



GAUTENG PROVINCE

ROADS AND TRANSPORT
REPUBLIC OF SOUTH AFRICA

TENDER No. DRT 36/11/2019

FOR

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM.

**PROCUREMENT DOCUMENT
(BASED ON GCC 2015 THIRD EDITION)**

JUNE 2021

ISSUED BY:



GAUTENG PROVINCE
ROADS AND TRANSPORT
REPUBLIC OF SOUTH AFRICA

**The Head of department
Department of Road and Transport
Private bag X83
Marshalltown
2017**

PREPARED BY:

AFENG CONSULTING ENGINEERS

ENGINEERS • DEVELOPMENT CONSULTANTS • PROJECT MANAGERS



**AFENG Consulting Engineers
39 Blignaut Street
Hilton
Bloemfontein
9301
Cell: (073) 462 3652
Fax: (051) 444 6882**

Tenderer's Name:

Address:

Tel No: **Fax:**

Email address:

B-BBEE Status Level:

CIBD Registration No. :

Total price including VAT:

Amount in words:

CONTENTS

THE TENDER

PART T1: TENDERING PROCEDURES

T1.1	Tender Notice and Invitation to Tender –	White pages
T1.2	Tender Data –	Pink pages

PART T2: RETURNABLE DOCUMENTS

T2.1	Returnable Schedules required for Tender Evaluation –	Yellow pages
T2.2	Other Documents required for Tender Evaluation –	Yellow pages
T2.3	Returnable Schedules that will be incorporated into the Contract –	Yellow pages

THE CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

C1.1	Form of offer and acceptance –	White pages
C1.2	Contract Form (SBD 7.1) –	White pages
C1.3	Agreement in terms of OHS Act –	White pages
C1.4	Form of Guarantee –	White pages
C1.5	Contract Data –	Yellow pages

PART C1: PRICING DATA

C1.1:	Pricing Instructions	– Yellow pages
C1.2:	Bills of Quantities	– Yellow pages
C1.3:	Summary of Schedule	– Yellow pages
C1.4:	Calculation of Tender Sum	– Yellow pages

PART C2: SCOPE OF WORK

C2:	Description of Work	– Blue pages
C2.1:	Description of Works	– Blue pages
C2.2:	Engineering	– Blue pages
C2.3:	Procurement, Local Labour and Training	– Blue pages
C2.4:	Construction	– Blue pages
C2.5:	Management	– Blue pages

PART C2: SITE INFORMATION

C2:	Site Information	– Green pages
C2.1:	Extract from the Transport Infrastructure Act 2001	– Green pages
C2.2:	Site Information	– Green pages
C2.3:	Locality Plan	– Green pages
C2.4:	Record of Decisions	- Green pages

THE TENDER

PART T1: TENDERING PROCEDURES

PART T2: RETURNABLE DOCUMENTS

PART T1: TENDERING PROCEDURES

T1.1	TENDER NOTICE AND INVITATION TO TENDER.....	7
T1.2	TENDER DATA.....	15

**TENDER No. DRT 36/11/2019**

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T1.1 TENDER NOTICE AND INVITATION TO TENDER

THE GAUTENG PROVINCE, DEPARTMENT OF ROADS AND TRANSPORT REQUESTS INTERESTED TENDERERS TO BID FOR THE FOLLOWING TENDER:

TENDER NUMBER	SERVICE	CIDB LEVEL	COMPULSORY SITE BRIEFING	CLOSING DATE
DRT 36/11/2019	Construction of road p1-1 (R82) (K57) phase 3 from D1073 (Walkerville) to K164 (De deur) – (approximately 11.3km) and road K164 between road D904 and road D905 (approximately 4.1km). A total of approximately 15.4km.	9 CE	Venue: Gauteng Department of Roads & Transport, 1215 Nico Smith Street (previous Michael Brink Street), Koedoespoort Time: 11h00 Date: 29 June 2021 To comply with COVID-19 regulations minimum numbers the meeting will be split into two. 1. Time: 10:00 to 11H30 am 2. Time 12H00 to 13H30pm NB: Failure to attend the compulsory briefing session will result in disqualification of the bidder	22 July 2021 At 11H00 Tender Box: - Gauteng Department of Roads & Transport, Ground Floor, Life Centre Building 45 Commissioner Street, Johannesburg Responders are advised to timeously submit documents earlier than closing date to avoid crowding.

The Gauteng Department of Roads and Transport adhere to all relevant Acts including, the Constitution of the Republic of South Africa of 1996, the Black Economic Empowerment Act No.53 of 2003, Preferential Procurement Policy Framework Act No.5 of 2000, Employment Equity Act No. 55 of 1998 and the Public Finance Management Act No 1 of 1999.

The Department will be applying the 90/10 preference point system in accordance with Regulation 7 of the Preferential Procurement Regulations, effective from 1 April 2017. Broad-Based Black Economic Empowerment (B-BBEE) status level certificates will be considered in accordance with:

- Regulation 9 of National Treasury's Implementation Guide: Preferential Procurement Regulations 2017, effective from 1 April 2017

Bidders who do not meet the pre-qualification criteria below will be disqualified and will not be considered further in the evaluation process:

1. Tenderers (including a trusts, JV's and consortia) must have a level 1 or level 2 B-BBEE status level.
2. Bidders who do NOT qualify as Exempted Micro Enterprises (EME's) or Qualifying Small Enterprises (QSE's) must submit original B-BBEE verification certificates or certified copies which have been prepared by an agency that is accredited by SANAS (South African National Accreditation System).
3. A Qualifying Small Enterprises (QSE) is required to submit a valid original or certified copy of their sworn affidavit confirming their annual total revenue of between R10 million and R50 million and level of black ownership to claim points as prescribed by the Preferential Procurement Regulations 2017.
4. An Exempted Micro Enterprise (EME) is required to submit a sworn affidavit confirming their annual total revenue of R10 million or less and level of black ownership to claim points as prescribed by the Preferential Procurement Regulations 2017.
5. Affidavits submitted by bidders in support of their B-BBEE level should comply with the Department of Trade and Industry (DTI) format which can be found on the CIPC and / or the DTI website.
6. All trusts, consortia and joint ventures must obtain and submit original or certified copies of a consolidated B-BBEE Status Level Verification Certificate which have been prepared by an agency that is accredited by SANAS (South African National Accredited System). Failure to do so will result in the bidder being disqualified. Public entities and tertiary institutions must also submit B-BBEE Status Level Verification Certificates which have been prepared by an agency that is accredited by SANAS (South African National Accredited System) together with their bids.

Bidders who fail to submit a valid original or certified copy of their B-BBEE Certificate or Sworn Affidavit will be regarded as nonresponsive bidders and be disqualified. Sworn Affidavits and certification as a "true copy of the original", must comply with the requirements outlined in the Justices of the Peace and Commissioners of Oaths Act, No 16 of 1963 and its Regulations promulgated in Government Notice GNR 1258 of 21 July 1972 Justices of the Peace and Commissioners of Oaths Act, No. 16 of 1963.

NB: The submission of a fraudulent B-BBEE certificate and / or Sworn Affidavit will result in the bidder being disqualified and criminal proceedings being instituted against the bidder. The bidder, the shareholders and / or directors will further be restricted from doing business with any organ of the state for a maximum period of 10 years.

Sub-Contracting as a condition of tender

1. The Bidder must sub-contract a minimum of 30% of the contract as stipulated in section 9(2) (b-h) in the PPR Regulations 2017.
2. The Bidder must attach (as part of the submission) a copy (ies) of the sub-contractor's document which discloses the B-BBEE status level of the sub-contracting entity and signed subcontracting agreement. Such a document should comprise an affidavit (certified by a Commissioner of Oaths) or B-BBEE status level certificate. Only originals or certified copies (certification not older than three months) will be accepted.
3. Those sub-contractors who will be involved in the execution of construction works must be registered with the CIDB and the value of their sub-contracts must be in line with their respective CIDB grading class of work (proof of CIDB grading to be attached for each sub-contractor), except sub-contractors who are not eligible for CIDB grading.
4. A signed subcontracting agreement specifying the following must be included in bidder submissions:
 - scope of work with total financial amounts allocated.
 - the percentage of work allocated to each party in relation to the total scope of work.

NB / BIDDERS MUST ONLY SUBCONTRACT WITH SUB-CONTRACTORS ON THE CSD LISTS ADVERTISED WITH THE TENDER

Service	csd link	
Highway and road construction services	https://secure.csd.gov.za/Search/SupplierSearch?SupplierSearchFavouriteID=3408	DRT36/11/2019 A
Construction equipment rental or leasing service	https://secure.csd.gov.za/Search/SupplierSearch?SupplierSearchFavouriteID=3409	DRT36/11/2019 B
Sidewalk or ramp construction service	https://secure.csd.gov.za/Search/SupplierSearch?SupplierSearchFavouriteID=3411	DRT36/11/2019 C
Road and railroad construction materials	https://secure.csd.gov.za/Search/SupplierSearch?SupplierSearchFavouriteID=3413	DRT36/11/2019 D
Highway and road sign or guardrail construction and repair service	https://secure.csd.gov.za/Search/SupplierSearch?SupplierSearchFavouriteID=3410	DRT36/11/2019 E

COMPULSORY/MANDATORY TENDER REQUIREMENTS:

Failure to submit the following required documents will render the bidders tender disqualified:

- Proof from CIDB of current 9CE grading.
- The Construction Manager must be registered with ECSA as a Professional Civil Engineer/Professional Civil Engineering Technologist (PrEng/Tech) **OR** registered with SACPCMP as a Professional Construction Manager (PrCM). The prospective bidders must submit proof of registration with the mentioned professional bodies.
- Bidders must attend the compulsory site briefing as indicated above. The attendance register must be completed and will be used as proof of your attendance.
- Complete and signed all SBD documents i.e. SBD 4, SBD 6.1, SBD 8 and SBD 9 which form part of the tender document.
- Complete and sign SBD form 6.2 - Steal Products and Components for Construction required for the purpose of this tender is 100% designated (Local Content Threshold)
- In the case of joint ventures and consortia, a detailed signed agreement must be attached as part of the submitted tender document

NB: Bidders who are listed on the National Treasury's register of defaulters and restricted suppliers will be automatically disqualified.

OTHER KEY RETURNABLES:

- Valid Tax Clearance Certificate or Tax Compliance Pin issued by SARS. (A consortium or joint venture must submit a Tax Clearance Certificate for of each partner in the consortium or joint venture, including a consolidated Tax Clearance Certificate where applicable to existing entities).
- Registration Documents of all bidding entities with the Companies and Intellectual Property Commission (CIPC) OR Master of the High Court in South Africa.
- Central Supplier Database (CSD) registration summary report for all bidding entities
- Certified ID Copies of company directors or shareholders

(NB: the date of certification must be less than 3 months from the date of the bid closure)

Functionality will be scored out of 100 points and the **minimum threshold** to qualify is **70** points. Bidders who fail to meet the minimum threshold will not be considered for further evaluation. The evaluation criteria to score bidders on functionality is as follows:

FUNCTIONALITY CRITERIA				
<p>Key Personnel (Max 30 points) Bidders MUST complete T2.3 (forms B1 and B2) attached in the bid documents for key personnel and MUST clearly indicate roads construction or roads rehabilitation and/or roads upgrade experience, project description, duration and contactable references. NB: (Failure to complete T2.3 and submit certified copies of qualifications will result in the bidder getting zero points).</p>	<p>Company experience Experience in roads construction or roads rehabilitation and / or roads upgrades (Max 30 points) (Failure to submit required completion certificates will result in the bidder getting zero points) NB: Certificates must be sign by all relevant parties and as per applicable contract.</p>	<p>Plant and Equipment (Max 20 points) Bidders MUST complete Form T2.1 D: Schedule of Plant and Equipment (Failure to submit proof of ownership OR lease / hire agreements for plant and equipment will result in the bidder getting zero points)</p>	<p>Project plan (Max 10 points) (Failure to submit relevant documents which clearly indicate the requirements listed below will result in the bidder getting zero points)</p>	<p>Current Bank Rating (Max 10 points) (Failure to submit proof of bank rating from the relevant bank will result in the bidder getting zero points) NB: The period under review for bank ranking is 2019/2020 financial Year (1 March 2019 to 29 February 2020)</p>
<p>CONSTRUCTION MANAGER: registered with ECSA (PrEng/Tech) OR SACPCMP (PrCM) must be permanently based on the site for the duration of the project. A Construction Manager with roads construction or roads rehabilitation and/or roads upgrade experience, before and after professional registration, will be assessed as follows: (Max 10 points)</p> <p>Experience:</p> <ul style="list-style-type: none"> • 10 years or more experience in roads construction or roads rehabilitation and/or roads upgrade (10 points) • 5 years to less than 10 years' experience in roads construction or roads rehabilitation and/or roads upgrade (5 points) • Less than 5 years' experience in roads construction or roads rehabilitation and/or roads upgrade (0 points) <p>SITE AGENT: with at least an undergraduate degree OR diploma qualification in Civil Engineering OR Built Environment must be permanently based on the site for the duration of the project. The Senior Site Agent with roads construction or roads rehabilitation and/or roads upgrade experience, before and after qualification, will be assessed as follows: (Attach certified copies of academic qualifications) (Max 10 points)</p> <p>Experience:</p> <ul style="list-style-type: none"> • 10 years or more experience in roads construction or roads 	<p>Completed roads construction, roads rehabilitation and / or roads upgrades projects with completion certificates over the past ten (10) years will be assessed as follows: (Max 30 points)</p> <ul style="list-style-type: none"> • 3 or more projects completed: (30 points) • 2 projects completed: (20 points) • 1 project completed: (10 points) <p>Practical Completion certificates or equivalent will not be considered</p>	<ul style="list-style-type: none"> • 1 Pavement Recycling Machine (min 2.4m working width): (4 points) • 1 Asphalt Milling Machine: (4 points) • 2 Vibratory Steel Wheel Roller (9-12 tons): (4 points) • 2 Grader 140G or similar: (4 points) • 2 TLB (min 60kW): (2 points) <p>2Water cart (min 9000 litre capacity): (2 points)</p>	<p>Project Plan: Contractor's detailed and complete construction programme (Gantt Chart). The chart must clearly indicate the activities and timeframe from Letter of appointment to last payment certificate on the project. This will be assessed as follows: (10 points)</p> <ul style="list-style-type: none"> • Linkages between key activities: (3 points) • Indicate critical path: (5 points) • Completion date within the stipulated construction period: (2 points) 	<p>Rating A: (10 points)</p> <p>Rating B: (7 points)</p> <p>Rating C: (5 points)</p>

<p>rehabilitation and/or roads upgrade (10 points)</p> <ul style="list-style-type: none"> • 5 years to less than 10 years' experience in roads construction or roads rehabilitation and/or roads upgrade (7 points) • Less than 5 years' experience in roads construction or roads rehabilitation and/or roads upgrade (0 points) • <p>FOREMAN: must be permanently based on the site for the duration of the project. The Foreman with roads construction or roads rehabilitation and/or roads upgrade experience will be assessed as follows: (Max 5 points)</p> <p>Experience:</p> <ul style="list-style-type: none"> • 10 years or more experience roads construction or roads rehabilitation and/or roads upgrade (5 points) • 5 years to less than 10 years' experience in roads construction or roads rehabilitation and/or roads upgrade (3 points) • Less than 5 years' experience in roads construction or roads rehabilitation and/or roads upgrade (0 points) • <p>SAFETY OFFICER: a qualified / certified Safety Officer must be permanently based on the site for the duration of the project. The Safety Officer with roads construction or roads rehabilitation and/or roads upgrade experience, before and after qualification, will be assessed as follows: (Attach certified qualification / certification) (Max 5 points)</p> <p>Experience:</p> <ul style="list-style-type: none"> • 5 years or more experience in roads construction or roads rehabilitation and/or roads upgrade (5 points) • 1 year to less than 5 years' experience in roads construction (3 points) • Less than a year experience in roads construction or roads rehabilitation and/or roads upgrade (0 points) 				
---	--	--	--	--

Bidders should note the following:

- Where the proposed prices of critical materials to be supplied to the Department are considerably less than the expected market price or rates, the Department reserves the right to verify the proposed prices by requesting quotations from the supplier(s) cited in the compilation of the bid.
- Only suppliers who are registered on the National Centralized Supplier Database (CSD) will be considered for appointment.

- Bidders must sub-contract to EMEs or QSEs registered on the National Treasury CSD (Central Supplier Database). CSD Website www.csd.gov.za
- Potential suppliers must note that in terms of Departmental policy, the Department reserves the right to cancel a contract and blacklist any supplier for a period of at least 12 months if the supplier fails to adequately perform in terms of the awarded contract.
- The bid validity period is 120 days. However, the Department reserves the right to request all bidders to extend such validity period should the need arise.
- In terms of Occupational Health and Safety (OHS) Act the contractor is required to appoint a registered Safety officer with South African Council for the Project and Construction Management Professions (SACPCMP). Compliance in respect of the OHS is the responsibility of the contractor.
- individuals who can fully comprehend the scope and complexities of the work involved.
- The successful bidder will be required to enter into a formal contract with the Department. Such a contract will be governed in terms of the General Conditions of Contract dated 2015.
- In terms of the contractual commitments, bidders will be required to subcontract at least 30% of the contract value (excluding VAT) to SMMEs and developing companies/ entities in line with the contractual terms and conditions.
 - The minimum 30% of the rand value of the contract must be subcontracted to EME or QSE companies/ entities. The evidence supporting the sub-contracting arrangement (provided by respective bidders) will be subjected to the bid evaluation process during the pre-qualifying stage.
 - The percentage allocated to sub-contractor will take precedence over financial allocation if there is a discrepancy.
 - The bidders are required to fill in the schedule of proposed sub-contractors in the Tender document.
- The Department will not compensate the bidder for any costs incurred in the preparation and submission of a bid offer, including the costs of any tests which have been deemed as necessary in the demonstration of compliance with the stated requirements (forming part of this RFP).

A non-refundable amount of R500 (Five hundred Rand) will be levied per tender document. This amount is payable in cash or debit card between 09h00 and 15h00 at our Finance Section of the Gauteng Department of Roads and Transport, **ground floor Life Centre Building, 45 Commissioner Street, Johannesburg.**

Tender documents will be available for collection by prospective bidders upon presentation of the appropriate proof of payment to the Department. **These documents can be collected at ground floor, Life Centre Building, 45 Commissioner Street, Johannesburg, between 09h00 and 15h00.** Tender documents will be available from the 18 June 2021.

For the availability of the bid document and technical specification enquiries contact Supply Chain Management (SCM) on the following drt.scmbidadmin@gauteng.gov.za

OR Alternatively

Prospective bidders can download and print their own version of the tender document by accessing the eTender Publication Portal website (www.etenders.gov.za). Bidders are advised to ensure that all tender documents are properly bound upon submission on the closing date. Late bids (bids submitted after the closing date and time) will NOT be accepted. Bidders who opt to download the tender document from the above designated website will not be required to pay a R500 fee.

Bid Submission

Failure to submit all the required pages of the tender document MAY result in the bidder being disqualified or the submitted bid may be eliminated from the evaluation process by virtue of being deemed as non-responsive to the requirements of this RFP, or the bidder may forfeit the available points based on the defined evaluation criteria.

Electronic submissions of bids will **NOT** be accepted.

Telegraphic telephone, telex, facsimile, emails or similar apparatus of bids and late bids will NOT be accepted.

The Department's requirements, preferred criteria, proposed terms and conditions to be applied in the sealing, addressing, delivery, opening and assessment of bids, as stated in the Invitation to bid documents.

The Department reserves the right to cancel **OR** not to award this tender to any party.

Clearly numbered Bid Documents together with all applicable attachments must be deposited in the tender box at the ground floor, Life Centre Building, 45 Commissioner Street, Johannesburg, by no later than 11h00 on the closing date indicated above.

INVITATION TO BID

**YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE
DEPARTMENT OF ROADS AND TRANSPORT**

BID NUMBER	DRT 36/11/2019	CLOSING DATE	Date 22 July 2021	CLOSING TIME	11H00 AM
DESCRIPTION	CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM				

The successful bidder will be required to fill in and sign a written Contract Form (SBD 7.1).

BID DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AS INDICATED BELOW:

The Tender Document may be deposited in the tender box which is identified as the tender box of the Gauteng Department of Roads and Transport the GROUND FLOOR, LIFE CENTRE BUILDING, 45 COMMISSIONER STREET, JOHANNESBURG.

Bidders should ensure that bids are delivered timely to the correct address. If the bid is late, it will not be accepted for consideration.

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS – **(NOT TO BE RE-TYPED)**

THE DEPARTMENT RESERVES THE RIGHT TO DISQUALIFY BIDDERS FOR DISMANTLING THE TENDER DOCUMENTS

THIS BID IS SUBJECT TO THE GENERAL CONDITIONS OF CONTRACT (GCC Third Edition, 2015) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT

**THE FOLLOWING PARTICULARS MUST BE FURNISHED
(FAILURE TO DO SO MAY RESULT IN YOUR BID BEING DISQUALIFIED)**

NAME OF BIDDER			
POSTAL ADDRESS:			
STREET ADDRESS:			
TELEPHONE NUMBER :	CODE:	NUMBER:	
CELLPHONE NUMBER:			
FACSIMILE NUMBER :	CODE:	NUMBER:	
VAT REGISTRATION NUMBER			
HAS A TAX CLEARANCE CERTIFICATE BEEN SUBMITTED (SBD 2)?			YES/NO
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS/SERVICES OFFERED BY YOU?			YES/NO (IF YES ENCLOSE PROOF)
SIGNATURE OF BIDDER			
DATE			
CAPACITY UNDER WHICH THIS BID IS SIGNED			
I/We the undersigned (full name of the Tender)			

Hereby offer to execute and complete the above-mentioned service in accordance with the Drawings, Specifications, Bills of Quantities and conditions of contract for the amount indicated hereunder, and to provide all the labour, materials, workmanship, machinery plant and everything that is or may become necessary.			
Bid price:	R		
VAT:	R		
Total Bid amount:	R		
Is your price firm?	YES/NO		
Total tender amount in words			

T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in South African National Standard (SANS) 10845-3:2015, Construction Procurement, Part 3: Standard conditions of tender.

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

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

Clause number	Data
3.1	<p>The Employer is Gauteng Province Roads and Transport, Roads Branch. The Employer's domicilium citandi et executandi (permanent physical business address) is:</p> <p>Life Centre Building 45 Commissioner Street Marshalltown, Johannesburg, 2001</p>
3.2	<p>The documents listed below will form part of this contract.</p> <p>The tender documents issued by the employer comprise Volume 3 and 4. The employer does not supply Volumes 1, 2 and 2A. Tenderers are to acquire their own copies of these documents.</p> <p>Volume 1: The General Conditions of Contract for Construction Works (2015, 3rd Edition) published by the South African Institution of Civil Engineering, is applicable to this contract. Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering (Tel : 011 805 5947)</p> <p>Volume 2: The COLTO Standard Specifications for Roads and Bridge Works for State Road Authorities 1998, prepared by the Committee of Land Transport Officials, which the tenderer shall obtain from the South African Institution of Civil Engineering.</p> <p>Volume 2A: Supplementary Conditions of Contract for Road and Bridge Works for State Road Authorities in respect of the Employment of Emerging Contractors and Engagement of Labour – 2000 Edition.</p> <p>Volume 3: The project documents issued by the Employer comprise:</p> <p>The Tender</p> <p><i>Part T1: Tendering Procedures</i></p> <p>T1.1 Tender notice and invitation to Tender</p> <p>T1.2 Tender data</p> <p><i>Part T2: Returnable Documents</i></p> <p>T2.1 Returnable schedules for Tender evaluation</p> <p>T2.2 Other documents required for Tender evaluation</p> <p>T2.3 Returnable Schedules that will be incorporated into the Contract</p> <p>The Contract</p> <p><i>Part C1: Agreements and contract data</i></p> <p>C1.1 Form of offer and acceptance</p> <p>C1.1A Contract Form (SBD 7.1)</p> <p>C1.2 Agreement in terms of OHS Act</p> <p>C1.3 Form of Guarantee</p> <p>C1.4 Contract Data</p> <p><i>Part C1: Pricing data</i></p> <p>C1.1 Pricing instructions</p> <p>C1.2 Bills of Quantities</p> <p>C1.3 Summary of Bill of Quantities</p> <p>C1.4 Calculation of Tender Sum</p>

Clause number	Data										
	<p><i>Part C2: Scope of Works</i></p> <p>C2.1 Description of Work C2.2 Engineering C2.3 Procurement C2.4 Construction C2.5 Management</p> <p><i>Part C2: Site Information</i></p> <p>C2.1 Extract from the Transport Infrastructure Act 2001 (Act No 8 of 2001) C2.2 Site Information C2.3 Locality Plan C2.1 Geotechnical Report</p> <p><i>Part C3: Annexures</i></p> <p>C3.1 Environmental Authorisation C3.2 Environmental Management Programme C3.3 Covid 19 Construction Site Management Procedure C3.4 Health And Safety Specification</p> <p>Volume 4: The drawings: Issued only on CD for tender purposes</p>										
3.4	<p>The employer's agent is:</p> <p>Name: AFENG Consulting Engineers Address: 39 Bignaut street, Hilton, Bloemfontein, 9301 Tel: 073 462 3652 Fax: 051 444 - 6882 E-mail: ceo@afeng.co.za</p>										
4.1.1	<p>- CIDB registration</p> <p>Only those tenderers who are registered with the CIDB, at close of tender and for the duration of the Tender offer validity period, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations, for a 9 CE class of construction work are eligible to have their tenders evaluated.</p> <p>4.1.1 Tenderers registered as potentially emerging enterprises but with a CIDB contractor grading designation lower 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, are not eligible to have their tenders evaluated.</p> <p>For the sake of clarity and subject to satisfactory proof of a tenderer's ability to perform the work specified at the tendered value, the Employer lists in the table below the margins it considers reasonable. However, in the event that the sum tendered exceeds the margins shown then such tender shall be deemed non-responsive.</p> <table border="1"> <thead> <tr> <th>Category of tender</th> <th>Upper limits per CIDB Regulation 17</th> </tr> </thead> <tbody> <tr> <td>CE 5</td> <td>R10m</td> </tr> <tr> <td>CE 6</td> <td>R20m</td> </tr> <tr> <td>CE 7</td> <td>R60m</td> </tr> <tr> <td>CE 8</td> <td>R200m</td> </tr> </tbody> </table>	Category of tender	Upper limits per CIDB Regulation 17	CE 5	R10m	CE 6	R20m	CE 7	R60m	CE 8	R200m
Category of tender	Upper limits per CIDB Regulation 17										
CE 5	R10m										
CE 6	R20m										
CE 7	R60m										
CE 8	R200m										

Clause number	Data	
4.1.1	CE 9	No Limit
	<p>Joint Ventures are eligible to submit tenders provided that:</p> <ul style="list-style-type: none"> - every member of the joint venture is registered with the CIDB; - a signed Joint Venture Agreement must be attached with the tender; - a valid copy of a consolidated B-BBEE Certificate for the Joint Venture must be attached with the tender in order to qualify for B-BBEE points as defined in SBD 6.1 - the lead partner has a contractor grading designation in the 8 CE 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 9 CE class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations. <p>Failure to comply with the requirements will render the tender non-responsive.</p> <ul style="list-style-type: none"> - Key Personnel <p>In order to be considered for an appointment in terms of this tender, the tenderer must have in its permanent employment key personnel who will be the single point accountability and responsibility for the management of the construction works. Alternatively, a signed undertaking from an organisation having the required personnel, stating that they will undertake the necessary work on behalf of the tenderer in terms of a sub-contractor agreement, will be acceptable. Such undertaking must be attached to Form T2.1 M of the Returnable Schedules.</p> <p>Individuals must be identified for each of the key personnel listed under Form T2.1 M.</p> <p>Key personnel required for this contract are as follows:</p> <ul style="list-style-type: none"> - Construction Manager - Site Agent - Foreman - Safety Officer <p>The Construction Manager must be registered with ECSA as an active Professional Civil Engineer/Professional Civil Engineering Technologist (Pr Eng/Tech) OR registered with SACPCMP as a Professional Construction Manager (Pr CM). The prospective tenderers must submit proof of registration with the mentioned professional bodies. Certified copies of the professional registration certificate or the applicable registration number must be attached as part of the tenderer's tender documents.</p> <p>Tenderers MUST complete T2.3 B (B1 and B2 forms) attached in the tender documents for key personnel that will be involved with the project and MUST clearly indicate the personnel's road construction experience, project description, duration and contactable references. Failure to complete T2.3 B and submit certified qualifications will result in the tenderer not getting quality points for key personnel.</p> <p>Where the key personnel are no longer available to undertake the necessary work after the award of the tender, the contractor shall within a period of 14 working days replace the key personnel listed in Form T2.1 M with personnel with equivalent competencies and subject to approval by the Employer. Such approval shall not be unreasonably withheld.</p> <ul style="list-style-type: none"> - Empowerment <p>The minimum requirements for the empowerment of sub-contractors, women, youth local labour and training are provided in Section C3.3 – PROCUREMENT, LOCAL LABOUR AND TRAINING</p> <p>The Tenderers MUST note that a minimum of 40% will be subcontracted on the project, of which 30 % will be evaluated as part of the mandatory prequalification criteria as contain on the tender notice.</p>	
4.2	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	

Clause number	Data
	meeting(s) and any testing necessary to demonstrate that aspects of the offer complies with requirements.
4.6	Failure to apply instructions contained in addenda may render a tenderer's offer non-responsive in terms of Condition of Tender 5.8.
4.7	<p>The arrangements for a compulsory clarification meeting are:</p> <p>Location: Gauteng Department of Roads and Transport, 1215 Nico Smith Street (Previously Michael Brink Street), Koedoespoort.</p> <p>Date : 29 June 2021</p> <p>To comply with COVID-19 regulations minimum numbers the meeting will be split into two.</p> <ol style="list-style-type: none"> 1. Time: 10:00 to 11H30 am 2. Time 12H00 to 13H30pm <p>Confirmation of attendance to be notified at least one full working day in advance to:</p> <p>Name: Supply Chain Management Tel: 011 355 7000 E-mail: drt.scmbidadmin@gauteng.gov.za</p> <p>The onus rests with the tenderer to ensure that the person attending the clarification meeting on its behalf is appropriately qualified to understand all directives and clarifications given at that meeting.</p> <p>The clarification meeting shall start strictly at the time advertised. Only then will the Employer's Representative circulate the attendance register for completion by those present. During this time latecomers may enter and complete the register. On completion by all present the Employer's Representative will:</p> <ol style="list-style-type: none"> (a) read out from the collected lists calling for confirmation that all have signed; (b) close the door and not allow any latecomers to enter. <p>The signature on the attendance register and duly completed and signed Form T2.1A shall be considered proof that the tenderer attended the whole meeting and was available to hear all directives and clarifications given at the meeting.</p> <p>Tenderers must sign the attendance register in the name of the tendering entity. Addenda will be issued to and will be received only from those tendering entities appearing on the attendance list.</p>
4.11	The Procurement document as issued by the Department may NOT be taken apart by bidders for purpose of submitting the Tender. In the case of the Request for Tender downloaded from the internet, the onus is on the bidder to submit a complete procurement document with no missing pages.
4.12	Alternative tender offers will not be considered.
4.13.1	Submit one (1) tender only , either as single entity or as member of JV.
4.13.2	The Tenderer is required to submit with this tender a Letter of Intent from registered and approved financial services provider or guarantor undertaking to provide the guarantees in the format included in T2.2.
4.13.3	<p>The tenderer is required to submit with his tender, the following documents:</p> <ol style="list-style-type: none"> 1. Original valid Tax Clearance Certificate or SARS Pin 2. JV Agreement or Consortium Agreement and Power of Attorney (if applicable) 3. VAT Registration Certificate 4. Workmen's Compensation registration certificate (or proof of payment of

Clause number	Data
	<p>contribution in terms of the COID Act no. 130 of 1993)</p> <ol style="list-style-type: none"> 5. Company / cc / Trust / Partnership registration certificate 6. Certified copy of identity document of company owners including shareholders 7. Project Final completion certificates or taking over certificates
<p>4.13.4</p> <p>4.13.4</p>	<p>The Tenderer is required to submit with his tender the following documents:</p> <p><u>PREQUALIFICATION TENDER CRITERIA</u></p> <p>Bidders who do not meet the pre-qualification criteria below will be disqualified and will not be considered further in the evaluation process:</p> <ul style="list-style-type: none"> • Tenderers (including a trusts, JV's and consortia) must have a level 1 or level 2 B-BBEE status level. • Bidders who do NOT qualify as Exempted Micro Enterprises (EME's) or Qualifying Small Enterprises (QSE's) must submit original B-BBEE verification certificates or certified copies which have been prepared by an agency that is accredited by SANAS (South African National Accreditation System). • A Qualifying Small Enterprises (QSE) is required to submit a valid original or certified copy of their sworn affidavit confirming their annual total revenue of between R10 million and R50 million and level of black ownership to claim points as prescribed by the Preferential Procurement Regulations 2017. • An Exempted Micro Enterprise (EME) is required to submit a sworn affidavit confirming their annual total revenue of R10 million or less and level of black ownership to claim points as prescribed by the Preferential Procurement Regulations 2017. • Affidavits submitted by bidders in support of their B-BBEE level should comply with the Department of Trade and Industry (DTI) format which can be found on the CIPC and / or the DTI website. • All trusts, consortia and joint ventures must obtain and submit original or certified copies of a consolidated B-BBEE Status Level Verification Certificate which have been prepared by an agency that is accredited by SANAS (South African National Accredited System). Failure to do so will result in the bidder being disqualified. Public entities and tertiary institutions must also submit B-BBEE Status Level Verification Certificates which have been prepared by an agency that is accredited by SANAS (South African National Accredited System) together with their bids. <p>Bidders who fail to submit a valid original or certified copy of their B-BBEE Certificate or Sworn Affidavit will be regarded as nonresponsive bidders and be disqualified Sworn Affidavits and certification as a "true copy of the original", must comply with the requirements outlined in the Justices of the Peace and Commissioners of Oaths Act, No 16 of 1963 and its Regulations promulgated in Government Notice GNR 1258 of 21 July 1972 Justices of the Peace and Commissioners of Oaths Act, No. 16 of 1963.</p> <p>NB: The submission of a fraudulent B-BBEE certificate and / or Sworn Affidavit will result in the bidder being disqualified and criminal proceedings being instituted against the bidder. The bidder, the shareholders and / or directors will further be restricted from doing business with any organ of the state for a maximum period of 10 years.</p> <p><u>Sub-Contracting as a condition of tender</u></p> <ul style="list-style-type: none"> • The Bidder must sub-contract a minimum of 30% of the contract as stipulated in section 9(2) (b-h) in the PPR Regulations 2017. • The Bidder must attach (as part of the submission) a copy (ies) of the sub-contractor's document which discloses the B-BBEE status level of the sub-contracting entity and signed subcontracting agreement. Such a document should comprise an affidavit (certified by a Commissioner of Oaths) or B-BBEE status level certificate. Only

Clause number	Data
	<p>originals or certified copies (certification not older than three months) will be accepted.</p> <ul style="list-style-type: none"> • Those sub-contractors who will be involved in the execution of construction works must be registered with the CIDB and the value of their sub-contracts must be in line with their respective CIDB grading class of work (proof of CIDB grading to be attached for each sub-contractor), except sub-contractors who are not eligible for CIDB grading. • A signed subcontracting agreement specifying the following must be included in bidder submissions: <ul style="list-style-type: none"> • scope of work with total financial amounts allocated. • the percentage of work allocated to each party in relation to the total scope of work. <p>NB / BIDDERS MUST ONLY SUBCONTRACT WITH SUB-CONTRACTORS ON THE CSD LISTS ADVERTISED WITH THE TENDER</p> <p><u>COMPULSORY/MANDATORY TENDER REQUIREMENTS:</u></p> <p>Failure to submit the following required documents will render the tenderers tender disqualified:</p> <ul style="list-style-type: none"> • Proof from CIDB of current 9CE grading. • The Construction Manager must be registered with ECSA as a Professional Civil Engineer/Professional Civil Engineering Technologist (PrEng/Tech) OR registered with SACPCMP as a Professional Construction Manager (PrCM). The prospective bidders must submit proof of registration with the mentioned professional bodies. • Bidders must attend the compulsory site briefing as indicated above. The attendance register must be completed and will be used as proof of your attendance. • Complete and signed all SBD documents i.e. SBD 4, SBD 6.1, SBD 6.2, SBD 8 and SBD 9 which form part of the tender document. • Complete and sign SBD form 6.2 - Steal Products and Components for Construction required for the purpose of this tender is 100% designated (Local Content Threshold) • In the case of joint ventures and consortia, a detailed signed agreement must be attached as part of the submitted tender document <p>NB: Tenderers who are listed on the National Treasury's register of defaulters and restricted suppliers will be automatically disqualified.</p> <p><u>OTHER KEY RETURNABLES:</u></p> <ul style="list-style-type: none"> • Valid Tax Clearance Certificate or Tax clearance pin (A trust, consortium or joint venture must submit a consolidated Tax Clearance Certificate OR Tax clearance pin of each partner in the trust, consortium or joint venture). • Registration Documents of the business with the Companies and Intellectual Property Commission (CIPC) OR Master of the High Court in South Africa. • Central Supplier Database (CSD) registration summary report • Certified ID Copies of company directors or members and shareholders (NB: the date of certification must be less than 3 months from the date of the bid closure)
4.13.5	<p>The employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:</p> <p>Location of tender box: GROUND FLOOR, LIFE CENTRE BUILDING, 45 COMMISSIONER STREET, MARSHALLTOWN, JOHANNESBURG.</p> <p>4.13.5 Identification details: TENDER No. DRT 36/11/2019: CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) –</p>

Clause number	Data
	<p align="center">(APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM.</p> <p>It is in the tenderer's interest to ensure that the delivery of the tender offer is recorded in the Employer's tenders received register.</p>
4.15	<p>Closing time for submission of tender offers is: 11:00am on 22 July 2021.</p> <p>Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.</p>
4.16	The tender offer's validity period is 120 days.
4.18.1	Any additional information requested under this clause must be provided within the time frame stated in the request.
4.20	The Tenderer is required to submit with this tender a Letter of Intent from an approved, Guarantor undertaking to provide the guarantees in the format included herewith (Form T2.2 G).
5.5	A two-envelope procedure will not be followed.
5.7	In the event of disqualification, the Employer may, at its sole discretion, impose a specified period during which tender offers will not be accepted from the offending tenderer and report same to CIDB and National Treasury.
5.9	The tenderer is required to submit balanced unit rates for rate only items in the pricing schedule. The rates submitted for these items will be taken into account in the evaluation of tenders.
5.11.1	<p>General</p> <p>Gauteng Roads and Transport, Roads Branch is committed to transformation, employment equity and staff advancement, and to supporting black economic empowerment. The primary criteria in selection, apart from costs, will be the degree to which the tenderer can demonstrate appropriate knowledge and expertise. A further consideration will naturally be the equity profile of the tenderer in management, ownership and implementation.</p> <p>The procedure for the evaluation of responsive tenders is Method 4.</p>
5.11.2	<p>Method 1: Financial offer</p> <p>This method shall not apply to this tender.</p>
5.11.3	<p>Method 2: Financial offer and quality</p> <p>This method shall not apply to this tender.</p>
5.11.4	<p>Method 3: Financial offer and preference</p> <p>This method shall not apply to this tender.</p>
5.11.5	<p>Method 4: Financial offer, quality and preference</p> <p>Method 4 shall apply to this tender. Refer to Tender Data items 5.11.7, 5.11.8 and 5.11.9.</p> <p>Quality will be scored out of 100 points and the minimum threshold to qualify is 70 points.</p> <p>Calculate the total number of tender evaluation points (T_{EV}) in accordance with the following formula:</p> $T_{EV} = N_{FO} + N_P$ <p>where</p> <p>N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with 5.11.7;</p>

Clause number	Data																																				
	<p>N_p is the number of tender evaluation points awarded for preferences claimed in accordance with 5.11.8.</p> <p>Note:</p> <p>The number of evaluation points awarded for quality in accordance with 5.11.9 will be applied to eliminate all tender offers that does not meet the minimum number of points as stated.</p> <p>If two or more tenderers score an equal total number of points, the contract must be awarded to the tenderer that scored the highest points for B-BBEE. If two or more tenderers score equal total points and equal preference points for B-BBEE, the contract must be awarded to the tenderer that scored the highest points for quality. If two or more tenderers score equal total points in all respects, the award must be decided by the drawing of lots.</p>																																				
<p>5.11.7</p> <p>5.11.7</p>	<p>Scoring financial offers</p> <p>The value of W_1 is:</p> <ul style="list-style-type: none"> - 90 where the financial value inclusive of VAT of all responsive tenders received have a value in excess of R 50 000 000,00 - 80 where the financial value inclusive of VAT of one or more responsive tenders received equals or is less than R 50 000 000,00. <p>The value of A will be calculated utilizing the following formula:</p> $A = (1 - (P - P_m) / P_m)$ <p>Where:</p> <p>P is the comparative offer of the tender offer under consideration; and</p> <p>P_m is the comparative offer of the most favorable comparative offer.</p> <p>In the event that the calculated value is negative, the allocated score shall be 0.</p>																																				
<p>5.11.8</p>	<p>Scoring preferences</p> <p>Up to 100 minus W_1 tender evaluation points will be awarded to tenderers who submit responsive tenders and who are found to be eligible for the preference claimed.</p> <p>Points are based on a tenderer's scorecard measured in terms of the Broad-Based Black Economic Empowerment Act (B-BBEE, Act 53 of 2003) as Amended by the Broad-Based Black Economic Empowerment Amendment Act, 2013 (Act 46 of 2013) and the Regulations (2017) to the Preferential Procurement Policy Framework Act (PPPFA, Act 5 of 2000).</p> <p>In terms of Preferential Procurement Regulation of January 2017, the department will be applying the 90/10 preference point system. The B-BBEE Act requires that tenderers submit original and valid B-BBEE Status Level Verification Certificates or certified copies thereof to substantiate their B-BBEE rating claims.</p> <p>Points awarded will be according to a tenderer's B-BBEE status level of contributor and summarised in the table below:</p> <table border="1"> <thead> <tr> <th>B-BBEE Status Level of contributor</th> <th>Qualification</th> <th>Number of Points for Contract value up to R 50 000 000</th> <th>Number of Points for Contract Value above R 50 000 000</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>≥ 100 points</td> <td>20</td> <td>10</td> </tr> <tr> <td>2</td> <td>≥ 95 but < 100 points</td> <td>18</td> <td>9</td> </tr> <tr> <td>3</td> <td>≥ 90 but < 95 points</td> <td>14</td> <td>6</td> </tr> <tr> <td>4</td> <td>≥ 80 but < 90 points</td> <td>12</td> <td>5</td> </tr> <tr> <td>5</td> <td>≥ 75 but < 80 points</td> <td>8</td> <td>4</td> </tr> <tr> <td>6</td> <td>≥ 70 but < 75 points</td> <td>6</td> <td>3</td> </tr> <tr> <td>7</td> <td>≥ 55 but < 70 points</td> <td>4</td> <td>2</td> </tr> <tr> <td>8</td> <td>≥ 40 but < 55 points</td> <td>2</td> <td>1</td> </tr> </tbody> </table>	B-BBEE Status Level of contributor	Qualification	Number of Points for Contract value up to R 50 000 000	Number of Points for Contract Value above R 50 000 000	1	≥ 100 points	20	10	2	≥ 95 but < 100 points	18	9	3	≥ 90 but < 95 points	14	6	4	≥ 80 but < 90 points	12	5	5	≥ 75 but < 80 points	8	4	6	≥ 70 but < 75 points	6	3	7	≥ 55 but < 70 points	4	2	8	≥ 40 but < 55 points	2	1
B-BBEE Status Level of contributor	Qualification	Number of Points for Contract value up to R 50 000 000	Number of Points for Contract Value above R 50 000 000																																		
1	≥ 100 points	20	10																																		
2	≥ 95 but < 100 points	18	9																																		
3	≥ 90 but < 95 points	14	6																																		
4	≥ 80 but < 90 points	12	5																																		
5	≥ 75 but < 80 points	8	4																																		
6	≥ 70 but < 75 points	6	3																																		
7	≥ 55 but < 70 points	4	2																																		
8	≥ 40 but < 55 points	2	1																																		

Clause number	Data														
5.11.8	Non-compliant Contributor	< 40 points	0	0											
	<p>Eligibility for preference points is subject to the following conditions:</p> <ul style="list-style-type: none"> • A tenderer’s scorecard shall be measured in terms the latest amended Construction Sector Code in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act, (Act No. 53 of 2003) as amended by the B-BBEE Act 46 of 2013 as issued by the Department of Trade and Industry; and • The Scorecard shall be submitted as a certificate attached to Returnable Schedule Form T2.1 H (SBD6.1); and • The certificate shall: <ul style="list-style-type: none"> - be an original or an original certified copy of the original; and - have been issued by a verification agency accredited by the South African National Accreditation System (SANAS); or - be in the form of a sworn affidavit or a certificate issued by the Companies and Intellectual Property Commission in the case of an Exempted Micro Enterprise (EME) or Qualifying Small Enterprise (QSE); and • The Verification Certificate must be valid at the tender closing date; and • The date of issue of the certificate must be less than twelve (12) months prior to the tender closing date; and • Compliance with any other information requested to be attached to Returnable Schedule Form T2.1 H (SBD6.1); • Failure to submit a valid verification certificate will result in the award of zero (0) points for preference; • In the event of a Joint Venture (JV), a project specific consolidated B-BBEE Verification Certificate in the name of the JV shall be submitted, as well as a valid B-BBEE Verification Certificate for each member of the JV; and • A tenderer may not be awarded points for B-BBEE status level of contributor if the tender documents indicate that the tenderer intends subcontracting more than 25% of the value of the contract to any other person not qualifying for at least the points that the tenderer qualifies for, unless the intended subcontractor is an EME that has the capability to execute the subcontract. 														
5.11.9	<p>Scoring quality</p> <p>Quality will be scored out of 100 points and the minimum threshold to qualify is 70 points. Tenderers who fail to meet the minimum threshold will not be considered for further evaluation. The evaluation criteria to score tenderers on quality are as follows:</p> <table border="1"> <thead> <tr> <th>Key Personnel (Max 30 points)</th> <th>Company experience</th> <th>Plant and Equipment</th> <th>Project plan (Max 10 points)</th> <th>Current Bank Rating (Max 10 points)</th> </tr> </thead> <tbody> <tr> <td>Bidders MUST complete T2.3 (forms B1 and B2) attached in the bid documents for key personnel and MUST clearly indicate roads construction or roads rehabilitation and/or roads upgrade experience, project description, duration and contactable references. NB: (Failure to complete T2.3 and submit certified copies of</td> <td>Experience in roads construction or roads rehabilitation and / or roads upgrades (Max 30 points) (Failure to submit required completion certificates will</td> <td>(Max 20 points) Bidders MUST complete Form T2.1 D: Schedule of</td> <td>(Failure to submit relevant documents which clearly indicate the requirements listed below will result in the bidder getting zero points)</td> <td>(Failure to submit proof of bank rating from the relevant bank will result in the bidder getting zero points)</td> </tr> </tbody> </table>					Key Personnel (Max 30 points)	Company experience	Plant and Equipment	Project plan (Max 10 points)	Current Bank Rating (Max 10 points)	Bidders MUST complete T2.3 (forms B1 and B2) attached in the bid documents for key personnel and MUST clearly indicate roads construction or roads rehabilitation and/or roads upgrade experience, project description, duration and contactable references. NB: (Failure to complete T2.3 and submit certified copies of	Experience in roads construction or roads rehabilitation and / or roads upgrades (Max 30 points) (Failure to submit required completion certificates will	(Max 20 points) Bidders MUST complete Form T2.1 D: Schedule of	(Failure to submit relevant documents which clearly indicate the requirements listed below will result in the bidder getting zero points)	(Failure to submit proof of bank rating from the relevant bank will result in the bidder getting zero points)
Key Personnel (Max 30 points)	Company experience	Plant and Equipment	Project plan (Max 10 points)	Current Bank Rating (Max 10 points)											
Bidders MUST complete T2.3 (forms B1 and B2) attached in the bid documents for key personnel and MUST clearly indicate roads construction or roads rehabilitation and/or roads upgrade experience, project description, duration and contactable references. NB: (Failure to complete T2.3 and submit certified copies of	Experience in roads construction or roads rehabilitation and / or roads upgrades (Max 30 points) (Failure to submit required completion certificates will	(Max 20 points) Bidders MUST complete Form T2.1 D: Schedule of	(Failure to submit relevant documents which clearly indicate the requirements listed below will result in the bidder getting zero points)	(Failure to submit proof of bank rating from the relevant bank will result in the bidder getting zero points)											

Clause number	Data				
5.11.9	<p>qualifications will result in the bidder getting zero points).</p>	<p>result in the bidder getting zero points)</p> <p>NB: Certificates must be sign by all relevant parties and as per applicable contract.</p>	<p>Plant and Equipment</p> <p>(Failure to submit proof of ownership OR lease / hire agreements for plant and equipment will result in the bidder getting zero points)</p>		<p>NB: The period under review for bank ranking is 2019/2020 financial Year (1 March 2019 to 29 February 2020)</p>
	<p>CONSTRUCTION MANAGER: registered with ECSA (PrEng/Tech) OR SACPCMP (PrCM) must be permanently based on the site for the duration of the project. A Construction Manager with roads construction or roads rehabilitation and/or roads upgrade experience, before and after professional registration, will be assessed as follows: (Max 10 points)</p> <p>Experience:</p> <ul style="list-style-type: none"> • 10 years or more experience in roads construction or roads rehabilitation and/or roads upgrade (10 points) • 5 years to less than 10 years' experience in roads construction or roads rehabilitation and/or roads upgrade (5 points) • Less than 5 years' experience in roads construction or roads rehabilitation and/or roads upgrade (0 points) <p>SITE AGENT: with at least an undergraduate degree OR diploma qualification in Civil Engineering OR Built Environment must be permanently based on the site for the duration of the project. The Senior Site Agent with roads construction or roads rehabilitation and/or roads upgrade experience, before and after qualification, will be assessed as follows: (Attach certified copies of academic qualifications) (Max 10 points)</p>	<p>Completed roads construction, roads rehabilitation and / or roads upgrades projects with completion certificates over the past ten (10) years will be assessed as follows: (Max 30 points)</p> <ul style="list-style-type: none"> • 3 or more projects completed: (30 points) • 2 projects completed: (20 points) • 1 project completed: (10 points) <p>Practical Completion certificates or equivalent will not be considered</p>	<ul style="list-style-type: none"> • 1 Pavement Recycling Machine (min 2.4m working width): (4 points) • 1 Asphalt Milling Machine: (4 points) • 2 Vibratory Steel Wheel Roller (9-12 tons): (4 points) • 2 Grader 140G or similar: (4 points) • 2 TLB (min 60kW): (2 points) • 2Water cart (min 9000 litre capacity): (2 points) 	<p>Project Plan: Contractor's detailed and complete construction programme (Gantt Chart). The chart must clearly indicate the activities and timeframe from Letter of appointment to last payment certificate on the project. This will be assessed as follows: (10 points)</p> <ul style="list-style-type: none"> • Linkages between key activities: (3 points) • Indicate critical path: (5 points) • Completion date within the stipulated construction period: (2 points) 	<p>Rating A: (10 points)</p> <p>Rating B: (7 points)</p> <p>Rating C: (5 points)</p>

Clause number	Data					
5.11.9	<p>Experience:</p> <ul style="list-style-type: none"> • 10 years or more experience in roads construction or roads rehabilitation and/or roads upgrade (10 points) • 5 years to less than 10 years' experience in roads construction or roads rehabilitation and/or roads upgrade (7 points) • Less than 5 years' experience in roads construction or roads rehabilitation and/or roads upgrade (0 points) • <p>FOREMAN: must be permanently based on the site for the duration of the project. The Foreman with roads construction or roads rehabilitation and/or roads upgrade experience will be assessed as follows: (Max 5 points)</p> <p>Experience:</p> <ul style="list-style-type: none"> • 10 years or more experience roads construction or roads rehabilitation and/or roads upgrade (5 points) • 5 years to less than 10 years' experience in roads construction or roads rehabilitation and/or roads upgrade (3 points) • Less than 5 years' experience in roads construction or roads rehabilitation and/or roads upgrade (0 points) • <p>SAFETY OFFICER: a qualified / certified Safety Officer must be permanently based on the site for the duration of the project. The Safety Officer with roads construction or roads rehabilitation and/or roads upgrade experience, before and after qualification, will be assessed as follows: (Attach certified qualification / certification) (Max 5 points)</p>					

Clause number	Data				
5.11.9	<p>Experience:</p> <ul style="list-style-type: none"> • 5 years or more experience in roads construction or roads rehabilitation and/or roads upgrade (5 points) • 1 year to less than 5 years' experience in roads construction (3 points) • Less than a year experience in roads construction or roads rehabilitation and/or roads upgrade (0 points) • 				
5.11.9	<p>Tenderers should note the following:</p> <ul style="list-style-type: none"> • Where the proposed prices of critical materials to be supplied to the Department are considerably less than the expected market price or rates, the Department reserves the right to verify the proposed prices by requesting quotations from the supplier(s) cited in the compilation of the bid. • Only suppliers who are registered on the National Centralized Supplier Database (CSD) will be considered for appointment. • Bidders must sub-contract to EMEs or QSEs registered on the National Treasury CSD (Central Supplier Database). CSD Website www.csd.gov.za • Potential suppliers must note that in terms of Departmental policy, the Department reserves the right to cancel a contract and blacklist any supplier for a period of at least 12 months if the supplier fails to adequately perform in terms of the awarded contract. • The bid validity period is 120 days. However, the Department reserves the right to request all bidders to extend such validity period should the need arise. • In terms of Occupational Health and Safety (OHS) Act the contractor is required to appoint a registered Safety officer with South African Council for the Project and Construction Management Professions (SACPCMP). Compliance in respect of the OHS is the responsibility of the contractor. • individuals who can fully comprehend the scope and complexities of the work involved. • The successful bidder will be required to enter into a formal contract with the Department. Such a contract will be governed in terms of the General Conditions of Contract dated 2015. • In terms of the contractual commitments, bidders will be required to subcontract at least 30% of the contract value (excluding VAT) to SMMEs and developing companies/entities in line with the contractual terms and conditions. <ul style="list-style-type: none"> ○ The minimum 30% of the rand value of the contract must be subcontracted to EME or QSE companies/ entities. The evidence supporting the sub-contracting arrangement (provided by respective bidders) will be subjected to the bid evaluation process during the pre-qualifying stage. ○ The percentage allocated to sub-contractor will take precedence over financial allocation if there is a discrepancy. ○ The bidders are required to fill in the schedule of proposed sub-contractors in the Tender document. • The Department will not compensate the bidder for any costs incurred in the preparation and submission of a bid offer, including the costs of any tests which have been deemed as necessary in the demonstration of compliance with the stated requirements (forming part of this RFP). <p>NB: Tenderers are requested to submit their key personnel contactable references for verification. Failure to do so may lead to points not being allocated. Potential suppliers must note that in terms of departmental policy, the department reserves the right to cancel and</p>				

Clause number	Data
	blacklist any supplier for a period of at least 12 months if the supplier fails to adequately perform in terms of the awarded contract.
5.13	<p>The conditions stated in Clauses 5.13(a) to (f) of the Conditions of Tender as well as the following additional Clauses 5.13(g) to (p) shall be applied as objective criteria in terms of Section 2(1)(f) of the Preferential Procurement Policy Framework Act, 2000 and as compelling and justifiable reasons in terms of Conditions of Tender, Clause 5.13:</p> <ul style="list-style-type: none"> g) the Tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation; i) the Tenderer or any of its directors is not listed in 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; j) the Tenderer has not over the last five years failed to satisfactorily perform a contract for the Employer and has been issued with a written notice to this effect, and has not abused the Employer's Supply Chain Management System; k) the Tenderer submits an original valid Tax Clearance Certificate issued by the South African Revenue Service; l) the Tenderer is registered on the National Centralised Supplier Database (CSD). m) the Tenderer has completed the compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the Tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process. Persons in the employ of the State are not permitted to submit tenders or participate in the contract; n) the Tenderer is registered and in good standing with the Compensation Fund or with a licensed Compensation Insurer; and o) the Employer is reasonably satisfied that the Tenderer has, in terms of the Construction Regulations 2014 and the OHS Act 1993 issued, the necessary competencies and resources to carry out the works safely p) the Employer is reasonably satisfied that the Tenderer has properly and comprehensively completed the information required in the Project Document and the Addenda, and has, inter alia properly completed the offer in the "Form of Offer and Acceptance" and the Bill of Quantities. <p>In addition to the requirements under paragraph (b) of the Conditions of Tender, in the event that a due diligence is performed as part of the tender evaluation, the due diligence report will be used to evaluate the tenderer's ability to perform the contract as stated in sub-clause (b).</p>
5.17	The number of paper copies of signed contract to be provided by the Employer is one (1) .
5.19	All request shall be in writing.
Additional conditions of tender clauses:	
Clause number	Data
3.7	<p>Jurisdiction</p> <p>Unless stated otherwise in the Tender Data, each tenderer and the Employer undertake to accept the jurisdiction of the law courts of the Republic of South Africa.</p>



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

PART T2: RETURNABLE DOCUMENTS

The tenderer must complete the following returnable documents:

<u>T2.1</u>	<u>RETURNABLE SCHEDULES FOR TENDER EVALUATION</u>	30
<u>T2.2</u>	<u>OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION</u>	59
<u>T2.3</u>	<u>RETURNABLE SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT</u>	84



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 RETURNABLE SCHEDULES FOR TENDER EVALUATION

<u>T2.1.A. CERTIFICATE OF AUTHORITY</u>	31
<u>T2.1.B. CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING</u>	34
<u>T2.1.C. SCHEDULE OF PROPOSED SUBCONTRACTORS</u>	35
<u>T2.1.D. SCHEDULE OF PLANT AND EQUIPMENT</u>	36
<u>T2.1.E. SCHEDULE OF THE TENDERER'S RECENTLY COMPLETED AND CURRENT PROJECTS</u>	37
<u>T2.1.F. RECORD OF ADDENDA TO TENDER DOCUMENTS</u>	39
<u>T2.1.G. DEVIATIONS OR QUALIFICATIONS BY THE TENDERER</u>	40
<u>T2.1.H. PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017</u>	41
<u>T2.1.I. COMPULSORY TRAINING PROGRAMME</u>	49
<u>T2.1.J. QUALITY MANAGEMENT QUESTIONNAIRE</u>	50
<u>T2.1.K. OCCUPATIONAL HEALTH AND SAFETY QUESTIONNAIRE</u>	51
<u>T2.1.L. KEY PERSONNEL</u>	55
<u>T2.1.M. COMPULSORY ENTERPRISE QUESTIONNAIRE</u>	56



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 A CERTIFICATE OF AUTHORITY

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

A Company	B Partnership	C Joint Venture	D Sole Proprietor	E Close Corporation	F Consortium
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A. Certificate for company

I,....., chairperson of the board of directors of hereby confirm that by resolution of the board (copy attached) taken on20...., Mr/Mrs.....acting in the capacity of.....,was authorised to sign all documents in connection with this tender and any contract resulting from it on behalf of the company.

As witness

1.....

Chairman

2.....

Date

B. Certificate of partnership

We, the undersigned, being the key partners in the business trading as

.....
Hereby authorise Mr/Mrs....., acting in the capacity of.....to sign all documents in connection with the tender for Contract.....and any contract resulting from it on our behalf.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

NAME	ADDRESS	SIGNATURE	DATE

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

C. Certificate for Joint Venture

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise Mr/Mrs....., authorised signatory of the company,

Acting in the capacity of lead partner, to sign all documents in connection with the tender offer for Contract.....and any other contract resulting from it on our behalf.

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

NAME OF FIRM	ADDRESS	AUTHORISING SIGNATURE, NAME & CAPACITY
Lead partner		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

D. Certificate for Sole Proprietor

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

As Witness:

1.....
Signature: Sole owner

2.....
Date

E. Certificate for Close Corporation

We, the undersigned, being the key members in the business trading as.....hereby authorise Mr/Mrs.....

acting in the capacity of....., to sign all documents in connection with the tender for Contract.....and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 B CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING

This is to certify that

.....
(Tenderer)

of

.....
(address)

.....
was represented by the person(s) named below at the compulsory meeting held for all tenderers at(location) on.....(date), starting at.....

We acknowledge that the purpose of the meeting was to acquaint ourselves with the site of the works and / or matters incidental to doing the work specified in the tender documents in order for us to take account of everything necessary when compiling our rates and prices included in the tender.

Particulars of person(s) attending the meeting:

Name..... Signature.....

Capacity.....

Name..... Signature.....

Capacity.....

Attendance of the above persons at the meeting is confirmed by the employer's representative/ engineer, namely:

Name..... Signature.....

Capacity..... Date & Time.....

Refer to Compulsory Clarification Briefing Attendance Register



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 C SCHEDULE OF PROPOSED SUBCONTRACTORS

We notify you that it is our intention to employ the following subcontractors for work in this contract. If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the name of proposed subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.

	Name and address of proposed Subcontractor	Company Registration No & CIDB Classification	Description of Work to be executed by Subcontractor	Value of work to be carried by subcontractor	Percentage of work to be carried by Subcontractor
1.					
2.					
3.					
4.					
5.					

Signed..... Date.....
 Name..... Position.....
 Tenderer.....



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 D SCHEDULE OF PLANT AND EQUIPMENT

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

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

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

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

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required

Signed..... Date.....

Name..... Position.....

Tenderer.....



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 E SCHEDULE OF THE TENDERER'S RECENTLY COMPLETED AND CURRENT PROJECTS

(i) List not more than seven contracts completed

(ii) If Functionality Points are to be claimed, clearly number and attach to this page, certified copies of Final Completion Certificates for projects that are relevant and similar to the project that is the subject of this tender. Write the attached certificates numbers in the last column of the tender below.

Contract title:	Employer (name) & Place (town)	Reference person Name & Tel	Contract Amount (R million)	Contract Period (months)	Date of Final Completion	Final Completion Certificate No
1.		Name				
		Tel				
2.		Name				
		Tel				
3.		Name				
		Tel				
4.		Name				
		Tel				



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

5.		Name				
		Tel				
6.		Name				
		Tel				
7.		Name				
		Tel				

Signed..... Date

Name..... Position.....

Tenderer.....



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 F RECORD OF ADDENDA TO TENDER DOCUMENTS

We confirm that the following communications received from the employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:

Date		Title of Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

Signed..... Date

Name..... Position.....

Tenderer.....



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 G DEVIATIONS OR QUALIFICATIONS BY THE TENDERER

Note: Tenderers will be declared to be non-responsive should any proposed deviation or qualification, save for where alternative tender offers are permitted in terms of the Tender Data, in the employer’s opinion:

- a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- b) change the employer’s or the tenderer’s risks and responsibilities under the contract, or
- c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.

Note that only those deviations or qualifications that are recorded in the Schedule of Deviations will form part of the contract, as comprehensively stated in the Form of Offer and Acceptance (Part C1)

PAGE	DESCRIPTION

SIGNED ON BEHALF OF TENDERER:



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SBD 6.1

T2.1 H PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017.

1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to all bids:
 - the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
 - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).
- 1.2 The value of this bid is estimated to exceed R50 000 000 (all applicable taxes included) and therefore the 90/10 preference point system shall be applicable;
- 1.3 Points for this bid shall be awarded for:
 - (a) Price; and
 - (b) B-BBEE Status Level of Contributor.
- 1.4 The maximum points for this bid are allocated as follows:

**TENDER No. DRT 36/11/2019**

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

	POINTS
PRICE	90
B-BBEE STATUS LEVEL OF CONTRIBUTOR	10
Total points for Price and B-BBEE must not exceed	100

- 1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.
- 1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

2. DEFINITIONS

- (a) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) **“B-BBEE status level of contributor”** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) **“EME”** means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) **“functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) **“prices”** includes all applicable taxes less all unconditional discounts;
- (h) **“proof of B-BBEE status level of contributor”** means:
 - 1) B-BBEE Status level certificate issued by an authorized body or person;
 - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
 - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) **“QSE”** means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

**TENDER No. DRT 36/11/2019**

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

3. POINTS AWARDED FOR PRICE**3.1 THE 80/20 OR 90/10 PREFERENCE POINT SYSTEMS**

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

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

$$P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right) \quad \text{or} \quad P_s = 90 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$$

Where

P_s = Points scored for price of bid under consideration

P_t = Price of bid under consideration

P_{\min} = Price of lowest acceptable bid

4. POINTS AWARDED FOR B-BBEE STATUS LEVEL OF CONTRIBUTOR

4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	6	14
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

5. BID DECLARATION

5.1 Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete the following:

6. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

6.1 B-BBEE Status Level of Contributor: =(maximum of 10 points)
(Points claimed in respect of paragraph 7.1 of the Regulations must be in accordance with the table reflected in above paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.)

