract. It provides the requirements that the contractor shall comply with in order to reduce the risks associated with this contract, which may lead to incidents causing injury and/or ill health. In this matter the spirit and intention of Regulation 4 (2) of the Construction Regulations, regarding negotiations between the parties, related to the contents and approval of the Health and Safety Plan, must be complied with.

D1002 GENERAL OCCUPATIONAL HEALTH AND SAFETY PROVISIONS

(a) Hazard Identification and Risk Assessment (Construction Regulation 9)

(i) Risk Assessments

Clause E1004 contains a generic list of risk assessment headings that have been identified by the Employer as possibly applicable to this contract. It is, by no means, exhaustive and is offered as assistance to the contractor.

(ii) Development of Risk Assessments

The contractor shall, before the commencement of any construction work or work associated with the aforesaid construction work and during such work, conduct a risk assessment by a competent person and the risk assessment so produced shall form part of the OH&S plan and be implemented and maintained as contemplated in Construction Regulation 7(1) (a). Competence is a factor of training, knowledge, experience and/or appropriate qualifications. Where proof of competence is required by the Regulation, a concise CV must be attached to the appointment letter.

The risk assessment shall include, as far as is reasonably practicable, at least:

- the identification of the risks and hazards to which persons may be exposed
- the analysis and evaluation of the risks and hazards identified, inclusive of a residual risk rating methodology. The method to be used is not prescribed.
- a documented plan of safe work procedures, to mitigate, reduce or control those residual risks that have been identified as unacceptably high, by means of the rating system.
- a monitoring plan and
- a review plan, inclusive of dates to be adhered to.

Based on the risk assessments, the contractor shall develop a set of site-specific OH&S rules that shall be applied to regulate the OH&S aspects of the construction. The risk assessments, together with the site-specific OH&S rules shall be submitted to the Employer before construction on site commences. Despite the more advanced (or site specific) risk assessments listed below in clause E1004: PROJECT/SITE SPECIFIC REQUIREMENTS, the contractor shall

conduct a baseline risk assessment, before work commences. The baseline risk assessment shall further include the standard working procedures and the applicable method statements, where applicable. This does not mean that all possible Risk Assessments must be attended to before work commences, but that all relevant Risk Assessments receive the necessary attention as the contract progresses.

All variations to the scope of work shall similarly be subjected to a risk assessment process.

(iii) Review of Risk Assessment

The contractor shall review the hazard identification, risk assessments and standard working procedures at each production planning and progress report meeting as the contract work develops and progresses and each time changes are made to the designs, plans and construction methods and processes. The contractor shall provide the Employer, subcontractors and all other concerned parties with copies of any changes, alterations or amendments as contemplated above.

(b) Legal Requirements

The contractor shall, as a minimum, comply with:

- The Occupational Health and Safety Act and Regulations (Act 85 of 1993), an up-to-date copy of which shall be available on site at all times.
- The Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993), an up-to-date copy of which shall be available on site at all times.
- Where work is being carried out on a "mine", the contractor shall comply with the Mines Health and Safety Act and Regulations (Act 29 of 1960) and any other OH&S requirements that the mine may specify. An up-to-date copy of the Mines Health and Safety Act and Regulations shall be available on site at all times.

(c) Structure and Responsibilities

(i) Overall Supervision and Responsibility for OH&S

It is a requirement that the contractor, when he appoints subcontractors in terms of Construction Regulations 7(1)(c) (i), (ii), (iii), (iv), (v) (vi), (vii), (viii), (ix), and (x) includes in his agreement with such subcontractors the following:

- OH&S Act (85 of 1993), Section 37(2) agreement: "Agreement with Mandatory"
- OH&S Act (85 of 1993), Section 16(2) appointee/s as detailed in his/her/their respective appointment forms. (Where applicable)

(ii) Further (Specific) Supervision Responsibilities for OH&S

The contractor shall appoint designated competent employees and/or other competent persons as required by the Act and Regulations. Below is a generic list of identified appointments and may be used to select the appropriate appointments for this contract. The contractor shall note that it is a generic list only and is intended for use as a guideline.

(iii) Designation of OH&S Representatives (Section 17 of the OH&S Act)

Where the contractor employs more than 20 persons (including the employees of subcontractors) he has to appoint one OH&S representative for every 50 employees or part thereof. This is a minimum (legal) requirement. The contractor may at his own discretion appoint more OH&S Representatives according to site specific requirements. General Administrative Regulation 6 requires that the appointment or election and subsequent designation of the OH&S representatives be conducted in consultation with employee representatives or employees. (Section 17 of the Act and General Administrative Regulation 6 & 7). OH&S representatives shall be designated in writing and the designation shall include the area of responsibility of the person and term of the designation. OH&S representatives must be experienced, permanently employed by the contractor or his subcontractors, trained and able to move freely within their designated area of responsibility.

