



police, roads and transport

Department of
Police, Roads and Transport
FREE STATE PROVINCE

**FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT**

PR&T (C108/2021)

**THE SPECIAL MAINTENANCE OF ROAD (P41/2) FRANKFORT -
TWEELING IN THE THABO MOFUTSANYANE DISTRICT
MUNICIPALITY AREA**

VOLUME 1: PROJECT DOCUMENT

ISSUED BY:



police, roads and transport

Department of
Police, Roads and Transport
FREE STATE PROVINCE

Department of Police, Roads & Transport
P.O. Box 119
Medfontein Building
3rd Floor, Room 325
St Andrews Street
BLOEMFONTEIN

Contract Manager :
Mr. TJ Mosianedi
Tel: (051) 409 8595
E-mail: mosianedit@freetrans.gov.za

TENDERER:

TENDER AMOUNT (INCL. VAT):

(from C2.4.1: Summary of Bill of Quantities, page C2-8)

LIST OF CONTRACT DOCUMENTS

The following documents form part of this contract:

Volume 1: The **GCC2015** - General Conditions of Contract for construction works, 2nd Edition 2015, issued by the South African Institute of Civil Engineering (see Note 1 below).

Volume 2: The **COLTO** Standard Specifications for Road and Bridge Works 1998, issued by the Committee of Land Transport Officials which the tenderer shall purchase himself / herself (see Note 2 below).

Volume 3: The **Project Document**, containing the tender notice, Conditions of Tender, Tender Data, Returnable Schedules, general and particular conditions of contract, project specifications, Pricing Schedule, Form of offer and Site Information is issued by the Employer (see Note 3 below).

The Employer's Form of Acceptance and any correspondence from the selected tenderer, performance security-demand guarantee and all addenda issued during the period of tender will also form part of this volume once a successful tenderer has been appointed.

This volume also includes the Environmental Management Plan and details of the Materials Investigation (if applicable).

Volume 4: The road works drawings (if applicable).

Notes to Tenderer:

Note 1: Volume 1 is obtainable from SAICE, Private Bag X200, Halfway House, 1685.
Tel: (011) 8055947/8, e-mail: civilinfo@saice.org.za.

Note 2: Volume 2 is obtainable from SAICE, Private Bag X200, Halfway House, 1685.
Tel: (011) 8055947/8, e-mail: civilinfo@saice.org.za.

Note 3: Volume 3 is issued at tender stage by the Head: Department of Police, Roads and Transport and contains the following files:

At Contract stage Volume 3 will be a bound signed paper copy containing the following documents:

- Returnable schedules relevant to the project
- Agreements and Contract Data
- Pricing Data
- Scope of Work
- Site Information

Note 4: Information provided by a tenderer over and above the above elements of volume 3 shall be treated as information only and will only be bound into the document if the tenderer notes on Form A4: Schedule of Variations or deviations that the information has a bearing on the tender price.

Note 5: For alternative offers the tenderer shall submit the following additional documentation, clearly marked as ALTERNATIVE, in a separate neatly bound file in the following order:

- Form of Offer and state "Alternative Form of Offer";
- All returnable schedules applicable to alternative offer, as is appropriate;
- Alternative Pricing Schedule;
- Other relevant information.

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (C108/2021)

FOR

THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING IN THE THABO
MOFUTSANYANE DISTRICT MUNICIPALITY AREA

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Employer

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (C108/2021)

FOR

THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING IN

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Employer

Witness 1

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FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T PR&T (C108/2021)

FOR
THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING

Part T1.1 Tender Notice and Invitation to Tender

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T1.1 Tender Notice and Invitation to Tender



police, roads & transport
Department of
Police, Roads and Transport
FREE STATE PROVINCE

PR&T (C108/2021)

THE SPECIAL MAINTENANCE OF ROAD (P41/2) FRANKFORT - TWEELING IN THE THABO MOFUTSANYANE DISTRICT MUNICIPALITY AREA

The Department of Police, Roads and Transport, Free State Provincial Government, invites tenders for **THE SPECIAL MAINTENANCE OF ROAD (P41/2) FRANKFORT - TWEELING**

Requirements:

Sealed Bids must clearly indicate "THE SPECIAL MAINTENANCE OF ROAD (P41/2) FRANKFORT – TWEELING"

- Bid Number **PR&T/BID21/2021/22**

- CIDB registration grading certificate for a 8CEPE grading or Higher
- Joint ventures are eligible to submit tenders provided that:
- every member of the joint venture is registered with the CIDB;
- the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations for a Grade 8CE PE or higher, class of construction work.
- Original Tax Clearance Certificate (if joint venture, original Tax Clearance Certificates of all partners).
- A bidder must score a minimum of 80 points for functionality in order to be considered for further evaluation and adjudication.
- Proof of ownership or proof of access to key equipment as per the Contract Document.
- Certified Company Registration Certificate (CC/CM) indicating active members and shareholding percentage.
- Documental proof to claim points for functionality.

Compulsory Clarification Meeting: On Site

6 December 2021 at 10:00

Closing date: **13 December 2021 at 11:00**

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Tender Box: Entrance Hall, Perm Building,
45 Charlotte Maxeke Street,
Bloemfontein.
9300

Supply chain enquiries: (051) 409 8709

Technical enquiries: Mr. TJ Mosianedi

Please note:

1. No bids will be accepted from persons in the service of the State.
2. Bid documents will be obtainable as from during working hours between 08h00 and 16h00 from Monday to Friday with effect from 02 December 2021. The physical address for the collection of tender documents is: Department of Police, Roads & Transport, Room 204, Perm Building, 45 Charlotte Maxeke Street, Bloemfontein
3. A non-refundable tender deposit of R1000.00 (Category F Tender) payable in cash or by bank guarantee cheque made out in favour of the Employer, payable at the ground floor of the Lengau Testing Stations between 09h00 and 12h00 and 12h30 and 14h45, is required on collection of each tender document. Tender Documents will be signed by the Employer at the compulsory clarification meeting and the attendance register will serve as the official list of eligible tenderers.
4. No telegraphic, telefax and late Bids will be accepted.
5. Failure to comply with the abovementioned conditions may invalidate your Bid.
6. The contract will be awarded according to The Preferential Procurement Regulations, 2001, pertaining to the Preferential Procurement Policy Framework Act. No 5 of 2000; Adjudication Criteria 90/10.
7. Should you not receive any correspondence from us within 90 days from the date of closing of tender, regard your bid as unsuccessful; communication will be limited to the successful bidder

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (C108/2021)

FOR
THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING

Part T1.2 Standard and Special Conditions of Tender

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T1.2 Standard and Special Conditions of Tender

Notes to tenderer:

- 1. The legislated Standard Conditions of Tender (as published and amended from time to time by the Construction Industry Development Board - CIDB) are included in their entirety. Special Conditions of the Tender of the Department of Police, Roads and are shown in *italic* as amending, deleting or adding to parts of or entire clauses of the Standard Conditions.
- 2. Tender Data and Tender Schedules are included separately after the tender conditions.

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T1.2 Standard and Special Conditions of Tender

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T1.2 Standard and Special Conditions of Tender

F.1 General

F.1.1 Actions

F.1.1.1 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, comply with all legal obligations and not engage in anticompetitive practices.

F.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict, and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

Note: 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.

2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

F.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

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

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contract arising from the invitation to tender.

F.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

- a) **Conflict of interest means any situation in which:**
 - i. someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
 - ii. an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - iii. Incompatibility or contradictory interests exist between an employee and the organisation which employs that employee.
- b) **Comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;
- c) **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;
- d) **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;
- e) **Organization** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body;
- f) **Functionality** means the measurement according to the predetermined norms of a service or commodity designed to be practical and useful, working or operating, taking into account quality, reliability, viability and durability of a service and technical capacity and ability of a tenderer.

F.1.4 Communications 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 readily read, copied and recorded. Communications 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

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

F1.5.1 An organ of state may, prior to the award of the tender, cancel a tender if-

- (a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or
- (b) funds are no longer available to cover the total envisaged expenditure; or
- (c) no acceptable tenders are received.

F1.5.2 The decision to cancel a tender must be published in the cidb website and in the government Tender Bulletin for the media in which the original tender invitation was advertised.

F.1.6 Procurement procedures

F.1.6.1 General

Unless otherwise stated in the tender data, a contract will, subject to F.3.13, be concluded with the tenderer who in terms of F.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

F.1.6.2 Competitive negotiation procedure

F.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of F.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of F.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

F.1.6.2.2 All responsive tenderers, or not less than three responsive tenderers that are highest ranked in terms of the evaluation method and evaluation criteria stated in the tender data, shall be invited in each round to enter into competitive negotiations, based on the principle of equal treatment and keeping confidential the proposed solutions and associated information. Notwithstanding the provisions of F.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

F.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to make a fresh tender offer, based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

F.1.6.2.4 The contract shall be awarded in accordance with the provisions of F.3.11 and F.3.13 after tenderers have been requested to submit their best and

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

final offer.

F.1.6.3 Proposal procedure using the two stage-system

F.1.6.3.1 Option 1

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

F.1.6.3.2 Option 2

F.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

F.1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.

F.2 Tenderer's obligations

F.2.1 Eligibility

F.2.1.1 Submit a tender offer only if the tenderer satisfies 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

F2.2.1 Accept that, unless otherwise stated in the tender data, 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 complies with requirements.

F2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

F.2.3 Check documents

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

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Witness 1

Witness 2

F.2.4 Confidentiality and copyright of 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 Clarification meeting

Attend, where required, a 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) might 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.

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Witness 1

Witness 2

F.2.10.2 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

Do 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.

F.2.12 Alternative tender offers

F.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

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.2.12.3 *An alternative tender offer may only be considered in the event that the main tender offer is the winning tender.*

F.2.13 Submitting a tender offer

F.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works, services or supply identified in the contract data and described in the scope of works, 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 legibly in non-erasable 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.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

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 will 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.2.13.9 *Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.*

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 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 time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

F.2.15.2 Accept that, if the employer extends the closing time 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

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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 time 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 with or without any conditions attached to such extension.

F.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer’s agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.

F.2.16.4 Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as “SUBSTITUTE”.

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 competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

Note: Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.

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 and policies

Contractor

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Witness 2

Employer

Witness 1

Witness 2

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 requests from the tenderer

F.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five working days before the tender closing time stated in the Tender Data and notify all tenderers who drew procurement documents.

F.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

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 that tender documents are available until three days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who drew documents.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

F.3.3 Return late tender offers

Return tender offers received after the closing 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 meeting 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 and, where applicable, the total of his prices, number of points claimed for its BBEE status level and time for completion 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 functionality 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 functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

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.

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) 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) significantly 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.

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, omissions and discrepancies

F.3.9.1 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
 - i. line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
 - ii. the summation of the prices.

F3.9.2 The employer must correct the arithmetical errors in the following manner:

- a) Where there is a discrepancy between the amounts in words and amounts in figures, the amount in words shall govern.
- b) If bills of quantities or pricing schedules apply and there is an error in the

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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. 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 shall be corrected.

- c) 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 bills of quantities apply) to achieve the tendered total of the prices.

Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of the arithmetical error 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 them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

F.3.11.2 Method 1: Price and Preference

In the case of a price and preference:

- 1) Score tender evaluation points for price
- 2) Score points for BBBEE contribution
- 3) Add the points scored for price and BBBEE.

F.3.11.3 Method 2: Functionality, Price and Preference

In the case of a functionality, price and preference:

- 1) Score functionality, rejecting all tender offers that fail to achieve the minimum number of points for functionality as stated in the Tender Data.
- 2) No tender must be regarded as an acceptable tender if it fails to achieve the minimum qualifying score for functionality as indicated in the tender invitation.
- 3) Tenders that have achieved the minimum qualification score for functionality must be evaluated further in terms of the preference points system prescribed in paragraphs 4 and 5 below.

Contractor

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F.3.11.4 The 80/20 preference point system for acquisition of services, works or goods up to Rand value of R1 million

- (a) (i) The following formula must be used to calculate the points for price in respect of tenders(including price quotation) with a rand value equal to, or above R 30 000 and up to Rand value of R 1 000 000 (all applicable taxes included):

$$P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

P_s = Points scored for comparative price of tender or offer under consideration;

P_t = Comparative price of tender or offer under consideration; and

P_{min} = Comparative price of lowest acceptable tender or offer.

- (ii) An employer of state may apply the formula in paragraph (i) for price quotations with a value less than R30 000, if and when appropriate:

- (b) Subject to subparagraph(4)(c), points must be awarded to a tender for attaining the B-BBEE status level of contributor in accordance with the table below:

B-BBEE status level of contributor	Number of points
1	20
2	18
3	16
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

- (c) A maximum of 20 points may be allocated in accordance with subparagraph (b)

- (d) The points scored by tender in respect of B-BBEE contribution contemplated in contemplated in subparagraph (4) (b) must be added to the points scored for price as calculated in accordance with subparagraph (4)(a).

- (e) Subject to paragraph 4.3.8 the contract must be awarded to the tender who scores the highest total number of points.

F.3.11.5 The 90/ 10 preference points system for acquisition of services, works or goods with a Rand value above R 1 million

- (a) The following formula must be used to calculate the points for price in respect

Contractor

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of tenders with a Rand value above R1 000 000 (all applicable taxes included):

90/10

$$P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

P_s = Points scored for comparative price of tender or offer under consideration;

P_t = Comparative price of tender or offer under consideration; and

P_{min} = Comparative price of lowest acceptable tender or offer.

(b) Subject to subparagraph(5)(c), points must be awarded to a tender for attaining the B- BBEE status level of contributor in accordance with the table below:

B-BBEE status level of contributor	Number of points
1	10
2	9
3	8
4	5
5	4
6	3
7	2
8	1
Non-compliant contributor	0

(c) A maximum of 10 points may be allocated in accordance with subparagraph (5)(b).

(d) The points scored by tender in respect of B-BBEE contribution contemplated in subparagraph (5) (b) must be added to the points scored for price as calculated in accordance with subparagraph (5)(a).

(e) Subject to paragraph 4.3.8 the contract must be awarded to the tender who scores the

F.3.11.6 Decimal places

Score price, preference and functionality, as relevant, to two decimal places.

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F.3.11.7 Scoring Price

Score price of remaining responsive tender offers using the following formula:

$$\text{NFO} = W1 \times A$$

where: NFO is the number of tender evaluation points awarded for price.
W1 is the maximum possible number of tender evaluation points awarded for price as stated in the Tender Data.
A is a number calculated using the formula and option described in Table F.1 as stated in the Tender Data.

Table F.1: Formulae for calculating the value of A

Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a
1	Highest price or discount	$A = (1 + \frac{P - P_m}{P_m})$	$A = P / P_m$
2	Lowest price or percentage commission / fee	$A = (1 - \frac{P - P_m}{P_m})$	$A = P_m / P$
a	P _m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration.		

F.3.11.8 Scoring preferences

Confirm that tenderers are eligible for the preferences claimed in accordance with the provisions of the tender data and reject all claims for preferences where tenderers are not eligible for such preferences.

Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

F.3.11.9 Scoring functionality

Score each of the criteria and subcriteria for quality in accordance with the provisions of the Tender Data.

Calculate the total number of tender evaluation points for quality using the following formula:

$$\text{NQ} = W2 \times \text{SO} / \text{MS}$$

where: SO is the score for quality allocated to the submission under consideration;
MS is the maximum possible score for quality in respect of a submission; and
W2 is the maximum possible number of tender evaluation points awarded for the quality as stated in the tender data

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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

Accept the tender offer, if in the opinion of the employer, it does not present any risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract,
- c) has the legal capacity to enter into the contract,
- d) is not insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) complies with the legal requirements, if any, stated in the tender data, and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

F.3.14 Prepare contract documents

F.3.14.1 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, and
- c) other revisions agreed between the employer and the successful tenderer.

F.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

F.3.15 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.

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F.3.16 Notice to unsuccessful tenderers

F.3.16.1 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.

F.3.16.2 After the successful tenderer has been notified of the employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

F.3.17 Provide copies of the contracts

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.

F.3.18 Provide written reasons for actions taken

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender, but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

F.3.19 Transparency in the procurement process

F.3.19.1 The cidb prescripts require that tenders must be advertised and be registered on the cidb

- i. Tender system.

F3.19.2 The employer must adopt a transparency model that incorporates the disclosure and accountability as transparency requirements in the procurement process.

F3.19.3 The transparency model must identify the criteria for selection of projects, project information template and the threshold value of the projects to be disclosed in the public domain at various intervals of delivery of infrastructure projects.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

F3.19.4 The client must publish the information on a quarterly basis which contains the following information:

- Procurement planning process
- Procurement method and evaluation process
- Contract type
- Contract status
- Number of firms tendering
- Cost estimate
- Contract title
- Contract firm(s)
- Contract price
- Contract scope of work
- Contract start date and duration
- Contract evaluation reports

F3.19.5 The employer must establish a Consultative Forum which will conduct a random audit in the implementation of the transparency requirements in the procurement process.

F3.19.6 Consultative Forum must be an independent structure from the bid committees.

F3.19.7 The information must be published on the employer's website.

F3.19.8 Records of such disclosed information must be retained for audit purposes.

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Witness 2

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (C108/2021)

FOR

THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING IN THE THABO
MOFUTSANYANE DISTRICT MUNICIPALITY AREA

Part T1.3 Tender Data

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T1.3 Tender Data

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T1.3 Tender Data

The Standard Conditions and the Employer’s Special Conditions of Tender for Procurement 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/special conditions of tender.

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

Clause Tender Data

Number

F.1.1 The Employer is The Department of Police, Roads and Transport. The Employer’s domicilium citandi et executandi (permanent physical business address) is:

Perm Building,
45 Maitland Street
BLOEMFONTEIN, 9301

F.1.2 The tender documents issued by the Employer comprise of:

Part T1: Tendering Procedures

T1.1 Tender Notice and Invitation to Tender..... (White)
T1.2 Standard and Special Conditions of Tender..... (Pink)
T1.3 Tender data..... (Pink)

Part T2: Returnable Schedules

T2.1 List of Returnable Documents..... (Yellow)
T2.2 Tender Schedules..... (Yellow)

Part C1: Agreements and contract data

C1.1 Form of Offer and Acceptance..... (Yellow)
C1.2 Contract Data..... (Yellow)
C1.3 Other Contract Forms..... (Yellow)

Part C2: Pricing data

C2.1 Pricing Instructions..... (Yellow)
C2.2 Bill of Quantities..... (Yellow)

Part C3: Scope of work

C3.1 Scope of Work..... (Blue)
C3.2 Specifications for Work..... (Blue)
C3.3 Environmental Management Requirements..... (Blue)
C3.4 Occupational Health and Safety (OHS)..... (Blue)

Part C4: Site Information

Contractor

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Employer

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Witness 2

C4 Site Information..... (Green)

F.1.3 The Employer's Agent is: Mr. TJ Mosianedi
Chief Directorate Roads
Department of Police, Roads and Transport
Medfontein Building
St. Andrews Street
BLOEMFONTEIN, 9301

F.2.1 Only those tenderers who, prior to the evaluation of submissions, are registered with the CIDB, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations, for an CE class of construction work are eligible to have their tenders evaluated.

Joint Ventures are eligible to submit tenders provided that:

- every member of the joint venture is registered with the CIDB;
- all partners have a contractor grading designation in the SK class of construction work; and
- the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a SK class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations.

F.2.2 The Employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of *attending the site visit and clarification meeting* and any testing necessary to demonstrate that aspects of the offer complies with requirements..

F.2.7 The arrangements for a compulsory clarification meeting are:

Date: 1 December 2021
Starting time: 11:00
Location: 26 Hartley Street
Hamilton
Bloemfontein

Submissions from tenderers who arrive late for the clarification meeting shall be declared non-responsive.

F.2.12 If a tenderer wishes to submit an alternative tender offer, the only

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criteria permitted for such an alternative tender offer is that it demonstrably satisfies the Employer's standard 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 in 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 offer will mean acceptance in principle of the offer. It will be an obligation of the contract with 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 5% 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.

F.2.13.4 Submit only the signed original tender offer.

F.2.13.5 The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:

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

Place the signed original tender offer in a package marked:
**THE REHABILITATION OF ROADS (P41/3 & P41/2) REITZ - TWEELING – FRANKFORT IN
THE THABO MOFUTSANYANE DISTRICT MUNICIPALITY AREA**

F.2.13.6 A two envelope procedure will not apply

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

F.2.15 The closing time for submission of tender offers is **11:00** on **8 December 2021**

Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will **NOT** be accepted.

F.2.16 The tender offer validity period is 90 days.

F.2.23 The tenderer is required to submit with his tender:

- Proof of Contractor Registration drawn from the CIDB website should be attached to returnable schedule Form A12
- An original valid Tax Clearance Certificate issued by the South African Revenue Services. (See Returnable Schedule Form A6)
- Evidence that he is registered and in good standing with a compensation insurer who is approved by the Department of Labour in terms of section 80 of the Compensation for Injury and Disease Act (Coid) (Act 130 of 1993). The tenderer is required to disclose all inspection, investigations and their outcomes conducted by the Department of Labour into the conduct of the tenderer at a time during the 36 months preceding the date of this tender. (See returnable schedule Form A11)

F.3.4 The time and location for opening of the tender offer are: Time: **11:05** on **8 December 2021** Location: Room 204, Perm Building, 45 Charlotte Maxeke Street, Bloemfontein.

F.3.11.1 General

The Department of Police, roads and Transport is committed to transformation, employment equity and staff advancement, and to supporting black economic empowerment.

The primary criterion in selection, apart from costs, will be the degree to which the Service Provider can demonstrate appropriate knowledge and expertise. A further consideration will naturally be the equity profile of the service provider in management, ownership and implementation.

The procedure for the evaluation of responsive tenders is method 4 as contained in the standardized construction procurement documents for professional services (July 2015) as published by the construction industry development board.

The score for quality is to be calculated using the following formula:

$$W_Q = W_2 \times S_o/M_s$$

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Witness 2

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Witness 2

Where:

W_2 = the percentage score given to quality and equals 60

S_o = the score for quality allocated to the submission under consideration

M_s = the maximum possible score for quality in respect of a submission

The minimum number of evaluation points for quality (i.e. W_Q) is 48, in order for Tenders to be considered responsive, and eligible for further consideration.

F.3.11.2 Scoring Financial Offers

The score for financial offer is calculated using Formula 2 (option 2) where, W_1 is the percentage score given to financial offer and equals 100 minus W_2 .

$$N_{FO} = W_1 \times P_m / P$$

Where:

N_{FO} = the number of tender evaluation points awarded for the financial offer.

W_1 = the maximum possible number of tender evaluation points awarded for the financial offer as stated in the Tender Data.

P_m = the comparative offer of the most favourable tender offer.

P = the comparative offer of tender offer under consideration.

The score for quality and financial offer is to be combined, before the addition of the score for preference, as follows:

$$W_c = W_3 \times (1 + (S - S_m) / S_m)$$

Where:

W_3 = the number of tender evaluation points for quality and financial offer and equals:

1. 90 where the financial value inclusive of VAT of all responsive tenders received have a value in excess of R500 000.00; or
2. 80 where the financial value inclusive of VAT of one or more responsive tender offers equals or is less than R500 000.00.