7. SUB-CONTRACTING

(N.B: In completing this section of this form, the Bidders MUST note that a minimum of 40% will be subcontracted, of which 30% will be evaluated as part of the Mandatory prequalification criteria as contained in the Tender Notice.)

7.1 Will any portion of the contract be sub-contracted? YES

7.1.1 Indicate:

- i) What percentage of the contract will be subcontracted? Minimum of 40% will be subcontracted:
 - The minimum 30% subcontracting will be used to evaluate bids during the pre-qualifying stage of the tender process.
 - The remaining 10% subcontracting will be subcontracted to local sub-contractors in line with contractual commitments
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....
- iv) Whether the sub-contractor is an EME or QSE



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

(Tick applicable box)

YES		NO	
-----	--	----	--

v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations,2017:

Designated Group: An EME or QSE which is at least 51%	EME	QSE
51% owned by black people		
51% owned by black people who are youth		
51% owned by black people who are women		
51% owned by black people with disabilities		
51% owned by black people living in rural or underdeveloped areas or townships		
a cooperative 51% owned by black people		
51% owned by black people who are military veterans		
OR		
Any EME		
Any QSE		

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

- Partnership/Joint Venture / Consortium
- One person business/sole propriety
- Close corporation
- Company
- (Pty) Limited

[TICK APPLICABLE BOX]



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....
.....
.....
.....
.....

8.6 COMPANY CLASSIFICATION

- Manufacturer
- Supplier
- Professional service provider
- Other service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
 - (a) disqualify the person from the bidding process;
 - (b) recover costs, losses or damages it has incurred or suffered as a result of that person’s conduct;
 - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
 - (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and

- (e) forward the matter for criminal prosecution.

WITNESSES

1.

2.

.....
SIGNATURE(S) OF BIDDERS(S)

DATE:

ADDRESS

.....

.....



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 I COMPULSORY TRAINING PROGRAMME

Set out the details of the proposed training for local labourers and QSEs and EMEs in the schedules below:

A: TRAINING OF LOCAL LABOURERS OF THE CONTRACTOR'S AND HIS SUB-CONTRACTOR'S WORKFORCES					
NO. OF LABOURERS	TYPE OF WORK	SKILLS REQUIRED FOR THE TYPE OF WORK	DURATION OF TRAINING (PERSON-DAYS)	ESTIMATED COST	
TOTAL ESTIMATED COST					
B: TRAINING OF LOCAL QSE & EME CONTRACTORS					
LIST OF COURSES FOR BUSINESS DEVELOPMENT SKILLS	LIST OF COURSES FOR MANAGEMENT SKILLS	LIST OF OTHER COURSES (SPECIFY)	ACCREDITED INSTITUTIONS THAT WILL PRESENT THE COURSES	DURATION OF EACH COURSE (DAYS)	ESTIMATED COST
TOTAL ESTIMATED COST					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 J QUALITY MANAGEMENT QUESTIONNAIRE

1. Does the Tenderer have a quality management system which is certified in terms of ISO 9001:2015?

YES	NO
-----	----

2. If "yes", tenderer to supply brief summary of structure of system.

3. If "no", does the tenderer intend to apply for certification and by when?

YES	NO
-----	----

Date:

If the tenderer does not intend to apply for certification he shall submit details of the quality management system presently in place.

**TENDER No. DRT 36/11/2019**

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 K OCCUPATIONAL HEALTH AND SAFETY QUESTIONNAIRE

1.	Does your company have an updated copy of the Occupational Health and Safety Act and the relevant Regulations, (Act 85, of 1993) readily available?	YES/NO
2.	Have you and your supervisors received any training on the requirements of the Act and the relevant regulations? If YES, please provide proof.	YES/NO Attach Proof
3.	Are you, your supervisors and permanent employees aware, informed, instructed or trained in your respective legal liabilities with regard to Occupational Health and Safety Legal Liabilities? If YES, please provide explanatory proof.	YES/NO Attach information
4.	How do you ensure that the requirements of the Occupational Health and Safety Act are complied with by yourself and every person in your employment? Provide an overview	Attach information
5.	Have you identified as far as reasonably practical all Health and Safety hazards and assessed all associated risks related to your activities and work environment? If YES, please provide evidence.	YES/NO Attach information
6.	If YES, how and what reasonably practical steps do you take to eliminate or mitigate the hazards and associated risks identified? How do you provide and maintain Health and Safety in your work environment for your employees and persons other than those in your employment that may be directly affected by your activities?	Attach information
7.	Do you provide for and maintain systems of work, plant and machinery that, as far as is reasonable practical, are safe and without risk to health? If so, what are they? Please provide evidence	YES/NO Attach information
8.	Do you have a clearly defined scope of authority for your organization, including all supervisors and employees? If YES, please provide a copy of the latest valid organogram and scope of authority (Submit proof).	YES/NO Attach information

**TENDER No. DRT 36/11/2019**

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

9.	Do you have a first aid and emergency procedure or standard and trained first aid employees? If YES, please provide evidence	YES/NO Attach information
10.	Do you provide your employees with personal protective equipment and facilities? If yes, please attach a list of PPE per occupation	YES/NO Attach information
11.	Do you assess the OH&S Performance of any potential sub-contractor? If YES provide a copy of a sub-contractor assessment.	YES/NO Attach information
12.	Who is responsible and accountable for the Occupational Health and Safety of your employees and those persons other than your employees that may be affected by your activities?	Attach information
13.	Please list three (3) recent similar projects and references with regard to your company's safety performance?	Attach information
14.	Please advise us of the following with regard to your company's current Workers Compensation Policy: -Name of insurer: -Policy Number: -Insurance premium as a percentage of payroll: -Attach a letter of good standing from your insurer.	Attach information
15.	Are records of your Workers Compensation premiums over the last year available to us upon request?	YES/NO
16.	Does your company have a Safety, Health & Environmental (SHE) policy? If YES, please provide an overview.	YES/NO Attach information
17.	Does your company have a recognized/auditable Health and Safety management system? If YES, please provide an overview.	YES/NO Attach information
18.	Do you have active Health and Safety Representatives & Committees in place for each project?	YES/NO Attach information

**TENDER No. DRT 36/11/2019**

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

	If YES, please provide copies of the latest minutes.	
19.	Does your company conduct: a) Annual medical examinations? b) Entry and exit medical examinations?	YES/NO YES/NO
20.	Does your company keep records for the measurement of Health and Safety performance? * If YES, what indicators are used for this performance measurement? * Please provide copies of the Health and Safety incident register (synopsis) for the past 12 month period. (Refer Annexure A). * Provide the number of employees per month as well as the number of man-hours worked per month for the last 12 months. (Refer Annexure B).	YES/NO Attach information Attach information Attach information
21.	Does your company set Health and Safety targets and objectives? If so, what are they for the current year and indicate how they compare with the previous year	YES/NO Attach information
22.	Has your Health and Safety system been assessed/ audited by an independent party? If YES, please provide a copy of the latest valid assessment/audit for a construction site. (Submit proof).	YES/NO Attach information
23.	Does your company employ permanent Health and Safety Officers and or a health and Safety Manager/Co-ordinator?	YES/NO
24.	Does your company carry out training for personnel in Health and Safety related issues pertaining to your area of capability? If YES, please attach the Health and Safety training requirements for all job categories.	YES/NO Attach information
25.	Does executive management attend health and Safety meetings and carry out executive management safety audits?	YES/NO
26.	Was a health risk assessment done to identify and evaluate health risks due to the potential exposure in conducting their work?	YES/NO

Note:

The information provided by you will be deemed as privileged information and will only be used in the selection process to determine the successful contractors and or sub-contractors.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

Agreement:

I declare that all information provided in the health and safety selection criteria questionnaire, are accurate and true. I do realise that the information given by me will be verified and false information will lead to automatic disqualification.

Signed..... Date

Name..... Position.....

Tenderer.....



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 L KEY PERSONNEL

In terms of the Project Specification and the Conditions of Tender, unskilled workers may only be brought in from outside the local community if such personnel are not available locally.

The Tenderer shall list below the personnel which he intends to utilise on the works, including key personnel which may have to be brought in from outside if not available locally.

Category of employee	Number of persons			
	Personnel, part of the Contractor's organisation		Personnel to be contracted if not available within the employ of the company	
# Contract Manager				
# Site Agent				
# Safety Officer				
Site technicians (quality control officers included)				
# Foremen				
Technicians, surveyors, etc				
Artisans and other skilled workers				
Plant operators				
Unskilled workers				
Others:				
.....
.....
.....
.....
.....

Notes: The categories marked are Key Personnel

Note:

The tenderer need to complete T2.3 B (B1 and B2 forms) for the key personnel. The form shall be used to provide evidence of the relevant experience of the key staff in the organogram and allocation of quality points (maximum 30 points) as described in Clause No. 5.11.9 of the Tender Data

SIGNATURE: DATE:

(of person authorised to sign on behalf of Tenderer)



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.1 M COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished: In the case of a joint venture or consortium, separate enterprise questionnaires in respect of each partner must be completed and submitted.

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships:

Name*	Identity no.*	Personal income tax no.*

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

Section 5: Particulars of companies and close corporations:

Company registration number:

Close corporation number:

Tax reference number:

Section 6: Record of service of the State:

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

- | | |
|---|---|
| <input type="checkbox"/> A member of any municipal council | <input type="checkbox"/> An employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 |
| <input type="checkbox"/> A member of any provincial legislature | <input type="checkbox"/> A member of an accounting authority of any national or provincial public entity |
| <input type="checkbox"/> A member of the National Assembly or | |



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

The National Council of Province
 An employee of Parliament or a provincial legislature

A member of the Board of Directors of any Municipal entity

An official of any municipality or municipal Entity

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

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

* Insert separate page if necessary

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

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

A member of any municipal council
 An employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999

A member of any provincial legislature

A member of the National Assembly or the National Council of Province
 A member of an accounting authority of any national or provincial public entity

A member of the Board of Directors of any Municipal entity
 An employee of Parliament or a provincial legislature

An official of any municipality or municipal Entity



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

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

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

* Insert separate page if necessary

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

- (i) authorises the Employer to obtain a tax clearance certificate from the South African Revenue Service that my/our tax matters are in order;
- (ii) confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partially exercises, or may exercise, control of the enterprise appears on the Register of Tender Defaulters established in terms of the Preventing and Combating of Corrupt Activities Act of 2004;
- (iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control of the enterprise, has within the last five years been convicted of fraud or corruption;
- (iv) confirms that I/we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the Tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- (v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed..... Date

Name..... Position.....

Tenderer.....



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.2 OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION

T2.2 A DECLARATION OF GOOD STANDING REGARDING TAX	60
T2.2 B CONSTRUCTION INDUSTRIES DEVELOPMENT BOARD REGISTRATION	62
T2.2 C COMMISSIONER OF OATH CERTIFICATION.....	63
T2.2 D DECLARATION OF INTEREST	64
T2.2 E DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES	68
T2.2 F CERTIFICATE OF INDEPENDENT BID DETERMINATION	70
T2.2 G FORM OF INTENT TO PROVIDE GUARANTEE.....	73
T2.2 H LETTER OF INTENT TO PROVIDE INSURANCE.....	77
T2.2 I DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT (SBD 6.2).....	78
T2.2 J TENDERER'S BANK DETAILS.....	82
T2.2 K SCHEDULE OF TENDERER'S LITAGTION HISTORY.....	83



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.2 A DECLARATION OF GOOD STANDING REGARDING TAX

SOUTH AFRICAN REVENUE SERVICES	Tender No:	
	Closing Date:	
DECLARATION OF GOOD STANDING REGARDING TAX		
PARTICULARS		
1. Name of Taxpayer/Tenderer:		
2. Trade Name:		
3. Identification Number: (If applicable)	<input style="width: 100%; height: 15px;" type="text"/>	
4. Company / Close Corporation registration number:	<input style="width: 100%; height: 15px;" type="text"/>	
5. Income Tax reference number:	<input style="width: 100%; height: 15px;" type="text"/>	
6. VAT registration number: (If applicable)	<input style="width: 100%; height: 15px;" type="text"/>	
7. PAYE employer's registration number: (If applicable)	<input style="width: 100%; height: 15px;" type="text"/>	
8. Monetary value of tender:	<input style="width: 100%; height: 15px;" type="text"/>	
DECLARATION		
I, the undersigned, the above taxpayer/tenderer, hereby declare that my Income Tax, Pay-As-You-Earn (PAYE) and Value-Added-Tax (VAT) obligations of the above-mentioned taxpayer, which include the rendition of returns and payment of the relevant taxes:		
(i) Have been satisfied in terms of the relevant Acts; or		
(ii) That suitable arrangements have been made with the Receiver of Revenue, to satisfy them.*		
.....
SIGNATURE	CAPACITY	DATE
PLEASE NOTE:* The declaration (ii) cannot be made unless formal arrangements have been made with the Receiver of Revenue with regard to any outstanding revenue/outstanding tax returns.		

***Failure to complete the above information will result in the disqualification of the tender.**
(Tenderer to submit an ORIGINAL, COMPLETED FORM FROM SARS NOT OLDER THAN 4 MONTHS)

TAX CLEARANCE CERTIFICATE REQUIREMENTS

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

- 1 In order to meet this requirement, bidders are required to complete in full the attached form TCC 001 "Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The Tax Clearance Certificate Requirements are also applicable to foreign bidders / individuals who wish to submit bids.
- 2 SARS will then furnish the bidder with a Tax Clearance Certificate that will be valid for a period of 1 (one) year from the date of approval.
- 3 The original Tax Clearance Certificate must be submitted together with the bid. Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be acceptable.
- 4 In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate.
- 5 Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za.
- 6 Applications for the Tax Clearance Certificates may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website www.sars.gov.za.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.2 B CONSTRUCTION INDUSTRIES DEVELOPMENT BOARD REGISTRATION

The tenderer is to affix to this page either:

- Written proof of his registration with the CIDB as a Category **9 CE**

Or

- Written proof of his application to the CIDB for registration as a contractor in the category listed above.

Note:

1. Failure to affix such documentation as prescribed to this page shall result in this tender not being further considered for the award of the contract.
2. Should this tender be considered for award of the contract, based on proof of submission of application for registration in the appropriate category with the CIDB, and should proof of such subsequent registration not be forthcoming to the employer by the time of award of the contract, then this tender will no longer be considered for the award of the contract.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.2 C COMMISSIONER OF OATH CERTIFICATION

SIGNATURE

DULY AUTHORISED TO SIGN

ON BEHALF OF

ADDRESS

.....

.....

.....

TELEPHONE NO.

DATE

COMMISSIONER OF OATHS:

SIGNATURE:

DATE:

STAMP:

MUST BE DATE STAMPED AND SIGNED BY A COMMISSIONER OF OATHS



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SBD 4

T2.2 D DECLARATION OF INTEREST

1. Any legal person, including persons employed by the state¹, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority where-

- The bidder is employed by the state; and/or
- The legal person on whose behalf the bidding document is signed, has a relationship with persons/ a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

2. **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

- 2.1 Full name of bidder or his or her representative.....
- 2.2 Identity Number:.....
- 2.3 Position occupied in the Company (director, trustee, shareholder², member):.....
.....
- 2.4 Registration number of company, enterprise, close corporation, partnership agreement or trust
- 2.5 Tax Reference Number:.....
- 2.6 VAT Registration Number:.....
- 2.6.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / PERSAL numbers must be indicated in paragraph 3 below.

¹“State” means -

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

² "Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

2.7 Are you or any person connected with the bidder presently employed by the state? **YES/NO**

2.7.1 If so, furnish the following particulars:

Name of person / director / trustee / shareholder / member:.....

Name of state institution at which you or the person connected to the bidder is employed :

Position occupied in the state institution:.....

Any other particulars:
.....
.....

2.7.2 If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector? **YES / NO**

2.7.2.1 If yes, did you attach proof of such authority to the bid document? **YES / NO**

(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.

2.7.2.2 If no, furnish reasons for non-submission of such proof:
.....
.....

2.8 Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months? **YES/NO**

2.8.1 If so, furnish particulars:
.....
.....

2.9 Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid **YES/NO**

2.9.1 If so, furnish particulars
.....
.....

4 DECLARATION

I, THE UNDERSIGNED (NAME)

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SBD 8

T2.2 E DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Standard Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by institutions in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
- 3 The bid of any bidder may be disregarded if that bidder, or any of its directors have-
 - a. abused the institution's supply chain management system;
 - b. committed fraud or any other improper conduct in relation to such system; or
 - c. failed to perform on any previous contract.
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

4.1	<p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).</p> <p>The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		

4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		

CERTIFICATION

**I, THE UNDERSIGNED (FULL NAME).....
 CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE
 AND CORRECT.**

**I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE
 TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.**

.....
 Signature

.....
 Date

.....
 Position

.....
 Name of Bidder



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SBD 9

T2.2 F CERTIFICATE OF INDEPENDENT BID DETERMINATION

This Standard Bidding Document (SBD) must form part of all bids¹ invited.

Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging)². Collusive bidding is a *per se* prohibition meaning that it cannot be justified under any grounds.

Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to :

1. Disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
2. Cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.

This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.

In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

¹ Includes price quotations, advertised competitive bids, limited bids and proposals

² Bid rigging (or collusive bidding) occurs when business, that would otherwise be expected to compete, secretly conspires to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

CERTIFICATION OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

In response to the invitation for the bid made by:

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____ that:
(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder.
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;

- (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation

³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.2 G FORM OF INTENT TO PROVIDE GUARANTEE

With reference to Clause C1.4 of the contract, the Tenderer **must attach hereto a letter from the bank or institution with whom he has made the necessary arrangements**, to the effect that the said bank or institution will be prepared to provide a completed performance guarantee in the format below, **without any amendments** when asked to do so. The Pro-forma below is for the tenderers use.

PRO-FORMA OF GUARANTEE

Employer' name and address: **THE HEAD OF THE DEPARTMENT, DEPARTMENT OF ROADS AND TRANSPORT (ROADS BRANCH), GAUTENG PROVINCIAL GOVERNMENT, LIFE CENTRE BUILDING, 45 COMMISSIONER STREET, JOHANNESBURG.**

Contract No: **DRT 36/11/2019**

Contract title: **CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM**

PERFORMANCE GUARANTEE

For use with the General Conditions of Contract for Construction Works, Third Edition, 2015

GUARANTOR DETAILS AND DEFINITIONS

“Guarantor” means:
.....

Physical address:
.....

“Employer” means:
.....

“Contractor” means:
.....

“Employer Agent” means:
.....

“Work” 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 in 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

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

1. VARIABLE PERFORMANCE GUARANTEE

1.1 Where a Variable Performance Guarantee has been selected, the Guarantor’s Liability shall be limited during the following periods to diminishing amounts of the Guaranteed Sum as follows:

1.1.1 From and including the date of signing the Performance Guarantee up to and including the date of the interim payment certificate certifying, for the first time, more than 50% of the Contract Sum:

R.....

(Amount in words)

1.1.2 From the day following the date of the said interim payment certificate up to and including the Expiry Date, or the date of issue by the Employers Agent of the Certificate of Completion of the Works, whichever occurs first:

R.....

(Amount in words)

1.1 The Employers Agent and/or the Employer shall advise the Guarantor in writing of the date on which the interim payment certificate certifying, for the first time, more than 50% of the Contract Sum, has been issued and the date on which the Certificate of Completion of the Works has been issued.

2. FIXED PERFORMANCE GUARANTEE

2.1 Where a Fixed Performance Guarantee has been selected, the Guarantor’s liability shall be limited to the amount of the Guaranteed Sum.

2.2 The Guarantor’s period of liability shall be from and including the date on which the Performance Guarantee is signed up and including the Expiry Date, or the date of issue by the

Employers Agent of the Certificate of Completion of the Works, or the date of payment in full of the Guaranteed Sum. Whichever occurs first.

2.3 The Employers Agent and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of Works has been issued.

3. CONDITIONS APPLICABLE TO VARIABLE AND FIXED PERFORMANCE GUARANTEES

3.1 The Guarantor hereby acknowledges that:

3.1.1 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;

3.1.2 Its obligation under this Performance Guarantee is restricted to the payment of money

3.2 Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 3.2.1 to 3.2.3:

3.2.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Employers Agent 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 3.2.2;

3.2.2 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 a period of seven (7) days has elapsed since the written demand in terms of 3.2.1 and the sum certified has still not been paid;

3.2.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 3.2

3.3 Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, 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;

3.3.1 The Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 3.3; or

3.3.2 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 3.3; and

3.3.3 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.

3.4 It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 3.2 and 3.3 shall not exceed the Guarantor's maximum liability in terms of 1.1 or 2.1

3.5 Where the Guarantor has made payment in terms of 3.3, 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.

3.6 Payment by the Guarantor in terms of 3.2 or 3.3 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.

3.7 Payment by the Guarantor in terms of 3.3 will only be made against the return of the original Performance Guarantee by the Employer.

3.8 The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may consider 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.

3.9 The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.

3.10 This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 1.1.2 or 2.2 where after no claims will be considered by the Guarantor. The original of this Guarantee shall returned to the Guarantor after it has expired.

3.11 This Performance Guarantee, with the required demand notices in terms of 3.2 or 3.3, shall be regarded as a liquid document for the purposes of obtaining a court order.

3.12 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)



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.2 H LETTER OF INTENT TO PROVIDE INSURANCE

The Tenderer must attach hereto a letter of intent to provide insurance

T2.2 I DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT

This Standard Bidding Document (SBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2011 and the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:201x.

1. General Conditions

1.1. Preferential Procurement Regulations, 2011 (Regulation 9. (1) and 9. (3) make provision for the promotion of local production and content.

1.2. Regulation 9.(1) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.

1.3. Regulation 9.(3) prescribes that where there is no designated sector, a specific bidding condition may be included, that only locally produced services, works or goods or locally manufactured goods with a stipulated minimum threshold for local production and content, will be considered.

1.4. Where necessary, for bids referred to in paragraphs 1.2 and 1.3 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.

1.5. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.

1.6. The local content (LC) as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 201x as follows:

$$LC = \{1 - (x/y)\} * 100$$

Where

x - imported content

y - bid price excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date, one week (7 calendar days) prior to the closing date of the bid as indicated in paragraph 4.1 below.

1.7. A bid will be disqualified if:

- the bidder fails to achieve the stipulated minimum threshold for local production

- and content indicated in paragraph 3 below; and.
- this declaration certificate is not submitted as part of the bid documentation.

2. Definitions

2.1 “**bid**” includes advertised competitive bids, written price quotations or proposals;

2.2 “**bid price**” price offered by the bidder, excluding value added tax (VAT);

2.3 “**contract**” means the agreement that results from the acceptance of a bid by an organ of state;

2.4 “**designated sector**” means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;

2.5 “**duly sign**” means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility (close corporation, partnership or individual).

2.6 “**imported content**” means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad, plus, freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;

2.7 “**local content**” means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;

2.8 “**stipulated minimum threshold**” means that portion of local production and content as determined by the Department of Trade and Industry; and

2.9 “**sub-contract**” means the primary contractor’s assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.

3. The stipulated minimum threshold(s) for local production and content for this bid is/are as follows:

Description of services, works or goods	Stipulated minimum threshold
_____	_____ %
_____	_____ %
_____	_____ %

4. Does any portion of the services, works or goods offered have any imported content? YES / NO

4.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.6 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date, one week (7 calendar days) prior to the closing date of the bid.

The relevant rates of exchange information is accessible on www.reservebank.co.za.

Indicate the rate(s) of exchange against the appropriate currency in the table below:

Currency	Rates of exchange
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID No.

ISSUED BY: (Procurement Authority / Name of Institution):

NB The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

I, the undersigned, (full names),

do hereby declare, in my capacity as

of(name of bidder entity), the following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have satisfied myself that the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286.

(c) The local content has been calculated using the formula given in clause 3 of SATS 1286, the rates of exchange indicated in paragraph 4.1 above and the following figures:

Bid price, excluding VAT (y) R.....

Imported content (x) R.....

Stipulated minimum threshold for Local content (paragraph 3 above)

Local content % , as calculated in terms of SATS 1286.....

If the bid is for more than one product, a schedule of the local content by product shall be attached.

(d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286.

(e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____ DATE: _____

WITNESS No. 1 _____ DATE: _____

WITNESS No. 2 _____ DATE: _____

T2.2 J TENDERER'S BANK DETAILS

Notes to tenderer:

1. The tenderer shall attach to this form a letter from the bank at which he declares he conducts his account. The contents of the bank's letter must state the credit rating that it, in addition to the information required below, accords to the tenderer for the business envisaged by this tender. Failure to provide the required letter with the tender submission may render the tenderer's offer non-responsive in terms of tender condition 5.8.
2. The tenderer's banking details as they appear below shall be completed.
3. In the event that the tenderer is a joint venture enterprise, details of all the members of the joint venture shall be similarly provided and attached to this form.
4. Quality points will be awarded for the tenders bank rating described in Clause No 5.11.9 in the tender data. The tenderer can qualify for functionally points (maximum of 10 points) for a good credit rating.
5. The date on the bank rating must be less than 12 months from the date of the tender closure.

The tenderer shall provide the following:

- i) Name of Account Holder:
- ii) Account Number:
- iii) Bank name:.....
- iv) Branch Number:.....
- v) Bank and branch contact details
-

T2.2 K SCHEDULE OF TENDERER'S LITIGATION HISTORY

Note to tenderer:

The tenderer shall list below details of any litigation with which the tenderer (including its directors, shareholders or other senior members in previous companies) has been involved with any organ of state or state department within the last ten years. The details must include the year, the litigating parties, the subject matter of the dispute, the value of any award or estimated award if the litigation is current and in whose favour the award, if any, was made.

Employer	Other litigating party	Dispute	Award value	Date resolved



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.3 RETURNABLE SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT

<u>T2.3 A</u>	<u>ORGANOGRAM, FORM BELOW OF KEY PERSONNEL.....</u>	85
<u>T2.3 B</u>	<u>PROJECT PROGRAMME AND METHOD STATEMENT.....</u>	110
<u>T2.3 C</u>	<u>RATES FOR SPECIAL MATERIALS.....</u>	111



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.3 A ORGANOGRAM, FORM BELOW OF KEY PERSONNEL

The Tenderer shall supply an organogram for the management of the contract and include technical/managerial records of key personnel according to the format on the B1 and B2 forms. These records shall provide evidence of relevant experience of the key staff in the organogram. The personnel included here shall be used on the project unless otherwise agreed by the Engineer's Agent. B1 and B2 forms shall be provided for at least the Construction Manager, Senior Site Agent, Foreman and Safety Officer. Failure to comply with these requirements will result in bidders losing points.

CLIENT & PROJECT NO (NOTE 2)	PROJECT TYPE (NOTE 3)	RELEVANT EXPERIENCE STARTED (NOTE 4)	RELEVANT EXPERIENCE ENDED (NOTE 4)	VALUE (NOTE 5)	POSITION HELD (NOTE 6)	CONTACT PERSON AND POSITION (NOTE 7)	CONTACT NO.

Comments: _____

I declare that I have read and understand the meaning of the Note to tenderer (as outlined above) and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE: SIGNED BY TENDERER:

NB: KINDLY INITIAL THIS PAGE IN THE PRESENCE OF A COMMISSIONER OF OATHS / JUSTICE OF PEACE.

COMMISSIONER OF OATHS (Commissioner's stamp)

Notes to Tenderer and compiler:

1. Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's construction team. However, the same candidate may not be proposed for more than 1 position in the construction phase.
2. Use abbreviations and acronyms in Table but clarify in comments what they stand for.
3. Project type – select from the list in the table below. If the list, in the opinion of the tenderer, does not contain an appropriate match of the project being registered then select what is closest to it in the selection list and in the comment space provided clarify what its relevance is to the project tendered.
4. Year started –Construction phase: for the relevant experience during the construction phase, state the month and year of start and end (or current date if position is still occupied) of involvement in construction. In the event that the project has been designed only, or is still in the design phase clarify in the comments area that the project experience is for design only.
5. Value means the completed value of the works including all extra works, (including claims) contract price adjustment and VAT. If construction is not complete, insert the total value of construction (as before) followed by (E) showing it is the estimated value.
6. Select from the list in the table below the position held by the candidate.
If, in the opinion of the tenderer, there is no equivalent position, select what is closest to it in the selection list and, in the comment space provided clarify in what aspects it differs.
7. Give the name, position held and contact number of the responsible person acting for the listed client and who will be able to vouch for the accuracy of the information provided.

Positions (Notes 1 and 6)	Abbreviation	Project Type (Note3)	Abbreviation
Project leader	PL	Ad-Hoc Maintenance – Road Marking	MAM
Alternate project leader	APL	Ad-Hoc Maintenance – Road Signs	MAS
Design specialist – Geometric	DS (Geom)	Maintenance, Periodic – Reseal	MPS
Design Specialist - Bridges	DS (Bridge)	Maintenance, Periodic – Asphalt	MPA
Design specialist – Pavement	DS (Pave)	Maintenance, Special – reseal	MSS
Design Specialist – Traffic	DS (Traffic)	Maintenance, Special – Asphalt	MSA
Design Specialist – Other (Tenderer to specify)	DS (Specify)	Maintenance, Special – concrete	MSC
Contract engineer (the engineer construction phase)	CE	Maintenance, Special – structures	MSB
Alternate Contract Engineer	ACE	Maintenance, Special – geotechnical	MSG
Resident engineer	RE	Development, Strengthening – reseal	DSS
Assistant resident engineer	ARE	Development, strengthening – asphalt	DSA
Senior Materials technician	SMT	Development, strengthening – concrete	DSC
Contracts manager	CM	Development, strengthening – geotechnical	DSG
Site agent	SA	Development, strengthening – structures	DSB
Project Engineer (Employer)	PE(E)	Development, Improvements – reseal	DIS
Route Manager	RM	Development, improvements – asphalt	DIA
Assistant Route Manager	ARM	Development, improvements – concrete	DIC
		Development, improvements – structures	DIB
		Development, improvements – geotechnical	DIG
		Development, new – reseal	DNS
		Development, new – asphalt	DNA
		Development, new – concrete	

FORM B2: CANDIDATE’S CONTINUING PROFESSIONAL DEVELOPMENT RECORD

Note: Tenderers to add additional copies of this form as necessary to their tender submissions

CONSTRUCTION MANAGER/ENGINEER

Personal Details of Candidate

Name	Position in team (Note 1)	Position in Company (Note 2)
	Construction Manager/Engineer	

Registration with professional bodies

Professional registration body	ECSA (Note 3)	SACPCMP (Note 3)	Highest Engineering qualification	Institution	Date graduated
Level of registration					
Registration number			Initial relevant Tertiary Qualification	Institution	Date graduated
Date of registration					

Continuing Professional Development (candidate to list 5 most recent courses that he/she considers relevant to the engineering field)

Course Type (Note 4)	Host Institute (Note 5)	Participation (Note 6)	Course Content	When held (Note 7)	Field Study (Note 8)

I declare that I have read and understand the meaning of the Note to tenderer (as outlined above) and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE: SIGNED BY TENDERER:

Notes to tenderer and candidate:

- 1) Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's design or construction team. The same candidate may be proposed for more than 1 position simultaneously, in which case it is advisable to complete different forms for each position to demonstrate the candidate's training in the engineering field. However, the same candidate may not be proposed for more than 1 position in the construction phase.
- 2) Select from the list of company positions in the table below the actual position that the candidate occupies in the tenderer's organisational structure.
- 3) Each candidate must provide the relevant level of registration (e.g. Fellow, associate, candidate, professional etc) registration number and registration date for each of the listed professional bodies. If different from those in the pro-forma then the candidate must list the equivalent body with which he/she is registered and in the space provided for comments give a brief explanation of that body.

 ECSA = Engineering Council of South Africa
 SACPCMP = South African Council for the Project and Construction Management Professions
- 4) Select from the list of course types given in the table below. If, in the opinion of the candidate, there is no equivalent course type select what is closest to it in the selection list ' and explain in the space made available.
- 5) Select from the list of host institutions given in the table below. If, in the opinion of the candidate, there is no equivalent host institution select what is closest to it in the selection list and in the space provided explain differences from those in the selection list.
- 6) Select from the list of participative levels given in the table below. If, in the opinion of the candidate, there is no equivalent participation activity, select what is closest to it in the selection list ' and in the space made available explain differences from the selection list.
- 7) Only enter courses attended within the last five years. Give month and year of the course.
- 8) Select from the list of Study Fields

Position proposed (Note 1)	Abbreviation	Position in company (Note 2)	Course Type (Note 4)	Host Institutions (Note 5)	Participative Levels (Note 6)	Field of Study (Note 8)
Project leader	PL	Director (with executive powers)	Conference	Academia	Presenter	Technical
Alternate project leader	APL	Director (without executive powers)	Seminar	Registered training institution	Delegate	OHS – Any Occupational Health and Safety Act 85 of 1993 courses and associated Regulations for General, Health, Mechanical and Electrical courses
Design specialist – Geometric	DS (Geom)	Associate (with shares)	Study Course	Industry	Attendant	
Design Specialist – Structural	DS (Struct.)	Associate (without shares)	Workshop		Lecturer	
Design specialist – Pavement	DS (Pave)	Employee (engineer/technician)			Co-ordinator	
Design Specialist – Traffic	DS (Traff)	Contracted engineer/technician			Author	
Design Specialist – Other (Tenderer to specify)	DS (Specify)				Student	
Contract engineer (the engineer construction phase)	CE					
Alternate Contract Engineer	ACE					
Resident engineer	RE					
Assistant resident engineer	ARE					

Senior Materials technician	SMT
Contracts manager	CM
Site agent	SA

CLIENT & PROJECT NO (NOTE 2)	PROJECT TYPE (NOTE 3)	RELEVANT EXPERIENCE STARTED (NOTE 4)	RELEVANT EXPERIENCE ENDED (NOTE 4)	VALUE (NOTE 5)	POSITION HELD (NOTE 6)	CONTACT PERSON AND POSITION (NOTE 7)	CONTACT NO.

Comments: _____

I declare that I have read and understand the meaning of the Note to tenderer (as outlined above) and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE: SIGNED BY TENDERER:

NB: KINDLY INITIAL THIS PAGE IN THE PRESENCE OF A COMMISSIONER OF OATHS / JUSTICE OF PEACE.

COMMISSIONER OF OATHS (Commissioner's stamp)

Notes to Tenderer and compiler:

1. Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's construction team. However, the same candidate may not be proposed for more than 1 position in the construction phase.
2. Use abbreviations and acronyms in Table but clarify in comments what they stand for.
3. Project type – select from the list in the table below. If the list, in the opinion of the tenderer, does not contain an appropriate match of the project being registered then select what is closest to it in the selection list and in the comment space provided clarify what its relevance is to the project tendered.
4. Year started –Construction phase: for the relevant experience during the construction phase, state the month and year of start and end (or current date if position is still occupied) of involvement in construction. In the event that the project has been designed only, or is still in the design phase clarify in the comments area that the project experience is for design only.
5. Value means the completed value of the works including all extra works, (including claims) contract price adjustment and VAT. If construction is not complete, insert the total value of construction (as before) followed by (E) showing it is the estimated value.
6. Select from the list in the table below the position held by the candidate.
If, in the opinion of the tenderer, there is no equivalent position, select what is closest to it in the selection list and, in the comment space provided clarify in what aspects it differs.
7. Give the name, position held and contact number of the responsible person acting for the listed client and who will be able to vouch for the accuracy of the information provided.

Positions (Notes 1 and 6)	Abbreviation	Project Type (Note3)	Abbreviation
Project leader	PL	Ad-Hoc Maintenance – Road Marking	MAM
Alternate project leader	APL	Ad-Hoc Maintenance – Road Signs	MAS
Design specialist – Geometric	DS (Geom)	Maintenance, Periodic – Reseal	MPS
Design Specialist - Bridges	DS (Bridge)	Maintenance, Periodic – Asphalt	MPA
Design specialist – Pavement	DS (Pave)	Maintenance, Special – reseal	MSS
Design Specialist – Traffic	DS (Traffic)	Maintenance, Special – Asphalt	MSA
Design Specialist – Other (Tenderer to specify)	DS (Specify)	Maintenance, Special – concrete	MSC
Contract engineer (the engineer construction phase)	CE	Maintenance, Special – structures	MSB
Alternate Contract Engineer	ACE	Maintenance, Special – geotechnical	MSG
Resident engineer	RE	Development, Strengthening – reseal	DSS
Assistant resident engineer	ARE	Development, strengthening – asphalt	DSA
Senior Materials technician	SMT	Development, strengthening – concrete	DSC
Contracts manager	CM	Development, strengthening – geotechnical	DSG
Site agent	SA	Development, strengthening – structures	DSB
Project Engineer (Employer)	PE(E)	Development, Improvements – reseal	DIS
Route Manager	RM	Development, improvements – asphalt	DIA
Assistant Route Manager	ARM	Development, improvements – concrete	DIC
		Development, improvements – structures	DIB
		Development, improvements – geotechnical	DIG
		Development, new – reseal	DNS
		Development, new – asphalt	DNA
		Development, new – concrete	

FORM B2: CANDIDATE’S CONTINUING PROFESSIONAL DEVELOPMENT RECORD

Note: Tenderers to add additional copies of this form as necessary to their tender submissions

SITE AGENT

Personal Details of Candidate

Name	Position in team (Note 1)	Position in Company (Note 2)
	Site Agent	

Registration with professional bodies

Professional registration body	ECSA (Note 3)	SACPCMP (Note 3)	Highest Engineering qualification	Institution	Date graduated
Level of registration					
Registration number			Initial relevant Tertiary Qualification	Institution	Date graduated
Date of registration					

Continuing Professional Development (candidate to list 5 most recent courses that he/she considers relevant to the engineering field)

Course Type (Note 4)	Host Institute (Note 5)	Participation (Note 6)	Course Content	When held (Note 7)	Field Study (Note 8)

I declare that I have read and understand the meaning of the Note to tenderer (as outlined above) and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE: SIGNED BY TENDERER:

Notes to tenderer and candidate:

- 1) Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's design or construction team. The same candidate may be proposed for more than 1 position simultaneously, in which case it is advisable to complete different forms for each position to demonstrate the candidate's training in the engineering field. However, the same candidate may not be proposed for more than 1 position in the construction phase.
- 2) Select from the list of company positions in the table below the actual position that the candidate occupies in the tenderer's organisational structure.
- 3) Each candidate must provide the relevant level of registration (e.g. Fellow, associate, candidate, professional etc) registration number and registration date for each of the listed professional bodies. If different from those in the pro-forma then the candidate must list the equivalent body with which he/she is registered and in the space provided for comments give a brief explanation of that body.

ECSA = Engineering Council of South Africa

SACPCMP = South African Council for the Project and Construction Management Professions

- 4) Select from the list of course types given in the table below. If, in the opinion of the candidate, there is no equivalent course type select what is closest to it in the selection list ' and explain in the space made available.
- 5) Select from the list of host institutions given in the table below. If, in the opinion of the candidate, there is no equivalent host institution select what is closest to it in the selection list and in the space provided explain differences from those in the selection list.
- 6) Select from the list of participative levels given in the table below. If, in the opinion of the candidate, there is no equivalent participation activity, select what is closest to it in the selection list ' and in the space made available explain differences from the selection list.
- 7) Only enter courses attended within the last five years. Give month and year of the course.
- 8) Select from the list of Study Fields

Position proposed (Note 1)	Abbreviation	Position in company (Note 2)	Course Type (Note 4)	Host Institutions (Note 5)	Participative Levels (Note 6)	Field of Study (Note 8)
Project leader	PL	Director (with executive powers)	Conference	Academia	Presenter	Technical
Alternate project leader	APL	Director (without executive powers)	Seminar	Registered training institution	Delegate	OHS – Any Occupational Health and Safety Act 85 of 1993 courses and associated Regulations for General, Health, Mechanical and Electrical courses
Design specialist – Geometric	DS (Geom)	Associate (with shares)	Study Course	Industry	Attendant	
Design Specialist – Structural	DS (Struct.)	Associate (without shares)	Workshop		Lecturer	
Design specialist – Pavement	DS (Pave)	Employee (engineer/technician)			Co-ordinator	
Design Specialist – Traffic	DS (Traff)	Contracted engineer/technician			Author	
Design Specialist – Other (Tenderer to specify)	DS (Specify)				Student	
Contract engineer (the engineer construction phase)	CE					
Alternate Contract Engineer	ACE					
Resident engineer	RE					
Assistant resident engineer	ARE					

Senior Materials technician	SMT
Contracts manager	CM
Site agent	SA

CLIENT & PROJECT NO (NOTE 2)	PROJECT TYPE (NOTE 3)	RELEVANT EXPERIENCE STARTED (NOTE 4)	RELEVANT EXPERIENCE ENDED (NOTE 4)	VALUE (NOTE 5)	POSITION HELD (NOTE 6)	CONTACT PERSON AND POSITION (NOTE 7)	CONTACT NO.

Comments: _____

I declare that I have read and understand the meaning of the Note to tenderer (as outlined above) and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE:SIGNED BY TENDERER:

NB: KINDLY INITIAL THIS PAGE IN THE PRESENCE OF A COMMISSIONER OF OATHS / JUSTICE OF PEACE.

COMMISSIONER OF OATHS (Commissioner's stamp)

Notes to Tenderer and compiler:

1. Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's construction team. However, the same candidate may not be proposed for more than 1 position in the construction phase.
2. Use abbreviations and acronyms in Table but clarify in comments what they stand for.
3. Project type – select from the list in the table below. If the list, in the opinion of the tenderer, does not contain an appropriate match of the project being registered then select what is closest to it in the selection list and in the comment space provided clarify what its relevance is to the project tendered.
4. Year started –Construction phase: for the relevant experience during the construction phase, state the month and year of start and end (or current date if position is still occupied) of involvement in construction. In the event that the project has been designed only, or is still in the design phase clarify in the comments area that the project experience is for design only.
5. Value means the completed value of the works including all extra works, (including claims) contract price adjustment and VAT. If construction is not complete, insert the total value of construction (as before) followed by (E) showing it is the estimated value.
6. Select from the list in the table below the position held by the candidate.
If, in the opinion of the tenderer, there is no equivalent position, select what is closest to it in the selection list and, in the comment space provided clarify in what aspects it differs.
7. Give the name, position held and contact number of the responsible person acting for the listed client and who will be able to vouch for the accuracy of the information provided.

Positions (Notes 1 and 6)	Abbreviation	Project Type (Note3)	Abbreviation
Project leader	PL	Ad-Hoc Maintenance – Road Marking	MAM
Alternate project leader	APL	Ad-Hoc Maintenance – Road Signs	MAS
Design specialist – Geometric	DS (Geom)	Maintenance, Periodic – Reseal	MPS
Design Specialist - Bridges	DS (Bridge)	Maintenance, Periodic – Asphalt	MPA
Design specialist – Pavement	DS (Pave)	Maintenance, Special – reseal	MSS
Design Specialist – Traffic	DS (Traffic)	Maintenance, Special – Asphalt	MSA
Design Specialist – Other (Tenderer to specify)	DS (Specify)	Maintenance, Special – concrete	MSC
Contract engineer (the engineer construction phase)	CE	Maintenance, Special – structures	MSB
Alternate Contract Engineer	ACE	Maintenance, Special – geotechnical	MSG
Resident engineer	RE	Development, Strengthening – reseal	DSS
Assistant resident engineer	ARE	Development, strengthening – asphalt	DSA
Senior Materials technician	SMT	Development, strengthening – concrete	DSC
Contracts manager	CM	Development, strengthening – geotechnical	DSG
Site agent	SA	Development, strengthening – structures	DSB
Project Engineer (Employer)	PE(E)	Development, Improvements – reseal	DIS
Route Manager	RM	Development, improvements – asphalt	DIA
Assistant Route Manager	ARM	Development, improvements – concrete	DIC
		Development, improvements – structures	DIB
		Development, improvements – geotechnical	DIG
		Development, new – reseal	DNS
		Development, new – asphalt	DNA
		Development, new – concrete	

FORM B2: CANDIDATE’S CONTINUING PROFESSIONAL DEVELOPMENT RECORD

Note: Tenderers to add additional copies of this form as necessary to their tender submissions

FOREMAN

Personal Details of Candidate

Name	Position in team (Note 1)	Position in Company (Note 2)
	Foreman	

Registration with professional bodies

Professional registration body	ECSA (Note 3)	SACPCMP (Note 3)	Highest Engineering qualification	Institution	Date graduated
Level of registration					
Registration number			Initial relevant Tertiary Qualification	Institution	Date graduated
Date of registration					

Continuing Professional Development (candidate to list 5 most recent courses that he/she considers relevant to the engineering field)

Course Type (Note 4)	Host Institute (Note 5)	Participation (Note 6)	Course Content	When held (Note 7)	Field Study (Note 8)

I declare that I have read and understand the meaning of the Note to tenderer (as outlined above) and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE: SIGNED BY TENDERER:

T-2 Page 102 of 488

Notes to tenderer and candidate:

- 1) Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's design or construction team. The same candidate may be proposed for more than 1 position simultaneously, in which case it is advisable to complete different forms for each position to demonstrate the candidate's training in the engineering field. However, the same candidate may not be proposed for more than 1 position in the construction phase.
- 2) Select from the list of company positions in the table below the actual position that the candidate occupies in the tenderer's organisational structure.
- 3) Each candidate must provide the relevant level of registration (e.g. Fellow, associate, candidate, professional etc) registration number and registration date for each of the listed professional bodies. If different from those in the pro-forma then the candidate must list the equivalent body with which he/she is registered and in the space provided for comments give a brief explanation of that body.

 ECSA = Engineering Council of South Africa
 SACPCMP = South African Council for the Project and Construction Management Professions
- 4) Select from the list of course types given in the table below. If, in the opinion of the candidate, there is no equivalent course type select what is closest to it in the selection list ' and explain in the space made available.
- 5) Select from the list of host institutions given in the table below. If, in the opinion of the candidate, there is no equivalent host institution select what is closest to it in the selection list and in the space provided explain differences from those in the selection list.
- 6) Select from the list of participative levels given in the table below. If, in the opinion of the candidate, there is no equivalent participation activity, select what is closest to it in the selection list ' and in the space made available explain differences from the selection list.
- 7) Only enter courses attended within the last five years. Give month and year of the course.
- 8) Select from the list of Study Fields

Position proposed (Note 1)	Abbreviation	Position in company (Note 2)	Course Type (Note 4)	Host Institutions (Note 5)	Participative Levels (Note 6)	Field of Study (Note 8)
Project leader	PL	Director (with executive powers)	Conference	Academia	Presenter	Technical
Alternate project leader	APL	Director (without executive powers)	Seminar	Registered training institution	Delegate	OHS – Any Occupational Health and Safety Act 85 of 1993 courses and associated Regulations for General, Health, Mechanical and Electrical courses
Design specialist – Geometric	DS (Geom)	Associate (with shares)	Study Course	Industry	Attendant	
Design Specialist – Structural	DS (Struct.)	Associate (without shares)	Workshop		Lecturer	
Design specialist – Pavement	DS (Pave)	Employee (engineer/technician)			Co-ordinator	
Design Specialist – Traffic	DS (Traff)	Contracted engineer/technician			Author	
Design Specialist – Other (Tenderer to specify)	DS (Specify)				Student	
Contract engineer (the engineer construction phase)	CE					
Alternate Contract Engineer	ACE					
Resident engineer	RE					
Assistant resident engineer	ARE					

Senior Materials technician	SMT
Contracts manager	CM
Site agent	SA

CLIENT & PROJECT No (NOTE 2)	PROJECT TYPE (NOTE 3)	RELEVANT EXPERIENCE STARTED (NOTE 4)	RELEVANT EXPERIENCE ENDED (NOTE 4)	VALUE (NOTE 5)	POSITION HELD (NOTE 6)	CONTACT PERSON AND POSITION (NOTE 7)	CONTACT NO.

Comments: _____

I declare that I have read and understand the meaning of the Note to tenderer (as outlined above) and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE:SIGNED BY TENDERER:

NB: KINDLY INITIAL THIS PAGE IN THE PRESENCE OF A COMMISSIONER OF OATHS / JUSTICE OF PEACE.

COMMISSIONER OF OATHS (Commissioner's stamp)

Notes to Tenderer and compiler:

1. Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's construction team. However, the same candidate may not be proposed for more than 1 position in the construction phase.
2. Use abbreviations and acronyms in Table but clarify in comments what they stand for.
3. Project type – select from the list in the table below. If the list, in the opinion of the tenderer, does not contain an appropriate match of the project being registered then select what is closest to it in the selection list and in the comment space provided clarify what its relevance is to the project tendered.
4. Year started –Construction phase: for the relevant experience during the construction phase, state the month and year of start and end (or current date if position is still occupied) of involvement in construction. In the event that the project has been designed only, or is still in the design phase clarify in the comments area that the project experience is for design only.
5. Value means the completed value of the works including all extra works, (including claims) contract price adjustment and VAT. If construction is not complete, insert the total value of construction (as before) followed by (E) showing it is the estimated value.
6. Select from the list in the table below the position held by the candidate.
If, in the opinion of the tenderer, there is no equivalent position, select what is closest to it in the selection list and, in the comment space provided clarify in what aspects it differs.
7. Give the name, position held and contact number of the responsible person acting for the listed client and who will be able to vouch for the accuracy of the information provided.

Positions (Notes 1 and 6)	Abbreviation	Project Type (Note3)	Abbreviation
Project leader	PL	Ad-Hoc Maintenance – Road Marking	MAM
Alternate project leader	APL	Ad-Hoc Maintenance – Road Signs	MAS
Design specialist – Geometric	DS (Geom)	Maintenance, Periodic – Reseal	MPS
Design Specialist - Bridges	DS (Bridge)	Maintenance, Periodic – Asphalt	MPA
Design specialist – Pavement	DS (Pave)	Maintenance, Special – reseal	MSS
Design Specialist – Traffic	DS (Traffic)	Maintenance, Special – Asphalt	MSA
Design Specialist – Other (Tenderer to specify)	DS (Specify)	Maintenance, Special – concrete	MSC
Contract engineer (the engineer construction phase)	CE	Maintenance, Special – structures	MSB
Alternate Contract Engineer	ACE	Maintenance, Special – geotechnical	MSG
Resident engineer	RE	Development, Strengthening – reseal	DSS
Assistant resident engineer	ARE	Development, strengthening – asphalt	DSA
Senior Materials technician	SMT	Development, strengthening – concrete	DSC
Contracts manager	CM	Development, strengthening – geotechnical	DSG
Site agent	SA	Development, strengthening – structures	DSB
Project Engineer (Employer)	PE(E)	Development, Improvements – reseal	DIS
Route Manager	RM	Development, improvements – asphalt	DIA
Assistant Route Manager	ARM	Development, improvements – concrete	DIC
		Development, improvements – structures	DIB
		Development, improvements – geotechnical	DIG
		Development, new – reseal	DNS
		Development, new – asphalt	DNA
Development, new – concrete			

FORM B2: CANDIDATE'S CONTINUING PROFESSIONAL DEVELOPMENT RECORD

Note: Tenderers to add additional copies of this form as necessary to their tender submissions

SAFETY OFFICER

Personal Details of Candidate

Name	Position in team (Note 1)	Position in Company (Note 2)
	Safety Officer	

Registration with professional bodies

Professional registration body	ECSA (Note 3)	SACPCMP (Note 3)	Highest Engineering qualification	Institution	Date graduated
Level of registration					
Registration number			Initial relevant Tertiary Qualification	Institution	Date graduated
Date of registration					

Continuing Professional Development (candidate to list 5 most recent courses that he/she considers relevant to the engineering field)

Course Type (Note 4)	Host Institute (Note 5)	Participation (Note 6)	Course Content	When held (Note 7)	Field Study (Note 8)

I declare that I have read and understand the meaning of the Note to tenderer (as outlined above) and confirm by my signature hereto that the information provided herein is true, that the positions occupied, the projects reported and the corresponding responsibilities are truly my own experiences.

DATE AND SIGNATURE BY CANDIDATE: SIGNED BY TENDERER:

Notes to tenderer and candidate:

- 1) Select from the list of positions in the table below the proposed position that the candidate will hold in the tenderer's design or construction team. The same candidate may be proposed for more than 1 position simultaneously, in which case it is advisable to complete different forms for each position to demonstrate the candidate's training in the engineering field. However, the same candidate may not be proposed for more than 1 position in the construction phase.
- 2) Select from the list of company positions in the table below the actual position that the candidate occupies in the tenderer's organisational structure.
- 3) Each candidate must provide the relevant level of registration (e.g. Fellow, associate, candidate, professional etc) registration number and registration date for each of the listed professional bodies. If different from those in the pro-forma then the candidate must list the equivalent body with which he/she is registered and in the space provided for comments give a brief explanation of that body.
 ECSA = Engineering Council of South Africa
 SACPCMP = South African Council for the Project and Construction Management Professions
- 4) Select from the list of course types given in the table below. If, in the opinion of the candidate, there is no equivalent course type select what is closest to it in the selection list ' and explain in the space made available.
- 5) Select from the list of host institutions given in the table below. If, in the opinion of the candidate, there is no equivalent host institution select what is closest to it in the selection list and in the space provided explain differences from those in the selection list.
- 6) Select from the list of participative levels given in the table below. If, in the opinion of the candidate, there is no equivalent participation activity, select what is closest to it in the selection list ' and in the space made available explain differences from the selection list.
- 7) Only enter courses attended within the last five years. Give month and year of the course.
- 8) Select from the list of Study Fields

Position proposed (Note 1)	Abbreviation	Position in company (Note 2)	Course Type (Note 4)	Host Institutions (Note 5)	Participative Levels (Note 6)	Field of Study (Note 8)
Project leader	PL	Director (with executive powers)	Conference	Academia	Presenter	Technical
Alternate project leader	APL	Director (without executive powers)	Seminar	Registered training institution	Delegate	OHS – Any Occupational Health and Safety Act 85 of 1993 courses and associated Regulations for General, Health, Mechanical and Electrical courses
Design specialist – Geometric	DS (Geom)	Associate (with shares)	Study Course	Industry	Attendant	
Design Specialist – Structural	DS (Struct.)	Associate (without shares)	Workshop		Lecturer	
Design specialist – Pavement	DS (Pave)	Employee (engineer/technician)			Co-ordinator	
Design Specialist – Traffic	DS (Traff)	Contracted engineer/technician			Author	
Design Specialist – Other (Tenderer to specify)	DS (Specify)				Student	
Contract engineer (the engineer construction phase)	CE					
Alternate Contract Engineer	ACE					
Resident engineer	RE					
Assistant resident engineer	ARE					

Senior Materials technician	SMT
Contracts manager	CM
Site agent	SA



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.3 B PROJECT PROGRAMME AND METHOD STATEMENT

Tenderers shall supply a project programme, using acceptable software, in sufficient detail to cover the various facets of the works.

This programme is to be supported by a method statement of the tenderer's proposed work plan for the construction of the works.

The programme shall clearly show any phases of the project as may be referred to in the Scope of Works.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

T2.3 C RATES FOR SPECIAL MATERIALS

Only bitumen products will be dealt with as a special material in terms of sub-clause 6.8.3 of the General Conditions of Contract. All bitumen products as indicated in the contract data must be stated in the list below. No additives or blending agents of non-bituminous content shall be considered as special materials.

The rates and prices for the special materials shall be furnished by the contractor, which rates and prices shall exclude VAT but shall include all other obligatory taxes and levies.

SPECIAL MATERIALS	UNIT *	RATE OR PRICE FOR THE BASE MONTH (Excl VAT)

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

When called upon to do so, the contractor shall substantiate the above rates or prices with acceptable documentary evidence from the applicable refinery supplying the bitumen.

SIGNED ON BEHALF OF TENDERER:

THE CONTRACT

PART C1	AGREEMENT AND CONTRACT DATA
PART C1	PRICING DATA
PART C2	SCOPE OF WORKS
PART C2	SITE INFORMATION
PART C3	ANNEXURES

PART C1: AGREEMENT AND CONTRACT DATA

<u>C1.1</u>	<u>FORM OF OFFER AND ACCEPTANCE</u>	114
<u>C1.2</u>	<u>CONTRACT FORM - PURCHASE OF GOODS/WORKS</u>	118
<u>C1.3</u>	<u>AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO. 85 OF 1993) AND CONSTRUCTION REGULATIONS, 2014</u>	121
<u>C1.4</u>	<u>PERFORMANCE GUARANTEE</u>	124
<u>C1.5</u>	<u>CONTRACT SPECIFIC DATA</u>	ERROR! BOOKMARK NOT DEFINED. 8
<u>C1.5.3</u>	<u>VARIATIONS TO THE GENERAL CONDITIONS OF CONTRACT</u>	133

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:

**TENDER No. DRT 36/11/2019 , FOR
CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO
K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD
D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY
15.4KM**

The Tenderer, identified in the Offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorised, 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 PRICE INCLUSIVE OF VALUE ADDED TAX IS

.....
..... Rand (in words); (in figures)

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

Signature(s)
Name(s)
Capacity
for the Tenderer
(Name and address of organization)
Name and
signature of
witness Date

Acceptance

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 C1 Pricing data
- PART C2 Scope of work
- PART C3 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 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 at, or just after, the date this Agreement comes into effect. 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 days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding Contract between the parties.

Signature(s)

Name(s)

Capacity

for the Employer

Department of Roads and Transport

Name and
signature of

witness Date:

Schedule of Deviations

Notes:

1. The extent of deviations from the tender documents issued by the Employer before the Tender closing date is limited to those permitted in terms of the Conditions of Tender.
2. A Tenderer'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 the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here.
4. Any changes or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

Schedule of Deviations

Item	Deviation Details

By the duly authorised representatives signing this schedule of deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the Offer agreed by the Tenderer and the Employer during this process of Offer and Acceptance.

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

For the Contractor:

Signature(s)

Name(s)

Capacity

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

Name and signature of witness Date:

For the Employer:

Signature(s)

Name(s)

Capacity

.....
for Department of Roads and Transport

Name and signature of witness Date:



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SBD 7.1

C1.2 CONTRACT FORM - PURCHASE OF GOODS/WORKS

THIS FORM MUST BE FILLED IN DUPLICATE BY BOTH THE SUCCESSFUL BIDDER (PART 1) AND THE PURCHASER (PART 2). BOTH FORMS MUST BE SIGNED IN THE ORIGINAL SO THAT THE SUCCESSFUL BIDDER AND THE PURCHASER WOULD BE IN POSSESSION OF ORIGINALLY SIGNED CONTRACTS FOR THEIR RESPECTIVE RECORDS.

PART 1 (TO BE FILLED IN BY THE BIDDER)

1. I hereby undertake to supply all or any of the goods and/or works described in the attached bidding documents to (name of institution)..... in accordance with the requirements and specifications stipulated in bid number..... at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the purchaser during the validity period indicated and calculated from the closing time of bid.

2. The following documents shall be deemed to form and be read and construed as part of this agreement:
 - (i) Bidding documents, viz
 - Invitation to bid;
 - Tax clearance certificate;
 - Pricing schedule(s);
 - Technical Specification(s);
 - Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2017;

- Declaration of interest;
- Declaration of bidder's past SCM practices;
- Certificate of Independent Bid Determination
- Special Conditions of Contract;

(ii) General Conditions of Contract; and

(iii) Other (specify)

3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the goods and/or works specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfilment of this contract.

5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES	
1
2.
DATE:

CONTRACT FORM - PURCHASE OF GOODS/WORKS

PART 2 (TO BE FILLED IN BY THE PURCHASER)

1. I..... in my capacity as..... accept your bid under reference numberdated.....for the supply of goods/works indicated hereunder and/or further specified in the annexure(s).
2. An official order indicating delivery instructions is forthcoming.
3. I undertake to make payment for the goods/works delivered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice accompanied by the delivery note.

ITEM NO.	PRICE (ALL APPLICABLE TAXES INCLUDED)	BRAND	DELIVERY PERIOD	B-BBEE STATUS LEVEL OF CONTRIBUTION	MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT (if applicable)

4. I confirm that I am duly authorised to sign this contract.

SIGNED ATON.....

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

1.

2.

DATE.....



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C1.3 AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO. 85 OF 1993) AND CONSTRUCTION REGULATIONS, 2014

THIS AGREEMENT made at on this the day of in the year..... between THE DEPARTMENT OF ROADS AND TRANSPORT, Roads Branch (hereinafter called "the Employer") on the one part, herein represented by **in his capacity as** and delegate of the Employer and..... (hereinafter called "the Principal Contractor") of the other part, herein represented by in his capacity as

WHEREAS the Employer is desirous that certain works be constructed, viz

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

and has accepted a tender by the Principal Contractor for the construction, completion & maintenance of such works and whereas the Employer and the Principal Contractor have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Principal Contractor with the provisions of the Occupational Health and Safety Act 1993 (Act 85 of 1993 and the Construction Regulation, February 2014);

NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. The Principal Contractor shall execute the work in accordance with the contract documents pertaining to this contract.
2. This Agreement shall hold good from its commencement date, which shall be the date of a written notice from the employer or Employer's agent requiring him to commence the execution of the Works, to either:
 - a) the date of the final certificate issued in terms of clause 6.1 of the General Conditions of Contract for Construction Works 2015 (3rd Edition) as issued by the South African Institution of Civil Engineering (hereinafter referred to as "the GCC 2015"),

- b) as contained in the contract documents pertaining to this contract, or
 - c) the date of termination of the contract in terms of clauses 9.1, 9.2 or 9.3 of the GCC 2015.
3. The Principal Contractor declares himself to be conversant with the following:-
- a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), hereinafter referred to as "The Act", together with its amendments and with special reference to the following Sections of The Act.
 - i) Section 8: General duties of employers to their employees.
 - ii) Section 9: General duties of employers and self-employed persons to persons other than employees.
 - iii) Section 37: Acts or omissions by employees or mandatories and
 - iv) Sub-section 37(2) relating to the purpose and meaning of this Agreement.
 - v) Construction Regulations February 2014, and other safety regulations, as applicable.
 - b) The procedures and safety rules of the employer as pertaining to the Principal Contractor and to all his sub-contractors.
4. The Principal Contractor is responsible for the compliance with the Act by all his sub-contractors, whether or not selected and/or approved by the employer.
5. The Principal Contractor warrants that all his and his sub-contractors' employees are covered in terms of the Compensation for Occupational Injuries and Diseases Act 1993 which cover shall remain in force whilst any such employees are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.
6. The Principal Contractor undertakes to ensure that he and/or his sub-contractors and/or their respective employees will at all times comply with the following conditions:
- a) The Principal Contractor shall assume the responsibility in terms of Section 16.1 of the Occupational Health and Safety Act. The Principal Contractor shall not delegate any duty in terms of Section 16.2 of this Act without the prior written approval of the Employer. If the Principal Contractor obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Employer.
 - b) All incidents referred to in the Occupational Health and Safety Act shall be reported by the Principal Contractor to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
 - c) The Employer hereby obtains an interest in the issue of any formal enquiry conducted in terms of section 32 of the Occupational Health and Safety Act into any incident involving the Principal Contractor and/or his employees and/or his sub-contractors.

In witness thereof the parties hereto have set their signatures hereon in the presence of the subscribing witnesses:

SIGNED FOR AND ON BEHALF OF THE EMPLOYER:.....

WITNESS: 1..... 2

NAME (IN CAPITALS) 1..... 2

SIGNED FOR AND ON BEHALF OF THE CONTRACTOR:.....

WITNESS: 1..... 2

NAME (IN CAPITALS) 1..... 2

C1.4 PERFORMANCE GUARANTEE

Appendix 3

General Conditions of Contract for Construction Works, Third Edition, 2015

**PRO FORMA
PERFORMANCE GUARANTEE**

For use with the General Conditions of Contract Works, Third Edition, 2015.

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:

"Physical" address:

"Employer" means:

"Contractor" means:

"Employer's Agent" 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 in 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:

Type of Performance Guarantee.....(Insert Variable or Fixed)

"Expiry Date" means.....(Give date) or any other later date set by the Contractor and/or Employer provided such instruction is received prior to the Expiry Date as indicated here

CONTRACT DETAILS

Employer's Agent issues: Interim Payment Certificates, Final Payment Certificate and the Certificate of Completion of the Works as defined in the Contract.

1. VARIABLE PERFORMANCE GUARANTEE

1.1 Where a Variable Performance Guarantee has been selected, the Guarantor's liability shall be limited during the following periods of diminishing amounts of the Guaranteed Sum as follows:

1.1.1 From and including the date of signing the Performance Guarantee up to and including the date of the interim payment certificate certifying, for the first time, more than 50% of the

Contract Sum:

R.....