(iv) Duties and Functions of the OH&S Representatives (Section 18 of the OH&S Act)

The contractor shall ensure that the designated OH&S representatives conduct continuous monitoring and regular inspections of their respective areas of responsibility, focusing on unsafe acts and unsafe conditions and report thereon to the contractor. OH&S representatives shall participate in accident or incident investigations. OH&S representatives shall attend all OH&S committee meetings.

(v) Appointment of OH&S Committee (Sections 19 and 20 of the OH&S Act)

The contractor shall establish an OH&S committee, which shall meet at least once a month.

(d) Administrative Controls and the Occupational Health & Safety File

(i) The OH&S File (Construction Regulation 7(1) (b)

As required by Construction Regulation 7(1) (b), the contractor and subcontractors shall each keep an OH&S file on site. The following index is neither exhaustive nor prescriptive but recommended as a guide for the contents of the OH&S file:

- Notification of construction work (Construction Regulation 4) where applicable
- Latest copy of OH&S Act (General Administrative Regulation 4)
- Proof of registration and good standing with COID Insurer (Construction Regulation 5 (1) (j)
- OH&S plan agreed with the Employer including the underpinning risk assessment/s and method statements (Construction regulation 7(1) (a)
- Copies of OH&S committee and other relevant minutes
- Designs/drawings (Construction Regulation 6)
- A list of subcontractors including copies of the agreements between the parties and the type of work being done by each subcontractor (Construction Regulation 7)
- Appointment/designation forms as per sub-sub-clause E1002(a)(i) and (ii).
- Registers as follows:
  - Accident/Incident register (Annexure 1 of the General Administrative Regulations)
  - OH&S representatives' inspection register
  - Asbestos demolition and stripping register

- Batch plant inspections
- Construction vehicles and mobile plant inspections by controller

(v) Recording and Review of Inspection Results

All the results of the abovementioned inspections shall be in writing, reviewed at OH&S committee meetings, endorsed by the chairman of the meeting and placed on the OH&S File.

(i) Accidents and Incident Investigation (General Administrative Regulation 9)

The contractor and his subcontractors shall coordinate their investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she/they had to be referred for medical treatment by a doctor, hospital or clinic. The results of the investigation shall be entered into an accident/incident register listed in sub-sub-clause E1002 (d) (i).

The affected subcontractor shall be responsible for the investigation of all minor and non-injury incidents as described in Section 24(1) (b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

(j) Reporting

The contractor shall provide the Employer with copies of all statutory reports required in terms of the Act within 7 days of the incident occurring.

from any accident/incident investigation.

SECTION E: EPWP CONDITIONS OF CONTRACT

Note:

Payment for the labour-intensive component of the works

Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

Applicable labour laws

The Ministerial Determination, Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997by the Minister of Labour in Government Notice N° R63 of 25 January 2002, as reproduced below, shall apply to works described in the scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.

1 Introduction

1.1 This document contains the standard terms and conditions for workers employed in elementary occupations on a Special Public Works Programme (SPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of a SPWP.

1.2 In this document –

(a) "department" means any department of the State, implementing agent or contractor;
(b) "employer" means any department, implementing agency or contractor that hires workers to work in elementary occupations on a SPWP;
(c) "worker" means any person working in an elementary occupation on a SPWP;
(d) "elementary occupation" means any occupation involving unskilled or semi-skilled work;
(e) "management" means any person employed by a department or implementing agency to administer or execute an SPWP;
(f) "task" means a fixed quantity of work;
(g) "task-based work" means work in which a worker is paid a fixed rate for performing a task;
(h) "task-rated worker" means a worker paid on the basis of the number of tasks completed;
(i) "time-rated worker" means a worker paid on the basis of the length of time worked.

2 Terms of Work

2.1 Workers on a SPWP are employed on a temporary basis.

2.2 A worker may NOT be employed for longer than 24 months in any five-year cycle on a SPWP.

2.3 Employment on a SPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.

3 Normal Hours of Work

3.1 An employer may not set tasks or hours of work that require a worker to work–
(a) more than forty hours in any week
(b) on more than five days in any week; and

(c) for more than eight hours on any day.

3.2 An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.

3.3 A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

4 Meal Breaks

4.1 A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.

4.2 An employer and worker may agree on longer meal breaks.

4.3 A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.

4.4 A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

5 Special Conditions for Security Guards

5.1 A security guard may work up to 55 hours per week and up to eleven hours per day.

5.2 A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

6 Daily Rest Period

Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

7 Weekly Rest Period

Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").

8 Work on Sundays and Public Holidays

8.1 A worker may only work on a Sunday or public holiday to perform emergency or security work.

8.2 Work on Sundays is paid at the ordinary rate of pay.

8.3 A task-rated worker who works on a public holiday must be paid –
(a) the worker's daily task rate, if the worker works for less than four hours;
(b) double the worker's daily task rate, if the worker works for more than four hours.