S = the sum of score for quality and financial offer of the submission under consideration

S_m = the sum of score for quality and financial offer of the submission scoring the highest number of points

--	--	--	--	--	--

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

F.3.11.3 Scoring Quality (functionality)

A maximum of 20 points (M_s) will be allocated for quality (functionality) aspects of tenders. Only tenders that achieve a minimum of 16 out of 20 points for the quality (functionality) aspects shall be considered as acceptable tenders and qualify for further adjudication. The following aspects shall comprise the points allocated for functionality:

- Management of the Site: (10 points)
 - Quality Control Plan : 3 points
 - Equipment available to the Tenderer: 3 points
 - Financial Capacity of the Tenderer : 2 points
 - Personnel Available to Tenderer: 1 point
 - Project Execution and Responsibility Organogram: 1 point
- Site Agent: (6 points)
- Foreman: (4 points)

The Points for quality (functionality), S_o , shall be calculated for the tender as follows:

$$S_o = N_{fin} + N_{equip} + N_{pers} + N_{qc} + N_{org} + N_{site\ agent} + N_{foreman}$$

Where:

Quality Control Plan

N_{qc} = Points allocated, and summed to a maximum of 3 points, as follows based on information supplied on Form E1:

Quality Plan Includes	Points Allocated
Automated electro-mechanical control systems to maintain constant application rates of Milling materials	1
Management systems and equipment to monitor, record and report application rates of Milling materials	1
Equipment and methodology used to measure retro-reflectivity of applied Millings	1

Equipment available to the Tenderer

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

$N_{\text{equip}} = (\text{Sum of Points for tendered Equipment starting with Owned equipment as per table below to a maximum of 12}) \div 4$

EQUIPMENT	POINTS FOR OWNED EQUIPMENT	POINTS FOR HIRED EQUIPMENT
1. Milling / Recycling Machine (as specified in section B9100 of the Project Specification)	2 points per machine (max 4)	2
2. Pneumatic Tyred Roller (minimum 20 tons)	2	0.5
3. Vibratory Steel Wheeled Roller (minimum 13 tons)	2	0.5
4. Grader (minimum 114KW / if fitted with a torque convertor drive minimum 124KW)	1	1
5. Water Truck (minimum 18,000 litre or 2 x 10,000 litre)	1	0
6. Chip & Spray Machine	2	0.5

Financial Capacity of the Tenderer

$N_{\text{fin}} = \text{Points for Bank Rating} + \text{Points for Working Capital as allocated below:}$

Where:

Working Capital required per month (M) = $0.8 \times \text{Tender Value} \div \text{Construction Period shown on Tendered Programme}$

Tendered Working Capital	Points for Working Capital
$\geq M$	0.6
$\geq 2 M$	0.8
$\geq 3 M$	1

Bank Rating	Points for Bank Rating
C	1
D	0.8
E	0.6

Personnel available to Tenderer

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

N_{pers} = Points allocated, up to a maximum of 1 point, as follows:

No of Staff Employed	Points Allocated
< 5	0.6
Between 5 and up to 20	0.8
> 20	1

Project Execution and Responsibility Organogram

N_{org} = Points allocated, up to a maximum of 1 point, as follows:

Organogram	Points Allocated
Basic supplied only	0.25
& includes all site disciplines	0.5
& included details of all project (eg OHS, EMP) responsibilities	1

Site Agent

NB: only one proposed Site Agent will be considered in this evaluation.

The points ($N_{site\ agent}$) for number of year's relevant experience of the proposed Site Agent will be allocated as follows:

Experience	Contract Management experience	Milling experience
< 5 Years	1	2
≥ 5 Years	2	4

Foreman

NB: a maximum of two proposed foremen will be considered in this evaluation, and the average point achieved shall be used in the adjudication

The points ($N_{foreman}$) for the relevant experience of the proposed Foremen will be allocated as follows:

Experience	Contract Management experience (Including OHS Experience)	Rehabilitation of Provincial roads
< 5 Years	1	1
≥ 5 Years	2	2

F.3.11.4 Scoring preference

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Up to 97 minus W_3 tender evaluation points will be awarded to tenderers who complete the preferencing schedules (See returnable schedule Form C1) and who are found to be eligible for the preference claimed.

An additional 3 tender evaluation points for preference are available to tenderers who complete the preferencing schedule for direct participation of targeted labour (Form C2) and exceed the targeted minimum specified therein.

Tender offers that contain Contract Participation Goals less than the specified targets may be regarded as non-responsive in terms of condition F.3.8. The basis of award of the additional preference points is:

$$N_p = T_x * \frac{(D-D_s)}{(X-D_s)}$$

Where:

- N_p = number of evaluation points awarded for preference
- T_x = maximum number of evaluation points awarded for targeted preferences = 3 for Targeted Labour
- D = tendered Contract Participation Goal (CPG) D_s = the specified target below which no preference will be granted. For this project D_s = 5%
- X = 2 D_s and is the maximum Contract Participation Goal above which no further evaluation points will be granted for direct participation preferences.

Note: If tendered CPG (D) is $< D_s$ then $N_p = 0$; If tendered CPG (D) is $> 2 D_s$, then $N_p = T_x$

F.3.13.1 Tender offers will only be accepted if:

- the tenderer is registered with the Construction Industry Development Board with an appropriate contractor grading designation;
- 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;
- the tenderer has not abused the Employer's supply chain management system; and
- the tenderer has not failed to perform on any previous contract and has not been given a written notice to this effect;

F.3.18 The number of paper copies of the signed contract to be provided by the Employer is one (1).

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FREE STATE PROVINCIAL GOVERNMENT
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PR&T (C108/2021)

FOR

THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING IN THE THABO
MOFUTSANYANE DISTRICT MUNICIPALITY AREA

Part T2. Returnable Schedules

T2.1	List of Returnable Documents	Page T2.1-41
T2.2	Returnable Schedules	Page T2.2-43

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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MOFUTSANYANE DISTRICT MUNICIPALITY AREA

Part T2.1 List of Returnable Documents

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T2.1 List of Returnable Documents

The tenderer shall complete the following returnable schedules:

Notes to tenderer:

1. Returnable schedules have been separated into the following categories:
 - Forms, certificates and schedules for completion by the tenderer for use in the quantitative and qualitative evaluation of the tender (Forms A-E)
 - A list of other returnable documents for completion by the tenderer and which will subsequently be incorporated into the contract (Section C1: Agreement and Contract data)
- 2 Failure to fully complete the relevant returnable documents may render such a tender offer unresponsive.
- 3 Tenderers shall note that their signature appended to each returnable form represents a declaration that they vouch for the accuracy and correctness of the information provided.
- 4 Notwithstanding any check or audit conducted by or on behalf of the Employer, the information provided in the returnable documents is accepted in good faith and as justification for entering into a contract with a tenderer. If subsequently any information is found to be incorrect such discovery shall be taken as wilful misrepresentation by that tenderer to induce the contract. In such event the Employer has the discretionary right under contract condition 15.2 to terminate the contract.
- 5 Should a tenderer wish to offer a different period of completion than that required by the Employer, it shall be submitted as an alternative tender.
- 6 If more than one alternative tender is submitted, each one shall be numbered and submitted on a separate copy of form C1.1.1 Form of Offer, completed and signed, and accompanied by the prescribed priced Pricing Schedule and supporting documents.
- 7 A retention money guarantee will be considered for acceptance in lieu of cash deductions provided that the tenderer submits his proposal as an alternative tender indicating the discount he proposes to give.
- 8 These forms must be completed in black ink and any alterations made prior to tender closure countersigned by an authorised signatory.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

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FRANKFORT - TWEELING IN THE THABO
MOFUTSANYANE DISTRICT MUNICIPALITY AREA

Part C1. Agreement and Contract Data

THE CONTRACT

C1.1	Form of Offer and Acceptance	Page C1.1-78
C1.2	Contract Data	Page C1.2-84

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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MOFUTSANYANE DISTRICT MUNICIPALITY AREA

Part C1.1. Form of Offer and Acceptance

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C1.1 Form of Offer and Acceptance

OFFER

The Employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement of the: **THE SPECIAL MAINTENANCE OF ROAD (P41/2) FRANKFORT - TWEELING**

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

By the representative of the tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the contractor under the contract including compliance with all 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)

This offer may be accepted by the Employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the Tender Data, whereupon the tenderer becomes the party named as the contractor in the Conditions of Contract identified in the Contract Data.

for the tenderer

Signature Date

Name

Capacity

(Name and address of organization).....

.....

Name and signature of witness:

ACCEPTANCE

--

Contractor

--

Witness 1

--

Witness 2

--

Employer

--

Witness 1

--

Witness 2

By signing this part of this form of offer and acceptance, the Employer identified below accepts the tenderer'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 tenderer's offer shall form an agreement between the Employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is 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 Tender Data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the Employer during this process of offer and acceptance, are contained in the schedule of deviations 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 authorised representative(s) of both parties.

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

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

For the Employer

Signature: Date:

Name: Capacity:

Name and signature of witness:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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 authorised 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:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

..... Signature

..... Name

..... Capacity

Name and address of organisation: Name and address of organisation:

.....

.....

.....

.....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:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

.....
Signature

.....
Name

.....
Capacity

Signature and name of witness:

.....
Signature

.....
Name

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

FREE STATE PROVINCIAL GOVERNMENT
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FOR

THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING IN THE THABO
MOFUTSANYANE DISTRICT MUNICIPALITY AREA

Part C1.2. Contract Data

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C1.2 Contract Data

Contract Data for: **THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING IN THE THABO MOFUTSANYANE DISTRICT
MUNICIPALITY AREA**

PART 1: DATA PROVIDED BY THE EMPLOYER

C1.2.1 CONDITIONS OF CONTRACT

This Contract will be based on the "General Conditions of Contract for Construction Works – 2nd Edition 2010", issued by the South African Institution of Civil Engineering (Short title: "General Conditions of Contract 2010")

It is agreed that the only variations from the General Conditions of Contract 2010 are those set out hereafter under "Special Conditions of Contract".

Copies of these General Conditions of Contract may be obtained from the South African Institution of Civil Engineering:

- SAICE House, Block 19, Thornhill Office Park, Bekker Street, Midrand
- Tel: (011) 805-5947; Fax: (011) 805-5971;
E-mail: civilinfo@saice.org.za

C1.2.2 CONTRACT SPECIFIC DATA

The following Contract Specific Data, referring to the General Conditions of Contract for Construction Works, Second Edition, 2010, are applicable in this Contract:

Each item of data given below is cross-referenced to the clause in the General Conditions of Contract for Construction Works to which it mainly applies.

C1.2.2.1 Amendments to the General Conditions of Contract 2010 with contract Specific Conditions

Clause The variations to the General Conditions of Contract are:

1.1.3 Replace this sub-clause with: "The Engineer has to obtain specific 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, 6.11, 7.8.2.2, 8.2.2.2, 10.1.5."

3.2.1 Add the following at the end of the sentence: "after consultation with the Employer"

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

CONTRACT PRICE ADJUSTMENT SCHEDULE

Paragraph 1

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

Definition of "L" :

Insert "(Consumer Price Index and Percentage Change according to Urban Area)" after "Table 14" in the third line.

Definition of "P" :

Insert "(Producer Price Index for Selected Materials, item 'Civil Engineering Plant')" after "Table 4" in the third line.

Definition of "M" :

Insert "(Producer Price Index for Materials used in Certain Industries, item 'Civil Engineering Plant')" after "Table 3 or Table 4" in the third line

Definition of "F" :

Insert "(Producer Price Index for Selected Materials, item Diesel Oil – Coast and Witwatersrand)" after "Table 4" in the third 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".

9.2 Termination by Employer

Add the following clause:

- 9.2.1.4 If the contractor is found guilty of contravening the EPWP Code of Good conduct or the EPWP Disciplinary Code.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

C1.2.2.2 Compulsory Data

REFERENCE TO:	CLAUSE	INFORMATION
Defects Liability Period	1.1.1.13	24 Months from issuing of Certificate of Practical Completion per section of road completed. Meaning 24 months from the issue of the Certificate of Completion having been issued for different parts of the Works, during which the Contractor has both the right and obligation make good defects in the materials.
Latent Defects Liability Period	5.16.3	Should there be any defects within Fifteen (15) years after final completion, the Contractor will be fully liable for latent defects
Practical Completion	1.1.1.14	The time for achieving Practical Completion is calculated from commencement date, excluding year end breaks.
Employer	1.1.1.15	Department of Police, Roads and Transport
Address of the Employer	1.2.1.2	Perm Building 45 Charlotte Maxeke Street Bloemfontein 9301
Engineer	1.1.1.16	Departmental
Commencement of Work	5.2	Within 14 days after issuing of the appointment letter
Documentation required before commencement of the Works	5.3.1	Health & Safety Plan (Refer to C3.4) Revised Programme & Cash flow Projection (Refer to Clause 5.6) Security (Refer to Clause 6.2) Insurance (Refer to Clause 8.6)
Time to submit the documentation required before commencement of the Works	5.3.2	14 Days
Programme of Works	5.6.1	Within 14 days of Commencement Date
Non-working days	5.8.1	Sundays and all public holidays as well as year-end breaks.
Penalty for failing to complete the Works on time	5.13.1	R10,000 per calendar day
Security	6.2.1	Performance Guarantee of 10% of the value of the Works which will be handed back after practical completion.
REFERENCE TO:	CLAUSE	INFORMATION
Day work percentages	6.5.1.2.3	Refer to section 1800 of the Specification
Contract Price Adjustment	6.8.2	The following values for the different factors are to be used: X = 0.10

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

		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 closing of tender. Only applicable for contract duration of more 12 months of commencement date.
Special Materials	6.8.3	See following Schedule
Materials on Site	6.10.1.5	80% payment for materials on site
Retention Money	6.10.3	10% of contract amount with a limit of R5 000 000-00
Retention Money	6.10.3	Two retention Guarantees of 50% each of the value of the retention money are compulsory; one will be handed back after practical completion and the other 24 months after practical completion.
Contract Guarantee		Must be submitted within 14 days of Commencement Date
Guarantee Sum		10% of Contract Value
Limited of indemnity	8.6.1.3	R5,000,000-00 per claim, number of claims unlimited
Dispute Resolution	10.5.1	Adjudication / (Mediation)
Adjudication Board Members	10.5.3	Only Three members required
Dispute Resolution	10.7.1	Adjudication If there are no agreements, then court proceeding will be preferred.
Targeted Subcontractors (ABE's)	FORM D3 - 30% of Contract Value (Excl Contingencies) must be subcontracted to Local & CDP Contractors approved / appointed by the Department and the Works should only be executed by Subcontractors and should be paid within 30 days as per Schedule B of the BOQ. CPA will only be applicable for contracts longer than 12 months.	
REFERENCE TO:	INFORMATION	
Targeted Local labour	Minimum Labour Employment per R 1 Million - 7 for Conventional & 12 for EPWP of Contract Value (Excl. VAT, Contingencies and CPA) should be appointed with a minimum of six months. 25% of labour must be retained for the entire duration of the contract. The employment demographics are as follows: Youth – 55%	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

	• Female – 55% • Disabled – 2% Wherever feasible labour will be deployed to Local Municipalities for service delivery at the cost of the Contractor.	
Temporary Suspension of Works	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 stop the Works and or claim interest on the unpaid Works. No claim shall be submitted to the Department once the budget is depleted.	
Socio – Economic of Community	1% of Contract Value shall be invested into local Community.	
Skills Development	- Two (2) Civil Engineering Students shall be appointed for experiential Training with stipend of R7000.00 each per month, signed off reports must be submitted to respective Departmental Project Managers. - Members of Community must also be trained in Labour Intensive Works	
Subcontractors Scope of Works	1300	Contractor's Establishment on Site and General Obligations
	1500	Accommodation of Traffic
	1700	Clearing Grubbing
	2100	Drains
	2300	Concrete Kerbing, Concrete Channelling, Chutes and Downpipes, and Concrete Linings for open drains.
	3500	Stabilization
	3900	Patching and Repairing Edge Breaks
	5100	Stone Pitching, Stonework and Protection against Erosion
	5200	Gabions
	5400	Guardrails
	5600	Road Signs
	5700	Road Markings

SIGNED ON BEHALF OF THE TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PART 2: DATA PROVIDED BY THE CONTRACTOR

REFERENCE TO:	CLAUSE	INFORMATION
Contractor	1.1.1.9	
Address of the Contractor	1.2.1.2	Physical Address: Postal Address: Telephone Number (Office): Facsimile Number (Office): E-mail Address (Office):
Special Materials	6.8.3	a) Bitumen (Nett Bitumen Content): Unit on which variation will be determined*: Rate or price for the base month**: (Excl. VAT) * 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, labour or any other costs. When called upon to do so, the Tenderer shall substantiate the above prices with acceptable documentary evidence.

SIGNED ON BEHALF OF THE TENDERER:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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FRANKFORT - TWEELING

Part C1.3. Performance Guarantee

A Performance Guarantee

Page C1.3-92

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

C1.3 Performance Guarantee

PERFORMANCE GUARANTEE

GUARANTOR DETAILS AND DEFINITIONS

“Guarantor” means :

Physical address :

“Employer” means :

“Contractor” means :

“Engineer” means :

“Works” means :

“Site” means :

“Contract” means: The Agreement made in terms of the Form of Offer and Acceptance and such amendments or additions to the Contract as may be agreed writing between the parties.

“Contract Sum” means : The accepted amount inclusive of tax of R

Amount in words :
.....

“Guaranteed Sum” means: The maximum aggregate amount of R

Amount in words :
.....

“Expiry Date” means :

CONTRACT DETAILS

Engineer issues: Interim Payment Certificates, Final Payment Certificate and the Certificate Completion of the Works as defined in the Contract.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PERFORMANCE GUARANTEE

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
2. The Guarantor's period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the Expiry Date or the date of issue by the Engineer of the Certificate of Completion of the Works of the date of payment in full of the Guaranteed Sum, whichever occurs first. The Engineer and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of completion of the Works has been issued.
3. The Guarantor hereby acknowledges that:
 - 3.1 Any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
 - 3.2 Its obligation under this Performance Guarantee is restricted to the payment of money.
4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 and 4.3:
 - 4.1 A copy of the first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
 - 4.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
 - 4.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
 - 5.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
 - 5.2 A provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
 - 5.3 The aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
7. Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

8. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
9. Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
10. The Employer shall have the absolute right to arrange his affairs with the contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
11. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
12. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
13. This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
14. Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at :

Date :

Guarantor's signatory (1)

Capacity :

Guarantor's signatory (2)

Capacity :

Witness signatory (1)

Witness signatory (2)

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (C108/2021)

FOR

THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING

Part C1.4. Adjudication Board Member Agreement

A Adjudication Board Member Agreement

Page C1.4-96

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C1.4 Adjudication Board Member Agreement

ADJUDICATION BOARD MEMBER AGREEMENT

This Agreement is entered into between:

Adjudication Board Members:

Name :

Physical address :

Postal address :

E-mail address :

Telephone number :

Contractor:

Name :

Physical address :

Postal address :

E-mail address :

Telephone number :

Employer:

Name :

Physical address :

Postal address :

E-mail address :

Telephone number :

The Contractor and the Employer will hereinafter be collectively referred to as the Parties.

The Parties entered into a Contractor for **THE SPECIAL MAINTENANCE OF ROAD (P41/2) FRANKFORT - TWEELING AREA** which provides that a dispute under or in connection with the General Conditions of Contract for Construction Works, Second Edition, 2010, must be referred to ad-hoc adjudication.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

The undersigned natural person has been appointed to serve as Adjudication Board Member and together with the undersigned Parties agree as follows:

1. The Adjudication Board member accepts to perform his duties in accordance with the terms of the Contract, the General Conditions of Contract for construction Works Adjudication Board Rules and the Agreement.
2. The Adjudicator undertakes to remain independent and impartial of the Contractor, Employer and Engineer for the duration of the Adjudication Board proceedings.
3. The Adjudication Board Member agrees to serve for the duration of the Adjudication Board proceedings.
4. The Parties may at any time, without cause and with immediate effect, jointly terminate the Agreement.
5. Unless the Parties agree, the Adjudication Board Member shall not act as arbitrator or representative of either Party in any subsequent proceedings between the Parties under the Contract. No Party may call the Adjudication Board Members as a witness in any such subsequent proceedings.
6. The Standing Adjudication Board's duties shall end upon the Adjudication Board Member(s) receiving notice from the parties of their joint decision to disband the Adjudication Board
7. The Adjudication Board member shall be paid in respect of time spent upon or in connection with the adjudication including time spent traveling:
 - a. A monthly retainer of R..... forof months, and/or
 - b. A daily fee of R..... based on a hour day, and/or
 - c. A hourly fee of R..... and/or
 - d. A no-recurrent appointment fee of R..... which shall be accounted for in the final sums payable.
8. The Adjudication Board member's expenses incurred in adjudication work shall be reimbursed at cost.

Upon Submission of an invoice for fees and expenses to the parties, the Contractor shall pay the full amount within 28 days of receipt of the invoice and he shall be reimbursed by the other party by half the amount so that fees and borne equally by the Parties. Late payment of such invoice shall attract interest at prime plus 3% points compounded monthly at the prime rate charged by the adjudication Board Member's bank.

This Agreement is entered into By:

Contractor's signature:

Contractor's name:

Place:

Date:

Employer's signature:

Employer's name:

Place:

Date:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Adjudication Board Member's signature:

Adjudication Board Member's name:

Place:

Date:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (C108/2021)

FOR
THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING

Part C2. Pricing Data

C2.1	Pricing Instructions	Page C2-2
C2.2	Bill of Quantities Schedule	Page C2-5

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (C108/2021)

FOR
THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING

Part C2.1. Pricing Instructions

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C2.1 Pricing Instructions

C2.1.1 Measurement and payment shall be in accordance with the relevant provisions of the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition) as amended in the Scope of Works.

C2.1.2 The units of measurement described in the Pricing Schedule are metric units. Abbreviations used in the Pricing Schedule are as follows:

%	=	percent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kilolitre
km	=	kilometre
km-pass	=	kilometre-pass
kPa	=	kilopascal
kW	=	kilowatt
l	=	litre
m	=	metre
mm	=	millimetre
m ²	=	square metre
m ² -pass	=	square metre-pass
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
MPa	=	megapascal
No.	=	number
Prov sum	=	Provisional sum
PC Sum	=	Prime Cost sum
R/only	=	Rate only
sum	=	lump sum
t	=	ton (1000kg)
W/day	=	Work day

C2.1.3 For the purpose of the Pricing Schedule, the following words shall have the meanings assigned to them:

Unit:	The unit of measurement for each item of work as defined in the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition).
Quantity:	The number of units of work for each item.
Rate:	The payment per unit of work for which the Service Provider 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 Pricing Schedule, the Scope of Work or

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

elsewhere, but of which the quantity of work is not measured in units.

- C2.1.4 Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
- C2.1.5 It will be assumed that prices included in the bills of quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information standards).
- C2.1.6 The prices and rates in the Pricing Schedule are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the work described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
- C2.1.7 Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amount tendered such items.
- C2.1.8 An item against which no price is entered will be considered to be covered by the other prices or rates in the Pricing Schedule. A single lump sum will apply should a number of items be grouped together for pricing purposes.
- C2.1.9 The quantities set out in the Pricing Schedule are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Pricing Schedule.
- C2.1.10 Reasonable compensation will be received where no pay item appears in the Pricing Schedule in respect of work required in terms of the Contract and which is not covered in any other pay item.
- C2.1.11 The short descriptions of the items of payment given in the Pricing Schedule are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
- C2.1.12 The item numbers appearing in the Pricing Schedule refer to the corresponding item numbers in the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition).