(Amount in words)

1.1.2 From the day following the date of the said interim payment certificate up to and including the Expiry Date, or the date of issue by the Employer's Agent of the Certificate of Completion of the Works, whichever occurs first:

R

(Amount in words)

1.2 The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the interim payment certificate certifying, for the first time, more than 50% of the Contract Sum, has been issued and the date on which the Certificate of Completion of the Works has been issued.

2. FIXED PERFORMANCE GUARANTEE

2.1 Where a Fixed Performance Guarantee has been selected, the Guarantor's liability shall be limited to the amount of the Guaranteed Sum.

2.2 The Guarantor's period of liability shall be from and including the date on which the Performance Guarantee is signed, up to and including the Expiry Date, or the date of issue by the Employer's Agent of the Certificate of Completion of the Works, or the date of payment in full of the Guaranteed Sum, whichever occurs first.

2.3 The Employer's Agent 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. CONDITIONS APPLICABLE TO VARIABLE AND FIXED PERFORMANCE GUARANTEES

3.1 The Guarantor hereby acknowledges that:

3.1.1 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;

3.1.2 Its obligation under this Performance Guarantee is restricted to the payment of money.

3.2 Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 3.2.1 to 3.2.3:

3.2.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Employer's Agent 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 3.2.2;

3.2.2 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 a period of seven (7) days has elapsed since the first written demand in terms of 3.2.1 and the sum certified has still not been paid;

3.2.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 3.2.

- 3.3 Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, 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:
- 3.3.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 3.3; or
- 3.3.2 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 3.3; and
- 3.3.3 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.
- 3.4 It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 3.2 and 3.3 shall not exceed the Guarantor's maximum liability in terms of 1.1 or 2.1
- 3.5 Where the Guarantor has made payment in terms of 3.3, 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.
- 3.6 Payment by the Guarantor in terms of 3.2 or 3.3 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 3.7 Payment by the Guarantor in terms of 3.3 will only be made against the return of the original Performance Guarantee by the Employer.
- 3.8 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.
- 3.9 The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 3.10 This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 1.1.2 or 2.2, 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.
- 3.11 This Performance Guarantee, with the required demand notices in terms of 3.2 or 3.3, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 3.12 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)

C1.5 CONTRACT DATA

C1.5.1 Conditions of Contract

The Conditions of Contract applicable are the General Conditions of Contract for Construction Works 3rd Edition (2015) published by the South African Institution of Civil Engineers, Private Bag X200, Halfway House, 1685.

C1.5.2 Contract Specific Data

The following Contract Specific data, referring to the General Condition of Contract for Construction Works, 3rd Edition 2015 are applicable to this contract

Section 1: Data provided by the Employer

Clause	
1.1.1.15	The Employer is the Department of Roads and Transport, Roads Branch, Gauteng Provincial Government.
1.2.1	The employer's address for receipt of communication is: Telephone: 011 355 7010/1 Facsimile: 011 355 7003 Address: The Head of the Department Department of Roads and Transport Roads Branch 27 th Floor Life Centre Building 45 Commissioner Street Johannesburg
1.2.1	The Employer's agent's address for receipt of communication is: Telephone: (073) 462 3652 e-mail: ceo@afeng.co.za Address: 39 Blignaut street Hilton Bloemfontein 9301
2.5.1	NO cession payments will be made.
3.2.1	The Employer's agent is required in terms of his appointment with the employer to obtain the following specific approvals from the Employer : Clauses 2.2.3, 3.2.1, 3.2.4, 4.7, 5.8.1, 5.11.2, 5.11.3, 5.12.14, 5.13.2, 5.14.1, 5.16.1, 6.3.2, 6.5, 6.6.1, 6.10.7, 6.11, 7.8.2 and 8.2.2.

Clause	
5.1.1	The year-end break commences on 15 December and ends on 3 January .
5.5.1	The Works shall be completed within Twelve (36) months, including the year-end break and special non-working days, as envisaged by the employer.
5.13.1	The penalty for delay is 0,03% of the Contract price per calendar day or part thereof plus all the Employer's agent's costs including VAT as invoiced to the Employer for maintaining a presence on the site, from the day after the Due Completion Date up to and including the certified date of Practical Completion.
5.16.3	The latent defect Period is 10 years after the issue of Final Approval Certificate.
6.2.1	<p>The Guarantee is to contain the same wording as the document included as the pro-forma referred to in Clause C1.4 in part C1 of the contract.</p> <p>The amount of the Guarantee is to be 10% of the Contract Price.</p> <p>The Guarantee (and Insurance) is to be delivered 14 days after the request to do so and the Form of Acceptance will not be signed before receipt of a Guarantee that is acceptable to the Employer. Failure to submit the guarantee within the 14 days will lead to the cancellation of the appointment</p>
6.5.1	Daywork allowances are set out in the dayworks schedule in section 1800 of the schedule of quantities
6.8.2	<p>The value of payment certificates is to be adjusted in accordance with the revised Contract Price Adjustment Schedule on page 86 of GCC 2015, according to the formula:</p> $(1 - x) \left[\frac{aLt}{Lo} + \frac{bPt}{Po} + \frac{cMt}{Mo} + \frac{dFt}{Fo} - 1 \right]$ <p>The value of "x" is 0,15 The values of the co-efficients are: a = 0,25 b = 0,30 c = 0,35 d = 0,10</p>
6.8.2	<p>"L" is the "Labour Index" and shall be the Consumer Price Index for the Province of Gauteng as published in the Statistical News Release, P0141, Table A of Statistics South Africa.</p> <p>"P" is the "Plant Index" and shall be the Producer Price Index applicable to Plant & equipment and as published in the Statistical Release P0151.1, Table 4 of Statistics South Africa.</p> <p>"M" is the "Materials Index" and shall be the Producer Price Index applicable to Civil engineering material - total and as published in the Statistical Release P0151.1, Table 6 of Statistics South Africa.</p> <p>"F" is the "Fuel Index" and shall be the Producer Price Index for Diesel as published in the Statistical News Release P0142.1, Table 1 of Statistics South Africa.</p>

Clause	
	<p>The suffix "o" denotes the base indices applicable to the base month as stated in the Contract Data.</p> <p>If any index relevant to any particular certificate is not known at the time when the certificate is prepared, the Employer's agent shall estimate the value of such index. Any correction, which may be necessary when the correct indices become known, shall be made by the Employer's agent in subsequent payment certificates.</p> <p>The site is located in Mid-Vaal Local Municipality.</p> <p>The base month is December 2021.</p>
6.8.3	<p>The following are special materials:</p> <p>Only the bitumen content of all bituminous products</p> <p>The rates and prices for the special materials shall be furnished by the contractor, which rates and prices ex refinery with the base date specified under 6.8.2 above shall exclude VAT but shall include all other obligatory taxes and levies on the basis specified in the contract price adjustment schedule (paragraph 4(i) and 4(ii)).</p>
6.10.1.5	<p>The percentage limit on materials not yet built into the Permanent Works is 80%.</p>
6.10.3	<p>The percentage retention is 10% of the work completed (excluding CPA and VAT).</p> <p>The limit of retention money is 5% of the tender sum (excluding CPA and VAT)</p> <p>A Retention Money Guarantee is not permitted.</p>
6.10.4	<p>The first payment certificate will only be processed after the completion of section 1400 in the Bill of Quantities, to the satisfaction of the Employer and/or the Employer's agent.</p> <p>The Minimum amount of interim payment certificates is R2 000 000-00</p>
7.8.1	<p>The Defects Liability Period is twelve (12) calendar months after final completion date.</p>
8.4.1	<p>Note that the Contractor indemnifies the Employer against any liability in respect of damage to, or physical loss of the property of any person, or injury to or death of any person, and shall be liable to the Employer for damage to or physical loss of all property of the Employer that is not part of the Works, nor of the site, arising directly from carrying out the Works; subject to the proviso under clauses 8.4.1.3 to 8.4.1.8.</p>
8.6	<p>The amount to be included in the sum insured to cover the value of:</p> <p>a) Materials supplied by the employer for incorporation into the works: nil.</p> <p>b) Professional fees: R1 000 000-00.</p> <p>The limit of the liability insurance required is R10 000 000.00.</p>

Clause	
8.6.1.5	The following additional and varied insurances are required: Not applicable.
10.4	Disputes are to be referred to Amicable Settlement .
10.7	Disputes are to be referred for final settlement to arbitration .
C3.3.1.1	<p>The additional Conditions of Contract are:</p> <p>Penalty for failure to comply with labour content and jobs created:</p> <p>Labour Content: Penalty = <i>Tender sum (excluding CPA & VAT) x (tenderer labour content % – actual labour content %)</i></p> <p>BEEE Content: Penalty = <i>Tender sum (excluding CPA & VAT) x (tendered BEE content % - actual BEE content %)</i></p> <p>Geographical area for labour recruitment: Mid-Vaal Local Municipality</p>

Section 2: Data provided by the Contractor

Clause	
1.1.1.9	The Contractor is
1.2.1.2	<p>The Contractor's address for receipt of communication is:</p> <p>Contact Person:.....</p> <p>Telephone:Facsimile:</p> <p>e-mail:.....</p> <p>Address:.....</p>
6.5.1.2.3	The percentage allowances to cover all charges for dayworks that cannot be paid for by using Section 1800 "Dayworks" in the Bill of Quantities%.
6.8.3	The rates for special materials , exclusive of Value Added Tax is to be completed in Schedule T2.3 C.
5.5.1	The Works shall be completed within months as proposed by the contractor

C1.5.3 Variations to the General Conditions of Contract

The following amendments of the General Conditions of Contract 2015 apply to this contract. The headings in these Special Conditions of Contract shall not be deemed to be part thereof nor be taken into consideration in the interpretation or construction thereof or of the Contract.

1. GENERAL

1.1 Definitions

1.1.1.2 "Bill of Quantities" and "Schedule of Quantities" shall have the same meaning.

1.1.1.7 Contract

Replace the content of sub clause 1.1.1.7 with the following:

““Contract” means the documentation of the agreement between the parties comprising the Form of Offer and Acceptance, Contract Data, the Particular and General Conditions of contract, the Scope of Works, the Drawings, the Standard Specifications, the Schedules, any documents and correspondence which are listed in the Form of Offer and Acceptance,and any such written amendments or additions to the contract as may be agreed to between the parties at any later stage.”

1.1.1.24 Practical completion

In the last line and before the comma, insert “....., and general public and road user,”.

1.3 General provisions

Add the following new sub clause:

1.3.7 The Appendices included as Pro-formas at the end of the General Conditions of Contract have no bearing on the Contract and are to be used, revised and/or omitted as the Employer may deem appropriate.”

3. EMPLOYER’S AGENT

3.2 Functions of the Employer’s Agent

3.2.2 *Replace the word “Employer’s Agent” in the last sentence with “Employer”.*

Add the following sub clause:

“3.2.5 Authority of the Employer

Notwithstanding any provisions to the contrary in the Contract, the Employer shall have the right to reverse and, should he deem it necessary, to amend any certificate, direction, decision or valuation of the Employer’s Agent and to issue a new one, and such certificate, direction, decision or valuation shall for the purpose of the Contract be deemed to be issued by the Employer’s Agent, provided that the Contractor shall be remunerated in the normal manner for work executed in good faith in terms of an instruction issued by the Employer’s Agent and which has subsequently been rescinded.”

3.3 Employer's Agent's Representative

3.3.6 *Add the following to sub clause 3.3.6:*

"The time limit for referring the matter to the Employer's Agent by the Contractor shall be fourteen (14) days after the decision in question was given by the Employer's Agent's Representative."

4. CONTRACTORS' GENERAL OBLIGATIONS

4.1 Extent of obligations and liability

Add the following sub clauses:

"4.1.1.1 The Contractor shall, save in so far as it is legally or physically impossible,

(a) Provide all superintendence, labour, materials, Constructional Plant, Temporary Works, including the design thereof, all requisite transport and all other things, whether of a temporary or permanent nature, required in and for such design, execution and completion of the Works and for the remedying of any defects, so far as the necessity for providing the same is specified in or reasonably to be inferred from the Contract.

(b) After award of the Contract, the Contractor shall be obligated to ensure that at least the Constructional Plant stated on the prescribed form in the Tender Documents, or Constructional Plant equivalent thereto, are on the site when required."

Add the following sub clause:

"4.1.3 Contractor deemed to have inspected the Site

The Contractor shall be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself before submitting his tender (as far as practicable) as to

- (a) the form and nature of the Site and its surroundings, including subsurface conditions,
- (b) the hydrological and climatic conditions.
- (c) the extent and nature of work and materials necessary for the execution and completion of the Works,
- (d) the means of access to the Site and the Accommodation he may require and, in general, shall be deemed to have obtained all information (as far as is practicable) as to risks, contingencies and all other circumstances which may influence or affect his tender.

No subsequent claims by the Contractor arising from his lack of knowledge of perceptible conditions on the site or its surroundings or of information available in connection therewith shall be entertained."

4.3 Legal provision

Add the following to sub-clause 4.3.1

4.3.1 The Contractor shall, in fulfilling the Contract, comply with all applicable laws, *with regard to Health, Safety, Wages and Condition of Work*, regulations, statutory provisions and agreements, and shall, at the request of the Employer's Agent, provide proof that he has complied therewith.

5.2 COMMENCEMENT OF THE WORKS

Add the following:

5.2.2 Payment of Obligations (13.01 (c))

Paragraph 8 the second sentence of 1303 (iii) (3) of the Standard Specifications for Road and Bridge Works for State Road Authorities page 1300-2 change the sentence starting "The tendered rate will be paid ..." to

"The tendered rate will be paid monthly, pro-rata for parts of a month from the commencement date until the end of the period for completion of the works, plus"

8. RISKS AND RELATED MATTERS

8.2 Care of works

Add the following:

8.2.2.4 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 Employer's Agent. 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 Employer's Agent shall be borne by the Contractor."

9. TERMINATION OF CONTRACT

9.3 Termination by Contractor

Delete the wording of sub clause 9.3.1.2 and replace this clause with the following:

9.3.1.2 "Failing to pay the contractor the amount due in terms of any payment certificate issued by the Employer's Agent, provided that such payment certificate is acceptable to the Employer and furthermore subject to the provision of sub-clause 3.3.7, within the time of payment provided in the contract, or".

10. CLAIMS AND DISPUTES

Add the following

10.12 Joint ventures

"If the Contractor is in a joint venture of two or more parties or persons, the parties or persons shall be jointly and severally bound to the Employer for fulfilment of the Contractor's obligations and terms of this Contract. The formation and/or conditions of agreement of the joint venture shall not be altered without the consent of the Employers. Should such a change be acceptable to the Employer then two notarially certified copies of the revised Joint Venture Agreement shall be submitted to the Employer's Agent within fourteen (14) days of signature thereof by the parties to the Joint Venture."

Additional Special Conditions of Contract

SCC 1.1 Definitions

Delete the entirety of Clause 1.1.1.5 and replace it with the following:

“SCC 1.1.1.5 “Commencement Date” means the date within 42 calendar days after the date that the Agreement, made in terms of the Form of Offer and Acceptance, comes into effect.”

SCC 5.3 Commencement of the Works

Delete the entirety of Clauses 5.3.1, 5.3.2 and 5.3.3 and replace them with the following:

“SCC 5.3.1 Commencement of the Works

Upon the Employer’s Agent’s instruction, the Contractor shall, save as may be otherwise provided in the Contract, or be legally or physically impossible, commence carrying out the Works. Such instruction shall be provided not later than 14 days after the Commencement Date. Such instruction shall be subject to:

SCC 5.3.1.1 The timely submission by the Contractor, and approval by the Employer’s Agent, of documentation required before commencing to carry out the Works and before the Employer applying for a permit to do construction work, as set out in the Contract Data,

SCC 5.3.1.2 Application by the Employer for a permit to do construction work in terms of Regulations 3(1) and (2) of the Construction Regulations 2014, and

SCC 5.3.1.3 Receipt by the Employer of the permit to do construction work.

SCC 5.3.2 Unacceptable documentation

If the documentation referred to in Clause SCC 5.3.1 is not submitted within the number of days stipulated in the Contract Data from the date that the Agreement, made in terms of the Form of Offer and Acceptance, comes into effect, or if such documentation is found to be unacceptable, the Employer may terminate the Contract in terms of Clause 9.2.

SCC 5.3.3 Time to instruct commencement of the Works

Where the Contractor delays the submission by the Employer of the application for a permit to do construction work and such permit is not received within 14 days following the Commencement Date such that the Employer’s Agent’s instruction to commence carrying out the Works cannot be given, without prejudice to the Employer’s rights to terminate the contract under Clause 9.2, the Employer’s Agent shall delay issuing the instruction to commence carrying out the Works until such time as the permit to do construction work has been received. The Contractor shall have no entitlement under Clause 5.12 to an extension of time for Practical Completion.

Where the permit to do construction work is not received within the 14 day period following Commencement of the Contract for reasons not attributable to the Contractor, the Employer’s Agent shall delay the instruction to commence the Works and the Contractor shall be entitled to make a claim in accordance with Clause 10.1.”



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

PART C1: PRICING DATA



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

PART C1: PRICING DATA

C1.1	PRICING INSTRUCTIONS	139
C1.2	BILL OF QUANTITIES.....	141



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C1.1 PRICING INSTRUCTIONS

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), subject to the following amendments and additions:

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

mm	=	millimetre	h	=	hour
m	=	metre	kg	=	kilogram
km	=	kilometre	t	=	ton (1000 kg)
m ²	=	square metre	No.	=	number
m ² -pass	=	square metre-pass	sum	=	lump sum
ha	=	hectare	MN	=	meganewton
m ³	=	cubic metre	MN.m	=	meganewton-metre
m ³ -km	=	cubic metre-kilometre	P C sum	=	Prime Cost sum
l	=	litre	Prov sum	=	Provisional sum
kl	=	kilolitre	%	=	per cent
MPa	=	megapascal	kW	=	kilowatt

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

Unit: The unit of measurement for each item of work as defined in the 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 agreed payment per unit of measurement.

Amount: The product of the quantity and the agreed rate for an item.

Lump sum: An agreed amount for an item, the extent of which is described in the Bill of Quantities but the quantity of work of which is not measured in any units.

4. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

5. The prices and rates to be inserted in the Bill of Quantities are to be the full inclusive prices for the work described under the several items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and 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. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.
6. A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill of Quantities.
7. Reasonable compensation will be received where no pay item appears in respect of work required in terms of the Contract which is not covered in any other pay item.
8. The short descriptions of the items of payment given in the Bill of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the scope of work.
9. The item numbers appearing in the Bill of Quantities refer to the corresponding item numbers in the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition). Item numbers prefixed by the letter B refer to payment items described under part B of the Project Specifications, those with C to payment items part C, and so on for further parts of the project specifications.
10. The quantity set out in these Bill of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantity of work accepted and certified for payment will be used for determining payments due and not the quantities given in this Bill of Quantities.
11. The Contractor shall bear all the costs and charges for special and temporary rights of way required by him in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required for the purposes of the Works.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C1.2 BILL OF QUANTITIES

SCHEDULE A: ROADWORKS (K57)

1200	General requirements and provisions.....	C-143
1300	Contractor's establishment and provisions	C-146
1400	Housing, offices and laboratories for the engineer's personnel.....	C-147
1500	Accommodation of traffic.....	C-151
1600	Overhaul	C-153
1700	Clearing and Grubbing	C-154
1800	Dayworks	C-155
2100	Drains	C-156
2200	Prefabricated Culverts.....	C-158
2300	Concrete Kerbing	C-161
3300	Mass Earthworks.....	C-163
3400	Pavement Layers of Gravel Material	C-165
3500	Stabilisation.....	C-166
3600	Crushed Stone Base	C-167
4100	Prime Coat.....	C-168
4200	Asphalt base and Surfacing.....	C-169
5100	Pitching, Stonework & Protection Against Erosion.....	C-170
5200	Gabions	C-171
5400	Guardrails	C-172
5500	Fencing	C-173
5600	Road Signs.....	C-174
5700	Road Markings.....	C-175
5800	Landscaping & Planting of Plants.....	C-177
5900	Finishing the Road and Road Reserve and Treating old Roads	C-179
7300	Concrete Block Paving For Roads.....	C-180
8100	Testing Material and Workmanship	C-181
	Schedule A: Roadworks Summary.....	C-182



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHIN

Bill No 1	Preliminary and General Charges	C-184
Bill No 2	K57/K164	C-185
Bill No 3	K57/Centre Road	C-188
Bill No 4	K57/Tree Road.....	C-191
Bill No 5	K57/First Avenue.....	C-194
Bill No 6	K57/Boundary Road.....	C-197
Bill No 7	K57/Plantation.....	C-200
Bill No 8	K57/Road Number 4.....	C-203
Bill No 9	K57/Road Number 3.....	C-206
Bill No 10	K57/K158	C-209
Bill No 11	K57/Du Plessis Street	C-212
Bill No 12	K57/Du Plessis Street	C-215
Bill No 13	General Reticulation Items	C-218
	Schedule B: Street Lighting Summary	C-219
	Summary of Bill of Quantities for K57.....	C-220



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION**SECTION 1200**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
1200	GENERAL REQUIREMENTS AND PROVISIONS				
B12.01	Community Liaison Officers				
	(a) Remuneration of community liaison officer	PC Sum	1,00	R400 000,00	R400 000,00
	(b) Labour Desk Officers	PC Sum	1,00	R600 000,00	R600 000,00
	(c) Provision of cell phone for community liaison officer	PC Sum	1,00	R15 000,00	R15 000,00
	(d) Handling cost and profit in respect of sub item B12.01 (a), (b) and (c)	%	R1 015 000,00		
	(d) Provision of airtime for community liaison officer	month	36,00	R300,00	R10 800,00
	(e) Handling costs and profit in respect of sub item B12.01 (d)	%	R10 800,00		
B12.02	Contractor's general obligations in respect of compliance with the Environmental Management Plan				
	(a) Fixed obligations	Lump Sum	1,00		
	(b) Remuneration of Contractor's Environmental Control Officer	month	36,00	R30 000,00	R1 080 000,00
B12.03	Contractor's general obligations in respect of Occupational Health and Safety Act and Construction Regulations				
	(a) Fixed obligations	Lump Sum	1,00		
	(b) Time related obligations	month	36,00		
	(c) HIV AIDS awareness obligations	Prov Sum	1,00	R1 500 000,00	R1 500 000,00
	(d) Remuneration of Municipal traffic officer or external professional pointsmen	month	36,00	R35 000,00	R1 260 000,00
	(e) Handling costs and profit in respect of sub item B12.03 (c)	%	R1 500 000,00		
B12.04	Training Requirements				
	(a) Labour	Prov. Sum	1,00	R1 000 000,00	R1 000 000,00
	(b) Handling costs and profit in respect of sub item B12.04 (a)	%	R1 000 000,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
B12.05	Protection and/or Relocation of Telkom Services (a) Payment to Telkom to relocate, lower or protect their services (b) Handling costs and profit in respect of sub item B12.05(a)	Prov Sum	1,00	R10 000 000,00	R10 000 000,00
		%	R10 000 000,00		
B12.06	Protection and/or Relocation of Eskom Services (a) Payment to Eskom to relocate or protect their services (b) Handling costs and profit in respect of sub item B12.06 (a)	Prov Sum	1,00	R7 000 000,00	R7 000 000,00
		%	R7 000 000,00		
B12.07	Protection and/or Relocation of Rand Water 1 000 mm diameter pipe (a) Payment to Rand Water to relocate or protect their pipe (b) Handling costs and profit in respect of sub item B12.07 (a)	Prov Sum	1,00	R10 000 000,00	R10 000 000,00
		%	R10 000 000,00		
B12.08	Protection and/or Relocation of Midvaal Water Services (a) Payment to Midvaal to relocate, lower or protect their services (b) Handling costs and profit in respect of sub item B12.08 (a)	Prov Sum	1,00	R7 000 000,00	R7 000 000,00
		%	R7 000 000,00		
B12.09	Protection and/or Relocation of Midvaal Electricity Services (a) Payment to Midvaal to relocate, lower or protect their services (b) Handling costs and profit in respect of sub item B12.09 (a)	Prov Sum	1,00	R10 000 000,00	R10 000 000,00
		%	R10 000 000,00		
B12.10	Excavation by hand to look for existing services in depth ranges of: (a) 0 - 2 m (i) Soft Material	m3	R500,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	(ii) Intermediate Material	m3	50.00		
	(iii) Hard Material	m3	30.00		
	(b) 2 - 4 m				
	(i) Soft Material	m3	50.00		
	(ii) Intermediate Material	m3	10.00		
	(iii) Hard Material	m3	15.00		
B12.11	Provision of Precast Bus Shelters	No	24.00		
B12.12	Provision of contract name board	No	5.00		
B12.12	Installation of Traffic Signals	Prov Sum	1.00	3 000 000	3 000 000
	Handling costs and profit in respect of sub item B12.12	%	3 000 000		
B12.14	Penalty for unnecessary removal or damages to trees of the following diameter sizes:	No		-5000.00	Rate Only
	(a) 1m girth or less	No		-10000.00	Rate Only
	(b) 1m - 2m girth	No		-20000.00	Rate Only
	(c) Greater than 2m girth				
B12.15	Penalty for environmental violations:	No		-10000.00	Rate Only
	(a) Hazardous chemical/oil spill and/or dumping on non-approved sites	No		-5000.00	Rate Only
	(b) General damages to sensitive environments				
	(c) Damage to cultural and historical sites as listed on environmental impact assessment and environmental management plan	No		-5000.00	Rate Only
	(d) Pollution of water sources	No		-10000.00	Rate Only
	(e) Unauthorized blasting activities	No		-5000.00	Rate Only
Total Carried Forward To Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1300

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
1300	<p>CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS</p> <p>Note: Amount tendered for in (a),(b) and (c) shall not exceed 15%ot the total tender amount.</p> <p>The Contractor's general obligations</p> <p>(a) Fixed obligations</p> <p>(b) Value-related obligations</p> <p>(c) Time-related obligations</p> <p>(d) Time -related obligations for approved extension of time due to inclement weather</p>				
B13.01		Lump Sum	1.00		
		Lump Sum	1.00		
		Month	36.00		
		Days	66.00		
Total Carried Forward To Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1400

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
1400	HOUSING, OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL				
B14.01	Office and laboratory accommodation				
	(a) Offices (interior floor space only)	m2	130.00		
	(b) Laboratories (interior floor space only)	m2	120.00		
	(c) Open concrete working floors, 150 mm thick	m2	200.00		
	(d) Roofs over open concrete working floors	m2	110.00		
	e) Ablution units	m2	20.00		
	(f) Stores	m2	20.00		
	(g) Kitchen units	No	1.00		
B14.02	Office and laboratory furniture				
	(a) Chairs	No	30.00		
	(b) Draughtsman's Stools	No	4.00		
	(c) High chairs for laboratory	No	4.00		
	(d) Desks, complete with drawers and locks	No	7.00		
	e) Drawing Tables	No	3.00		
	(f) Conference tables	No	1.00		
B14.03	Office and laboratory fittings, Installations and equipment				
	(a) Items measured by number				
	(i) 220/250 volt power units	No	15.00		
	(ii) 400/231 volt 3-phase power points	No	4.00		
	(iii) Double 80 watt fluorescent light fittings complete with ballast and tubes	No	8.00		
	(iv) Double 55 watt fluorescent light fittings complete with ballast and tubes	No	4.00		
	(v) Single incandescent light fittings complete with 100 watt globes	No	10.00		
	(vi) Hand wash basins complete with taps and drains	No	3.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

					SECTION 1400
ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	(vii) Laboratory basins complete with swanneck taps and drains	No	2,00		
	(viii) Extractor fans installed complete with own power connection	No	3,00		
	(ix) Fume cupboards complete according to the drawings	No	1,00		
	(x) Fire extinguishers, 9,0kg all purpose dry power type, complete, mounted on wall with brackets	No	2,00		
	(xi) Air conditioning units with 2,2kW minimum capacity, mounted and with own power connection	No	6,00		
	(xii) Heater, space-heating type, minimum capacity 1,5kW	No	5,00		
	(xiv) General-purpose steel cupboards with Shelves	No	1,00		
	(xv) Steel filing cabinets with drawers	No	2,00		
	(xvi) Refrigerators	No	2,00		
	(xvii) Bookcases	No	4,00		
	(xviii) Voltage stabilisers	No	4,00		
	(xix) Provision of cellular telephones, including rental & cost of calls	PC Sum	1	100000,00	100000,00
	(xx) Handling costs and profit in respect of sub item B14.03 (b) (xix) above	%	100000,00		
	(xxi) Provision of personal computers, printers and accessories, including internet connection and email				
	(1) Personal Computers	No	5,00		
	(2) Colour Printers	No	2,00		
	(3) Internet Connection	PC Sum	1	200000	200000
	(xxii) Handling costs and profit in respect of sub item B14.03(a)(xxi)(3) above	%	200000		
	(xxii) 28 litre Microwave Oven	No	1,00		
	(xxiv) Electric Kettle	No	2,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION**SECTION 1400**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	Brought forward				
	(xxv) Tea, Coffee, Rooibos, Milk and Sugar	Month	36,00		
	(xxiv) Uninterrupted power supply	No	4,00		
	(b) Prime-cost items and items paid for in a lump sum:				
	(i) Provision of telephone service, including the cost of calls in connection with contract administration and telephone rental	PC Sum	1	150 000,00	150 000,00
	(ii) Handling costs and profit in respect of sub item B 14.03(b)(i) above	%	150 000,00		
	(vii) The provision of 400/231 volt 3-phase electrical power installations, including all wiring, switchboards, mains connections, ect	Lump Sum	1,00		
	(viii) The provision of gas installations, including gas-storage cylinders, tubing, regulators, gas burners and shut off cocks	Lump Sum	1,00		
	c) Items measured by area				
	(i) Shelving as specified, complete with brackets	m2	15,00		
	(ii) Work-benches complete with concrete slab top, minimum thickness 75mm	m2	10,00		
	(iii) Work benches complete with wooden top, minimum thickness 25mm	m2	10,00		
	(iv) Constant temperature baths and/or plastered brick	m2	5,00		
	(v) Foundations for laboratory equipment	m2	10,00		
	(vi) Roller Blinds, opasque type	m2	10,00		
	(vii) Notice Boards as specified	m2	5,00		
14,04	Car ports				
	(a) Car ports, as specified, at offices and laboratory buildings	No	10		
14,05	Housing for labourers				
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION**SECTION 1400**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought	forward				
	(a) Housing as specified, including Beds, mattresses, bedside chest, chairs, tables, lockers, electricity, plug points, electrical light fittings and burglar proofing	No of persons	20,00		
	(b) Ablution unit, as specified, including latrines, wash basins, showers and taps	No	4,00		
	(c) Cooking unit, complete with stove, basin, concrete working table, shelving, sink and fuel (where applicable)	No	1,00		
	(d) Latrine unit as specified	No	4,00		
14,07	Rented, hotel and other accommodation				
	(a) Provisional sum for providing rented housing, hotel or other accommodation as described in sub clause 14.03(c)(ii)	Prov Sum	1,00	2 000 000,00	2 000 000,00
	(b) Handling costs and profit in respect of sub item 14.07(a) above	%	2 000 000,00		
14,08	Services				
	(a) Services at office and laboratories				
	(i) Fixed costs	Lump Sum	1,00		
	(ii) Running costs	Month	36,00		
	(c) Services for rented houses	Month	36,00		
	(d) Services for labourers accommodation on site:				
	(i) Fixed costs	Lump Sum	1,00		
	(ii) Running costs	Month	36,00		
B14.10	Provision of photostate facilities	Month	36,00		
B14.11	Services for the Engineer				
	(i) Provision of Survey Equipment	Month	36,00		
	(ii) Provision of Survey Assistants	Month	36,00		
	(iii) Provision of onsite laboratory	Prov Sum	1,00	1 000 000,00	1 000 000,00
	(iv) Handling costs and profit in respect of sub item 14.07(a) above	%	1 000 000,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

					SECTION 1500
ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought	forward				
1500	ACCOMODATION OF TRAFFIC				
B15.01	Accommodating traffic and maintaining temporary deviations				
	(a) On K57	km	11,30		
	(b) On Cross roads	km	8,00		
B15.02	Earthworks for temporary deviations				
	(a) Shaping of temporary deviations	km	12,00		
	(b) Cut and borrow to fill	m3	3000,00		
	(c) Cut to Spoil	m3	2500,00		
B15.03	Temporary traffic-control facilities				
	(a) Flagmen	man-day	5000,00		
	(b) Portable STOP and GO-RY signs	No	20,00		
	(d) Amber Flicker lights	No	40,00		
	e) Road signs, R-and TR-series, (1200mm)	No	80,00		
	(f) Road signs, TW-series, (1200mm)	No	80,00		
	(g) Road signs, STW-, DTG-, TGS- AND TG-series (excluding delineators and barricades)	m2	200,00		
	(h) Delineators(DTG50J)(250 X 1000):				
	(i) Single	No	250,00		
	(i) Moveable barricade/road sign combination (TW410 Chevron 3600 x 600)	No	8,00		
	(l) Moveable barriers(plastic New Jersey)	m	300,00		
	(m) Two way communication device	No	15,00		
		Lump			
B15.04	Relocation of traffic-control facilities	Sum	1,00		
B15.05	Gravelling and repair of temporary deviations and existing gravel shoulders used as temporary deviations:				
	(a) Temporary deviations	m3	3000,00		
B15.06	Watering of temporary deviations	kl	1800,00		
B15.07	Blading by road grader of:				
	(a) Temporary deviations	km-pass	150,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

					SECTION 1500
ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	(b) Existing roads used as temporary deviations	km-pass	100,00		
B15.08	Repairs, alterations, and/or additions to existing roads used as temporary deviations	Prov Sum	1	1 200 000,00	1 200 000,00
B15.09	Maintenance of the bituminous surfacing and pavement of temporary deviations with bituminous surfacing and existing roads with bituminous surfacing used as temporary deviations	Prov Sum	1	800 000,00	800 000,00
	Handling costs and profit in respect of sub item 14.07(a) above	%	800 000,00		
B15.10	Accommodation of traffic where road is constructed in half Width	km	15,00		
B15.14	Amber flashing lights mounted on signs	No	20,00		
B15.15	Provision of traffic safety equipment for use by the engineer				
	(a) Safety jackets	No	10,00		
B15.16	Penalties				
	(a) Fixed penalty per occurrence	No		-20000,00	Rate Only
	(b) Time related penalty	hr		-1500,00	Rate Only
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1600

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
1600	OVERHAUL				
16.01	Overhaul on material hauled in excess of a free-haul distance of 0,5km for haul up to or through 1,0km (restricted overhaul)	m3	154 000.00		
16.02	Overhaul on material hauled in excess of 1,0 km (ordinary overhaul)	m3-km	715 000.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1700

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward	forward				
1700	CLEARING AND GRUBBING				
17,01	Clearing and grubbing	ha	120,00		
17,02	Removal and grubbing of large trees and tree stumps				
	(a) Girth exceeding 1m up to and including 2m	No	100,00		
	(b) Girth exceeding 2m up and including 3m	No	10,00		
	(c) Girth larger than 3m up to and including 4m	No	10,00		
17,03	Re-clearing of surfaces (on the written instructions of the Engineer only)	ha	7,00		
17,04	Clearing and grubbing inlets & outlets of hydraulic structures	m2	1580,00		
17,05	Cleaning out of hydraulic structures				
	(a) Up to 750mm internal diameter	m3	65,00		
	(b) Above 750mm internal diameter	m3	55,00		
	(c) box culverts up to and including 1,5m vertical dimension	m3	395,00		
B17.07	Ripping up and removal of existing bituminous surfaces	m2	16100,00		
B17.08	Breaking up and removal of existing concrete kerbing and channels	m	1000,00		
B17.09	Demolishing and removal of existing structures				
	(a) Buildings	m2	300,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1700

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
1800	DAYWORKS				
B18.01	Personnel				
	(a) Unskilled labour	hr	630.00		
	(b) Semi-skilled labour(Garge hand)	hr	350.00		
	(c) Skilled labour (Artisan)	hr	180.00		
	(d) Foreman	hr	180.00		
	e) Surveyor	hr	200.00		
B18.02	Plant				
	(a) Trucks				
	(i) Tip truck 6m2	hr	120.00		
	(ii)Tip truck 10m2	hr	120.00		
	(b) TLB tractor fitted with backactor and loader				
	(i) Model 55Kw power	hr	100.00		
	(ii) Model 70Kw power	hr	100.00		
	c) Vibratory roller (self-propelled)				
	(i) Model mass 2t width 0.9m	hr	115.00		
	(ii) Model 10t wodtj 2.2m	hr	95.00		
	(d) Air compressor complete with all tools, drills, jackhammers, ect (10m3/mim)	hr	150.00		
	e) Grader Cat 140g. Pr equivalent	hr	85.00		
	f) Water truck (9000litre)	hr	125.00		
B18.03	Materials				
	(a) Materials	Prov Sum	1.00	1 000 000.00	1 000 000.00
	(b) Percentage on net cost of materials	%	1 000 000.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION**SECTION 1800**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	Brought forward				
2100	DRAINS				
21.01	Excavation for open drains:				
	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	(i) 0 m up to 1,5m	m3	10866.00		
	(b) Extra over sub item 21.01(a) for excavation in hard material, irrespective of depth	m3	4889.00		
21.02	Clearing and shaping existing open drains	m3	4000.00		
21.03	Excavation for subsoil drainage systems:				
	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	(i) 0m up to 1,5m	m3	4572.00		
	(b) Extra over sub item 21.03(a) for excavation in hard material irrespective of the depth	m3	1143.00		
21.04	Impermeable backfilling to subsoil drainage systems	m3	1736.00		
21.05	Banks and dykes	m3	2527.00		
21.06	Natural permeable material in subsoil drainage systems (crushed stone):				
	(b) Crushed stone obtained from commercial sources (19mm nominal size)	m3	3418.00		
21.07	Natural permeable material in subsoil drainage systems (sand):				
	(b) Sand from commercial sources(Course grade)	m3	388.00		
21.08	Pipes in subsoil drainage systems:				
	(b) Unplasticised PVC pipes and fittings, normal duty complete with couplings(150mm internal dia. Perforated)	m	14282.00		
21.09	Polyethylene sheeting 0,15mm thick, or similar, approved material, for lining subsoil drainage systems	m2	5713.00		
21.10	Synthetic-fibre filter fabric (Kaymat U24 or similar approved by Engineer)				
	(c) Emerging Contractor's	m2	27135.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1800

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
21.12	Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for subsoil drainage systems:				
	(a) Outlet structures	No	25.00		
	(b) Cleaning eyes	No	85.00		
21.13	Concrete caps for subsoil drain pipes	No	25.00		
21.15	Overhaul for material hauled in excess of 1,0km free-haul (normal overhaul)	m3-km	60 652.00		
21.17	Test flushing of pipe subsoil drains	No	18.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 2200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
2200	PREFABRICATED CULVERTS				
22.01	Excavation				
	(a) Excavating soft materials situated within the following depth ranges below the surface level:				
	(1) 0 m up to 1,5 m	m3	11162.00		
	(2) Exceeding 1,5 m and up to 3,0 m	m3	1095.00		
	(b) Extra over sub item 22.01(a) for excavation in hard material, irrespective of depth	m3	653.00		
22.02	Backfilling:				
	(a) Using the excavated material	m3	10328.00		
	(b) Using imported selected material	m3	1549.00		
	(c) Extra over sub items 22.02(a) and (b) for soil cement backfilling	m3	1033.00		
22.03	Concrete pipe culverts:				
	(b) On class B bedding				
	(1) 600mm dia. Class 100D Interlocking joint type	m	3557.00		
	(2) 900mm dia. Class 100D Interlocking joint type	m	1118.00		
22.05	Portal and rectangular culverts:				
	(b) Without prefabricated floor slabs				
	(1) 600mm x 600mm, Class 200S	m	125.00		
	(2) 900mm x 600mm, Class 175S	m	120.00		
	(3) 900mm x 900 mm, Class 175S	m	70.00		
	(4) 1200mm x 600mm, Class 150S	m	140.00		
	(5) 1200mm x 1200mm, Class 150S	m	60.00		
	(6) 1500mm x 1200mm, Class 100S	m	120.00		
	(7) 1800mm x 900mm, Class 75S	m	100.00		
	(8) 1800mm x 1500mm, Class 75S	m	155.00		
	(9) 2100mm x 1800mm, Class 75S	m	110.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 2200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	(10) 2100mm x 2100mm, Class 75S	m	210.00		
22.07	Cast in situ concrete and formwork				
	(a) In class A bedding, screeds and the encasing for pipes including formwork(Class15/38)	m3	189.00		
	(b) In floor slabs for portal or rectangular culverts, including formwork and class U2 surface finish (Class 30/19)	m3	532.00		
	(c) In inlet and outlet structures, skewed ends, catch pits, manholes, thrust and anchor blocks, excluding formwork but including class U2 surface finish(Class 30/19)	m3	880.00		
	(d) Formwork of concrete under sub item 22.07(c) above				
	(i) Class F1 surface finish	m2	2365.00		
	(ii) Class F2 surface finish	m2	1720.00		
22.08	Concrete backfill for culverts (Class 20/19)	m3	175.00		
22.10	Steel reinforcement				
	(b) High-tensile steel bars	t	62.00		
	(c) Welded steel fabric	kg	13240.00		
22.17	Manholes, catch pits, precast inlet and outlet structures complete				
	(a) Manholes				
	(i) Manhole Type 2A	No	3.00		
	(b) Catch pits				
	(i) Type A Side Inlet as shown on GTD 10/1	No	42.00		
22.21	Accessories				
	(a) Manhole covers including frames(Type 2A)	No	3.00		
	(b) Inlet grids including frames (Type 80)	No	30.00		
	(c) Step irons (as detailed on GTD7/2)	No	405.00		
	(d) Precast access shaft (as shown on GTD 7/1)	No	3.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 2200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	Brought forward				
22.23	Service ducts:				
	(a) Unplasticised PVC pipes				
	(i) 110mm dia	m	2330.00		
	(ii) 160mm dia	m	350.00		
22.24	Duct marker blocks (Concrete)	No	90.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 2300

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
2300	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS				
23.01	Concrete kerbing (a) Type C (refer to GTD5/2)	m	550.00		
B23.02	Concrete kerbing-channelling combination (c) Precast kerb to SANS 927 and cast in situ 300mm concrete channel (concrete class 20/19) as shown on GTP 12/2 (Gautrans Typical Plans for Road Design) (1) Figure 3 kerb (2) Figure 7 kerb	m m	12000.00 6400.00		
23.03	Concrete chutes (typical design:) (a) Precast open chute as shown on Gautrans Typical plans (GTD 12/7)	m	20.00		
23.05	Inlet, outlet transition and similar structures (typical designs): (a) Chute inlet as shown on drawing Gautrans Typical plans 9GTD 12/4)	No	2.00		
23.07	Trimming of excavations for concrete-lined open drains (a) In soft material (b) In hard material	m2 m2	33120.00 8280.00		
23.08	Concrete lining for open drains (a) Cast in situ concrete lining (concrete class 20/19) (i) Side drain (ii) Median drain (b) Class U2 surface finish to cast situ concrete (i) Side Drain (ii) Median Drain (c) Emerging Contractor's	m3 m3 m2 m2	2850.00 1808.00 28500.00 18080.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 2300

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
23.09	Formwork to cast in situ concrete lining for open drains (Class F2 surface finish) (a) To sides with formwork on the internal face only	m2	3215.00		
23.11	Sealed joints in concrete linings of open drains (a) Silicone-based sealant	m	1380.00		
23.12	Steel reinforcement (b) High-tensile steel bars (c) Welded steel fabric	t kg	44716.00		Rate Only
23.13	Polyethylene sheeting (0,15mm thick) for concrete lined open drains	m2	22172.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 3300

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
3300	MASS EARTHWORKS				
B33.01	Cut and borrow to fill from commercial sources including haul distance.				
	(a) Gravel materials in compacted layer thickness of 200mm and less:				
	(i) Compacted to 90% of modified AASHTO density	m3	213000,00		
	(b) Rock fill (as specified in sub clause 3209 (c)	m3	19450,00		
	(i) Gravel material in compacted layer thickness of 200mm and less: Compacted to 90% of modified AASHTO density	m3	307522,00		
33,03	Extra over item 33.01 for excavating and breaking down material in:				
	(a) Intermediate excavation	m3	13830,00		
	(b) Hard excavation	m3	1733,00		
	(c) Boulder excavation class A	m3	3500,00		
33,04	Cut to spoil, including free-haul 0,5 km. Material obtained from:				
	(a) Soft excavation	m3	208265,00		
	(b) Intermediate excavation	m3	6500,00		
	(c) Hard excavation	m3	500,00		
	(d) Boulder excavation Class A	m3	3500,00		
33,05	Overbreak in hard and boulder class A excavation	m2	1000,00		
33,06	Variations in the number of roller passes (applicable to sub items B33.01(a)(iii) and 33.01 (b)(iii) and item 33.11):				
	(a) Vibratory rollers	m2-pass	12000,00		
	(c) Heavy grid rollers	m2-pass	12000,00		
	(d) Tamping rollers	m2-pass	12000,00		
	(e) Impact rollers	m2-pass	12000,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 3300

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
33.07	Removal of unsuitable material (including free-haul of 1.0km):				
	(a) In layer thicknesses of 200mm and less:				
	(i) Stable material	m3	6000.00		
	(ii) Unstable material	m3	7500.00		
33.10	Roadbed preparation and the compaction of material				
	(a) Compaction to 90% of modified AASHTO density	m3	102 375.00		
33.11	Three-roller-passer compaction:				
	(a) Vibratory roller	m2	487 500.00		
	(d) Tamping roller	m2	243 750.00		
	e) Impact roller	m2	121 875.00		
B33.12	In situ treatment of roadbed:				
	(a) In situ treatment by ripping	m3	26325.00		
	(b) In situ treatment by blasting	m3	9750.00		
	(c) In situ treatment by stabilisation	m3	61425.00		
33.13	Finishing-off cut and fill slopes, medians and interchange areas:				
	(a) Cut slopes	m3	39261.00		
	(b) Fill slopes	m3	198 562.00		
	(c) Medians and interchange areas	m3	334 320.00		
	(c) Emerging Contractor's				
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION**SECTION 3300**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL				
B34.14	Pavement layers constructed from gravel taken from commercial sources (unrestricted freehaul)				
	(a) Gravel subgrade layer compacted to:				
	(i) 93% of modified AASHTO density (150mm compacted layer thickness of G9 quality)	m3	64445.00		
	(ii) 93% of modified AASHTO density (150mm compacted layer thickness of G7 quality)	m3	64121.00		
	(b) Gravel selected layer compacted to:				
	(i) 93% of modified AASHTO density (150 mm compacted layer thickness of G6 quality)	m3	57677.00		
	(ii) 95% of modified AASHTO density (150mm compacted layer thickness of G5 quality)	m3	44895.00		
	(c) Gravel selected (chemically stabilized material) compacted to:				
	(i) 95% of modified AASHTO density (150mm C4 compacted layer thickness)	m3	12870.00		
	(d) Gravel subbase (chemically stabilized material) compacted to:				
	(i) 95% of modified AASHTO density (150mm C4 compacted layer thickness)	m3	3145.00		
	(ii) 95% of modified AASHTO density (150mm C3 compacted layer thickness)	m3	53776.00		
	(iii) 97% of modified AASHTO density (150mm C3 compacted layer thickness)	m3	52563.00		
	(g) Gravel shoulders compacted to:				
	(i) 93% of modified AASHTO density (150mm compacted layer thickness of G6 quality)	m3	4653.00		
	(h) Gravel wearing course compacted to:				
	(i) 93% of modified AASHTO density (200mm compacted layer thickness of G6 quality)	m3	1254.00		
	(c) Emerging Contractor's				
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 3500

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
3500	STABILIZATION				
35.1	Chemical stabilization (of 150mm thick) extra over unstabilized compacted layers				
	(a) Upper selected - C4	m3	12870.00		
	(b) Surfaced access subbase - C4	m3	3145.00		
	(c) Lower subbase - C3	m3	53776.00		
	(d) Upper subbase - C3	m3	52563.00		
35.02	Chemical stabilizing agent:				
	(c) CEM II (A-L) 32.5 N	t	5500.00		
	(g) CEM II(B-M) 32.5 N	t	5500.00		
35.04	Provision and application of water for curing	kl	10000.00		
35.05	Curing by covering with the subsequent layer	m2	100 000.00		
35.13	Extra over item 35.01 for trail sections	m3	1000.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 3600

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
3600	CRUSHED STONE BASE				
36.01	Crushed-stone base (a) Constructed from G1 material obtained from commercial sources and compacted to 88% of apparent relative density (150mm layer thickness)	m3	51350.00		
	e) Constructed from type G3 material obtained from commercial sources (37mm normal size) and compacted to 98% of modified AASHTO density(150mm layer thickness)	m3	3016.00		
36.03	Crushed-stone base trail section(150mm thick layer) constructed in accordance with the provisions of clause 3603	m3	115.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 4100

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	Brought forward				
4100	PRIME COAT				
B41.01	Prime coat:				
	(c) MC-30 cut-back bitumen	Litre	136 585.00		
	(f) Colprime E	Litre	136 585.00		
41.02	Aggregate for blinding	m2	14892.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 4200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward	forward				
4200	ASPHALT BASE AND SURFACING				
42.01	Asphalt base (a) Continuously graded (i) 150mm thick, 60/70 Penetration grade bitumen and maximum size of 37,5mm aggregate	m2	75000,00		
42,02	Asphalt surfacing (a) Continuously medium graded (i) 40mm thick, 60/70 Penetration grade bitumen and maximum size of 13.2mm aggregate (ii) 40mm thick, 60/70 Penetration grade bitumen (modified with 4% SBS latex)	m2 m2	292148,00 82180,00		
42,03	Rolled in chippings (13mm nominal size) in surfacing	t			Rate Only
42,04	Track coat of 30% stable-grade emulsion	litre	108575,00		
42,05	Binder variations (60/70 Penetration grad bitumen)	t			Rate Only
42,06	Variations in active filler content: (a) Cement (b) Lime	t t			Rate Only Rate Only
42,07	Trail sections of 40mm thick	m2	750,00		
B42.08	100 mm cores in asphalt paving	No	600,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5100

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
5100	PITCHING, STONEMWORK AND PROTECTION AGAINST EROSION				
51.01	Stone pitching:				
	(a) Plain pitching				
	(1) Method 1	m2	2500.00		
	(b) Grouted stone pitching	m2	250.00		
56.06	Provision of approval herbicide and ant poison				
	(a) Provision of materials	PC Sum		100 000.00	100 000.00
	(b) Contractor's charges and profit added to the prime cost sum	%	100 000.00		
51.07	Foundation trenches	m3	1350.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
5200	GABIONS				
52.01	Foundation trench excavation and backfilling (b) In all other classes of materials	m3	110.00		
52.02	Surface preparation for bedding the gabions	m2	275.00		
52.03	Gabions				
	(a) Galvanized gabion boxes, 1,0m wide by 0,3m deep by 1,0 long (mesh 80x 100)	m3	105.00		
	(c) Galvanised gabion mattress 1m x 6m x 0,4m using 2.7 mm wire (mesh 80x 100)	m3	110.00		
52.04	Filter Fabric				
	(a) Grade2, non-woven : Bidim A4 or equivalent	m2	650.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5400

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
5400	GUARDRAILS				
54.01	Guardrails on timber posts (a) Galvanised	m	4310.00		
54.03	Extra over item 54.01 for horizontally curved guardrails factory bent to a radius of less than 45m	m	50.00		
54.04	End treatments (d) End treatments in accordance with the drawings where single guardrail sections are used	No	102.00		
54.05	Additional guardrail posts: (a) Timber	No			
54.06	Reflective plates	No	566.00		
54.13	Steel base plates for timber guardrail posts on structures	No	8.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION**SECTION 5500**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
5500	FENCING				
55.01	Clearing the fence line, 2m wide strip	km	25.00		
55.02	Supply and erect new fencing material for new fences and for supplementing material or removed:				
	(a) Zinc-coated barbed wire (refer to GTP 11/2)	km	25.00		
	(b) Zinc-coated smooth wire (refer to GTP 11/2)	km	50.00		
	(g) Standards (1,85m x 2,5kg/m mild steel Y section)	No	1600.00		
	(h) Droppers (1,2m x 0,56kg/m mild steel ridge back pattern)	No	3600.00		
	(i) Straining posts, stays and anchors:				
	(i) Vertical				
	(1) 101,6mm outside diameter x 2100 mm long steel straining post, wall thickness 2,95mm or 15kg/m rail	No	170.00		
	(ii) Inclined:				
	(1) 60,33mm outside diameter x 2130mm long steel straining post, wall thickness 2.95mm	No	200.00		
	(3) Wire stays and anchors (6Cord, 4mm Mild steel galvanised)	No	175.00		
55.03	New gates				
	(a) Single leaf farm gate (4,8m x 1,15m, fully galvanized)	No	18.00		
55.08	Drilling and blasting of holes for posts and anchors	No	25.00		
	(c) Emerging Contractor's				
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5600

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
5600	ROAD SIGNS				
B56.01	Road sign boards with painted or coloured semi-matt black or in Class 1 retro-reflective material, where the sign board is constructed from:				
	(c) Pre-painted galvanized steel profiles (chromadek or approved equivalent):				
	(i) Area not exceeding 2m ²	m ²	120.00		
	(d) Pre-painted galvanized steel profiles (200mm high chromadek or approved equivalent):				
	(ii) Area exceeding 2m ² but not 10 m ²	m ²	141.00		
	(iii) Area exceeding 10m ²	m ²	172.00		
56.02	Extra over item 56.01 for using:				
	(a) Background of retro-reflective material of:				
	(1) Class 1	m ²	350.00		
	(b) Lettering, symbols, numbers, arrows, emblems and borders or retro-reflective material:				
	(1) Class 1	m ²	110.00		
	(2) Class 111	m ²	30.00		
56.03	Road sign supports (overhead road sign structures excluded):				
	(a) Timber (creosote treated 150mm diameter poles)	m	410.00		
56.05	Excavation and backfilling for road sign supports (not applicable to kilometre posts)	m ³	90.00		
56.06	Extra over item 56.05 for cement-treated soil backfill	m ³	70.00		
56.07	Extra over item 56.05 for rock excavation	m ³	15.00		
56.09	Dismantling, storing road sign with a surface area of				
	(a) Up to 2m ²	No	15.00		
	(b) Exceeding 2m ² but not 10m ²	No	6.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5700

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
5700	ROAD MARKINGS				
57.02	Retro-reflective road marking paint:				
	(a) White Lines (broken or unbroken)	km	30.00		
	(i) 100mm wide	km	28.00		
	(ii) 150mm wide	km	4.50		
	(iii) 200mm wide	km	1.16		
	(iv) 500 mm wide				
	(b) Yellow lines (broken or unbroken)	km	29.00		
	(i) 150mm wide				
	(c) Red lines (broken or unbroken)	km	1.00		
	(i) 100mm wide	km	2.31		
	(ii) 150mm wide	m2	850.00		
	(d) White lettering and symbols	m2	230.00		
	e) Yellow lettering and symbols	m2	5800.00		
	f) Transverse lines, painted island and arrestor bed markings (any colour)	m2	541.00		
	(g) Kerb markings (any colour)				
57.04	Variations in rate of application:	litre	1500.00		
	(a) White paint	litre	1500.00		
	(b) Yellow paint	litre	650.00		
	(c) Red paint				
57.05	Roadstuds				
	(a) Bi-directional	No	3675.00		
	(i) Stimsonite or similar				
B57.06	Setting out and premarking the lines (Excluding traffic-island markings, lettering and symbols)	km	87.00		
57.07	Re-establishing the painting unit at the end of the maintenance period	Lump Sum	1.00		
57.08	Removal of existing, temporary or permanent road markings by:				
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5700

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	(a) Sandblasting	m2	95.00		
	(b) Overpainting as temporary measure	m2	60.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION**SECTION 5800**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
5800	LANDSCAPING AND PLANTING PLANTS				
58.01	Trimming				
	(a) Machine trimming	m2	343 286.00		
	(b) Hand trimming	m2	228 857.00		
58.02	Using Machines for trimming or shaping (alternative to sub-item 58.01(a))				
	(a) Bulldozer	h			Rate Only
	(b) Motor grader	h			Rate Only
58.03	Preparing the areas for grassing:				
	(a) Ripping	h	29.00		
	(b) Scarifying for loosening topsoil	h	29.00		
	(c) Topsoiling within the road reserve, where the following materials are used:				
	(i) Topsoil obtained from within the road reserve or borrow areas (free haul 1,0km)	m3	17165.00		
	(ii) Topsoil obtained from other sources by the contractor (including haul)	m3	25747.00		
	e) Providing and applying chemical fertilisers and/or soil-improvement material:				
	(i) Lime	t	5.00		
	(ii) Superphosphate	t	10.00		
	(iii) Limestone ammonium nitrate	t	10.00		
	(iv) 2:3:2 (22)	t	6.00		
	(f) Stockpiling of topsoil (free-haul 1,0km)	m3	17165.00		
58.04	Grassing:				
	(b) Sodding by using the following types of sods:				
	(i) Nursery sods (Bayview or similar approved.)	m2	189 840.00		
	(c) Hydroseeding:				
	(i) Providing an approved seed mixture for hydroseeding	kg	1485.00		
	(c) Emerging Contractor's				
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5800

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	(ii) Providing an approved mulch	kg	35000.00		
	(iii) Hydroseeding	ha	39.00		
58.05	Watering the grass when established by topsoiling only	kl	5000.00		
58.07	Mowing the grass	ha	58.00		
58.08	Anti-erosion compound				
	(i) Verdyol complex or similar	kg	8000.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5900

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS				
59.01	Finishing the road and road reserve:				
	(a) Dual carriageway road	km	14.00		
	(b) Single carriageway	km	4.00		
59.02	Treatment of Old roads and temporary deviations	km	13.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 7300

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
7300	CONCRETE BLOCK PAVING FOR ROADS				
73.01	Concrete block paving (S-A Block Type, 25 Mpa, 60 mm Thick laid in herringbone pattern)	m2	43470.00		
73.02	Cast in situ concrete edge and intermediate beams	m2	415.00		
73.03	Provision of approved herbicide and ant poison				
	(a) Provision of materials	PC Sum		100 000.00	100 000.00
	(b) Contractor's	%	100 000.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 8100

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
8100	TESTING MATERIALS AND WORKMANSHIP				
B81.02	Other special tests requested by the by the engineer				
	(a) Testing	Prov Sum		2 000 000	2 000 000
	(b) Handling costs and profit in respect of subitem B81.02	%	2 000 000		
B81.04	(a) Financial Contribution for the combined laboratory (Client's contribution)	Prov Sum	1	9 000 000	9 000 000
	(b) Contractors Financial contribution for the combined laboratory (Tendered Rate to be Negative)	Month	36	-80000	-2880000
Total Carried Forward To Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROADWORKS SUMMARY