8.4 A time-rated worker who works on a public holiday must be paid –

(a) the worker's daily rate of pay, if the worker works for less than four hours on the public holiday;

(b) double the worker's daily rate of pay, if the worker works for more than four hours on the public holiday.

9 Sick Leave

9.1 Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.

9.2 A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.

9.3 A worker may accumulate a maximum of twelve days' sick leave in a year.

9.4 Accumulated sick-leave may not be transferred from one contract to another contract.

9.5 An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.

9.6 An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.

9.7 An employer must pay a worker sick pay on the worker's usual payday.

9.8 Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –

(a) absent from work for more than two consecutive days; or

(b) absent from work on more than two occasions in any eight-week period.

9.9 A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.

9.10 A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

10 Maternity Leave

10.1 A worker may take up to four consecutive months' unpaid maternity leave.

10.2 A worker is not entitled to any payment or employment-related benefits during maternity leave.

10.3 A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.

10.4 A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.

10.5 A worker may begin maternity leave –
(a) four weeks before the expected date of birth; or
(b) on an earlier date –
(i) if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
(ii) if agreed to between employer and worker; or (c) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.

10.6 A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.

10.7 A worker who returns to work after maternity leave, has the right to start a new cycle of twenty-four months employment, unless the SPWP on which she was employed has ended.

11 Family responsibility leave

11.1 Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances -
(a) when the employee's child is born;
(b) when the employee's child is sick;
(c) in the event of a death of –
(i) the employee's spouse or life partner;
(ii) the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

12 Statement of Conditions

12.1 An employer must give a worker a statement containing the following details at the start of employment –
(a) the employer's name and address and the name of the SPWP;
(b) the tasks or job that the worker is to perform; and
(c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
(d) the worker's rate of pay and how this is to be calculated;
(e) the training that the worker will receive during the SPWP.

12.2 An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.

12.3 An employer must supply each worker with a copy of these conditions of employment.

13 Keeping Records

13.1 Every employer must keep a written record of at least the following –
(a) the worker's name and position;
(b) in the case of a task-rated worker, the number of tasks completed by the worker;
(c) in the case of a time-rated worker, the time worked by the worker;
(d) payments made to each worker.

13.2 The employer must keep this record for a period of at least three years after the completion of the SPWP.

14 Payment

14.1 An employer must pay all wages at least monthly in cash or by cheque or into a bank account.

14.2 A task-rated worker will only be paid for tasks that have been completed.

14.3 An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.

14.4 A time-rated worker will be paid at the end of each month.

14.5 Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.

14.6 Payment in cash or by cheque must take place –

(a) at the workplace or at a place agreed to by the worker;
(b) during the worker's working hours or within fifteen minutes of the start or finish of work;
(c) in a sealed envelope which becomes the property of the worker.

14.7 An employer must give a worker the following information in writing –

(a) the period for which payment is made;
(b) the numbers of tasks completed or hours worked;
(c) the worker's earnings;
(d) any money deducted from the payment;
(e) the actual amount paid to the worker.

14.8 If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it

14.9 If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

14.10 Payment of labour as per government gazette.

15 Deductions

15.1 An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.

15.2 An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.

15.3 An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.

15.4 An employer may not require or allow a worker to –

(a) repay any payment except an overpayment previously made by the employer by mistake;
(b) state that the worker received a greater amount of money than the employer actually paid to the worker; or
(c) pay the employer or any other person for having been employed.

16 Health and Safety

16.1 Employers must take all reasonable steps to ensure that the working environment is healthy and safe.

16.2 A worker must –

(a) work in a way that does not endanger his/her health and safety or that of any other person;
(b) obey any health and safety instruction;
(c) obey all health and safety rules of the SPWP;
(d) use any personal protective equipment or clothing issued by the employer;
(e) report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

17 Compensation for Injuries and Diseases

17.1 It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a SPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.

17.2 A worker must report any work-related injury or occupational disease to their employer or manager.

17.3 The employer must report the accident or disease to the Compensation Commissioner.

17.4 An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

18 Termination

18.1 The employer may terminate the employment of a worker for good cause after following a fair procedure.

18.2 A worker will not receive severance pay on termination.

18.3 A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.

18.4 A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

18.5 A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

19 Certificate of Service

19.1 On termination of employment, a worker is entitled to a certificate stating –

(a) the worker's full name;
(b) the name and address of the employer;

(c) the SPWP on which the worker worked;
(d) the work performed by the worker;
(e) any training received by the worker as part of the SPWP;
(f) the period for which the worker worked on the SPWP;
(g) any other information agreed on by the employer and worker.

20 Job Creation

It is required that for every R1 million rand spent on this project, a minimum of 4 job opportunities per R1 million must be created for a minimum period of 6 months.

21 Training

It is required that a minimum of 2 students be employed every year for in-service training for a minimum period of 12 months until the project lapses.