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (CONTRACT NUMBER)

FOR

**THE REHABILITATION OF ROADS (P41/3 & P41/2) REITZ -
TWEELING – FRANKFORT IN THE THABO MOFUTSANYANE
DISTRICT MUNICIPALITY AREA**

Part C2.2. Bill of Quantities

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Contractor

Witness 1

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Employer

Witness 1

Witness 2

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SECTION 1200

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
B1200	GENERAL REQUIREMENTS AND PROVISIONS				
B12.01	Protection, removal, realignment and replacement of services				
	(a) Removal, protection and replacement of all known and unknown services	Prov Sum	1	750000	750 000,00
	(b) Handling cost and profit in respect of subitem B12.01(a)	%	750000	5%	37 500,00
B12.02	(i) Portion of the works identified to be completed completed by Local Sub-Contractors	Prov Sum	1		4 000 000,00
	(ii) Handling cost and profit in respect of subitem B12.02 (ii)	TBC	1	5%	
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS				
B13.01	Contractor's general obligations				
	(a) Fixed obligations including full establishment and removal of establishment and all related costs	Lump Sum	1		-
	(c) Time-related obligations	Month	24		-
	(d) Complying with Health and Safety Obligations	Month	24		-
	(e) Complying with Environmental Management Plan	Month	24		-
B13.02	(a) Additional quality control tests ordered by the Engineer carried out by the independent laboratory, cost of tests not confirming to the specifications shall be borne by the Contractor	PC Sum	1	2000000	2 000 000,00
	(b) Contractor's handling cost and cost and profit in respect of item 13.02 (a)	%	2000000	5%	100 000,00
B13.03	Compensation for Community Liason Community and Public Steering Committee				-
	(a) Compensation	Pro Sum	1	240000	240 000,00
	(b) Handling cost and profit in respect of sub-item B13.02 (a)	%	240000	5%	12 000,00
TOTAL CARRIED FORWARD TO SUMMARY					2 352 000,00

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
1400	HOUSING, OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL				
14,01	Office and laboratory accomodation				
	(a) Offices (interior floor space only)	m ²	140		-
	(b) Laboratories (interior floor space only)	m ²	140		-
	(c) Open concrete working floors, 150 mm thick	m ²	200		-
	(d) Roofs over open concrete working floors	m ²	90		-
	(e) Ablution units	m ²	50		-
B14.01	(g) Board room	m ²	24		-
14,02	Office and laboratory furniture				
	(a) Chairs	no	10		-
	(d) Desks, complete with drawers and locks	no	4		-
	(f) Conference table	no	1		-
14,03	Office and laboratory fittings				
	(a) Items measured by number				
	(i) 220/250 volt power points	no	20		-
	(ii) 400/231 volt 3-phase power points	no	3		-
	(iii) Double 80watt flourescent light with complete fittings	no	10		-
	(vi) Wash hand basin complete with taps and drains	no	4		-
	(vii) Extractor fans installed complete with own power connection	no	3		-
	(x) Fire extinguishers, 9.0kg all purpose dry powder type, complete, mounted on wall	no	7		-
	(xi) Air-conditioning units with, 2,2kW minimum capacity,	no	4		-
	(xii) Curing chamber for UCS specimens, complete with water connection, including provision of brick partitions, plaster, paint and shelving, all complete to drawings	no	1		-
	(xiv) General-purpose cupboards with shelves	no	5		-
	(xiv) Standard contract nameboard	no	2		-
B14.03	(xix) Steel filing cabinet for A1 drawings	no			-
B14.03	(xx) Electric Refrigerators (<i>minimum 225 Litres</i>)	no	2		-
B14.03	(xxi) Rain gauge	No	3		-
TOTAL CARRIED FORWARD					

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
	TOTAL BROUGHT FORWARD				
	(xi) Handling cost and profit in respect to subitem 14.03 b (ix) and (x)	%	10%		
	(xii) Wi-Fi facilities	Prov Sum	1		
	(xiii) Running costs on Wi-Fi facilities	Months	24		
	(xiv) Digital camera with rechargeable batteries	No	2		
	(xv) A3 Colour Printer (<i>print, scan, copy & fax</i>)	No	1		
	(xvi) Printer running costs (<i>paper, catridges & mantainance</i>)	Month	24		
14.08	Services:				
	(a) Services at offices and laboratories:				
	(i) Fixed Costs	Prov Sum	1	84 000,00	84 000,00
	(ii) Running costs	Month	24		
	(c) Services for rented houses	Month	24		
B14.11	Electronic equipment for the Engineer				
	(a) Laptops	No	2		
	(b) Computer consumables	Prov Sum	1	35 000,00	35 000,00
	(c) Contractor's handling cost and profit for 14.11 (b)	%	35000	10%	3 500,00
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM	LI	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
1500	LI	ACCOMODATION OF TRAFFIC				
15,01		Accommodating traffic and maintainance of temporary half-width closures	km	20		-
15,02		Earthworks for Temporary Deviations				
		(a) Shaping of temporary deviations G9 minimum quality material compacted to 93% Mod. AASHTO density	m³	13000		-
		(b) Cut and borrow to fill G9 minimum material compacted to 93% Mod AASHTO density	m³			-
15,03		Temporary traffic-control facilities				
		(a) Flagmen	man-day	12 040		-
		(b) Portable STOP and GO-RY signs	No	6		-
		(d) Amber Flashing lights	No	6		-
		(e) Road signs R- and TR - series (1200 mm diameter)				-
		(ii) 1200 mm diameter				
		1. fixed in ground	No	27		-
		2. Mounted on stand	No	27		-
		(f) Road Signs, TW-series with distance board				
		(iii) 1500 mm sides				-
		1. fixed in ground	No	27		-
		2. Mounted on stand	No	27		-
		(g) Road signs, STW-, DTG-, TGS- and TG series (excluding delineators and barricators)				
		1. fixed in ground	m²	27		-
		2. Mounted on stand	m²	27		-
		(h) Delineators: (TW 401 and TW 402)				-
		(i) Single				
		1. 1000 mm x 250 mm	No	120		-
		2. 800 mm x 250 mm	No	1 200		-
		(ii) Mounted back to back				-
		1. 1000 mm x 250 mm	No	280		-
		2. 1000 mm x 250 mm	No	2 000		-
		Moveable barricade / road sign combination (Chevron and ROAD CLOSED types)	No	24		-
		(m) Two way communication devices	No	4		-
		(n)(i) Other traffic cotrol measures ordered by Engineer	Prov Sum	Pro Sum		30 000
		(n)(ii) Handling cost and profit in respect of item B15.03(n)(i) above	%	30 000	0	3 000
		(o) Road signs, TIN series				-
		(i) 1200 mm x 400 mm	No			-
		(r) Removable Rumble strips (ATM)				
		(i) 3000mm x 300 mm	No			-
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 1500

ITEM	LI	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD						
1500	LI					
B15.11		Traffic Signals				
		(a) Supply of Traffic Signals (one construction area, i.e. two set ups)	No	3		-
		(b) Operating Traffic Signalised control devices	Month-sets	48		-
B15.14		Provision of Traffic safety equipment for use by the Engineer:				
		(a) Safety Jackets	No	5		-
		(b) Amber Flashing lights with magneti base	No	5		-
		(c) "Construction Vehicle" sticker for vehicles with 100 mm high lettering (static vinyl)	No	3		-
B15.15		Amber flashing lights mounted on signs	No	3		
B15.16		Provision of Traffic Safety	Month	24		
		(a) Traffic safety officer	Month	24		
B15.16		Media releases and public relations				
		(a) Media releases and public relations	PC Sum	1	30 000	30 000
		(b) Handling and profit in respect of sub-item B15.16 (a)	%	30 000	0,05	1 500,00
B15.17		Rumble strips (15mm high)	m ²	400		-
B15.18		Provision of Traffic Safety				-
		(a) Fixed penalty per occurrence	No	Rate Only		
B15.19		Flashing illuminated arrow board	No	4		-
B15.20		Surfacing or material modification / improvement to gravel wearing course				
		(a) Provision and construction of surfacing or material modification	Pro Sum	1	3 000 000	3 000 000
		(b) Handling costs and profit in respect of subitem B15.20 (a)	%	3 000 000	0,05	150 000,00
B15.21		© Emulsion Treated Gravel for closing of potholes	m ³	5 000		-
						-
TOTAL CARRIED FORWARD TO SUMMARY						

						SECTION 1700
ITEM	LI	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
17.01	LI	Clearing and Grubbing	ha	12		-
17.02		Removal and grubbing of large trees and tree trunks:				-
		(a) Girth exceeding 1m up to and including 2m	No	30		-
		(b) Girth exceeding 2m up to and including 3m	No	19		-
17.03		Re-clearing of surfaces (on the written instructions of the Engineer only	ha	2,00		-
17.04		Clearing and Grubbing at inlets and outlets of hydraulic structures	m ²	10000		-
17.05		Cleaning out of hydraulic structures:				-
		(a) Pipes with an internal diameter of up to and including 750 m	m ³	5		-
		(b) Pipes with an interna diameter of up to and including 750 m	m ³	5		-
		(c) Box culverts up to and including 1.5m vertical dimension	m ³	5		-
		(d) Box culverts exceeding 1.5m vertical dimension	m ³	7		-
TOTAL CARRIED FORWARD TO SUMMARY						-

SECTION 1800

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
B1800	DAYWORKS				
B18.01	Personnel during normal working hours				
	(i) Unskilled labour	h	90		-
	(ii) Semi-skilled labour	h	90		-
	(iii) Skilled labour	h	90		-
	(iv) Ganger	h	44,14		-
	(v) Foreman	h	22,08		-
B18.03	Plant (Contractor to Specify)				
	(a) Tipper trucks				
	(i) 3t to 5t Capacity	h	60		-
	(ii) More than 5t capacity	h	60		-
	(b) Loader (0,5 m³ bucket)	h	60		-
	(c) Graders (CAT 140 G or Similar)	h	60		-
	(e) Water Truck (12000 l)	h	60		-
	(f) Mechanical Broom	h	60		-
	(g) Tractor- Traylor combination (43kw, 3 ton min)	h	60		-
	(h) Dozer (D7 or Similar)		60		-
B18.04	Materials				
	(a) Procurement of materials	PC Sum	1	100000	100 000
	(b) Contractor's handling cost, profit and all other charges in respect of sub-item B18.04 (a)	%	0,03	1000000	30 000
B18.05	Transport				
	(a) LDV (2000cc)	km	6100		-
	(b) Flatbed truck (5 ton)	km	6100		-
	Minibus / Bus for use during site inspections	Day	18		-
TOTAL CARRIED FORWARD TO SUMMARY					

ITEM No	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
21,01	Excavation for open drains				
	(a) Excavating soft material situated within the following depth ranges below the				
	(i) 0 m and up to 1,5 m	m ³	1 000		
	(ii) Exceeding 1,5 m and up to	m ³	100		
	(b) Extra over subitem B21.01(a) for	m ³	110		
21,02	Cleaning and shaping existing open drains	m ³	12 000		
21,18	Excavation for the clearing of existing drainage systems:				
	(a) Manholes and inlet and outlet structures	m ³	46		
	(b) Culvert barrels	m ³	40		
	(c) Concrete side drains	m ³	40		
SECTION TOTAL CARRIED FORWARD TO SUMMARY					R -

ITEM No	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
22.01		Excavation: (a) Excavating soft material situated within the following depths (i) 0m up to 1,5m (ii) Exceeding 1,5m and up to 3,0m (b) Extra over subitem 22.01 (a) for excavation in hard material, irrespective of depth	m³ m³ m³	3 5 550		
22.02		Backfilling: (a) Using the excavated material (b) Using imported selected material (c) Extra over sub items 22.02(a) and (b) for soil cement backfilling with 5% cement	m³ m³ m³	55 55 55		
22.14		Removal culverts and stacking existing prefabricated (ii) 600mm diameter concrete pipes	m	80		
22.26		Hand excavation to determine the positions of existing services	m³	200		
SECTION TOTAL CARRIED FORWARD TO SUMMARY						R -

SECTION TOTAL CARRIED FORWARD TO SUMMARY

SECTION 3100

ITEM	LI	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
3100		BORROW MATERIALS				
31.01		Excess overburden	m³	15 000		
31.03		Finishing-off borrow areas in:				
		(a) Hard material	ha	5		
		(b) Intermediate material	ha	3		
		(c) Soft material	ha	10		
B13.04		Access control to borrow pits	No	13		
TOTAL CARRIED FORWARD TO SUMMARY						R 0,00

SECTION 3300

ITEM	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
3300		Cut and borrow to fill including all haul				
B33.01		(a) In layer thickness of 200mm and less (ii) Compacted to 93% Modified AASHTO density	m³	7 000		
B33.07		Removal of unsuitable material and replacement with suitable materials from commercial sources: (a) in layer thickness of 200mm and less (i) Remove stable material and replace with G4 quality material including:	m³	13 000		
		(b) in layer thickness exceeding 200mm (i) Remove stable material and replace with 150mm maximum	m³			
B33.10		Rodbed preparation and the compaction of material: (b) Compaction to 93% MOD AASHTO density (150mm)	m³	3 500		
TOTAL CARRIED FORWARD TO SUMMARY						R 0,00

SECTION 3400

ITEM	LI	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
3400		PAVEMENT LAYERS OF GRAVEL MATERIAL				
B34.01		Pavement layers constructed from gravel obtained from commercial sources:				
		(a) Gravel Selected layer compacted to:				
		(i) 93% modified AASHTO density using minimum G7 material	m³	1 700		-
		(ii) 95% modified AASHTO density using minimum G6 material	m³	1 850		-
		(c) Gravel subbase (unsterilized) gravel) compacted to:				
		(ii) 97% of modified AASHTO density using minimum G4 material	m³	20 800		-
		(g) Gravel shoulders compacted to:				
		(ii) 95% of modified AASHTO density using minimum G7 material	m³	7800		-
TOTAL CARRIED FORWARD TO SUMMARY						-

SECTION 3500

EM	LI	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
3500		STABILIZATION				
35.01		Chemical stabilisation (250mm thick layer) extra over unstabilised compacted layers (subbase)	m³	52 000		
B35.02		Chemical stabilizing agent:				
		(a) Ordinary Portland Cement (3% nominal)	t	3 556		
		(b) Road lime (3.5%)	t			
35.04		Provision and curing of water for curing	kl	1 500		
B35.05		Curing by covering the subsequent layer	m²			
B35.13		Extra Over item B35.18 for trial sections	m³	550		
B35.15		Pre-pulvirising material in the existing pavement (100mm depth)	m³	19 240		
B35.16		Removal of surplus material	m³	550		
B35.17		Extra over item B35.15 for cross mixing of material	m²	192 400		
B35.18		In-situ recycling				
		(a) Chemically stabilized C3 subbase layer compacted to 97% of MOD AASHTO				
		(i) Non-cemented material (250mm compacted layer thickness including 100mm compacted thickness new G5)	m³	52 000		
B35.19		Extra over item B35.17 for adding extra material				
		(a) G5 material 150mm compacted thickness - commercial layer	m³	32 400		
B35.20		Finishing off the stabilised layer				
		(a) Slushing with:				
		(i) Water	m²	192 400		
TOTAL CARRIED FORWARD TO SUMMARY						R 0,00

SECTION 3600

ITEM	LI	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
3600		CRUSHED STONE BASE				
36.01		Crushed Stone Base:				
		(a) Constructed from G1 crushed stone obtained from commercial sources and compacted to 88% of ARD	m ³	31200		
36.03		Crushed stone base trial section (150mm) constructed in accordance with the provisions of clause 36.03	m ²	200		
B36.16		Addition of 1% lime by mass	t	685		
TOTAL CARRIED FORWARD TO SUMMARY						R 0,00

SECTION 4100

ITEM	LI	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
4100		PRIME COAT				
B41.01		Prime coat:				
		(f) As approved	litre	187 200		-
41.02		Aggregate for blinding (6,7mm)	m ²	5 000		-
41.03		Extra over item 41.01 for applying the prime coat in areas accessible by hand held equipment	litre	1 350		-
TOTAL CARRIED FORWARD TO SUMMARY						-

ITEM	DESCRIPTION	UNIT	QTY	RATE	SECTION 4200
					AMOUNT
					R
4200	ASPHALT BASE AND SURFACING				
42.01	Asphalt surfacing (40mm nominal thickness and A-E2 grade binder):	m²	9 000		-
42.04	Tack coat of 30% stable grade emulsion	litre	2 485		-
42.05	Bituminous Binder Variations				
	(a) A-E2	ton	Rate only		
42.06	Variation in active filler content:				
	(b) Lime	ton	Rate only		Rate only
42.07	Trial Sections of (40 mm asphalt surfacing)	m²	200		-
B42.08	100 mm cores in asphalt paving	No	200		-
B42.22					
TOTAL CARRIED FORWARD TO SUMMARY					-

SECTION 4500						
ITEM	LI	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4500		DOUBLE SEALS				
45.01		Double Seal using:				
		(b) 20mm and 10mm aggregate (grade 1) using SC - E1 homogeneous modified emulsion	m²	221 000		-
45.02		Bituminous Binder Variations:				
		(k) Pre-coating Fluid	litre	18 000		-
		(l) Hot applied polymer modified bitumen binder of Class S-E1	litre	35 033		-
45.03		Aggregate variations (Grade 1):				
		(a) 20.00 mm aggregate	m³	180		-
		(b) 10.00 mm aggregate	m³	95		-
B45.05		Precoating of Aggregate (Petroleum based products):				
		(a) Using 20,00 mm Aggregates litres/m²	m²	2 500		-
		(a) Using 10,00 mm Aggregates litres/m132	m²	1 750		-
B45.08		Extra over item 45.02 (a) for construction of Trial Section	m²	1 250		-
B45.09		Extra over item B45.01 (a) for construction of the upper layer of the aggregate in two separate layers.	m³	410 000		-
TOTAL CARRIED FORWARD TO SUMMARY						-

SECTION 5100

ITEM	LI	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
5100	LI	PITCHING, STONework AND PROTECTION AGAINST EROSION				
		(b) Grouted Pitching	m²	550		-
51.02		Provision of herbicide and ant poison:	P C Sum	1,00	20000	20 000
		(b) Contractor's charges and Profit added to the prime cost sum	%	20000	10%	2 000,00
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 5200

ITEM	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
		SECTION 5200				
		GABIONS				
52,01	LI	Foundations trench excavation and backfilling				
		(a) In solid rock	m³	100		
		(b) in all other classes of material	m³	60		
52,02	LI	Surface preparation for bedding the gabions	m²	300		
		Gabions				
52,03	LI	(a) Galvanised gabion boxes with (1m x 1m x 1m) 2,7mm nominal diameter	m³	40		
	LI	(c) Galvanised gabion mattresses (3m x 1m x 0,3m) 2,7mm nominal diameter	m³	40		
52,04	LI	Filter fabric grade 3	m²	350		
TOTAL CARRIED FORWARD TO SUMMARY						0,00

SECTION 5400

ITEM	LI	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
5400		GUARDRAILS				
54.01		Guardrails on 3.81 spaced posts				
	LI	(a) Complete Galvanised system on: (i) Timber posts	m	450		-
		(b) Extra over 54.01 (a) for the following: (i) End Treatments where guardrail sections are used (including additional posts)	No	20		-
54.06		Reflective plates	No	30		-
54.07		Removal of existing guardrails	m	450		-
B54.14		Nailing of gang nail plates on top of timber guardrail posts	No	155		-
TOTAL CARRIED FORWARD TO SUMMARY						R 0,00

Section 5500

ITEM	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
55.02		Supply and erect new fencing material for new fences and supplanting material in existing fences which are being repaired or removed:				
		(a) Zinc coated barbed wire (3.2 x 2.5mm high tensile grade single	km	52		
		(g) Standards (1850 x 2.5 kg/m "Y" section complete with holes at 50 mm c/c	No	350,00		
		(h) Droppers (1400 x 0.56 kg/m Ridgeback Pattern	No	3 000		
		(i) Straining posts, stays and anchors				
		1. Inclined:				
		(ii) Steel stays and anchors (2130 x 60 x 3mm mild steel tubing	No	60		
TOTAL CARRIED FORWARD TO SUMMARY						0,00

SECTION 5600

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
B56.01		semi-matt background. Symbols, lettering and borders in semi-matt black or Class 1 reflective material, where the sign board is constructed from:				
		(c) Prepainted galvanised steel plate (chromadek or approved equivalent):				
		(i) Area not exceeding 2m ²	m ²	46		
		(ii) Area exceeding 2m ² but not not 10 m ²	m ²	23		
55.02	LI	Extra over item 56.01 for using:				
		(a) Background (a) Background of retro-reflective m				
		(i) Class i	m ²	15		
		(ii) Class iii	m ²	15		
		(b) Lettering, symbols, numbers, arrows, emblems and borders of retro-reflective material				
		(iii) Class iii	m ²	25		
56.03		Road Sign supports (overhead road sign structures excluded):				
		(b) Timber (creosoted support poles -110 diameter)	m	150		
56.04		Kilometer posts (triangular concrete post (Class 25/13) embedded in 1200mm high x 450mm	No	25		
56.05		Excavation and backfilling for road sign support (not applicable to Kilometer posts	m ³	25		
56.06		Extra over item 56.05 for cement-treated soil backfill	m ³	48		
56.07		Extra over item 56.05 for rock excavation	m ³	15		
56.08		Dismantling, storing and re-erecting road signs with asurface area of:				
		(a) Up to 2m ²	No	50		
		(b) Exceeding 2m ² but not 10m ²	No	50		
		TOTAL CARRIED FORWARD TO SUMMARY				

SECTION 5700

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
5700		<u>ROAD MARKINGS</u>				
57.01	LI	Retro-reflective road-marking paint:				
		(a) White Lines (Broken or Unbroken):				
		(i) 100mm Wide	km	78		
		(ii) 500mm wide	km	2		
		(b) Yellow Lines (Broken or Unbroken 150mm wide)	km	118		
		(d) White lettering and symbols	km	260		
		(e) Yellow lettering and symbols	m ²	196		
		(f) Transverse lines, painted island and arrestor bed markings (any colour)	m ²	170		
57.04		Variations in rate of applications				
		(a) white paint	litre	Rate Only		
		(b) Yellow paint	litre	Rate Only		
57.05		Road studs ceramic with shank (SANS approved)	No	4250		
B57.06		Setting and pre-marking the lines (excluding traffic-island markings, lettering and symbols)	km	78		
57.07		Re-establishing the painting unit at the end of the maintenance period	Lump Sum	1		
57.08		Removal of existing, temporary or permanent road marking by:				
		(a) sand blasting	m ²	350		
		TOTAL CARRIED FORWARD TO SUMMARY				

SECTION 5800

ITEM NO	LI	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
58.01		Trimming				
		(a) Machine trimming	m ²	6000		
		(b) Hand trimming	m ²	1000		
58.03		Preparing the areas for grassing				
		(b) Scarifying for loosening topsoil	ha	10		
		(c) Topsoil within the road reserve, where the following materials are used				
		(i) Topsoil obtained from within the road reserve (free haul 1,0 km)	m ³	2000		
		(ii) Topsoil obtained from other sources by the contractor including all haul	m ³	1000		
		applying the appropriate fertilizers and /or soil improvement material				
		(i) Lime	t	2		
		(ii) Superphosphate	t	2		
		(iii) Limestone ammonium nitrate	t	2		
58.04		Grassing				
		(b) Sodding by using the following types of sods				
		(i) Nursery sods (weed free Cynodon Dactylon	m ²	20000		
		(c) Hydroseeding				
		(i) Providing an approved seed mixture for hydroseeding	kg	440		
		(ii) Providing an approved mulch	kg	440		
		(iii) Hydroseeding	ha	7		
		(e) Hand sowing	m ²	20000		
58.05		Watering the grass when established by topsoiling only	m ²	2400		
		TOTAL CARRIED FORWARD TO SUMMARY				

SECTION 5900

ITEM	LI	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
5900		FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS				
59.01		Finishing the road and road reserve: (b) Single Carriageway road	km	30		
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION 8100