ITEM	DESCRIPTION	AMOUNT
SECTION 1200	GENERAL REQUIREMENTS AND PROVISIONS	
SECTION 1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATION	
SECTION 1400	HOUSING, OFFICES AND LABORATORY FOR ENGINEER'S SITE PERSONNEL	
SECTION 1500	ACCOMODATION OF TRAFFIC	
SECTION 1600	OVERHAUL	
SECTION 1700	CLEARING AND GRUBBING	
SECTION 1800	DAYWORKS	
SECTION 2100	DRAINS	
SECTION 2200	PREFABRICATED CULVERTS	
SECTION 2300	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES, DOWN PIPES AND CONCRETE LININGS FOR OPEN DRAINS	
SECTION 3300	MASS EARTHWORKS	
SECTION 3400	PAVEMENT LAYERS OF GRAVEL MATERIALS	
SECTION 3500	STABILIZATION	
SECTION 3600	CRUSHED STONE	
SECTION 4100	PRIME COAT	
SECTION 4200	ASPHALLT BASE SURFACING	
SECTION 5100	PITCHING, STONWORK PROTECTION AGAINST EROSION	
SECTION 5200	GABIONS	
SECTION 5400	GUARDRAILS	
SECTION 5500	FENCING	
SECTION 5600	ROAD SIGNS	
SECTION 5700	ROAD MARKING	
SECTION 5800	LANDSCAPING AND PLANTING PLANTS	
SECTION 5900	FINISHING THE ROAD, ROAD RESERVE AND TREATING OLD ROADS	
SECTION 7300	CONCRETE PAVING FOR ROADS	
SECTION 8100	TESTING MATERIALS	
Sub Total		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	AMOUNT
	<p>BILL NO 1</p>	
1	<p>PRELIMINARY AND GENERAL CHARGES GENERAL</p> <p>Allow for complying with all Special and General conditions of Contract and Labour requirements, site establishment and for providing a site office and adequate and suitable water, sanitary and first aid services, for attending all inspections and site meetings.</p>	
2	<p>STORAGE AND INSURANCE</p> <p>Provide for storage of plant, materials and equipment on site including protection thereof and for obtaining and providing all sureties and insurances called for in terms of this contract</p>	
3	<p>NOTICES AND FEES</p> <p>Allow for co-ordination with other contractors, giving notice to the Supply Authority and paying all required fees</p>	
4	<p>GUARANTEE</p> <p>Allow for a guarantee for a defects liability period of 12 months against defects in equipment, material and workmanship but excluding abuse, wear and tear and normal maintenance.</p>	
5	<p>AS-BUILD DRAWINGS</p> <p>Allow for marking-up a full set of drawings to show the exact positions of cables, cable joints road crossing, etc. These "as-build" drawings must be handed to the Engineer on completion of the contract.</p>	
6	<p>SURVEYING</p> <p>Surveying and setting out of pole positions and cable routes. Confirming quantities required prior to Ordering.</p>	
7	<p>ELECTRICAL CONNECTIONS</p> <p>Allow ALL ARRANGEMENTS in connection with the application to ESKOM for power supplies to each intersection as well as for the facilitation of Agreements between Gautrants and Eskom and Midvaal Council AND for handing over each installation to the Local Authority for Operation & Maintenance.</p>	
<p>Total Carried Forward to Summary</p>		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	BILL NO 2				
	INTERSECTION AT KM 0,440 (K57/K164)				
1	LIGHTING MASTS				
	13.8, (12m mounting height) straight, rigid, HD Galvanised to SANS-ISO 1461, poles to specification				
1.1	Material	item	25.00		
1.2	Installation	item	25.00		
2	SPIGOT ADAPTORS				
	500mm, HD Galvanised to SANS-ISO 1461, 2 - way spigot adaptors to specification				
2.1	Material	item	21.00		
2.2	Installation	item	21.00		
	500mm, HD Galvanised to SANS-ISO 1461, 1 - way spigot adaptors to specification				
2.3	Material	item	4.00		
2.4	Installation	item	4.00		
3	LUMINAIRES				
	Genlux, Saturn, 250 Watt, HTS Streetlight, c/w OSRAM Super 4Y, 250W, HPS/T lamp (32300 LUMENS) and control gear.				
3.1	Material	Item	46.00		
3.2	Installation	Item	46.00		
4	ROAD LIGHTING CONTROL PANEL				
	Type 1				
	Free-standing lighting control kiosk, 3CR12, as required by Eskom/Midvaal complete with all equipment and internal wiring as per specifications				
4.1	Material	each	1.00		
4.2	Installation	each	1.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
5	600/1000 PVC SWA PVC CU CABLES				
	LV CABLES				
	- 25mm x 4 core PVC Cu Cable				
5.1	Material	m	100.00		
5.2	Installation	m	100.00		
	-16mm x 4 core PVC SWA Cu Cable				
5.3	Material	m	1350.00		
5.4	Installation	m	1350.00		
6	LV CABLE TERMINATIONS				
	For 16mm sq x 4 core PVC SWA Cu Cable				
6.1	Material	Item	2.00		
6.2	Installation	Item	2.00		
	For 16mm sq x4 core PVC SWA Cu Cable				
6.3	Material	Item	52.00		
6.4	Installation	Item	52.00		
7	LV CABLE JOINTS				
	For 25mm sq x 4 core PVC SWA Cu Cable				
7.1	Material	Item	1.00		
7.2	Installation	Item	1.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
7.3	Material	Item	3.00		
7.4	Installation	Item	3.00		
8	ELECTRIC CABLE MARKER TAPE				
	Yellow plastic tape with the working "DANGER ELECTRIC CABLE BELOW" and Skull ad Crossbones decal.				
8.1	Material	m	1595.00		
8.2	Installation	m	1595.00		
Total Carried Forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
EXCAVATIONS AND CABLE RETICULATION					
9	EXCAVATIONS				
	Trench excavations for cables and sleeves, up to 1,5m deep, all widths. Including layered backfilling and compaction.				
9.1	Excavation by hand or mechanical excavator	m	100.00		
9.2	Extra and over normal excavation rate for excavation by compressed air tools. (On discretion of Engineer, will be measured as percentage of pole hole.)	m3	17.00		
9.3	Excavation of pole holes, 1,5m deep and 600mm in diameter.	per pole	25.00		
10	SIFTED BEDDING AND COVER				
	Imported river sand or sifted (5mm) backfilling material from exaction.				
10.1	Material	m3	11.00		
10.2	Installation	m3	11.00		
11	CABLE SLEEVES				
	110mm diam. Flexible PVC sleeves including sealing of pipe-ends				
11.1	Material	m	24.00		
11.2	Installation	m	24.00		
12	DRAWWIRE				
	2,5mm Galvanised draw wire for installation of cable in sleeves				
12.1	Material	m	110.00		
12.2	Installation	m	110.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	BILL NO 3				
	INTERSECTION AT KM 1,081 (K57/Centre Road)				
1	LIGHTING MASTS				
	13.8, (12m mounting height) straight, rigid, HD Galvanised to SANS-ISO 1461, poles to specification				
1.1	Material	item	12.00		
1.2	Installation	item	12.00		
2	SPIGOT ADAPTORS				
	500mm, HD Galvanised to SANS-ISO 1461, 2 - way spigot adaptors to specification				
2.1	Material	item	10.00		
2.2	Installation	item	10.00		
	500mm, HD Galvanised to SANS-ISO 1461, 1 - way spigot adaptors to specification				
2.3	Material	item	2.00		
2.4	Installation	item	2.00		
3	LUMINAIRES				
	Genlux, Saturn, 250 Watt, HTS Streetlight, c/w OSRAM Super 4Y, 250W, HPS/T lamp (32300 LUMENS) and control gear.				
3.1	Material	Item	22.00		
3.2	Installation	Item	22.00		
4	ROAD LIGHTING CONTROL PANEL				
	Type 1				
	Free-standing lighting control kiosk, 3CR12, as required by ESKOM/Midvaal complete with all equipment and internal wiring as per specifications				
4.1	Material	each	1.00		
4.2	Installation	each	1.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
5	600/1000 PVC SWA PVC CU CABLES				
	LV CABLES				
	- 25mm x 4 core PVC Cu Cable				
5.1	Material	m	100.00		
5.2	Installation	m	100.00		
	-16mm x 4 core PVC SWA Cu Cable				
5.3	Material	m	750.00		
5.4	Installation	m	750.00		
6	LV CABLE TERMINATIONS				
	For 16mm sq x 4 core PVC SWA Cu Cable				
6.1	Material	Item	2.00		
6.2	Installation	Item	2.00		
	For 16mm sq x4 core PVC SWA Cu Cable				
6.3	Material	Item	24.00		
6.4	Installation	Item	24.00		
7	LV CABLE JOINTS				
	For 25mm sq x 4 core PVC SWA Cu Cable				
7.1	Material	Item	1.00		
7.2	Installation	Item	1.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
7.3	Material	Item	2.00		
7.4	Installation	Item	2.00		
8	ELECTRIC CABLE MARKER TAPE				
	Yellow plastic tape with the working "DANGER ELECTRIC CABLE BELOW" and Scull ad Crossbones decal.				
8.1	Material	m	935.00		
8.2	Installation	m	935.00		
Total Carried Forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	EXCAVATIONS AND CABLE RETICULATION				
9	EXCAVATIONS				
	Trench excavations for cables and sleeves, up to 1,5m deep, all widths. Including layered backfilling and compaction.				
9.1	Excavation by hand or mechanical excavator	m	100.00		
9.2	Extra and over normal excavation rate for excavation by compressed air tools. (On discretion of Engineer, will be measured as percentage of pole hole.)	m3	17.00		
9.3	Excavation of pole holes, 1,5m deep and 600mm in diameter.	per pole	12.00		
10	SIFTED BEDDING AND COVER				
	Imported river sand or sifted (5mm) backfilling material from exaction.				
10.1	Material	m3	11.00		
10.2	Installation	m3	11.00		
11	CABLE SLEEVES				
	110mm diam. Flexible PVC sleeves including sealing of pipe-ends				
11.1	Material	m	24.00		
11.2	Installation	m	24.00		
12	DRAWWIRE				
	2,5mm Galvanised draw wire for installation of cable in sleeves .				
12.1	Material	m	110.00		
12.2	Installation	m	110.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	BILL NO 4				
	INTERSECTION AT KM 1,929 (K57/Tree Road)				
1	LIGHTING MASTS 13.8, (12m mounting height) straight, rigid, HD Galvanised to SANS-ISO 1461, poles to specification				
1.1	Material	item	12.00		
1.2	Installation	item	12.00		
2	SPIGOT ADAPTORS 500mm, HD Galvanised to SANS-ISO 1461, 2 - way spigot adaptors to specification				
2.1	Material	item	10.00		
2.2	Installation	item	10.00		
	500mm, HD Galvanised to SANS-ISO 1461, 1 - way spigot adaptors to specification				
2.3	Material	item	2.00		
2.4	Installation	item	2.00		
3	LUMINAIRES Genlux, Saturn, 250 Watt, HTS Streetlight, c/w OSRAM Super 4Y, 250W, HPS/T lamp (32300 LUMENS) and control gear.				
3.1	Material	Item	22.00		
3.2	Installation	Item	22.00		
4	ROAD LIGHTING CONTROL PANEL Type 1 Free-standing lighting control kiosk, 3CR12, as required by ESKOM/Midvaal complete with all equipment and internal wiring as per specifications				
4.1	Material	each	1.00		
4.2	Installation	each	1.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
5	600/1000 PVC SWA PVC CU CABLES LV CABLES				
	- 25mm x 4 core PVC Cu Cable				
5.1	Material	m	100.00		
5.2	Installation	m	100.00		
	-16mm x 4 core PVC SWA Cu Cable				
5.3	Material	m	750.00		
5.4	Installation	m	750.00		
6	LV CABLE TERMINATIONS				
	For 16mm sq x 4 core PVC SWA Cu Cable				
6.1	Material	Item	2.00		
6.2	Installation	Item	2.00		
	For 16mm sq x4 core PVC SWA Cu Cable				
6.3	Material	Item	24.00		
6.4	Installation	Item	24.00		
7	LV CABLE JOINTS				
	For 25mm sq x 4 core PVC SWA Cu Cable				
7.1	Material	Item	1.00		
7.2	Installation	Item	1.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
7.3	Material	Item	2.00		
7.4	Installation	Item	2.00		
8	ELECTRIC CABLE MARKER TAPE				
	Yellow plastic tape with the working "DANGER ELECTRIC CABLE BELOW" and Scull ad Crossbones decal.				
8.1	Material	m	935.00		
8.2	Installation	m	935.00		
Total Carried Forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	EXCAVATIONS AND CABLE RETICULATION				
9	EXCAVATIONS				
	Trench excavations for cables and sleeves, up to 1,5m deep, all widths. Including layered backfilling and compaction.				
9.1	Excavation by hand or mechanical excavator	m	120.00		
9.2	Extra and over normal excavation rate for excavation by compressed air tools. (On discretion of Engineer, will be measured as percentage of pole hole.)	m3	20.00		
9.3	Excavation of pole holes, 1,5m deep and 600mm in diameter.	per pole	12.00		
10	SIFTED BEDDING AND COVER				
	Imported river sand or sifted (5mm) backfilling material from exaction.				
10.1	Material	m3	13.00		
10.2	Installation	m3	13.00		
11	CABLE SLEEVES				
	110mm diam. Flexible PVC sleeves including sealing of pipe-ends				
11.1	Material	m	24.00		
11.2	Installation	m	24.00		
12	DRAWWIRE				
	2,5mm Galvanised draw wire for installation of cable in sleeves .				
12.1	Material	m	130.00		
12.2	Installation	m	130.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	BILL NO 5				
	INTERSECTION AT KM 2,625 (K57/First Avenue)				
1	LIGHTING MASTS				
	13.8, (12m mounting height) straight, rigid, HD Galvanised to SANS-ISO 1461, poles to specification				
1.1	Material	item	12.00		
1.2	Installation	item	12.00		
2	SPIGOT ADAPTORS				
	500mm, HD Galvanised to SANS-ISO 1461, 2 - way spigot adaptors to specification				
2.1	Material	item	10.00		
2.2	Installation	item	10.00		
	500mm, HD Galvanised to SANS-ISO 1461, 1 - way spigot adaptors to specification				
2.3	Material	item	2.00		
2.4	Installation	item	2.00		
3	LUMINAIRES				
	Genlux, Saturn, 250 Watt, HTS Streetlight, c/w OSRAM Super 4Y, 250W, HPS/T lamp (32300 LUMENS) and control gear.				
3.1	Material	Item	22.00		
3.2	Installation	Item	22.00		
4	ROAD LIGHTING CONTROL PANEL				
	Type 1				
	Free-standing lighting control kiosk, 3CR12, as required by ESKOM/Midvaal complete with all equipment and internal wiring as per specifications				
4.1	Material	each	1.00		
4.2	Installation	each	1.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	600/1000 PVC SWA PVC CU CABLES				
5	LV CABLES				
	- 25mm x 4 core PVC Cu Cable				
5.1	Material	m	100.00		
5.2	Installation	m	100.00		
	-16mm x 4 core PVC SWA Cu Cable				
5.3	Material	m	700.00		
5.4	Installation	m	700.00		
6	LV CABLE TERMINATIONS				
	For 16mm sq x 4 core PVC SWA Cu Cable				
6.1	Material	Item	2.00		
6.2	Installation	Item	2.00		
	For 16mm sq x4 core PVC SWA Cu Cable				
6.3	Material	Item	24.00		
6.4	Installation	Item	24.00		
7	LV CABLE JOINTS				
	For 25mm sq x 4 core PVC SWA Cu Cable				
7.1	Material	Item	1.00		
7.2	Installation	Item	1.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
7.3	Material	Item	2.00		
7.4	Installation	Item	2.00		
8	ELECTRIC CABLE MARKER TAPE				
	Yellow plastic tape with the working "DANGER ELECTRIC CABLE BELOW" and Skull ad Crossbones decal.				
8.1	Material	m	880.00		
8.2	Installation	m	880.00		
Total Carried Forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	EXCAVATIONS AND CABLE RETICULATION				
9	EXCAVATIONS				
	Trench excavations for cables and sleeves, up to 1,5m deep, all widths. Including layered backfilling and compaction.				
9.1	Excavation by hand or mechanical excavator	m	100.00		
9.2	Extra and over normal excavation rate for excavation by compressed air tools. (On discretion of Engineer, will be measured as percentage of pole hole.)	m3	17.00		
9.3	Excavation of pole holes, 1,5m deep and 600mm in diameter.	per pole	12.00		
10	SIFTED BEDDING AND COVER				
	Imported river sand or sifted (5mm) backfilling material from exaction.				
10.1	Material	m3	11.00		
10.2	Installation	m3	11.00		
11	CABLE SLEEVES				
	110mm diam. Flexible PVC sleeves including sealing of pipe-ends				
11.1	Material	m	24.00		
11.2	Installation	m	24.00		
12	DRAWWIRE				
	2,5mm Galvanised draw wire for installation of cable in sleeves .				
12.1	Material	m	110.00		
12.2	Installation	m	110.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	BILL NO 6				
	INTERSECTION AT KM 3.931 (K57/Boundary Road)				
1	LIGHTING MASTS				
	13.8, (12m mounting height) straight, rigid, HD Galvanised to SANS-ISO 1461, poles to specification				
1.1	Material				
1.2	Installation	item	12.00		
		item	12.00		
2	SPIGOT ADAPTORS				
	500mm, HD Galvanised to SANS-ISO 1461, 2 - way spigot adaptors to specification				
2.1	Material				
2.2	Installation	item	10.00		
		item	10.00		
	500mm, HD Galvanised to SANS-ISO 1461, 1 - way spigot adaptors to specification				
2.3	Material				
2.4	Installation	item	2.00		
		item	2.00		
3	LUMINAIRES				
	Genlux, Saturn, 250 Watt, HTS Streetlight, c/w OSRAM Super 4Y, 250W, HPS/T lamp (32300 LUMENS) and control gear.				
3.1	Material	Item	22.00		
3.2	Installation	Item	22.00		
4	ROAD LIGHTING CONTROL PANEL				
	Type 1				
	Free-standing lighting control kiosk, 3CR12, as required by ESKOM/Midvaal complete with all equipment and internal wiring as per specifications				
4.1	Material				
4.2	Installation	each	1.00		
		each	1.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	600/1000 PVC SWA PVC CU CABLES				
5	LV CABLES				
	- 25mm x 4 core PVC Cu Cable				
5.1	Material	m	100.00		
5.2	Installation	m	100.00		
	-16mm x 4 core PVC SWA Cu Cable				
5.3	Material	m	750.00		
5.4	Installation	m	750.00		
6	LV CABLE TERMINATIONS				
	For 16mm sq x 4 core PVC SWA Cu Cable				
6.1	Material	Item	2.00		
6.2	Installation	Item	2.00		
	For 16mm sq x4 core PVC SWA Cu Cable				
6.3	Material	Item	24.00		
6.4	Installation	Item	24.00		
7	LV CABLE JOINTS				
	For 25mm sq x 4 core PVC SWA Cu Cable				
7.1	Material	Item	1.00		
7.2	Installation	Item	1.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
7.3	Material	Item	2.00		
7.4	Installation	Item	2.00		
8	ELECTRIC CABLE MARKER TAPE				
	Yellow plastic tape with the working "DANGER ELECTRIC CABLE BELOW" and Skull ad Crossbones decal.				
8.1	Material	m	935.00		
8.2	Installation	m	935.00		
Total Carried Forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
9	EXCAVATIONS AND CABLE RETICULATION Trench excavations for cables and sleeves, up to 1,5m deep, all widths. Including layered backfilling and compaction.				
9.1	Excavation by hand or mechanical excavator	m	100.00		
9.2	Extra and over normal excavation rate for excavation by compressed air tools. (On discretion of Engineer, will be measured as percentage of pole hole)	m3	17.00		
9.3	Excavation of pole holes, 1,5 deep and 600mm in diameter.				
10	SIFTED BEDDING AND COVER Improved river sand or sifted (5mm) backfilling material from excavation.				
10.1	Material	m3	11.00		
10.2	Installation	m3	11.00		
11	CABLE SLEEVES 110mm diam. Flexible PVC sleeves including sealing of pipe-ends				
11.1	Material	m	24.00		
11.2	Installation	m	24.00		
12	DRAWWIRE 2,5mm Galvanised draw wire for installation of cable in sleeves.				
12.1	Material	m	110.00		
12.2	Installation	m	110.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	BILL NO 7				
	INTERSECTION AT KM 4.647 (K57/Plantation Road)				
1	LIGHTING MASTS				
	13.8m, (12m mounting height) straight, rigid, HD Galvanised to SANS-ISO 1461, poles to				
1.1	Material	Item	13.00		
1.2	Installation	Item	13.00		
2	SPIGOT ADAPTORS				
	500mm, HD Galvanised to SANA-ISO 1461,2- way spigot adaptors to specification				
2.1	Material				
2.2	Installation	Item	11.00		
	500mm, HD Galvanised to SANA-ISO 1461,1- way spigot adaptors to specification	Item	11.00		
2.3	Material				
2.4	Installation	Item	2.00		
		Item	2.00		
3	LUMINAIRES				
	Genlux, Saturn, 250 Watt, HPS Streetlight, c/w OSRAM Super 4Y, 250W, HPS/T lamp (32300 LUMENS) AND CONTROL GEAR.				
3.1	Material				
3.2	Installation	Item	24.00		
		Item	24.00		
4	ROAD LIGHTING CONTROL PANEL TYPE 1				
	Free-standing lighting control kiosk, 3CR12, as required by ESKOM/Midvaal complete with all equipment and internal wiring as per specifications				
4.1	Material	each	1.00		
4.2	Installation	each	1.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	600/1000V PVC SWA CU CABLES				
5	LV CABLES				
	-25mm x 4 core PVC SWA CU Cables				
5.1	Material	m	150.00		
5.2	Installation	m	150.00		
	- 16mm x 4 core PVC SWA Cu Cable				
5.3	Material	m	750.00		
5.4	Installation	m	750.00		
6	LV CABLE TERMINATIONS				
	for 25mm sq x 4 core PVC SWA Cu Cable				
6.1	Materials	Item	2.00		
6.2	Installation	Item	2.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
6.3	material	Item	26.00		
6.4	Installation	Item	26.00		
7	LV CABLE JOINTS				
	for 25mm sq x 4 core PVC SWA Cu Cable				
7.1	Materials	Item	1.00		
7.2	Installation	Item	1.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
7.3	material	Item	2.00		
7.4	Installation	Item	2.00		
8	ELECTRIC CABLE MARKER TAPE				
	yellow plastic pate with the wording "DANGER ELECTIC CABLE BELOW" and Scull and crossbones decal.				
8.1	material	m	990.00		
8.2	Installation	m	990.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	EXCASVATIONS AND CABLE RETICULATION				
9	EXCAVATIONS				
	Trench excavations for cables and sleeves, up to 1,5m deep, all widths. Including layered backfilling and compaction.				
9.1	Excavation by hand or mechanical excavator	m	150.00		
9.2	Extra and over normal excavation rate for excavation by compressed air tools. (on discretion of Engineer, will be measured as percentage of pole hole.)	m3	25.00		
9.3	Excavation of pole holes, 1,5m deep and 600mm in diameter.	per pole	13.00		
10	SIFTED BEDDING AND COVER				
	imported river sand or sifted (5mm) backfilling material from excavation.				
10.1	Material		16.00		
10.2	Installation	m3	16.00		
11	CABLE SLEEVES				
	110mm diam. Flexible PVC sleeves including sealing of pipe-ends				
11.1	Material		24.00		
11.2	Installation	m	24.00		
12	DRAWWIRE				
	2,5 Galvanised draw wire for installation of cable in sleeves.				
12.1	Material		160.00		
12.2	Installation	m	160.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	BILL NO 8				
	INTERSECTION AT KM 5.665 (k57/Number 4 Road)				
1	LIGHTING MASTS				
	13.8m, (12m mounting height) straight, rigid, HD Galvanised to SANS-ISO 1461, poles to				
1,1	Material	item	12,00		
1,2	Installation	item	12,00		
2	SPIGOT ADAPTORS				
	500mm, HD Galvanised to SANA-ISO 1461,2- way spigot adaptors to specification				
2,1	Material	item	10,00		
2,2	Installation	item	10,00		
	500mm, HD Galvanised to SANA-ISO 1461,1- way spigot adaptors to specification				
2,3	Material	item	2,00		
2,4	Installation	item	2,00		
3	LUMINAIRES				
	Genlux, Saturn, 250 Watt, HPS Streetlight, c/w OSRAM Super 4Y, 250W, HPS/T lamp (32300 LUMENS) AND CONTROL GEAR.				
3,1	Material	item	22,00		
3,2	Installation	item	22,00		
4	ROAD LIGHTING CONTROL PANEL TYPE 1				
	Free-standing lighting control kiosk, 3CR12, as required by ESKOM/Midvaal complete with all equipment and internal wiring as per specifications				
4,1	Material	each	1,00		
4,2	Installation	each	1,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	600/1000V PVC SWA CU CABLES				
5	LV CABLES				
	-25mm x 4 core PVC SWA CU Cables				
5.1	Material	m	100.00		
5.2	Installation	m	100.00		
	- 16mm x 4 core PVC SWA Cu Cable				
5.3	Material	m	700.00		
5.4	Installation	m	700.00		
6	LV CABLE TERMINATIONS				
	for 25mm sq x 4 core PVC SWA Cu Cable				
6.1	Materials	Item	2.00		
6.2	Installation	Item	2.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
6.3	material	Item	24.00		
6.4	Installation	Item	24.00		
7	LV CABLE JOINTS				
	for 25mm sq x 4 core PVC SWA Cu Cable				
7.1	Materials	Item	1.00		
7.2	Installation	Item	1.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
7.3	material	Item	2.00		
7.4	Installation	Item	2.00		
8	ELECTRIC CABLE MARKER TAPE				
	yellow plastic pate with the wording "DANGER ELECTIC CABLE BELOW" and Scull and crossbones decal.				
8.1	material	m	880.00		
8.2	Installation	m	880.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
Brought forward					
	EXCAVATIONS AND CABLE RETICULATION				
9	EXCAVATIONS				
	Trench excavations for cables and sleeves, up to 1,5m deep, all widths. Including layered backfilling and compaction.				
9.1	Excavation by hand or mechanical excavator Extra and over normal excavation rate for excavation by compressed air tools. (on discretion of Engineer, will be measured as percentage of pole hole.)	m	100.00		
9.2	Excavation of pole holes, 1,5m deep and 600mm in diameter.	m3	17.00		
9.3		per pole	12.00		
10	SIFTED BEDDING AND COVER				
	imported river sand or sifted (5mm) backfilling material from excavation.				
10.1	Material		11.00		
10.2	Installation	m3	11.00		
		m3			
11	CABLE SLEEVES				
	110mm diam. Flexible PVC sleeves including sealing of pipe-ends				
11.1	Material		24.00		
11.2	Installation	m	24.00		
		m			
12	DRAWWIRE				
	2,5 Galvanised draw wire for installation of cable in sleeves.				
12.1	Material		110.00		
12.2	Installation	m	110.00		
		m			
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	BILL NO 9				
	INTERSECTION AT KM 7.054 (Road Number 3)				
1	LIGHTING MASTS				
	13.8m, (12m mounting height) straight, rigid, HD Galvanised to SANS- ISO 1461, poles to				
1.1	Material	item	12.00		
1.2	Installation	item	12.00		
2	SPIGOT ADAPTORS				
	500mm, HD Galvanised to SANA-ISO 1461,2- way spigot adaptors to specification				
2.1	Material	item	10.00		
2.2	Installation	item	10.00		
	500mm, HD Galvanised to SANA-ISO 1461,1- way spigot adaptors to specification				
2.3	Material	item	2.00		
2.4	Installation	item	2.00		
3	LUMINAIRES				
	Genlux, Saturn, 250 Watt, HPS Streetlight, c/w OSRAM Super 4Y, 250W, HPS/T lamp (32300 LUMENS) AND CONTROL GEAR.				
3.1	Material	item	22.00		
3.2	Installation	item	22.00		
4	ROAD LIGHTING CONTROL PANEL TYPE 1				
	Free-standing lighting control kiosk, 3CR12, as required by ESKOM/Midvaal complete with all equipment and internal wiring as per specifications				
4.1	Material	each	1.00		
4.2	Installation	each	1.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	600/1000V PVC SWA CU CABLES				
5	LV CABLES				
	-25mm x 4 core PVC SWA CU Cables				
5.1	Material	m	100.00		
5.2	Installation	m	100.00		
	- 16mm x 4 core PVC SWA Cu Cable				
5.3	Material	m	750.00		
5.4	Installation	m	750.00		
6	LV CABLE TERMINATIONS				
	for 25mm sq x 4 core PVC SWA Cu Cable				
6.1	Materials	item	2.00		
6.2	Installation	item	2.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
6.3	material	item	24.00		
6.4	Installation	item	24.00		
7	LV CABLE JOINTS				
	for 25mm sq x 4 core PVC SWA Cu Cable				
7.1	Materials	item	1.00		
7.2	Installation	item	1.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
7.3	material	item	2.00		
7.4	Installation	item	2.00		
8	ELECTRIC CABLE MARKER TAPE				
	yellow plastic pate with the wording "DANGER ELECTIC CABLE BELOW" and Scull and crossbones decal.				
8.1	material	m	935.00		
8.2	Installation	m	935.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	EXCAVATIONS AND CABLE RETICULATION				
9	EXCAVATIONS				
	Trench excavations for cables and sleeves, up to 1,5m deep, all widths. Including layered backfilling and compaction.				
9.1	Excavation by hand or mechanical excavator	m	100.00		
9.2	Extra and over normal excavation rate for excavation by compressed air tools. (on discretion of Engineer, will be measured as percentage of pole hole.)	m3	17.00		
9.3	Excavation of pole holes, 1,5m deep and 600mm in diameter.	per pole	12.00		
10	SIFTED BEDDING AND COVER				
	Imported river sand or sifted (5mm) backfilling material from excavation.				
10.1	Material	m3	11.00		
10.2	Installation	m3	11.00		
11	CABLE SLEEVES				
	110mm diam. Flexible PVC sleeves including sealing of pipe-ends				
11.1	Material	m	24.00		
11.2	Installation	m	24.00		
12	DRAWWIRE				
	2,5 Galvanised draw wire for installation of calve in sleeves.				
12.1	Material	m	110.00		
12.2	Installation	m	110.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	BILL NO 10				
	INTERSECTION AT KM 8.889 (K57/K158)				
1	LIGHTING MASTS				
	13.8m, (12m mounting height) straight, rigid, HD Galvanised to SANS-ISO 1461, poles to				
1.1	Material	item	14.00		
1.2	Installation	item	14.00		
2	SPIGOT ADAPTORS				
	500mm, HD Galvanised to SANA-ISO 1461, 2- way spigot adaptors to specification				
2.1	Material				
2.2	Installation	item	10.00		
	500mm, HD Galvanised to SANA-ISO 1461, 1- way spigot adaptors to specification	item	10.00		
2.3	Material				
2.4	Installation	item	4.00		
3	LUMINAIRES	item	4.00		
	Genlux, Saturn, 250 Watt, HPS Streetlight, c/w OSRAM Super 4Y, 250W, HPS/T lamp (32300 LUMENS) AND CONTROL GEAR.	item	4.00		
3.1	Material				
3.2	Installation	item	24.00		
4	ROAD LIGHTING CONTROL PANEL TYPE 1	item	24.00		
	Free-standing lighting control kiosk, 3CR12, as required by ESKOM/Midvaal complete with all equipment and internal wiring as per specifications				
4.1	Material	each	1.00		
4.2	Installation	each	1.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	600/1000V PVC SWA CU CABLES				
5	LV CABLES				
	-25mm x 4 core PVC SWA CU Cables				
5.1	Material	m	350.00		
5.2	Installation	m	350.00		
	- 16mm x 4 core PVC SWA Cu Cable				
5.3	Material	m	750.00		
5.4	Installation	m	750.00		
6	LV CABLE TERMINATIONS				
	For 25mm sq x 4 core PVC SWA Cu Cable				
6.1	Materials	Item	2.00		
6.2	Installation	Item	2.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
6.3	Material	Item	28.00		
6.4	Installation	Item	28.00		
7	LV CABLE JOINTS				
	For 25mm sq x 4 core PVC SWA Cu Cable				
7.1	Materials	Item	1.00		
7.2	Installation	Item	1.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
7.3	Material	Item	2.00		
7.4	Installation	Item	2.00		
8	ELECTRIC CABLE MARKER TAPE				
	Yellow plastic pate with the wording "DANGER ELECTIC CABLE BELOW" and Scull and crossbones decal.				
8.1	Material	m	1210.00		
8.2	Installation	m	1210.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
EXCAVATIONS AND CABLE RETICULATION					
9	EXCAVATIONS				
	Trench excavations for cables and sleeves, up to 1,5m deep, all widths. Including layered backfilling and compaction.				
9.1	Excavation by hand or mechanical excavator	m	350.00		
9.2	Extra and over normal excavation rate for excavation by compressed air tools. (on discretion of Engineer, will be measured as percentage of pole hole.)	m3	59.00		
9.3	Excavation of pole holes, 1,5m deep and 600mm in diameter.	per pole	14.00		
10	SIFTED BEDDING AND COVER				
	Imported river sand or sifted (5mm) backfilling material from excavation.				
10.1	Material		37.00		
10.2	Installation	m3 m3	37.00		
11	CABLE SLEEVES				
	110mm diam. Flexible PVC sleeves including sealing of pipe-ends		24.00		
11.1	Material	m	24.00		
11.2	Installation	m			
12	DRAWWIRE				
	2,5 Galvanised draw wire for installation of calve in sleeves.		360.00		
12.1	Material	m	360.00		
12.2	Installation	m			
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	BILL NO 11				
	INTERSECTION AT KM 9.510 (K57/DU Plessis Street)				
1	LIGHTING MASTS				
	13.8m, (12m mounting height) straight, rigid, HD Galvanised to SANS-ISO 1461, poles to				
1.1	Material	item	13.00		
1.2	Installation	item	13.00		
2	SPIGOT ADAPTORS				
	500mm, HD Galvanised to SANA-ISO 1461,2- way spigot adaptors to specification				
2.1	Material	item	11.00		
2.2	Installation	item	11.00		
	500mm, HD Galvanised to SANA-ISO 1461,1- way spigot adaptors to specification				
2.3	Material	item	2.00		
2.4	Installation	item	2.00		
3	LUMINAIRES				
	Genlux, Saturn, 250 Watt, HPS Streetlight, c/w OSRAM Super 4Y, 250W, HPS/T lamp (32300 LUMENS) AND CONTROL GEAR.				
3.1	Material	Item	24.00		
3.2	Installation	Item	24.00		
4	ROAD LIGHTING CONTROL PANEL TYPE 1				
	Free-standing lighting control kiosk, 3CR12, as required by ESKOM/Midvaal complete with all equipment and internal wiring as per specifications				
4.1	Material	each	1.00		
4.2	Installation	each	1.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	600/1000V PVC SWA CU CABLES				
5	LV CABLES				
	-25mm x 4 core PVC SWA CU Cables				
5.1	Material	m	100.00		
5.2	Installation	m	100.00		
	- 16mm x 4 core PVC SWA Cu Cable				
5.3	Material	m	800.00		
5.4	Installation	m	800.00		
6	LV CABLE TERMINATIONS				
	for 25mm sq x 4 core PVC SWA Cu Cable				
6.1	Materials	item	2.00		
6.2	Installation	item	2.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
6.3	material	item	26.00		
6.4	Installation	item	26.00		
7	LV CABLE JOINTS				
	for 25mm sq x 4 core PVC SWA Cu Cable				
7.1	Materials	item	1.00		
7.2	Installation	item	1.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
7.3	material	item	2.00		
7.4	Installation	item	2.00		
8	ELECTRIC CABLE MARKER TAPE				
	yellow plastic pate with the wording "DANGER ELECTIC CABLE BELOW" and Scull and crossbones decal.				
8.1	material	m	990.00		
8.2	Installation	m	990.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
9	EXCAVATIONS AND CABLE RETICULATION EXCAVATIONS				
	Trench excavations for cables and sleeves, up to 1,5m deep, all widths. Including layered backfilling and compaction.				
9,1	Excavation by hand or mechanical excavator	m	100,00		
	Extra and over normal excavation rate for excavation by compressed air tools. (on discretion of Engineer, will be measured as percentage of pole hole.)				
9,2		m3	17,00		
	Excavation of pole holes, 1,5m deep and 600mm in diameter.				
9,3		per pole	13,00		
10	SIFTED BEDDING AND COVER				
	imported river sand or sifted (5mm) backfilling material from excavation.				
10,1	Material	m3	11,00		
10,2	Installation	m3	11,00		
11	CABLE SLEEVES				
	110mm diam. Flexible PVC sleeves including sealing of pipe-ends				
11,1	Material	m	24,00		
11,2	Installation	m	24,00		
12	DRAWWIRE				
	2,5 Galvanised draw wire for installation of calve in sleeves.				
12,1	Material	m	110,00		
12,2	Installation	m	110,00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	BILL NO 12				
	INTERSECTION AT KM 10.571 (DU Plessis Road)				
1	LIGHTING MASTS				
	13.8m, (12m mounting height) straight, rigid, HD Galvanised to SANS-ISO 1461, poles to				
1.1	Material	item	12.00		
1.2	Installation	item	12.00		
2	SPIGOT ADAPTORS				
	500mm, HD Galvanised to SANA-ISO 1461,2- way spigot adaptors to specification				
2.1	Material	item	10.00		
2.2	Installation	item	10.00		
	500mm, HD Galvanised to SANA-ISO 1461,2- way spigot adaptors to specification				
2.3	Material	item	2.00		
2.4	Installation	item	2.00		
3	LUMINAIRES				
	Genlux, Saturn, 250 Watt, HPS Streetlight, c/w OSRAM Super 4Y, 250W, HPS/T lamp (32300 LUMENS) AND CONTROL GEAR.				
3.1	Material	item	22.00		
3.2	Installation	item	22.00		
4	ROAD LIGHTING CONTROL PANEL TYPE 1				
	Free-standing lighting control kiosk, 3CR12, as required by ESKOM/Midvaal complete with all equipment and internal wiring as per specifications				
4.1	Material	each	1.00		
4.2	Installation	each	1.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
5	600/1000V PVC SWA CU CABLES LV CABLES				
	-25mm x 4 core PVC SWA CU Cables				
5.1	Material	m	150.00		
5.2	Installation	m	150.00		
	- 16mm x 4 core PVC SWA Cu Cable				
5.3	Material	m	750.00		
5.4	Installation	m	750.00		
6	LV CABLE TERMINATIONS				
	for 25mm sq x 4 core PVC SWA Cu Cable				
6.1	Materials	Item	2.00		
6.2	Installation	Item	2.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
6.3	material	Item	24.00		
6.4	Installation	Item	24.00		
7	LV CABLE JOINTS				
	for 25mm sq x 4 core PVC SWA Cu Cable				
7.1	Materials	Item	1.00		
7.2	Installation	Item	1.00		
	For 16mm sq x 4 core PVC SWA Cu Cable				
7.3	material	Item	2.00		
7.4	Installation	Item	2.00		
8	ELECTRIC CABLE MARKER TAPE				
	yellow plastic pate with the wording "DANGER ELECTIC CABLE BELOW" and Scull and crossbones decal.				
8.1	material	m	990.00		
8.2	Installation	m	990.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought forward					
	EXCAVATIONS AND CABLE RETICULATION				
9	EXCAVATIONS				
	Trench excavations for cables and sleeves, up to 1,5m deep, all widths. Including layered backfilling and compaction.				
9.1	Excavation by hand or mechanical excavator	m	150.00		
9.2	Extra and over normal excavation rate for excavation by compressed air tools. (on discretion of Engineer, will be measured as percentage of pole hole.)	m2	25.00		
9.3	Excavation of pole holes, 1,5m deep and 600mm in diameter.	per pole	12.00		
10	SIFTED BEDDING AND COVER				
	imported river sand or sifted (5mm) backfilling material from excavation.				
10.1	Material	m3	16.00		
10.2	Installation	m3	16.00		
11	CABLE SLEEVES				
	110mm diam. Flexible PVC sleeves including sealing of pipe-ends				
11.1	Material	m	24.00		
11.2	Installation	m	24.00		
12	DRAWWIRE				
	2,5 Galvanised draw wire for installation of calve in sleeves.				
12.1	Material	m	160.00		
12.2	Installation	m	160.00		
Total Carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	BILL NO 13				
	GENERAL PROVISIONAL ITEMS				
1	PROTECTIVE MEASURES (Barriers, Bridges, Road signs etc.)	site	11.00		
2	RE-INSTATING ROADS, PAVEMENTS AND DRIVE-WAYS TO ORIGINAL FINISH	m	100.00		
3	CLEARING SITE OF RUBBLE	site	11.00		
4	TESTS, INNSPECTIONS, COMMISSIONING	site	11.00		
5	SPARE LAMPS 250W HPS/E Lamp complete with packaging	each			
5.1			rate only		
5	MANHOLE 600 X 600 X 800 mm deep complete with heavy duty cast iron cover plate				
5.1	Material	item	rate only		
5.2	Installation	item	rate only		
6	OFFER FOR RECOVERED CABLES The Contractor is expected to make an offer to the client (Gautrans) to buy any recovered cables. -				
6.1	-35 mm x 4 core PVC SWA CU	m	rate only		
6.2	-25mm x 4 core PVC SWA CU	m	rate only		
6.3	-16mm x 4 core PVC SWA CU	m	rate only		
6.4	-16 mm x 3 core PVC SWA CU	m	rate only		
	PROVISIONAL AMOUNTS Provisional amount for the following:				
7	CONTINGENCY FOR UNFORSEEN COST AND REMEASUREMENT (Not for Contractor)	SUM	9.00	50 000.00	50 000.00
8	ESKOM SERVICE CONNECTIONS	EA			450 000.00
Total carried forward to Summary					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STREET LIGHTING SUMMARY

BILL NO.	DESCRIPTION	AMOUNT
1	PRILIMINARY AND GENERAL	
2	R	
3	INTERSECTION AT km 0.440	
4	R	
5	INTERSECTION AT km1.081	
6	R	
7	INTERSECTION AT Km 1.929	
8	R	
9	INTERSECTION AT km 2.625	
10	R	
11	INTERSECTION AT km 3.931	
12	R	
13	INTERSECTION AT km 4.647	
14	R	
14	PROJECT SUB-TOTAL	



GAUTENG PROVINCE

ROADS AND TRANSPORT
REPUBLIC OF SOUTH AFRICA

TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SUMMARY OF BILL OF QUANTITIES FOR K57

ITEM	DESCRIPTION	AMOUNT
Sub Total A	ROADWORKS (K57)	
SCHEDULE B: STREET LIGHTING		
Sub Total B	STREET LIGHTING	
Sub Total A+B (K57)		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

BILL OF QUANTITIES K164



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

1200	General requirements and provisions.....	C-224
1500	Accommodation of traffic.....	C-231
1700	Clearing and Grubbing.....	C-233
1800	Dayworks.....	C-234
2100	Drains.....	C-235
2200	Prefabricated Culverts.....	C-237
2300	Concrete Kerbing.....	C-241
3300	Mass Earthworks.....	C-243
3400	Pavement Layers of Gravel Material.....	C-245
3500	Stabilisation.....	C-247
3600	Crushed Stone Base.....	C-248
4100	Prime Coat.....	C-249
4200	Asphalt base and Surfacing.....	C-250
5400	Guardrails.....	C-251
5500	Fencing.....	C-252
5600	Road Signs.....	C-254
5700	Road Markings.....	C-255
5800	Landscaping & Planting of Plants.....	C-256
5900	Finishing the Road and Road Reserve and Treating old Roads.....	C-258
8100	Testing Material and Workmanship.....	C-259
6100	Foundation for Structures.....	C-260
6300	Steel Reinforcement for Structures.....	C-261
6400	Concrete for Structures.....	C-262
6600	No-fines Concrete, Joints, Bearings, Parapets & Drainage.....	C-263



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

Schedule C: Occupational Health and Safety Act 1993 C-264

C.1.3 Summary of Bill of Quantities for K164 C-265

C.1.4 Calculation of Tender Sum for K164..... C-266



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
1200	GENERAL REQUIREMENTS AND PROVISIONS				
B12.03	OTHER PAYMENTS				
	(a) Miscellaneous payments				
	(i) Web Portal	Prov. Sum	1,00	R100 000,00	R100 000,00
	(b) Handling costs in respect of subitem B12.03(a)	%	100000,00		
B12.04	Excavation for the exposing of or searching of services				
	(a) 0 m up to 2 m				
	(i) Soft material	m ³	500,00		
	(ii) Hard material	m ³	100,00		
	(b) Exceeding 2 m up to 4 m				
	(i) Soft material	m ³	300,00		
	(ii) Hard material	m ³	80,00		
	(c) Extra Over subitems (a) and (b) above for hand excavation by means of hand tools such as picks, crowbars and pneumatic tools in close vicinity of services or where no blasting or machine excavation is allowed				
	(i) Soft material	m ³	60,00		
	(ii) Hard material	m ³	20,00		
B12.05	Supply and erection of contract sign boards	No.	2,00		
B12.06	Relocation of services				
	(a) Provisional sum for relocation or protection of bulk water main Prov.	Prov. Sum	1,00	R500 000,00	R500 000,00
	(b) Provisional sum for protection of existing water mains	Prov. Sum	1,00	R320 000,00	R320 000,00
	(c) Provisional sum for protection of electrical cables	Prov. Sum	1,00	R250 000,00	R250 000,00
	(d) Provisional sum for protection of fibre optic cable	Prov. Sum	1,00	R250 000,00	R250 000,00
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought Forward					
	(e) Provisional sum for protection of Telkom cable	Prov. Sum	1,00	R150 000,00	R150 000,00
	(f) Contractor's handling costs and other charges on subitems B12.06(a), (b), (c) and (d)	%	1470000,00		
B12.07	Installation of Traffic Lights				
	(a) Installation	Prov. Sum	1,00	R500 000,00	R500 000,00
	(b) Contractor's handling costs and other charges	%	500000,00		
B12.08	Manufacture and Erection of Bus/taxi shelters				
	(a) Manufacture and erection Prov.	Prov.Sum	1,00	R900 000,00	R900 000,00
	(b) Contractor's handling costs and other charges	%	100000,00		
B12.14	Provisional Sum for the Construction of Bridge at Km 2.08,				
	a)Complete, including the Construction of all associated ancillary works	Prov.Sum	1,00	R10 000 000,00	R10 000 000,00
	(b) Contractor's handling costs and other charges	%	R10 000 000,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1500

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought Forward					
15,06	Watering of temporary deviations	kl	300,00		
15,07	Blading by road grader of: (a) Temporary deviations	km-pass	15,00		
15,08	a)Repairs, alterations and/or additions to existing roads used as temporary deviations b) Handling costs and profit in respect of subitem 15.08(a)	Prov Sum %	1,00 1500000,00	R1 500 000,00	R1 500 000,00
B15.15	Provision of traffic safety equipment for use by the engineer (a) Safety jackets	No	6,00		
B15.16	Traffic Safety Officer	Month	14,00		
B15.17	Penalties (a) Fixed penalty per occurrence (b) Time related penalty	No h	0,00 0,00	-20000,00 -1500,00	
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1700

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
1700	CLEARING AND GRUBBING				
17.01	Clearing and Grubbing	ha	30.00		
17.02	Removal and grubbing of large trees and tree stumps				
	(a) Girth exceeding 1m up to and including 2m	No	10.00		
	(b) Girth exceeding 2m up to and including 3m	No	5.00		
17.03	Recleaning of surfaces (on written Instructions of the Engineer only)	ha	12		
B17.07	Ripping and removal of existing bituminous surface	m ²	1400.00		
	(a) Demolishing and Removal of existing structures	m ³	1500.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 1800

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
2100	DRAINS				
B21.01	Excavation for open drains:				
	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	(i) 0 m up to 1,5 m	m ³	8000,00		
	(ii) Exceeding 1,5 m and up to 3,0 m	m ³	3000,00		
	(b) Extra over subitem B21.01(a) for excavation in hard material, irrespective of depth	m ³	2000,00		
21,02	Cleaning and shaping existing drains	m ³	700,00		
21,03	Excavation for subsoil drainage systems:				
	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	(i) 0 m up to 1,5 m	m ³	1800,00		
	(b) Extra over subitem 21.03(a) for excavation in hard material irrespective of depth	m ³	250,00		
B21.04	Impermeable backfilling to subsoil drainage systems				
	(a) Unstabilised natural gravel	m ³	200,00		
	(b) G5 material stabilised with 4% stabilising agent	m ³	50,00		
21,05	Banks and dykes	m ³	100,00		
21,06	Natural permeable material in subsoil drainage systems (crushed stone):				
	(b) Crushed stone obtained from commercial sources				
	(i) 19mm nominal size	m ³	400,00		
21,07	Natural permeable material in subsoil drainage systems (sand):				
	(b) Sand from commercial sources				
	(i) Coarse Grade	m ³	120,00		
	(ii) Fine Grade	m ³	250,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION SECTION 2100

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought Forward					
21,08	Pipes in subsoil drainage systems: (b) Unplasticised PVC pipes and fittings, normal duty complete with couplings (i) 150 mm internal dia. perforated or slotted (ii) 150 mm internal dia. unperforated	m m	1500,00 200,00		
21,09	Polyethylene sheeting 0,15mm thick, or similar approved material, for lining subsoil drainage systems	m ²	900,00		
21,10	Synthetic-fibre filter fabric - grade 2: Kaymat U24 or approved equivalent	m ²	900,00		
B21.12	Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for subsoil drainage systems: (a) Outlet structures (d) Cleaning eyes	No No	12,00 10,00		
21,13	Concrete caps for subsoil drain pipes	No	10,00		
21,15	Overall for material hauled in excess of 1,0km freehaul (normal overhaul)	m ³ -km	35000,00		
B21.20	Clearing of subsoil drains	m	200,00		
B21.21	Cleaning facilities for subsoil drainage systems (a) Long Radius Bends (b) 45° tees (c) Concrete caps (d) Cast iron surface boxes	No No No No	12,00 30,00 30,00 30,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 2100

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought Forward					
21.08	Pipes in subsoil drainage systems:				
	(b) Unplasticised PVC pipes and fittings, normal duty complete with couplings				
	(i) 150 mm internal dia. perforated or slotted	m	1500.00		
	(ii) 150 mm internal dia. unperforated	m	200.00		
21.09	Polyethylene sheeting 0,15mm thick, or similar approved material, for lining subsoil drainage systems	m ²	900.00		
21.10	Synthetic-fibre filter fabric - grade 2: Kaymat U24 or approved equivalent	m ²	900.00		
B21.12	Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for subsoil drainage systems:				
	(a) Outlet structures	No	12.00		
	(d) Cleaning eyes	No	10.00		
21.13	Concrete caps for subsoil drain pipes	No	10.00		
21.15	Overall for material hauled in excess of 1,0km freehaul (normal overhaul)	m ³ -km	10.00		
B21.20	Clearing of subsoil drains	m	10.00		
B21.21	Cleaning facilities for subsoil drainage systems				
	(a) Long Radius Bends	No	30.00		
	(b) 45° tees	No	30.00		
	(c) Concrete caps	No	30.00		
	(d) Cast iron surface boxes	No	30.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 2200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
2200	PREFABRICATED CULVERTS				
22,01	Excavation				
	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	(i) 0 m up to 1.5 m	m ³	1500,00		
	(ii) Exceeding 1,5 m and up to 3,0 m	m ³	250,00		
	(b) Extra over subitem 22.01(a) for excavation in hard material, irrespective of depth	m ³	100,00		
B22.02	BACKFILLING				
	(a) Using the excavated material	m ³	300,00		
	(b) Using imported selected material	m ³	100,00		
	(d) Extra over subitems 22.02(a) and (b) for backfilling adjacent to inlets, outlets, catchpits and manholes	m ³	200,00		
22,03	Concrete pipe culverts:				
	(b) On class B bedding				
	(i) 600mm dia. Interlocking joints Class 100D	m	400,00		
22,05	Portal and rectangular culverts:				
	(b) Without prefabricated floor slabs				
	(i) 600mm x 450mm, Class 200S	m	150,00		
	(ii) 750mm x 450mm Class 175S	m	30,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 2200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought Forward					
22.07	Cast in situ concrete and formwork				
	(b) In floor slabs for portal or rectangular culverts,				
	(i) Class 25/38	m ³	120.00		
	(c) In inlet and outlet structures, skewed ends,				
	(l) Class 20/19	m ³	20.00		
	(d) Formwork of concrete under subitem 22.07(c)				
	(l) Class F1 surface finish	m ²	50.00		
	(ii) Vertical formwork for F2 surface finish	m ²	50.00		
22.08	Concrete backfill for culverts. Class 20/38	m ³	40.00		
22.10	Steel reinforcement				
	(b) High-tensile steel bars	t	5.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 2200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought Forward					
22.14	Removing and stacking existing prefabricated (a) 450 mm diameter	m	20.00		
22.17	Manholes, catch pits, precast inlet and outlet (b) Catch pits (iii) Kerb inlets, Type B side inlet complete as (e) Extra over or less than subitem 22.17(b) for (ii) Kerb inlet (Type B side inlet)	No	18.00		
		m	12.00		
22.23	Service ducts: (a) Ordinary pipes (i) Unplasticised PVC pipes (2) 150 mm dia.	m	360.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 2200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought Forward					
2200	PREFABRICATED CULVERTS				
22.24	Duct marker blocks				
	(a) Concrete, Class 20 MPa (900mm x 250mm x		30.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 2300

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
2300	CONCRETE KERBING, CONCRETE CHANNELING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS				
23.01	Concrete kerbing				
	(a) Precast kerbing to SABS 927				
	(i) Figure 7 kerb	m	80.00		
	(b) Cast in situ kerbing (Class 20/19 concrete including bedding and backing material as shown on the drawings.)				
	(i) Mountable kerb (SABS fig 8)	m	100.00		
	Concrete Kerbing-channelling combination				
B23.02	(a) Precast kerb (SABS 927)				
	(i) Figure 3 kerb (See drawing GTP12/2)	m	3200.00		
	(ii) Figure 7 kerb (see drawing GTP12/2)	m	200.00		
	Concrete chutes according to drawing (GTP 12/7)				
23.03	Inlet, outlet, transition and similar structures (typical)				
23.05	(a) Chute inlet according to drawing GTP 12/3 No 2	No	15.00		
	(b) Chute outlet according to drawing GTP 12/4 No 10	No	10.00		
	Trimming of excavations for concrete-lined open drains				
23.07	(a) In soft material	m ²	6000.00		
	(b) In hard material	m ²	110.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 2300

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought Forward					
23.08	Concrete Lining for open drain				
	(a) Cast in situ concrete lining (Class 20/19)				
	(i) Median Drain	m ³	250.00		
	(ii) Side Drain	m ³	345.00		
	(iii) Bases for rectangular open Drains	m ³	220.00		
	(b) Class U2 surface finish to cast in situ concrete				
	(i) Median Drain	m ²	1 200.00		
	(ii) Side Drain	m ²	4 500.00		
23.09	Formwork to cast in situ concrete lining for open drains (Class F2 surface finish)				
	(b)	m ³	300.00		
	(c) To ends of slabs	m ²	120.00		
23.10	Sealed joints in concrete linings of open drains				
	(a) Silicone-based sealant	m	1500.00		
23.12	Steel reinforcement				
	(b) High-tensile steel bars	t	15.00		
	(c) Welded steel fabric (ref 311)	kg	20700.00		
23.13	Polyethylene sheeting (0,15mm thick) for concrete lined open drains	m ²	4 500		
23.14	Cutting bituminous surfacing and pavement layers for concrete kerbing, channelling or concrete-lined drains	m	1300.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 3300

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
3300	MASS EARTHWORKS				
33.01	Cut and borrow to fill, including free-haul up to 1 km				
	(a) Gravel material in compacted layer thickness of 200 mm and less:				
	(i) Compacted to 90% of modified AASHTO density	m ³	2000.00		
	(b) Gravel material in compacted layer thickness from 200m to 500mm:				
	(i) Compacted to 90% of modified AASHTO density	m ³	100.00		
33.03	Extra over item 33.01 and B33.20 for excavating and breaking down material in:				
	(a) Intermediate excavation	m ³	100.00		
	(b) Hard excavation	m ³	100.00		
	(c) Boulder excavation class A	m ³	200.00		
33.04	Cut to soil, including free-haul up to 1km. Material obtained from:				
	(a) Soft excavation	m ³	18 000		
	(b) Intermediate excavation	m ³	500.00		
33.05	Overbreak in hard and boulder class A excavation	m ²	250.00		
33.06	Variations in the number of roller passes(applicable to subitems 33.01(a)(3) and item 33.11):				
	(a) Vibratory rollers	m ² -pass	7000.00		
	(c) Heavy grid rollers	m ² -pass	9000.00		
	(d) Tamping rollers	m ² -pass	1500.00		
	(e) Impact rollers	m ² -pass	18000.00		
33.07	Removal of unsuitable material(incl Free-haul of 1km)				
	(a) In layer thicknesses of 200 mm and less:				
	(i) Stable material	m ³	100.00		
	(ii) Unstable material	m ³	4000.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 3300

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought Forward					
33.09	Material bladed to window	m ³	1000.00		
33.1	Roadbed preparation and the compaction of material (a) Compaction to 90% of modified AASHTO density	m ³	30000.00		
33.11	Tree-roller-passes compaction: (a) Vibratory roller (b) Oscillatory roller (c) Grid roller (d) Tamping roller (e) Impact roller	m ² m ² m ² m ² m ²	20000.00 20000.00 20000.00 20000.00 20000.00		
33.12	In situ treatment of roadbed: (a) In situ treatment by ripping	m ³	14000.00		
B33.13	Finishing-off cut and dill slopes, medians and interchange areas: (a) Cut slopes (b) Fill slopes	m ² m ²	1000.00 18000.00		
B33.20	Fill layers constructed from gravel obtained from commercial sources, including all haul (a) Gravel material in compacted layers of 200mm or less: (ii) Compacted to 90% of modified AASHTO density	m ³	120 000.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 3400

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL				
B34.01	Pavement layers constructed from gravel taken from cut including free haul up to 1km				
	(a) Gravel selected layer compacted to:				
	(i) 93% of modified AASHTO density (150mm thick)	m ³	6500.00		
	(ii) 95% of modified AASHTO density (150mm thick)	m ³	6400.00		
	(c) Gravel subbase (unstabilized gravel) compacted to:				
	(i) 95% of modified AASHTO density (150mm thick)	m ³	6350.00		
	(ii) 97% of modified AASHTO density (150mm thick)	m ³	6200.00		
	(g) Gravel shoulder compacted to:				
	(i) 93% of modified AASHTO density (150mm thick)	m ³	6150.00		
	(h) Gravel wearing course compacted to:				
	(i) 93% of modified AASHTO density (150mm thick)	m ³	6050.00		
34.02	Extra over item 34.01 for excavation of material in:				
	(a) Intermediate excavation	m ³	300.00		
	(b) Hard excavation	m ³	350.00		
B34.14	Pavement layers constructed with material obtained from commercial sources (including all haul):				
	(a) Gravel subgrade layer (G9 or G8 material quality) compacted to :				
	(i) 93% of modified AASHTO density (150mm thick)	m ³	7300.00		
	(ii) 93% of modified AASHTO density (150mm thick)	m ³	7100.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 3400

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought Forward					
	(b) Gravel selected layer (G9 or G8 material quality) compacted to :				
	(i) 93% of modified AASHTO density (150mm thick)	m ³	6900.00		
	(ii) 93% of modified AASHTO density (150mm thick)	m ³	6700.00		
	(c) Gravel subbase G5 material quality (chemically stabilised material) compacted to:				
	i) 95% of modified AASHTO density (150mm thick)	m ³	6500.00		
	ii) 97% of modified AASHTO density (150mm thick)	m ³	6300.00		
	iii) 98% of modified AASHTO density (150mm thick)	m ³	5500.00		
	(d) Gravel shoulders compacted to:				
	(i) 93% of modified AASHTO density (150mm thick)	m ³	250.00		
	(ii) 95% of modified AASHTO density (150mm thick)	m ³	800.00		
34/16.02	Overhaul on material hauled in excess of 1,0 km (ordinary overhaul) dependent on source of material	Km-m ³	4500.00		
34/32.04	Removal of oversize pavement material	m ³	3000.00		
34/32.05	Additional normal grid rolling	m ³	15000.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 3500

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
3500	STABILIZATION				
35.01	Chemical stabilization (150mm layer) extra over unstabilized compacted layers				
	(a) Upper subbase	m ³	6300.00		
	(b) Lower Subbase	m ³	6500.00		
35.02	Chemical stabilizing agent:				
	(a) CEM II 32.5 A-L	t	900.00		
35.04	Provision and application of water for curing	kl	1000.00		
35.13	Extra over items 35.01 and 35.07 for trial sections	m ³	100.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION**SECTION 3600**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
3600	CRUSHED STONE BASE				
36.01	Crushed-stone base				
	(a) Constructed from type G1 material obtained from commercial sources and compacted to 88% of apparent relative density (150mm layer)	m ³	6100.00		
	(c) Constructed from type G3 material obtained from commercial sources and compacted to 98% modified AASHTO (150mm layer)	m ³	500.00		
36.03	Crushed-stone base trial section (150mm layer) constructed in accordance with the provisions of clause 3603	m ²	400.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 4100

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
4100	PRIME COAT				
B41.01	Prime coat:				
	(c) MC-30 Cut-back Bitumen litre Rate Only	litre	10000.00		
	(d) Colprime E litre 32 000	litre	32000.00		
41.02	Aggregate for blinding	m ²	4500.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 4200

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
4200	ASPHALT BASE AND SURFACING				
B42.02	Asphalt surfacing				
	(a) Continuously medium graded				
	(i) 40mm thick (60/70 pen-grade bitumen)	t	3500		
	(ii) 40mm thick (60/70 pen-grade modified with 4% SBS latex)	t	1500		
42.03	Rolled in 13mm chippings in surfacing	t	100		
42.04	Tack coat of 30% stable-grade emulsion	litre	74500		
42.05	Binder variations (60/70 pen-grade bitumen)	t	40		
42.06	Variations in active filler content:				
	(a) Cement t 10	t	10		
	(b) Lime t 10	t	10		
	(c) Milled granulated blast-furnace slag t 10	t	10		
	(d) Fly-ash t 10	t	10		
42.07	Trial sections (40mm nominal thickness)	t	75		
B42.08	100 mm cores in asphalt paving	No	90		
B42.13	Placing and compacting asphalt in restricted areas:				
	(a) Extra over items 42.01, 42.02 and 42.10	t	2200		
42.14	Extra over item 42.04 for applying tack coat in restricted areas	litre	2400		
B42.21	Aggregate variations	t25			
B42.22	Penalty for overloading	t	60		
B42.23	Initial design Testing Costs	Lump Sum	1	100 000	100 000
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5400

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
5400	GUARDRAILS				
54.01	Guardrails on timber posts:				
	(a) Galvanised	m	300.00		
54.04	End treatments:				
	(a) End wings	No	4.00		
	(d) End treatments in accordance with the drawings where single guardrail sections are used	No	8.00		
54.06	Reflective plates	No	100.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5500

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
5500	FENCING				
55.01	Clearing the fence line, 2m wide strip	km	4.00		
55.02	Supply and erect new fencing material for new fences and for supplementing material in existing fences which are being repaired or removed:				
	(a) Zinc-coated barbed wire (SABS 675)				
	(i) 3.15 mm x 2.5mm oval shape fully galvanised	km	4.00		
	(g) Standards				
	(i) 1,86m x 2,5 kg/m mild steel y section	No	260.00		
	(h) Droppers				
	(i) 1,4m x 0,56 kg/m mild steel ridge back section	No	940.00		
	(i) Straining posts, stays and anchors:				
	(i) Vertical				
	(1) Steel straining posts (101.6mm outside diameter, wall thickness 2.95mm, 2100mm long including concrete base and caps)	No	60.00		
	(ii) (b) Inclined:				
	(1) Steel stays and anchors (60.33mm outside diameter wall thickness 2.95mm, 2500mm long, including concrete base and fixing bolts)	No	30.00		
	(3) Wire stays and anchors (6-cord, 4mm diameter, zinc coated high tensile wire, 2300mm long)	No	60.00		
	(iii) Horizontal:				
	(1) Steel stays and anchors (60.33mm outside diameter wall thickness 2.95mm, 2100mm long, including concrete base and fixing bolts)	No	40.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5500

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought Forward					
55.03	New gates (a) Single leaf farm gate (1.15m x 4.8m - galvanized)	No	2.00		
55.04	Moving existing fences and gates: (a) Fences: (i) Stock-proof fences (b) Gates	km No	4.00 2.00		
55.05	Dismantling existing fences: (a) Fences: (i) Stock-proof fences	km	4.00		
55.07	Ringbolts for anchoring fencing to structures	No	8.00		
55.08	Drilling and blasting of holes for posts and anchors	No	10.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5600

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
5600	ROAD SIGNS				
B56.01	Road sign boards with painted or coloured semi-matt background. Symbols, lettering and borders in semimatt black or in Class 1 retro-reflective material, where the sign board is constructed from: (c) Prepainted galvanized steel plate (chromadek 1,6 mm thick or approved equivalent): (i) Area not exceeding 2 m ² (ii) Area exceeding 2 m ² but not 10 m ² (iii) Area exceeding 10 m ²	m ² m ² m ²	20.00 120.00 90.00		
56.02	Extra over item 56.01 for using: (a) Background of retro-reflective material of: (i) Class 1 (b) Lettering, symbols, numbers, arrows, emblems and borders of retro-reflective material: (i) Class 11	m ² m ²	20.00 20.00		
56.05	Excavation and backfilling for road sign supports (not applicable to kilometre posts)	m ³	20.00		
56.06	Extra over item 56.05 for cement-treated soil backfill	m ³	10.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5700

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
5700	ROAD MARKINGS				
57.02	Retro-reflective road marking paint:				
	(a) White lines (broken or unbroken)				
	(i) 100 mm wide km 6.4	km	6.40		
	(ii) 200 mm wide km 0	km	9.40		
	(iii) 500 mm wide km 0.5	km	0.50		
	(b) Yellow lines (broken or unbroken)				
	(i) 150 mm wide km 6.4	km	6.40		
	(c) Red lines (broken or unbroken) (width of line indicated)				
	(i) 100 mm wide km 0	km	5.00		
	(d) White lettering and symbols	m ²	100.00		
	(e) Yellow lettering and symbols	m ²	200.00		
	(f) Transverse lines, painted island and arrestor bed markings (any colour)	m ²	200.00		
57.04	Variations in rate of application:				
	(a) White paint	litre	100.00		
	(b) Yellow paint	litre	100.00		
	(c) Red paint	litre	100.00		
57.06	Setting out and premarking the lines (Excluding traffic island markings, lettering and symbols)	km	12.08		
57.07	Re-establishing the painting unit at the end of the maintenance period	L/sum	1.00		
57.08	Removal of existing, temporary or permanent road markings by:				
	(a) Sandblasting	m ²	500.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5800

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
5800	LANDSCAPING AND PLANTING PLANTS				
58.01	Trimming (b) Hand trimming	m ²	36000.00		
58.02	Using machines for trimming or shaping (alternative to sub-item 58.01(a)) (b) Motor grader	h	22.00		
B58.03	Preparing the areas for grassing:				
	(a) Ripping	ha	4.00		
	(b) Scarifying for loosening topsoil	ha	4.00		
	(c) Topsoiling within the road reserve, where the following materials are used:				
	(i) Topsoil obtained from within the road reserve or borrow areas (free haul 1,0 km)	m ³	4000.00		
	(ii) Topsoil obtained from other sources by the contractor (including all haul)	m ³	100.00		
	(d) Topsoiling of borrow pits by using topsoil obtained from borrow areas or from the road reserve (free-haul 1,0 km)	m ³	100.00		
	(e) Providing and applying chemical fertilisers and/or soil-improvement material:				
	(i) Lime	t	0.50		
	(ii) Superphosphate	t	2.00		
	(iii) Limestone ammonium nitrate	t	1.50		
	(v) Formula 3:2:1(25)	t	0.80		
	(f) Stockpiling of topsoil (free-haul 1,0 km) where the following				
	(i) Topsoil stored at a stockpile site agreed with by the engineer	m ³	2000.00		
	(ii) Topsoil pushed or bladed into heaps next to area from which it was taken	m ³	500.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5800

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
58.04	Grassing: (b) Sodding by using the following types of sods: (i) Nursery sods (1) Kikuyu (2) Kweek (c) Hydroseeding: (i) Providing an approved seed mixture for hydroseeding (ii) Providing an approved mulch (iii) Hydroseeding	m ² m ² kg kg ha	32000.00 32000.00 450.00 11000.00 11.00		
58.05	Watering the grass when established by topsoiling only	kl	60.00		
58.07	Mowing the grass	ha	4.00		
58.08	Anti-erosion compound (a) Cellulose pulp and Surfamol	kg	4000.00		
58.10	Extra work for landscaping	Prov Sum	1.00		350 000
58/16.02	Overhaul on material hauled in excess of 1,0 km (ordinary overhaul)	m ³ -km	45000.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION

SECTION 5900

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS				
59.01	Finishing the road and road reserve:				
	(a) Dual carriageway road km 0.5	km	0.50		
	(b) Single carriageway road km 3.2	km	3.20		
59.02	Treatment of old roads and temporary deviations	km	0.60		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE A: ROAD CONSTRUCTION**SECTION 8100**

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
8100	TESTING MATERIALS AND WORKMANSHIP				
81.02	Other special tests requested by the engineer				
	(a) Cost of Testing	Prov Sum	1.00	200 000.00	200 000.00
	(b) Charge on Prime Cost sum	%	200 000.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STRUCTURES

SECTION 6100

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
6100	FOUNDATION FOR STRUCTURES				
61.02	Excavation: (a) Excavating soft material situated within the following successive depth ranges: (i) 0 m up to 2 m	m ³	2500.00		
	(b) Extra over sub-item 61.02(a) for excavation in hard material irrespective of depth	m ³	250.00		
	(d) Extra over subitem 61.02(a) for excavation by hand	m ³	100.00		
61.03	Access and drainage: (a) Access	Lump Sum	1.00		
61.04	Backfill to excavations utilising: (a) Material from the excavation	m ³	2250.00		
61.06	Overhaul in excess of 1,0 km on excavated material and on material imported for backfill, foundation fill and fill for caissons	m ³ -km	300.00		
61.08	Foundation fill consisting of: (e) Concrete screed Class 15/19, 75 mm thick	m ³	150.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STRUCTURES

SECTION 6300

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
6300	STEEL REINFORCEMENT FOR STRUCTURES				
63,01	Steel reinforcement for:				
	(a) Main structure form grid line A to C				
	(i) Mild Steel bars	t	1,50		
	(ii) High-yield-stress-steel bars	t	25,00		
	(iii) Welded Steel Fabric	kg	2,20		
	(b) Main structure form grid line C to E				
	(i) Mild Steel bars	t	1,50		
	(ii) High-yield-stress-steel bars	t	25,00		
	(iii) Welded Steel Fabric	kg	2,20		
	(c) Main structure form grid line E to G				
	(i) Mild Steel bars	t	0,70		
	(ii) High-yield-stress-steel bars	t	25,00		
	(iii) Welded Steel Fabric	kg	2,20		
	(d) Main structure form grid line G to H				
	(i) Mild Steel bars	t	0,30		
	(ii) High-yield-stress-steel bars	t	15,00		
	(iii) Welded Steel Fabric	kg	2,20		
	(e) Inlet Slab				
	(i) Mild Steel bars	t	0,20		
	(ii) High-yield-stress-steel bars	t	2,20		
	(iii) Welded Steel Fabric	kg	1,10		
	(f) Outlet Slab				
	(i) Mild Steel bars	t	0,20		
	(ii) High-yield-stress-steel bars	t	2,20		
	(iii) Welded Steel Fabric	kg	1,10		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE B: STRUCTURES

STRUCTURES

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
	(g) Inlet and Outlet Slab	t	1,10		
	(i) Mild Steel bars	t	1,20		
	(ii) High-yield-stress-steel bars	kg	1,10		
	(iii) Welded Steel Fabric				
	(h) Wingwalls and Bases				
	(i) Mild Steel bars	t	0,05		
	(ii) High-yield-stress-steel bars	t	1,10		
	(iii) Welded Steel Fabric	kg	1,10		
	(i) Approach slabs				
	(i) Mild Steel bars	t	2,00		
	(ii) High-yield-stress-steel bars	t	1,30		
	(iii) Welded Steel Fabric	kg	1,10		
	(j) Bollards				
	(i) Mild Steel bars	t	0,20		
6400	CONCRETE FOR STRUCTURES				
64,01	Cast in situ concrete				
	(a) 30 MPa for the main structure for Grid Line A to C	m ³	455,00		
	(b) 30 MPa for the main structure for Grid Line C to E	m ³	455,00		
	(c) 30 MPa for the main structure for Grid Line E to G	m ³	455,00		
	(d) 30 MPa for the main structure for Grid Line G to H	m ³	370,00		
	(e) 30 MPa Inlet Slab	m ³	45,00		
	(f) 30 MPa Outlet Slab	m ³	45,00		
	(g) 30 MPa Outlet Beam	m ³	25,00		
	(h) 30 MPa Concrete for Wingwalls and Bases	m ³	40,00		
	(i) 30 MPa Concrete for Approach Slab	m ³	25,00		
	(j) 30 MPa Concrete for Bollards	m ³	10,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 6600

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
Brought Forward					
6600	NO-FINES CONCRETE, JOINTS, BEARINGS, PARAPETS AND DRAINAGE FOR STRUCTURES				
66.01	Cast in situ no-fines concrete (b) Class NF 19	m ³	30.00		
66.04	Installation of proprietary expansion joints (a) Supply and installation of proprietary expansion joints as indicated on the drawings and specifications	m	90.00		
66.06	Filled Joints: (a) 20 mm joint filled with 150mm polystyrene and 3mm thick hardboard	m ²	200.00		
66.07	Unfilled Joints: -3 In wingwalls with 20mm joint filler	m ²	10.00		
66.08	Sealing joints with: (a) Approved Sealant (c) Numbers formed in concrete	m No	85.00 22.00		
66.19	Drainage pipes and weepholes (a) Drainage Pipes (i) 100mm dia uPVC (b) Weep holes (i) Type uPVC size 12 mm diameter	m m	55.00 15.00		
66.21	(a) Synthetic-fibre filter fabric (Netlon Flownet enveloped in Grade 2 geotextile - 300mm wide)	m	650.00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SCHEDULE C: OCCUPATION HEALTH AND SAFETY ACT 1993

ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT R
C2.5.1.14.02	Contractor's initial obligation in respect of Occupational Health and Safety Act and Construction Regulations and COVID19 Construction Site Management Procedures	L Sum	1,00		
C2.5.1.14.03	Contractor's time related obligation in respect of Occupational Health and Safety Act and Construction Regulations and COVID19 Construction Site Management Procedures	Month	36,00		
C2.5.1.14.04	Submission of the Health and Safety File	Prov Sum	1,00	R15 000,00	R15 000,00
C2.5.1.14.05	Protection of pedestrians at excavations	Prov Sum	1,00	R500 000,00	R500 000,00
	(f) Contractor's handling costs and other charges on items C2.5.1.14.04 and C2.5.1.14.05	%	515 000,00		
Total Carried Forward					



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C1.3 SUMMARY OF BILL OF QUANTITIES FOR K164

ITEM	DESCRIPTION	AMOUNT
SCHEDULE A: ROAD WORKS		
1200	GENERAL REQUIREMENTS AND PROVISIONS	
1500	ACCOMMODATION OF TRAFFIC	
1700	CLEARING AND GRUBBING	
1800	DAYWORKS	
2100	DRAINS	
2200	PREFABRICATED CULVERTS	
2300	CONCRETE KERBING	
3300	MASS EARTHWORKS	
3400	PAVEMENT LAYERS	
3500	STABILISATION	
3600	CRUSHED STONE BASE	
4100	PRIME COAT	
4200	ASPHALT BASE AND SURFACING	
5400	GUARDRAILS	
5500	FENCING	
5600	ROAD SIGNS	
5700	ROAD MARKINGS	
5800	LANDSCAPING AND PLANTING OF PLANTS	
5900	FINISHING THE ROAD & ROAD RESERVE & TREATING OLD ROADS	
8100	TESTING MATERIAL & WORKMANSHIP	
TOTAL SCHEDULE A		
TOTAL SCHEDULE B		
SCHEDULE C: OHS ACT		
TOTAL SCHEDULE C		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C1.4 CALCULATIONS OF TENDER SUM FOR K164

TOTAL SUMMARY K57	
TOTAL SUMMARY K164	
SUBTOTAL A	
SUBTOTAL B	
SUBTOTAL A + B	
15% VAT	
TENDER SUM CARRIED TO FORM OF TENDER	

SIGNED ON BEHALF OF TENDERER:



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

PART C2A: SCOPE OF WORK (K57)



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

PART C2A: SCOPE OF WORK

C2.1A DESCRIPTION OF WORKS	C.269
C2.2A ENGINEERING	C.276
C2.3A PROCUREMENT, LOCAL LABOUR AND TRAINING	C.287
C2.4A CONSTRUCTION	C.293
C2.5A MANAGEMENT	C.406



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C2.1A DESCRIPTION OF WORKS

C2.1.1A Employer's Objectives

The objectives of the employer are to upgrade existing P1-1(R82) road into a dual carriageway road (K57) as the current road's condition is worsening and the amount of traffic using it is very high.