22 Subcontracting

Items that must be subcontracted to Departmentally approved subcontracting are traffic accommodation, detours, drainage, road signs, fencing, finishing of borrow pits and transporting of labours. **Failure of the principal contactor to adhere to the 30% approved subcontracting allocation will lead to termination of this contract.**

23 Contractor's Work Period

The contractors must be prepared to work during the holidays including the contactors year end break in December/January.

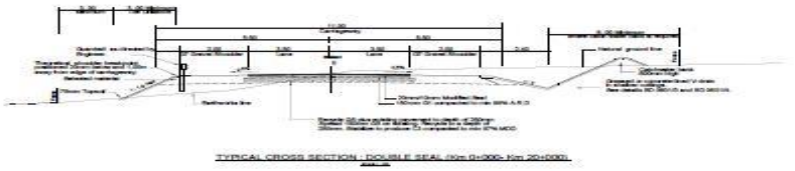
C4.1 DESCRIPTION OF THE WORKS

The description of the works shall inter alia contain the following particulars regarding the work to be constructed and maintained under the contract.

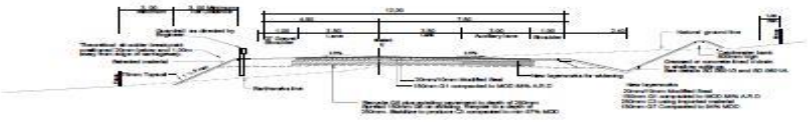
C4.1.1 ROADWORKS

This project is for the special maintenance of the P71/1 from Tweespruit (km 0.0) to Hobhouse (km 39.0). In general, the existing alignment will be lifted to allow for a new G1 Base with only minor adjustments to the vertical and horizontal alignment. **16km (From Tweespruit KM0.00 towards Hobhouse up to KM16.00) is designed for a full Rehabilitation** and the remaining 26km base correction and full reseal.

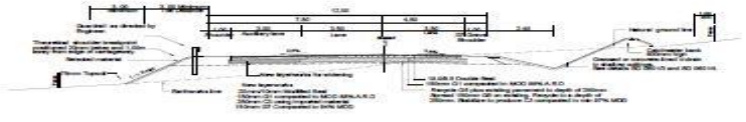
The subbase will be constructed by spreading 150 mm of G5A quality material onto the existing road followed by recycling to a depth of 250 mm. The layer will be stabilised using cement to produce 250 mm subbase of C3/C4 quality. The base will consist of commercially imported G1 crushed stone material which will be sealed with a modified 20 mm/10 mm Double seal.



TYPICAL CROSS SECTION : DOUBLE SEAL (km 0+000- Km 20+000)



TYPICAL CROSS SECTION : WITH ONE AUXILIARY LANE



TYPICAL CROSS SECTION : WITH ONE AUXILIARY LANE

C4.1.2

PAVEMENT DESIGN FOR ALL PARTS OF THE VARIOUS ROADS

The pavement design is as follows:

- 20 mm/10 mm Double Seal with SE1 modified bitumen
- 150 mm Base Course – Import G3 crushed rock and compact to 98% MOD AASHTO.
- Recycle 250mm deep with addition of 100mm new G5A material, nominal 3% cement and compacted as C4 Stabilised Subbase to 97% MOD AASHTO.

C4.1.3 *STRUCTURAL WORKS*

No structural work to be carried out.

C4.1.4 *MAINTENANCE WORKS*

The Free State Department of Community Safety, Roads & Transport has currently no maintenance contracts on this section of road.

C4.2 DRAWINGS

The reduced drawings that form part of the tender document are issued for tender purposes only. It is should be noted that due to limited time for design, the final approved design drawings will only be made available to the successful tenderer.

The contractor will be supplied with one set of paper A1 drawings plus a CD containing all the tender documentation.

Only figured dimensions may be used and drawings may not be scaled unless so instructed by the engineer. The engineer will supply all figured dimensions omitted from the drawings.

It is the contractor's responsibility to check all clearances given on the drawings and to inform the engineer of any discrepancies.

C4.3 CAMP ESTABLISHMENT, POWER SUPPLY AND OTHER SERVICES

The contractor is to make his own arrangements concerning the supply of electrical power and all other services. No direct payment will be made for the provision of electrical and other services. The cost thereof is deemed to be included in the rates and amounts tendered for the various items of work for which these services are required.

The contractor himself shall provide a suitable site for his camp and for accommodating his labourers.

C4.4 CONSTRUCTION IN CONFINED AREAS

It will be necessary for the contractor to work within confined areas. In certain places the width of the fill material and pavement layers may decrease to zero and the working space may be confined. The method of construction in these confined areas largely depends on the contractor's constructional plant.