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
8100	TESTING MATERIALS AND WORKMANSHIP				
81,02	(i) Other special tests required by the Engineer	PC Sum	1	1 000 000	R 1 000 000,00
	(ii) Handling cost and profit in respect of sub item 81.02 (i)	%	R 1 000 000	10%	R 100 000,00
TOTAL CARRIED FORWARD TO SUMMARY					R 1 100 000,00

SECTION B1000

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
B1000	IN SITU RECYCLING				
B10.01	Preparations for pavement rehabilitation	Km	63		
B10.02	Pre-pulverisation and pre-shaping the carriage way, including surfaced or unsurfaced	m ²			
B10.03	New material Imported for modification (a) Selected G5 type material from borrow pits (b) G5 type material from borrow pits	m ³ m ³			
B10.04	New Subbase layer constructed in situ by recycling (a) Chemical Stabilization: (i) Chemically treated subbase, up to 200mm deep (compacted to 97% Mod AASHTO (ii) Chemically treated subbase, exceeding 200mm deep (compacted to 97% Mod AASHTO Density)	m ³ m ³			
B10.05	Chemical stabilization (a) Type CEM if A-S or B-S, class 32,5 N (b) Road Lime	ton ton			
B10.07	Removal from site of surplus material	m ³			
B10.08	Trial sections (a) For in situ recycling using only either cement or road lime as the stabilizing agent	m ³			
B10.09	Shoulder Repair	m ³			
B10.10	Relocation of the Recycling machine for distances in excess of 6 Km	No			
B10.11	Removal and disposal of Geotextile material	m ²			
TOTAL CARRIED FORWARD TO SUMMARY					R 0,00

SECTION C3.6

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
C3.6	GUIDELINES FOR LABOUR ENHANCEMENT, DEVELOPMENT AND TRAINING				
C3.6.01	Training				
	(a) Technical skills	Prov Sum	1	200000	200 000
	(b) Generic Skills	Prov Sum	1	150000	150 000
	(c) Entrepreneurial Skills	Prov Sum	1	10000	10 000
	(d) HIV/AIDS	Prov Sum	1	50000	50 000
	(e) OHS Training	Prov Sum	1	50000	50 000
	(f) Medical Assessments	Prov Sum	1	50000	50 000
	(g) Training venue	Prov Sum	1	50000	50 000
	(h) Contractor's profit and all other charges				
	(i) Technical skills	%	200 000	10%	20 000,00
	(ii) Generic Skills	%	150 000	10%	15 000,00
	(iii) Entrepreneurial Skills	%	100 000	10%	10 000,00
	(iv) HIV/AIDS	%	50 000	10%	5 000,00
	(v) OHS Training	%	50 000	10%	5 000,00
	(vi) Medical Assessments	%	50 000	10%	5 000,00
C3.6.02	Remuneration of the project liaison officer				
	(a) Project Liaison officer	PC sum	1	135000	135 000
	(b) Project Liaison Committee	PC Sum	1	200000	200 000
	(c) Contractor's profit and all other charges	%	200 000	10%	20 000,0
TOTAL CARRIED FORWARD TO SUMMARY					

SUMMARY OF THE SCHEDULE OF QUANTITIES			
SECTION	DESCRIPTION		AMOUNT
1200	requirements and provisions	R	
1300	Establishment on Site and General	R	
1400	Housing, Offices and Laboratory	R	
1500	Accommodation of Traffic	R	
1700	Clearing and Grubbing	R	
1800	Dayworks	R	
2200	Excavation for open drains	R	
3300	Cut and borrow to fill including all haul	R	
3100	Borrow Materials	R	
3200	Selection stockpiling	R	
3300	Mass Earthworks	R	
3400	Pavement layers of gravel material	R	
3500	Stabilization	R	
3600	Crushed Stone Base	R	
4100	Prime Coat	R	
4200	Asphalt base and surfacing	R	
4500	Double Seals and Protection		
5100	Against Erosion	R	
5400	Guardrails	R	
5600	Road Signs	R	
5700	Road Markings	R	
5900	and Road Reserve and Treating Old	R	
8100	Testing Materials and Workmanship	R	
B1000	In situ recycling	R	
C3.6	Labour Enhancement,	R	
	SUB TOTAL :	R	
	CONTINGENCIES @ 10%		
	SUB TOTAL	R	
	CPA @ 5%		
	DISBURSEMENTS 3%	R	
	SUB - TOTAL	R	
	ADD VAT (15%)	R	
	TOTAL PROJECT COST	R	

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (C108/2021)

FOR
THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING

Part C3. Scope of Work

C3.1	Description of the Works	Page C3.1-172
C3.2	Specifications for Work	Page C3.2-180
C3.3	Environmental Management Requirements	Page C3.3-215
C3.4	Occupational Health and Safety (OHS)	Page C3.4-230

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT

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FOR

THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING

Part C3.1. Description of the Works

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3.1 Description of the Works

CONTENTS

CLAUSE	HEADING	PAGE NO.
C3.1.1	Employer's objectives	C 3-1-175
C3.1.2	Overview of the works	C 3-1-175
C3.1.3	Extent of the works	C 3-1-175
C3.1.4	Location of the works	C 3-1-176
C3.1.5	Water and power supply and other services	C 3-1-176
C3.1.6	Camps and depots	C 3-1-176
C3.1.7	Temporary works	C 3-1-176
C3.1.8	Occupational Health and Safety	C 3-1-176
C3.1.9	Environmental issues	C 3-1-176
C3.1.10	Procurement	C 3-1-176
C3.1.11	Construction	C 3-1-177
C3.1.12	Labour enhanced construction methods	C 3-1-178
C3.1.13	Information in respect of plant	C 3-1-179
C3.1.14	Information in respect of employees	C 3-1-179

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 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 and parts of the Standardized or Particular Specifications and the Project Specifications, (including the Project Specification) 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.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3.1 Description of the Works

C3.1.1 EMPLOYER'S OBJECTIVES

The Employer's general objectives are to deliver suitable public infrastructure in a cost effective way, and in the process create employment and upliftment of opportunities for local communities and contractors.

C.3.1.2 OVERVIEW OF THE WORKS

The project is for **"THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING**

The description of the works contained in this section is merely an outline of the Works and shall not limit the work to be carried out by the Contractor under this contract.

C3.1.3 EXTENT OF THE WORKS

The main activities to be undertaken on this contract are as follows:

- Km distance 26.00 KM:
 - Recycling of the existing base to a depth of 150mm and stabilizing it using 2-3% cement to achieve a C3 sub-base.
 - Remove oversize pavement material.
 - Import of G5/G6 material if required.
 - Importing 150mm of a G1 base
 - Prime coat
 - Construction of a 20/10 double seal
 - Replacing of old road signs
 - Road marking for the full length of the road
 - Accommodation of Traffic
 - Cleaning and construction of drainage structures
 - Finishing the road reserve
 - Installation of Sub-surface drainage


Contractor


Witness 1


Witness 2


Employer


Witness 1


Witness 2

C3.1.4 LOCATION OF THE WORK

Provincial roads falling under the scope of this project are indicated in Table C3.1.4.1 (road length) below.

ROAD DESCRIPTION	ROAD NUMBER	ROADS LENGTH (KM)
Frankfort - Tweeling	P41/2	26.00
TOTAL		26.00

C3.1.5 WATER AND POWER SUPPLY AND OTHER SERVICES

The Contractor shall make his own arrangement and pay all installation and consumption charges for the supply of water, electrical power and other services required.

C3.1.6 CAMPS AND DEPOT

The Contractor shall make his own arrangements with the local authority with regards to the location of a site for his temporary camps for offices, stores, workshops and housing of his personnel.

C3.1.7 TEMPORARY WORKS

Temporary work will mainly exist of site establishment of the contractor as well as the accommodation of traffic, as described in the Bill of Quantities.

C3.1.8 OCCUPATIONAL HEALTH AND SAFETY

The Contractor shall be responsible to comply with the relevant health and safety legislation. Allowance has been made therefore in the schedule of quantities. Specific attention should be given to the safety of workers and civilians on site.

C3.1.9 ENVIRONMENTAL ISSUES

The Contractor shall be responsible to comply with the relevant environmental legislation.

C3.1.10 PROCUREMENT

C3.1.10.1 Preferential procurement procedures

The works shall be executed in accordance with the conditions attached to preferences granted in accordance with the preferencing-schedule.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3.1.12 LABOUR ENHANCED CONSTRUCTION METHODS

(i) General

It is the primary intention of this Contract that where possible, work can be carried out by Labour Enhanced Construction Methods. The adoption of this method of construction will in no way lessen the responsibilities of the Contractor nor will it permit any deviation from the technical specifications of the Works.

Construction shall be planned so that those operations that can reasonably be done by hand shall be done so. The Contractor shall utilize a core of artisans, supervisors and specialist labour to supervise work on site, with the bulk of the labour force being recruited from the local community. The actual persons to be employed shall be done in consultation with the Community Liaison Officer. For labour intensive construction to be successful and feasible, a high degree of community participation must be exercised throughout the process.

(ii) Control of Construction

The Contractor shall provide from his own staff, a full time agent on site, sufficient skilled foremen to supervise all aspects of the work and sufficient skilled working charge hands and artisans to carry out the work. The "labour force" shall comprise of residents from the different communities where the work is undertaken.

(iii) Labour Enhanced Activities

The following types of activities have been identified as suitable for labour intensive construction methods on this project:

- Accommodation of Traffic.
- Clearing and grubbing.
- Excavation and shaping for open drains.
- Construction of prefabricated culverts.
- Construction of concrete kerbs and channels
- Stabilization of Pavement layers.
- Patching and repairing of edge breaks.
- Back-chipping and selected placement of aggregate on Seals.
- Stone pitching.
- Re-erecting guardrails.
- Erecting of road signs.
- Finishing of road and road reserves.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

(iv) Payment

Minimum wages shall be acceptable as prescribed by legislation at the time of tender closing. It will be the responsibility of the Contractor to base his rates for labour enhanced activities on reasonable daily production targets. No claims or additional payment will be considered if production targets are not reached.

No payment will be made for work that is scheduled to be carried out by labour enhanced methods and which is carried out by machine unless specific prior instructions to use mechanical methods have been given by the Engineer.

No claims will be entertained arising from the productivity of the labour force or result from inadequate performance of whatever nature.

(v) Liaison with Local Community

A unit will be established in conjunction with the Community Liaison Unit of the Chief Directorate Roads to ensure effective community liaison with all District and Local Municipalities in the Free State province.

This unit will meet on a monthly basis to consider, discuss and resolve progress, relevant community matter, welfare of workers, expenditure, requirements of the Contractor, quality of workmanship and any other matters that relate to the project.

A Community Liaison Officer will be nominated by each of the five District Municipalities the community. They will be responsible for keeping the respective communities informed of progress of the project and conversely keeping the Contractor informed of relevant community affairs and grievances and managing and coordinating the recruitment of labour from the community.

C3.1.13 INFORMATION IN RESPECT OF PLANT

The Contractor shall deliver to the Engineer, on a monthly basis, a detailed inventory of Contractual Plant kept on Site, full particulars given for each day of the month. Distinction shall be made between Plant in working order and Plant out of order. Such inventory shall be submitted by the Fifth day of the month following the month to be reported.

C3.1.14 INFORMATION IN RESPECT OF EMPLOYEES

The Contractor shall deliver to the Engineer, on a monthly basis, a return in detail of supervisory staff and the numbers of categorised classes of labour employed (own and local labour) each day for the said period by the Contractor for execution of the Contract. Such return shall be submitted by the fifth day of the month following the month to be reported.

A pro-forma for reporting shall be provided by the Employer after commencement of the project.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT

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FOR

THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING

Part C3.2. Specification for the Work

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

MATTERS RELATING TO THE STANDARD SPECIFICATIONS

C3.2 Specification for the Work

Notes to tenderer:

1. In certain clauses the Standard Specifications allow a choice to be specified in the project specifications between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract.

Details of such alternatives or additional requirements applicable to this contract are contained in this part of the project specifications.

It also contains some additional specifications required for this particular contract.

2. The number of each clause and each payment item in this part of the project specifications consists of the prefix B followed by a number corresponding to the number of the relevant clause or payment item in the standard specifications.

The number of a new clause or a new payment item which does not form part of a clause or a payment item in the standard specifications and which is included here, is also prefixed by B followed by a new number.

The new numbers follow on the last clause or item number used in the relevant section of the standard specifications.

All materials shall comply with the specifications as set out in the COLTO Standard Specifications for Road and Bridge Works for State Road Authorities.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

C3.2 Specification for the Work

SERIES 1000: GENERAL

SECTION B1200: GENERAL REQUIREMENTS AND PROVISIONS

B1204 PROGRAMME OF WORK

(a) General requirements

Add the following as a continuation of the first paragraph:

“In drawing up the programme the contractor shall make allowance for the following:

- (i) All special non-working days defined in C1.2.2.2: Compulsory Date; 5.8.1 Contract Data.
- (ii) The expected delays defined in B1215: Extension of time resulting from inclement weather.
- (iii) The following embargo hours and days:
 - School Holidays:
 - From 12h00 on the day of the closure for the holiday until 07h00 on the following day.
 - From 12h00 on the day preceding the opening of schools until 07:00 on the day of the opening.
 - Long weekends and public holidays
 - From 12h00 on the day preceding the commencement of the long weekend or public holiday until 07h00 on the day following the long weekend or public holiday.
- (iv) The following restricted working conditions: None

This initial programme shall realistically account for the forecast cash flow within the defined contract period, and as provided on Form D5: Schedule of estimated monthly expenditure. The contractor shall not merely copy this example, which is provided to illustrate that the required work can be realistically programmed within the contract period at the estimated cost. If an alternative contract period is offered, the contractor shall submit a separate programme with the alternative tender.”

(b) Programme of work for rehabilitation work

Insert the following after the first sentence of the second paragraph:

“The programme shall include the following details:

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

- i) A work breakdown structure that identifies all major activities.
- ii) Scheduled start and end dates for each activity.
- iii) Linkages between activities that clearly identify sequence, floats and critical path.
- iv) Intended working hours and resource allocations (plant and labour).
- v) Monthly cash flow projections.
- vi) Key dates in respect of information required or due delivery."

Add the following sub-clause:

"(c) Programme revisions

The programme will be reviewed at the monthly site meetings at which the contractor shall provide sufficient detail that will allow the comparison of completed work per activity against the original approved programme. The contractor shall indicate what resources and programme changes he intends to implement in order to remedy any activity that has fallen behind. The engineer may demand from the contractor a major revision of the programme. Such a revision shall be submitted for approval within fourteen (14) days of the demand."

B1205 WORKMANSHIP AND QUALITY CONTROL

Add the following after the title:

"The contractor shall implement a quality assurance system in accordance with ISO 9002 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.

No construction activities shall take place on site before the engineer approves the quality plan".

Delete the second, third, fourth and fifth paragraphs and replace with 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."

B1206 THE SETTING OUT OF WORK AND PROTECTION OF BEACONS

Replace "clause 14" in the first paragraph with "clause 4.7"

Add the following at the end of the fourth paragraph:

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

“Road Markings, particularly the divergent/convergent lines of ramp interchanges and no overtaking barriers are also elements of the road that require proper setting out. The contractor shall prove to the engineer that critical reference points have been satisfactorily recorded for later reinstallation before any work commences that will obliterate the existing markings.”

Delete “and of clause 14 of the general conditions of contract” in the sixth paragraph.

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”.

B1207 NOTICES, SIGNS AND ADVERTISEMENTS

Remove this part of the sentence from the first paragraph

“... or as approved advertisements for the contractor’s establishment.”

Delete the third paragraph and replace with the following:

“All signboards erected in accordance with the drawings shall be removed at the same time as the disestablishment of the contractor’s camp. Payment under sub-item 13.01 for the final instalment of 15% of the tendered lump sum shall not be made unless all the advertisements, notices and temporary signs have been removed.

B1209 PAYMENT

(b) Rates to be inclusive

Add the following to the first paragraph:

“VAT shall be excluded from the rates.”

(e) Materials on the site

Delete the entire sub-clause (e) Materials on the site
Add the following sub-clauses:

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

“(g) Work in confined areas

Except where provided for in the specification **AND** the Pricing schedule no extra payment shall be made nor shall any claim for additional payment be considered for construction in confined areas. The omission of standard pay items from the schedule of quantities shall be taken to be deliberate and any additional costs incurred shall be included in the bulk rate.”

(h) Rates to remain unchanged when scope of work changes

Dependent on the rates and prices offered in the Pricing Schedule, the employer intends to increase or reduce the scope of work to match the budget allowed for this project. To this end the contractor has been provided the opportunity to price separately for unit rates of work and the establishment of major plant. The value of such increase or reduction in the scope of works shall not give cause for the contractor to vary the offered rates and prices, which shall remain final and binding for the duration of the contract, provided that:

- (i) Notification of the change to the scope of work is given in writing within 28 days of the tender closing date.
- (ii) The value of the increase or reduction in the scope of work does not alter the tendered sum by more than 20%.”

B1214 CONTRACTOR’S ACTIVITIES IN RESPECT OF PROPERTY OUTSIDE THE ROAD RESERVE AND OF SERVICES MOVED, DAMAGED OR ALTERED

Under sub-clause (e) replace the opening paragraph with:

“Should the contractor use land not provided by the employer for the purpose of his own establishment, engineer’s offices and laboratory, or storing of equipment or materials required for construction or disposal, it shall be subject to the following:”

B1215 EXTENSION OF TIME RESULTING FROM INCLEMENT WEATHER

Change the existing heading of clause 1215 to read as above and wherever the expression ‘abnormal rainfall’ or ‘rainy weather’ is encountered replace it with ‘inclement weather’.

In the 1st line of the 1st paragraph change ‘clause 45’ to read ‘sub-clause 5.12.2.2

Make the following changes to Method (ii) (Critical-path method):

In line six of the second paragraph delete ‘five-day working week’ and replace with ‘six-day working week’, and:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Add the following final paragraphs:

“Extension of time resulting from rainfall or other forms of inclement weather shall be calculated according to the requirements of Method (ii) (Critical-path method). The ‘n’ value of working days, as specified in this clause as being expected delays for which the contractor must make allowance in his programme, have been calculated from the figures given in Table B1215/1.

Table B1215/1: Average delays due to inclement weather:

Month	Jan*	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec*	Total
‘n’ delays (rain)	3(2)	4	4	3	3	2	2	2	3	4	4	3(2)	37(35)
‘n’ delays (other)	0	0	0	0	0	2	2	2	2	0	0	0	8

* The figures shown in brackets are the ‘n’ days of rain expected in December/January but reduced to take account of the standard construction break over the Christmas/New Year period

The number of rain-related delays is the average number of days on which rain has been measured by the weather stations in the Free State. Other inclement weather delays for which the contractor must make allowance in his programme have been derived from previous experience of wind and temperature influence on similar construction in the area of the site.

Actual delays due to inclement weather shall be agreed between the engineer’s and contractor’s representatives on the site. The agreed whole days or parts thereof shall be recorded at the monthly site meetings and provisionally approved by the Engineer. Adjustment to the contract period shall only be made at the end of the contract when the contractor may submit its claim for the agreed extension due as well as any additional payment resulting from the delay. Extension caused by inclement weather delays will only accrue once the agreed cumulative delays exceed [37+8=45(43)] days per annum. (The figure in brackets is the agreed cumulative days applicable should the standard construction break over the Christmas/New Year period be utilized by the contractor).

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. 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.”

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

B1224 THE HANDING OVER OF THE ROAD RESERVE

Add the following paragraph:

“The road reserve within the defined limits of the contract falls within the limits of another contract that has already been let to a routine maintenance contractor who is obliged to conduct regular maintenance on the route on which this contract is sited. The contractor’s responsibility for maintenance shall be restricted to the surfaced road widths within the limits of this contract, including the surfaced road widths of interchange ramps and overpasses. The contractor shall recover his costs for the execution of maintenance works through the rates offered. The Routine Road Maintenance Contractor’s details are as follows:

(To be issued by the respective Area Engineer upon commencement of the Contract)

The contractor shall avoid conflict with a routine maintenance contractor by arranging a period of grace immediately after the hand-over of the site to allow sufficient time to muster his resources required for routine maintenance of the road. But, the grace period may not extend beyond the contractual starting time defined in sub-clause 8.1 of the General Conditions of Contract as amended by Particular Conditions and C1.2.2 Contract Data.”

B1230 MATERIALS

The contractor, when using materials that are required to comply with any standard specification, shall, if so ordered, furnish the engineer with certificates showing that the materials do so comply.

Where so specified, materials shall bear the official mark of the appropriate authority. Samples ordered or specified shall be delivered to the engineer's office on the site free of charge.

Where materials are specified under trade names tenders must be based on these materials. Alternative materials may be submitted as alternative tenders and the engineer may, after receipt of tenders, approve the use of equivalent materials. The tender must be clearly marked as an alternative tender, failing which the tender may be rejected”.

Unless otherwise specified, all proprietary materials shall be used and placed in strict accordance with the relevant manufacturer's current published instructions.

Unless anything to the contrary is specified, all manufactured articles or materials supplied by the contractor for the permanent works shall be new and previously unused.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Existing structures on the site shall remain the property of the employer and except as and to the extent required elsewhere in the contract, shall not be interfered with by the contractor in any way.

Materials to be included in the works shall not be damaged in any way and, should they be damaged on delivery or by the contractor during handling, transportation, storage, installation or testing they shall be replaced by the contractor at his own expense.

All places where materials are being manufactured or obtained for use in the works, and all the processes in their entirety connected therewith shall be open to inspection by the engineer (or other persons authorised by the engineer) at all reasonable times, and the engineer shall be at liberty to suspend any portion of work which is not being executed in conformity with these specifications”.

B1233 PROVISION FOR PREPARATION OF MONTHLY REPORTS AS REQUIRED BY THE ENGINEER

The contractor shall be responsible for compiling monthly reports required by the Engineer with respect to his compliance with certain aspects of the Contract which shall include, but not limited to:

Provision and monthly updating of the approved working programme

- Reporting on the compliance with the CDP and Local Labour targets.
- Reporting on the compliance with OHS regulations
- Reporting on compliance with the Environmental Management Plan
- Report and information relating to the Contractor’s Quality Control and Process Control
- Should the Contractor fail to provide the Engineer with any of the requested information within the time agreed to with the Engineer, the Contractor shall be liable for a penalty as stipulated in the Contract Data.”

SECTION B1300: CONTRACTOR’S ESTABLISHMENT ON SITE AND GENERAL OBLIGATION

B1302 GENERAL REQUIREMENTS

(a) Camps, construction plant and testing facilities

Add the following after the first paragraph of sub clauses 1302(a) of the clause:

“No specific land has been made available for the camp and offices and the contractor shall make his own arrangements concerning a suitable site and location, as well as the provision of water, electricity and other services for the campsite.”

(c) Legal and Contractual Requirements and responsibilities to the public

Add the following as a second paragraph

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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“There has been recent legislation promulgated by Government that improve 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.