Objectives during construction are to uplift previously disadvantaged individuals through provision of training for local labour and subcontracting portion of the works to the said individuals.

C2.1.2A General Description of the Project Route

Road K57 (R82) is a provincial road that is situated between Johannesburg and Vereeniging in Gauteng province of South Africa. It is one of three important roads that connect Johannesburg to the industrial hub of Sedibeng District (Meyerton, Vereeniging and Vanderbijlpark). The section of road to be upgraded is currently a single carriageway road and it is being upgraded to a dual carriageway road with two lanes and surfaced shoulder on each side.

The section of the road to be upgraded commences from De Deur Post Office in De Deur at km 0 to Walkerville Manor at km 11.3 and it is approximately 11.3 km. The road traverses through ward 11 of Midvaal Local Municipality.

There are a number of roads intersecting K57 (R82) and they are listed below:

- | | |
|----------------------|--------------|
| a) K164 | at km 0.440 |
| b) Centre Road | at km 1.081 |
| c) Tree road | at km 1.929 |
| d) First Avenue | at km 2.625 |
| e) Boundary Road | at km 3.931 |
| f) K210 (future) | at km 3.313 |
| g) Plantation Road | at km 4.647 |
| h) Road Number 4 | at km 5.665 |
| i) Road Number 3 | at km 7.054 |
| j) PWV 18 (future) | at km 8.225 |
| k) K158(R558) | at km 8.889 |
| l) Du Plessis Street | at km 9.510 |
| m) Du Plessis Street | at km 10.571 |



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C2.1.3A Extent of Works

The extent of the works on this contract is listed below:

- a) Clearing and grubbing for the new road.
- b) Construction of road layerworks for K57 and accesses mentioned previously on this document.
- c) Construction of surfacing for K57 and intersecting roads using 40mm continuously graded (medium grade) asphalt.
- d) Construction of a 3m wide combined cycle way and sidewalk layerworks and installation of surfacing using 60mm interlocking concrete paving blocks.
- e) Installation of prefabricated box and circular culverts at all the places indicated on the drawings.
- f) Installation of street lighting at all intersections in K57 (R82).
- g) Installation of traffic signals at K57/K164 and K57/K158 intersections respectively.
- h) Erection of new traffic sign boards as indicated on the drawings.
- i) Installation of road markings.
- j) Relocation and/or protection of existing services where necessary (Rand Water, Midvaal, Telkom and Eskom).

C2.1.4A Temporary Works

The temporary works include the construction and maintenance of temporary road deviations in certain areas as well as the installation and operation of a multi-stage crusher.

C2.1.5A General Information

C2.1.5.1A Accommodation of Traffic

The volumes of traffic in this road can be classified as moderate to high with a significant percentage of medium heavy vehicles.

The contractor is expected to keep one lane operational on each side of the road at all times during construction and should there be a deviation from this statement the contractor shall get approval from the engineer.

There will be deviations at places where existing P1-1 (R82) intersects with the new K57 (R82) and the contractor should take cognisance of that.

The contractor shall acquaint himself with the statistics of crime within the area and he shall price his temporary traffic signage accordingly as he will not be reimbursed for any temporary traffic signs that may be stolen during construction period.

The contractor shall submit to the engineer for approval a method statement detailing traffic accommodation of area concerned and under no circumstance shall the contractor work in a hazardous area without an approved method statement from the engineer.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C2.1.5.2A Services

There are several affected Midvaal Municipality water lines varying in size from 75mm to 110mm and there is a bulk line of 450mm diameter crossing K57 at approximately km 4.400. Sewer lines may be affected and the contractor shall be cautious at all the times within residential areas. The contractor shall liaise with Midvaal Municipality with regard to protection measures to be taken on water pipes.

The contractor is to notify Midvaal Municipality 7 days in advance when they will be needing assistance from them.

Rand Water has a 1000mm water diameter pipe crossing at approximately km 4.570 and the protection measures of such pipe are included in services relocation drawings.

There is a Telkom optic fibre cable that is affected, it will be relocated and/or protected according to Telkom specifications and the contractor shall liaise with the engineer, Telkom and Telkom's nominated contractor at all times during construction.

There are Eskom services affected and they will be relocated by Eskom contractor and/or main contractor where agreed upon.

The contractor shall immediately notify the engineer of any service that he finds onsite that was not on any of services drawings.

C2.1.5.3A Construction Materials

A limited amount of gravel material will be obtained onsite while the bulk of the material will be obtained from commercial sources as geotechnical results have indicated the unsuitability of site material for construction.

All construction materials obtained from commercial sources shall be approved by the engineer prior to them being used for construction onsite.

C2.1.5.4A Public Transport and Non Motorised Transport

There is a provision for public transport through the installation of bus bays at all intersections in K57. Non motorised transportation has been catered for on left hand carriageway where a combined three (3) metre wide cycle way/pedestrian walkway is to be built.

C2.1.5.5A Traffic Signals

Traffic signals will be installed at K57/K164 and K57/K158 intersections respectively.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C2.1.5.6A Street Lighting

Street lighting will be installed at all eleven (11) intersections with two of these being major intersections (K57/K164 and K57/K158).

The Contractor shall carry out at his own expense all necessary tests and adjustments to the plant and equipment to attain the specified performances and conditions of operation prior to the practical completion. However, if for the seasonal or other agreed reasons, some adjustments and tests cannot be completed at this time, they shall be carried out during a period of twelve (12) months after the date of Practical Completion.

These adjustments shall be made while the road is in use, and the Contractor shall allow for any additional costs that may be involved in carrying out these adjustments, outside normal working hours if necessary.

If the installation of street lighting does not meet the requirements for interim completion, practical completion and/or final completion, and if in consequence, the Engineers are obliged to attend further completion inspections and/or acceptance tests, the additional costs incurred by the Engineers shall be payable by the Contractor.

Workshop drawings shall be submitted as soon as possible after the signing of the Contract, but in ample time to allow the Engineers to examine and approve them before equipment manufacture is started, or material delivered to site.

Should the Engineers require that any drawing be amended, the Contractor shall make the necessary alterations and re-submit the drawing within one week.

The Contractor shall provide the Main Contractor and the Engineers with complete layout, installation and shop drawings, together with any necessary descriptions and specifications. Sufficient details shall be given to permit a full appraisal of all parts of the installation and their relation to the installation.

Drawings shall give details of all cable routes, wiring diagrams, electrical connections and mounting heights and positions.

Delays caused by the submission of drawings or by an error, omission or inadequacy in these drawings, shall not be considered a reason for an extension of the Contract time

C2.1.5.7A Drawings

All drawings required to complete the project are bound in Volume 4 of this document and they are in A2 size. Drawings accompanying this document are for tendering purpose only and drawings for construction shall be delivered to the winning bidder.

The contractor shall not scale the drawings for dimensions and instead shall verify such with the engineer.

The contractor shall provide the engineer with all the information he may have to assist the engineer in



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

completing as-built drawings.

All information displayed on the drawings shall be verified onsite prior to construction commencement and the engineer shall approve and/or be informed of such verification.

C2.1.5.8A Power Supply and other Services

The contractor shall make his own arrangements regarding the supply of electrical power and all other services. No direct payment will be made for the provision of electrical and other services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required.

C2.1.5.9A Water for Construction Purposes

The contractor shall make his own arrangements regarding a suitable supply of water for the project and he must make adequate provision in his tender for all negotiations and procurement of water for construction activities and all related costs will be deemed to be included in his tendered rates.

C2.1.5.10A Construction in Confined Areas

It may be necessary for the contractor to work in confined areas but no additional payment will be made for work in "restricted areas" as described in section 6100 of the standard specifications. In certain areas the width of the fill material and pavement layers may reduce to zero and the working space may be confined. The method of construction in these confined areas depends on the contractor's constructional plant. However, the contractor must note that measurement and payment will be in accordance with the specified cross-sections and dimensions, and that the rates and amounts tendered will be deemed to include full compensation for any special equipment or construction methods or for any difficulty encountered in working in confined areas and narrow widths, and at or around obstructions, and that no extra payment will be made nor will any claim for payment be considered on account of these difficulties.

This, however, is not applicable to widening or similar works which are in essence narrow but not restricted where additional payment will be made for construction in restricted areas.

C2.1.5.11A Contractor's Camp Site

The contractor shall make his own arrangements regarding the establishment of a camp onsite and housing for his construction personnel. The choice of all sites for the establishment of camps is subject to the approval of the engineer. Camp sites within the road reserve will not be permitted.

Client's environmental control officer may be involved regarding the location of the campsite as this may have an effect on overall construction of K57 as stipulated in record of decision granted for the road

C2.1.5.12A Security

The contractor shall be responsible for the security of his personnel and constructional plant on and around the site of the works and for the security of his camp, and no claims in this regard shall be considered by the employer.

The contractor should obtain historical crime data from the police station nearest to the construction site as this would assist him in planning for security.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C2.1.5.13A Programme of the Work

The contractor shall take note of various factors contained in these specifications which will have a significant influence on the compilation of the programme of work. Pertinent items are those specified in sections 1500, 3300, 3400 and 4200 of the project specifications. Detailed directives for compiling the programme of work are given in clause B1204 of section 1200 of the project specifications.

It shall be noted that the specified contract period is thirty (30) months.

C2.1.5.14A Occupational Health and Safety (OHS)

(Refer C2.5.1: Occupational Health and Safety Act 1993: Health and Safety Specification and Part E of Project Specifications: Health and Safety Specification).

(a) General statement

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety (OHS) Act (Act 85 and Amendment Act 181) of 1993, and the Construction Regulations 2014 issued on 18 July 2003 by the Department of Labour. Contractor to complete Schedules T2.1 P: Occupational Health and Safety and T2.4 A: Occupational Health and Safety Act: Statement by Contractor.

The additional specification regarding health and safety issues on this contract have been included in Part C2.5: Management.

For the purpose of this contract the Contractor is required to confirm his status as mandatory to the Employer (Client) and employer in his own right for the execution of the contract, and he shall enter into an agreement in respect of the Occupational Health and Safety Act in the schedule as included in Part T2.4: Other Schedules and Documents that will be Incorporated in the Contract (Schedule T2.4 B).

(b) Health and Safety Specifications and Plans to be submitted at tender stage

(i) Employer's Health and Safety Specification

The Employer's Health and Safety Specification will be included in the tender documents as part of the Project Specifications.

(ii) Tenderer's Health and Safety Plan

The Tenderer shall submit with his tender sufficient proof that he has a Health and Safety Plan in place. The Contractor will, however, have to submit his Health and Safety Plan on request by the Employer during the tender evaluation stage.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

In terms of the OHS Act the tender will be disqualified if the tenderer has no Health and Safety Plan.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

The Contractor shall not be entitled to claim for extension of time or standing time and the related costs for any delays due to delayed commencement or suspension of the work arising from the lack of approval of an approved Health and Safety Plan.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C2.2A ENGINEERING

C2.2.1A Design

- The employer is responsible for the design of the permanent Works as reflected in these Contract Documents unless otherwise stated.
- The contractor is responsible for the design of the temporary Works and their compatibility with the permanent Works.
- The contractor shall supply all details necessary to assist the engineer in the compilation of the as-built drawings.

C2.2.2A Employer's Design

C2.2.2.1A Detail description of Works

- **Pavement Design:**

The following are pavement designs appropriate to this project:

Pavement Design for K57

Layers	Description	Thickness (mm)
Surfacing	AC: continuously graded (medium grade) and SBS Latex modified at intersections.	40
Crushed Stone Base	G1 - material compacted to 88% of apparent	150
Upper Subbase	C2 – 1500 kPa @ 97% Mod AASHTO Density	150
Lower Subbase	C2 – 1200 kPa @ 95% Mod AASHTO Density	150
Upper Selected	G5 - CBR \geq 45 @ 95% Mod AASHTO Density	150
Lower Selected	G6 – CBR \geq 30 @ 93% Mod AASHTO Density	150
Upper Subgrade	G7 – CBR \geq 20 @ 93% Mod AASHTO Density	150
Lower Subgrade	G9 – CBR \geq 7 @ 93% Mod AASHTO Density	150

Pavement Design for Surfaced Access roads

Layers	Description	Thickness (mm)
Surfacing	AC: continuously graded (medium grade).	40
Crushed Stone Base	G3 - material compacted to 98% Mod	150
Subbase	C4 – 1000 kPa @ 95% Mod AASHTO Density	150
Upper Subgrade	G7 - CBR \geq 20 @ 93% Mod AASHTO Density	150
Lower Subgrade	G9 – CBR \geq 7 @ 93% Mod AASHTO Density	150

Pavement Design for Gravel Access Roads

Layers	Description	Thickness (mm)
Surfacing	G6 – CBR \geq 30 @ 93% Mod AASHTO Density	200
Subbase	G7 - CBR \geq 20 @ 93% Mod AASHTO Density	150

Pavement Design for Cycle Way/Pedestrian Walkway

Layers	Description	Thickness (mm)
Surfacing	Interlocking concrete paving blocks (Type S-A)	60
Bedding	Bedding sand	25
Subbase	G7 - CBR \geq 20 @ 93% Mod AASHTO Density	150
Subgrade	G9 - CBR \geq 7 @ 93% Mod AASHTO Density	150

Pavement Design for Bus Bays

Layers	Description	Thickness (mm)
Surfacing	Paving Blocks (Type S-A)	80
Bedding Sand	-	20
Stabilised Subbase	C3 – 1500 kPa @ 97% Mod AASHTO Density	150
Stabilised Subbase	C4– 1000 kPa @ 97% Mod AASHTO Density	150
Formation Layer	G7 – CBR \geq 15 @ 93% Mod AASHTO Density	150

- **Surfacing at Intersections:** For a distance of 100 meters either side, and including the intersections, along the K57 the surfacing shall be SBS latex modified asphalt.
- **Construction of new concrete-lined drains:** New concrete-lined drains shall be constructed along designated sections of the road as shown on the drawings for both median and side drains.
- **Guardrails:** guardrails will be installed at all places indicated on the drawings.
- **Road Signs and Markings:** there will be painting of road markings and installation of traffic signs as indicated on the drawings.
- **Street Lighting and Traffic Signal:** street lighting will be installed at all intersections in K57 (R82) and the contractor is expected to apply for connection from ESKOM. Traffic signals will be installed in K57/K164 and K57/K158.
- **Ducts:** ducts will be installed, mainly at intersections, to allow for future services. The contractor is to liaise with Midvaal Municipality officials for positions and details of the ducts. The ends of all ducts must be permanently marked by grinding letters into the channels adjacent to the kerbs, or with marker blocks, as specified.
- **Maintenance:** The contractor shall be responsible for the maintenance of the existing road surface and the deviations to ensure a safe trafficable surface at all times for the duration of the contract. There may be a fine if the contractor fails to maintain existing road and deviations.
- **Gabions:** are to be provided at the inlets and outlets to some of the culverts. The top levels of these gabions must be carefully controlled since they act as weirs during heavy downpours.
- **Structures:** No major bridges are included in this project and structures are entirely culverts of various sizes for stormwater management and the biggest culvert is 2.1m x 2.1m of three barrels.

C2.2.3A Contractor's Design

Where contractor is to supply the design of designated parts of the permanent Works or temporary Works he shall supply full working drawings supported by a professional engineer's design certificate.

C2.2.4A Drawings

The drawings for the design of the permanent Works are bound in Volume 4 or as supplied

during the contact. The contractor and the engineer must maintain master lists indicating the supply and revision of such documents.

C2.2.5A Design Procedures

All designs and modifications thereto shall be communicated in writing and the contractor and engineer shall maintain master lists to record and track all transactions.

PART C2B: SCOPE OF WORK (K164)

PART C2B: SCOPE OF WORK (K164)

C2.1B DESCRIPTION OF WORKS.....	C.281
C2.2B ENGINEERING.....	C.282
C2.3B PROCUREMENT, LOCAL LABOUR AND TRAINING.....	C.284
C2.4B CONSTRUCTION.....	C.290
C2.5B MANAGEMENT.....	C.400

C.2.1B DESCRIPTION OF WORKS

C2.1.1B Employer's Objectives

The main objective of the employer is to complete the upgrade of Road K164 by constructing the section from D 904 (EVATON) to D 905(MEYERTON), a total length of 4.1 kilometers to single carriageway status.

Objectives during construction are to provide black economic enterprise contractors with a substantial portion of the work, provide training to local and other labourers and to execute the work with a high degree of safety and good quality.

C2.1.2B General Description of the Project Route

The Project is located on the South of De Deur CBD and Road K164 forms a strategic East/West link between Meyerton in the North to Vereeniging and is an important through route from Evaton, Sebokeng township and the south industrial areas of Vereeniging and Vanderbaypark in the Sedibeng District. It also serves as a collector/distributor for the residential areas surrounding the route such as De Deur, Balmorerel Estate.

The project entails the upgrading of section of Road K 164 between D 904 (Rose Road) and D 905 (Weilbech Road), a total length of 4, 1 kilometers of single carriageway.

A number of existing and future local access roads are included under the project. These include the following:

- Intersection at km 0,809 local access to properties in and around Thornton Road
- Intersection at km 2,733 providing access to Road K 57/R 82
- Intersection at km 3,905 local access to properties in and around Kopje Road

C2.1.3B Extent of Works

The main work items to be undertaken in terms of the contract involve the following:

- Construction of single carriageway linking D 904 (Rose Road) and D 905 (Weilbech Road).
- Construction of a Bridge at km 2.08.
- Upgrading of intersections. .
- Construction of taxi / bus bays including the bus shelters.
- Construction of pedestrian walkways and cycle path along sections of the route, as shown on the drawings.
- Construction of new concrete-lined v-drains.
- Construction of drainage inlets and outlets.
- Construction of new- and cleaning and reshaping of existing unlined open earth drains. Placing of road markings and road studs.

- Erection of road signs

C2.1.4B Temporary Works

The temporary works include the construction and maintenance of temporary road deviations in certain areas.

C2.1.5B General Information

C2.1.5.1B Accommodation of Traffic

The traffic volumes along this route are moderate and can be summarised as follows:

- Average annual daily Traffic (AADT) 9 842 vehicles per day, of which 4.3% to 8% are heavy vehicles.
- Of the total AADT approximately 20.4% (2008 vehicles per day) are minibus taxis.

Minor temporary traffic deviations will be required for local accesses. The contractor will be responsible for the construction, full maintenance and removal of the deviation on completion, as well as the reinstatement of the area.

C2.1.5.2B Services

Municipal water mains are to be accommodated and protected by various means as shown on the drawings.

Rand Water pipeline at the beginning of the road will require protection Telkom telephone services will be affected and will be relocated.

Eskom electricity overhead lines and cables will require protection.

Details of service relocations are shown on drawings GRP 12/05/01Dsp-4Dsp and tabulated on the service schedule drawing GRP 12/05/ 1DSs.

C2.1.5.3B Construction Materials

Gravel materials required for construction work including fill, subbase, selected subgrade, gravel shoulders and backfill to drainage structures is not available on the site. The material for fill, selected subgrade and subbase shall be obtained from commercial sources.

Concrete, base course and surfacing materials shall be obtained from commercial sources.

C2.1.5.4B Public Transport

The construction of a number of bus/ taxi laybys will form part of this contract. Included will be the erection of bus shelters. The contractor shall be required, with consultation and assistance of the local community, to design, construct and erect bus/ taxi shelters.

C2.1.5.6B Drawings

All drawings necessary to complete the works are bound in Volume 4: A2 size Contract Drawings. The drawings indicating the extent of the works along the road are for tendering purpose only. The final extent of the work will be as instructed by the engineer.

Any information in the possession of the contractor which is required by the resident engineer to complete his as-built drawings shall be supplied to the resident engineer before

a certificate of completion will be issued.

Only figured dimensions shall be used and drawings shall not be scaled unless so instructed by the engineer. The Engineer will supply any figured dimensions which may have been omitted from the drawings.

The levels given on the structural drawings are subject to confirmation on site, and the contractor shall submit all levels to the engineer for confirmation before commencing any structural work. The contractor shall check all clearances given on the drawings and shall inform the engineer of any discrepancies.

C2.1.5.7B Power Supply and other Services

The contractor shall make his own arrangements regarding the supply of electrical power and all other services. No direct payment will be made for the provision of electrical and other services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required.

C2.1.5.8B Water for Construction Purposes

The contractor shall make his own arrangements regarding a suitable supply of water for the project and he must make adequate provision in his tender for all negotiations and procurement of water for construction activities and all related costs will be deemed to be included in his tendered rates.

C2.1.5.9B Construction in Confined Areas

It may be necessary for the contractor to work in confined areas but no additional payment will be made for work in "restricted areas" as described in section 6100 of the standard specifications. In certain areas the width of the fill material and pavement layers may reduce to zero and the working space may be confined. The method of construction in these confined areas depends on the contractor's constructional plant. However, the contractor must note that measurement and payment will be in accordance with the specified cross-sections and dimensions, and that the rates and amounts tendered will be deemed to include full compensation for any special equipment or construction methods or for any difficulty encountered in working in confined areas and narrow widths, and at or around obstructions, and that no extra payment will be made nor will any claim for payment be considered on account of these difficulties.

This, however, is not applicable to widening or similar works which are in essence narrow but not restricted where additional payment will be made for construction in restricted areas.

C2.1.5.10B Contractor's Camp Site

The contractor shall make his own arrangements regarding the establishment of a camp site and housing for his construction personnel. The choice of all sites for the establishment of camps is subject to the approval of the engineer. Camp sites within the road reserve will not be permitted.

C2.1.5.11B Security

The contractor shall be responsible for the security of his personnel and constructional plant on and around the site of the works and for the security of his camp, and no claims in

this regard shall be considered by the employer.

C2.1.5.12B Programme of Work

The contractor shall take note of various factors contained in these specifications which will have a significant influence on the compilation of the programme of work. Pertinent items are those specified in sections 1500, 2300, 3300, 3400, 3500, 3600, 4200, 5800, 6100, 6300, 6400 and 6600 of the project specifications. Detailed directives for compiling the programme of work are given in clause B1204 of section 1200 of the project specifications. It shall be noted that the specified contract period is fourteen (14) months.

C2.1.5.13B Occupational Health and Safety (OHS)

(Refer C2.5.1: Occupational Health and Safety Act 1993: Health and Safety Specification and Part E of Project Specifications: Health and Safety Specification).

(a) General Statement

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety (OHS) Act (Act 85 and Amendment Act 181) of 1993, and the Construction Regulations 2003 issued on 18 July 2003 by the Department of Labour. Contractor to complete Schedules T2.1 P: Occupational Health and Safety and T2.4 A: Occupational Health and Safety Act: Statement by Contractor.

The additional specification regarding health and safety issues on this contract have been included in Part C2.5: Management.

For the purpose of this contract the Contractor is required to confirm his status as mandatory to the Employer (Client) and employer in his own right for the execution of the contract, and he shall enter into an agreement in respect of the Occupational Health and Safety Act in the schedule as included in Part T2.4: Other Schedules and Documents that will be incorporated in the Contract (Schedule T2.4B).

(b). Health and Safety Specifications and Plans to be submitted at tender stage

(i) Employer's Health and Safety Specification

The Employer's Health and Safety Specification will be included in the tender documents as part of the Project Specifications.

(ii) Tenderer's Health and Safety Plan

The Tenderer shall submit with his tender sufficient proof that he has a Health and Safety Plan in place. The Contractor will, however, have to submit his Health and Safety Plan on request by the Employer during the tender evaluation stage.

In terms of the OHS Act the tender will be disqualified if the tenderer has no Health and Safety Plan.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

The Contractor shall not be entitled to claim for extension of time or standing time and the related costs for any delays due to delayed commencement or suspension of the work arising from the lack of approval of an approved Health and Safety Plan.

C2.2B ENGINEERING

C2.2.1B Design

The employer is responsible for the design of the permanent Works as reflected in these Contract Documents unless otherwise stated.

There contractor is responsible for the design of the temporary Works and their compatibility with the permanent Works. The contractor is also responsible for the design of bus shelters.

There contractor shall supply all details necessary to assist the engineer in the compilation of the as-built drawings.

C2.2.2B Employer’s Design

C2.2.2.1B Detail Description of Works

Pavement Design:

The following are pavement designs appropriate to this project:

Pavement Design for K164

Layers	Description	Thickness (mm)
Surfacing	AC: continuous grade medium grade	40
Crushed Stone Base	G1 - material compacted to 88% of apparent	150
Upper Subbase	C3 – 1500 kPa @ 97% Mod AASHTO Density	150
Lower Subbase	C3 – 1200 kPa @ 95% Mod AASHTO Density	150
Upper Selected Layer	G5 - CBR≥45 @ 95% Mod AASHTO Density	150
Lower Selected Layer	G6 – CBR ≥30 @ 93% Mod AASHTO Density	150
Upper Subgrade	G7 – CBR ≥20 @ 93% Mod AASHTO Density	150
Lower Subgrade	G9 – CBR ≥7 @ 93% Mod AASHTO Density	150

Pavement Design for Access roads

Layers	Description	Thickness (mm)
Surfacing	AC: continuous medium grade	40
Crushed Stone Base	G3 - material compacted to 98% Mod AASHTO	150
Subbase Layer	C4 – 1000 kPa @ 97% Mod AASHTO Density	150
Selected Layer	G7 - CBR \geq 15 @ 93% Mod AASHTO Density	150
Subgrade Layer	G9 – CBR \geq 7 @ 93% Mod AASHTO Density	150

Pavement Design for Cycle Way/Pedestrian Walkway

Layers	Description	Thickness (mm)
Surfacing	Paving blocks (S-A) Type A	60
Bedding Sand	-	25
Layer	G7 - CBR \geq 15 @ 93% Mod AASHTO	150
Formation Layer	G9 - CBR \geq 7 @ 93% Mod AASHTO	150

- **Asphalt at Intersections:** For a distance of 20 meters either side, and including the intersections, along the K164 the surfacing shall be SBS latex modified asphalt.
- **Construction of new concrete-lined v-drains:** New concrete-lined v-drains shall be constructed along designated sections of the road.
- **Road Signs and Markings:** apart from normal regulatory and warning signs, direction signs are required at all the intersections. Road markings will be applied to road surface as per drawings.
- **Ducts:** must be installed, mainly at intersections, to allow for future services such as traffic light cables or street lighting cables. The ends of all ducts must be permanently marked by grinding letters into the channels adjacent to the kerbs, or with marker blocks, as specified.
- **Maintenance:** The contractor shall be responsible for the maintenance of the existing road surface and the deviations to ensure a safe trafficable surface at all times for the duration of the contract.
- **Structures:** One major bridge is included in this project and other structures are entirely culverts of various sizes for stormwater management.

C2.3 PROCUREMENT, LOCAL LABOUR AND TRAINING

C2.3.1 Procurement

C2.3.1.1 Minimum Preferential Procurement Requirements

The following minimum preferential procurement requirements apply:

Required Minimum Empowerment of Subcontractors and Females

It is required that:

For All Bidders:

Work to the value of at least 40% of the Contract Price excluding VAT and contingencies be undertaken by sub-contractors:

- (a) Of this 40% (or 30% for JV'S) at least 30% should be as per PPPFA Regulation 2017: Section, 4(1) (c) (i) to (vii).
Particular note should be taken of the following requirements of the above Act:
If an organ of state decides to apply pre-qualifying criteria to advance certain designated groups, that organ of state must advertise the tender with a specific tendering condition that only one or more of the following tenderers may respond:
- (b) A tenderer subcontracting a minimum of 30% to-
 - i) an EME or QSE which is at least 51% owned by black people;
 - ii) an EME or QSE which is at least 51% owned by black people who are youth;
 - iii) an EME or QSE which is at least 51% owned by black people who are women;
 - iv) an EME or QSE which is at least 51% owned by black people with disabilities;
 - v) an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
 - vi) a cooperative which is at least 51% owned by black people;
 - vii) an EME or QSE which is at least 51% owned by black people who are military veterans;
- (c) The remaining 10% must be local subcontractors at least
 - i) 37.5% shall have a B-BBEE Status Level equal or higher than that of the Contractor (Status Level 1 being the highest level)
 - ii) 65% shall be Qualifying Small Enterprises (QSE's) or Exempted Micro Enterprises (EME's) that have an Average Weighted Equivalent B-BBEE Status Level between 1 and 4.
 - iii) 30% shall be Female Owned

The implementation of the above criteria is compulsory in this project.

For Joint Venture contractors:

Where the Joint Venture (JV) partner has a BB-BEE rating between 1 and 4 and; the JV partner is responsible for at least 30% of the value of the works; work to the value of at least 30% of the Contract Price excluding VAT and contingencies be undertaken by sub-contractors:

- i) 37.5% shall have a B-BBEE Status Level equal or higher than that of the Contractor (Status Level 1 being the highest level)

- ii) 65% shall be Qualifying Small Enterprises (QSE's) or Exempted Micro Enterprises (EME's) that have an Average Weighted Equivalent B-BBEE Status Level between 1 and 4.
- iii) 30% shall be Female Owned

All subcontractors must be registered with the CIDB, and be approved by the Employer.

Minimum Employment Creation Requirements

It is required that, of the Contract Value excluding VAT and contingencies, at least: 30% be spent on Worker's salaries and wages and of this 30%, at least one third must be Local Labour.

The proportions of Workers must be at least:

For all workers

- i) 55% to be female Workers.
- ii) 55% to be Youths.
- iii) 2% to be disabled Workers.

For Local Labour

- i) 40% to be female Workers.
- ii) 60% to be Youths.
- iii) 2% to be disabled Workers

C2.3.1.2 Definitions

Percentages stated in clause C2.3.1.1 (a)

Percentages of the Contract Value (Excluding VAT) are calculated from the agreed financial values of the work performed by the various types of sub-contractors excluding VAT, based on the appropriate quantities in the contractor's approved statements of payment (in terms of clause 6.10.1 of the General Conditions of Contract), including the applicable proportional values of general costs derived from sections 1200, 1300, 1400 and 1500 of the Bill of Quantities. In the event that agreement cannot be reached, the engineer's ruling shall prevail.

B-BBEE Status Level

The certified status level in-terms of the Preferential Procurement Regulations promulgated on 6 June 2011.

Qualifying Small Enterprises (QSE's) or Exempted Micro Enterprises (EME's)

The QSE and EME's certified status in terms of the B-BBEE Code of Good Practice and the Preferential Procurement Policy Framework Act, 05 of 2000 and Regulations of 2011.

EME's are deemed to have the status of a level 4 contributor and in instances where black ownership is greater than 50%, the status of a level 3 contributor.

Average weighted equivalent B-BBEE Status level

The Average Weighted B-BBEE Status level =

$$\left(\frac{\sum (s \times v)}{\sum (v)} \right)$$

Σ = The sum of the values in parenthesis ()

S= status level of each individual, QSE or EME sub-contractor

V= Value of the work performed, including the proportion of General costs incurred, by each individual QSE or EME Sub-contractor.

Female Owned

Female owned enterprises are enterprises that can provide proof of more than 50% female ownership, in the form of written certification by a registered professional auditor.

Worker

As defined in Part C of the project specifications.

Salaries and Wages

The total gross remuneration of the workforce, (as defined in Part C of the Project Specification) as reported regularly to the engineer in an acceptable format.

The gross remuneration shall exclude the proportions of salaries and wages of labourers when such workers are not performing work directly related to the contract.

The gross remuneration shall only include the remuneration or proportional remuneration of:

- Key Personnel*
- The Workforce*
- Local Labour*
- Sub-contractors
- The Community Liaison Officer*
- Other labour specifically approved by the engineer.

* As defined in Part C of the Project Specifications

The engineer may require certification by a registered professional auditor of the values reported.

Local Labour

"Local labour" are workers as defined in Part C of the Project Specifications.

Youths

Youths are Local Labour between the ages of 15 and 35.

C2.3.1.3 QSE and EME Subcontractor work

The contractor is expected to demonstrate to what extent he can meet the minimum requirements (See C2.3.1.5 hereafter).

In order to further assist the contractor to attain and exceed the minimum requirements stated in Clause C2.3.1.1 (a) above, the CLO and the employers social facilitator (as defined in Part C of the Project Specifications) will provide the contractor with a list of local QSEs and ESEs.

The contractor is under no obligation to appoint any QSE's of ESE's thus identified.

Examples of some of the construction activities included in the works which are considered suitable to be undertaken by QSE and EME sub-contractors include:

- Supply of construction materials,
- Provision of traffic control facilities,
- Management of traffic control facilities and traffic safety as part of the accommodation of traffic,
- Erection and maintenance of the contractor's camp site,
- Removal of trees,
- Construction of concrete paving, kerbs and channels,
- Manufacture of pre-cast concrete elements,
- Construction of concrete walkways,
- Finishing off cut and fill slopes,
- Construction of minor concrete drainage elements such as side drains, catchpits, manholes, etc.
- Construction of side drains,
- Installation of stormwater pipes,
- Patching,
- Relocation/protection of services,
- Installation of subsoil drains,
- Cartage of materials,
- Cleaning out of pipe culvert inlet and outlet structures,
- Erection of temporary and permanent road signs,
- Erection of guardrails,
- Finishing of the road and road reserve,
- Road markings,
- Construction of service roads.
- Stone pitching
- Landscaping

The contractor is encouraged to innovate and add additional activities.

C.2.3.1.4 Examples of Employment Creation

Key objectives of this contract are:

- Those Local Labourers that are employed during the course of the contract (as specified in Part C of the Project Specification), be permanently employed (i.e. for at least 230 person days).
- That work on the project be performed in a way which will maximise employment through the utilisation of labour intensive instead of mechanical intensive construction methods.

The following activities included in the works are examples of work considered as suitable for labour enhanced construction:

- Site establishment
- Clearing and grubbing in areas without trees
- Accommodation of Traffic
- Mixing of concrete/soilcrete for minor concrete works
- Laying of concrete block paving, kerbs and channels
- Excavations for minor concrete drainage structures and kerbing
- Construction of variable depth side drains (normal side drains are part of bulk earthworks)
- Excavation and backfilling of pipes and culverts
- Finishing of the road and road reserve
- Construction of subsoil drains
- Excavations for road signs
- Patching
- Clearing the fence line and erection of fencing
- Brooming of slush on crushed stone bases
- Spreading of topsoil and application of fertilizers on areas for grassing
- Grass sodding.

The contractor is encouraged to be innovative and to add additional activities.

Labour enhanced construction activities, shall be clearly identified by the contractor and approved by the engineer.

No variation in payment shall be made for labour enhanced work identified by the contractor.

C2.3.1.5 Demonstrating how the minimum Preferential Procurement requirements are to be achieved.

The contractor shall take cognisance of the minimum criteria and their contribution to the utilisation of employment creation. Within six (6) weeks after the commencement date he will be required to demonstrate how he proposes to achieve the minimum requirements in Clause C2.3.1 (a) and (b) above.

C2.3.1.6 Penalties for failure to comply with the minimum requirements of Clause 3.3

Failure or refusal on the part of the contractor to take the necessary steps to ensure that the required Minimum Empowerment of Subcontractors and Females (MESF) is achieved, shall be sufficient cause for the engineer to deduct penalties as follows:

$$\text{MESF Penalty} = \text{Tender sum (excluding CPA \& VAT)} \times (\text{required MESF\%} - \text{actual MESF \%})$$

Failure, or refusal on the part of the contractor to take the necessary steps to ensure that the required percentages of Minimum Employment Creation (MEC) are met, shall be sufficient cause for the Engineer to deduct penalties as follows:

$$\text{MEC Penalty} = \text{Tender sum (excluding CPA \& VAT)} \times (\text{required MEC \%} - \text{actual MEC \%})$$

The penalty amounts shall be agreed between the contractor and the engineer. In the event that agreement of the penalties' amounts cannot be reached, the engineer's ruling shall prevail.

The contractor agrees that the penalty amounts may be deducted from the contractor's payment certificates.

No additional payment (negative discounts) will be applicable if the contractor exceeds the minimum requirements.

C2.3.2 Compulsory training

Compulsory training shall be implemented for local Labour, QSE's and EME's by the contractor as specified in Part D of the Project Specifications.

Prime cost sums are included in Section 1200 of the Bill of Quantities for accredited training providers. This sum will be spent at the sole discretion of the engineer in consultation with the employer.

The contractor will, inter alia be responsible for

- Arranging Construction Education and Training Authority (CETA) approved courses (Payment being by way of the Prime Cost allowances in the Bill of Quantities).
- Payment of trainees wages during training (the contractor will be reimbursed for these wages by way of the Provisional Sum allowances in the Bill of Quantities).
- Provision of training facilities and, if required, transport to the training, venue; (Payment to the contractor being included in the contractor's General obligations as specified in section 1300 of the Project Specifications).

The attendance and completion of each course by selected individuals must be CETA certified and copies of such certificates must be submitted to the engineer.

No additional payment shall be made for informal training

C 2.4 CONSTRUCTION

C2.4.1 STANDARD SPECIFICATIONS

- (a) The following specifications shall apply for the construction of the Works.
- (i) The COLTO Supplementary Conditions of Contract for Road and Bridge Works for State Road Authorities in respect of The Employment of Emerging Contractors and Labour Intensive Projects (2000).
- (ii) The COLTO Standard Specifications for Road and Bridge Works for State Road Authorities (1998).
- (iii) The COLTO Supplementary Notes to Tenderers and Supplementary Specifications and Supplementary Forms for Road and Bridge Works for State Road Authorities in respect of The Employment of Emerging Contractors and Labour Intensive Projects (2000).

The contractor may purchase copies of Volumes 1 and 2 from the South African Institution of Civil Engineers.

SAICE

Waterfall Park
Howick Gardens
Vorna Valley
Becker Street
Midrand

Postnet Suite 81
Private Bag X65
Halfwayhouse
1685

Tel: (011) 805-5947

Fax: (011) 805-5971

Copies of Volume 3 (This document) and 4 are supplied by Gauteng Department of Roads and Transport.

- (b) SABS or BS Specifications and Codes of Practice

Wherever any reference is made to the South African Bureau of Standards (SABS) and the British Standards Specification (BSS) in either these Bill of Quantities or the Specification of Materials and Methods to be Used (OOG-001E), this reference shall be deemed to read "SANS or equivalent standard" and BS or equivalent standard" respectively.

- (c) Various other specifications specified in the COLTO Standard Specifications or the Project Specifications.

C2.4.2 PROJECT SPECIFICATIONS RELATING TO STANDARD SPECIFICATIONS**C2.4.2.1 General Conditions of Contract Referred to in the Standard Specifications**

The references to the General Conditions of Contract appearing in the COLTO Standard Specifications refer to the COLTO General Conditions of Contract which is superseded in this contract by the General Conditions of Contract for Construction Works 2015. The corresponding clause in the latter document pertaining to the reference in the COLTO Standard Specifications is listed in the table below.

Clause No. in the Standard Specifications	Clause No. in COLTO General Conditions	Equivalent Clause No. in General Conditions of Contract 2015
1202	15	5.6.1
1206	14	Deleted
1209	52	6.10. 1(5)
1210	54	5.14.1
1212(1)	49	6.8
1215	45	5.12.1
1217	35	8.2
1303	49	6.8
1303	53	6.11
1303	12	5.2
1303	45	5.12.1
1403	40(1)	6.4
1505	40	6.4
31.03	40	6.4
3204(b)	40	6.4
All Sections	48	6.6

The references to the General Conditions of Contract appearing in the COLTO Standard Specifications refer to the COLTO General Conditions of Contract which is superseded in this contract by the General Conditions of Contract for Construction Works 2015. The corresponding clause in the latter document pertaining to the reference in the COLTO Standard Specifications is listed in the table given in Section 1100: DEFINITIONS AND TERMS.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C2.4.2.2 Amendments to the Standard Specifications

There are no amendments to the Standard Specifications as issued by the Committee of Land Transport Officials (Colto).

C2.4.2.3 Project Specifications Relating to Standard Specifications

This part of the project specifications deals with matters relating to the standard specifications. Where reference is made in the standard specifications to the project specifications this part shall also contain the relevant information e.g. the requirements where a choice of materials or construction methods are provide for in the standard specifications.

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 and amendments of the standard specifications required for this particular contract.

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 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.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

PROJECT SPECIFICATION REFERRING TO THE STANDARD SPECIFICATIONS AND ADDITIONAL SPECIFICATIONS

- SECTION 1100 : DEFINITIONS AND TERMS
- SECTION 1200 : GENERAL REQUIREMENTS AND PROVISIONS
- SECTION 1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS
- SECTION 1400 : HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL
- SECTION 1500 : ACCOMMODATION OF TRAFFIC
- SECTION 1600 : OVERHAUL
- SECTION 1700 : CLEARING AND GRUBBING
- SECTION 1800 : DAYWORKS
- SECTION 2100 : DRAINS
- SECTION 2200 : PREFABRICATED CULVERTS
- SECTION 2300 : CONCRETE KERBING, CONCRETE CHANNELING, CHUTES AND DOWNPIPES, AND CONCRETE LINING FOR OPEN DRAINS
- SECTION 3200 SELECTION, STOCKPILING AND BREAKING DOWN THE MATERIAL FROM CUTTINGS AND EXISTING G PAVEMENT LAYERS AND PLACING AND COMPACTING THE GRAVEL LAYERS
- SECTION 3300 MASS EARTHWORKS
- SECTION 3400 PAVEMENT LAYERS OF GRAVEL MATERIAL
- SECTION 3500: STABILIZATION
- SECTION 3600 : CRUSHED-STONE-BASE
- SECTION 4100 : PRIME COAT
- SECTION 4200 : ASPHALT BASE AND SURFACING
- SECTION 5600 : ROAD SIGNS
- SECTION 5700 ROAD MARKINGS
- SECTION 5800 : LANDSCAPING AND PLANTING PLANTS
- SECTION 5900 FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS
- SECTION 8100 : TESTING MATERIALS AND WORKMANSHIP

SECTION 8200 : QUALITY CONTROL

SECTION 1100: DEFINITIONS AND TERMS

B1115 GENERAL CONDITIONS OF CONTRACT

Replace Clause 1115 with the following:

The General Conditions applicable to this Contract are the General Conditions of Contract for Construction Works, 2015, Second Edition, (GCC 2015).

Accordingly, all reference in the Standard Specifications to any other General Conditions of Contract (GCC) has to be amended. The Standard Specifications have been scrutinised and clauses, which refer to another GCC, identified. These are tabulated below together with the relevant equivalent clause in the GCC 2015 Conditions of Contract. The context of the reference to the GCC is also noted.

Whereas every effort has been made to include all of the affected clauses in the table, there may be some omissions. In every case, however, the GCC 2015 Conditions of Contract for Construction, as amended by the Special Conditions of Contract in Section C1.2 of this Volume, shall apply and the contractor shall be responsible for interpretation of the equivalent clause

CHANGES TO ALL REFERENCES BY THE COLTO STANDARD SPECIFICATIONS TO THE COLTO GENERAL CONDITIONS OF CONTRACT AND GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS (GCC 2015)

COLTO Standard Specification		COLTO General Conditions of Contract 1998 (GCC)		GCC 2015 General Conditions of Contract for Construction Works, 2015	
Clause No	Page No	Cl. No	Description or Reference	Cl. No	Description or Reference
1115	1100-2		Definition of applicable GCC and special conditions of contract		GCC 2015 together with project documents
1204	1200-2	15	Construction programme	5.6.1	Construction programme
1204	1200-2		General reference to GCC		GCC 2015, as applicable
1206	1200-3	14	Setting out of works	5.4	
1209(a)	1200-4		General references to GCC		GCC 2015, as applicable
1209(e)	1200-5	52(2)	Valuation of material brought onto site	6.10.2	Valuation of material brought onto site
1210	1200-5	54	Certificate of practical completion	5.14.4	Certificate of practical completion
1212(1)	1200-7	49(2)	Cost of checking alternative designs		
1215	1200-9	45	Extension of time for completion due to abnormal rainfall.	5.12	Extension of time for completion
1217	1200-10	35	Care of the works	8.2	Care of the works
1303(ii)	1300-1		General reference to GCC		GCC 2015, as applicable
1303(iii)	1300-1	49	Price adjustment Item 13.01 (a)	6.11	Variations exceeding 15%
1303 (iii)	1300-2	49	Price adjustment Item 13.01 (b)	6.11	Variations exceeding 15%
1303 (iii)	1300-1	53	Variations exceeding 20%	6.11	Variations exceeding 15%
1303 (iii)	1300-2	53	Variations exceeding 20%		Variations exceeding 15%
1303	1300-2	12	Payment Item 13.01 (c)	1.5.2	Commencement Date
1303	1300-2	49	Payment of Item 13.01 (c) Time Related Obligations	6.11	Variations exceeding 15%

COLTO Standard Specification		COLTO General Conditions of Contract 1998 (GCC)		GCC 2015 General Conditions of Contract for Construction Works, 2015	
Clause No	Page No	Cl. No	Description or Reference	Cl. No	Description or Reference
1403(c) (ii)	1400-4	40	Variation for rented accommodation	6.4	Valuations of Variations
1505	1500-3	40	Payment for damage caused by temporary drainage	6.4	Valuations of Variations
Item 15.08	1500-8	48	Payment of Provisional Sum	6.6	Provisional and Prime Cost Sums
Item 15.09	1500/8	48	Payment of Provisional Sum	6.6	Provisional and Prime Cost Sums
Item 15.11	1500-8	48	Payment of Provisional Sum	6.6	Provisional and Prime Cost Sums
Note (2)	3100-4	40	Payment for prospecting for materials	6.4	Valuations of Variations
3204(b) (iii)	3200-2	40	Determining Compensation for varied methods and equipment	6.4	Valuations of Variations
3303(b)	3300-2	2	Engineer's decisions, with reference to materials classification	3	Engineer and Engineer's Representative
Item 44.06	4400-3		General reference to GCC, PC Sums	6.6	Provisional and Prime Cost Sums
Item 45.06	4500-3		General reference to GCC, PC Sums	6.6	Provisional and Prime Cost Sums
5803 (c)	5800-3	40	Variation, for landscaping	6.4	Valuations of Variations
5805 (d)	5800-4	40	Variation, for grassing	6.4	Valuations of Variations
Item 58.10	5800-10	48	Payment for Extra Work	6.6	Provisional and Prime Cost Sums
8103 (c)	8100-1	40	Testing materials	6.9	Materials, Workmanship and Construction Equipment Valuations of Variations
			Valuation of Variations	6.4	
Item 81.02	8100-26		General reference to GCC, Provisional Sums	6.6	Provisional and Prime Cost Sums
Item 81.03	8100-26	22	Removal of Test Equipment and Clearance of Site on Completion	5.15	Clearance of Site

B1155 WORK IN RESTRICTED AREAS

Add the following:

“Any omission of payment items from the pricing schedule with regard to additional or extra over payment for work in restricted areas should be regarded as deliberate and any additional cost incurred shall be included in the bulk rates tendered”.

SECTION 1200 : GENERAL REQUIREMENTS AND PROVISIONS

B1202 SERVICES

Amend the 1st paragraph to read:

“This contract may include certain work relating to the moving and reinstating of existing services, monuments and memorials that may be affected by the construction of the works.”

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 C1.4 Contract Data.
- (ii) The expected delays defined in B1215: Extension of time resulting from inclement weather.
- (iii) The construction sequences and accommodation of traffic as indicated in Part C2.4: Accommodation of Traffic.

Add the following subclause:

“(c) Programme revisions

The programme will be reviewed at the scheduled 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 may have fallen behind. The engineer may request from the contractor a major revision of the programme. Such a revision shall be submitted for approval within fourteen (14) days of the request.”

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.

The quality manager shall be resident on site full time. No construction activities shall take place on site before the engineer approves the quality plan”.

Delete the second, third and fourth 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.

1206 THE SETTING-OUT OF WORK AND PROTECTION OF BEACONS

Delete the first portion of the first paragraph up to the words of " ..., and he". The paragraph shall start "The contractor shall comply with all legal..."

Delete "and of clause 14 of the general conditions of contract" in the sixth paragraph

Add the following paragraphs:

"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".

"The contractor shall use appropriate methods for setting out the works to be constructed by labour-based methods. This may include the use of special templates and sight rails and other suitable implements, which will assist the labourers in constructing the works to the required lines, levels and standards. The cost of these implements and additional setting-out procedures shall be included in the rates for the works items and no separate payment will be made for them."

A provisional sum has been allowed for under pay item B12.05 to cover the cost of additional survey required by the engineer."

B1207 NOTICES, SIGNS AND ADVERTISEMENTS

Add the following to this clause:

"Detail of the notice boards that are required in terms of clause 1207, are shown in Volume 4."

B1208 MEASUREMENTS

(a) Measurement of Completed Work

Add the following:

- '(v) The actual authorised quantities of application or mix proportion of materials such as bituminous binders, aggregates, mineral fillers, paint, etc., shall be measured and paid for irrespective of allowed variations from nominal mix proportions or prescribed, portions. Any unauthorised increase in rates of application or mix proportions above those specified, shall however not be paid for.

The Engineer may also reject any work outright where the actual rate of application of the aforementioned is not within the specified limits and this work shall be rectified or reconstructed at the Contractor's expense.'

B1209 PAYMENT

(e) Materials on the site

Add the following:

"The engineer may at his sole discretion allow payments under "Materials on the site" in respect of any construction materials, if stored off-site, providing that:

- the site selected for this purpose is approved by the engineer;
- such land is physically separated from any production plant or operation;

- only materials for use under this contract are stockpiled on such land, and
- the contractor has provided proof of an agreement with the owner of such land that the owner has no objection to using the land for these purposes and has no claim whatsoever on any materials stockpiled on such land."

Add the following subclause:

"(g) Value Added Tax (VAT)

No value added tax shall be included in the contractor's tendered rates or amounts."

B1211 TRAFFIC OVER COMPLETED PAVEMENT LAYERS

Add the following:

"With the exception for short term road closures due to 'blasting' operations, it is a requirement of the contract that at least one traffic lane per direction of the road shall be open to traffic at all times, and it will be necessary to traffic completed sections of work as soon as practicable. The contractor shall take due account of this in his programme of work and daily programming. Any repairs to damage arising from this action will be to the contractor's account."

B1215 EXTENSION OF TIME RESULTING FROM ABNORMAL RAINFALL

Add the following:

"Extension of time resulting from abnormal rainfall or other forms of inclement weather shall be calculated according to the requirements of Method ii (critical-path method). The value of "n" as specified in this clause shall be taken as:

Table B 1: Average Number of Delays in Month due to Inclement Weather

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of Days ("n")	3	2	2	1	1	1	1	1	1	2	2	3

If no abnormal rainfall or other inclement weather periods occur during a specific calendar month (or months), the n-value of these days, as allowed for in the programme of works shall not be taken as accumulating over the contract period.

B1216 INFORMATION FURNISHED BY THE EMPLOYER

Add the following after the second paragraph:

"Drawings and quantities regarding the distribution and extent of work items were compiled and calculated to the best of the engineer's knowledge and available information at the time of the design and could be subject to variations at the construction stage. Such variations shall, however, not form grounds for a claim by the contractor in terms of subclause 6.3: Variations of the General Conditions of Contract."

B1217 PROTECTION OF THE WORKS AND REQUIREMENTS TO BE MET BEFORE CONSTRUCTION OF NEW WORK ON TOP OF COMPLETED WORK IS COMMENCED

Add the following:

"(h) Prior to the start of any excavation on any part of the works, the contractor shall submit to the engineer for approval a method statement for the execution of that part of the work. The contractor is responsible for the protection of the underlying pavement layers and the drying out and/or keeping dry of such excavations. The

Contractor's programme shall make provision for the speedy backfilling of the excavations and the drainage thereof if inundation cannot be prevented.

The contractor shall, at his own cost, be responsible for the repair of pavement layers which have been damaged due to his own works or his neglect to submit his planning to the engineer for approval or to adhere to approved precautionary measures.

B1224 THE HANDING-OVER OF THE ROAD RESERVE

Add the following:

"The total length of the road reserve will be handed over to the contractor at the start of the contract period."

B1229 SABS CEMENT SPECIFICATIONS

Replace the clause with the clause:

"Where reference is made in this specification or the standard specifications to the cement specifications, it shall be replaced with the new specification of SANS 50197-1: 2000: Part 1: Composition, specifications and conformity criteria for common cements.

The following amendments shall apply to COLTO Volume 2A

B1233 TRAINING (COLTO VOLUME 2A)

(h) Training of Emerging Contractors

Replace this sub-clause with the following:

(i) Training programme for Emerging Contractors

Emerging contractors involved in the Contract either as sub-contractors or as a joint venture partner shall receive training and mentorship in accordance with a structured programme depending on the needs of the emerging contractor.

Training and mentorship will be undertaken by trainers and mentors submitted and recommended by the Contractor to the Engineer and approved by the employer. The Contractor shall enter into sub-contracts with these training providers and mentors.

(ii) Contractor to facilitate training

The contractor shall facilitate the provision of this training and mentorship by providing reasonable access to the training providers and mentors involved in the training and provision of support (mentorship) to the emerging contractors engaged in the Contract.

Although the contractor is not responsible for the direct training and mentorship of the emerging contractor he shall make all reasonable efforts to support the emerging contractor in the execution of his work and to coordinate the emerging contractors work programme with his formal training.

(iii) Measurement and payment

A Prime Cost (PC) sum is provided in the Schedule of Quantities to cover the costs incurred in the provision of formal training and mentorship to the emerging contractors by selected contractors (service providers) as described in Clause 9 of the General Conditions of Contract as amended.

The expenditure of this amount is under the sole control of the employer. The employer will provide the necessary documentation to enable tenders to be invited from the list of selected service providers.

The contractor will not be responsible for the performance of these service providers but will provide reasonable access and support to them.

Provision is made in the Schedule of Quantities for the contractor to price for any costs he may incur as a result of this training and mentorship by the selected service providers and in providing the access and support described in sub-clauses 1233(h) (i and ii).

B1234 EMERGING CONTRACTOR

(b) Recruitment

The second paragraph of this sub-clause is not applicable.

(c) Breakdown of rates and prices

This sub-clause is not applicable.

(e) Minimum requirements

Add the following before the first paragraph of this clause:

It is a requirement of this Contract that emerging contractors employed as sub-contractors or involved as joint venture partners shall play a meaningful role in the execution of the Contract.

B1237 MEASUREMENT AND PAYMENT

(c) Pay items

Item	Unit
-------------	-------------

B12.01 Community Liaison Officer

(a) Remuneration of CLO month

The tendered rate for sub item (a) shall include full compensation for services of CLO for the duration of the contract and/or as stipulated in CLO's contract.

No separate payment (other than those listed on Bill of Quantities) will be made for the office space, transport and any other costs associated with the employment and accommodation of the CLO, Provision for such costs shall be made, as part of the contractor's general obligations, under item 13.01 in the Bill of Quantities.

(b) Provision of airtime for CLO..... month

The tendered rate for sub item (b) shall include full compensation for procuring airtime from a service provider and a proof of such purchase must be furnished to the engineer. The amount of airtime shall be as stated in Bill of Quantities and/or as agreed by all parties involved. Contractor's charges for this service are allowed for under sub item (f).

B12.02 Contractor's general obligations in respect with Environmental Management Plan (EMP)

- a) Fixed obligations.....PC Sum
- b) Remuneration of Contractor's Environmental Control Officer.....month

The tendered rate for sub item (a) shall include full compensation for the fixed part of contractor's environmental management. Under no circumstances will the contractor be paid monthly obligations under this item and payment will be a once off instalment. The tendered rate for sub item (b) shall include full compensation for monthly obligations in respect of environmental management plan. The contractor will be paid this amount monthly once he has met all obligations which include monthly audits, appointment of competent staff to do the audits, etc.

B12.03 Contractor's obligations in respect of the Occupational Health and Safety Act and Construction Regulations.

Payment for the contractor's obligations in respect of the Occupational Health and Safety act and Construction Regulations shall be made through three payment items described below. The three payment items together shall include full compensation for all personnel (including a dedicated full time Construction Safety Officer), cost and incidentals in respect of compliance with the enforcement of the Health and Safety Specifications, which shall include for the compilation, presentation, implementation and maintenance of the Health and Safety Plan as contemplated. In tendering rates for the three items the contractor shall ensure that the sum of the amounts for the three items shall not be less than one percent (1%) of the Tender Amount.

All of the Contractor's costs associated with compliance with the provisions of this part of the Project Specifications shall be deemed to be included in the rates tendered for the items of work listed below.

Item	Unit
(a) Fixed obligations	Lump Sum

The full amount will be paid in one instalment once:-

- (a) The contractor has submitted his Health and Safety File complete as envisaged on this specification to the Client's satisfaction.
- (b) The contractor has notified the Provincial Director of the Department of Labour in writing of the project.
- (c) The contractor has made the required initial appointments of employees and sub-contractors.
- (d) The client has approved the contractor's Health and Safety Plan.
- (e) The contractor has set up his Health and Safety File.

Item	Unit
(b) Time related obligations	Month

The tendered monthly amount shall represent full compensation for that part of the contractor's general obligations in terms of the Occupational Health and Safety Act and the Construction Regulations which are mainly a function of time. This includes inter alia payment of all costs for the appointment of all staff contemplated in the construction regulations, protection of pedestrians at excavations and the transport of employees on site. The payment also includes protection of pedestrians near excavations and shall include compensation for the acquisition, installation and maintenance of materials used for the demarcation of potentially dangerous areas, including these excavations. Payment will be monthly and shall be effected after payment for Item (a) has been made.