Regardless, measurement and payment will be in accordance with the specified cross-sections and dimensions only, irrespective of the method used for achieving these cross-sections and

dimensions. It is deemed that the rates tendered in the Pricing Schedule include full compensation for all special equipment and construction methods and for all difficulties encountered when working in confined areas and narrow widths, and at or around obstructions. No extra payment will be made nor will any claim for additional payment be considered in such cases. (Refer to project specification sub-clause B1209 (g)).

C4.5 MANAGEMENT OF THE ENVIRONMENT

The contractor will be responsible for construction according to an environmental management plan in terms of Section C1000 Scope of Works.

The contractor must take the utmost care to minimise the impact of his establishment and other construction activities on the environment and must adhere to the requirements as set out in Section C of the Scope of Works. Where the contractor fails to adhere to these requirements the specifications in Section C of the Scope of Works provide the methodology and cost liability of remedy.

C4.7 SMME DEVELOPMENT TARGETS FOR THIS CONTRACT

The successful tenderer will be required to allocate a minimum of 30% of the contract amount as specified on Schedule F. Failure to achieve this target will lead to a breach of contract and could possibly be terminated.

C4.9 CLIMATE

TBC

C4.10 REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS

Refer to Section D of the Scope of Works for general requirements in terms of the OH&S requirements.

C4.11 OTHER INFORMATION

C4.11.1 *MATERIALS*

Refer to Volume 6 for information on materials investigations. All materials that cannot be sourced within the road reserve and allocated borrow pit must be sourced by the contractor or commercially.

(a) Disclaimer

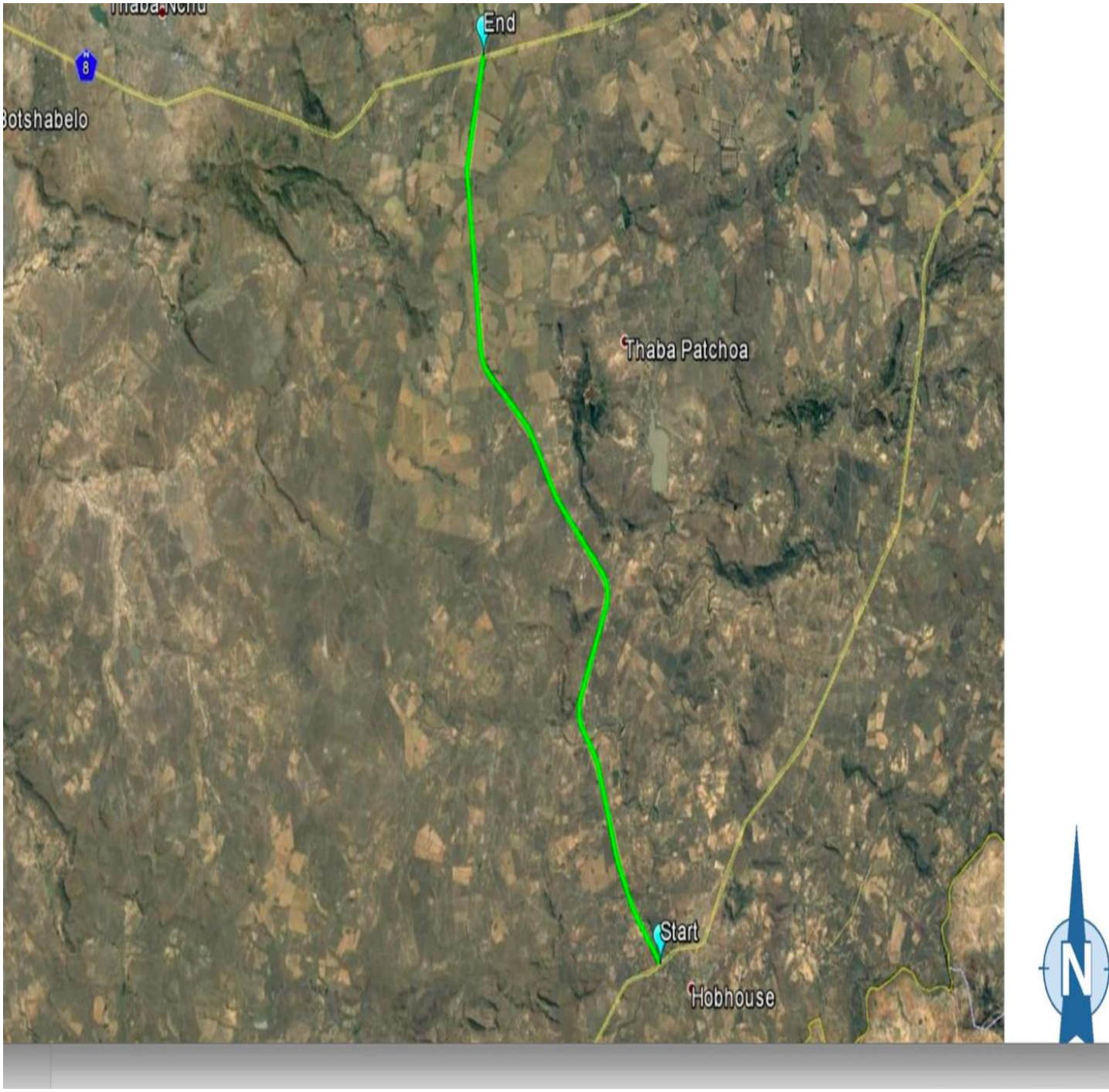
The information contained in Volume 6 records the results and findings of the various investigations undertaken along the route and is merely intended as an indication of conditions likely to be encountered. The results are given in good faith, but no warranty is given that the information is representative of the whole area and no responsibility will be accepted for any consequence arising from actual conditions being different from those indicated in this part.