- i) Section C3.3 of the Scope of Works contains the Environmental Management Plan 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 B1303 Payment. However, non-compliance with the provisions of this section may lead to the imposition of penalties.
- ii) Section C3.4 of the Scope of Works contains the specification that regulates the contractor’s construction methods so far as to ensure health and safety of his employees and of the public. 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.”
- iii) Provisions are made for compliance with Government’s initiatives towards black economic empowerment. Non-compliance with the provisions of this will lead to the imposition of penalties. The criteria of the penalties are as follows:

a) Participation - Targeted Labour (From Returnable Schedules - Form C2):

In the event that the Tenderer fails to substantiate that any failure to achieve the minimum percentage relating to the granting of a preference was due to quantitative under runs, the elimination of items, or any other reasons beyond the Contractor’s control which may be acceptable to the Employer, it shall be liable to pay to the Employer a financial penalty calculated in the following manner:

$$P = 1.0 \times \frac{(D - D_o)}{100} \times N_A$$

Where:

- D = tendered local labour percentage
- D_o = the Contract Participation Goal which the Employer’s representative based on the credits passed, certifies as being achieved upon completion of the contract
- N_A = Net Amount (Actual contract expenditure, excluding VAT)

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

P = Rand value of penalty payable

b) Contract Participation Goal (CPG) (From Returnable Schedules - Form C2):

In the event that the Tenderer fails to substantiate that any failure to achieve the Contract Participation Goal (GPG) relating to the granting of a preference was due to quantitative under runs, the elimination of items, or any other reasons beyond the Contractor's control which may be acceptable to the Employer, it shall be liable to pay to the Employer a financial penalty calculated in the following manner:

$$P = 0.5 \times \frac{(D - D_o)}{100} \times N_A$$

Where:

- D = tendered Contract Participation Goal percentage
D_o = the Contract Participation Goal which the Employer's representative based on the credits passed, certifies as being achieved upon completion of the contract
N_A = Net Amount (Actual contract expenditure, excluding VAT)
P = Rand value of penalty payable

- iv) Section C3.3 of the Scope of Works contains the specification that regulates the contractor's construction methods so far as to ensure the health and safety of his employees and that 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. Note that non-compliance with the provisions of this section may lead to the imposition of penalties of **R10 000,00** per occurrence.
- v) Section C3.3 of the Scope of Works contains the Environmental Management Plan for this project. Its provisions regulate the contractor's construction methods to ensure responsible conduct and treatment of the environment relevant to the project. A new payment item has been made available under this section for the contractor to allow for his compliance with relevant environmental legislation during the construction process. Note that non-compliance with the provisions of this section may lead to the imposition of penalties of **R10 000,00** per occurrence.
The penalty amounts will be cumulative and be deducted from the monthly payment certificates.

The imposition of penalties does not relieve the contractor from any of his obligations under this section."

Add the following new clause:

"d) Contractor's ablution facilities

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

ITEM	UNIT
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B13.01(d) Complying with the Health and Safety Obligations.	month
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B13.01(e) Complying with the Environmental Management Plan	month
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13.02(a)	Additional Quality Control tests ordered by the engineer carried out by an independent laboratory, cost of tests not conforming to the specifications shall be borne by the contractor.	Prime Cost Sum
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13.02(b) Contractor's handling cost and profit in respect of 13.02(a).” (%)

- *In the 11th paragraph change the following: Change the indicated “twenty (20) per cent” with “twenty five (25) per cent”.*
- *In the 17th paragraph (the fourth last paragraph) under item 13.01 replace the second sentence with the following:*

“The tendered rate per month for subitem 13.01(c) represents full compensation for that part of the contractor’s general obligations that is mainly a function of construction time.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

It is a requirement of the contract that all offices and laboratories be supplied with approved burglar proofing, the cost of which shall be taken as included in the relevant tendered rates for provision of the specified building.”

b) Offices

Delete the following:

“(xvii)” No fax apparatus will be required.

Add the following:

“(xviii) Steel plan cabinets shall be able to accommodate 30 x A1 size drawings hanging vertically from approved holders.

(xix) An electric refrigerator of at least 200 litre capacity.

(xx) The contractor is to supply an approved plastic rain gauge that shall be securely mounted to a pole where indicated by the engineer.”

h) Communication system

Add the following to the bottom of the clause:

“The two-way communication system to be utilised on this project will be by means of cellphones.

The contractor will reimburse the engineer on a monthly basis the amount indicated in the Bill of Quantities for the costs associated with the usage of cellphones.”

Add the following new clause:

“(i) Computer consumables

The contractor shall provide a computer as specified by the engineer. A Provisional Sum has been allowed in the Bill of Quantities for the provision of these consumables.”

B1403 HOUSING

d) Accommodation for labourers

Delete the entire clause and replace with the following:

“The engineer will make his own arrangements for the accommodation of labourers employed by the engineer.

The contractor will reimburse the engineer on a monthly basis the amount indicated in the Bill of Quantities for the costs associated with the accommodation of the labourers.”

B1405 GENERAL

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Add the following new clause:

“(g) Transportation for engineer’s labourers

The labourers employed by the engineer will utilise their own transport to-and-from as well as on site.

The contractor will reimburse the engineer on a monthly basis the amount indicated in the Bill of Quantities for the costs associated with the transportation of the labourers.”

B1406 MEASUREMENT AND PAYMENT

ITEM

UNIT

Add the following new pay items:

“B14.01(g) Board Room number (No)

B14.03(a)(xix)Steel cabinet for A1 drawings number (No)

B14.03(a)(xx)Rain Gauge number (No)

B14.11 Engineer’s telephone charges

B14.11(a) Engineer’s telephone costs month

B14.11(b) Contractor’s handling cost and profit in respect of 14.11(a). (%)

B14.12 Electronic equipment for the Engineer

B14.12(a) Computer Consumables Prov Sum

B14.12(b) Contractor’s handling cost and profit in respect of 14.12(a). (%)

B14.13 Engineer’s accommodation charges

B14.13(a) Accommodation for Engineer’s labourers Prime Cost Sum

B14.13(b) Contractor’s handling cost and profit in respect of 14.13(a). (%)

B14.14 Engineer’s transportation charges

B14.14(a) Transportation for Engineer’s labourers Prime Cost Sum

B14.14(b) Contractor’s handling cost and profit in respect of 14.14(a). (%)

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SECTION B1500: ACCOMODATION OF TRAFFIC

B1501 SCOPE

Add the following:

"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 Government Printers – Tel: (012) 334 4508 Fax: (012) 323 9574.

This section also covers the provision of additional information signs for motorists and the release of any notices to the media and public."

B1502 GENERAL REQUIREMENTS

(f) Approval of temporary deviations

Add the following:

"If, after any temporary deviation has been constructed, any changes are considered necessary or desirable, the proposal shall be submitted to the engineer for his approval."

(i) Traffic Safety Officer

Add the following to the end of the second paragraph:

"The contractor shall submit a CV of the candidate to the engineer for approval before the candidate is appointed as the traffic safety officer. "

Insert the following as the opening phrase to subsub-clause (i)

"make himself available to discuss road safety and traffic accommodation matters whenever required by the engineer and shall be responsible..."

Delete subsub-clauses (ii) and (iii) and replace with the following"

"(ii) Record on neat and dimensioned sketches and submit to the engineer the position and sign reference number, where applicable, of each sign, barricade, delineator, cone, amber flicker light, guardrail and permanent or temporary painted Milling feature. The position of each shall be

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

adequately referenced from the marker boards or other surveyed points on the site of the works.

These records shall also show the date and time at which the recorded traffic accommodation features are certified correct by the traffic safety officer, and shall be signed by the traffic safety officer before being submitted to the engineer.

The records shall similarly account for whatever changes are made in the field. Such changes shall record the position of flagmen and stop/go control men and their associated traffic accommodation equipment wherever they are used.

- (iii) Personally inspect the position and condition of each traffic accommodation feature on the whole site of works twice each day by 9h30 and by 16h30, to record all irregularities discovered and the remedial action taken, and to sign off as correct and submit to the engineer such record sheets by midday of the next working day. The traffic safety officer shall keep a duplicate book for this specific purpose.

The traffic safety officer shall also submit with this report the daily labour returns of flagmen, stop/go and traffic signal control men employed.”

Add the following subsub-clauses:

- “(ix) The traffic safety officer shall be equipped with a cellular telephone and shall have a vehicle and sufficient labour at his disposal during all contractual working hours, and shall not be utilised for other duties. He shall be directly answerable to the contractor’s site agent. The traffic safety vehicle shall be a truck with a capacity of 3 tons and shall be equipped with a high visibility rear panel in accordance with the requirements of the SARTSM. The words TRAFFIC CONTROL shall be written on a warning sign in highly legible letters, not less than 150 mm high, and the sign shall be mounted on the vehicle at least 1,5 m above ground level. The proposed sign and letter dimensions shall be submitted to the engineer for his approval.

The vehicle shall also be equipped with an amber-coloured flashing light of the rotating parabolic reflector type with a minimum intensity of 100 W. The warning light shall be switched on at all times and the sign shall be displayed when the vehicle is used on site.

The traffic safety officer shall have a direct line of communication at all times with the police and traffic officers responsible for the area within limits of the contract. The provision of the road safety vehicle, driver, labourers and the cost of the cellular telephone shall be deemed to be included in the rates tendered for the contractor's establishment on site

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- (x) Ensure that all obstructions related to the contractor's activities be removed before nightfall where applicable as instructed by the engineer and that the roads are safe for night traffic.
- (xi) The traffic safety officer shall, in addition to the duties listed in paragraph 1502 (i), also be responsible for the removal of broken down vehicles off the roadway and implementing actions requested by the traffic authorities with regard to the work to be carried out, be responsible for the erection and maintenance of all traffic signs necessary for the accommodation of traffic.
- (xii) In the advent of an accident the traffic officer shall record in a written report the details of the accident, record the position of all temporary road signs, barricades, delineators, flagmen and any other devices used for traffic accommodation. In addition the report shall include a neat dimensional sketch, photographs, identifiable permanent features, and any other relevant information."

Add the following sub-clauses:

"(j) Crossing the median

No vehicle or item of equipment shall be allowed to cross the median under any circumstances.

(k) Site Personnel

The contractor shall ensure that all his personnel, excluding those who are permanently office bound, are equipped with reflective safety jackets and that these are worn at all times when working on or near to the travelled way. Any person found not wearing a reflective jacket under these circumstances shall be removed from the site until such time as he is in possession of and wearing a reflective jacket. Reflective safety jackets shall be kept in good condition and any jackets that are, in the opinion of the engineer, ineffective shall be immediately replaced by the contractor.

(l) Failure to comply with provisions

Failure or refusal on the part of the contractor to take the necessary steps to ensure the safety and convenience of the travelling public, accommodation of traffic, plant and personnel in accordance with these specifications or as required by statutory authorities or ordered by the engineer, shall be sufficient cause for the engineer to apply penalties as follows:

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

A fixed penalty of **R5 000,00** per occurrence shall be deducted for each and every occurrence of non-compliance with any of the requirements of section 1500 of the standard specifications and section B1500 of the project specifications.

In addition a time-related penalty of **R500, 00** per hour over and above the fixed penalty shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within the allowable time after the engineer has given an instruction to this effect. The engineer's instruction shall state the allowable time, which shall be the time in hours for reinstatement of the defects. Should the contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given."

B1503 TEMPORARY TRAFFIC-CONTROL FACILITIES

Replace the first sentence of the first paragraph with the following:

"The contractor shall provide, erect and maintain the necessary traffic-control devices, road signs, channelisation devices, barricades, warning devices and Millings (hereinafter referred to as traffic-control devices) in accordance with these special provisions and as shown on the drawings and in the SARTSM and remove them when no longer required. It shall be incumbent upon the contractor to see to it that the abovementioned traffic-control devices are present where required at all times and are functioning properly."

Replace the third paragraph with the following:

"The type of construction, spacing and placement of traffic-control devices shall be in accordance with the SARTSM. The recommended arrangements of the traffic control devices illustrated and/or drawings issued by the engineer shall not be departed from without prior approval of the engineer. The arrangements expected to be most commonly used in the contract are given on the tender drawings.

The details shown for spacing and placement of traffic-control facilities may however, be revised at the discretion of the engineer where deemed necessary to accommodate local site geometry and traffic conditions."

(a) Traffic control devices

Add the following at the end of the last paragraph:

"At each traffic control point, an all-weather shelter of at least three (3) square metres capable of accommodating two operators, with a clear window, a stable door, two chairs and a portable chemical toilet that shall be regularly maintained, shall be provided. Each control point shall have a generator and a 2x400w metal halide floodlight mounted onto a 9m winched fiberglass pole bolted to a 1,5m buried galvanized stem to light up the traffic control point at night time."

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

(b) Road signs and barricades

Add the following:

“The contractor shall be responsible for the protection and maintenance of all signs, 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. All temporary road signs required to be moved more often shall be mounted on portable supports for the easy moving of signs to temporary positions. The only permitted method of ballasting the sign supports shall consist of durable sandbags filled with sand of adequate mass to prevent signs from being blown over by wind. The cost of the sandbags shall be included in the tendered rates for the various types of temporary road signs.

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. The cost of covering of permanent road signs shall be included in the tendered rates of items B15.01 and B15.10.”

(c) Channelisation devices and barricades

Add the following:

“The use of drums as channelisation devices shall not be permitted. Drums may however be used to set up barriers as provided for in sub clause 1503(d).

Delineators shall:

- (i) comply with the manufacturing and reflective requirements of the SARTSM and the blades shall be reversible with dimensions as indicated on the drawings;
- (ii) have smooth and round edges and be mounted on a post and base. All components shall be of durable plastic material;
- (iii) have the lower edge of the reflective part of the delineator mounted not lower than 250mm above the road surface;
- (iv) be capable of withstanding the movement of passing vehicles and gusting winds up to 60 km/h in typical working conditions without falling over. To achieve this, the base shall be at least 0,18 m² and ballasted by sandbags with sand;
- (v) together with its mounting be designed such that it will collapse in a safe manner under traffic impact.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Traffic cones manufactured in a fluorescent red-orange or red plastic material may be used only at short term lane deviations during daylight. Cones shall not be used on their own, but shall be interspersed with delineators at a ratio not exceeding 3:1. Cones used on all deviations shall be 750 mm high. Lane closures which continue into the night time shall be demarcated by delineators only."

(e) Warning devices

Add the following:

"All construction vehicles and plant used on the works shall be equipped with rotating amber flashing lights and warning boards as specified. All vehicles and plant before being allowed onto the site shall obtain a clearance permit from the engineer.

(i) Vehicle mounted flashing lights

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 not be switched on while vehicles are being operated on unrestricted sections of a public road, but shall be switched on while construction vehicles are operating within the accommodation of traffic area, as the vehicles decelerate to enter a construction area, and as the vehicles accelerate to the general speed when entering the road from a construction area. Lights on plant shall operate continuously while the plant is working alongside sections of road open to public traffic

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 apply and maintain lights together with temporary mounting brackets, to the approval of the engineer. Vehicles and plant that do not comply with these requirements shall be removed from the site.

(ii) 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."

Add the following sub clauses:

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

“(g) Other traffic control measures ordered by the engineer

“The engineer may instruct the contractor to provide any other road sign, reflective tape, etc not measured in standard pay items. Such road signs shall conform to the requirements of the SARTSM, or specification provided by the engineer. Similarly, in order to ensure that the travelling public is kept fully informed and warned on matters relating to the accommodation of traffic, construction sign posting and the effect of the construction on the free flow of traffic through the site, the engineer may arrange for advertising in the press and/or for other forms of publicity.

(h) Flagmen

Flagmen shall be provided where shown on the drawings or required by the specification. During the daytime, at least two flagmen shall be provided at each traffic control point in addition to the STOP/GO sign 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. Where the shoulder of the road is closed to traffic, a flagman shall be provided at the leading end of the closure during daytime. This flagman shall be provided at the 80-km/h sign to warn the traffic about the closure. No flagman shall be on duty for a period of more than 10 hours per day.

Flagmen shall be adequately trained in the standard flagging techniques as described in the SARTSM (refer to figure 13.23 of detail 13.23.1) and be provided with conspicuous clothing such as safety jackets utilizing retro-reflective and / or fluorescent panels in red, yellow and / or white.

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 or red-orange 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.”

B1504 WIDTH AND LENGTH OF TEMPORARY DEVIATIONS

Add the following:

“Work on any carriageway shall be restricted to certain specified order, lengths and widths.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Unless specifically approved by the Engineer for work undertaken at night, all traffic-control facilities shall be removed from the carriageway each night and the public traffic be allowed the use of the full width of the travelled way. The barricaded length shall be sufficient to cover the work area scheduled for that day, but never longer than 4 km in any event. Deviations should be done in such a manner so as to ensure that acceptable (to the Engineer) traffic flow is maintained at all times.

Each passing section between any one of these working areas shall not be shorter than 4 km between diversions (tapers), which distance may be increased by the engineer. No work shall be carried out between consecutive working areas, or next to, or opposite any deviation (including on the adjacent carriageway if applicable)."

B1518 PROVISION FOR TRUCK MOUNTED ATTENUATOR (TMA)

The Employer requires the contractor to provide for full time usage on this contract a hydraulically operated Truck Mounted Attenuator (TMA), compliant with US specification NCHRP350, with a variable electronic message board, for impact protection of the work area, which conforms to the specification of the Engineer. The supply and installation of the TMA on a suitable vehicle supplied by the contractor, shall be a rigid heavy vehicle of 7 ton gross vehicle mass with high visibility signage as specified.

B1517 MEASUREMENT AND PAYMENT

ITEM	UNIT
<i>Delete item 15.01 and replace with the following:</i>	
"B15.01 Accommodation of traffic and maintenance of temporary deviations as per drawing no: 10 - TEMPORARY ROAD SIGNS - ACCOMODATION OF TRAFFIC.	km

The unit of measurement shall be in kilometre, measured over the full extent of the contract.

The tendered rate shall include full compensation to comply with the approved Accommodation of Traffic Method Statement, for the complying with all legal requirements, all general requirements and all incidental items of costs, which are required under the provisions of Section 1500 and as amended.

The rate tendered shall include the provision of a Traffic Safety Officer, his staff, transport, two-way radio unit or cellular phone and vehicle/equipment necessary to comply with all his duties according to Section 1500 and as amended, including the daily maintenance/repair of temporary traffic accommodation signage.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
-----------------------------------	----------------------------------	----------------------------------	---------------------------------	----------------------------------	----------------------------------

The rate tendered shall also include the provision of flag persons for the control of traffic during normal construction activities.

The rate shall also include full compensation for the operation, moving and maintenance of Temporary Traffic Control Facilities, portable shelters and toilets at the points of traffic control, traffic signals and flashing lights.

Payment will be subjected to the regular submitting of satisfactory reports by the Traffic Safety Officer, as specified in Section 1500 and as amended, to the engineer.

The tendered rate shall include full compensation to provide equipment for the construction areas, each control point shall have a generator and 3/2x400W metal halide floodlights mounted onto 5,0m poles to light up the traffic control point at night time complete with all electrical wiring.

The first pole must be placed 10m from the control point and the other poles placed 20m apart, an all-weather shelter of at least three (3) square metres capable of accommodating two operators, with a clear window, a stable door, two chairs, a large waste disposal container and a portable chemical toilet shall be provided, and the necessary personnel (operators and flag persons) approved by the engineer to operate these traffic signals 24 hours a day, 7 days a week, including two way communication devices.”

B15.03 Temporary traffic control facilities

Add the following as a header to the clause:

“The contractor should take note that on this contract item 15.03 in its entirety is for the exclusive use of the engineer and the contractor may only implement items indicated in this clause on receiving such written instruction from the engineer. The contractor will have no basis for any claim for any of the items in this clause if such items were not specifically instructed by the engineer.”

Add the following new items:

"(n) Provision of sets of high visibility safety jackets, safety boots, and safety hats" number (No)

B15.10Accommodation of traffic where the road is constructed in half-widths, robot controlled, as per drawing no: 9 - TEMPORARY CONSTRUCTION ROAD SIGNS" km

Add the following to the clause:

The unit of measurement shall be in kilometer, measured over the full extent of the contract.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

The tendered rate shall include full compensation to comply with the approved Accommodation of Traffic Method Statement, for the complying with all legal requirements, all general requirements and all incidental items of costs, which are required under the provisions of Section 1500 and as amended.

The rate tendered shall include the provision of a Traffic Safety Officer, his staff, transport, two-way radio unit or cellular phone and vehicle/equipment necessary to comply with all his duties according to Section 1500 and as amended, including the daily maintenance/repair of temporary traffic accommodation signage.

The rate tendered shall also include the provision of flag persons for the control of traffic during normal construction activities.

The rate shall also include full compensation for the operation, moving and maintenance of Temporary Traffic Control Facilities, portable shelters and toilets at the points of traffic control, traffic signals and flashing lights.

Payment will be subjected to the regular submitting of satisfactory reports by the Traffic Safety Officer, as specified in Section 1500 and as amended, to the engineer.

The tendered rate shall include full compensation to provide equipment for the construction areas, each control point shall have a generator and 3/2x400W metal halide floodlights mounted onto 5,0m poles to light up the traffic control point at night time complete with all electrical wiring.

The first pole must be placed 10m from the control point and the other poles placed 20m apart, an all-weather shelter of at least three (3) square metres capable of accommodating two operators, with a clear window, a stable door, two chairs, a large waste disposal container and a portable chemical toilet shall be provided, and the necessary personnel (operators and flag persons) approved by the engineer to operate these traffic signals 24 hours a day, 7 days a week, including two way communication devices."

Add the following:

"All payments for the accommodation of traffic while busy with painting or re-painting roads must be included in the respective tariffs. No extra payment for accommodation of traffic will be made The contractor will be held responsible for all site safety and must take all necessary steps to ensure his own worker's and the public's safety while painting the Millings"

Add the following section to Series 1000: General of the Standard Specifications:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

“SECTION B1800: DAYWORK SCHEDULE

B1801 SCOPE

This section covers the listing of daywork items in accordance with the General Conditions of Contract, for the use in determining payment for work which cannot be quantified in specific units in the Bill of Quantities, or work ordered by the engineer during the construction period which was not foreseen at tender stage and for which no applicable rate exists in the Bill of Quantities.

B1802 ORDERING OF DAYWORK

No daywork shall be undertaken or paid unless written authorization has been obtained from the engineer and the work has been expressly instructed to be executed in accordance with the GCC.

The contractor shall keep and submit records of the work performed in accordance with the requirements of the GCC.

B1803 MEASUREMENT AND PAYMENT

ITEM	UNIT
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B18.01 Personnel during normal working hours

(i)	Unskilled labour	hour (h)
(ii)	Semi-skilled labour	hour (h)
(iii)	Skilled labour	hour (h)
(iv)	Ganger	hour (h)
(v)	Foreman	hour (h)

B18.02 Personnel outside normal working hours

(a) Outside normal working hours and Saturdays:

(i)	Unskilled labour	hour (h)
(ii)	Semi-skilled labour	hour (h)
(iii)	Skilled labour	hour (h)
(iv)	Ganger	hour (h)
(v)	Foreman	hour (h)

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

- ## B18.03 Equipment

- Note: The Tenderer must provide details of plant that has been allowed for under the tendered items in the Bill of Quantities.

B18.04 Materials

- | | | | | | |
|------------|-----------|-----------|----------|-----------|-----------|
| | | | | | |
| Contractor | Witness 1 | Witness 2 | Employer | Witness 1 | Witness 2 |

B18.05 Transport

- (a) Flatbed truck (8t) kilometre (km)
- (b) Minibus/bus for use during site inspections day

The unit of measurement for items B18.01, B18.02 and B18.03 shall be the hour for the item of equipment or personnel. Non-working hours for transport breakdown, lack of operator or any other reason shall not be measured. The time shall be taken from the time that the personnel and/or equipment depart until return.

Measurement shall only be for work instructed and directed by the engineer, where the engineer considers no other appropriate rate is applicable in the Bill of Quantities. Prior to the commencement of any work by the personnel described under items B18.01 and B18.02, the contractor must obtain written consent from the engineer regarding their classification of all labourers in terms of "unskilled", "semi-skilled" and "skilled" personnel.