Item	Unit
(c) HIV AIDS Awareness obligations	Prov Sum

The tendered lump sum shall be in full compensation for the contractor providing an approved selected service provider to comply with the requirements and conditions of the Department's HIV AIDS Specifications, including the workshop education and training within an HIV AIDS Awareness programme and the Contractor's handling costs, profit, record keeping, reporting and all other charges in connection with providing the HIV AIDS Awareness programme.

Payment under item F10.01 will be made as follows:

80% of the amount will be paid once the service provider has complied with the requirements and conditions of the Department's HIV AIDS Specifications, including the workshop education and training within an HIV AIDS Awareness programme.

The outstanding 20% will be paid on completion of the contract, subject to the contractor's compliance in all respects with the requirements and conditions of the Department's HIV AIDS Specifications.

(d) Remuneration of Municipal traffic officer or external professional pointsmen.....	month
--	--------------

The tendered rate shall be full compensation including contractor's charges for services of municipal traffic officer sourced from Midvaal Local Municipality or trained professional points men sourced from JMPD or employment agent. The contractor shall not claim under this item for using his internal flagmen.

B12.04 Training

(a) Training

The Contractor shall only be reimbursed for the amounts actually paid by the Contractor to the selected service providers for training labourers and emerging contractors and as directed by the Employer, in execution of the Engineer's written instruction, plus a percentage as tendered to cover all his charges and profits.

(b) General

No separate payment will be made for the provision of a training venue, stationary, transport of trainees, tools equipment and teaching aids and remuneration of workers during training.

Any additional training as viewed by the Contractor to be necessary shall be viewed to be included under Section 1300 and shall not be paid for separately.

B12.05 Protection and/or Relocation of Telkom Services

'Item	Unit
(a) Payment to Telkom to relocate, lower or protect Telkom services.....	Prov Sum

Payment shall be the actual payment as billed by Telkom (for relocation and/or protection of their services) to the contractor. In sub item (b) the contractor shall include all charges related to dealing with Telkom and their contractor's.

B12.06 Protection and/or Relocation of Eskom Services

'Item	Unit
(a) Payment to Eskom to relocate, lower or protect Eskom services.....	Prov Sum

Payment shall be the actual payment as billed by Eskom (for relocation and/or protection of their services) to the contractor. In sub item (b) the contractor shall include all charges related to dealing with Eskom and their contractor's.

B12.07 Protection and/or Relocation of Rand Water 1 000mm Diameter Pipe

'Item	Unit
(a) Payment to relocate, lower or protect Rand Water pipe	Prov Sum

Measurement shall be as indicated on the Rand Water methodology for protecting and lowering of their pipes. The payment shall be the actual amount of work as performed by the contractor and it shall include full compensation for excavation, backfilling, procuring, loading, transportation, unloading, installation and testing of the pipe.

Construction methods will be as per Rand Water requirements.

B12.08 Protection and/or Relocation of Midvaal Water Services

'Item	Unit
(a) Payment to relocate, lower or protect Midvaal Water pipes.....	Prov Sum

Measurement shall be as indicated on the Midvaal Municipality methodology for protecting and lowering of their pipes. The payment shall be the actual amount of work as performed by the contractor and it shall include full compensation for excavation, backfilling, procuring, loading, transportation, unloading, installation and testing of the pipe.

Construction methods will be as per Midvaal Municipality requirements.

B12.09 Protection and/or Relocation of Midvaal Electricity Services

'Item	Unit
--------------	-------------

(a) Payment to relocate, lower or protect Midvaal Electricity.....Prov Sum

Measurement shall be as indicated on the Midvaal Municipality methodology for protecting and lowering of their pipes. The payment shall be the actual amount of work as performed by the contractor and it shall include full compensation for excavation, backfilling, procuring, loading, transportation, unloading, installation and testing of the pipe.
Construction methods will be as per Midvaal Municipality requirements.

B12.10 Excavation by hand to look for existing services.....m³

Measurement and payment shall be in accordance with Item 22.01. Classification of excavation material shall be in terms of Clause 2105 of the specification.

Backfilling will be measured under Item 22.02.

'Item **Unit**

B12.11 Provision of Precast Bus Shelters **No**

Expenditure under Item B12.11 (a) shall be made in accordance with the General Conditions of Contract and shall include for consultation with the local community on the design of the bus/taxi shelters as well as for the manufacture and erection of the shelters.

The tendered rate shall provide full compensation for procuring and erection of precast bus shelters and contractor's handling cost and all other charges to compensate for the erection of bus/taxi shelters.

'Item **Unit**

B12.12 Provision of contract name board Number (No.)

The unit of measurement shall be the number of sign boards supplied and erected on the site.

The tendered rate shall include full compensation for furnishing and erection of the sign boards as detailed on the drawings, complete with supports and the dismantling and removal thereof on completion of the contract.'

'Item **Unit**

B12.13 Installation of Traffic Lights **Prov Sum**

The payment shall be the actual amount of work as performed by the contractor and shall provide full compensation for the contractor's handling cost and all other charges to compensate for installation, of traffic lights.

Add the following clause:

B1238 SECURITY

Security of contractor's plant and personnel.

The tenderer shall note that, notwithstanding the insurances effected by the contractor, the contractor shall be responsible for the effecting of safety and security of plant and personnel on and around the site of the works, and that no claims in this regard will be entertained by the employer.

Contractors are expected to use common sense and good judgment in assessing their security requirements. The contractor should contact local police station nearest to the site to obtain crime statistics on areas adjacent to the site.

Under no circumstances will additional payment be made for items such as security fencing, e.g. razor coil wire, mobile radios, control of persons entering the site camp(s), day and night watchmen, armed guards on pay days, control on stockpiles of materials and fuel, or any other measures normally associated with the provision and maintenance of security on site.

Security arrangements will be deemed to be included in the amount tendered for in Items 13.01(a) and 13.01(c).

B1239 DRAWINGS

The drawings shall remain in the sole custody of the Engineer, but one electronic copy shall be furnished to the Contractor free of charge. The Contractor shall, at his own expense, produce there from all further prints required for the Construction of the Works. At the completion of the Contract, the Contractor shall return to the Engineer all prints provided and produced during the Contract period.

One full size set of prints of the drawings shall be kept by the Contractor on the Site and these shall at all reasonable times be available for inspection and use by the Engineer and his representative, or by any other persons so authorised by the Engineer in writing.

The drawings shall not be used by the Contractor for any purpose other than the execution of the works.

All information in the possession of the Contractor which is required by the Engineer's representative for the completion of "as-built" drawings shall be submitted to the Engineer's representative before a completion certificate is issued.

Only figured dimensions on the drawings shall be used, and drawings shall not be scaled. The Engineer shall supply and figured dimensions which have been omitted from the drawings.

Additional drawings may be issued as necessary to the Contractor by the Engineer from time to time during the progress of the works. The Contractor shall timeously notify the Engineer of the priority in which drawings and details are required.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 1300 : CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS

B1302 GENERAL REQUIREMENTS

(a) Camps, construction plant and testing facilities

Add the following to this clause:

The contractor shall make his own arrangements regarding the establishment of a camp site and housing for his construction personnel. No personnel will be allowed to reside on the site. Only night-watchmen may be on the site after hours.

The contractor shall be responsible for the security of his personnel, construction plant on and around the site of the works, and of his camp. The cost of this will be deemed to be included in item 13.01.

The contractor's offices, laboratory and stores shall, unless otherwise agreed, be erected in close proximity to the engineer's offices and laboratory. The entire area shall be fenced with a minimum of 1,8m height razor taped mesh. The contractor's offices, laboratory and stores and engineer's offices and laboratory shall be provided with sufficient perimeter lighting.

The contractor shall provide security guards from a reputable security company for protection of the engineer's offices and laboratory. The security guards must be provided with a two way radio and be in constant contact with the control room of the security company and an armed response unit. The security guards must be armed and accompanied by trained guard dogs. Payment for the above shall be included in item 13.01.

The contractor shall provide at each work site at least one portable chemical latrine unit per 10 workers for use by construction workers employed on the project. The latrine units shall be serviced daily and kept in a hygienic and orderly state to the satisfaction of the engineer. The contractor shall move them to the required positions, and finally remove them, on completion of the works, all to the satisfaction of the Health Department of the relevant authority. Toilets must be screened from public view and their use shall be enforced. No separate payment shall be made for this requirement and payment shall be deemed to be included in the rates tendered for the contractor's time-related obligations.

B1303 PAYMENT

Add the following subitem:

“Item	Unit
(d) Time related obligations for approved extension of time due to inclement weather.	Days
(d)	

The rate to shall be as specified for subitem 13.01 (c)"

Add the following to pay item B13.01:

"The combined total tendered for subitems B13.01 (a), (b) and (c) shall not exceed 15% of the tendered sum, excluding VAT. The rate for approved extension of time due to inclement weather shall not differ by more than 5% from the rate tendered for in sub item B13.01(c).

SECTION 1400: HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL

B1402 OFFICES AND LABORATORIES

(a) General

Add the following:

"It is a requirement of the contract that the offices for the engineer's supervisory staff shall be supplied with approved burglar proofing, the cost of which shall be included in the relevant tendered rates.

Add the following new paragraph at the end of this clause:

'The offices, laboratory and stores shall, unless otherwise agreed, be erected in close proximity to the contractor's offices and laboratory, and the entire area shall be fenced with security fencing and provided with a gate. The contractor shall take all reasonable precautions to prevent unauthorised entry to the offices and laboratories and to ensure the general security of the offices and laboratories.'

(b) Offices

Replace sub-subclause (xii) with the following:

"Cellphones will be the form of telephone communication and a 3G data card and modem shall be provided by the contractor. The Cellphone shall have a minimum of 5 megapixel camera and shall have a geo-tagged feature for taking photographs. The cost of cellphone calls and data are included in the prime cost sum for the provision of the telephone service".

Add the following:

(xviii) Steel plan cabinets which are able to accommodate AO plans hung from the narrow side.

(xix) Microwave oven with a minimum capacity of 30 litres.

(xx) Computers and printers

The computers shall be laptops and shall meet the following minimum requirements:

- (1) Intel Core i5 processor
- (2) 4GB RAM
- (3) 250 GB hard disk
- (5) 14 inch colour monitor
- (6) CD/DVD disk drive
- (7) 1GB graphic card

- (8) Wireless mouse with mouse pad
 - (9) Windows 7 Home Premium and MS Project 2010
 - (10) Microsoft Office 2010 (that has Word, Excel, PowerPoint and Outlook)
 - (11) Bluetooth, Wi-fi and 3G connection.
- The printers shall be a high speed colour printer.'

(c) Laboratories

In the second paragraph, second line substitute "drawings" with "figures included in the project document"

Delete (xvi) and replace with:

"Uninterrupted power supply (UPS) units shall be supplied for all electronic equipment."

(g) Ablution units

Add the following:

"Two separate ablution units are required on site. Each unit shall contain at least a wash-hand basin, flush toilet, urinal, shower unit and the necessary accessories.

Both ablution units shall be provided with hot and cold water.

The towels shall be replaced with clean towels every second day and soap and other toiletries supplied as necessary.

One of the units shall contain a lockable clothing cupboard for at least six employees. The other unit shall contain a lockable clothing cupboard for at least two employees.

The ablution units shall each have an interior floor area of at least 10m² and a 1,5m wide veranda on one side with a 100mm concrete floor.

The tendered rate under Item B14.01(e) shall include full compensation for the supply, erection and maintenance of the complete units as specified."

Add the following subclauses:

“(i) Kitchen units

The contractor shall provide a kitchen unit, for the use of the engineer, with minimum interior floor area of 12m², a 1,5m wide veranda on one side with a 100 mm thick concrete floor in the vicinity of the offices.

The unit shall contain at least two opening windows, a lockable door, a three-plate electrical stove with oven, a steel framed formica topped table (0,6 m x 1,2 m), four steel framed bar or kitchen stools, a lockable refrigerator of one hundred and fifty litres capacity, a kitchen sink supplied with clean hot and cold potable water, a drain board coupled to a suitable drainage system and a lockable steel grocery cupboard.

B1403 HOUSING

(c) Rented accommodation

Add the following:

"The engineer will arrange for the obtaining of rented accommodation for his supervisory personnel on site. Payment of rent shall be made under the Provisional Sum in subitem

14.07(a) and shall be expended on a monthly basis as ordered by the engineer."

B1404 SERVICES

(b) Water, electricity and gas³

Add the following:

The power supply shall be regulated by suitable UPS units in order to maintain a constant current and voltage level at all times to prevent damage to the office and laboratory equipment and related electronic equipment during power surges. In the event of damage to the office and laboratory equipment and related electronic equipment because of a faulty voltage, the contractor shall be liable for payment of all repair or replacement costs of such damaged items.

(d) Cooking facilities

Add the following:

The contractor shall have access to tea lady who will make tea for the engineer and his subordinates when required to do so.

Add the following sub-clause:

'(e) Survey equipment

The Contractor shall provide the following survey equipment on the site when called on to do so:

- 1 x Theodolite (direct 20" reading) with tripod
- 1 x Automatic level with tripod
- 1 x 25m Stylon tape
- 1 x 100m steeltape
- 2 x 5 m levelling staffs (1cm graduations) with bubbles
- 6 x One-piece 2m fibreglass ranging rods
- 1 x Optical square
- 1 x 14lb survey hammer

Steel and wooden pegs as required.

A tachymeter may be shared by arrangement between the contractor and the engineer's representative, but the remaining instruments shall be provided for the exclusive use of the engineer's representative. The contractor shall keep the equipment insured against any loss, damage, or breakage, and he shall indemnify the engineer and the employer against any claims in this regard.

The contractor shall maintain the equipment in good working order and keep it clean.

"(f) Survey assistants

The contractor shall make available two survey labourers to the engineer. He shall upon request make a further two labourers available to assist the engineer's staff in taking and transporting samples."

B1406 MEASUREMENT AND PAYMENT

Add the following subitem to item 14.01:

"B14.01 (g) Kitchen units number (No.)

The unit of measurement and payment shall be the authorized number of units erected, complete and in accordance with the specifications and together with all items as specified in

Clause B1402.

The tendered rate shall include full compensation for the supply and erection of units, accessories, furniture, etc. as specified and for the proper maintenance, cleaning and provision of daily requirements."

B14.03 Office and laboratory fittings, installations and equipment

(a) Items measured by number

Add the following new sub-items:

'Item	Unit
(xix) Steel plan cabinets	Number (No)
(xx) Microwave oven 30 litre	Number (No)
(xxi) Supply of computer	
(1) Computer	Number (No)
(2) Printer	Number (No)
(xxii) Flood lights complete with poles and 500watt minimum globes	Number (No)
(xxiii) Uninterrupted power supply units	Number (No)

The tendered rate shall be full compensation for providing all the equipment specified and all maintenance repairs to ensure that the equipment is maintained in fully serviceable condition.'

(b) Prime-Cost items and items paid for in a lump sum

Add to (b) (i) the following:

"Included, is the payment of calls made by cell phone by the Engineer's staff and if required by the Engineer, for the provision of suitable cell phones."

Add the following:

'Item	Unit
B14.10 Provision of Photostat facilities	month

The photocopier to be supplied by the contractor shall be a 4 in 1 machine (i.e. photocopy, fax, scan and print).

Add the following new items:

'Item	Unit
B14.11 Services for the Engineer	

- | | |
|------------------------------------|-------|
| (a) Provision of survey equipment | month |
| (b) Provision of survey assistants | month |

The tendered amount for subitem (a) shall include full compensation for the supply and maintenance of the service during the months requested by the engineer and the tendered amount for subitem (b) shall include full compensation for the supply of the assistants including accommodation and transport.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 1500: ACCOMMODATION 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 – Arma Steyn – Tel: (012) 334 4500 e-mail: asteyn@print.pwv.gov.za.

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

(a) Safety

Add the following:

“The contractor shall be responsible for maintaining the existing road surface both within the works area and the advance warning and termination areas in a safe and trafficable condition for the duration of the contract.”

(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 sub-subclause (i)

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

Delete sub-subclauses (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 road marking feature. The position of each shall be 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 sub-subclauses:

- “(ix) The traffic safety officer shall be equipped with a cellular telephone and digital camera, and shall have a vehicle and sufficient labour at his disposal 24 hours a day, including all prescribed non working days, 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
- (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 subclauses:

- “(j) 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 time. 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.

- (k) 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:

A fixed penalty of R20, 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 R1, 500.00 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 road markings (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.”

(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.

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 manoeuvring 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:

- (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

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, if required, 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.”

B1517: MEASUREMENT AND PAYMENT

Amend item 15.01 to read as follows:

Item	Unit
B15.01 Accommodating traffic and maintaining temporary deviations:	
(a) On the K57	kilometre (km)
(b) On the cross roads	kilometre (km)

Replace the first paragraph with the following:

“The unit of measurement shall be the kilometre, measured along the centre lines of the road and the cross roads where work is carried out. Accommodation of traffic shall be measured once only, no separate payments shall be made for lane and shoulder rehabilitation, slurry, reseal, asphalt overlay, side drains, etc. The bypass for abnormal vehicles and gravel service roads shall not be measured. Only the net distance of the road shall be measured and overlapping distances during staged rehabilitation or construction shall not be measured.”

In the second paragraph, replace the comma after “deviations” at the start of the third line with a full stop and delete the remainder of this first sentence. Also delete the whole of the second sentence, which refers to compensation for the traffic safety officer.

In the third paragraph second sentence, insert a full stop after “use” and delete the remainder of the sentence.”

Item	Unit
-------------	-------------

B15.03 Temporary traffic control facilities

Add the following subitem:

- “(n) Other traffic control measures ordered by the engineer:
- (i) Provision of other traffic control measures Provisional (Prov Sum)
- (ii) Handling costs and profit in Percentage (%)
 respect of subitem B15.03 (n) (i)

Expenditure under this item shall be made in accordance with the general conditions of contract, Subclause 13.5, for the supply and installation of any additional signs or other traffic control measure ordered by the engineer in accordance with clause B1503(g).

The tendered percentage is a percentage of the actual amount spent under subitem B15.03 (n)(i), which shall include full compensation for the handling costs of the contractor, and the profit in connection with providing other signs and traffic control measures ordered by the engineer.”

Add the following pay items:

Item	Unit
“B15.14 Amber flashing lights mounted on signs	number (No)

The tendered lump sum shall include full compensation to provide, erect, operate and maintain two amber flashing lights per sign at each end of the traffic accommodation sections. It shall also include the provision of power to operate the lights, replacing bulbs as required and keeping the lenses clean and visible.”

“B15.15 Provision of traffic safety equipment for use by the engineer

- (a) Safety jackets number (No)

The unit of measurement shall be the number of each item provided as specified, and approved by the engineer.

The tendered rates for the various safety items shall include full compensation for provision thereof and maintenance in good working order. “

B15.16 Penalties

- (a) Fixed penalty per occurrence number (No)
- (b) Time related penalty hour (h)

In sub item B15.17(a) a fixed penalty of R20 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 in sub item B15.17 (b), a time-related penalty of R1 500.00 per hour over and above the fixed penalty in sub-item B15.17 (a) shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within reasonable time after the engineer has given an instruction to this effect. The engineer’s instruction shall state the time in hours for reinstatement of the defects. Should the contractor fail to adhere to the instruction, the time-related penalty will be applied from the time the instruction was given.”



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 1600 : OVERHAUL

B1602 DEFINITIONS

(a) Overhaul material

Add the following sub-subclause:

"(vii) Any material, irrespective of the type of material, which is removed from the existing pavement layers and spoiled at designated spoil sites, or is re-used in other parts of the works or to approved stockpiles or from stockpiles to any part of the works".

(b) Overhaul

Replace the sub-clause with the following;:

"Overhaul shall not be payable on materials transported from commercial sources.

Payment shall only be made for material hauled in excess of 1 kilometre. Overhaul shall be measured as the product of the volume of material hauled and the overhauled distance".

(d) Free-haul distance

Replace the last sentence with:

"This distance shall be one (1) kilometre in the case of all overhaul materials"

B1603 MEASUREMENT AND PAYMENT

Amend item 16.02 as follows:

'Item	Unit
B16.02 Overhaul on material hauled in excess of 1 km	m³km'

Delete the first paragraph of the first set of notes.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 1700: CLEARING AND GRUBBING

B1702 DESCRIPTION OF WORK

(c) Conservation of Topsoil

Add to the end of the 1st paragraph:

The contractor will not be required to remove topsoil to more than an average depth of 400mm, from any particular area. The depth of topsoil removed shall be reliant on the terrain, suitability of material and topsoil requirements of the work.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION B1800 : DAYWORKS AND HIRE OF CONSTRUCTION EQUIPMENT

Add the following section to the standard specifications:

SECTION 1800: DAYWORKS AND HIRE OF CONSTRUCTION EQUIPMENT

Contents

B1801 SCOPE
 B1802 GENERAL REQUIREMENTS
 B1803 MEASUREMENT AND PAYMENT

“B1801 SCOPE

This section covers the listing of daywork items in accordance with the general conditions of contract clause 6.5, for the use in determining payment for work which cannot be quantified in specific units in the schedule 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 schedule of quantities.

B1802 GENERAL REQUIREMENTS

Work will be classified as daywork only if the Engineer considers no other rate in the Bill of Quantities appropriate for payment purposes.

An instruction regarding all work to be carried out under daywork in terms of Clause 6.5 of the General Conditions of Contract will be issued at the discretion of the Engineer. Some or all of the items priced under daywork in the Bill of Quantities may possibly not be required for this Contract.

The Contractor and the Engineer will agree on the method of recording the working hours prior to the commencement of the work. Any long period of idling at any one time which in the opinion of the Engineer or his representative is beyond that required for normal operating conditions will not be paid for as working time. Non-working hours for any reason shall not be measured for payment.

B1803 MEASUREMENT AND PAYMENT

Item	Unit
B18.01 Personnel during project working hours	
(a) Unskilled labour	hour (hr)
(b) Semi-skilled labour (Charge hand)	hour (hr)
(c) Skilled labour (Artisan)	hour (hr)

- | | | |
|-----|----------|-----------|
| (d) | Foreman | hour (hr) |
| (e) | Surveyor | hour (hr) |

B18.02 Plant

- | | | |
|------|---|-----------|
| (a) | Trucks | |
| (i) | Tip Truck 6m ³ | hour (hr) |
| (ii) | Tip Truck 10m ³ | hour (hr) |
| (b) | TLB tractor fitted with backactor and loader | |
| (i) | Model 55Kw power | hour (hr) |
| (ii) | Model 70Kw power | hour (hr) |
| (c) | Vibratory roller (self-propelled) | |
| (i) | Model mass 2t width 0.9m | hour (hr) |
| (ii) | Model mass 10t width 2.2m | hour (hr) |
| (d) | Air compressor complete with all tools, drills, Jackhammers, etc. (10m ³ /min) | hour (hr) |
| (e) | Grader Cat 140G or equivalent | hour (hr) |
| (f) | Water truck (9 000litre) | hour (hr) |

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

Prior to the commencement of any work by the labourers described under items B18.01, the contractor must obtain written consent from the engineer regarding the classification of all labourers in terms of "unskilled", semi-skilled" and "skilled" labourers.

The tendered rates for labour for items B18.01 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 tendered rates for plant for item B18.02 shall be an all-inclusive hire charge for the use of the vehicle and driver or plant/equipment and operator and shall apply only to vehicles plant and equipment nominated in writing by the engineer, for all administrative, supervisory operative and contingent cost, and profit, relating to the running of the plant

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

The rates shall be for the working hours of this contract.

Item

Unit

B18.03 Materials

(a) Materials

Provisional Sum

(b) Percentage on net cost of materials

percentage (%)

The prices for materials (excluding VAT) shall be based on the documented proof submitted to the Engineer in accordance with the General Conditions of Contract. The prices shall not be subject to the Contract Price Adjustment factor.

The tendered percentage as an on-cost on the net cost price of materials shall include full compensation for handling, overheads, profit, liabilities, obligations, risks, incidentals, wastage and other on-cost for the supply, delivery and distribution of materials for dayworks.”



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 2100 : DRAINS

B2101 SCOPE

Amend the first paragraph to read:

“This section covers all work both rehabilitative and new work in connection with the excavation and construction of open drains, subsoil drainage and banks and dykes at the locations and to the sizes, shapes, grades and dimensions as shown on the drawings or as directed by the engineers, and the test flushing of subsoil drains.”

B2102 OPEN DRAINS

Sub-clause 2102(b)

Add before the second paragraph:

‘All side drains, table drains and concrete-lined drains shall form part of the road prism, and their excavation shall be measured and paid for under Section 3300.’

Delete the word ‘backactors’ in the third from last line of the second paragraph.

Sub-clause 2102(c)

Add the following:

‘Concrete-lined side drains shall be finished within 5mm of the lines and grades shown on the drawings.’

The table drain side drain shall be finished to plus or minus 15mm of the lines and grades shown on the drawing.’

B2104 SUBSOIL DRAINAGE

(a) Materials

(i) Pipes

Amend this subclause by adding the following to the end of the third paragraph:

“(category-heavy duty) or SABS 1601 (stiffness class 350)”

The pipes to be used shall be either slotted u PVC pipes or perforated HDP pressure pipes, 100 mm ID”

- (ii) Natural permeable material

Add the following to the 3rd paragraph:

“The crushed stone shall be coarse (19mm nominal) and shall be washed clean of all fines”

- (iii) Synthetic-fibre filter fabric

Under item (4) Selection, of this subclause, replace the 1st paragraph with the following:-

“The filter-fabric used for subsoil drains shall be grade 2 and shall satisfy the criteria for a grade 2 geotextile as given in Table 2104/2”

- (b) Construction of subsoil drainage systems

Add the following sub-clause:

- “(v) Proving of pipes in sub-soil drainage systems

On completion of the pipe laying and prior to backfilling, all pipe joints shall be surveyed as proof of their installation to line and level. After backfilling the pipes shall be proved by pulling through a cylindrical cleaning brush followed by a wooden mandrill \pm 400mm long and 5mm in dia less than the bore of the pipe. Proving of pipes shall not be paid for separately and the cost thereof shall be deemed to be included in the rate tendered for laying the pipe.”

B2107 MEASUREMENT AND PAYMENT

B21.01 Excavation for open drains

Add the following to the penultimate paragraph:

“The tendered rate shall also include full compensation for trimming the open drains”

B21.12 Concrete outlet structures, manhole boxes, Junction boxes, and cleaning eyes for subsoil drainage systems:

Add the following:

“The tendered rate shall also include full compensation for procuring and finishing the galvanised woven wire mesh, cutting, waste, installing the wire mesh at outlets and keeping the wire mesh in the pipe openings clean for the duration of the contract period.”

SECTION 2200 : PREFABRICATED CULVERTS

B2203 MATERIALS

- (b) Portal and rectangular prefabricated concrete culvert units

Replace this subclause with the following:

“Precast concrete units shall comply with the requirements of the latest SABS 986 specification.

Prior to the manufacture of any units the manufacturer shall submit his Quality Plan to be approved by the engineer before delivery of any units to site. As part of the Quality Plan submitted for approval copies of calibration certificates of both gauges used for proof loads and cover meters used at the factory shall be supplied to the engineer. The originals of these certificates shall at all stages also be available for inspection at the factory premises. The manufacturer shall check each precast unit for cover compliance, and random checking of units shall not be permitted. The engineer's representative may visit the factory at any stage to ascertain adherence to the quality plan as well as to check covers before delivery to site. Any substandard cover shall result in the batch being rejected. Should the manufacturer not be adhering to their Quality Plan the engineer may exercise the right to reject the use of products from the manufacturer concerned. The employer shall also be informed in all such cases.

For durability requirements due to the reduced cover provided for pre-cast culverts all durability testing shall be done in accordance to Clause B6404(h) shall fall within the severe category. For units within the 5km zone from the coast the very severe category shall be used and increased cover shall be as specified by the engineer."

B2204 CONSTRUCTION METHODS

Clause 2204 is amplified by the following:

'All stormwater drainage pipes and rectangular culverts will be constructed according to the 'trench' method.'

Add the following to Clause 2204:

'The maximum length of all open pipe trench before backfilling shall, under no circumstances, exceed 200m in length.'

B2210 LAYING AND BEDDING OF PREFABRICATED CULVERTS

(f) General

Add the following:

'Pipe culverts have been designed to the positions, lengths and elevations shown in the drainage schedules. However, site conditions may dictate that changes are necessary, and these will be agreed with the engineer.'

B2211 BACKFILLING OF PREFABRICATED CULVERTS

Add to paragraph 2:

'Where backfilling is done in the upper layers of the road foundation, the quality and strength of the material shall at least match that of the surrounding layers.'

B2212 INLET AND OUTLET STRUCTURES, CATCHPITS AND MANHOLES

Add the following new sub-clause:

'(j) Subsurface drain outlet into Catchpits and manholes

Where required, sub-surface drain pipes shall be led into standard stormwater catchpits or manholes, as shown on the drawings or as directed by the engineer. This shall be done either by making provision during the construction of the chamber, or by breaking out and making

good after completion of the chamber.'

B2215 SERVICE DUCTS

Amend the last sentence in paragraph 2 to read:

'Pipes shall be laid to a minimum grade of 1% to facilitate flushing with water and shall, where required, be encased in concrete or soil cement.'

Add to the last paragraph:

'Marker blocks shall consist of a 300 x 300 x 80mm concrete block with the mark (described below) facing upwards.'

Marker blocks shall only be provided where kerbs have not been provided or where the ducts terminate more than 1,5m beyond the kerb line in the verge area. Where duct markers are provided within a paved sidewalk surface, the duct marker shall be laid flush with the paved surface.

Where a duct passes below a kerb, its position shall be marked by grinding a neat mark into the kerb's face with an angle grinder and the mark shall consist of a 5 mm-deep x 80 mm-high letter.

The following letters shall be used for marks:

- E = Electrical cableduct
- W = Ducts for water pipes
- P = Ducts for Telkom services
- D = Vacant ducts

Backfilling for service ducts shall be in accordance with Clause B2211.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 2300 : CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LINING FOR OPEN DRAINS

B2301 SCOPE

Add the following to this clause

“This section also covers the replacement of damaged concrete kerbing, channelling and lining.”

B2302 MATERIALS

(b) Kerbing and Channeling

Replace the first sentence with this clause

“Prefabricated kerbing and channelling shall comply with the requirements of SANS 927:2007.”

B2304 CONSTRUCTION

(b) Prefabricated concrete kerbing and channelling

Add the following:

‘Kerbing of radius 1m and less shall be cast in situ in accordance with sub-clause 2304(e) and as shown on the drawings.

All precast kerbs shall be provided with continuous in situ concrete backing (haunching), the cost of which shall be included in the tendered rate. Dimensions of the triangular-shaped (in cross-section) haunching shall be: if the difference in levels between the top of the kerb and the subbase on which the kerb is laid is h , then the height of the haunch is $2/3 h$ and the width of the haunch is h .

(e) Cast in situ kerbs and channels

Add the following:

‘Where new kerbing and channelling have to be laid in an existing surface, the surface shall be neatly cut to a straight line with an angle grinder or similar approved means along the edge of the channel. The existing road foundation shall then be removed over the width and depth required to construct the new kerb and channel.

During the construction of the in situ channel, the contractor shall take care not to stain or damage the existing road surface.

Refer to Clause B2215 for duct markers ground into precast kerbs' faces.'

Add the following sub-clauses:

“(l) Shrinkage joints for cast in situ concrete work

Unless shown otherwise on the drawings, cast in situ channels shall be provided with shrinkage joints spaced a maximum of 2m apart. Shrinkage joints shall be constructed so that shrinkage cracks are generated at the joints. Sections of channel which have cracked between shrinkage joints shall be removed and replaced by the contractor at his own cost.’

“(m) Removal of existing kerb and channel

Where shown on the drawings and/or indicated by the engineer, the existing kerb and channel shall be removed and transported to spoil as directed.”

B2307 MEASUREMENT AND PAYMENT

Edit pay Item B23.02 as follows:

Item	Unit
“B23.02 Concrete kerbing-channelling combination	
(b) Concrete channels, cast in-situ concrete class 25/19	cubic metre (m ³)

The measurement and payment for item B23.02 (b) shall be as for item 23.04 (a) and shall also include the provision of shrinkage joints in cast in situ concrete work, as shown on the drawings.”



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 3200: SELECTION, STOCKPILING AND BREAKING-DOWN THE MATERIAL FROM BORROW PITS AND CUTTINGS, AND PLACING AND COMPACTING THE GRAVEL LAYERS

B3201 SCOPE

Add the following:

'The requirements for materials from borrow pits will also apply to materials recovered from the existing road. Suitable materials recovered from the existing road shall be stockpiled for re-use when instructed by the engineer.'

B3203 STOCKPILING THE MATERIAL

Add the following:

'Stockpiling of suitable material obtained from existing pavements will only be paid for if the material is intended for re-use, and the stockpiling thereof is approved beforehand by the engineer in writing.

Excavated pavement material intended for re processing, which cannot be reprocessed in place or, in the opinion of the engineer, cannot be placed to windrow next to the excavation, nor placed in position directly at any other place, and material intended for recycling or reprocessing in a plant, shall be transported to approved stockpiles on the written instruction of the engineer.

Before any stockpiling may be done the area shall be cleared of topsoil to a sufficient depth that will subsequently allow for the complete rehabilitation of the site with a cover of topsoil that does not exceed 100mm in depth and is not less than 75mm in depth. If there is insufficient topsoil; the contractor shall acquire whatever balance is needed to rehabilitate the area at his own cost. No make-up topsoil shall be taken from the road reserve. The topsoil shall be stored in an area that shall not be affected by construction activities nor impede the natural flow of water. The topsoil so windrowed or stockpiled and its surrounds shall be kept free of all undesirable vegetation (refer 5807 (e)). The contractor shall not commence his stockpiling activities without prior written approval from the engineer that the site has been adequately prepared.

Each stockpile site shall be cleaned, and all loose stones, vegetation and other materials which may cause contamination shall be removed. The site shall be graded smooth with an adequate slope to ensure proper drainage of water. Where so instructed by the engineer, the surface shall be watered and compacted to a depth of at least 150mm to a density of 90% of modified AASHTO density. The compacted surface shall be firm with no loose patches. Upon completion of the preparation of the stockpile site, the surface shall be swept clean.

Stockpile sites shall be sufficiently large to allow the placing of stockpiles of different types of material without the stockpiles overlapping or the limits of the prepared site being exceeded.

The enlargement of the stockpile site after the stockpiles have already been placed will not be permitted without the approval of the engineer.

Upon completion of the work, the stockpile sites shall be rehabilitated in accordance with the instructions of the engineer. Rehabilitation shall include scarifying, applying fertilisers as may be necessary, and hydroseeding with a blend of grass seed approved by the engineer, all in accordance with the specifications set out in Section 5800.'

It should be noted that part of this contract entails the stockpiling of suitable layer works material, obtained from the cutting between km6.2 and km7.2, for the adjoining contract. For the duration of this contract the responsibility for the maintenance of all the stockpiles sites is the responsibility of this contract.

B3207 LAYER THICKNESSES AND SPREADING THE MATERIALS

Add the following sub-clauses:

'(c) Recovered material

Where material obtained from existing pavement layers is to be re-used, the contractor shall plan his work so as to avoid double handling, and place the material directly into position. Payment for temporary stockpiling of material will only be made if unavoidable and if approved by the engineer in writing.

Recovered granular pavement materials (especially crushed stone) are prone to segregation during the process of double handling. The contractor shall thus ascertain whether the replaced pavement material is still well-graded and all segregated material shall be thoroughly mixed by him at his own expense and to the satisfaction of the engineer.

(d) Placing material

Spreading materials in confined areas may be done in any manner approved by the engineer, on condition that the required standard of level and grade is met. Where the compaction apparatus used is of such a nature that the material cannot be properly compacted in thicker layers, the engineer may instruct that material be placed and compacted in layers of as thin as 75 mm.

Where the thickness of any existing pavement layer requires to be supplemented and the thickness of the additional material after compaction will be less than 100 mm, the existing layer shall be scarified to a depth that will give a layer thickness of at least 100 mm after compacting the loosened existing and added material. In the case of gravel or crushed-stone bases or subbases, the engineer may direct the existing layer to be scarified to its full depth.

The composite layer shall be watered, mixed and compacted as specified in Clause B3208.

Payment for adding the material will be made under the applicable items for the respective pavement layers.'



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 3300: MASS EARTHWORKS

B3302 MATERIALS

(b) Fill

Add the following under item (iv):

“The maximum swell at 100% Mod AASHTO compaction shall not be more than 2%.”

B3305 TREATING THE ROADBED

(d) In situ treatment of roadbed

Add the following:

“No construction will be allowed directly on existing road surfaces. Where construction is to be carried out on existing roads, the surface of the existing road shall be ripped, scarified and treated to depths as specified in this sub-clause.”

B3312 MEASUREMENT AND PAYMENT

Replace item 33.01 with the following item:

"Item	Unit
B33.01	Fill constructed with material obtained from commercial sources, including all haul:
(a)	Gravel material in compacted layer thicknesses of 200 mm and less:
(ii)	Compacted to 90% of modified AASHTO density cubic metre (m ³)
(b)	Pioneer layer cubic metre (m ³)

The unit of measurement is the cubic metre of material measured in the compacted fill. The quantity measured shall be calculated by the method of average end areas from levelled cross-sections prepared from the ground line after clearing and grubbing and the removal of topsoil and the completion of any preparatory roadbed treatment which may have been ordered by the engineer, but prior to the construction of the fill, and the final specified or authorised fill cross-section superimposed at 20 m intervals along the centre line of the road. All measurement shall be neat and no payment will be made for that part of the fill placed in excess of the authorised cross-section shown on the drawings or instructed by the engineer, irrespective of the tolerances in workmanship allowed under the contract. Where the roadbed has subsided under the fills, the quantities shall be adjusted to make allowance for such subsidence, as set out in the note at the beginning of clause 3312. Measurement of fill shall distinguish between the alternative methods of processing and compacting.

Where measurement by cross-sections is considered by the engineer to be impractical, the compacted volume of the material may be taken as equal to 70% of the loose volume of material in the hauling vehicles as an alternative method of measurement.

The tendered rates shall include full compensation for procuring, furnishing and transporting the materials over an unlimited free-haul distance from the sources to the site, for placing, preparing, processing, shaping, watering, mixing and compacting the materials to the densities or in the manner specified, and for removing and disposing of all oversize material from the road after processing, including transport for the haul distance to approved dumping sites provided by the contractor.

Payment shall distinguish between the various methods of processing and compacting specified, as itemised above

SECTION 3400: PAVEMENT LAYERS OF GRAVEL MATERIAL

B3402 MATERIALS

(a) General

Add the following at the end of the second paragraph:

" For chemically stabilised layers the material shall conform to the requirements in table B3402/5."

Add the following after the second paragraph:

"Distinction shall be made between crushed and natural G4, G5 and G6 materials. Where the crushing and/or screening of these materials has been specified, the combined grading shall conform to the grading limits specified for G4 class material in Table 3402/1."

Replace Table 3402/5 with:

"Table B3402/5

Requirements For Chemically Stabilised Layers

Classification	C1	C2	C3	C4
Material before treatment	At least G2 quality	At least G4 quality	At least G5 quality	At least G6 quality
PI after treatment	Non-plastic	Non-plastic	6 max. *(1)	6 max. *(1)
UCS (MPa) *(2)	6 min.	4 min.	1,5 min	0,75 min.
ITS (kPa) *(3)	-	-	250 min.	200 min.
WDD (% loss)	5 max.	10 max.	20 max.	30 max.

Note * (1) For materials derived from the basic crystalline rock group, the Plasticity Index after stabilisation shall be non-plastic.

* (2) Unconfined Compressive Strength @ 100% Mod. AASHTO density

* (3) Indirect tensile Strength @ 100% Mod. AASHTO density

* (4) Wet/Dry Durability according to Method B 8110"

(b) Compaction requirements

Add the following to this sub-clause:

The compaction requirements for the layers to be constructed under this contract are:

Upper Subbase	97% of mod AASHTO density
Lower Subbase	95% of mod AASHTO density
Upper Selected layer	95% of mod AASHTO density
Lower Selected layer	93% of mod AASHTO density
Upper Subgrade	93% of mod AASHTO density
Lower Subgrade and Fill	90% of mod AASHTO density
Gravel Shoulder	93% of mod AASHTO density
Gravel Access road	93% of mod AASHTO density

Add the following sub-clause::

“(d) Excavations

Excavations in the pavement shall be kept dry. In the event of water penetrating the underlying layers, construction of the consecutive layers shall be postponed until the underlying layers are dry enough to accommodate the construction plant without any deformation or distress.”

B3406 QUALITY OF MATERIALS AND WORKMANSHIP

Add the following:

“For the purposes of this contract, the test results and measurements will be assessed in accordance with **Section 8200.**”

B3407 MEASUREMENT AND PAYMENT

Item	Unit
-------------	-------------

B34.14 Pavement layers constructed from gravel obtained from commercial sources (including all haul):

- (a) Gravel Subgrade layer (G7 or G9 material quality) compacted to:
 - (i) 93% of modified AASHTO density (specify compacted layer thickness)cubic metre (m³)
- (b) Gravel selected layer (G5 or G6 material quality) compacted to:
 - (i) 93% of modified AASHTO density (specify compacted layer thickness)cubic metre (m³)
 - (ii) 95% of modified AASHTO density (specify compacted layer thickness)cubic metre (m³)
- (c) Gravel selected layer (Chemically stabilised material, for C4) compacted to:
 - (i) 93% of modified AASHTO density (specify compacted layer thickness)cubic metre (m³)
- (d) Gravel subbase (Chemically stabilised material, for C3 or C4) compacted to:
 - (i) 95% of modified AASHTO density (specify compacted layer thickness)cubic metre (m³)
 - (iii) 97% of modified AASHTO density (specify compacted layer thickness)cubic metre (m³)
- (g) Gravel shoulders (G6 material quality) compacted to:
 - (i) 93% of modified AASHTO density (specify compacted layer thickness)cubic metre (m³)

- layer thickness)cubic metre (m³)
- (h) Gravel wearing course (G6 material quality) compacted to:
 - (i) 93% of modified AASHTO density (specify compacted layer thickness) cubic metre (m³)

The unit of measurement shall be the cubic metre of compacted pavement layer, and the quantity shall be calculated from the authorized dimensions of the completed layer.

The tendered rates shall include full compensation for procuring, furnishing and transporting approved material from commercial suppliers, including the cost of transporting and all haulage of the material to the required location on the site, placing and compacting the material, and the protection and maintenance of the layer and the conducting of control tests, all as specified. No additional payment shall be made for the removal or disposal of oversize material, regardless of the volume of oversize material.”



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 3500: STABILISATION

B3502 MATERIALS

(a) Chemical stabilising agents

Delete subclauses (i) Road lime (ii) Ordinary Portland cement and (iii) Portland blast-furnace cement (iv) Ground granulated blast-furnace slag and replace with the following:

"Cement shall comply with the relevant requirements of SANS 50197-1:2000 and EN 197-2000. The use of strength classes greater than 32,5 shall not be permitted."

(e) Water

Add the following before the first paragraph:

"Water used in the compaction and curing of stabilised layers shall comply with the requirements of Water Quality Code H3."

B3503 CHEMICAL STABILISATION

(d) Mixing in the stabilising agent

Add the following:

'Notwithstanding anything to the contrary in the provisions of any part of these specifications, the contractor shall, without any extra payment and for each type of material, prepare a trial section where he shall demonstrate his proposed mixing process before commencing any extensive mixing.

After approval has been obtained, the mixing process and equipment shall remain unaltered unless otherwise instructed by the engineer.

The fact that the engineer has approved the mixing process shall not relieve the contractor of any of his obligations in respect of the mixing as specified elsewhere in the specifications. It will only serve as a guideline to ensure that the specified mixing requirements can actually be met.'

(h) Curing the Stabilised work

Add the following to paragraph (i):

"Method (iii) and (iv) shall not be applicable."

(i) Construction limitations

Replace Table 3503/1 with:

Table B3503/1

Total stabilization processing time

Type of stabilizer	Maximum time* (hours)
Common cements	
Strength class 42.5 cement	
Strength class 32.5 cement	
Cement and slag or flyash blended on site	2
Lime and slag or flyash blended on site	4
Lime (Modification)	4
Lime (Cementation)	8
	24 - 48
	6 – 8 (depending on setting rate)
<p>Maximum time* for completion after stabilizer has made contact with material on the road. If material temperatures remain below 30°C during construction, the suggested time limits when using cement may be extended by 50 per cent.</p>	

Add the following:

“No Stabilisation shall be done with falling air temperatures when the air temperature falls to below 7 °C or during rising air temperatures, when the air temperature is below 3 °C.

Moisture content tests shall not be undertaken more than one day in advance of in-situ Stabilisation operations. Care shall be taken to ensure that samples are representative of the in-situ material. Checks shall be conducted when wet weather occurs between initial testing and work commencing on any section.”

B3506 TOLERANCES

(b) Uniformity of mix (chemical Stabilisation)

Stabilizer content shall be determined by THM 1 test method A 15(d). The coefficient of variation (CoV) for each lot shall not exceed the following:

Coefficient of variation = X_n / S_n and

CoV = 30 % for in place mixing or

CoV = 20 % for plant mixing

Where S_n = Standard deviation and X_n = Sample mean

B3509 QUALITY OF MATERIALS AND WORKMANSHIP

Add the following after the second paragraph:

“The test results and measurements will be judged in accordance with the provisions of Section 8200.”

SECTION 3600: CRUSHED-STONE BASE

B3602 MATERIALS

(a) Requirements for crushed aggregate

After the first sentence delete the remainder of the paragraph and replace with the following:

“The aggregate shall not contain more than 0,1% by mass of unwanted material such as wood, coal or similar organic material.

Aggregates containing mica, such as granite, gneiss, mica schist, pegmatite, sandstone shall not contain more than 2% by mass of free mica, especially muscovite, when assessed by visually separating the particles, or more than 4% by volume when assessed by means of microscopic slides. Aggregate containing easily detectable quantities (more than 1%) of olivine, serpentine and sulphide minerals such as pyrites and marcasite, must be considered with caution, and may warrant additional evaluation to the satisfaction of the engineer

Soft or weathered particles shall be controlled by the Durability Mill Index values specified in B3602(e) Durability.

Provision has been made in clause (B)8108(b)(iii), calculation, for the determination and calculation of the Apparent Density for aggregates with a total water absorption greater than 1,5%, when total water absorption is determined according to TMH1 methods B14 and B15.”

(c) Grading requirements

Replace entire clause with the following:

“The target grading, after compaction, shall be as near as possible to the mean of the specified grading envelope listed in table 3602/1 and shall be continuous with no marked gaps or excessive quantities of any particular size. The mean grading of each lot (minimum of 4 but preferably 6 test points per lot) shall conform to the approved target grading plus or minus the tolerances specified in table 3602/4.”

Add the following subclause:

“(e) Durability

The durability property of aggregates derived from the basic crystalline group shall be assessed by means of the Ethylene Glycol Durability Index. When tested in accordance with the method prescribed in B 8105 (g) the Durability Index shall not exceed four. In addition, the 10% FACT value obtained after soaking in ethylene glycol for four days shall not be less than 70% of that obtained on the unsoaked sample. Where any values are obtained that fall outside the above requirements, a detailed assessment of the quarry shall be undertaken together with a specialist mineralogical evaluation of both the coarse as well as fine fractions in order to assess the long-term durability properties of the material.

For Basic crystalline rocks, Arenaceous rocks, Argillaceous rocks and Diamictites the Durability Mill Index (DMI) shall be less than 125. For all other rock types the Durability Mill Index (DMI) shall not be more than 420, subject to the % passing the 0,425mm sieve not increasing by more than 8 percentage points during the Durability Mill test.”

Table 3602/1

In table 3602/1 delete 85% of bulk relative density and replace with:

"88% of Apparent Density"

B3607 QUALITY OF MATERIAL AND WORKMANSHIP

Add the following:

"Testing will be done in accordance with Section 8200"

SECTION 4100: PRIME COAT

B4102 MATERIALS

(b) Aggregate for blinding

Add the following sentence:

"Blinding of the primed surface with aggregate shall only be permitted to facilitate vehicular access to adjoining properties"

B4104 WEATHER AND OTHER LIMITATIONS

Replace paragraph (g) with the following:

"(g) When the moisture content of the upper 50mm of the layer is higher than 50% of the optimum moisture content determined according to TMH 1, Method A7"

B4106 APPLICATION OF THE PRIME COAT

Add the following to paragraph (c)

"The nominal application rate of the prime shall be 0.8 l/m² for Colprime E and 0,7 l/m² for other types unless test results onsite show otherwise. Unless directed otherwise by the engineer or indicated on the drawings, the edges of the primed surface shall be 150mm wider than the edges of the surfacing."

Add the following to paragraph (d)

"The minimum curing period of six (6) hours is recommended for Colprime E."

Add the following subclause

"(j) Application in areas treated by reworking and construction of a new base shall be primed using a mechanical distributor complying with subclause 4103(a). The edges of the previously constructed or existing surfacing shall be adequately protected by approved means to ensure that an overlap of prime not exceeding 50mm is sprayed onto the previously constructed or existing surfacing."

B4108 TOLERANCES

Replace the first paragraph with the following:

"The actual spray rates measured at spraying temperature shall not deviate by more than 8.0% from that ordered by the engineer. The engineer may, at his discretion, conditionally accept application rates falling outside this tolerance at reduced payment in accordance with Table B4108/1

Table B4108/1

Payment Reduction Factors for Conditionally Accepted Prime Coat

Deviation specified spray rate at spraying temperature. (%)	Payment reduction factor (of tendered rate).
±8,0	1.00
±9,0	0.97
±10,0	0.95
±11,0	0.90
±12,0	0.85
±13,0	0.80

Any deviation outside these limits shall not be paid for, however, the engineer shall have the right to instruct the contractor to make up any deficiency, or blind excessive prime without additional payment. Where so instructed, the material for blinding shall consist of approved, but shall consist of screened 4,75mm nominal single size aggregate. The use of crusher dust for blinding shall not be permitted. If under-spraying occurs, and it is accepted by the engineer, only the actual quantities applied shall be paid for”

B4109 TESTING

Add the following

“No payment will be made if this condition is not adhered to. The contractor shall provide, at his cost, representative samples of every batch of prime delivered onto site.”

B4110 MEASUREMENT AND PAYMENT**Item B41.01**

Add the following subitem:

“(f) Colprime E”

The unit of measurement shall be the litre of priming material measured at spraying temperature and sprayed as required.

The tendered rates shall include full compensation for supplying the priming material, cleaning and watering the layer to be primed, applying the priming material and maintaining the primed surface as specified.

SECTION 4200: ASPHALT BASE AND SURFACING**B4201 SCOPE**

Add the following subclause:

“(e) The construction of a SBS latex modified binder asphalt surfacing for the surfacing at intersections.”

B4202 MATERIALS

B4202 (a) Bituminous binders

(i) Conventional binders

Add the following:

“The binders to be used shall be as follows:

a) Continuously graded surfacing course: 60/70-penetration grade bitumen (Medium grade)

B4202 (b) Aggregates

Add the following paragraph to the introductory description:

“Asphalt mixes shall be manufactured using different individual single size coarse aggregates fractions and crushed fine aggregates blended to conform to the specified grading requirements. The use of natural sands shall only be permitted if approved by the engineer and shall be limited to a maximum of 5% for continuously graded mixes. All aggregate in excess of 4,75 mm shall consist of individual nominal single sized aggregate. For stone mastic asphalt mixes all aggregate fractions in excess of 2,36 shall consist of individual single size fractions. Contractors shall note that commercial suppliers may not be able to supply all the required single size aggregates, in which instance arrangements will have to be made for additional on site screening. No additional payment shall be made for screening aggregate. The use of crusher type materials shall not be permitted.”

(v) Absorption

Add the following sentence

“ In addition, the total binder absorption of the combined coarse and fine aggregate blend shall not exceed 0,5%”

(viii) Grading

Delete the second paragraph commencing with "The target grading..." and add the following paragraphs:

“The grading limits for the combined aggregate grading for the asphalt base shall be as specified in table 4202/6: Continuously graded 26,5m maximum.

The grading limits for the combined aggregate grading for the asphalt surfacing shall be as specified in table 4202/7: Continuously graded medium grade.

(c) Fillers

Add the following after the last paragraph:“For tender purposes the active filler shall be hydrated lime”

(h) General

Add the following after the second paragraph:

“Sufficient aggregate for a minimum of 3 days production shall be separately stockpiled and tested for conformance and uniformity prior to use. The test results shall be presented to the engineer”

B4203 COMPOSITION OF ASPHALT BASE AND SURFACING MIXTURES

In the first paragraph, third last line, after “or active filler content” add:

“or aggregate content”

Replace the fifth paragraph with the following:

“ The design of the asphalt mixes shall be in accordance with ‘Interim Guidelines For The Design Of Hot-Mix Asphalt In South Africa (June 2001)’ and appropriate research results. The mix properties and requirements shall be as specified in the project specifications”

The relevant asphalt mixes for the base and surfacing layers shall comply with the requirements in table B4203/2

Table B4203/2
Asphalt mix requirements: Base and Surfacing

Property	Continuously graded surfacing mixes
Marshall Stability (kN)	8 – 18
Marshall Flow (mm)	2 – 4
Stability /Flow (kN/mm)	> 2,5
VMA (%)	> 15
VFB (%)	65 – 75
Voids in Mix (%)	4 – 6
Indirect tensile strength @ 25°C (kPa)	> 1000
Dynamic Creep Modules @ 40°C (MPa)	> 20
Modified Lottmann (%)	> 80
Air permeability (cm ²)	< 1 x 10 ⁻⁸
Binder film thickness (microns)	5,5 – 8,0
Filler bitumen ratio	1 – 1,5
Immersion index (%)	> 80
MMLS rutting for 50°C wet test after 100 000 load repetitions * (mm)	2

Note: * Downward deformation only
Wheel load: 2,9 kN @ 690 kPa
MMLS laboratory testing

At the intersections, the design criteria for asphalt mix (SBS modified) are determined in 4 phases:

- Phase 1 Determine approved mix composition through Prado or COMPACT mix design procedure, confirmed by way of the SHRP Gyrotory test
- Phase 2 Determination of bulk relative density, maximum theoretical bulk density, void content, voids in mineral aggregate and voids filled with binder, air permeability for Modified Marshall compacted briquette
- Phase 3 For the Phase 3 approved mix composition, determine the indirect tensile properties, resilient modulus dynamic creep modules as well as the moisture susceptibility by means of the modified Lottman test and immersion index.

Phase 4 On the Phase 3 approved mix composition, determine the resistance to permanent deformation by means of the MMLS test.

The Engineer shall make a final selection of binder content (and percentage modifier for wearing course layer) based on the results of the three-phase design process and the compatibility of the mix in the trial section.

The final selection of the preferred mix design for the asphalt will be based on rut resistance performance as tested by the MMLS test on laboratory compacted Modified Marshall briquettes. A failure of the deformation performance test will result in the Contractor having to redesign mix and the subsequent re-paving of the trial section at his own cost.

The Contractor must price the cost of the specified design process for all mix designs as a Lump Sum.

The Contractor must also allow for the design process in his construction programme. The trial sections will only be constructed after the Engineer has approved mix designs based on the abovementioned design process.

B4205 GENERAL LIMITATIONS AND REQUIREMENTS AND THE STOCKPILING OF MIXED MATERIAL

(c) Surface Requirements

(iv) Tack Coat

Add the following paragraph:

“Hand spraying shall only be permitted on areas approved by the engineer. The binder distributor shall be capable to apply the binder evenly over the full area. The equipment shall comply with clause 4103. Tack coat shall be applied to all transverse and longitudinal joints by hand utilizing a paint brush.”

B4206 PRODUCING AND TRANSPORTING THE MIXTURE

(b) Production of the mixture

(ii) Using drum-type mixer plants:

Add the following:

“Pre blending of aggregate fractions shall not be permitted and the contractor shall ensure that sufficient cold-feed bins are installed to accommodate each individual aggregate fraction, including the filler.”

(c) Transporting the mixture

Add the following paragraph:

“Special precautions shall be taken by the contractor to ensure that the temperature of the total mass of asphalt does not decrease by more than 10°C from point of dispatch to the point where it is to be paved. The use of the thermal blankets is obligatory.

The contractor shall ensure that trucks used to haul asphalt are not overloaded and the legal axle loads are not exceeded. Before any asphalt can be transported, the contractor must provide the engineer with the certified carrying capacity of each truck intended for the purpose of transporting the mix. The contractor shall provide the engineer with a weighbridge ticket before discharging into the paver's hopper.

Any truck that is overloaded shall not be allowed to discharge its load and shall return to the depot/batching plant for adjustment of the load. In addition a penalty shall be applied for the overload.”

Add the following subclause:

“(f) Approval of asphalt mixture

Before any asphalt is placed on the road, the engineer shall approve the mix design. The approval process shall be as follows:

The contractor shall prepare and submit a laboratory design mix with test results at four different bitumen contents. The design mix shall be submitted on the prescribed form D3 of TMH 10: “Instruction for the Completion of As-Built Materials Data Sheets” with all the necessary test results completed. In addition, the proposed asphalt mixture shall be subjected to gyratory testing. All the expenses in preparing and submitting the laboratory design mix shall be to the contractor’s cost.

Samples of all aggregate and bitumen shall be submitted with the laboratory design mix to enable the engineer to carry out check design testing as necessary. The above design and aggregate shall be submitted to the engineer at least six weeks before it is intended to commence with any asphalt production.

After approval is obtained for the laboratory design mix, a plant mix at varying binder contents of approximately 5 to 10 tons each shall be produced. The purpose of the plant mix is for the contractor to prove that the laboratory design mix can be produced successfully.

The engineer shall conduct the necessary testing on the plant mix. The plant mix shall not be placed on the road. During the production of the plant mix, the engineer shall be afforded the opportunity to inspect the asphalt plant.

After the plant mix is approved, permission shall be given for laying a trial section at varying binder contents in accordance with the requirements of section 4211 of the specifications. The engineer may require that the mix be further assessed by means of CSIR Wheel Tracking or MMLS testing, the cost of which will be borne by the Employer. Mass production of asphalt shall only commence after approval of the trial section, which should be given within a maximum of ten days.

The engineer may instruct the contractor at any time to halt his paving process and to review the whole or part of the above process should a change of aggregate properties occur, the specified asphalt requirements not being met and/or a consistent asphalt mixture not be produced.”

B4208 JOINTS

Add the following to this clause:

“Where the difference in level between the new work and the existing road surface exceeds 25mm, joints shall be treated as follows:

Transverse steps at the end of a day’s work shall be tapered off at a slope of 1 vertical to 20 horizontal (1:20) to tie in with the existing surface. The tapered section shall be removed before surfacing is recommenced and a joint formed in accordance with clause 4208 of the specification. Longitudinal joints exposed to traffic shall be provided with a taper of compacted asphalt material over the full length of the exposed joint. The width of the taper shall be at least 5 times the difference in level between the old and new work.

All costs involved in the provision and removal of these temporary ramps shall be deemed to have been included in the rates tendered for the relevant asphalt pay item.”

B4209 PRE-COATED CHIPPINGS FOR ASPHALT SURFACINGS

In the first sentence of the fifth paragraph, delete 6-8 kg/m² and 7-9kg/m² respectively and replace with:

“3-4 kg/m² and 5-6 kg/m²”

In the last sentence of the fifth paragraph, delete “between 0,6 and 1,0 mm” and replace with:

“between 0,8 and 1,2mm”

B4210 COMPACTION

Add the following to this section:

“ The maximum field density compaction of the surfacing at intersections where the SBS modified latex asphalt is used, shall not be more than 96% of theoretical maximum density of the approved mix.”

B4214 QUALITY OF MATERIAL AND WORKMANSHIP

(c) Coring of asphalt layers

Add the following:

“A suitable coring machine shall be available on a daily basis when asphalt paving is taking place. Cores shall only be drilled, when the road temperature is 20°C or less. Core holes shall be filled with hot mix asphalt and compacted, all within 24 hours of the core being drilled. Coring shall be carried out within 48 hours after the paving has been completed and supplied to the engineer. The test results of cores shall be submitted to the engineer within 24 hours after coring.”

(c) Routine inspection and tests

Add the following paragraph:

“The contractor shall keep accurate records of:

- (i) The position where every truckload of asphalt is paved (chainage, lane, time and date).
- (ii) The temperatures of the asphalt in the trucks both at the mixing plant and at the paving equipment immediately prior to discharging the load.
- (iii) The truck and load number from which control samples are taken. All samples taken shall be appropriately numbered.”

Add the following subclause:

(a) Special tests

n-Heptane-Xylene Equivalent (Spot test) (AASHTO-T102)

If the engineer suspects that bitumen or asphalt has been overheated, he may order that the bitumen, or the bitumen recovered from the asphalt, be subjected to the Spot Test. Recovery of binder for use in the Spot Test shall be carried out according to an approved method.

Any bitumen having an n-Heptane-Xylene equivalent in excess of 36, or in excess of the manufacturers test result on the dispatched stock, shall be considered to have been overheated and shall be deemed to be rejected unless proven otherwise."

B4215 MEASUREMENT AND PAYMENT

B42.02 Asphalt surfacing

Add Subitem (a)(ii) as follows:

"Item	Unit
(a) Continuously medium graded	
(ii) 40mm thick (60/70 pen–grade bitumen modified with 4% SBS latex)... square metre (m ²)	

The unit of measurement shall be the square metre of asphalt base constructed to the thickness specified. No payment will be made for material wasted.

The tendered rates shall include full compensation for procuring, furnishing, heating, mixing, placing and compaction of all materials as well as process control testing, protecting and maintaining the work as specified

B42.08 100mm cores in asphalt paving

Amend the 1st sentence by adding the following after the word "drilled":

"irrespective of depth of core."



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 5600 : ROAD SIGNS

B5601 SCOPE

After "South African Road Traffic Signs Manual" in the second paragraph add:

"and SADC Road Traffic Signs Manual"

B5603 MANUFACTURING OF ROAD SIGN BOARDS AND SUPPORTS

(a) Road signboards

Add the following:

"The contractor shall make every effort to ensure that signboards are correct in all respect and before dispatching the boards from the manufacturer's factory shall provide the engineer with a 100mm x 150mm colour photograph of each sign face for approval of the correctness of the legend. Such approval will not imply final acceptance of the board. If the contractor is in any doubt as to the correctness of the sign detail, the sign designer shall be contacted for verification."

(a) (ii) Steel profile road signboards

Add the following:

"Chromadek section shall be assembled in accordance with the details on the Standard Plans.

Where the letter or legends cross the horizontal joints of the sign panels, the letter shall be cut on the joint and both ends folded around the radius.

Retro-reflective material to adjoining Chromadek panels on a sign shall be practical visual match of the specified colour."

B5604 ROAD SIGN FACES AND PAINTING

Add the following subclause:

"(e) Application of retro-reflective material

All sign faces shall be faced with retro-reflective material. Painted front sign faces shall not be used.

Where applied to Chromadek sections, retro-reflective material shall be applied as specified for aluminium section in Clause 5603(d) of the Standard Specification, and of Clause B5603 (a) (ii) of this project Specification."

B5605 STORAGE AND HANDLING

Add the following:

“The following shall not be allowed on the sign face:

- Drilling of holes, except for the fastening of overlays
- Application of any form of adhesive
- Cleaning with any chemicals that are not specifically approved by the manufacturer of the retro-reflective material
- Covering the sign face with an impermeable material that does not allow free circulation of air.”

B5606 ERECTING ROAD SIGNS

(c) Erection

Add the following:

“After erection the signboard shall be thoroughly cleaned with a cleaning agent approved by the retro-reflective material’s manufacturer.

All vegetation obstructing the new or replaced sign board shall be removed and disposed of as instructed by the engineer.”

B5608 DISMANTLING, STORING AND RE-ERECTING EXISTING ROAD SIGNS

Add the following:

“Existing overhead and ground mounted road signs that are being replaced by new signs shall be dismantled and disposed of by the Contractor. Where possible the dismantling of the signs shall not be before the replacement sign is erected and displayed. Where dismantling of the sign is required before erection of the replacement sign, the dismantling shall not take place until immediately before work is to commence on the replacement, and the replacement shall be completed and the new sign displayed as soon as possible thereafter (within 72 hours).

Dismantling shall include sign panels and ground mounted sign supports.

Ground mounted sign supports shall be cut off just below ground level. Material excavated for removal of buried poles shall be replaced, and any depression made good using excess material from excavation for new signs.

Pay items are provided in the Pricing Schedule. Payment will differentiate between different types of sign panels.”