The Employer accepts no responsibility for the correctness or sufficiency of this information or for any losses that might arise out of the information later proving to be incorrect or unrepresentative. Should the Contractor rely on the opinions, interpretations and proposed construction methods, he must be aware that this is done at his own risk.

The Contractor shall take cognizance of the fact that the provision of any ground or subsoil information will not relieve him of his responsibility in terms of the General Conditions of Contract to ascertain and satisfy himself concerning the site conditions.

This Volume will only be distributed to the successful tenderer.

PART C4: LOCALITY PLAN


End
Botshabelo
Thaba Patchoa
Start
Hobhouse
N

SITE INFORMATION

1. INTRODUCTION

1. TERMS OF REFERENCE

Motheo Region has carried assessment and preliminary designs for the special maintenance of Primary Road P71/1, Between Tweespruit and Dewetsdorp. This project will address the following basic needs of the community:

1. Enhanced accessibility and mobility in a cost-effective manner
2. Road user- and pedestrian safety
3. Small Contractor Development
4. Job Creation and skills development
5. Stimulation of the Local Economy

1. LOCATION

Primary road P71/1 (R709) is situated between Tweespruit and Hobhouse and falls Mantsopa Local Municipality in the Sourthern Free State. The road connects N8 East and R26 South to Dewetsdorp, Tweespruit, Lesotho and Ladybrand.

2. CURRENT ROAD CONDITIONS

The road is seriously deteriorated, with a fatigued and decomposed road surface of an equivalent length of 39 km consisting of 7.4m single carriageway width. With the high rainfall in the area, the riding quality of the road has been a constant problem, also keeping in mind the limited maintenance performed on these roads due to budget constraints. The road was assessed using the TMH9 assessment tools and principles.

1.4PROJECT STAKEHOLDERS

The following interested and affected parties to be conferred with during the initial stages of the project:

1. Community leaders must be consulted and be kept informed about the project development and progress. They must be allowed to play their role in appointment of EPWP Local labourers.

2. The planning and designs to be done on close collaboration with the Road Planning Directorate of the Department.
3. The Department Facilitation Office must be consulted and given the space to play their part.
4. The agricultural community and landowners to be consulted during land survey- as well as land acquisition processes.

5. ROAD ASSESSMENT: PHYSIOGRAPHY

1. Visual Assessment

Visual Assessments were conducted guided by applicable documents such as TRH4, TRH9 and TMH 9 to assess and make findings in relation to the road current conditions. An independent lab was also appointed to conduct tests in support of the final assessment of the road that would inform the Maintenance Design best suited for the road.

2. DRAINAGE

There are existing earth drainage structures on the road reserves. They need to be maintained to ensure their efficiency. The overall management of this storm water can without difficulty be managed by means of formalised drainage structures.

6. PAVEMENT DESIGN

1. ROAD CATEGORY

In South Africa, roads are categorized according to the importance and level of service required. Table 2 gives details of the four road categories used (TRH4; TRH12 and cncPAVE). The “approximate design reliability” is linked to the category. Photographs of typical roads in each category are given in Figure 2.

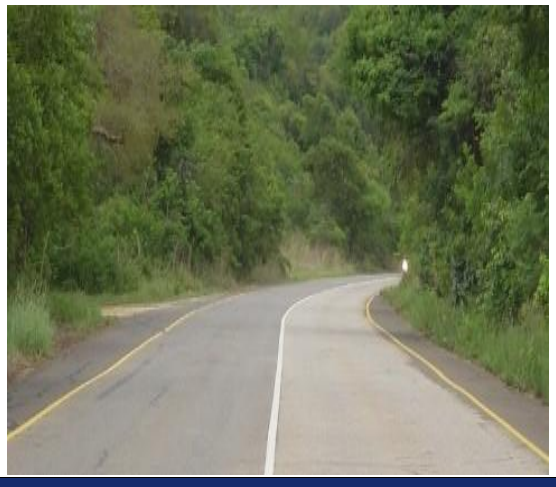
For new design, the design reliability is usually introduced when estimating the structural capacity of a potential design. This process is discussed in more detail in Theyse et al (1995 and 1996) for flexible pavements. For rehabilitation design, the road category not only determines the approximate reliability for the future structural capacity of the rehabilitated road, but also provides guidance on the percentile levels to use during the assessment of condition data for the existing road.