The tendered rates for labour under B18.01 and B18.02 shall include full compensation to cover overhead charges and profit, leave pay, bonuses, subsistence, allowances, Employer's contributions, additional payment for overtime where applicable, insurances, housing, site supervision, use of small hand tools and appliances, non-mechanical plant and equipment and consumable stores, for all administrative, supervisory, operative and contingent costs, relating to the supply of personnel. The time cost of the foreman and supervisors will not be included for payment, these rates are deemed to be included in the relevant sections in 1300.

The tendered rates for plant for Item B18.03 shall be deemed to include all costs for plant operators, consumable stores, fuel maintenance, depreciation, ground-engaging tools and all other incidentals necessary to operate the plant for the purposes for which it was designed. Failure on the part of the contractor to state in the Bill of Quantities the plant on which his tender is based, shall be considered as a firm agreement on the part of the contractor that he waives all rights to distinguish between the different types and capacities of plant falling within the description and/or category given, and the engineer shall have the right to call upon the contractor to supply any such plant to the site and perform the work as directed by him at the particular tendered rate.

Before ordering any material, the contractor shall submit quotations to the engineer for his approval, and shall submit such receipts or vouchers to the engineer as may be necessary for proving the amount claimed. The unit of measurement for item B18.04(a) shall be the amounts actually paid for the procurement of materials to be purchased and shall be made in accordance with the provision of the general conditions of Contract. Only the actual quantities of materials used, as verified by the engineer, shall be paid for. The percentage tendered for item B18.04(b) shall be the percentage of the amounts actually paid for the procurement of materials as ordered under item B18.04(a) and shall be in full and final compensation in respect of the

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

contractor's handling costs, profit and all other charges in connection with the procurement and supply of the materials to the point of usage.

The unit of measurement for item B18.05 (a) and (b) shall be the kilometre distance that the vehicle travelled for transporting personnel and/or plant. All travelling must be approved by the engineer. The tendered rate for item B18.05 (a) and (b) shall include full compensation for the cost of the vehicle including fuel, driver, maintenance, depreciation and running costs. The tendered rate for item B18.05 (c) shall include full compensation for the provision of a 10-seater minibus/bus to convey representatives attending site meetings. It shall also include full compensation for the driver and cost of the vehicle including fuel, maintenance, depreciation and running costs.

The above-mentioned tendered rates shall be full compensation for the various items as specified and no further profit shall be paid.

B18.06 Expansion joints

B18.06(a)	Prime cost sum allowed for purchasing, taking delivery and installation of expansion joints	Prime Cost Sum
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B18.06(b)	Handling cost and profit in respect of sub-item 18.06(a).	(%)
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Item B18.06 will be utilised for the investigation and repair of bridge expansion joints as and when instructed by the engineer. The contractor is to submit a method statement as to how he intends to repair the joint to the engineer for approval before ordering of any material or commencement with the repairs. Approval of the method statement by the engineer does not relieve the contractor from any of his obligations under the contract. The joint is to be repaired to the satisfaction of the engineer."

SERIES 2000: DRAINAGE

SECTION B2100: DRAINS

B2104 SUBSOIL DRAINAGE

(c) Test flushing

Add the following to the bottom of the clause:

"The contractor is to include in his tendered rates for the flush testing of the subsoil drains. Item 21.17 will not be paid in this contract."

B2105 CLASSIFICATION OF MATERIALS

Delete the content of the clause and replace with:

"All excavations for open drains and subsoil drainage systems shall be classified as follows for payment purposes:

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Excavation will be classified either as “Soft” or “Hard” excavation. All excavation that can be achieved using labour, excavator, TLB or similar plant, irrespective of size, will be classified as “Soft” excavation. Where it is necessary to employ pneumatic hammer excavation, either by means of hand pneumatic hammers or mounted on an excavator, blasting or other means and after approval by the engineer, that excavation will be classified as “Hard” excavation.

Except where provided for in the specification and the Pricing schedule no extra payment shall be made nor shall any claim for additional payment be considered for construction in confined areas and overbreak caused by breaking or excavating of any material. The omission of standard pay items from the schedule of quantities shall be taken to be deliberate and any additional costs incurred shall be included in the bulk rate.”

B2107 MEASUREMENT AND PAYMENT

ITEM	UNIT
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B21.01 Excavation for open drains

Add the following to the bottom of the payment clause:

“The tendered rates shall also include full compensation for finishing-off and compaction of the open drains as specified.”

SERIES 2000: DRAINAGE

SECTION B2300: CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LINING FOR OPEN DRAINS

B2307 MEASUREMENT AND PAYMENT

ITEM	UNIT
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Add the following new pay item:

“B23.16 Demolition of existing concrete drains	cubic meter (m³)
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The unit of measurement shall be the cubic metre of concrete drains demolished and removed.

The tendered rates shall include full compensation for all demolition and for loading, transporting and disposing of the products of demolition, including all haul.

Payment shall not distinguish between plain or reinforced concrete.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

The tendered rates shall also include full compensation for cutting of the concrete drains where instructed by the engineer.”
Add the following new pay item:

**“B23.17 Concrete edge beam (300mm x 200mm,
Class 30/19 concrete, U2 surface finish) meter (m)**

The unit of measurement shall be the metre of concrete edge beam complete as constructed, measured along the front face of the edge beam.

The tendered rate for each metre of concrete edge beam shall include full compensation for the necessary excavation and preparation of bedding, cutting of road surface, backfilling, formwork, finishing and for procuring, furnishing and installing all materials, protecting against staining, provision of joints, all complete as specified.”

SECTION 3400: PAVEMENT LAYERS OF GRAVEL MATERIAL

B3401 SCOPE

Add the following:

This section also covers the reconstruction of existing pavement layers, with or without the addition of stabilizing agents. These sections to be reconstructed vary in length and occur at random on the entire length of road.

B3402 MATERIALS

(a) General

Add the following at the bottom of the paragraph:

“The existing material in the respective various layers shall be in situ reworked and compacted. Where there is a deficiency or the material does not comply with specifications, suitable material shall be added, and/or stabilizing with appropriate stabilizing agents shall be done. The material shall comply with the requirements as specified.”

B3403 CONSTRUCTION

(a) Placing and compacting

Add the following at the bottom of the first paragraph:

“Special attention shall be given to the compaction on the edges of the repaired sections of the layers. Equipment suitable to compact the layers of the repaired sections right up to the edges, shall be used. Additional density tests shall be taken near the edges of the sections.”

Add the following clauses:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

“(f) In situ milling and mixing

Where a mixture of existing asphalt/seal, existing in situ gravel pavement material and imported gravel (crushed or natural gravel) is specified for certain layers, these layers shall be constructed by in situ mixing of the respective types of materials, including mixing in of the stabilizing agent and water, if applicable.

The asphalt/seal should however be milled prior to the placing and mixing in or imported gravel.

If it is found that the contractor cannot achieve a homogeneous mix in the whole of the layer of the different materials and admixtures, the material shall also be mixed in a lateral direction, using a suitable grader. The cost of this operation has to be included in the rate for the construction of the layer.

If a milling machine or recycler is used, it shall be suitable to break down the existing asphalt/seal layer as well as any coarse material to the required maximum size for the specific layer. It shall also be suitable for the efficient mixing of the materials to the required specification.

“(g) Reparation or improvement of existing layers

During reconstruction of an existing layers, where the underlying layers are not acceptable for whatever reason, or these layers have been damaged by the removal of layers on top of it, the contractor shall repair or improve it to the required density, level tolerances and surface finishing.”

B3407 MEASUREMENT AND PAYMENT

ITEM

UNIT

Add the following “Note”:

“Excavation will be classified either as “Soft” or “Hard” excavation. All excavation that can be achieved using labour, excavator, TLB or similar plant, irrespective of size, will be classified as “Soft” excavation. Where it is necessary to employ pneumatic hammer excavation, either by means of hand pneumatic hammers or mounted on an excavator, blasting or other means and after approval by the engineer, that excavation will be classified as “Hard” excavation.

Except where provided for in the specification and the Pricing schedule no extra payment shall be made nor shall any claim for additional payment be considered for construction in confined areas and overbreak caused by breaking or excavating of any material. The omission of standard pay items from the schedule of quantities shall be taken to be deliberate and any additional costs incurred shall be included in the bulk rate.”

B34.14 Extra over item B34.04 for adding extra material as specified in 3207(b) (iii) from commercial sources

B34.14(c) Gravel base (G2)

cubic meter (m³)

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

B34.14(e) Gravel shoulder wearing course (G6) cubic meter (m³)

Add the following:

“The unit of measurement shall include for the procuring and delivering of the material from the commercial source to the point of use or site office. Importation of such material from commercial sources may commence after an instruction from the engineer.”

Add the following pay item:

“B34.15 Pre-milling and breaking up of the existing base to a depth of maximum 150mm. cubic meter (m³)

The unit of measurement will be the cubic metre of pre-milled and pre-shaped base material to new levels on instruction of the engineer. The volume shall be as per the instruction of the engineer and as per the cross-sectional properties of the area.”

SECTION 3500: STABILIZATION

B3503 CHEMICAL STABILIZATION

(i) Construction limitations

Add the following:

“No stabilization shall be carried out when the ambient temperature is 9°C and decreasing, or below 2°C when increasing.

The surface temperature of a compacted, stabilized layer shall not be allowed to decrease to below 1 °C during the first three days after stabilization. The contractor is responsible to take the necessary precautions in this regard, especially not to stabilize if such low temperatures are envisaged.

All stabilized layers damaged by frost or ice shall be removed and replaced at the contractor’s own cost. The contractor shall allow for these requirements in his construction programme. No claims in this regard will be considered.

The stabilizing agent shall only be supplied in bags and not in bulk.”

Add the following new clause:

“(j) Trial Sections

Notwithstanding any part of these Specifications for every type of material, the contractor shall prepare a successful trial section to the prescribed width of the pavement layer and 100m long on which he shall demonstrate his

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

proposed mixing operations before any large scale mixing is commenced. The work shall be paid for under item PS35.14.

Only when such a trial section has been satisfactorily laid and finished, and complies with the specified requirements, will the contractor be allowed to commence with construction of the permanent work.

If the contractor should make any alterations in the methods, processes, equipment or materials used, or if he is unable to comply consistently with the specifications, the engineer may require that further trial sections be laid before allowing the contractor to continue with the permanent work.

The trial sections shall be laid where indicated by the engineer. The contractor shall prepare the surface on which to lay the trial section and shall also, if required, remove the trial section after completion and restore the surfaces on which it was constructed. Provisions are made for payment under item PS35.14 for the first trial section of any particular mix type, over the full lane width but subsequent trial sections with the same mix shall be at the contractor's own cost.

The engineer's agreement to a mixing process shall not relieve the contractor of any of his obligations with regard to mixing as specified elsewhere in these specifications. It shall serve solely as a guide that the specified requirements of mixing can be achieved."

B3510 MEASUREMENT AND PAYMENT

ITEM	UNIT
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Add the following pay item:

"B35.13 Trial section

(a)	150mm Base layer (Chemically stabilized)	cubic meter (m ³)
(b)	150mm Base layer (Bituminous stabilized)	cubic meter (m ³)

The unit of measurement for the trial section shall be the cubic metre of stabilization constructed as ordered by the engineer. Not more than a total length of 100m of each trial section will be measured for payment."

SECTION 4400: DOUBLE SEALS

B4405 MEASUREMENT AND PAYMENT

ITEM	UNIT
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Delete item 44.05 and replace with the following:

"B44.05 Precoating the aggregate at a rate of 14litre/m³ using petrosote or similar precoating fluid

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

(a) Precoating Aggregate cubic metre (m³)

The unit of measurement for the precoating of aggregate shall be the cubic metre of aggregate so treated measured in hauling vehicles or in stockpile.

The tendered rate shall include full compensation for the equipment and materials and precoating the aggregate as specified, including the handling. Stockpiling and protecting of the stockpiles against inclement weather.

SECTION 4800: TREATMENT OF AN EXISTING SURFACE EXHIBITING CERTAIN DEFECTS

B4807 MEASUREMENT AND PAYMENT

ITEM	UNIT
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Add the following new pay item:

**“B48.14 Treatment with MSP2 (rejuvenator):
(0.55l/m² nom. rate)**

(e) MSP2	litre (l)
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The tendered rate should include the rolling of the areas to which the rejuvenator was applied with a 27t pneumatic roller until the cracks has closed down and to the satisfaction of the engineer. Rolling is to commence once the area has dried sufficiently and after instruction of the engineer.

Tenderer to Note:

“TARIFFS MUST BE ALL-INCLUSIVE”

“The Contractor must accept the payment provided for in the contract and which is represented by the tariffs in his tender, as full payment for the execution and completion of the work as specified; for obtaining, supplying, placement and installation of all materials; for obtaining and supplying labour, supervision, machinery, tools and construction equipment; for surplus material, transport, on and off loading, handling, maintenance, temporary work, tests, quality control including necessary to complete the work and maintaining it during the maintenance period, all in accordance with the specifications”.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (C108/2021)

FOR
THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING

Part C3.3. Environmental Management Requirements

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3.3 Environmental Management Requirements

C3.3.1 SCOPE

This Specification covers the requirements for controlling the impact of construction activities on the environment. It contains clauses that are generally applicable to the undertaking of civil engineering works in areas where it is necessary to impose pro-active controls on the extent to which the construction activities impact on the environment.

Interpretations and variations of this Specification are set out in the Specification Data.

C3.3.2 NORMATIVE REFERENCES

C3.3.2.1 Supporting specifications

Where this Specification is required for a project the following specifications shall, inter alia, form part of the Contract Document.

- a) Specification Data;
- b) SANS 1200 Series of Standardized Specifications;
- c) SANS 1200 A or SANS 1200 AA, as applicable;
- d) Specification OHS;
- e) Occupational health and safety Construction Regulations, 2014.

C3.3.3 DEFINITIONS

For the purposes of this Specification the definitions and abbreviations given in the applicable specifications listed in C3.3.2.1 and the following definitions shall apply:

- OHS: Occupational Health and Safety.
- Construction Regulations: Construction Regulations, 2014 of the OHS Act (Act No. 85 of 1993).

C3.3.3.1 Environment

The surroundings within which humans exist and that are made up of:

- i) the land, water and atmosphere of the earth;
- ii) micro-organisms, plant and animal life;
- iii) any part or combination of (i) and (ii) and the interrelationships among and between them; and
- iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

C3.3.3.2 Potentially hazardous substances

A substance that, in the reasonable opinion of the Engineer, can have a deleterious effect on the environment

C3.3.4 REQUIREMENTS

C3.3.4.1 Materials

C3.3.4.1.1 Bitumen

The Contractor shall implement appropriate management measures to prevent spillage of bitumen and/or bitumen products, e.g. binders to the surrounding environment and water resources. Bitumen and/or bitumen products shall be stored in suitable closed containers in a designated and secured area approved by the Engineer. The storage area shall have an impermeable layer and be bunded with a capacity to contain a minimum of 110% of the total volume of bitumen stored.

Unused or rejected bitumen shall be returned to the supplier. The spoiling of bituminous products on site, over embankments, in borrow pits or any burying will be strictly prohibited. Any spillage of bituminous products shall be cleaned immediately and the affected area shall be reinstated. Material contaminated with bitumen or bitumen products shall be disposed of at an approved landfill site for hazardous waste or collected by a registered hazardous waste removal company. The Contractor shall supply the Engineer with a certificate of disposal or collection of any hazardous waste.

C3.3.4.2 Plant

C3.3.4.2.1 Ablution facilities

Adequate temporary ablution facilities shall be provided for the workforce. The Contractor shall ensure that no spillage occurs when the toilets are cleaned or emptied and that the contents are properly stored and removed from Site. Discharge of waste from toilets into the environment and burial of waste is strictly prohibited.

Washing whether of the person or of personal effects and acts of excretion and urination are strictly prohibited other than at the facilities provided.

C3.3.4.2.2 Solid waste management

The Contractor shall provide sufficient bins with lids on Site to store the solid waste produced on a daily basis. Solid, non-hazardous waste shall be disposed of in the bins provided and no on-site burying, dumping or burning of any waste

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

materials, vegetation, litter or refuse shall occur. Bins shall not be allowed to become overfull and shall be emptied a minimum of once daily. The waste may be temporarily stored on Site in a central waste area that is weatherproof and scavenger-proof, and which the Engineer has approved.

All solid waste shall be disposed of off-site at an approved landfill site. The Contractor shall supply the Engineer with a certificate of disposal.

C3.3.4.2.3 Contaminated water

The Contractor shall set up a contaminated water management system, which shall include collection facilities to be used to prevent pollution, as well as suitable methods of disposal of contaminated water. The Contractor shall prevent the discharge of water contaminated with any pollutants, such as soaps, detergent, cements, concrete, lime, chemicals, glues, solvents, paints and fuels, into the environment.

The Contractor shall notify the Engineer immediately of any pollution incidents on Site. The Engineer's approval is required prior to the discharge of contaminated water to the Municipal sewer system.

C3.3.4.2.4 Site structures

All site establishment components (as well as equipment) shall be positioned to limit visual intrusion on neighbour's and the size of area disturbed. The type and colour of roofing and cladding materials to the Contractor's temporary structures shall be selected to reduce reflection.

C3.3.4.2.5 Noise control

The applicable regulations framed under the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), and the provisions of SANS 1200 A Sub-clause 4.1 regarding "built-up areas" shall apply to all areas within audible distance of residents whether in urban, pen-urban or rural areas.

Appropriate directional and intensity settings are to be maintained on all hooters and sirens, and the Contractor shall provide and use suitable and effective silencing devices for pneumatic tools and other plant such that the noise level in inhabited areas and dwellings adjacent to the work areas will not increase by more than 7 dB(A)Leq 60 above residual background sound levels. Similarly in habituated areas adjacent to access roads maximum noise levels shall not exceed 60 dB(A)Leq 60 and maximum sound pressure level of 70 dB(A).

Where excess noise generation is unavoidable, the Contractor shall, by means of barriers, effectively isolate the source of any such noise in order to comply with the said regulations. The Contractor shall restrict any of his operations that may result in undue noise disturbance to those communities and dwellings abutting

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

No amplified music shall be allowed on Site. The use of radios, tape recorders, compact disc players, television sets etc shall not be permitted unless the volume is kept sufficiently low as to avoid any intrusion on members of the public within range. The Contractor shall not use sound amplification equipment on Site unless in emergency situations.

The Contractor shall ensure that any lighting installed on the site for his activities does not interfere with road traffic or cause a reasonably avoidable disturbance to the surrounding community or other users of the area.

Unless otherwise specified in the Specification Data, fuel may be stored on site in an area approved by the Engineer. The Contractor shall ensure that all liquid fuels (petrol and diesel) are stored in tanks with lids, which are kept firmly shut or in bowzers. The tanks or bowzers shall be situated on a smooth impermeable surface (concrete or 250 pm plastic) with an earth bund (plastic must have a 5 cm layer of sand on top to prevent damage and perishing). The impermeable lining shall extend to the crest of the bund and the volume inside the bund shall be 130% of the total capacity of all the storage tanks! bowzers. The bunded area shall be covered to protect it from rain. Provision shall be made for refueling at the fuel storage area, by protecting the soil with 250 pm plastic covered with a minimum of a 5 cm layer of sand.

If fuel is dispensed from 200 litre drums, only empty externally clean drums may be stored on the bare ground. All empty externally dirty drums shall be stored on an area where the ground has been protected. The proper dispensing equipment shall be used, and the drum shall not be tipped in order to dispense fuel. The dispensing mechanism of the fuel storage drum shall be stored in a waterproof container when not in use.

The Contractor shall prevent unauthorised access into the fuel storage area. No smoking shall be allowed within the vicinity of the fuel storage area. The Contractor shall ensure that there is adequate fire-fighting equipment at the fuel stores.

Where reasonably practical, plant shall be refuelled at the fuel storage area or at the workshop as applicable. If it is not reasonably practical then the surface under the refuelling area shall be protected against pollution to the reasonable satisfaction of the Engineer prior to any refuelling activities. The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb/ breakdown and where possible be designed to encapsulate minor hydrocarbon spillage. The quantity of such materials shall be able to handle a

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minimum of 200l of hydrocarbon liquid spill. The Contractor shall obtain the Engineer's prior approval for any refuelling or maintenance activities.

C3.3.4.2.8 Workshop, equipment maintenance and storage

Leaking equipment shall be repaired immediately or removed from the Site. Where practical, all maintenance of equipment and vehicles on Site shall be performed off Site or in the workshop. If it is necessary to do maintenance outside of the workshop area, the Contractor shall obtain the approval of the Engineer prior to commencing activities. The Contractor shall ensure that in his workshop and other plant maintenance facilities, including those areas where, after obtaining the Engineer's approval, the Contractor carries out emergency plant maintenance, there is no contamination of the soil or vegetation. The workshop shall have a smooth impermeable (concrete or 250 pm plastic covered with sand) floor. The floor shall be bunded and sloped towards an oil trap or sump to contain any spillages of substances (e.g. oil).

When servicing equipment on site, drip trays shall be used to collect the waste oil and other lubricants. Drip trays shall also be provided in construction areas for stationary plant (such as compressors) and for "parked" plant (such as scrapers, loaders, vehicles). Drip trays shall be inspected and emptied daily. Dip trays shall be closely monitored during rain events to ensure that they do not overflow. Where practical, the Contractor shall ensure that equipment is covered so that rainwater is excluded from the drip trays.

The washing of equipment shall be restricted to urgent or preventative maintenance requirements only. All washing shall be undertaken off Site or in the workshop. The use of detergents for washing shall be restricted to low phosphate and nitrate containing, low sudsing-type detergents.

C3.3.4.2.9 Dust

Not applicable

C3.3.4.3 Methods and procedures

C3.3.4.3.1 Method Statements

Any Method Statement required by this Specification, the Specification Data or the Engineer shall be produced within such reasonable time as is required by this Specification, the Specification Data or the Engineer. The Contractor shall not commence the activity until the Method Statement has been approved. Except in the case of emergency activities, the Contractor shall allow a period of two weeks for approval of the Method Statement by the Engineer. Such approval shall not unreasonably be withheld.

Method Statements in respect of environment management that shall be provided by the Contractor within 14 days of receipt of the letter of acceptance

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

and prior to the activity covered by the Method Statement being undertaken, include:

- 1) Location and structure of the fuel storage site, including the type and volume of storage container and the design and capacity of the bund.
- 2) Solid waste (refuse) control and removal of waste from the Site, including the number, type and location of rubbish bins, the manner and frequency with which the waste will be removed from site and the disposal site.
- 3) Contaminated water management system, including an indication of the source and volume of contaminated water and how this would be disposed of.
- 4) Dust control, including methods to prevent dust generation and methods to reduce dust where its generation is unavoidable.
- 5) Location and layout of the construction camp in the form of a plan showing offices, stores for fuels and explosives, vehicle parking, access point, equipment cleaning areas and staff toilet placement.
- 6) Location of proposed site access routes and proposed traffic safety measures.
- 7) Emergency procedures for fire, and accidental leaks and spillages of hazardous materials.
- 8) Location, layout and preparation of cement/ concrete batching facilities including the methods employed for the mixing of concrete and the management of runoff water from such areas. An indication shall be given of how concrete spoil will be minimised and cleared.
- 9) Method of undertaking earthworks, including spoil management, erosion, dust and noise controls.
- 10) Motivation and method for undertaking any construction related activities within a "no-go" area, including requisite emergency procedures. Unless need clearly motivated and proposed methodology exhibits clear focus on environmentally sensitive construction practice, no activity will be permitted within the defined "no-go" areas.