B5609 MEASUREMENT AND PAYMENT

B56.01 Road sign boards with painted or coloured semi-matt background. Symbols, lettering, and borders in semi-matt black or in Class I retro-reflective material, where the sign board is constructed from:

Amend the last two lines of the second paragraph to read:

“completion, delivery, installation of the road sign board complete as specified, and the removal and disposal of all vegetation obstructing the motorists’ view of the new or replaced sign board.”



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 5700: ROAD MARKINGS

B5701 SCOPE

Replace South African Road Traffic Signs Manual in the second paragraph with:

“SADC Road Traffic Signs Manual”

B5702 MATERIALS

Insert the following before subclause (a) Paint:

“The selection of appropriate road marking materials for permanent road markings to ensure conformance with the requirements of this specification rests with the Contractor. Road marking materials for temporary road markings as clarified in SANS 731-1 shall be equal to or more durable than road marking paint specified in subclause B5702(a)(i) and (ii), provided it meets the specified initial performance criteria.”

(a) Paint

(i) Road-marking paint

Add the following:

“The commercial product supplied by the contractor shall be subject to the approval by the engineer and the submission of a certificate of the SABS permitting the manufacturer to apply the SABS standardising mark to the supplied product.”

(ii) Retro-reflective road-marking paint

Replace “CKS192” in the first paragraph with “SABS EN 1423 for medium grading glass beads”.

When measured in accordance with SABS Method 1261-1998 within a period of two weeks (± 1 week) after application, the coefficient of retro-reflected luminance, RL , of temporary road markings shall be at least $150 \text{ mcd/m}^2 \cdot \text{lx}$ for white markings and $100 \text{ mcd/m}^2 \cdot \text{lx}$ for yellow markings.

The product supplied for permanent road markings shall be subject to the approval by the engineer, who may request the contractor to provide sufficient supporting evidence to compare the durability of the proposed product with that of hot-melt thermoplastic material.

B5704 MECHANICAL EQUIPMENT FOR PAINTING

Add the following:

“The machine shall always operate in the same direction of the traffic flow when applying lane markings.”

B5705 SURFACE PREPARATION

Add the following at the end of the second paragraph:

“The onus is on the contractor to ensure that the surface on which the road markings are to be applied is sufficiently clean and dry to ensure that the quality of the road markings will not be adversely affected. The contractor is also responsible for protecting road studs from being

painted over, and the subsequent cleaning thereof if such over-painting did occur. (The cleaning of the road studs shall be done in such a manner that the functionality of the road studs will not be detrimentally affected by the cleaning agent.)”

B5706 SETTING OUT THE ROAD MARKINGS

Add the following:

“Where road markings are to be replaced on seal, it is essential that all existing barrier lines and other road marking lines be accurately referenced before commencement. The position of barrier lines shall be re-assessed on site by the engineer before the contractor commences with the road marking. No separate payment will be made for referencing the existing road markings and full compensation shall be included in the rate tendered for item B57.06.”

B5707 APPLYING THE PAINT

Replace the last paragraph with the following

The Contractor’s establishment on site and general obligation shall be deemed to fully include the establishment of the road-marking team, irrespective of the number of times the road-marking team is required to be on site or is required to move within the site, other than those payments specifically allowed for in payment item B13.01(e).”

Replace the second last paragraph with the following:

“Road marking materials shall be applied at application rates which would suit the traffic conditions in such a way that the functional life of the temporary road markings would exceed six months, whilst the expected functional life of the permanent road markings should exceed 36 months.”

B5714 MEASUREMENT AND PAYMENT

Item

B57.06 Setting out and pre-marking the lines (excluding traffic island markings, lettering and symbols)	kilometre
--	-----------

Add the following:

“Referencing of barrier lines and other road marking lines and other operations, shall be included in the tendered rate for setting out and pre-marking.”

Add the following paragraph:

“Island markings shall specifically exclude the length of line which outlines or borders the extent of the diagonal or chevron bars forming the island marking. Island markings shall also exclude longitudinal lines of a continuous nature.”

SECTION 5800: LANDSCAPING AND GRASSING

B5801 SCOPE AND DEFINITION

(a) Scope

Delete this paragraph and replace with:

“This section includes all areas affected by construction activities. It includes landscaping, grassing, rehabilitation, erosion protections and planting trees and shrubs.”

(b) Definition

WEEDS

Delete the following:

“(as listed in bulletin 413 issued by the Department of Agriculture, Directorate of Agricultural Information)”

and replace it with:

“(as listed in the Conservation of Agricultural Resources Act)”

B5802 Materials

(e) Grass sods

Delete “until they are placed” *and add* “once placed for planting.”

(e) (i) Nursery-grown sods

Add the following:

“The sods shall be free of weeds, weed seeds, insects and fungal diseases. “

(e) (ii) Veld sods

Add the following:

“The sods shall be free of weeds, weed seeds, insects and fungal diseases.”

(g) Topsoil

Add the following at the end of the first paragraph:

“The contractor shall be responsible for the control of any germination of weed seeds within topsoil used on site.”

Add the following at the end of the second paragraph:

“Areas such as stockpiles, borrow pits and spoil sites shall be stripped of all topsoil before work may commence within the area. Should a larger site for any of the above be required during construction, the contractor shall refer to the DEO for best practice methods on ensuring the preservation of the additional stripped topsoil.”

Add the following new paragraph:

“The topsoil shall be kept free of all foreign material generated during construction. This shall include all stone and bituminous products. Top soiling shall not be accepted should it contain any of the above material.”

B5804 PREPARING THE AREAS FOR PLANTS

(b) **Areas which do not require topsoil**

Replace

“50mm” with “20mm “ *and* “150mm” with “20mm”

Add the following:

“In areas with large natural rock, i.e. not blasted or excavated rock, these rocks may be placed so as to look like a natural part of the landscape”

Add the following subclause:

“g) Removal of undesirable vegetation

During the course of the Contract the engineer may instruct the contractor to physically remove undesirable vegetation from within the road reserve. Such an operation will take place before the flowering stage of the undesirable vegetation upon written instruction from the engineer, but shall not relieve the contractor of his obligation towards weeding sodded, grassed areas as described under 5806(a) and any area directly affected by any construction activity. Should the contractor fail to respond to the written instruction from the engineer for the removal of the aforementioned undesirable vegetation before flowering, the contractor shall be held contractually responsible for any growth or seeding of said vegetation for a period of not less than twenty four (24) months in the affected area.”

B5805 GRASSING

(a) Planting grass cuttings

In the 2nd paragraph remove “be covered with 30mm of approved soil” and replace with:

“have the root system of the grass cuttings thoroughly planted within the topsoil layer to ensure good growth. No part of the grass root system shall be left protruding from the topsoil”.

At the end of the 2nd paragraph removes:

“and, when sufficiently dry, shall be rolled with a light agricultural roller.”

(c) Hydroseeding

Add the following:

“The nominal seed mixture for hydroseeding shall comprise:

Eragrostis Curvula

Eragrostis Tef

Chloris Gayana Katambora

Cynodon Dactylon

Cenchrus Ciliaris Molopo Medicago Trucatula Jemalong

Trifolium Subterranean

The latest and best seed mixture for hydroseeding must be established by the contractor in conjunction with and ordered from the Potchefstroom University, Private Bag X6001, Potchefstroom, 2520.’

(f) Sowing by hand

Delete the following:

“If approved by the Engineer,”

Replace the second sentence with:

“The top 20mm of prepared topsoil shall be raked away in sections, the seed shall then be spread uniformly within the prepared area. The top 20mm topsoil shall then be raked over the seedbed, ensuring an even thickness. This method is to be systematic, and where applicable, follow the contours of any slopes.”

Add the following:

“The thickness of the topsoil layer shall be as specified by the engineer. The preparation of the soil of the soil for areas to be grassed is to include scarifying just before sowing the grass seed. Should erosion of any kind (by animal, wind or rain) have occurred before the contractor applies the grass seed, the slope shall be re-instated, at the contractor’s cost, to its original, erosion free state before seeding.

The types and mixtures of seeds to be used shall be as specified in the project specifications. The contractor shall be solely responsible for establishing an acceptable grass cover, and any approval by the engineer of seed mixtures intended for use by the contractor shall not relieve him of his responsibility”.

B5808 GENERAL

Insert the following subclause:

“(e) Weeding

The contractor shall maintain all areas affected by construction activities free of all undesirable plant species. They shall be removed before the flowering stage of each species. Should the contractor fail to remove the alien plant species before flowering he shall be held responsible for alien plant removal within the affected area, for an additional period of one year, over and above the contractual one year maintenance period.

The method for the removal of undesirable plant species shall be either by hand, which shall include the removal of the complete root system, or by chemical means, through the use of a registered selective herbicide. A registered, licensed pest control operator, licensed for the industrial application of herbicides, shall only administer the application of the herbicide.”

Add subclause:

“(g) Establishment of vegetation within areas disturbed by construction activities

The engineer shall assess any area within the construction boundaries that has been disturbed by construction activities, but which is not scheduled for formal re-vegetation within the contract. The assessment shall include whether re-vegetation is required. These disturbed areas, none the less remain the contractor’s responsibility for the removal of alien vegetation (see 5807 (e)).”



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

B5809 MEASUREMENT AND PAYMENT

Item	Unit
B58.03 Preparing the areas for grassing	
(f) Stockpiling topsoil (free haul 1,0km) where the following applies:	
<i>Add the following sub-items:</i>	
“(i) Topsoil stored at a stockpile site agreed with by the engineer	Cubic metre (m ³)
(ii) Topsoil pushed or bladed into heaps next to area from which it was taken	Cubic metre (m ³)”
(f) Stockpiling the topsoil (<i>Unit of measurement</i>)	

Delete from the first paragraph, the last sentence: “Only material actually loaded..... approved area”

SECTION 5900 : FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS

B5901 SCOPE

In the first line of the second paragraph, insert the following after ‘this section’

“...distinguishes between new construction and renewal construction. When construction is new, as in the case of new alignments for example, then this section.....”

B5902 FINISHING THE ROAD AND ROAD RESERVE

Retain the existing paragraphs as new subclause-

“(a) New Construction”

Replace the sixth paragraph with:

“All materials resulting from the finishing operations shall be disposed of at approved spoil sites.”

Add the following:

“(b) Renewal Construction

After completing construction work within the site, the contractor shall ensure that all construction generated or related material that may have been swept, windrowed, stockpiled,

stored or spread beyond the road surface is removed. This shall be done before any other rehabilitation work is undertaken, including shaping, top soiling and grassing. Should, during the removal of construction generated or related material, existing vegetation or topsoil be disturbed or destroyed, the contractor shall, at his own cost, re-instate the road reserve to its original state. This shall include ripping, should the construction material have compacted the existing surface.

Culvert inlets and outlets, culvert barrels, and open drains shall be cleared of debris, soil, silt and other material generated from the construction activities.

The surfacing shall be cleared of all dirt, mud and foreign objects. Dragging, pushing or scraping material across the finished surfacing shall not be permitted.

All junctions, intersections, islands, kerbing and other elements making up the completed works shall be neatly finished off.

The contractor shall ensure that all undesirable plants have been removed from the road reserve and borrow pit areas.

All materials resulting from the finishing operations shall be disposed of at approved spoil sites.”



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

SECTION 8100 : TESTING MATERIALS AND WORKMANSHIP

B8105 TESTING OF AGGREGATES

Add the following sub clause:

“(g) Determination of Ethylene Glycol Durability Index

The Ethylene Glycol Durability Index shall be determined as follows:

- 1) Apparatus
 - Suitable pans or basins
 - Ethylene Glycol solution
 - Stirring rod
- 2) Method

Obtain three or more representative samples from the source to be evaluated.

If not already crushed, crush the material in order to obtain sufficient minus 19mm plus 13mm sized aggregate in order to totally cover the bottom of the basin or pan with a single layer of stone. Add sufficient ethylene glycol to each basin ensuring that every aggregate particle is completely submerged.

After soaking for 24 hours, gently stir the aggregate and allow to settle. Observe and record the response of the aggregate to the ethylene glycol according to the criteria listed in (iii) below. Continue the above cycle at intervals of 24 hours for a further 4 days, in each case recording the observed response. After 5 days allow the samples to remain submerged in the solution and observe and record the disintegration response after a total period of 15, 30 and 60 days have elapsed.

- 3) Classification of response

After each cycle, classify and record the response of the aggregate as follows:

DISINTEGRATION CLASS

- Class 1:** No obvious effects, or only very minor spalling of sand sized particles or very small flakes.
- Class 2:** Splitting of rock, accompanied by any other disintegrative effects.
- Class 3:** Fracturing (spheroidal and/ or internal) without extensive spalling or distortion.
- Class 4:** Fracturing (spheroidal and / or internal) with extensive spalling or distortion.
- Class 5:** Complete disintegration.

TIME CLASS

The time factor in the above disintegrative process is classified according to the time taken for the most serious effect of the expansive stresses to occur i.e.

Class 4:	0 - 5 days
Class 3:	6 - 15 days
Class 2:	16 - 30 days
Class 1:	31 - 60 days
Class 0:	Over 60 days

4) Determination of Glycol Durability Index

The Ethylene Durability Index is determined by adding the class number as assigned for the specific disintegrative response observed to the class number as assigned for the period for this response to occur. A durability index ranging from 1 (no response) to 9 (rapid and complete disintegration) is thus determined.”

B8106 TESTING THE CONCRETE

Add the following new sub clause:

“(g) Testing for concrete durability

Durability predictions for durability concrete prefixed 'W' will be based on the following tests that shall be carried out by the contractor:

- (i) Oxygen permeability
- (ii) Water sorptivity
- (iii) Chloride conductivity
- (iv) Depth of concrete cover.

Notes-

The test methods shall be as described below.

Test No. (iii) may only be required for structures located in a very severe or extreme environment (as defined in table B6306/1), as directed by the engineer. This test will, nevertheless, be used as a concrete mix acceptance test at the start of the contract and repeated every time that the contractor makes significant changes to the mix during the project (including changes to the materials supply sources). Test No.(iv) shall be conducted using an approved calibrated electromagnetic cover meter.

A laboratory approved by the engineer shall carry out testing. For test no's (i) and (ii) (and (iii) when required), cores of 70 ± 2 mm diameter shall be extracted from the structure when the concrete reaches the age of at least 28 days and tested for the durability criteria set out in clause B6404 (h) of the project specifications. The frequency of the testing at the start of the contract shall be such that there is at least one test (consisting of 2 cores) per discrete concrete element, or 15m^3 poured (whichever is the lesser), until such time that the engineer is confident that the specified criteria are consistently achievable, whereupon the test shall be limited to a discrete concrete element or a maximum concrete pour of 40m^3 (whichever is the lesser), or as directed by the engineer. Depending on access requirements, the frequency and locations of the tests may be changed to suit site requirements as directed by the engineer. Note that for decks and walls, the cores shall be taken on the exposed faces of the concrete i.e. the soffit and sidewall face taking care not to cut the reinforcing bars. Where the cores do contain pieces of reinforcing steel, they shall not be used for the tests, particularly in the chloride conductivity test or where bleeding cavities may have formed. The cores shall be extracted through the cover concrete from the constructed concrete element and a slice (25 ± 2 mm thick) shall then be cut from the outer surface of this core such that the slice is

representative of the middle layer of the cover concrete i.e. the middle layer being a 25mm thick slice of concrete, 5mm from the exposed outer surface extending in towards the reinforcement) and tested for all three tests. The engineer will indicate the positions at which the cores will be extracted.

Test no. (iv) (non-destructive) shall be conducted to confirm that the specified depth of concrete cover has been achieved. The cover meter tests shall cover at least 1m² for every 10m² exposed. The average cover of the 1 m² subjected to the test shall be used to determine the payment as per Table B8212/1 unless the contractor chooses to carry out additional tests as detailed in the final paragraph of clause B6414 (a). The cover meter must be calibrated for each project by drilling and measuring actual cover in at least 3 locations to validate the readings.

Elements critical for cover are parapets, deck edges including underside of cantilevers, lower portions of columns, abutments and walls. Should any of these areas show deficiencies, the engineer may order additional cover tests on other areas at the contractor's costs.

Filling of the holes left by the drilling of the cores shall be the responsibility of the contractor and shall be carried out using an approved proprietary non-shrink repair mortar so as to restore structural integrity and durability of the structural element tested. The cost of drilling and filling of the holes shall be included in the rate make-up of pay items B81.04 (a), (b) and (c).

The methodology and latest revision for the durability index tests are available at the University of Cape Town's web address at www.civil.uct.ac.za.

(iv) Depth of concrete cover

The procedure for testing for depth of reinforcement from concrete surface shall be in accordance with the manufacturer's requirements for the relevant electromagnetic cover meter. The number of readings taken of the layer of rebar closest to the concrete surface to each 1m² to be tested shall be such that an accurate average cover can be determined for the tested area. For purposes of calculation of the overall cover of a rebar layer those bars that have a cover 10mm or more greater than specified shall not be included."

B8108 DETERMINING THE TOTAL APPROXIMATE DRY BULK RELATIVE DENSITY AND THE APPARENT DENSITY

Add the following at the end of this clause:

"For materials where the total water absorption, when determined according to TMH1 Methods B14 and B15, is in excess of 1,5%, the Apparent Density shall be calculated in accordance to the following formula:

$$\frac{(b-a)}{(d-a) + \left\{ \frac{(w-1.0)}{100} \times (b-a) \right\} - (b-c)}$$

This formula shall be used as an alternative to note (5) regarding soaking period, when so instructed by the engineer."

B8110 TESTS RELATING TO CHEMICAL STABILISATION

Add the following sub-clause:

“(d) The Wet-Dry Durability Test for cement and/or lime-treated materials using the hand-brush method (SANRAL METHOD)

1. Scope

This method covers the procedure for determining the soil-cement losses obtained by repeated wetting, drying and hand brushing of hardened soil-cement specimens (see 5.4



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

2. Apparatus

- 2.1 A moisture curing room capable of maintaining a relative humidity of 95 to 100 percent and a temperature of 22 to 25 °C, or suitable plastic bags capable of holding specimens and carriers in an air tight condition in a water bath as described in 2.2 below.
- 2.2 A suitable water bath with thermostatic control capable of maintaining a temperature of 22 to 25 °C.
- 2.3 A balance to weigh up to 10 kg, accurate to 0.5 g.
- 2.4 A drying oven capable of maintaining temperatures of 71 ±3 °C and 110 ±5 °C.
- 2.5 A wire scratch brush made of 50mm by 1.6mm flat 26 gauge wire bristles assembled in 50 groups of 10 bristles and mounted to form five longitudinal rows and 10 transverse rows on a 200 by 65mm wooden block.

3. Method

3.1 Preparation of specimens

Prepare specimens in accordance with the procedure described in the Appendix to method A19 in the TMH 1 with the following exceptions:

Use the material passing the 37.5mm sieve and discard the material remaining on the sieve.

Use the apparatus and compaction method as described in TMH 1 method A7 (Modified AASHTO).

3.2 Curing of specimens

Rapid cure the specimens (see 5.6). Alternatively, and where instructed by the engineer, the specimens may be cured for seven days at a relative humidity of 95% to 100% and a temperature of 22°C to 25°C in a suitable curing room or in plastic bags and a suitable water bath.

3.3 Wetting, drying and brushing

After curing, remove the specimens from the curing room or plastic bags, allow to cool and submerge them in water at room temperature for a period of five hours. Remove the specimens from the water and place them in an oven at 71 °C for 42 hours.

Remove the specimens from the oven. Give each specimen two firm strokes over the full surface area with the wire scratch brush. The brush must be held parallel to the long axis of the specimen or parallel to the ends as required to cover all areas of the specimen. Apply

these strokes to the full height and width of each specimen with a firm stroke corresponding to approximately 13.5 KN force (see note 5.5).

3.4 Determination of soil-cement losse

After 12 cycles, dry the specimens to constant mass at 100 °C and determine the oven dry mass of the specimens. The data collected will permit the calculation of the soil-cement losses of the specimens after the prescribed 12-cycle test.

4. Calculations

4.1 Calculate the soil-cement loss of the specimens as a percentage of the original oven-dry mass of the specimens as follows:

$$L = \frac{W - N}{W} \times 100$$

Where

L = soil-cement loss (%)

W = original calculated oven-dry mass (g) (calculated according to paragraph 3.5 in the Appendix to method A19 in the TMH 1).

N = final oven-dry mass (g).

4.2 The percentage loss shall be calculated and reported to the nearest 0.1 percent. The results are normally required for stabilisation design purposes and should be reported graphically against relevant cement contents.

5. Notes

5.1 Mass determinations of the specimens before and after brushing are usually made at the end of each cycle during research or special investigations.

5.2 Care is required when assessing results obtained on very coarse graded materials as "plucking" out of the aggregate pieces during the brushing process could result in very high losses of material, which may however not be truly indicative of its potential erosion resistance.

5.3 If it not possible to run the cycle continuously because of Sundays or holidays, or for any other reason, the specimens should be held in the oven during the layover period.

5.4 The test was originally developed to determine wet-dry durability of cement-treated material. It can, however, be used with equal success on material tested with other chemical stabilizers, for example lime, or mixes of lime and milled blast furnace slag, or cement and milled blast furnace slag.

5.5 The pressure of the brushing stroke is determined as follows:

Clamp a specimen in a vertical position on the edge of a platform scale and zero the scale. Apply vertical brushing strokes to the specimen and note the force necessary to register approximately 1.36 kg.

5.6 Rapid curing:

Seal each specimen airtight in a suitable container or plastic bag. Carefully place the briquettes on suitable holders or in pans and place in the oven at the relevant temperature and period given below:

Stabilizing agent	Temp (°C)	Time (Hours)
Cement	70 -75	24 ±0.5
PBFC	70 -75	24 ±0.5
Lime	60 ±2	45 ±1
Lime/FA	60 ±2	45 ±1
Lime/MBFS	60 ±2	45 ±1

B8117 FIELD BINDER TRANSVERSE DISTRIBUTION ("BAKKIE") TEST

1. SCOPE

This method sets out the procedure for the simple field determination of the transverse distribution of a binder distributor. Certain statistical criteria are applied to the results to determine conformance with requirements.

2. DEFINITION

The purpose of the test is to determine conformance of the transverse distribution of the spray bar, as measured by direct discharge from sets of 3 nozzles, using the project binder.

3. APPARATUS

3.1 Steel troughs

Steel troughs fitted with handles and manufactured from 3 mm mild steel plate, conforming to the following or similar dimensions:

Width	-	265 mm
Depth	-	405 mm
Height	-	300 mm

A total of 14 troughs are required for a 4, 2 m wide spray bar. Each trough must be clearly numbered on its side.

3.2 Balance

A balance capable of weighing up to 50 kg to an accuracy of 20 g.

3.3 Personal protective clothing

The appropriate safety gear must be worn when performing this test and should include a pair of asbestos gloves, face shield and approved overalls.

3.4 Cleaning fluid

Diesel or other suitable fluid.

4. PREPARATION OF THE BINDER DISTRIBUTOR

Ensure that all the binder strainers on the sprayer have been cleaned.

Preheat the binder in the distributor tank to within ± 5 °C of the required spray temperature.

Circulate the binder through the spray bar for at least 15 minutes.

4.1 Position the spray bar over a full-length drip tray. A short preliminary spray is made to ensure that all the nozzles are functioning and that the machine is in normal working condition. Suck back the binder from the drip tray into the distributor tank on completion of test spray.

4.2 If necessary, correct any malfunctioning of the spray bar.

5. METHOD

5.1 Ensure that all troughs are clean and free of any water or other materials.

5.2 Place the pre-weighed steel troughs described in 3.1 under the spray bar in such a manner that the discharge of each set of three nozzles are collected in one trough. Ensure that the troughs are placed in numerical order.

5.3 Adjust the spray bar height to ensure that the nozzles are below the sides of the trough.

5.4 Increase the bitumen pump speed to yield the desired triple spray overlap in accordance to the type of nozzles and type of binder being used. Typically this could vary between 12 and 20 litres per minute for conventional binders.

5.5 Open the nozzles and spray sufficient binder to fill the troughs without risking spillage during handling.

5.6 Weigh the troughs to determine the mass of binder sprayed.

5.7 On completion of the weighing and before the binder cools suck back the binder into the distributor tank.

5.8 Only clean the troughs with a suitable cleaning fluid once they have cooled down to room temperature.

5.9 Store used cleaning fluid in a suitable container for re-use.

6. CALCULATION AND REPORT

6.1 Determine the net mass of binder in each trough to the nearest 20 grams.

$$\text{Net mass binder} = (M_1, M_2, M_3 \dots M_n).$$

6.2 Calculate the average mass of the binder collected in all the troughs.

$$M_{ave} = \sum (M_1 \dots M_n) / n$$

where n = number of troughs

6.3 Calculate the deviation from the average mass for every trough and express the value as a percentage.

$$\% \text{ Deviation} = (M_{ave} - M_i) / M_{ave} \times 100$$

6.4 If the transverse distribution is out of specification, make the necessary adjustments to the spray bar and repeat the test.

6.5 Report results on a suitable report sheet.

6.6 Update the 'bakkie' test record with the relevant information for the distributor.

7. ACCURACY

Due to the varying nature of the different types of binders, cognisance must be taken of the respective binder's viscosity at spray temperature when establishing achievable tolerances, namely:

Conventional binders	40 – 100 CPs
Polymer modified binders	120 –200 CPs
Bitumen rubber	2,000 – 3,000 CPs



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

B8200 : QUALITY CONTROL (SCHEME 1)

B8206 JUDGEMENT PLAN B

Notes (Table 8206/3)

(1) Asphalt base or surfacing: Specification limits for-

Add to (a) Density, the following:

“L’s = 96% of theoretical maximum density for surfacing at intersections of K15.”

(c) Voids

Delete and replace the contents of this subitem with the following:

L _s	=	specified values -1,0% points
L’ _s	=	specified values +1,0% points”

Add the following clause:

"B8212 DETERMINING REDUCED PAYMENTS FOR ‘W’ CLASS CONCRETE

Payments for all durability concrete prefixed ‘W’ shall be based on the test results of the durability parameters and calculated according to Tables B8212/1 and B8212/2.

General note:

The overall percentage payment applied to a concrete member shall be based on the average of the percentage payments applied to each durability parameter, together with the percentage payment based on the strength requirements described in section 8200 of the standard specifications. The reduced payments shall apply to the relevant pay items of sections 6200 and 6400 for that element only.

Table B8212/1

TABLE OF REDUCED PAYMENTS FOR WATER SORPTIVITY AND OXYGEN PERMEABILITY INDEX - 'W' CLASS CONCRETE

DESCRIPTION OF TEST	COASTAL ($\leq 5\text{km}$ from coast and up river valleys/estuaries up to 15km)	
	TEST RESULT	PERCENTAGE (%) PAYMENT
Water sorptivity (mm/h)	$< 10,0$ $\geq 10,0 < 12,0$ $\geq 12,0 < 14,0$ $\geq 14,0$	100 % 90 % 85 % rejection
Oxygen permeability index (log scale)	$> 9,50$ $> 9,13 \leq 9,50$ $> 8,75 \leq 9,13$ $\leq 8,75$	100 % 90 % 85% rejection

Table B8212/2

TABLE OF REDUCED PAYMENTS FOR CONCRETE COVER

CONCRETE COVER (mm)	TEST RESULT (Clause B8106 (g)(iv))		PERCENTAGE (%) PAYMENT
	Overall	Individual bar	
30 mm specified	≥ 40	≥ 45	Rejection
	$\geq 30 < 40$	$\geq 30 < 45$	100 %
	$\geq 20 < 30$	$\geq 15 < 30$	70 %
	< 20	< 15	rejection
40 mm specified	≥ 50		
	$\geq 40 < 50$	≥ 55	rejection
	$\geq 30 < 40$	$\geq 40 < 55$	100 %
	< 30	$\geq 25 < 30$	70 %
50 mm specified		< 25	rejection
	≥ 65		
	$\geq 50 < 65$	≥ 70	rejection
	$\geq 40 < 50$	$\geq 50 < 70$	100 %
60 mm specified	< 40	$\geq 30 < 50$	70 %
		< 30	rejection
	≥ 75		
	$\geq 60 < 75$	≥ 85	rejection
65 mm specified	$\geq 45 < 60$	$\geq 60 < 85$	100 %
	< 45	$\geq 40 < 60$	70 %
		< 40	rejection
	≥ 80		
75 mm specified	$\geq 65 < 80$	≥ 90	rejection
	$\geq 50 < 65$	$\geq 65 < 90$	100 %
	< 50	$\geq 40 < 65$	70 %
		< 40	rejection
80 mm specified	≥ 95		
	$\geq 75 < 95$	≥ 105	rejection
	$\geq 55 < 75$	$\geq 75 < 105$	100 %
	< 55	$\geq 47 < 75$	70 %
80 mm specified		< 47	rejection
	≥ 100		
	$\geq 80 < 100$	≥ 110	rejection
	$\geq 60 < 80$	$\geq 80 < 110$	100 %
	< 60	$\geq 50 < 80$	70 %
	< 50	rejection	

The following notes shall apply to Table B8212/2:

1. For cantilevers, the cover shall in no instance be greater than 5mm of the specified cover.
2. Percentage payment for concrete cover shall be based on the average number of cover meter tests performed on a particular concrete element.

The time factor in the above disintegrative process is classified according to the time taken for the most serious effect of the expansive stresses to occur, i.e.

TIME CLASS

Class 4: 0 – 5 days

Class 3: 6 – 15 days

Class 2: 16 – 30 days

Class 1: 31 – 60 days

Class 0: Over 60 days

4) Determination of Glycol Durability Index

The Ethylene Durability Index is determined by adding the class number as assigned for the specific disintegrative response observed to the class number as assigned for the period for this response to occur. A durability index ranging from 1 (no response) to 9 (rapid and complete disintegration) is thus determined.

PROJECT SPECIFICATIONS

STREET LIGHTING SPECIFICATION

1. SCOPE

The Work covered by this Contract and for which the Electrical Contractor shall be responsible comprises the supply, delivery, handling, off-loading, installation, testing, commissioning and handing over in working order as well as free maintenance during the guarantee period of the street lighting installation as fully detailed in this specification and on the accompanying drawings.

Upgrading of the R82 (K57) road and intersections and the addition of bus bays. The scope includes the eleven intersections from CH:0.440 to CH:10.571. This project entails upgrading of the road and intersections as well as the addition of bus bays at all intersections. All intersections shall receive new street lighting installations. The street lighting part of the project for which the Electrical Contractor must tender is briefly as follows:

- a) Isolation, disconnecting and removal of existing street lighting masts and luminaires where required.
- b) Connection of electrical supply from new connection points
- c) Excavation and installation of new low voltage power cables and cable sleeves.
- d) Installation of new street lighting poles and luminaires.
- e) Installation of street lighting control kiosks.
- f) Testing and commissioning.
- g) Production of as-installed drawings.

2. RELATED WORK BY OTHERS

The following work, although associated with this contract, will be carried out by others and the Electrical Contractor must collaborate with all parties involved:

- a) Certain parts of the excavations and cable sleeve installations shall be done by the Main (Civil) contractor as is necessitated by the road works.
- b) Backfilling and compaction of cable trenches underneath the road surface or paving will be done by the Civil contractor to ensure compliance with their specifications. The bedding and cover of cables shall be done by the electrical contractor as per the engineer's specification.

The Electrical Contractor shall assist in the setting out, co-ordination and compliance with the specification and drawings of the above activities related to the electrical installation.

3. INSPECTION OF SITE

The Contractor is advised to visit the site and thoroughly acquaint himself with the nature and extent of the work to be done, and to make allowance for items obviously intended and necessary for the proper completion of the work, although not specifically listed in the bills of quantities. Claims due to lack of knowledge will not be entertained.

4. **CONTRACTOR'S RESPONSIBILITY AND APPLICABLE STANDARDS**

The Electrical Contractor shall be responsible for the supply, installation, testing, commissioning and free maintenance during the defects liability period of the installation detailed in this Specification and on the accompanying drawings.

The Electrical Contractor shall provide all materials, equipment, labour and services necessary for the complete, safe and efficient operation of the electrical installation in accordance with the intent of this Specification and Drawings.

The whole of the electrical installation required shall be carried out in accordance with the requirements of this document as well as the following:

- **The Occupational Health Safety Act No 85 of 1993 and the relevant Regulations as amended.**
- **The Code of Practice for the Wiring of Premises - SANS 10142-1 of 2009 as amended.**
- **The relevant local by-laws and regulations of the Electricity Supply Authority.**
- **The standard technical specifications of Johannesburg City Power as attached in Part 5 of this document.**

The latest editions of the following standards as amended are applicable:

SANS 10098-1:2008 :	Public lighting Part 1 : The lighting of public thoroughfares.
SANS 475:2006 :	Luminaires for interior lighting, street lighting and floodlighting Performance requirements
SANS 1266:2007 :	Ballasts for discharge lamps (excluding tubular fluorescent lamps).
SANS 60598-2-3:2003 :	Particular requirements for road and street lighting luminaires.
SANS 61049:1991 :	Capacitors for use in tubular fluorescent and other discharge lamp circuits – Performance requirements
SANS 657-1:2011 :	Steel tubes for non-pressure purposes.
SANS-EN 10240:1997 :	Internal or external protective coatings for steel tubes – hot dip galvanising in automatic plants.
SANS-121:2011 :	Hot-dip galvanised coatings on fabricated iron and steel articles.

All references to standards/specifications shall be deemed to refer to the latest amendment of the latest issue of such standard/specification.

In terms of Government Notice No. 17548, it is the Electrical Contractor's responsibility to ensure that all electrical fittings installed comply with the relevant SABS safety standards, applicable to the particular class of fitting. In the event of fittings specified by the Engineer / Architect which do not comply with the SABS safety standards, it shall be the Electrical Contractor's responsibility to notify the Engineer immediately in writing, so that alternative

fittings which do comply with the SABS safety standards may be timeously selected.

The Electrical Contractor shall not install any fitting, under any circumstance, which does not comply with the SABS safety standards unless specifically instructed in writing by the Engineer on an item for item basis.

Where a product is claimed to comply with the SABS safety standard by compliance to an alternative foreign safety standard recognised and accepted by the SABS, the Contractor shall obtain and submit proof of such acceptance. Where the South African Bureau of Standards grants a permit for the use of equipment that does not carry the SABS mark, the Electrical Contractor shall submit copies of the permits and test reports to the Engineer at the time of tender.

All equipment tendered shall comply with the SABS safety standard as required by the above legislation. The Electrical Contractor shall provide copies of SABS certificates of compliance for electrical fittings upon request by the Engineer. No claim will be considered on the basis that equipment tendered did not comply with the relevant SABS standard.

Unless otherwise specified, all plant and equipment used in the execution of this contract shall be new and shall in any event be subject to approval by the Engineer. All plant and equipment shall be suitable for use under extremes of the various climatic conditions described. The attached specifications and standard detail drawings shall be adhered to and no deviation tolerated, unless approved by the Engineer in writing.

5. PROGRAMME

The Electrical Contractor is to acquaint himself with the Main (Civil) Contractor's Programme before compiling his own work programme. The electrical work must be programmed for the earliest possible completion. He is to ensure that he has sufficient labour and supervision on site to complete all work in accordance with the programme. The cost of overtime, additional labour and plant for the completion of the works in accordance with the programme shall be included in the Electrical Contractors' price for the project. No additional claims for overtime, compression of labour, change of programme or any other circumstances to which the Contractor is subjected will be considered.

The costs of any work outside the requirements of the programme or necessary under exceptional circumstances shall be for the Employer's account only under a Variation Order if agreed to in writing before the work commences.

6. SUPERVISION

The work shall at all times, for the duration of the contract, be carried out under the supervision of a skilled and competent representative of the Contractor, who will be able and authorised to receive and carry out instructions on behalf of the Contractor.

7. DEFINITIONS

- Supply : To purchase or procure and deliver, complete with all necessary and additional specified accessories.
- Erect : To place or mount and fix in position.
- Install : To erect, connect up and commission, complete with related accessories.

Indicated, Shown or Noted : As indicated or shown on drawings.

Approved Alternative : Approved in writing by the Engineer.

Similar, Equal : Equal or better in efficiency and performance and compatible with the installation.

Commissioning Procedures : The documented method whereby the Contractor shall ensure that his installation is correctly constructed, in accordance with the manufacturer's specifications, consultant's specification, consultant's design and SANS 10142-1.

Performance Tests : The physical testing, on site or in the manufacturing works, of the items of plant or systems as required by the consultant. The Contractor shall be responsible for performing the tests in accordance with the manufacturer's requirements, consultant's specifications, design and SANS 10142-1.

Acceptance Tests : The physical testing on site of the working system and/or sub-system/s. This will require the Contractor to show, to the satisfaction of the consulting engineer that the manufactured system is in accordance with the specification and design and complies with SANS 10142-1.

8. CONFLICT BETWEEN SPECIFICATIONS AND DRAWINGS

Should there be conflict between the Specification and Drawings, then the documents shall be considered in the following order of priority:

- a) DETAIL ELECTRICAL SPECIFICATION
- b) DRAWINGS
- c) STANDARD TECHNICAL SPECIFICATIONS

Should the Contractor note any inconsistencies between the Specifications and Drawings, he shall be responsible for notifying the Engineer and obtaining clarification or instructions prior to ordering or installing equipment.

9. MAKING GOOD

The Electrical Contractor shall carry out, in all instances, any work to be made good, such as damage to installation caused by himself or his employees during the implementation of this contract, at his own cost.

10. LIGHTING DESIGN

The lighting design was done in accordance with the requirements of SABS 10098-2 for a class 3 roadway complex. The lighting design parameters including the lighting levels and levels of uniformity achieved with the design are shown in the schedules of information (Part 6).

The lighting design was done using a 250 W high pressure sodium discharge lamp luminaire equal or similar to BekaStrada 250 HPS/E. The design utilises a 13.8 m street lighting pole with a mounting height of 12 m and a 500 mm spigot with a 15° incline.

If an alternative design is offered (deviating from the specification), a complete lighting design must be done using the luminaires and street lighting poles

offered. The tenderer must provide details of the lighting design with his tender, including:

- a) **Photometric data of the luminaires**
- b) **Isolux diagrams**
- c) **Minimum, maximum and average lighting levels and overall uniformity achieved in the design (to be submitted in the form of a table similar to the one included in the schedules of information).**
- d) **The design must comply with the requirements of SABS 10098-2 for a class 3 roadway complex.**

11. EXISTING STREET LIGHTING

The electrical contractor must collaborate with the civil contractor and the Supply Authority to provide assistance with isolating the electrical supply and making safe the installation before commencing with dismantling. All materials removed remain the property of the Supply Authority and must be returned to their local depot.

11.1 DISMANTLING

Care must be taken not to damage the street lighting masts and luminaires during dismantling and removal. Street lighting luminaires must be disconnected and removed from the masts before excavating and removing the masts.

11.2 STORAGE

The electrical contractor must provide suitable storage for the lighting masts and luminaires until such time as they are reinstalled. The storage space provided must be secure and must offer adequate protection against the elements of weather and theft.

Street lighting masts must be stacked in an orderly and safe fashion without damaging the masts. The masts must not be stored directly on the ground. Luminaires must be protected against damage using suitable packing material. If luminaires are stacked it must be properly supported and protected by packing material in order to support the weight of the stack.

11.3 RECORD KEEPING

The electrical contractor must institute an accurate record keeping system to keep track of all the material being removed, stored and reinstalled.

12. ELECTRICITY CONNECTION

Where existing street lighting is installed the new street lighting shall be fed from the existing electrical supply. The contractor shall measure at the street lighting control kiosk to determine which of the existing circuits carries the least load; the new street lighting shall be connected to this circuit where possible.

Where new street lighting is installed, a new electrical connection shall be provided from the local supply authority. All new supply connections shall be 25 kVA. The electrical contractor shall submit applications to the local supply authority for these electrical connections. The electrical contractor shall liaise with the supply authority and the engineer to finalise the details of these connections.

13. STREET LIGHTING CONTROL BOXES

The contractor shall supply and install new street lighting control kiosks as per the single line diagram. The position of the control kiosks shall be determined on site based on the position of the new supply points. The control kiosks shall be

manufactured of 3CR12 material and shall have a sub frame which is suitable for installation directly into the ground.

14. EXCAVATIONS

The electrical contractor must do all excavations for cable trenches and pole holes for the new street lighting installation. The Electrical contractor must prepare the cable trench, prepare the bedding, lay the cables, backfill the trench, install the cable marker tape and compact the backfill in accordance with the standard specifications.

The contractor must note that the cable trench depths specified below are minimums and must be strictly adhered to. The trench widths specified are guidelines to allow easy installation of cables in the trenches. However, payments for excavations will be calculated using the actual trench dimensions as excavated provided the trenches are not wider or deeper than specified, in which case the specified dimensions will be used.

Cable trenches must be excavated to the dimensions as specified in the table below:

Cables	Trench Depth	Cable Installation Depth	Trench Width
LV Next to roadways	800 mm	700 mm	450 mm
MV Next to roadways	1100 mm	1000 mm	450 mm
Underneath roadways	1100 mm	1000 mm	450mm

Holes for planting street lighting poles must be excavated as small as possible while still allowing easy planting of the pole and threading of cables through the cable access holes below ground level. Pole holes must be excavated to the depths as specified in the table 4.6 below:

Pole Length	Luminaire Height	Mounting	Excavation Depth
13.8 m	12 m		1,8 m

15. STREET LIGHTING POLES

The poles will be used for supporting street lighting luminaires having a mass and projected area as specified. The poles must comply with SABS 0225 and Johannesburg City Power's standard specification for public lighting steel masts, CP_TSSPEC_032 (bound in this document).

The following street lighting poles in accordance with CP_TSSPEC_032 will be used on this project:

a) Plain Mast A5

Refer to the schedules of information (Part 6) for details of the masts required. All schedules of information must be completed and submitted with the tender.

15.1 INSTALLATION

Install the street lighting poles in the positions as indicated on the drawings. The pole placing as indicated on the drawings must be closely observed and adhered to in order to achieve the designed lighting levels and uniformity.

Install the poles with the access opening facing away from the oncoming traffic where possible. Street lighting poles must generally be installed 1.5 m back from

the kerb or as specified on the drawing. Poles on medians must be installed in the centre of the median or as specified on the drawing.

The poles must be planted directly in the ground.

Pole Length	Mounting Height	Planting Depth
13.8 m	12 m	1.8 m

The backfilling must be done in 150 mm thick layers. The soil must be damp (not wet) when backfilled. Each layer must be compacted before the next layer is filled back.

15.2 PACKING, MARKING AND NUMBERING

The poles must be marked and packed in accordance with the requirements of the standard specification of Johannesburg City Power, CP_TSSTAN_030 bound in this document.

All street lighting poles in the installation must be clearly numbered. The pole numbering must be done in accordance with the standard specification of Johannesburg City Power, CP_TSSTAN_030. The designated numbering will be finalised on site.

15.3 INSPECTIONS AND TESTS

During manufacture and before despatch the poles and fittings may be inspected at the manufacturer's works by the Engineer and subjected to such tests as may be deemed necessary. Due notice in writing must be given when the poles are ready for inspection and testing.

15.4 GUARANTEE

Tenderers must give a 12 month guarantee to make good, free of charge, any manufacturing defects, or defects in the galvanising, which may develop during this period. Such period will commence on the date when the installation is taken over by the Client.

16. STREET LIGHTING LUMINAIRES

The luminaires must comply with SABS 1277 and Johannesburg City Power's standard specification for street lighting luminaires, CP_TSSPEC_014 and must be suitable for side entry mounting.

16.1 DETAIL SPECIFICATIONS

Luminaire	Lamp	Area	Mass	Mounting
BEKASTRADA 250W HPS/E Or equal or similar	250W Elliptical	0.18 m ²	13,5 kg	Side Entry

16.2 PARTICULARS TO BE SUPPLIED

Tenderers must submit the following:

- i) Iso-candela diagrams based on candelas per 1 000 lumens lamp flux
- ii) Coefficient of utilisation curves.
- iii) Iso-lux curves.
- iv) Principal vertical polar curve and polar curve in the vertical plane parallel to the axis of the street, in units of cd/klm.

16.3 SAMPLES

Tenders must submit samples of the luminaires offered for approval before ordering luminaires.

16.4 GUARANTEE

Tenderers must give a 12 months guarantee to replace free of charge any luminaires in which manufacturing defects may develop within that period. Such period will commence from the date on which the luminaires are taken over by the Client. In addition the luminaire manufacturer must provide material and control gear guarantees as detailed in the Johannesburg City Power’s standard specification for street lighting luminaires, CP_TSSPEC_014.

On delivery each lamp will be subjected to tests to ensure that it is undamaged, that its cap is secure and that the lamp functions satisfactorily. Each lamp found to be defective shall be replaced free of charge.

17. STREET LIGHTING CONTROL PANEL

The contractor shall supply and install new street lighting control kiosks as per the single line diagram. The position of the control kiosks shall be determined on site based on the position of the new supply points. The control kiosks shall be manufactured of 3CR12 material and shall have a sub frame which is suitable for installation directly into the ground.

The control panels for this project must be manufactured in accordance with the single line circuit diagram provided on drawing GRP 10/07/02 Dot. This drawing takes precedence over the generic circuit diagram provided in CP_TSSPEC_072.

The street lighting control panel must generally be manufactured in accordance with the Johannesburg City Power’s standard specification for pole mounted service distribution boxes for public lighting, CP_TSSPEC_072 and the project specific requirements above.

Specific requirements for the street lighting control panels:

Equipment Description	Rating
Main Isolator	60 A TP, 6 kA or 100A TP, 10 kA as applicable
Contactors	60 A TP, AC3
Control MCB	5 A SP, 6 kA
Bypass MCB	5 A SP, 6 kA
Outgoing MCCB	3 x 60 A SP, 6 kA

Despite clause 4.1.2 of CP_TSSPEC_072, the Electrical Contractor must supply the PECU with the control panel.

17.1 CABLE INSTALLATION ON POLES

Low voltage PVC, SWA cables installed against poles must be installed straight and on the side of the pole not facing the oncoming traffic. Secure the cable to the pole with 12 mm wide stainless steel straps and buckles, installed and tightened with a purpose made tool, at 500 mm vertical spacing. Install the cable in a galvanised steel cable sleeve fixed to the pole in the same way as described above for the cable. The cable sleeve must extend from 300 mm below finished ground level to 2500 mm above finished ground level. In case the pole decreases in diameter, the cable sleeve must be shaped to fit the contour of the pole so that it can be securely and neatly strapped to the pole.

18. CABLING

Install underground cables as specified in the cable schedule and on the drawings. The cable installation must comply with the minimum requirements of SANS 10198-8. Johannesburg City Power has adopted a TN-C-S earthing system and thus no earth continuity conductor is required to be installed with the street lighting cables. The cable armouring must be connected to the earth terminal in each pole together with the neutral conductor.

The incoming and outgoing cables in each pole must be connected using insulated Pratley connectors of the appropriate size. The feed to the luminaire fuse must be connected through the Pratley connector to the appropriate phase conductor of the cable as indicated on the drawing and cable schedule.

The streetlight cables must be laid at a covered depth of 600 mm below finished ground level on a 75 mm layer of soft bedding material and covered by another 75 mm of soft bedding material. Yellow plastic warning tape with the wording "Danger – Electric Cable Below" must be installed along the entire length of the cable route, 300 mm below finished ground level. Where LV cables are installed in a common trench with MV cables, the LV cables must be installed 400 mm above the MV cables.

18.1 CABLE SLEEVE PIPES

The Civil contractor must install all cable sleeves underneath roads as specified on the drawings. The Electrical contractor must install the cables through the cable sleeves where required. All cable sleeves must be sealed at both ends to prevent the ingress of moisture and soil.

Streetlight cables crossing underneath roadways must be installed in 110 mm Black, corrugated, PVC cable sleeve pipes. The cable sleeve pipes must be installed 1000 mm below the road surface and must protrude 500 mm beyond the kerb on either side of the road. The position of cable sleeve pipes must be indicated with an "E" embossed on the kerb at both ends of the sleeve.

A maximum of four streetlight cables must be drawn into a single cable sleeve pipe. No streetlight cable must be drawn into a pipe containing an MV cable. The cable sleeve pipes underneath roadways must be installed in collaboration with the Civil contractor. The Civil contractor must do the trenching across the road as well as the backfilling, compacting and resurfacing.

Streetlight cables installed under paved medians in the centre of the roadway must be completely installed in cable sleeve pipes from one pole to the next as indicated on the drawings.

18.2 EXISTING CABLING

Where existing street lighting poles are removed and repositioned or replaced with new poles, the existing cables will not be re-used. New cables must be installed in line with the street lighting poles.

Any existing cables that are recovered remain the property of the Supply Authority. The Contractor is expected to buy these cables from the Supply Authority at the rates offered in the tender.

18.3 EARTHING

All earth conductors connected to earthing terminals must be connected using lugs of the correct size. The lugs must be properly soldered or crimped to the conductor ends.

Where the power cables are terminated in the street lighting pole the cable armouring must be connected to the earthing terminal inside the pole. A 6 mm²

bare stranded copper conductor must connect the gland/back plate to the earthing terminal inside the pole.

The armouring of all cables must be electrically bonded at both ends via the cable glands.

The non-current-carrying metal parts of all electrical equipment must be earthed in accordance with the regulations.

18.4 LABELLING

All cables leaving the streetlight pole must have metal labels or equal approved, strapped to the cable immediately below the gland, onto which the following information must be punched in 6 mm high letters: Cable size and destination.

18.5 EXISTING SERVICES

The Contractor must be aware that the areas where new cables for street lighting will be installed are serviced areas. The contractor must liaise with the Local Authorities in order to determine the location of existing electrical, communication, water, storm water, sewer and any other services before commencing with excavations. Where drawings are not available the Contractor must request representatives from the relevant departments to point out on site where existing services are located. All excavations on top of or within 500 mm from existing services must be done by hand.

Any existing services that are damaged by the contractor must be brought to the Engineer's attention immediately. The Contractor must take immediate action to have all damages repaired without delay. The cost of all such repairs will be for the electrical contractor's account.

19. COMMISSIONING, PERFORMANCE TESTS, ACCEPTANCE TESTS (APPLICABLE TO WHOLE OF ELECTRICAL INSTALLATION)

Commissioning Procedures

The Electrical Contractor shall supply, as part of his tender documentation, the commissioning procedures that he will use on this project. The commissioning procedure will cover in detail at least the following tests:

- 1. Cable insulation.**
- 2. System earthing.**
- 3. Control circuits.**
- 4. Safety devices and equipment.**
- 5. Phase balancing.**

The procedures must allow for the signing off of the above items by a qualified person in terms of SANS 10142-1. The signed off documents will form part of the As-Built drawings.

Performance Tests

Where called for the consultant shall witness, and the Contractor or supplier shall perform, performance tests on selected portions of the works, in terms of the commissioning procedures. Performance tests will always be carried out on the following:

- Voltage withstand tests of all wiring, DB's and cabling
- Trip testing, of all main CB's
- All earth leakage units

Where the consultant chooses, he will only witness a representative sample of the above tests. The Contractor will supply documentary proof of full performance tests of all items listed above.

Acceptance Tests

The consultants will attend the following acceptance tests in terms of the commissioning procedures:

- All switching procedures
- Photo cell or timer operations
- Selected earth leakage tests

Notwithstanding the calling for by and the presence of the consulting engineer at any acceptance or performance tests, the Contractor holds ultimate responsibility for correct construction in terms of the manufacturer's requirements. The Contractor shall absolve the consulting engineer from any responsibility caused by the malfunction of any item of equipment, whether the consultant witnessed the tests or not.

Prior to the system being connected, a Certificate of Compliance by an Accredited Person in terms of the requirements of SANS 10142-1 must be issued to the Supply Authority.

20. OPERATING INSTRUCTIONS, PARTS LISTS, MAINTENANCE MANUALS

The Electrical Contractor shall supply, after approval by the Engineer, three bound sets of operating instructions, parts lists, maintenance manuals and as-built drawings, of all items of specialist installations and/or specialist equipment which falls within the scope of this contract.

The Electrical Contractor shall furnish separate diagrammatic charts showing essential features of each electrical system, including single line diagrams.

The contract will not be accepted as complete until these have been supplied.

21. TOTAL OFFER

The Electrical Contractor's offer shall be a priced bill according to Schedule B : Bill of Quantities for the supply, delivery and installation of the complete electrical installation as detailed, described or implied in this document and on the accompanying drawings.

The Electrical Contractor shall satisfy himself that he is fully aware of and has priced for the complete installation according to the Specification and Bill of Quantities and shall obtain clarity on any points of which he is unsure before submission of his tender. The Electrical contractor is to note that the bill of quantities may differ in fact from the works on site. The electrical contractor is to be aware that the quantities given in the bills of quantities are estimates and may differ from the actual quantities required to complete the installation. Variation orders will be priced according to the schedule of variation rates which must be submitted complete.

22. MEASUREMENT

The Tenderer's offer must be priced according to the Bill of Quantities. The attached drawings are for reference only.

Street lighting poles must be measured complete with spigot, internal wiring, circuit breaker, base plate, fixing bolts, labels and notices.

Cable lengths must be measured on site and an allowance made for making terminations. The Contractor must make allowance in the rates for wastage or a joint in a cable run (of length less than the length of cable supplied or a drum). Cable joints and joint markers for long runs must also be included in the price for

the cable unless otherwise specified or measured in the schedules of prices. Rates include installation in trenches and drawing through ducts and sleeves, and strapping to poles, but exclude trenching, warning sheeting and terminations.

Cable terminations must include all materials, glands, lugs, labels and other parts required. At no time must the Contractor scale the drawings.

At no time must the Contractor make assumptions regarding the installation. If in doubt, consult the Engineer.

23. FINAL ACCOUNT

Note that the tenderer must complete the Schedule of Variation Rates that forms part of this document, before submitting the tender.

Please note that no final account will be issued until a marked-up set of as-built drawings in electronic format (on compact disc) have been handed over together with four paper copies and all relevant manuals.

PART C EMPLOYMENT OF LOCAL LABOUR AS EPWP BENEFICIARIES

CONTENTS

- C 01 SCOPE
- C 02 INTERPRETATIONS
- C 03 PERMITTED SOURCES OF TEMPORARY WORKERS
- C 04 EMPLOYMENT RECORDS TO BE PROVIDED
- C 05 VARIATIONS IN WORKER PRODUCTION RATES
- C 06 TRAINING OF THE TEMPORARY WORKFORCE
- C 07 RECRUITMENT AND SELECTION PROCEDURES
- C 08 TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE
- C 09 LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES
- C 10 THE SUBCONTRACTORS' WORKFORCES
- C 11 PROJECT LIASON OFFICER
- C.12 MEASUREMENT AND PAYMENT

C 01 SCOPE

This Specification covers the provisions and requirements relating to the employment of Local Labour to serve the employer's objectives of employment creation.

C 02 INTERPRETATIONS

C 02.01 Definitions and abbreviations

For the purposes of this specification, the definitions given in the Conditions of Contract, the Standard Specifications and the Project Specifications, together with the following additional definitions shall, unless the context dictates otherwise, apply:

- (a) "Key Personnel" means all contracts managers, site agents, materials and survey technicians, trainers, supervisors, foremen, skilled plant operators, artisans and the like, and all other personnel in the permanent employ of the Contractor or Subcontractor who possess special skills and/or who play key roles in the Contractor's or Subcontractor's operation
- (b) "Project Steering Committee (PSC)" means a committee consisting of the Employer, the Engineer, the Contractor, (or their nominated representatives) as well as representatives of the temporary workforce, which is convened from time to time at the discretion of the Engineer, for the purposes of acting as an avenue for effective communication and liaison between all the parties referred to, in all matters pertaining to the Contract
- (c) "Subcontractor" means any person or group of persons in association, or firm, or body corporate (whether formally constituted or otherwise) not being the Contractor, to whom specific portions or aspects of the Works are sublet or subcontracted by the Contractor in accordance with the provisions of the Contract
- (d) "Worker" for the purposes of this Specification means any person, not being one of the Contractor's key personnel, nor any key personnel of any Subcontractor, who is engaged by the Contractor, a Subcontractor or the Employer to participate in the execution of any part of the Contract Works and shall include unskilled labour, semi-skilled and skilled labour, clerical workers and the like
- (e) "Workforce" means the aggregate body comprising all workers and shall, unless the context dictates otherwise, include the workforces of the Contractor and all Subcontractors.
- (f) "Community Liaison Officer (CLO)" means a representative from the Local labour Workers appointed by the Employers Social Facilitator to act on their behalf and through whom all matters pertaining to Local Labourers can be channelized.
- (g) "Local Labour" or "Local Labourers" means workers that conform to the requirements stated in clause C 3.3 and in Part C of the Project Specifications.
- (h) "Social Facilitator" means a representative of the Employer responsible for all aspects for social facilitation including:
- i) Liaison with Ward Councillors and the community in conjunction with the CLO
 - ii) Formation and management of a Project Steering Committee (PSC)
 - iii) Identification of a suitable Community Liaison officer (CLO)
 - iv) Identification of the Local Labour beneficiaries
 - v) Compiling lists of local QSE's and EME's
 - vi) Receipt of CLO / Contractor's monthly reports

C 02.02 Status

Where any provisions or requirements of this Specification are in conflict with anything elsewhere set out in the Contract, the provisions and requirements of this Specification shall take precedence and prevail.

C 03 REQUIREMENTS FOR LOCAL LABOUR

Local labour shall be Workers who are:

- Appointed by the contractor after the contract commencement date; and
- Who reside in local communities, which means within the boundaries the municipal wards that are immediately adjacent to the site; and
- Who are identified by the local councillors and the Community liaison officer; and

- Who are unemployed at the time of being offered employment by the contractor; and
- Are identifiable by wearing specified orange coloured clothing with distinct branding; and
- Are registered with the UIF.

All of K57 (R82) PHASE 3 is situated in:

Ward No	Councillor's Name	Contact No
11 (Midvaal Municipality)	Cllr SE Hlengwa	072 223 2182

Ward 11 is bordered North by:

Ward No	Councillor's Name	Contact No
7 (Midvaal Municipality)	Cllr MS Hack	016 360 7573

Ward 11 is bordered East by:

Ward No	Councillor's Name	Contact No
5 (Midvaal Municipality)	Cllr RF Jones	082 410 5633

Ward 11 is bordered South by:

Ward No	Councillor's Name	Contact No
21 (Emfuleni Municipality)	Cllr NS Tshabalala	072 381 0171

Councillor's details and ward delineations to be confirmed prior to construction commencement.

The minimum percentages required for the employment of Local Labour are stated in clause C2.3 of the Scope of Works in the contract.

C 04 EMPLOYMENT RECORDS TO BE PROVIDED

- (a) The Contractor shall maintain accurate and comprehensive records of all workers engaged on the Contract and shall provide the Engineer at monthly intervals, from the commencement date, with interim records substantiating the actual statistics related to Local Labour employment, that shall have been generated to date and the amounts actually paid in respect thereof. Such interim records shall be in a format approved by the engineer and in accordance with reporting templates to be discussed with the contractor.
- (b) The Contractor shall, on completion of the Contract, and as a pre-requisite event to the release of any retention money in terms of the Conditions of Contract, provide the Engineer with copies of the Terms of Employment as well as independently audited documentary evidence of the total number of temporary and permanent employment opportunities actually generated during the Contract.

C 05 VARIATIONS IN WORKER PRODUCTION RATES

Notwithstanding anything to the contrary as may be stated in or inferred from any other provision of this Contract, the Contractor shall not be entitled to any additional payment or compensation whatever, in respect of any differences as may result between the production rates actually achieved by workers in the course of the execution of the Contract Works and those production rates on which he has based his tender.

C 06 TRAINING OF THE TEMPORARY WORKFORCE

- (a) All Local Labour is to be provided with compulsory training in accordance with the provisions of Part D.
- (b) The Contractor shall make all necessary allowances in his programme of work to accommodate and facilitate the delivery of such compulsory training and shall comply fully with the requirements of Part D.

- (c) The provision of structured training as described in Part D shall not relieve the Contractor of any of his obligations in terms of the Conditions of Contract and the Contractor shall remain fully liable for the provision, at his own cost, of all training of the workforce, additional to that as provided for in Part D, as may be necessary to achieve the execution and completion of the works strictly in accordance with the provisions of the Contract.

C 07 RECRUITMENT AND SELECTION PROCEDURES

C 07.01

The Contractor shall be fully responsible for the selection of workers to constitute the workforce.

C 07.02

The Contractor shall advise the Engineer in writing of the numbers of each category of Local Labour worker which he requires, together with the personal attributes which he considers desirable that each category of worker shall possess (taking due cognisance of the provisions of the Contract relating to training).

C 07.03

The CLO (see C11 hereafter) shall, take all necessary actions to advertise within the local communities.

C 07.04

The Contractor shall, in conjunction with the Social Facilitator, record in writing, the details of all persons applying for employment, including inter alia:

- (a) Name, address, age and sex
- (b) Marital status and number of dependants
- (c) Qualifications and previous work experience (whether substantiated or not)
- (d) Period since last economically active
- (e) Preference for type of work or task.

C 07.05

The Contractor shall make his selection of workers from amongst the applicants, taking due cognisance of his requirements for the workforce and the provisions of the contract in regard to the provision of training to the workforce and in accordance with the following principles:

- (a) No potential Local Labourer shall be precluded from being employed by the Contractor on the execution of the Works, by virtue of his lack of skill in any suitable operation forming part of the Works, unless –
 - (i) all available vacancies have been or can be filled by temporary workers who already possess suitable skills, or
 - (ii) the Time for Completion allowed in the Contract, or the remaining portion of the Contract Period (as the case may be) is insufficient to facilitate the creation of the necessary skills.
- (b) Preference shall be given to the unemployed and single heads of households.
- (c) The Contractor shall, in so far as is reasonably practicable, give priority to accommodating the applicants' expressed preferences regarding the types of work for which they are selected.
- (d) The selection process shall not be prejudicial to youth and women.

C 07.06

After making his selection, the Contractor shall advise the Engineer thereof, in writing and the Engineer shall, without undue delay, ratify the Contractor's selection.

C 07.07

The provisions of this clause shall apply *mutatis mutandis* in respect of the selection of additional or replacement members of the workforce as may be necessary from time to time during the Contract.

C 08 TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE

C 08.01

All Local Labour engaged in accordance with the provisions of Clause C2.3 of the Scope of Works and Part C of the Project Specifications shall be employed on the terms and conditions of employment as are consistent with those as set out in this Contract. The Contractor shall implement and adhere strictly to such terms and conditions relating to the employment of Local Labour, and subject only to the provisions of this Contract, shall not employ any worker on terms and conditions which are less favourable to the worker or inconsistent with the standards, norms and minimum rates of remuneration generally applicable to temporary workers in the Civil Engineering Industry and applicable to the particular area.

C 08.02

The Contractor shall pay to all Local Labour nothing less than the minimum rate of remuneration as specified in C08.01 above and no variation in payment shall be made for labour intensive work tasks identified by the contractor.

C 09 LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES

C 09.01

The Contractor, as the Employer of the workforce, shall be fully responsible for the establishment and maintenance at his own cost, of satisfactory labour relations on site and the resolution of all grievances of temporary workers as may occur.

C 09.02

The Contractor shall at all times adhere to the accepted norms and standards of labour relations prevailing generally in the Civil Engineering Construction Industry and shall conduct himself in a fair and reasonable manner, within the constraints as may be imposed upon him by the terms of the Contract.

C 09.03

In the event of any Local Labourer engaged by the Contractor in terms of the Contract, being aggrieved with regard to his Terms of Employment, working conditions and training, he shall have the right, at his discretion, to be supported in any inquiry or disciplinary hearing or investigation instituted by the Contractor in terms of Subclause C 09.02 above, by a Local Labourer and one member of the Project Committee, which persons shall be nominated by the worker.

C 09.04

In the event of any grievance not being satisfactorily resolved through the application of normal dispute resolution procedures in accordance with Sub clauses C 09.02 and C 09.03, then either the Contractor or the worker concerned may require that the matter be referred to the Project Committee for further consideration, with a view to facilitate the resolution thereof.

C 10 THE SUBCONTRACTORS' WORKFORCES

C 10.01

The provisions of this Part C shall apply *mutatis mutandis* to the workforces employed by all subcontractors engaged by the Contractor and the Contractor shall be fully responsible for ensuring, at his own cost, that the terms of every subcontract agreement entered into are such as to facilitate the application of these provisions in respect of the workforces of all subcontractors.

C 10.02

The Contractor shall at his own cost and to the extent necessary, assist and monitor all subcontractors in the application of the provisions of this Specification, and shall, in terms of the Conditions of Contract, remain fully liable in respect of the acts, omissions and neglects of all subcontractors, in respect of the application of the provisions of this Specification.