Table 5: Definition of the Four Road Categories

	Road Category			
	A	B	C	D
Description	Major inter-urban freeways and major rural roads	Inter-urban collectors and rural roads	Lightly trafficked rural roads, strategic roads	Rural access roads

Importance	Very important	Important	Less important	Less important
Level of service	Very high	High	Moderate	Moderate
Typical Pavement Characteristics				
Approximate design reliability (%)	95	90	80	50[1]
Length of road exceeding terminal distress condition at end of structural design life	5	10	20	50
Total equivalent traffic loading (E80/lane)	3 – 100 million over 20 years	0.3 – 10 million Depending on design strategy	< 3 million Depending on design strategy	< 1 million Depending on design strategy
Typical pavement class[2]	ES10 – ES100	ES1 – ES10	< ES0.03 – ES3	ES0.003 – ES1
Daily traffic (evu)	> 4000	600 – 10 000	< 600	< 500
Riding quality: Constructed IRI Terminal IRI	2.4 – 1.6 3.5	2.9 – 1.6 4.2	3.5 – 2.4 4.5	4.2 – 2.4 5.1
Rut level for flexible pavements (mm) Warning Terminal	10 20	10 20	10 20	10 20
Area of shattered concrete for rigid pavements (%)[3] CRCP and UTCRCP Warning Terminal JCP and DJCP Warning Terminal	0.2 0.5 2 5	0.3 0.7 3 6	0.4 0.8 4 8	0.5 1.0 5 10

Table 6: Road Categories, SAPEM



Category A

Category B

Category C

Category D

Category B Roads. Financial constraints may dictate the selection of a shortened structural design period of 10 years. If it is foreseen that structural rehabilitation will be difficult, a longer period of 20 years may be appropriate.

Financial constraints, relatively low traffic volume and light traffic loads has dictated the selection of **Category B** Road rehabilitation design.

2. MATERIAL

Structural layers are designed to resist the high stress conditions imposed by external loads and to provide sufficient protection of the pavement foundation during the structural design period. Material of appropriate quality will therefore be sourced for the imported subgrade and structural pavement layers. Chapters 6, 8 and 9, and TRH3, TRH14 and TG2 provide detailed information on the behaviour of specific material types. The use of a materials checklist indicating the availability and cost of materials in the vicinity of the project is recommended.

3. DESIGN: SPECIAL MAINTENANCE, DOUBLE SEAL SURFACING

A specific pavement design is based on certain estimates of the traffic loading that will be applied during its life, properties of the material it will be constructed from and subgrade strength it will be constructed on. It follows that the pavement design input parameters are not precisely known, and that a range of values exists for each of these parameters. Confidence limits are, therefore, frequently used in pavement engineering to take variability in materials strength parameters into account. The following are used in TRH4:

- 95% confidence limit for Category A roads
- **90% confidence limit for Category B roads**

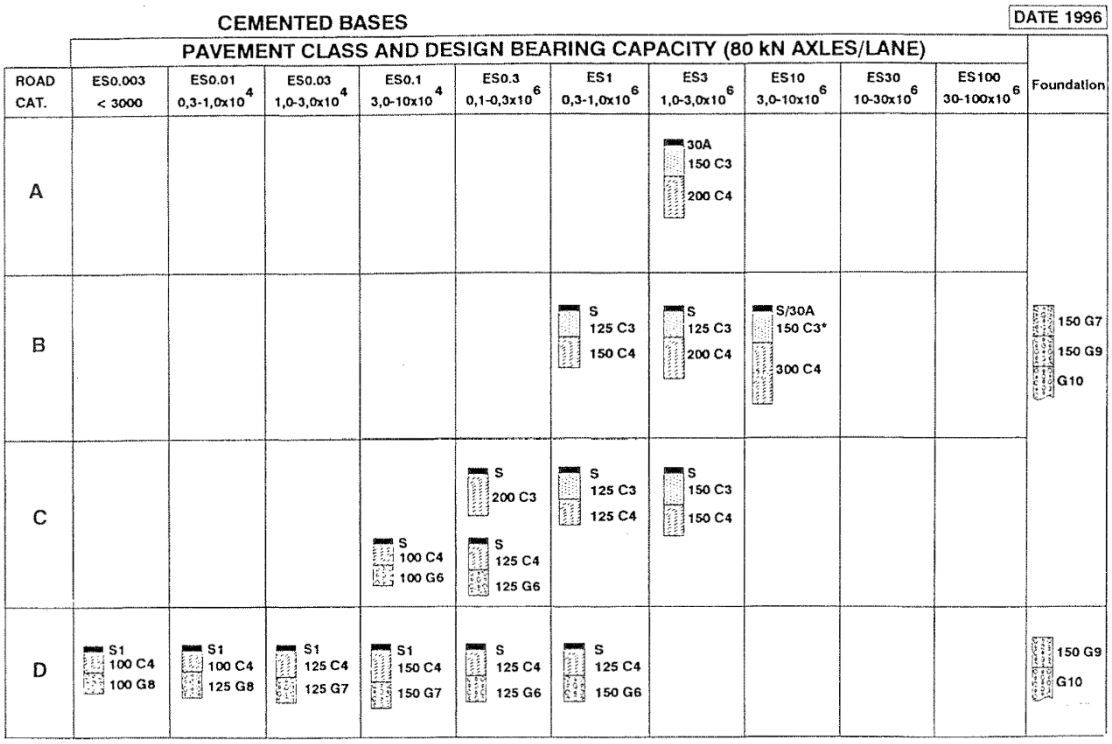
•80% confidence limit for Category C roads