C3.3.4.3.2 Environmental awareness training

Within seven days of the Commencement Date, the Contractor's site staff including foremen and site management staff shall attend an environmental awareness training course, of approximately one-hour duration. The Contractor shall liaise with the Engineer prior to the Commencement Date to fix a date and venue for the course. The Contractor shall provide a suitable venue with facilities

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

as required by the Specification Data, and ensure that the specified employees attend the course.

No more than 20 people shall attend each course and the Contractor shall allow for sufficient sessions to train all personnel. Subsequent sessions shall be run for any new personnel coming onto site.

The environmental awareness training course shall be held in the morning during normal working hours. Any new employees coming on to site after the initial training course and the Contractor's suppliers and subcontractors shall also attend the course. Provision should also be made for quarterly refreshers courses to be undertaken during the course of the Contract. The Contractor shall ensure that all attendees sign an attendance register, and shall provide the Engineer with a copy of the attendance register the day after each course.

C3.3.4.3.3 Construction personnel information posters

The Contractor shall erect and maintain information posters for the information of his employees depicting actions to be taken to ensure compliance with aspects of the Specifications. Such posters will be supplied by the Engineer and shall be erected at a location specified by the Engineer.

C3.3.4.3.4 Site clearance

Not applicable

C3.3.4.3.5 Site division

The Engineer shall be advised of the area that the Contractor intends using for his site establishment. The Contractor's camp shall occupy as small an area as possible, and no site establishment shall be allowed within 50 m of any watercourse unless otherwise approved by the Engineer.

The Contractor shall inform the Engineer of the intended actions and programme for site establishment. The site layout shall be planned to facilitate ready access for deliveries, facilitate future works and to curtail any disturbance or security implications for neighbours.

C3.3.4.3.6 Site demarcation

If required by the Specification Data, the Contractor shall erect and maintain permanent and/or temporary fences of the type and in the locations directed by the Engineer. Such fences shall, if so specified, be erected before undertaking designated activities.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

C3.3.4.3.7 "No go" areas

If so required by the Specification Data, certain areas shall be considered to be "no go" areas. The Contractor shall ensure that insofar as he has the authority, no unauthorised entry, stockpiling, dumping or storage of equipment or materials shall be allowed within the demarcated "no go" areas.

"No go" areas shall be demarcated with fencing consisting of wooden or metal posts at 3 m centres with 1 plain wire strand tensioned horizontally at 900 mm from ground level. Commercially available danger tape shall be wrapped around the wire strand. The Contractor shall maintain the fence for the duration of construction and ensure that the danger tape does not become dislodged.

C3.3.4.3.8 Protection of natural features

The Contractor shall not deface, paint, damage or mark any natural features (e.g. rock formations) situated in or around the Site for survey or other purposes unless agreed beforehand with the Engineer. Any features affected by the Contractor in contravention of this clause shall be restored/ rehabilitated to the satisfaction of the Engineer. The Contractor shall not permit his employees to make use of any natural water sources (e.g. springs, streams, open water bodies) for the purposes of swimming, personal washing and the washing of machinery or clothes.

C3.3.4.3.9 Protection of flora and fauna

Except to the extent necessary for the carrying out of the Works, flora shall not be removed, damaged or disturbed nor shall any vegetation be planted without authorisation.

Trapping, poisoning and/ or shooting of animals is strictly forbidden. No domestic pets or livestock are permitted on Site.

Where the use of herbicides, pesticides and other poisonous substances has been specified, they shall be stored, handled and applied with due regard to their potential harmful effects.

C3.3.4.3.10 Protection of archaeological and palaeontological remains

The Contractor shall take reasonable precautions to prevent any person from removing or damaging any fossils, coins, articles of value or antiquity and structures and other remains of archaeological interest discovered on the Site, immediately upon discovery thereof and before removal. The Contractor shall inform the Engineer immediately of such a discovery and carry out the Engineers instructions for dealing therewith. All construction within the vicinity of the discovery shall cease immediately and the area shall be cordoned off until such time as the Engineer authorises resumption of construction in writing.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

The Engineer will contact the relevant heritage authority.

C3.3.4.3.11 Access routes/ haul roads

Access to the Construction camp and working areas shall utilise existing roads or tracks. Entry/exit points onto public roads shall take cognisance of traffic safety. Traffic safety measures shall include appropriate signage and signalmen where relevant

On the Site, and, if so required by the Specification Data, within such distance of the Site as may be stated, the Contractor shall control the movement of all vehicles and plant including that of his suppliers so that they remain on designated routes, are distributed so as not to cause an undue concentration of traffic and that all relevant laws are complied with. In addition such vehicles and plant shall be so routed and operated as to minimise disruption to regular users of the routes not on the Site. On gravel or earth roads on Site and within 500 m of the Site, the vehicles of the Contractor and his suppliers shall not exceed a speed of 20 km/h.

Mud and sand deposited onto public roads by construction activities shall be cleared on a daily basis.

C3.3.4.3.12 Cement and concrete batching

Where applicable, the location of the batching plant (including the location of cement stores, sand and aggregate stockpiles) shall be as approved by the Engineer. The concrete/cement batching plant shall be kept neat and clean at all times.

No batching activities shall occur directly on unprotected ground. The batching plant shall be located on a smooth impermeable surface (concrete or 250 pm plastic covered with 5 cm of sand). The area shall be bunded and sloped towards a sump to contain spillages of substances. All wastewater resulting from batching of concrete shall be disposed of via the contaminated water management system and shall not be discharged into the environment. Contaminated water storage areas shall not be allowed to overflow and appropriate protection from rain and flooding shall be implemented

Empty cement bags shall be stored in weatherproof containers to prevent wind-blown cement dust and water contamination. Empty cement bags shall be disposed of on a regular basis via the solid waste management system, and shall not be used for any other purpose. Unused cement bags shall be stored so as not to be affected by rain or runoff events. In this regard, closed steel containers shall be used for the storage of cement powder and any additives. The Contractor shall ensure that sand, aggregate, cement or additives used during the mixing process are contained and covered to prevent contamination of the surrounding environment.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

The Contractor shall take all reasonable measures to prevent the spillage of cement concrete during batching and construction operations. During pouring, the soil surface shall be protected using plastic and all visible remains of concrete shall be physically removed on completion of the cement/ concrete pour and appropriately disposed of. All spoiled and excess aggregate/ cement/ concrete shall be removed and disposed of via the solid waste management system.

Where "readymix" concrete is used, the Contractor shall ensure that the delivery vehicles do not wash their chutes directly onto the ground. Any spillage resulting from the "readymix" delivery shall be immediately cleared and disposed of via the solid waste management system.

C3.3.4.3.13 Earthworks

Where material for construction will be required, the Contractor will ensure that an Environmental Authorisation has been obtained prior to entry into any quarry or borrow pit. The Contractor will ensure that Environmental Best Practices are implemented throughout the operation of any quarry or borrow pit relevant to this project. Where required, the quarries and borrow pits used during this project shall be rehabilitated by the Contractor to the satisfaction of the Engineer.

C3.3.4.3.14 Pumping

Not Applicable

C3.3.4.3.15 Bitumen

The Contractor shall provide to the Engineer a proposal prior to commencement of construction activities indicating the bitumen storage area, volume to be stored as well as the preventative measures and emergency procedures to be implemented during the contract period to prevent any spillage of bitumen and/or to mitigate any environmental impacts in the event of misuse or spillage of bitumen that might negatively affect the environment.

The Contractor shall be responsible to obtain the required Environmental Authorisation for the storage of bitumen should the volume planned for storage on site exceed the minimum thresholds for storage without an Environmental Authorisation in terms of the National Environmental Management Act (NEMA), 1998 (Act 107 of 1998) and related regulations.

C3.3.4.3.16 Fire control

No fires may be lit on site. Any fires that occur shall be reported to the Engineer immediately. Smoking shall not be permitted in those areas where it is a fire hazard. Such areas shall include the workshop and fuel storage areas and any areas where the vegetation or other material is such as to make liable the rapid

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

spread of an initial flame. In terms of the Atmospheric Pollution Prevention Act (No. 45 of 1965), burning is not permitted as a disposal method.

The Contractor shall ensure that there is basic fire-fighting equipment available on Site at all times. This shall include at least rubber beaters when working in urban open spaces, and at least one fire extinguisher of the appropriate type when welding or other "hot" activities are undertaken.

C3.3.4.3.17 Emergency procedures

The Contractor's procedures for the following emergencies shall include:

i) Fire

The Contractor shall advise the relevant authority of a fire as soon as one starts and shall not wait until he can no longer control it. The Contractor shall ensure that his employees are aware of the procedure to be followed in the event of a fire.

ii) Accidental leaks and spillages

The Contractor shall ensure that his employees are aware of the emergency procedure(s) to be followed for dealing with spills and leaks, which shall include notifying the Engineer and the relevant authorities. The Contractor shall ensure that the necessary materials and equipment for dealing with spills and leaks is available on Site at all times. Treatment and remediation of the spill areas shall be undertaken to the reasonable satisfaction of the Engineer.

In the event of a hydrocarbon spill, the source of the spillage shall be isolated, and the spillage contained. The area shall be cordoned off and secured. The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb/ breakdown and where possible be designed to encapsulate minor hydrocarbon spillage. The quantity of such materials shall be able to handle a minimum of 200 t of hydrocarbon liquid spill.

C3.3.4.3.18 Community relations

The Contractor shall erect and maintain information boards in the position, quantity, design and dimensions specified. Such boards shall include contact details for complaints by members of the public in accordance with details provided by the Engineer.

The Contractor shall keep a "Complaints Register" on Site. The Register shall contain all contact details of the person who made the complaint, and information regarding the complaint itself.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

C3.3.4.3.19 Erosion and sedimentation control

Not Applicable

C3.3.4.3.20 Aesthetics

The Contractor shall take reasonable measures to ensure that construction activities do not have an unreasonable impact on the aesthetics of the area.

C3.3.4.3.21 Recreation

If so required by the Specification Data, the Contractor shall take measures to reduce disruption to recreational users of the area abutting the Site.

C3.3.4.3.22 Access to site

Not Applicable

C3.3.4.3.23 Crane operations

Not applicable

C3.3.4.3.24 Trenching

Not Applicable

C3.3.4.3.25 Demolition

Not Applicable

C3.3.4.3.26 Drilling and jack hammering

Not Applicable

C3.3.4.3.27 Stockpiling

Not Applicable

C3.3.4.3.28 Site closure and rehabilitation

Not Applicable

C3.3.4.3.29 Temporary re-vegetation of the areas disturbed by construction.

Not Applicable

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3.3.4.3.30 Temporary site closure

Not Applicable

C3.3.5 COMPLIANCE WITH REQUIREMENTS AND PENALTIES

C3.3.5.1 Compliance

Environmental management is concerned not only with the final results of the Contractor's operations to carry out the Works but also with the control of how those operations are carried out. Tolerance with respect to environmental matters applies not only to the finished product but also to the standard of the day-to-day operations required to complete the Works.

It is thus required that the Contractor shall comply with the environmental requirements on an ongoing basis and any failure on his part to do so will entitle the Engineer to certify the imposition of a penalty as detailed below.

C3.3.5.3 Removal from site and suspension of Works

The Engineer may instruct the Contractor to remove from Site any person(s) who in their opinion is guilty of misconduct, or is incompetent, negligent or constitutes an undesirable presence on Site. This contract requires that all Plant be in good working Order, and accordingly the Engineer may order that any Plant not complying with the Specifications be removed from Site. Where the Engineer deems the Contractor to be in breach of any of the requirements of this Specification, he may order the Contractor to suspend the progress of the Works or any part thereof.

C3.3.6 MEASUREMENT AND PAYMENT

C3.3.6.1 Basic principles

C3.3.6.1.1 General

Except as specified below, or in the Specification Data or as billed, no separate measurement and payment will be made to cover the costs of complying with the provisions of this Specification and such costs shall be deemed to be covered by the rates tendered for the items in the Bill of Quantities completed by the Contractor when submitting his tender.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3.3.6.1.2 All requirements of the environmental management specification

All work not measured elsewhere, associated with complying with any requirement of this Environmental Management specification will be measured and paid as a sum.

The tendered sum shall cover the cost of with complying with the environmental management specification and shall include for all materials, labour and plant required to execute and complete the Works as specified, described in the Bill of Quantities or shown on the Drawing(s).

C3.3.6.1.3 Work "required by the Specification Data"

Where a clause in this Specification includes a requirement as "required by the Specification Data", measurement and payment for compliance with that requirement shall be in accordance with the relevant measurement and payment clause of the Specification Data.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (C108/2021)

FOR
THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING

Part C3.4. Occupational Health and Safety (OHS)

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Contractor

Witness 1

Witness 2

Employer

Witness 1

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C3.4 Occupational Health and Safety (OHS)

C3.4.1. SCOPE

This Specification covers the health and safety aspects required of, and that shall be implemented during the construction and/or demolition work and/or plant installation specified in the Specification Data and standard specifications, shown on the drawings and/or billed in the Bill of Quantities. It covers temporary and permanent work.

This Specification does not replace, take precedence over nor detract from the Occupational Health and Safety Act or its Construction Regulations 2014. Nothing in this Specification shall relieve the Contractor of any obligations or responsibilities with regard to health and safety conditions and practices on site.

Interpretations and variations of this Specification are set out in the Specification Data.

C3.4.2. NORMATIVE REFERENCES

C3.4.2.1 Supporting specifications

Where this Specification is required for a project, the following specifications and/or documents shall, inter alia, form part of the Contract Document:

- a) Specification Data;
- b) SANS 1200 A or Specification 1/AT as applicable;
- c) Occupational Health and Safety Act (Act No. 85 of 1993);
- ci) Construction Regulations, 2014, and
- c) in addition to the above, one or more of the following specifications may be required:
 - i) SANS 1200 D; ii) SANS 1200 DM; iii) SANS 1200 DB

C3.4.3. DEFINITIONS AND ABBREVIATIONS

For the purpose of this Specification the definitions and abbreviations given in the applicable of the specifications listed in 2.1, the definitions given in the Construction Regulations and the following definitions and abbreviations shall apply:

- OHS: Occupational Health and Safety.
- Construction Regulations: Construction Regulations, 2014 of the OHS Act (Act No. 85 of 1993).

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

C3.4.4. REQUIREMENTS

C3.4.4.1. Materials

C3.4.1.1 Hazardous substances

C3.4.1.1.1 General

The following commonly used construction materials and substances potentially pose health and safety hazards:

- Substances in pressurized containers,
- Certain cleaning substances,
- Bitumen and tar products,
- Epoxies,
- Petroleum and petroleum products,
- Cement,
- Lime and other stabilizing agents
- Timber preservatives
- Paints,
- Asbestos products.

Particular materials and substances to be used are specified in the Specifications and/or shown on the Drawings and others may be identified in the Specification Data.

C3.4.2.6 Radioactive sources

The use, care and storage of radioactive materials such as in nucleonic density testing machines shall conform to the requirements of the Hazardous Substances Act No. 15 of 1973 and its regulations. Such devices, except while being actively used by the operator, shall be safely secured.

C3.4.2.7 Other items of plant

Plant not specifically referred to above shall be inspected, operated and maintained in a manner that assures the health and safety of all persons on the site.

C3.4.3 Methods and procedures

C3.4.3.1 Method statements

The Contractor shall submit with his health and safety plan, method statements detailing the storage, transport, handling, use and disposal of each hazardous substance to be used or brought on to site,

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

including copies of the Material Data Safety Sheets referred to in C4.1.1.1 above.

The methods set out in these statements shall be implemented on site. Such method statements shall be available on site.

C3.4.3.2 Storage, stacking and use

C3.4.3.2.1 General

In addition to Sub-clause 4.2 of SANS 1200 A and/or Sub-clause 3.8 of Specification T/AT, as applicable, a competent person shall be appointed in writing with the duty of supervising all storage and stacking operations. (See also Section 26 of the Construction Regulations).

Hazardous chemical substance, as defined in the Regulations for Hazardous Chemical Substances, used during construction shall be stored in secondary containers.

Flammable liquids shall be stored, used, and/or applied in a manner that would not cause a fire or explosion hazard. The Contractor shall ensure that in the vicinity of such materials:

- a) no person smokes,
- b) there is no open flame, and
- c) there is nothing that could cause an open spark. (See also Section 25 of the Construction Regulations).

The area in which materials that give off hazardous fumes are stored and/or used shall be effectively ventilated and every employee involved shall be provided with a suitable respirator, mask or breathing apparatus.

C3.4.3.2.2 Explosives

Not applicable

C3.4.3.2.3 Fuels and oils

The Contractor shall demarcate bulk fuel storage and refuelling areas and provide adequate security and control.

C3.4.3.3 Signs

The Contractor shall display warning signs, in English, Afrikaans and Xhosa and any other relevant language used by the workforce,

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

indicating the presence of any hazardous substance and at all storage areas.

C3.4.3.4 Description of the Works

The Works and, if necessary, the temporary work required to construct the Works are described in the Specification Data and/or shown on the Drawings.

C3.4.3.5 Existing conditions

The conditions existing on site are described in the Specification Data and/or shown on the Drawings.

C3.4.3.6 Design information

Not Applicable

C3.4.3.7 General Obligations

In addition to Sub-clause 5.7 of SANS 1200 A and/or Sub-clauses 3.2 and 5.51 of Specification T/AT, as applicable. Safety Act (Act No. 85 of 1993) (OHS Act) and in particular with its Construction Regulations, 2014.

All the work included in this Contract shall, for the purpose of complying with the OHS Act and the Construction Regulations, be deemed to be "construction work".

In complying with the OHS Act and its Construction Regulations, the Contractor shall consider all aspects of the Works, necessary temporary work, such as traffic accommodation, and conditions existing on site, such as utility services, ground and foundation conditions, surrounding land use, pedestrian and vehicular traffic and anticipated weather conditions, and take into account the construction methods and materials to be used.

The Contractor shall take full responsibility for the prevention of unhealthy or unsafe working conditions and practices and for the promotion of a healthy and safe site and healthy and safe working practices on site.

The Contractor shall be responsible for the health and safety aspects of his subcontractors and shall have the responsibilities and carry out the duties towards his subcontractors that the Employer has towards the Contractor.

With a few exceptions, the Standard Specifications and the Specification Data are "end result specifications" and not "method

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

specifications". As the methods of construction to be used are generally determined by the Contractor, detailed safety requirements applicable to all the operations to be carried out on Site are not provided in these documents. The Contractor shall apply all relevant safety regulations and requirements to the work methods he chooses and materials to be used.

The failure or refusal of the Contractor to comply with safety requirements or to take the necessary precautions for the health and safety of its employees and others on site as required by statutory authorities or as ordered by the Engineer, shall be sufficient cause for the reduction of payment of the relevant billed item and/or the suspension of payments under this Contract and/or for the Engineer to order a temporary halt of work within the affected areas until the specified or ordered requirement have been complied with to the satisfaction of the Engineer. No extension of time will be granted and any costs associated with such halt in construction or the provision of required or necessary precautions ordered by the Engineer shall be to the Contractor's expense.

C3.4.3.8 Risk assessment

Before the commencement of any construction work and where necessary during construction work, the Contractor shall cause a risk assessment to be performed by a competent person appointed in writing. The risk assessment shall at least:

- a) identify, analyse and evaluate the risks and hazards to which persons may be exposed;
- b) include a plan of safe working procedures;
- c) include a plan for monitoring and review of the implementation of such working procedures and their effectiveness to mitigate, reduce or control the risks and hazards identified and observed during construction; and
- d) determine the need and frequency, if any, of instruction and training of employees during construction.

As far as is reasonably practicable, ergonomic-related hazards shall be addressed in the risk assessment.

The Contractor's risk assessment shall be readily accessible to all persons on the Site at all times.

C3.4.3.9 Health and safety plan

Without limiting his obligations and liabilities in terms of the Construction Regulations, 2014 of the OHS Act, the Contractor, in his health and safety plan to be submitted in terms of the Contract Data,

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

shall inter alia deal with the safety provisions he will set up in respect of the aspects specified below.

After performing the risk assessment, the Contractor shall prepare the health and safety plan for approval by the Employer. The health and safety plan shall include, but not be limited to, the following: The health and safety management structure including the names of all designated persons such as the Site Agent, the Construction (Health and) Safety Officer and all other specifically appointed persons, listing their knowledge, training experience and qualifications in the work for which they are appointed. Health and safety method statements and procedures to be adopted to mitigate, reduce or control the risks and hazards that have been identified in the risk assessment and in the Specification Data and to ensure compliance with the OHS Act. Aspects to be dealt with shall include, if applicable:

- Control of the movement of construction vehicles;
- The storage, transport, stacking use and disposal of materials (in particular explosives, flammable liquids and materials that give off hazardous fumes);
- The use of tools, vehicles and plant;
- Public vehicular and pedestrian traffic accommodation measures;
- Security, access control and the exclusion of unauthorised persons;
- Temporary support structures;
- Dealing with working at height, including fall protection;
- Excavation work including potential collapse and slipping of excavated faces;
- Demolition work;
- Workshop activities, manufacture and maintenance work.
- The formation and operation of a health and safety committee on site;
- Medical fitness assessment of drivers and operators;
- Medical facilities and arrangements on site;
- Fire and emergency procedures;
- Commissioning and testing procedures;
- Induction and training of persons on and visiting the site;
- The provision and use of temporary services;
- Compliance with wayleaves, permissions and permits;
- Safety equipment, devices and clothing to be employed;
- General housekeeping, site organisation and layouts to enhance safety;
- Other specific aspects of work such as electrical installations and machinery, tunnelling, structures and working in water environments;
- Emergency procedures (including fire precautions);
- Procedures for reporting incidents, including standard forms for this purpose;
- Provision of welfare facilities;

Contractor

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Employer

Witness 1

Witness 2

- The programme and format of inspections;
- Arrangements for monitoring, control and auditing to ensure compliance with the health and safety plan;
- Procedures for addressing non-compliance and remedial measures;
- A periodic review of the health and safety plan.

The Contractor shall discuss the health and safety plan with the Employer or his/her appointed Agent with respect to health and safety matters or the Engineer and amend it as necessary in order to achieve approval.

The approved health and safety plan shall be implemented and maintained on the site for the duration of construction, and shall be readily accessible to all persons at all times.

C3.4.3.10 Site establishment and management

C3.4.3.10.1 Construction Safety Officer and other appointments

The Contractor shall appoint a competent employee in writing as his full-time or part-time Construction (Health and) Safety Officer in each of the five District Municipality Areas to assist in the control of all safety related aspects on the site. Where practicable, the Construction (Health and) Safety Officer shall give input into the health and safety plan. Any such input shall be recorded in the health and safety file. The Construction (Health and) Safety Officer shall carry out regular and random checks of all parts of the site where work is taking place.

The Contractor shall appoint such other competent persons to specific roles as required elsewhere in this Specification and/or the Construction Regulations in each of the five District Municipality Areas.

C3.4.3.10.2 Safety of the general public

The Contractor shall be responsible for the safe and easy passage of public traffic past and/or over sections of roads and the site of which he has occupation. The Contractor shall take the necessary care at all times in all his operations and use of his equipment to protect the public and to facilitate the flow of pedestrian and vehicular traffic.

C3.4.3.10.3 Barricading etc

Openings and edges where there is a risk of a person falling through or off shall be adequately guarded, fenced or barricaded. (See also Sub-clause 5.1.1.1 of SANS 1200 D, if applicable.)

Excavations where the safety of persons may be endangered shall be adequately barricaded or fenced and shall be illuminated at night.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3.4.3.10.4 Signage

Warning signage shall be in accordance with the South African Road Traffic Sign Manuals for the painting of Millings.