The variability in traffic and construction is typically taken into account in the design of pavements. It appears that current construction quality control methods are sufficient to reduce variability caused by construction to an acceptable level. The existing pavement layer design qualifies under Category B class and well reflected on the design tables below. The existing pavement layers are still well functional and thus the maintenance will follow a preventative strategy to only correct, preserve , protect enhance the existing road performance.

TABLE A9

Present worth of costs for a longer structural design period (alternative strategy) (Base year 1995)

Pavement structure	Initial costs/m²	Maintenance	Initial costs/m²	Discounted maintenance costs/m²			Present worth of costs/m²		
				Discount rate			Discount rate		
				6 %	8 %	10 %	6 %	8 %	10 %
S2 150 C3 300 C4	5,10 9,45 18,51	S1 (5 yrs) S1 (10 yrs) S1 (15 yrs) S1 (20 yrs) S2 (25 yrs)	5,10 5,10 5,10 5,10 5,10	3,81 2,85 2,13 1,59 1,19	3,47 2,36 1,61 1,09 0,74	3,17 1,97 1,22 0,76 0,47			
	33,06			11,57	9,28	7,58	44,63	42,34	40,64



Symbol A denotes AG, AC, OR AS. A0, AP may be recommended as a surfacing measure for improved skid resistance when wet or to reduce water spray.
S denotes Double Surface Treatment (seal or combinations of seal and slurry)
S1 denotes Single Surface Treatment
* Crushing of cemented base may occur

Road Section: km 0.00 to km 39.00

Surfacing:	Double Seal (20/10)
Base layer:	A minimum of 150mm G1 (Crushed Stone) compacted to 88% Relative Density
Subbase layer:	A minimum of 150mm C3/C4 stabilized layer

This Design alternative was selected as the most appropriated following the site investigation. The selection was mostly undertaken based on the economic aspects and existing efficiency or design confidence of road Category B.

7. MATERIAL RESOURCES

Material to be utilised for the project must be strictly tested, and can thereon be considered for utilisation when they have passed the laboratory testing and approved by the Project Engineer.

8. GEOMETRICAL DESIGN

No major horizontal and vertical re-alignments will be required on the route since it's an existing road with existing well-functioning alignment.

9. TRAFFIC ACCOMMODATION

Traffic Accommodation will be arranged as planned for by the Project Engineer and authorised by the Project manager to ensure safety and free flow of existing traffic. Bypass routes will be temporarily constructed appropriately on the road side to avail the road site for the construction.

10. ENVIRONMENTAL IMPACT ASSESSMENT

Environment Consultants to be appointed to conduct the environmental assessments regarding the impact of the road works and mining operations on the environment.

11. SMALL CONTRACTOR DEVELOPMENT

The principles of the EPWP will be strictly adhered to and labour will be sourced from the immediate areas.

The following elements of road construction will be designed and constructed labour intensively:

1. Grass cutting and road reserve maintenance
2. Traffic accommodation
3. Security services
4. Concrete kerbing, cast on-site or Precast
5. Concrete edge beam
6. Erection of road signs
7. Earth side drains
8. Concrete side drains
9. Finishing

10. COST ESTIMATES

Rates for this contract are based on contract prices of similar works completed recently. For the proposed contract period of 24 months the department's procurement unit (SCM) will make a final determination based on submissions made by qualifying bidders.

11. RECOMMENDATIONS

1. Rehabilitation of the road structure, from KM 0.00 to KM 39.00
2. Subbase Reconstruction: minimum of 150mm C3 Layer
3. Base Construction: G1 compacted at 88% Relative Density.
4. Surfacing: Double Seal (20/10).
5. Recommended design method under category B, with 90% confidence
6. Tests must be conducted regularly as a quality control measure
7. The road design must be efficiently accompanied by a working effective drainage system.
8. Quality assurance and supervision must be on strict conditions by at least two officials from the client and two officials from the Contractor.
9. The Project must be well managed with high consideration and efficient management of the project budget.