C3.4.3.10.5 Access to the site

Not Applicable

C3.4.3.10.6 Wayleaves, permissions and permits

The Contractor shall abide by the health and safety conditions imposed by any wayleaves, permissions or permits.

C3.4.3.10.7 Reporting of infringements, improvements and incidents

The Contractor shall establish a procedure for the reporting of health and safety infringements and suggested improvements to the Construction (Health and) Safety Officer who shall record all such infringements and suggested improvements.

All incidents shall be reported strictly in accordance with the requirements of Section 24 of the OHS Act and the General Conditions of Contract.

C3.4.3.10.8 Works committee

The Contractor shall establish a health and safety works committee on site. The committee shall comprise:

- a) Construction (Health and) Safety Officers;
- b) representatives of the contractor's supervisory staff;
- c) representatives of the various categories of the Contractor's workforce elected by the workforce.

A member of the Engineer's staff, nominated by the Engineer shall be notified of meetings and shall be free to attend.

The Contractor shall ensure that no loss of pay or benefits apply to any employee elected to the committee.

The functions of the health and safety works committee shall be to, inter alia:

- a) review, consider and report on any health and safety aspect on site, including health and safety procedures and method statements with

Contractor

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Witness 2

Employer

Witness 1

Witness 2

- the purpose of monitoring their effectiveness or shortcomings and to recommend changes where considered necessary;
- b) carry out regular inspections, review results and make recommendations where necessary;
 - c) investigate unsafe practices.

The committee shall meet at regular intervals not exceeding one month. Minutes of the meetings shall be kept by the Contractor and copied to the Engineer within 10 days of each meeting.

C3.4.3.10.9 Outbreak of illness

In the event of any outbreak of illness of a highly contagious or epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the relevant authorities.

C3.4.3.10.10 First aid

The Contractor shall ensure that the necessary first aid facilities and emergency evacuation equipment is available on Site whenever persons are working on site.

Each foreman or work crew member shall be trained in first aid and shall possess a valid certificate to that effect issued by the Red Cross Society of SA, St Johns Ambulance or equivalent, within 3 months of their appointment.

C3.4.3.10.11 Lighting and power circuits

All lighting and power circuits shall be fitted with earth leakage systems. Such systems shall be tested monthly and any circuit where the earth leakage system is malfunctioning shall be repaired immediately or removed and replaced with a satisfactory unit.

C3.4.3.10.12 Lightning protection equipment

In areas where lightning is considered a hazard, the Contractor shall take precautions by the use of lightning protection equipment and earthing mats, all of which shall be properly designed and installed. Metalwork and conductors shall be properly earthed.

C3.4.3.11 Training

All employees shall be trained in the tasks they are to perform and in use of the tools they are required to use.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

All operators shall be trained in the use and operation of the plant they are required to operate.

Before any work commences and thereafter at such times as may be determined in the risk assessment, the Contractor shall ensure that all his employees on site are informed, instructed and trained by a competent person regarding the risks and hazards identified in the risk assessment and their related and other work procedures.

Every employee shall carry proof of his or her health and safety induction training.

C3.4.3.12 Notification of construction work

Before carrying out any work the Contractor shall issue any applicable notification in terms of Section 4(1) of the Construction Regulations.

C3.4.3.13 Health and safety documentation

The Contractor shall provide and maintain on site a health and safety file. The health and safety file shall be made available upon request. The health and safety file shall contain a copy of the completed notification form and if applicable:

- the risk assessment,
- the approved health and safety plan (including that of any subcontractors),
- a record of all drawings, designs and materials used etc.

On completion of construction the file shall be handed over to the Employer.

Where applicable, the Contractor shall maintain on site:

- a record of any input to the health and safety plan by the Construction (Health and) Safety Officer,
- a comprehensive and updated list of all subcontractors on site including a copy of their agreements and the type of work being done,
- a register of the issuing and receipt of unspent and spent cartridges,
- a register of inspection of construction vehicles and mobile plant,
- a register of excavation and shoring inspections,
- records of fitness for and training of employees working at elevated positions,
- records of structure inspections by the designer,
- a register of formwork and support work inspections,
- findings of daily inspections of construction vehicles and mobile plant,

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- a register of inspections of all temporary electrical installations and machinery,
- minutes of health and safety committee meetings.

C3.4.3.14 Specific aspects of construction

Where applicable, the aspects in the following clauses shall be specifically addressed.

C3.4.3.14.1 Fall protection

(see also Section 10 of the Construction Regulations)

For work where there is a fall risk, the Contractor shall:

- a) designate a competent person responsible for the preparation of a fall protection plan as part of the health and safety plan,
- b) employ on work at elevated positions only those who have been evaluated and shown to be physically and psychologically fit for such work,
- c) erect suitable fall prevention and, if necessary, fall arrest equipment.

C3.4.3.14.2 Structures

(see also Section 11 of the Construction Regulations)

The Contractor shall take all reasonably practical steps to prevent the uncontrolled collapse of any new and existing structure, or part thereof, that may be temporarily weak or unstable due to construction work being carried out.

No structure shall be loaded in a manner that would render it unsafe.

C3.4.3.14.3 Excavation work

(see also Section 13 of the Construction Regulations)

Without limiting his responsibility for the safety of his workers in any excavation, the Contractor shall ensure the safety of his workers in trenches and excavations deeper than 1,0 m in terms of the provisions of the OHS Act The Contractor may choose to batter excavations to a safe slope if sufficient space is available, or adequately shore the excavations.

A competent person shall be appointed in writing to supervise the carrying out of all excavation work.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Before excavation work begins, the Contractor shall evaluate as far as is reasonably practicable, the stability of the ground.

The Contractor shall not permit or require any person to work in an excavation that has not been adequately shored or braced or the sides of which are not sloped to at least the maximum angle of repose.

Should the Contractor consider that an excavation is in stable material and consequently no shoring is required for that excavation, he shall provide to the Engineer, in terms of Sub-regulation 13(3)(b)(ii)(a) a written statement to that effect signed by the competent person appointed in terms of Sub-regulation 13(1).

Where the stability of an adjoining building, structure or road is likely to be affected by an excavation, the Contractor shall ensure that steps are taken to ensure the safety of the building, structure or road.

Every excavation, including all shoring and bracing, shall be inspected by the above competent person:

- a) daily, prior to each shift,
- b) after every blasting operation,
- c) after an unexpected fall of ground,
- d) after substantial damage to supports, and
- e) after rain.

The results of such inspections shall be recorded in a register.

A person who is competent in the use of explosives for excavation work, shall be appointed to develop a method statement in accordance with the applicable explosives legislation.

C3.4.3.14.4 Demolition work

(see also Section 14 of the Construction Regulations)

A competent person shall be appointed in writing to supervise and control all demolition work.

Prior to any demolition work being carried out a detailed structural engineering survey of the structure to be demolished shall be carried out and the method of demolition shall be ascertained therefrom.

A competent person shall be appointed to and shall inspect and control all temporary electrical installations and machinery.

C3.4.3.14.5 Tunnelling

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

(See Section 15 of the Construction Regulations)

C3.4.3.14.6 Suspended platforms

(See Section 17 of the Construction Regulations)

C3.4.3.14.7 Electrical installations and machinery

(See Section 24 of the Construction Regulations)

A competent person shall be appointed to and shall inspect and control all temporary electrical installations and machinery.

C3.4.3.14.8 Water environments

(See also Section 26 of the Construction Regulations)

Where construction work is carried out close to or over water, provision shall be made for preventing employees from falling into the water and for rescuing employees in danger of drowning. Employees shall be provided with and shall wear lifejackets.

A competent person shall be appointed to and shall inspect at regular intervals, the fire extinguishing equipment.

A sufficient number of employees shall be trained in the use of the fire extinguishing equipment Where appropriate signs shall indicate fire escape routes.

C3.4.3.14.9 Housekeeping

(see Section 27 of the Construction Regulations)

C3.4.3.14.10 Fire precautions

(see Section 29 of the Construction Regulations)

Suitable and sufficient fire-extinguishing equipment shall be placed at strategic locations.

A competent person shall be appointed to and shall inspect at regular intervals, the fire extinguishing equipment.

A sufficient number of employees shall be trained in the use of fire extinguishing equipment.

Where appropriate signs shall indicate fire escape routes.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C3.4.3.14.11 Welfare provisions

(see also Section 30 of the Construction Regulations)

C3.4.3.14.12 Small diameter shafts and test pits

Work in small diameter shafts and test pits shall comply with the Code of Practice: The Safety of Persons Working in Small Diameter Shafts and Test Pits for Civil Engineering Purposes, available from the South African Institution of Civil Engineers or the South African Association of Engineering Geologists.

C3.4.3.15 Audits by the Employer

The Contractor shall permit the Employer to regularly audit, at an agreed interval, the implementation and maintenance of the approved health and safety plan and shall co-operate and provide all the required documentation, as may be required, in this regard.

As a result of such audits the Employer may order improvements to be made to the health and safety plan.

C3.4.3.16 Variations

Should any variations be ordered or design amendments issued the Engineer will inform the Contractor of all the associated potential hazards to ensure that the health and safety aspects of the work ordered are taken into account.

C3.8. MEASUREMENT AND PAYMENT

C3.8.1 Basic principles

C3.8.1.1 General

In addition to those aspects covered by C3.8.2 below, Occupational Health and Safety aspects related to particular items of work will be held to be covered by the tendered sum or rate for that work.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (C108/2021)

FOR
THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING

Part C4. Site Information

C4.1	Location Maps	Page C4.1-246
C4.2	Tender Drawings	Page C4.2-248

Contractor

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Witness 2

Employer

Witness 1

Witness 2

FREE STATE PROVINCIAL GOVERNMENT
DEPARTMENT OF POLICE, ROADS AND TRANSPORT
PR&T (C108/2021)

FOR
THE SPECIAL MAINTENANCE OF ROAD (P41/2)
FRANKFORT - TWEELING

Part C4.1 Location Maps

Maps indicating the surface roads in Table C3.1.4.1 are attached at:

- Annexure A - Location Map of Reitz - Tweeling

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

ANNEXURE A



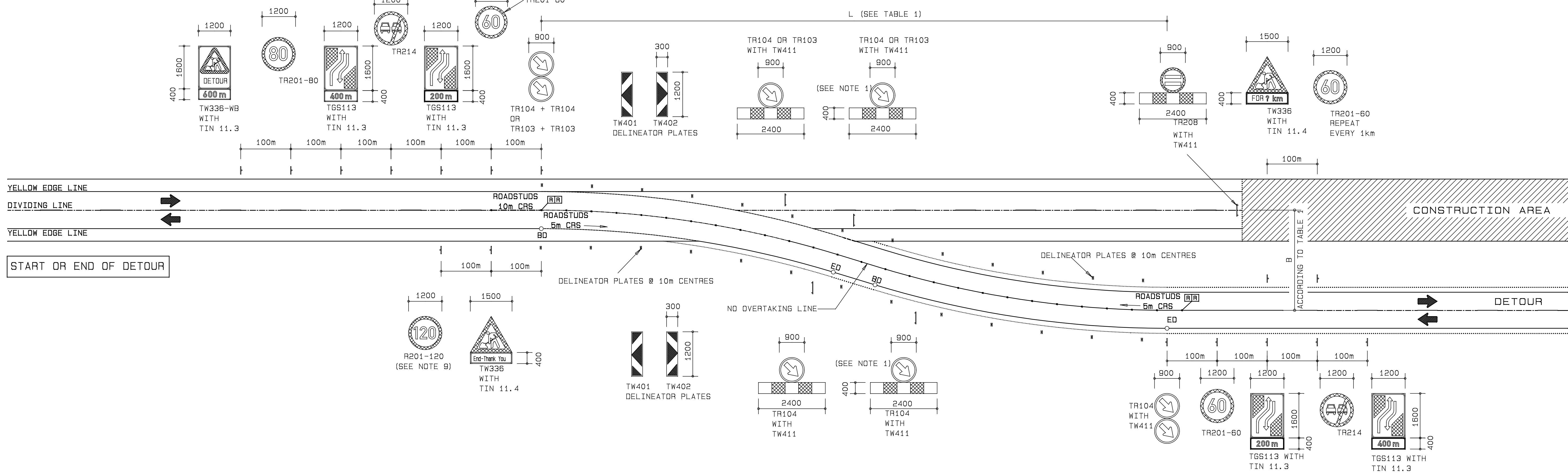
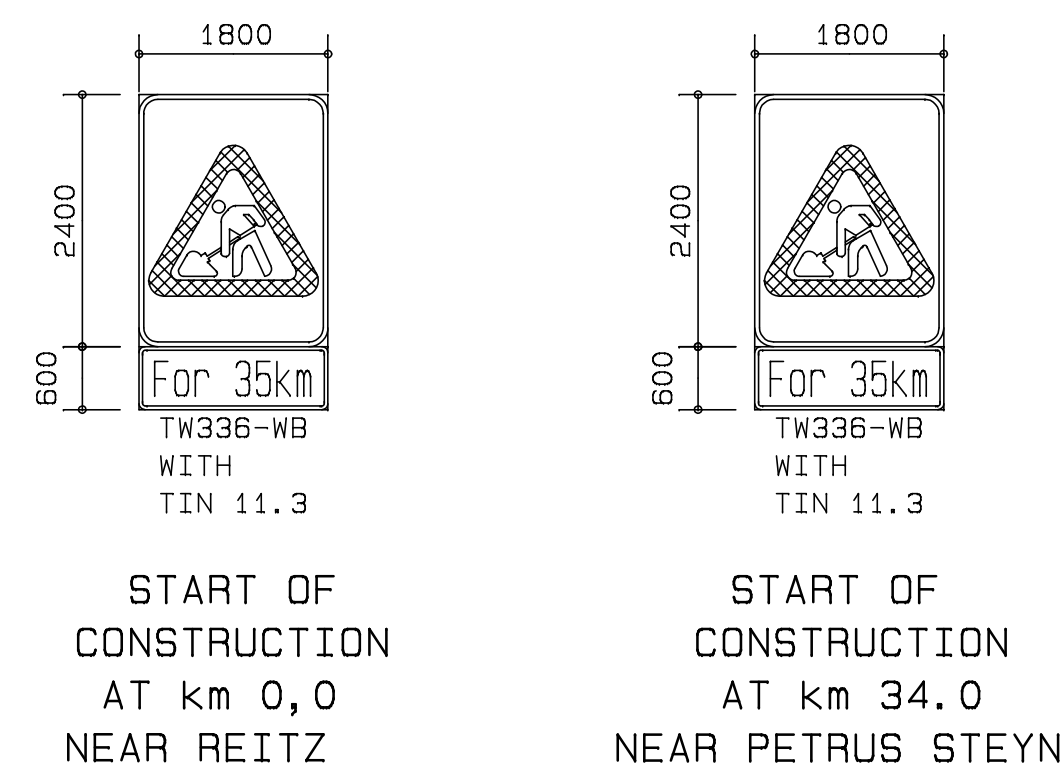
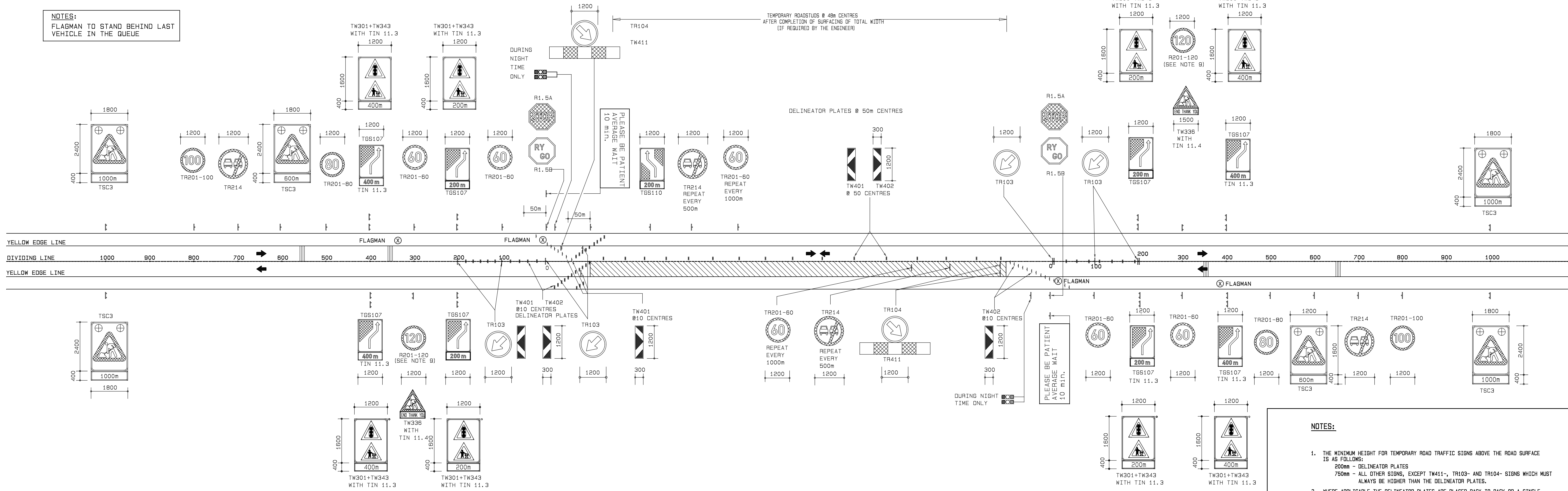


TABLE 1 STAKING DATA FOR CURVE WITH 200m RADIUS			
B (m)	L (m)	TL	DEFLECTION ANGLE
8	79,6	20,00	11-25-16
10	88,9	22,22	12-40-49
12	97,2	24,49	13-57-44
15	108,5	27,27	15-31-49
18	118,6	30,00	17-03-42
20	124,9	32,00	18-10-50
25	138,2	35,71	20-14-58
30	152,0	39,22	22-11-15
40	174,6	43,32	24-26-38
50	198,6	43,32	24-26-38
60	218,6	43,32	24-26-38
70	240,6	43,32	24-26-38

TEMPORARY BYPASS

NOTES:
FLAGMAN TO STAND BEHIND LAST
VEHICLE IN THE QUEUE



HALF-WIDTH CONSTRUCTION (EXTENDED LENGTH)

- NOTES:
- THE MINIMUM HEIGHT FOR TEMPORARY ROAD TRAFFIC SIGNS ABOVE THE ROAD SURFACE IS AS FOLLOWS:
200mm - DELINEATOR PLATES
750mm - ALL OTHER SIGNS, EXCEPT TW411-, TR103- AND TR104- SIGNS WHICH MUST ALWAYS BE HIGHER THAN THE DELINEATOR PLATES.
 - WHERE APPLICABLE THE DELINEATOR PLATES ARE PLACED BACK TO BACK OR A SINGLE PLATE WITH SIGNS BOTH SIDES CAN BE USED, SPACING OF SIGNS AS SHOWN.
 - THE TR20B- SIGN (NO UNAUTHORISED VEHICLES) WITH TW411- SIGN (TEMPORARY BARRICADE) MUST BE USED ONLY WHERE THE EXTENT OF ROAD SURFACE UNDER CONSTRUCTION IS STILL CLOSED FOR TRAFFIC, BUT APPEARS TO BE COMPLETE.
 - PLASTIC STANDS FOR DELINEATOR PLATES MAY BE USED WHEN AUTHORISED BY THE ENGINEER.
 - THE TW33B - AND TR201-60-SIGNS MUST BE REPEATED EVERY KILOMETER.
 - TIN1,2 - SIGNS MUST BE FIXED UNDERNEATH THE TW33B - SIGNS WHEN THE RESURFACE SECTION EXCEEDS 6KM.
 - WHEN AN ASPHALT LAYER IS APPLIED TO THE ROAD SURFACE IT MAY BE NECESSARY TO USE TW340 OR TW341 - LEVEL DIFFERENCE SIGNS IN THE PLACE OF, OR ADDITIONAL TO THE TW33B SIGNS WHERE LEVEL DIFFERENCES OCCUR.
 - ALL ROAD TRAFFIC SIGNS MUST COMPLY WITH THE REQUIREMENTS LAID DOWN IN SADC RTSM 1997 AND SARTSM VOL.2 CHAPTER 13 OF 1999.
 - THE R201-80, R201-100 OR R201-120 SIGN MUST BE SHOWN IN ACCORDANCE WITH THE STATUS OF THE ROAD IF NO OTHER WORK IS BEING UNDERTAKEN.

TYPICAL PLAN FOR CONSTRUCTION AND MAINTENANCE
ON FREE STATE PROVINCIAL ROADS

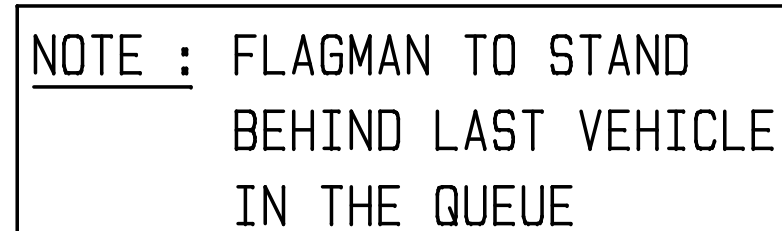


FREE STATE PROV. GOVERNMENT
DEPARTMENT OF PUBLIC WORKS
ROADS AND TRANSPORT
CHIEF DIRECTORATE
ROADS

SCALE OF REDUCTION
50mm ON ORIGINAL PLAN
SCALE
AS SHOWN

TEMPORARY CONSTRUCTION ROAD SIGNS

PLAN EDITION:
2008
PLAN NUMBER:
9



1. THE MINIMUM HEIGHT FOR TEMPORARY ROAD TRAFFIC SIGNS ABOVE THE ROAD SURFACE IS AS FOLLOWS:
200mm - DELINEATOR PLATES
750mm - ALL OTHER SIGNS, EXCEPT TW411-, TR103- AND TR104- SIGNS WHICH MUST ALWAYS BE HIGHER THAN THE DELINEATOR PLATES.
2. WHERE APPLICABLE THE DELINEATOR PLATES ARE PLACED BACK TO BACK OR A SINGLE PLATE WITH SIGNS BOTH SIDES CAN BE USED. SPACING OF SIGNS AS SHOWN.
3. THE TR208- SIGN (NO UNAUTHORISED VEHICLES) WITH TW411- SIGN (TEMPORARY BARRICADE) MUST BE USED ONLY WHERE THE EXTENT OF ROAD SURFACE UNDER CONSTRUCTION IS STILL CLOSED FOR TRAFFIC, BUT APPEARS TO BE COMPLETE.
4. PLASTIC STANDS FOR DELINEATOR PLATES MAY BE USED WHEN AUTHORISED BY THE ENGINEER.
5. THE TW338 - AND TR201-60-SIGNS MUST BE REPEATED EVERY KILOMETER.
6. TIN11.2 - SIGNS MUST BE FIXED UNDERNEATH THE TW338 - SIGNS WHEN THE RESURFACE SECTION EXCEEDS 6KM.
7. WHEN AN ASPHALT LAYER IS APPLIED TO THE ROAD SURFACE IT MAY BE NECESSARY TO USE TW340 OR TW341 - LEVEL DIFFERENCE SIGNS IN THE PLACE OF, OR ADDITIONAL TO THE TW338 SIGNS WHERE LEVEL DIFFERENCES OCCUR.
8. ALL ROAD TRAFFIC SIGNS MUST COMPLY WITH THE REQUIREMENTS LAID DOWN IN SADC RTSM 1997 AND SARTSM VOL.2 CHAPTER 13 OF 1999.
9. THE R201-80, R201-100 OR R201-120 SIGN MUST BE SHOWN IN ACCORDANCE WITH THE STATUS OF THE ROAD IF NO OTHER WORK IS BEING UNDERTAKEN.