C 11 COMMUNITY LIAISON OFFICER (CLO)

The contractor or his appointed agent will appoint a Community Liaison Officer (CLO) after consultation with the Social Facilitator and the engineer. . An employment contract must be signed between the contractor and CLO from project initiation to project end. The contractor shall direct all his liaison efforts with the local communities through the appointed officer. The contractor shall, however, accept the appointed as part of his management personnel.

The Contractor will provide the CLO with additional cell phone air time of R300 per month.

C 11.01 Duties of the Community Liaison Officer

The Community Liaison Officer's duties will be:

- (i) To be available on site daily between the contractor's normal working hours and at other times as the need arises.
- (ii) To determine, in consultation with the contractor, the needs for relevant skills training. He will be responsible for the identification of suitable trainees and will attend one of each of the training sessions.
- (iii) To communicate daily with the contractor and the engineer to determine the labour requirements with regard to numbers and skill, to facilitate in labour disputes and to assist in their resolution.
- (iv) To facilitate the recruitment of suitable temporary labour.
- (v) To attend all meetings in which the community and/or labour are present or are required to be represented.
- (vii) To inform labourers of their conditions of employment and to inform temporary labourers as early as possible when their period of employment will be terminated.
- (viii) To attend disciplinary proceedings to ensure that hearings are fair and reasonable.
- (ix) To keep a daily written record of his interviews and community liaison.

- (x) To attend monthly site meetings to report on labour matters.
- (xi) All such other duties as agreed upon between all parties concerned.
- (xii) To submit monthly returns regarding community liaison in a format prescribed by the engineer.

C 11.02 Payment for the Community Liaison Officer

A special pay item is incorporated in section 1200 of the bill of quantities relating to payment of the liaison officer on a prime cost sum basis. This payment shall only be made for the period for which the duties of the liaison officer are required and not necessarily for the full duration of the contract. The remuneration of the CLO shall be determined jointly by the contractor, engineer and the social facilitator.

C 11.03 Period of employment of the Community Liaison Officer

The period of employment of the CLO shall be as decided upon jointly by the contractor, engineer and the social facilitator.

C 12 MEASUREMENT AND PAYMENT

The Contractor will not be separately reimbursed or compensated in respect of the provision of the workforce and creation of temporary employment opportunities and all the Contractor's costs associated with compliance with the provisions of this part of the Project Specifications shall, except to the extent provided for as relevant, be deemed to be included in the rates tendered for in Section 1300 of the Bill of Quantities.

Item	Unit
-------------	-------------

C12.01	Community Liaison Officer:
---------------	-----------------------------------

- | | |
|-----|--|
| (a) | Community Liaison Officer(s).....Prime cost (PC) sum |
|-----|--|

Payment under the Prime cost (PC) sum provided in sub item C12.01 (a) to cover the employment, remuneration of the Community Liaison Officer(s), shall be effected in accordance with the provisions of Clause 6.6.2 of the General Conditions of Contract.

No separate payment will be made for the contractor's overheads, handling costs, or office space, transport and any other costs associated with the employment and accommodation of the CLO, Provision for such costs shall be made, as part of the contractor's general obligations, under item B13.01 in the Bill of Quantities.

PROJECT SPECIFICATIONS

PART D: PROVISION OF COMPULSORY TRAINING

CONTENTS

D 01	SCOPE
D 02	INTERPRETATIONS
D 03	ENGINEERING SKILLS TRAINING
D 04	GENERIC TRAINING
D 05	ENTREPRENEURIAL SKILLS TRAINING
D 06	MEASUREMENT AND PAYMENT

D 01 SCOPE

This specification covers the requirements for the provision of training to Local Labour (as defined in Part C of the Project Specification) which includes Local Labour employed EME and QSE sub-contractors.

D 02 INTERPRETATIONS

D 02.1 Supporting documents

The tender rules, conditions of contract, standard, supplementary and specific specifications and project specifications and drawings shall inter alia be read in conjunction with this specification.

D 02.2 Application

The provisions of this specification shall apply to Local Labourers, who are engaged on the execution of the works.

D 03 ENGINEERING SKILLS TRAINING FOR THE CONTRACTOR'S AND SUB-CONTRACTOR'S LOCAL LABOUR

D 03.1

The Contractor shall, from the commencement of the contract, implement a compulsory structured training programme comprising of training delivered by a selected subcontractor training provider and, in which the various skills required for the execution and completion of the works are imparted to the Contractor's and his sub contractor's Local Labour workers, in a programmed and progressive manner. Workers shall be trained progressively throughout the duration of the contract in the various stages of a particular type of work.

D 03.2

The skills training programme to be implemented by the selected subcontractor shall comply with the following minimum standards:

- a) Be accredited by the Civil Engineering Training Authority (CETA) or other institutions recognised by the Department of labour, as being appropriate for application on this project. Accredited training refers to both the trainers as well as to the training materials.
- b) Be delivered by suitably qualified and experienced trainers accredited to do so.

D 03.3

The Contractor shall be responsible for the provision of the necessary items for the delivery of the specified skills training programme, including the following:

- (a) Sufficient skilled, competent and accredited trainers to deliver the training programme to workers in accordance with the training programme
- (b) A suitably furnished venue
- (c) Transport of the workers as required
- (d) Tools, equipment, and teaching aids
- (e) Stationery and all other necessary materials.

D 03.4

Selection of candidates

- (a) Members of the Local Labour workforce will be selected by the Engineer, assisted by the Contractor and the Liaison Officer, to receive specific training as approved by the Engineer.
- (b) The following will be taken into account in the selection of the workers to receive the specified training:
 - i. Previous experience (if any)
 - ii. Previous courses completed (if any)
 - iii. Module specific requirements
 - iv. All Local Labour should receive training during the Contract Period.

D 03.5

Duration of training

- (a) The Contractor shall allow in his programme for the Local Labourers to be engaged in the specified training modules over the duration of the Contract Period.
- (b) All specified skills-related training shall take place only during normal working hours and the Contractor shall ensure that the selected workers are available at the appropriate times to undergo such training.

D 03.6

Engineering skills training shall be arranged in a manner which will allow theoretical training to be followed promptly by practical training with actual appropriate and relevant work on the site,

D 03.7

The selected subcontractor's programme shall be subject to the approval of the Engineer, and if so instructed by the Engineer shall alter or amend the programme and course content to suit changing conditions on site and all changes in the Contractor's programme of work.

D 03.8

The contractor shall keep comprehensive records of the training given to each worker involved in training as well as the nature and number of each task executed by the worker and whenever required, shall provide copies of such records to the engineer. The format of such records shall be subject to the engineer's approval.

D 03.9

Local Labourers shall be remunerated in respect of all time spent undergoing the specified training in terms of Clause D03.02, at the minimum specified wage rate for the area of the Works and the Contractor shall ensure that his sub-contractors are bound by this contractual requirement. Such compensation shall not be claimable for separate payment. The P.C. sum allowed in the item B12.04 (a) is only for the service providers that provide training.

D 03.10 Use of workers

The Contractor shall, in so far as it is reasonably feasible take due cognisance of the nature of the works to be executed at any given time, and use trained workers on those aspects of the works for which they have been trained.

D 04 ENTREPRENEURIAL SKILLS TRAINING FOR QSE's AND ESE's

D 04.01

Training needs assessments of the Contractor's, QSE and ESE sub-contractors will be undertaken during the course of the Contract by a sub-contractor to be nominated by the Engineer, on the instruction of the Employer's Capex Programme Manager. The training needs assessments shall have as their focus contractor development, and shall identify needs for business development, business management and technical construction management skills. Such training needs may only be identified amongst Local Labour, and QSE and ESE subcontractors.

D 04.02

Once needs assessments have been completed, training to meet the needs identified in the assessment phase will be provided, again by a sub-contractor to be nominated by the Engineer, upon the instruction of the Employer's Capex Programme Manager.

D 04.03

The Contractor shall assist in facilitating in the delivery of the training, by instructing and motivating personnel and subcontractors regarding attendance and participation therein.

D 04.04

The Contractor shall further make all reasonable efforts to co-ordinate the programming of the subcontractor's work with that of the delivery of the training.

D 04.05

Following completion of the training, members that have demonstrated understanding of and competence in the training material are to be appropriately certified by the accrediting body.

D 04.06

The Contractor shall be responsible for the provision of the necessary items for the delivery of the entrepreneurial training programme, including the following:

- (a) A suitably furnished venue
- (b) Transport of the subcontractors as required
- (c) Tools, equipment, and teaching aids
- (d) Stationery and all other necessary materials.

D 04.07

All specified entrepreneurial training shall take place within normal working hours.

D 04.08

The Contractor's training programme, if any, shall be subject to the approval of the Engineer, and if so instructed by the Engineer shall alter or amend the programme and course content.

D 04.09

The Contractor shall keep comprehensive records in an acceptable format of all training given to personnel and subcontractors involved in training and whenever required shall provide copies of such records to the Engineer. At the successful completion of each course each

subcontractor shall be issued with a certificate indicating the course contents as proof of attendance and completion.

D 04.10

No remuneration in respect of time spent undergoing specified training in terms of this Clause will be made to any of the QSE and EME subcontractors.

D 05 TRAINING PROGRAMME

The contractor shall provide a programme to the engineer setting out:

- (i) Training courses, clearly identifying engineering and entrepreneurial skills training,
- (ii) Dates of various courses,
- (iii) Dates when practical training will be done,
- (iv) Names of trainees,
- (v) Any other appropriate information instructed

The programme shall be in an acceptable format, shall be revised to reflect the latest available information and a register of revisions shall be enclosed with the programme.

D 06 MEASUREMENT AND PAYMENT

D 06.01 Basic principles

(a) Training

The Contractor shall only be reimbursed for the amounts actually paid by the Contractor to the selected sub-contractor training providers, appointed as directed by the Employer, in execution of the Engineer's written instruction, plus a percentage as tendered to cover all his charges and profits.

Payment of trainees wages during training (the contractor will be reimbursed for these wages by way of the Provisional Sum allowances in the Bill of Quantities)

No wages for trainees will be paid during entrepreneurial skills training

The Contractor will be required to obtain three quotations from the training service providers for each course to be undertaken and appoint the most suitable training provider as a sub-contractor, giving preference to locals and BB-BEE- entities with a rating between 3 and 1.; The Engineer will require an adjudication report with recommendations from the contractor prior to approval of the appointment of the training provider.

No additional payment shall be made for informal training.

(b) General

No separate payment will be made for the provision of a training venue, stationary, transport of trainees, tools equipment and teaching aids and remuneration of workers during training.

D 06.02 Scheduled items

Payment items are included in the Schedule of Quantities under Section 1200 for the provision of the compulsory training. Any additional training as viewed by the Contractor to be necessary shall be viewed to be included under Section 1300 and shall not be paid for separately.

PROJECT SPECIFICATIONS

PART E: HEALTH AND SAFETY SPECIFICATION

CONTENTS

- E 01 SCOPE
- E 02 INTERPRETATIONS
- E 03 FALL PROTECTION
- E 04 STRUCTURES
- E 05 FORMWORK AND SUPPORT WORK
- E 06 EXCAVATION WORK
- E 07 DEMOLITION WORK
- E 08 SCAFFOLDING AND SUSPENDED PLATFORMS
- E 09 BOATSWAIN'S CHAIRS
- E 10 MATERIAL HOISTS
- E 11 BATCH PLANTS
- E 12 EXPLOSIVE POWERED TOOLS
- E 13 CRANES
- E 14 CONSTRUCTION VEHICLES AND MOBILE PLANT
- E 15 ELECTRICAL INSTALLATIONS AND MACHINERY ON CONSTRUCTION SITES
- E 16 USE AND TEMPORARY STORAGE OF FLAMMABLE LIQUIDS ON CONSTRUCTION SITES
- E 17 WATER ENVIRONMENTS
- E 18 HOUSEKEEPING ON CONSTRUCTION SITES
- E 19 STACKING AND STORAGE ON CONSTRUCTION SITES
- E 20 FIRE PRECAUTIONS ON CONSTRUCTION SITES
- E 21 CONSTRUCTION WELFARE FACILITIES
- E 22 MEASUREMENT AND PAYMENT

E 01 SCOPE

This specification covers the requirements, notwithstanding the provisions of all other appropriate legislation and regulations in this regard, for ensuring the continued health and safety of all personnel having access to the construction site, and in ensuring that persons not having such access may not enter the site for the duration of all construction works undertaken on the site.

E 02 INTERPRETATIONS

E 02.01 Supporting documents

The tender rules, conditions of contract, standard, supplementary and specific specifications and project specifications and drawings shall inter alia be read in conjunction with this specification, together with the Occupational Health and Safety Amendment Act (Act 85 of 1993) and the Construction Regulations issued in pursuance of this Act in Government Gazette no. 25207 dated 18 July 2003.

E 02.02 Application

The provisions of this specification shall apply in respect of all Contractors appointed by the Employer for work on the site, as well as to all sub-contractors appointed by Contractors, their personnel and assigned agents expected to work on the site.

E 03 FALL PROTECTION

E 03.1

The complete contents of Paragraph 8, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 04 STRUCTURES

E 04.1

The complete contents of Paragraphs 9(1) and 9(3), and all of their sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 05 FORMWORK AND SUPPORT WORK

E 05.1

The complete contents of Paragraph 10, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 06 EXCAVATION WORK

E 06.1

The complete contents of Paragraph 11, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 07 DEMOLITION WORK

E 07.1

The complete contents of Paragraph 12, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 08 SCAFFOLDING AND SUSPENDED PLATFORMS

E 08.1

The complete contents of Paragraph 14, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification pertaining to the use of scaffolding.

E 08.2

The use of suspended platforms for access to any works on this contract is expressly forbidden.

E 09 BOATSWAIN'S CHAIRS

E 09.1

The complete contents of Paragraph 16, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 10 MATERIAL HOISTS

E 10.1

The complete contents of Paragraph 17, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 11 BATCH PLANTS

E 11.1

The complete contents of Paragraph 18, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 12 EXPLOSIVE POWERED TOOLS

E 12.1

The complete contents of Paragraph 19, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 13 CRANES

E 13.1

The complete contents of Paragraph 20, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 14 CONSTRUCTION VEHICLES AND MOBILE PLANT

E 14.1

The complete contents of Paragraph 21, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 15 ELECTRICAL INSTALLATIONS AND MACHINERY ON CONSTRUCTION SITES

E 15.1

The complete contents of Paragraph 22, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 16 USE AND TEMPORARY STORAGE OF FLAMMABLE LIQUIDS ON CONSTRUCTION SITES

E 16.1

The complete contents of Paragraph 23, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 17 WATER ENVIRONMENTS

E 17.1

The complete contents of Paragraph 24, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 18 HOUSEKEEPING ON CONSTRUCTION SITES

E 18.1

The complete contents of Paragraph 25, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 19 STACKING AND STORAGE ON CONSTRUCTION SITES

E 19.1

The complete contents of Paragraph 26, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 20 FIRE PRECAUTIONS ON CONSTRUCTION SITES

E 20.1

The complete contents of Paragraph 27, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 21 CONSTRUCTION WELFARE FACILITIES

E 21.1

The complete contents of Paragraph 28, and all of its sub-paragraphs, of the Construction Regulations published in Government Gazette no. 25207 dated 18 July 2003, read verbatim, and with all meanings assigned thereto by the definitions included in the said Construction Regulations, shall be deemed to constitute the contents of this specification.

E 22 MEASUREMENT AND PAYMENT

E 22.1

Payment for the contractor's obligations in respect of the Occupational Health and Safety act and Construction Regulations shall be made through three payment items described below. The three payment items together shall include full compensation for all personnel (including a dedicated full time Construction Safety Officer), cost and incidentals in respect of compliance with the enforcement of the Health and Safety Specifications, which shall include for the compilation, presentation, implementation and maintenance of the Health and Safety Plan as contemplated. In tendering rates for the three items the contractor shall ensure that the sum

of the amounts for the three items shall not be less than one percent (1%) of the Tender Amount.

All of the Contractor's costs associated with compliance with the provisions of this part of the Project Specifications shall be deemed to be included in the rates tendered for the items of work listed below.

Item	Unit
E 23.01 Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations and COVID19 Construction Site Management Procedures Lump Sum	

The full amount will be paid in one instalment once:-

- (a) The contractor has notified the Provincial Director of the Department of Labour in writing of the project.
- (b) The contractor has made the required initial appointments of employees and sub-contractors.
- (c) The client has approved the contractor's Health and Safety Plan.
- (d) The contractor has set up his Health and Safety File.
- (e) Initial setup of all COVID19 Construction Site Management Procedures

Item	Unit
E 23.02 Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations and COVID19 Construction Site Management Procedures Month	

The tendered monthly amount shall represent full compensation for that part of the contractor's general obligations in terms of the Occupational Health and Safety Act and the Construction Regulations, Part E – Health and Safety Specification and COVID19 Construction Site Management Procedures, which are mainly a function of time. This includes inter alia payment of all costs for the appointment of all staff contemplated in the construction regulations and the transport of employees on site. Payment will be monthly only after payment for Item E 23.01 has been made.

Item	Unit
E 23.03 Submission of the Health and Safety File Lump Sum	

The tendered lump sum shall represent full compensation for the contractor meeting all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and for the preparation and submission of his Health and Safety File complete as envisaged on this specification to the Client's satisfaction.

This amount will be paid only once the contractor has met all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and has submitted his Health and Safety File complete as envisaged on this specification to the Client's satisfaction.

The total tendered sum for items E23.01, E23.02 and E23.03 shall not be less than 1% of the total tendered sum exclusive of VAT.

The combined total amount of Payment Items E23.01, E23.02, E23.03 and B13.01 (a) to (c) (Project Specification Part B) shall not exceed 16% of the total tendered sum excluding VAT.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

PROJECT SPECIFICATIONS

PART F: HIV/AIDS SPECIFICATION

CONTENTS

F 01	SCOPE
F 02	DEFINITIONS AND ABBREVIATIONS
F 03	BASIC METHOD REQUIREMENT
F 04	HIV/AIDS AWARENESS EDUCATION AND TRAINING
F 05	PROVIDING WORKERS WITH ACCESS TO CONDOMS
F 06	ENSURING ACCESS TO HIV/AIDS TESTING AND COUNSELLING FACILITIES AND TREATMENT OF SEXUALLY TRANSMITTED INFECTIONS (STI)
F 07	APPOINTMENT OF AN HIV/AIDS AWARENESS CHAMPION
F 08	MONITORING
F 09	MEASUREMENT AND PAYMENTS

F 01 SCOPE

F 01.1

This specification contains all requirements applicable to the Contractor for creating HIV/AIDS awareness amongst all of the Workers involved in this project for the duration of the construction period, through the following strategies:

F 01.2

Raising awareness about HIV/AIDS through education and information on the nature of the disease, how it is transmitted, safe sexual behavior, attitudes towards people affected and people living with HIV/AIDS, how to live a healthy lifestyle with HIV/AIDS, the importance of voluntary testing and counseling, the diagnosis and treatment of Sexually Transmitted Infections, and the closest health service providers.

F 01.3

Informing Workers of their rights with regard to HIV/AIDS in the workplace

F 01.4

Providing Workers with access to condoms and other awareness material that will enable construction Workers to make informed decisions about sexual practices

F 02 DEFINITIONS AND ABBREVIATIONS

F 02.1 Definitions

Service Provider: The natural or juristic person recognised and approved by the Department of Public Works as a specialist in conducting HIV/AIDS awareness programmers

Service Provider Workshop Plan: A plan outlining the content, process and schedule of the training and education workshops presented by a Service Provider, which has been approved by the Representative/Agent.

Worker: Persons in the employ of the Contractor or under the direction or supervision of the Contractor or any of his sub-contractors, who are on site for a minimum period of 30 days in all.

F 02.2 Abbreviations

HIV: Human Immunodeficiency Virus
AIDS: Acquired Immune Deficiency Syndrome
STI: Sexually Transmitted Infection

F 03 BASIC METHOD REQUIREMENT

F 03.1

The Contractor shall, through a Service Provider, conduct onsite workshops with the Workers

F 03.2

The Service Provider shall develop and compile a Service Provider Workshop Plan to be presented at the workshops and which will be best suited for this project to achieve the specified objectives with regards to HIV/AIDS awareness. The Contractor shall submit the Service Provider Workshop Plan for approval within 21 days after the tender acceptance date. After approval by the Department's Tender Committee, the Contractor shall make available an appropriate venue that will be conducive to education and training.

F 03.3

The Service Provider Workshop Plan shall address, but will not be limited to the following:

- (a) The nature of the disease;
- (b) How it is transmitted;
- (c) Safe sexual behaviour;
- (d) Post exposure services such as voluntary counselling and testing (VCT) and nutritional plans for people living with HIV/AIDS;
- (e) Attitudes towards other people with HIV/AIDS;
- (f) Rights of the Worker in the workplace;
- (g) How the awareness champion will be equipped prior to commencement of the HIV/AIDS awareness programme with basic HIV/AIDS information and the necessary skills to handle questions regarding the HIV/AIDS awareness programme on site sensitively;
- (h) How the Service Provider will support the awareness champion;
- (i) Location and contact numbers of the closest clinics, VCT facilities, counselling services and referral systems;
- (j) How the workshops will be presented, including frequency and duration;
- (k) How the workshops will fit in with the construction programme;
- (l) How the Service Provider will assess the knowledge and attitude levels of attendees to structure workshops accordingly;
- (m) How the video will be used;
- (n) How the Service Provider will elicit maximum participation from the Workers;
- (o) A questions and answers slot (interactive session)

The Service Provider Workshop Plan shall encompass the Specific Learning Outcomes (SLO) as stipulated

F 04 HIV/AIDS AWARENESS EDUCATION AND TRAINING

F 04.1 Workshops

The Contractor shall ensure that all the Workers attend the workshops.

The workshops shall adequately deal with all the aspects contained in the Service Provider Workshop Plan. In order to enhance the learning experience, groups of not exceeding 25 people shall attend the interactive sessions of the workshops.

F 04.2 Recommended practice

Workshop Schedule

Presenting information contained in the Service Provider Workshop Plan can be divided in as many workshop sessions as deemed practicable by the Contractor, provided that all Workers are exposed to all aspects of the workshops as outlined in the Service Provider Workshop Plan.

Breaking down the content of information to be presented to Workers into more than one workshop session however, has the added advantage that messages are reinforced over time while providing opportunity between workshop sessions for Workers to reflect and test information. Workers will also have an opportunity to ask questions at a next session.

An attendance register should be kept by the Service Provider at every workshop and should be handed to the Department's Project Manager on a monthly basis together with Process Indicator Forms.

Service Providers

A data base of recommended Service Providers is available from the Department of Public Works, Private Bag X65, Pretoria, 0001, located at the Central Government Offices, corner of Bosman and Vermeulen Streets, Pretoria and at all Public Works Regional Offices

HIV/AIDS Specific Learning Outcomes and Assessment Criteria

Workers shall be exposed to workshops for a minimum duration of two-and-a-half hours. In order to set a minimum standard requirement, the following specific learning outcomes and assessment criteria shall be met

(a) UNIT 1 The nature of HIV/AIDS

After studying and understanding this unit the Worker will be able to differentiate between HIV and AIDS and comprehend whether or not it is curable. The Worker will also be able to explain how the HI virus operates once a person is infected and identify the symptoms associated with the progression of HIV/AIDS.

Assessment Criteria:

1. Define and describe HIV and AIDS
2. List and describe the progression of HIV/AIDS

(b) UNIT 2: Transmission of the HI virus

After studying and understanding this unit the Worker will be able to identify bodily fluids that carry the HI virus. The Worker will be able to recognise how HIV/AIDS is transmitted and how it is not transmitted.

Assessment Criteria:

1. Record in what bodily fluids you will find the HI virus.
2. Describe how HIV/AIDS can be transmitted.
3. Demonstrate your ability to distinguish between how HIV/AIDS is transmitted and misconceptions around transmittance of HIV/AIDS.

(c) UNIT 3: HIV/AIDS preventative measures

After studying and understanding this unit the Worker will comprehend how to act in a way that would minimise the risk of HIV/AIDS infection and to use measures to prevent the HI virus to enter the blood stream.

Assessment Criteria:

1. Report on how you could minimise your risk of HIV/AIDS infection.
2. Report on precautions that can be taken to prevent HIV/AIDS infection.
3. Explain or demonstrate how to use a male and female condom.
4. List of factors that could jeopardize the safety condoms provide against HIV/AIDS transmission.

(d) UNIT 4: Voluntary HIV/AIDS counseling and testing

After studying and understanding this unit the Worker will be able to recognise methods of testing for HIV/AIDS infection. The Worker will be able to understand the purpose of voluntary HIV/AIDS testing and pre- and post-test counseling.

Assessment Criteria:

1. Describe kinds of testing for HIV/AIDS infection.
2. Report on why voluntary testing is important.
3. Report on why pre- and post-test counseling is important.

(e) UNIT 5: Living with HIV/AIDS

After studying and understanding this unit the Worker will be able to recognise the importance of caring for people living with HIV/AIDS and be able to manage HIV/AIDS.

Assessment Criteria:

1. List and describe ways to manage HIV/AIDS.
2. Describe nutritional needs of people living with HIV/AIDS.
3. Describe ways to embrace a healthy lifestyle as a person living with HIV/AIDS.
4. Explain the need of counseling and support to people living with HIV/AIDS.

(f) UNIT 6: Treatment options for people with HIV/AIDS

After studying and understanding this unit the Worker will be familiar with the various treatments available to HIV/AIDS infected or potentially HIV/AIDS infected people.

Assessment Criteria:

1. Discuss anti-retroviral therapy
2. List methods of treatment to prevent HIV/AIDS transmission from mother-to-child.
3. Describe the need for treatment of opportunistic diseases for people living with HIV/AIDS.
4. Describe post exposure prophylactics.

(g) UNIT 7: The rights and responsibilities of Workers in the workplace with regards to HIV/AIDS

After studying and understanding this unit the Worker will be able to identify the rights and responsibilities of the Worker living with HIV/AIDS in the workplace. The Worker will recognise the importance of accepting colleagues living with HIV/AIDS and treating them in a non-discriminative way.

Assessment Criteria:

1. Discuss the rights of a person living with HIV/AIDS in the workplace.
2. Discuss the responsibilities of a person living with HP//AIDS in the workplace.
3. Report on why acceptance and non-discrimination of colleagues living with HIV/AIDS is important.

F04.3 Displaying of plastic laminated posters and distribution of information booklets

- (a) The Contractor shall obtain a set of four posters conveying different key messages, and information booklets from the Construction Industry Development Programme Unit (CIDP), Room A520 located in the Central Government Offices, corner of Bosman and Vermeulen Streets, Pretoria or at all Regional Offices of the Department of Public Works. The postal address is the Department of Public Works, Private Bag X65, Pretoria, 0001.
- (b) The above-mentioned posters and information booklets have been prepared to raise awareness and to share information about HI V/AIDS and STI's.
- (c) Posters or display stands shall be displayed on site as soon as possible but not later than 14 days after the date of site hand over.
- (d) Posters shall be displayed in areas highly trafficked by Workers, including toilets, rest areas, the site office and compounds.
- (e) The posters on display should always be intact, clear and readable.
- (f) Information booklets must be distributed to all Workers as soon as possible but not later than 14 days after site hand over, or as soon as the Worker joins the site.

F05 PROVIDING WORKERS WITH ACCESS TO CONDOMS

F05.1

The Contractor shall provide and maintain condom dispensers and make both male and female condoms complying with the requirements of SABS ISO 4074 available at all times to all Workers at readily accessible points on site, for the duration of the contract. The Contractor may obtain condom dispensers from the Department of Health and condoms may be obtained from the local clinic or the Department of Health.

F05.2

At least one male and one female condom dispenser and a sufficient supply of condoms, all to the approval of the Representative/Agent, shall be on site within 14 days of site hand over. Contractors should note that arrangements to obtain condoms from the Department of Health Clinics prior to site hand over may be necessary to ensure that condoms are available within 14 days of site hand over.

F05.3

Condoms shall be made available in areas highly trafficked by Workers, including toilets, the site office and compounds.

F06 ENSURING ACCESS TO HIV/AIDS TESTING AND COUNSELING FACILITIES AND TREATMENT OF SEXUALLY TRANSMITTED INFECTIONS (STI)

F06.1

The Contractor shall provide the Workers with the names of the closest Service Providers that provide HIV/AIDS testing and counseling and Clinics providing Sexually Transmitted Infection (STI) diagnosis and treatment. Information on these Service Providers and

Clinics should be displayed on a poster of a size not smaller than A1 in an area highly trafficked by Workers.

F07 APPOINTMENT OF AN HIV/AIDS AWARENESS CHAMPION

F07.1

Within 14 days of site hand over the Contractor shall appoint an Awareness Champion, from, amongst the Workers, who speaks and understands all the languages spoken by the Workers and he/she shall be on site during all stages of the construction period. The Contractor shall ensure that the Awareness Champion has been trained by the Service Provider on basic HIV/AIDS information, the support services available and the necessary skills to handle questions regarding the HIV/AIDS programme in a sensitive way.

The Awareness Champion shall be responsible for:

- (a) Liaising with the Service Provider on organising awareness workshops;
- (b) Filling condom dispensers and monitoring condom distribution;
- (c) Handing out information booklets;
- (d) Placing and maintaining posters

F08 MONITORING

F08.1

The Contractor shall grant to the Representative/Agent reasonable access to the construction site in order to conduct unannounced site visits in order to establish that the Contractor complies with his obligations regarding HIV/AIDS awareness under this contract.

F08.2

The Representative/Agent shall conduct the site visits with the least possible disruption to the Contractor's daily routine.

F08.3

Contractors must report problems that they experience in implementing the HIV/AIDS requirements to the Representative/Agent.

F08.4

The attached SITE CHECKLIST (SCHEDULE A) shall be completed and submitted at every construction progress inspection to the Representative/Agent.

F08.5

The attached SERVICE PROVIDER REPORT (SCHEDULE B) shall be completed and submitted on a monthly basis to the Department's Project Manager through the Representative/Agent

F08.6

The Contractor shall, at the end of the contract, complete and submit a close out programme report CONTRACTOR HIV/AIDS PROGRAMME REPORT (SCHEDULE C)

F09 MEASUREMENT AND PAYMENT

F09.1

It is required of tenderers to thoroughly study the HIV/AIDS Specifications of the Department that must be read together with and is deemed to be incorporated in the Schedule of Quantities. Provision for pricing of HIV/AIDS awareness must be made under Item F10.01

hereafter and it is explicitly pointed out that all requirements of the aforementioned specifications are deemed to be priced hereunder as the said item represents the only method of measurement and no additional items or extras to the contract in this regard shall be entertained.

F09.2

Contractor should take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the Representative /Agent, notwithstanding the provisions of any other clause to the contrary, reserves the right to delay issuing any progress payment certificate until the Contractor provides satisfactory proof of compliance. The Contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.

Item	Unit
F 10.01 HIV AIDS Awareness obligations	Lump Sum

The tendered lump sum shall be in full compensation for the contractor providing an approved selected service provider to comply with the requirements and conditions of the Department's HIV AIDS Specifications, including the workshop education and training within an HIV AIDS Awareness programme and the Contractor's handling costs, profit, record keeping, reporting and all other charges in connection with providing the HIV AIDS Awareness programme.

Payment under item F10.01 will be made as follows:

80% of the amount will be paid once the service provider has complied with the requirements and conditions of the Department's HIV AIDS Specifications, including the workshop education and training within an HIV AIDS Awareness programme.

The outstanding 20% will be paid on completion of the contract, subject to the contractor's compliance in all respects with the requirements and conditions of the Department's HIV AIDS Specifications.

C2.5 MANAGEMENT

CONTENTS

- C2.5.1 Occupational Health and Safety Act 1993: Health and Safety Specification
- C2.5.2 Environmental Management Plan
- C2.5.3 Management Meetings
- C2.5.4 Quality Control

C2.5.1 OCCUPATIONAL HEALTH AND SAFETY ACT 1993: HEALTH AND SAFETY SPECIFICATION

CONTENTS

- C2.5.1.1 Scope
- C2.5.1.2 Definitions
- C2.5.1.3 Project Description
- C2.5.1.4 Tenders
- C2.5.1.5 Notification of Commencement of Construction Work
- C2.5.1.6 Guidelines for the Development of a Health & Safety Plan
- C2.5.1.7 Health and Safety File
- C2.5.1.8 Risk Assessment
- C2.5.1.9 Appointment of Employees and Subcontractors
- C2.5.1.10 Appointment of Safety Personnel
- C2.5.1.11 Contractor's Responsibilities
- C2.5.1.12 Project / Site Specific Requirements
- C2.5.1.13 Arrangements for Monitoring and Review
- C2.5.1.14 Measurement and Payment

C 2.5.1.1 Scope

This specification covers the health and safety requirements to be fulfilled by the contractor to ensure a continued safe and healthy environment for all workers, employees and subcontractors under his control and for all other persons entering the site of works.

This specification shall be read with the Occupational Health and Safety Act (Act No 85 and amendment Act No 181) 1993, and the corresponding Construction Regulations 2003, and all other safety codes and specifications referred to in the said Construction Regulations.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

In terms of the OHS Act Agreement in Section 12 (Forms to be Completed by Successful Tendered) of the tender document, the status of the contractor as mandatory to the employer (Client) is that of an employer in his own right, responsible to comply with all provisions of OHS Act 1993 and the Construction Regulations 2003.

This health and safety specification and the contractor's own Health and Safety Plan as well as the Construction Regulations 2003, shall be displayed on site and made available for inspection by all workers, employees, inspectors and any other persons entering the site of works.

C2.5.1.2 Definitions

For the purpose of this contract the following shall apply:

- (a) **"Employer"** where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract 2015 and it shall have the exact same meaning as **"Client"** as defined in the Construction Regulations 2003. **"Employer"** and **"Client"** is therefore interchangeable and shall be read in the context of the relevant document.
- (b) **"Contractor"**, wherever used in the contract documents and in this specification, shall have the same meaning as **"Contractor"** as defined in the General Conditions of Contract.

The "Contractor" is the "Principal Contractor" in terms of the Construction Regulations 2003. The "Contractor" and "Subcontractor" are "Contractors" in terms of the Construction Regulations 2003.

For the purpose of this contract the **Contractor** will, in terms of OHS Act 1993, be the mandatory of the employer, without derogating from his status as an employer in his own right.

- (c) **"Engineer"** where used in this specification, means the Engineer as defined in the General Conditions of Contract. The employer may appoint the Engineer or any other person to act as his "Agent" in terms of the Construction Regulations 2003.

C2.5.1.3 Project Description

The work to be carried out under this contract is as described in Part A: General.

C2.5.1.4 Tenders

The contractor shall make available the following during the tender evaluation:

- (a) a documented Health and Safety Plan as stipulated in Regulation 5 of the Construction Regulations 2003. The Safety Plan must be based on the Health and Safety Specification in the Project Specifications and will be subject to approval by the employer;
- (b) a declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Construction Regulations 2003; Complete Form T2.4A, page T.47

Failure to make available the foregoing with his tender or during tender evaluation, will lead to the conclusion that the tenderer is not able to carry out the work under the contract safely in accordance with the Construction Regulations and will result in the tender being disqualified.

C2.5.1.5 Notification of Commencement of Construction Work

After award of the contract, but before commencement of construction work, the contractor shall, in terms of Regulation 3, notify the Provincial Director of the Department of Labour in writing if the following work is involved:

- (a) The demolition of structures and dismantling of fixed plant of height of 3, 0 m or more;
- (b) The use of explosives;
- (c) Construction work that will exceed 30 days or 300 person-days;
- (d) Excavation work deeper than 1, 0 m; or
- (e) Working at a height greater than 3, 0 m above ground or landings.

The notification must be done in the form of the pro forma included under Section 11 (The Occupational Health and Safety Act) of the tender document. See Annexure A for a copy of the notification.

A copy of the notification form must be kept on site, available for inspection by inspectors, employer, Engineer, employees and persons on site.

C2.5.1.6 Guidelines for the Development of a Health & Safety Plan

C2.5.1.6.1 Project Background

In terms of the Construction Regulations 2003 [Regulation 4 (1) (a)] of the Occupational Health and Safety Act, No 85 of 1993, the Client is required to compile an Occupational Health and Safety specification the construction work and the contractor, appointed by the Client in terms of Regulation 4 (1) (c), is required to prepare an Occupational Health and Safety Plan. This plan has to be prepared in terms of Regulation 5 (1) as well as the Client's Occupational Health & Safety Specification. In terms of Regulation 4 (2), the client and the contractor are required to agree on the Occupational Health and Safety Plan before any work may commence.

C2.5.1.6.2 Framework for an Occupational Health and Safety Plan

C.2.5.1.6.2.1 Introduction

The contractor has to demonstrate to the Client that he has a suitable and sufficiently documented Occupational Health and Safety Plan as well as the necessary competencies, experience and resources to perform the construction work safely. The contractor could be required to submit the following documentation for perusal and verification by the Client:

- Management Structure
- Quality Plan
- Human Resources Plan
- Registered Workplace Skills Plan
- “Letter of good standing” from the Compensation Commissioner or licensed compensation insurer.
- Proof of induction and other training of employees
- Example copy minutes of previous Occupational Health and Safety Committee meetings and copies of Incident Investigation Reports

C2.5.1.6.2.2 Contents of an Occupational Health and Safety Plan

The Occupational Health and Safety Plan shall include the following:

Occupational Health and Safety Management Programme

- Management of Occupational Health and Safety risks
- Occupational Health and Safety structures and appointments
- Programme of Occupational Health and Safety inspections
- Occupational Health and Safety Representatives
- Occupational Health and Safety committee

Communication and Management of the Work

- Management structure and responsibilities
- Occupational Health and Safety objectives for the project and arrangements for monitoring and review of Occupational Health and Safety performance
- Arrangements for:
 - Regular liaison between parties on site
 - Consultation with the workforce
 - The exchange of design information between the Client, Engineer, supervisors and subcontractors on site
 - Handling design changes during the project
 - Selection and control of subcontractors
 - The exchange of Occupational Health and Safety information between all subcontractors
 - Security
 - Site induction and on site training
 - Facilities and first-aid
 - The reporting and investigation of accidents and incidents
 - The production and approval of risk assessments and method statements

- Site Occupational Health and Safety rules
- Fire and emergency procedures
- Reporting to the Client i.e. results of Occupational Health and Safety inspections, incident
- and incident investigations and committee meetings
- Reporting of incidents to the Department of Labour and Compensation insurer where appropriate

Arrangements for controlling significant site risks

The following are some examples requiring arrangements for controlling the most significant site risks:

Safety risks

- Services, including temporary electrical installations
- Preventing employees from falling into excavations, from trucks etc.
- Work with, on or near fragile materials
- Control of lifting operations
- The maintenance of plant and equipment
- Poor ground conditions
- Traffic routes and segregation of vehicles and pedestrians
- Storage of hazardous materials
- Dealing with existing unstable structures/land
- Accommodating adjacent land use
- Other significant safety risks as and when identified

Health risks

- Storage and use of hazardous chemical substances
- Dealing with contaminated land or material
- Manual handling
- Reducing noise and vibration
- Provision of adequate lighting
- Ventilation considerations
- Extreme heat and cold temperature considerations
- Dealing with HIV/Aids and other illnesses
- Provision of and maintaining ablution and eating facilities
- Other significant health risks as and when identified

C2.5.1.7 Health and Safety File

The contractor shall in terms of Construction Regulation 5(7) maintain a Health and Safety File on site at all times. The Health and Safety File is a file or other permanent record containing information on aspects of the construction project - which will be necessary to ensure the health and safety of any person who may be affected by the construction work.

The contractor shall appoint a suitably qualified person to prepare the Health and Safety File and to keep it up to date for the duration of the contract. The Health and Safety file shall include the following information:

- Notification of Construction Work (Construction Regulation 3.) (Annexure A)
- Copy of OH&S Act (updated) (General Administrative Regulation 4.)
- Proof of Registration and good standing with a COID Insurer (Construction Regulation 4 (g))
- Copy of health and safety plan (construction regulation 5 (1))
- OH&S Programme agreed with Client including the underpinning Risk Assessment and Method Statements (Construction regulation 5 (1))
- Designs/drawings (Construction Regulation 5 (8))
- A list of contractors (subcontractors) including copies of the agreements between the parties and the type of work being done by each contractor (Construction Regulation 9)
- Appointment / Designation forms required by the ACT and Regulations.
- Registers as follows:
 - * Accident/Incident Register (Annexure 1 of the General Administrative Regulations)
 - * OH&S Representatives Inspection Register
 - * Form/Support work Inspection
 - * Excavations Inspection
 - * Lifting Equipment
 - * Demolition Inspections
 - * Designer's Inspection of Structures Record
 - * Batch Plant Inspections
 - * Arc & Gas Welding & Flame Cutting Equipment Inspections
 - * Construction Vehicles & Mobile Plant Inspections
 - * Electrical Installation and Machinery Inspections
 - * Fire Equipment Inspection & Maintenance
 - * First Aid
 - * Hazardous Chemical Substances
 - * Lifting Tackle and Equipment Inspections

- * Inspection of Cranes
- * Inspection of Ladders
- * Inspection of Vessels under Pressure
- * Machinery Inspections
- * Drivers/Operators of Mobile Plant/Construction Vehicles Daily Inspections
- * Accommodation of traffic daily inspection book

Annexure B is a list of the records to be kept on site.

The Health & Safety File shall be handed over to the Client on completion of the contract. It must contain all the documentation handed to the contractor by any subcontractors together with a record of all drawings, designs, materials used and other similar information concerning the completed project.

C2.5.1.8 Risk Assessment

Before commencement of any construction work during the construction period, the contractor shall have a risk assessment performed and recorded in writing by a competent person. (Refer Regulation 7 of the Construction Regulations 2003).

Risk is a measure of the likelihood that the harm from a particular hazard will be realized, taking into account the possible severity of the harm. Harm to people includes death, injury (permanent or temporary), physical or mental health or any combination thereof. Risk management in health and safety includes the identification of hazards, assessing risks, taking action to eliminate or reduce the risk, monitoring the effectiveness and performing regular reviews of the entire process. The contractor shall compile method statements to address or handle the following:

- Hazards particulars to contract
- Identify what could go wrong and how
- Identify the likelihood of this happening
- Identify the persons at risk
- Identify the extent of possible harm
- Eliminating or reducing this risk
- A monitoring plan
- A review plan

Contractors must ensure that all subcontractors conduct risk assessments for their scope of work as well.

The risk assessment shall identify and evaluate the risks and hazards that may be expected during the execution of the work under the contract, and it shall include a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified.

The risk assessment shall be available on site for inspection by inspectors, employer, engineer, subcontractors, employees, trade unions and health and safety committee members, and must be monitored and reviewed periodically by the contractor.

C2.5.1.9 Appointment of Employees and Subcontractors

C2.5.1.9.1 Health and Safety Plan

The contractor shall appoint his employees and any subcontractors to be employed on the contract, in writing, and he shall provide them with a copy of his documented Health and Safety Plan or relevant sections thereof. The contractor shall ensure that all subcontractors and employees are committed to the implementation of his Safety Plan.

C2.5.1.9.2 Health and safety induction training

The contractor shall ensure that all employees under his control, including subcontractors and their employees, undergo a health and safety induction training course by a competent person before commencement of construction work. No visitor or other person shall be allowed or permitted to enter the site of the works unless such person has undergone health and safety training pertaining to hazards prevalent on site.

The contractor shall ensure that every employee or visitor on site shall at all times be in possession of proof of the health and safety induction training issued by a competent person prior to commencement of construction work.

C2.5.1.9.3 OH&S Training Requirements: (as required by the Construction Regulations and as indicated by the OH&S Specification and the Risk Assessment/s):

- * General Induction (Section 8 of the Act)
- * Site/Job Specific Induction (also visitors) (Sections 8 & 9 of the Act)
- * Site/Project Manager
- * Construction Supervisor
- * OH&S Representatives (Section 18 (3) of the Act)
- * Training of the Appointees indicated in 3.1.1. & 3.1.2. above
- * Operation of Cranes (Driven Machinery Regulations 18 (11))
- * Operators and Drivers of Construction Vehicles & Mobile Plant (Construction Regulation 21)
- * Basic Fire Prevention & Protection (Environmental Regulations 9 and Construction regulation 27)
- * Basic First Aid (General Safety Regulations 3)
- * Storekeeping Methods & Safe Stacking (Construction Regulation 26)
- * Emergency, Security and Fire Co-ordinator

C2.5.1.10 Appointment of Safety Personnel

C2.5.1.10.1 Construction supervisor

The contractor shall appoint a full-time Construction Supervisor with the duty of supervising the performance of the construction work.

He may also have to appoint one or more competent employees to assist the construction supervisor where justified by the scope and complexity of the works.

C2.5.1.10.2 Construction safety officer

Subject to the decision by the Inspector of the Department of Labour and taking into consideration the size of the project and the hazards or dangers that can be expected, the contractor shall appoint in writing a full-time or part-time Construction Safety Officer. The Safety Officer shall have the necessary competence and resources to perform his duties

diligently. Provision will be made in the bill of quantities to cover the cost of a dedicated construction safety officer appointed after award of the contract if so ordered by the engineer.

C2.5.1.10.3 Health and safety representatives

In terms of Sections 17 and 18 of the Act (OHSA 1993) the contractor shall appoint a health and safety representative whenever he has more than 20 employees in his employ on the works. The health and safety representative must be selected from employees who are employed in a full-time capacity at a specific workplace.

The number of health and safety representatives for a workplace shall be at least one for every 50 employees.

The function of the health and safety representative(s) will be to review the effectiveness of health and safety measures, to identify potential hazards and major incidents, to examine causes of incidents (in collaboration with his employer, the contractor), to investigate complaints by employees relating to health and safety at work, to make representations to the employer (contractor) or inspector on general matters affecting the health and safety of employees, to inspect the workplace, plant, machinery etc. on a regular base, to participate in consultations with inspectors and to attend meetings of the health and safety committee.

C2.5.1.10.4 Health and safety committee

In terms of Sections 17 and 18 of the Act (OHSA 1993) the contractor (as employer), shall establish one or more health and safety committee(s) where there are two or more health and safety representatives at a workplace. The persons selected by the contractor to serve on the committee shall be designated in writing.

The function of the health and safety committee shall be to hold meetings at regular intervals, but at least once every three months, to review the health and safety measures on the contract, to discuss incidents related to health and safety with the contractor and the inspector, and to make recommendations regarding health and safety to the contractor and to keep record of meetings, recommendations and reports made by the committee.

C2.5.1.10.5 Competent persons

In accordance with the Construction Regulations the contractor shall appoint, in writing, competent persons responsible for supervising construction work for the following work situations that may be expected on the site of the works.

- (a) Risk assessment (Regulation 7);
- (b) Fall protection (Regulation 8);
- (c) Structures (Regulation 9);
- (d) Formwork and support work (Regulation 10);
- (e) Excavation work (Regulation 11);
- (f) Demolition work (Regulation 12);
- (g) Tunnelling (Regulation 13);
- (h) Scaffolding work (Regulation 14);
- (i) Suspended platform operations (Regulation 15);
- (j) Boatswain chairs (Regulation 16);

- (k) Material Hoists (Regulation 17);
- (l) Batch plant operations (Regulation 18);
- (m) Explosive powered tools (Regulation 19)
- (n) Cranes (Regulation 20);
- (o) Construction vehicle and mobile plant (Regulation 21(1));
- (p) Electrical installation and machinery on construction site (Regulation 22);
- (q) Use of temporary storage of flammable liquids on construction site (Regulation 23);
- (r) Water environments (Regulation 24):
- (s) Housekeeping on construction sites (Regulation 25)
- (t) Stacking and storage on construction sites (Regulation 26);
- (u) Fire precautions on construction sites (Regulation 27); and
- (v) Construction welfare facilities (Regulation 28).

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to supervise at the same time the construction work on all the work situations for which he has been appointed.

The appointment of competent persons to supervise parts of the construction work does not relieve the contractor from any of his responsibilities to comply with all requirements of the Construction Regulations.

C2.5.1.11 Contractor's Responsibilities

Before commencement of work under the contract, the contractor shall enter into an agreement with the employer (Client) to confirm his status as mandatary (employer) for the contract under consideration.

The contractor's duties and responsibilities are clearly set out in the Construction Regulations 2003, and are not repeated in detail but some important aspects are highlighted hereafter, without relieving the contractor of any of his duties and responsibilities in terms of the Construction Regulations.

In addition the contractor shall also comply with the requirements of the Compensation of Occupational Injuries and Diseases Act 130 of 1993 (COIDA) and to this effect shall submit a letter of good standing with the compensation Insurer to the Client before work on site commences.

(a) Contractor's position in relation to the Employer (Client) (Regulation 4)

In accordance with Section 4 of the Regulations, the contractor shall liaise closely with the employer or the engineer on behalf of the employer, to ensure that all requirements of the Act and the Regulations are met and complied with.

(b) The Contractor and subcontractor (Regulation 5)

The contractor is in terms of the definition in Regulation 2(b) the equivalent of contractor as defined in the Construction Regulations, and he shall comply with all the provisions of Regulation 5.

Any subcontractors employed by the contractor must be appointed in writing, setting out the terms of the appointment in respect of health and safety. An independent subcontractor shall, however, provide and demonstrate to the contractor a suitable, acceptable and

sufficiently documented health and safety plan before commencement of the subcontract. In the absence of such a health and safety plan the subcontractor shall undertake in writing that he will comply with the contractor's safety plan, the health and safety specifications of the employer and the Construction Regulations 2003.

(c) Supervision of construction work (*Regulation 6*)

The contractor shall appoint the safety and other personnel and employees as required in terms of Regulation 6 and as set out in paragraph 7 above. Appointment of those personnel and employees does not relieve the contractor from any of the obligations under Regulation 6.

(d) Risk assessment (*Regulation 7*)

The contractor shall have the risk assessment is performed as set out in paragraph 7 above before commencement of the work, and it must be available on site for inspection at all times. The contractor shall consult with the health and safety committee or health and safety representative(s) etc. on a regular basis to ensure that all employees, including subcontractors under his control, are informed and trained by a competent person regarding health hazards and related work procedures.

No subcontractor, employee or visitor shall be allowed to enter the site of works without prior health and safety induction training, all as specified in Regulation 7.

(e) Fall protection (*Regulation 8*)

Fall protection, if applicable to this contract shall comply in all respects with Regulation 8 of the Construction Regulations.

(f) Structures (*Regulation 9*)

The contractor will be liable for all claims arising from the collapse or failure of structures if he failed to comply with all the specifications, project specifications and drawings related to the structures, unless it can be proved that such collapse or failure can be attributed to faulty design or insufficient design standards on which the specifications and the drawings are based.

In addition the contractor shall comply with all aspects of Regulation 9 of the Construction Regulations.

(g) Formwork and support work (*Regulation 10*)

The contractor will be responsible for the adequate design of all formwork and support structures by a competent person.

All drawings pertaining to formwork shall be kept on site and all equipment and materials used in formwork, shall be carefully examined and checked for suitability by a competent person. A design certificate of the formwork and support structures shall be submitted by a professional engineer.

The provisions of Regulation 10 of the Construction Regulations shall be followed in every detail.

(h) Excavation work (*Regulation 11*)

It is essential that the contractor shall follow the instructions and precautions in the Standard Specifications and Project Specifications as well as the provisions of the Construction Regulations to the letter as unsafe excavations can be a major hazard on any construction site. The contractor shall therefore ensure that all excavation work is in terms of the

Standard Specifications and Project Specifications and the Construction Regulations carried out under the supervision of a competent person, that inspections are carried out by a professional engineer or technologist, and that all work is done in such a manner that no hazards are created by unsafe excavations and working conditions.

Supervision by a competent person will not relieve the contractor from any of his duties and responsibilities under Regulation 11 of the Construction Regulations.

(i) Demolition work (Regulation 12)

Whenever demolition work is included in a contract, the contractor shall comply with all the requirements of Regulation 12 of the Construction Regulations. The fact that a competent person has to be appointed by the contractor, does not relieve the contractor from any of his responsibilities in respect of safety of demolition work.

(j) Tunnelling (Regulation 13)

The contractor shall comply with Regulation 13 wherever tunnelling of any kind is involved.

(k) Scaffolding (Regulation 14)

The contractor shall ensure that all the provisions of Regulation 14 of the Construction Regulations are complied with. [Note: Reference in the Regulations to "Section 44 of the Act" should read "Section 43 of the Act"]

(l) Suspended platforms (Regulation 15)

Wherever suspended platforms will be necessary on any contract, the contractor shall ensure that copies of the system design issued by a professional engineer are submitted to the engineer for inspection and approval. The contractor shall appoint competent persons as supervisors and competent scaffold erectors, operators and inspectors and ensure that all work related to suspended platforms are done in accordance with Regulation 15 of the Construction Regulations.

(m) Boatswain's chairs (Regulation 16)

Where boatswain's chairs are required on the construction site, the contractor shall comply with Regulation 16.

(n) Material Hoists (Regulation 17)

Wherever applicable, the contractor shall comply with the provisions of Regulation 17 to the letter.

(o) Batch plants (Regulation 18)

Wherever applicable, the contractor shall ensure that all lifting machines, lifting tackle, conveyors, etc. used in the operation of a batch plant shall comply with, and that all operators, supervisors and employees are strictly held to the provisions of Regulation 18. The contractor shall ensure that the General Safety Regulations (Government Notice R1031 of 30 May 1986), the Driven Machinery Regulations (Government Notice R295 of 26/2/1988) and the Electrical

Installation Regulations (Government Notice R2271 of 11/10/1995) are adhered to by all involved.

In terms of the Regulations, records of repairs and maintenance shall be kept on site.

(p) Explosive powered tools (Regulation 19)

The contractor shall ensure that, wherever explosive-powered tools are required to be used, all safety provisions of Regulation 19 are complied with.

It is especially important that warning notices are displayed and that the issue and return of cartridges and spent cartridges be recorded in a register to be kept on site.

(q) Cranes (Regulation 20)

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 20 shall be complied with.

(r) Construction vehicles and mobile plant (Regulation 21)

The contractor shall ensure that all construction vehicles and plant are in good working condition and safe for use, and that they are used in accordance with their design and intended use. The vehicles and plant shall only be operated by workers or operators who have received appropriate training, all in accordance with all the requirements of Regulation 21.

All vehicles and plant must be inspected on a daily basis, prior to use, by a competent person and the findings must be recorded in a register to be kept on site.

(s) Electrical installation and machinery on construction sites (Regulation 22)

The contractor shall comply with the Electrical Installation Regulations (Government Notice R2920 of 23 October 1992) and the Electrical Machinery Regulations (Government Notice R1953 of 12 August 1993). Before commencement of construction, the contractor shall take adequate steps to ascertain the presence of, and guard against dangers and hazards due to electrical cables and apparatus under, over or on the site.

All temporary electrical installations on the site shall be under the control of a competent person, without relieving the Contractor of his responsibility for the health and safety of all workers and persons on site in terms of Regulation 22.

(t) Use of temporary storage of flammable liquids on construction sites (Regulation 23)

The contractor shall comply with the provisions of the General Safety Regulations (Government Notice R1031 of 30 May 2986) and all the provisions of Regulation 23 of the Construction Regulations to ensure a safe and hazard-free environment to all workers and other persons on site.

(u) Water environments (Regulation 24)

Where construction work is done over or in close proximity to water, the provisions of Regulation 24 shall apply.

(v) Housekeeping on Construction sites (Regulation 25)

Housekeeping on all construction sites shall be in accordance with the provisions of the environmental Regulations for workplaces (Government Notice R2281 of 16 October 1987) and all the provisions of Regulation 25 of the Construction Regulations.

(w) Stacking and storage on construction sites (Regulation 26)

The provisions for the stacking of articles contained in the General Safety Regulations (Government Notice R1031 of 30 May 1986) as well as all the provisions of Regulation 26 of the Construction Regulations shall apply

(x) Fire precautions on construction sites (Regulation 27)

The provisions of the Environmental Regulations for Workplaces (Government Notice R2281 of 16 October 1987) shall apply.

In addition the necessary precautions shall be taken to prevent the incidence of fires, to provide adequate and sufficient fire protection equipment, sirens, escape routes etc. all in accordance with Regulation 27 of the Construction Regulations.

(y) Construction welfare facilities (Regulation 28)

The contractor shall comply with the construction site provisions as in the Facilities Regulations (Government Notice R1593 of 12 August 1988) and the provisions of Regulation 28 of the Construction Regulations.

(z) Non-compliance with the Construction Regulations 2003

The foregoing is a summary of parts of the Construction Regulations applicable to all construction projects.

The contractor, as employer for the execution of the contract, shall ensure that all provisions of the Construction Regulations applicable to the contract under consideration are complied with to the letter.

Should the contractor fail to comply with the provisions of the Regulations 3 to 28 as listed in Regulation 30, he will be guilty of an offence and will be liable, upon conviction, to the fines or imprisonment as set out in Regulation 30.

The Contractor is advised in his own interest to make a careful study of the Act and the Construction Regulations as ignorance of the Act and the Regulations will not be accepted in any proceedings related to non-conformance to the Act and the Regulations

C2.5.1.12 Project / Site Specific Requirements

The following is a list of specific activities and considerations that have been identified for the project and the construction site and for which Risk Assessments, Standard Working Procedures (SWP), management and control measures and Method Statements (where necessary) have to be developed by the Principal Contractor:

- * Clearing & Grubbing of the Site
- * Site Establishment
- * Dealing with existing structures
- * Location and relocation of existing services, monuments and memorials.
- * Installation and maintenance of temporary construction electrical supply, lighting and equipment
- * Health risks arising from neighbouring as well as own activities and from the environment e.g. threats by dogs, bees, snakes, lightning etc.

- * Accommodation of traffic
- * Exposure to noise
- * Exposure to vibration
- * Exposure to bituminous products
- * Protection against dehydration and heat exhaustion
- * Protection from wet & cold conditions
- * Dealing with HIV/Aids and other diseases
- * Use of Portable Electrical Equipment including
 - Angle grinder
 - Electrical drilling machine
- * Excavations including
 - Ground/soil conditions
 - Trenching
 - Shoring
 - Drainage of trench
- * Foundation excavations for structures
- * Use of LP gas torches and appliances
- * Loading & offloading of trucks
- * Aggregate/sand and other materials delivery
- * Manual and mechanical handling
- * Lifting and lowering operations
- * Driving & operation of construction vehicles and mobile plant including
 - Excavator
 - Bomag roller
 - Plate compactor
 - Front end loader
 - Mobile cranes and the ancillary lifting tackle
 - Parking of vehicles & mobile plant
 - Towing of vehicles & mobile plant
- * Use and storage of flammable liquids and other hazardous substances
- * Bedding of trench floor
- * Installation of pipes in trench
- * Backfilling of trench
- * Protection against flooding
- * Gabion work
- * Use of explosives
- * Protection from overhead power lines

- * As discovered by the Principal Contractor's hazard identification exercise
- * As discovered from any inspections and audits conducted by the Client or by the Principal Contractor or any other contractor on site
- * As discovered from any accident/incident investigation.

C2.5.1.13 Arrangements for Monitoring and Review

The Client will conduct a Monthly Audit to audit compliance with Construction Regulation 4(1) (d) to ensure that the contractor has implemented and is maintaining the agreed and approved OH&S Plan. Annexure C will be used as format when conducting the audit.

The Client reserves the right to conduct other ad hoc audits and inspections as deemed necessary.

A representative of the contractor must accompany the client on all audits and inspections and may conduct his own audit/inspection at the same time. Each party will, however, take responsibility for the results of his own audit/inspection results.

C2.5.1.13 Measurement and Payment

In tendering rates for the following three items the contractor shall ensure that the sum of the amounts for the three items shall not be less than one percent (1%) of the Tender Amount.

Item	Unit
C2.5.1.14.02 Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations and COVID19 Construction Site Management Procedures	Lump Sum

The full amount will be paid in one instalment only once:-

- (a) The contractor has notified the Provincial Director of the Department of Labour in writing of the project.
- (b) The contractor has made the required initial appointments of employees and sub-contractors.
- (c) The client has approved the contractor's Health and Safety Plan.
- (d) The contractor has set up his Health and Safety File.

Item	Unit
C2.5.1.14.03 Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations and COVID19 Construction Site Management Procedures	Month

The tendered monthly amount shall represent full compensation for that part of the contractor's general obligations in terms of the Occupational Health and Safety Act and the Construction Regulation Part C – Health and Safety Specification and COVID19 Construction Site Management Procedures, which are mainly a function of time. This includes inter alia payment of all costs for the appointment of all staff contemplated in the construction regulations and

the transport of employees on site. Payment will be monthly only after payment for Item C2.5.1.14.02 has been made.

Item	Unit
C2.5.1.14.04 Submission of the Health and Safety File	Prov Sum

Expenditure under this item shall be made in accordance with the general conditions of contract.

This amount will be paid only once the contractor has met all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and has submitted his Health and Safety File complete as envisaged on this specification to the Client's satisfaction.

The following pay item is for the implementation of safety requirements on the site of the works.

Item	Unit
C2.5.1.14.05 Protection of pedestrians at excavations	Prov Sum

The provisional sum shall cover all measures ordered by the engineer to ensure the safety of pedestrians in and around the works and shall include compensation for the acquisition, installation and maintenance of materials used for the demarcation of potentially dangerous areas, including excavations.

Expenditure under this item shall be made in accordance with the general condition of contract.

ANNEXURE A

**NOTIFICATION OF CONSTRUCTION WORK
Regulation 3 of the Construction Regulations, 2003**

1. (a) Name and postal address of principal contractor:
.....
- (b) Name and telephone number of principal contractor's contact person:
.....
2. Principal contractor's compensation registration number:
.....
3. (a) Name and postal address of client:
.....
- (b) Name and telephone number of client's contact person or agent:
.....
4. (a) Name and postal address of designer(s) for the project:
.....
- (b) Name and telephone number of designer's contact person:
.....
5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulations 6 (1):
.....
6. Name/s of principal contractor's sub-ordinate supervisors on site appointed in terms of regulation 6 (2):
.....
7. Exact physical address of the construction site or site office:
.....

8. Nature of the construction work:

.....
.....
.....
.....

9. Expected commencement date:

10. Expected completion date:

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

.....

12. Planned number of contractors on the construction site accountable to principal contractor:

.....

13. Name(s) of contractors already chosen:

.....
.....
.....

.....
Principal Contractor

.....
Date

.....
Client

.....
Date

- THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR PRIOR TO COMMENCEMENT OF WORK ON SITE.
- ALL PRINCIPAL CONTRACTORS THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR ON THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

ANNEXURE B

RECORDS TO BE KEPT ON SITE

ITEM	CR	RECORD TO BE KEPT	RESPONSIBLE PERSON
1.	3(3)	Notification to Provincial Director – Annexure A Available on site	Principal Contractor
2.	4(3)	Copy of Principal Contractor's Health & Safety Plan Available on request	Client
3.	5(6)	Copy of Principal Contractor's Health & Safety Plan As well as each contractor's Health & Safety Plan Available on request	Principal Contractor
4.	5(7)	Health & Safety File opened and kept on site (including all documentation-required i.t.o. OHS&A & Regulations Available on request	Every Contractor
5.	5(8)	Consolidated Health & Safety File handed to Client on completion of Construction work. To include all documentation required i.t.o. OHS&A & Regulations and records of all drawings, designs, materials used and similar information on the structure.	Principal Contractor
6.	5(9)	Comprehensive and Updated List of all contractors on site, the agreements between the parties and the work being done Included in Health & Safety file and available on request	Principal Contractor
7.	6(7)	Keep record on the Health & safety File of the input by Construction Safety Officer [CR 6 (6)] at design stage or on the Health & Safety Plan	Contractor
8.	7(2)	Risk Assessment Available on site for inspection	Contractor
9.	7(9)	Proof of Health & Safety Induction Training	Every Employee on site
10.	8(3)	Construction Supervisor [CR 6 (1)] has latest updated version of Fall Protection Plan [CR 8 (1)]	Contractor
11.	9(2)(b)	Inform contractor in writing of dangers and hazards relating to construction work	Designer of Structure
12.	9(3)	All drawings pertaining to the design of structure On site available for inspection	Contractor
13.	9(4)	Record of inspection of the structure [First 2 years – once every 6 months, thereafter yearly]	Owner of Structure
14.	9(5)	Maintenance records – safety of structure Available on request	Owner of Structure
15.	10(1)(d)	Drawings pertaining to the design of formwork/support work structure Kept on site, available on request	Contractor
16.	11(3)(h)	Record of excavation inspection On site available on request	Contractor
17.	15(11)	Suspended Platform inspection and performance test records Kept on site available on request	Contractor

**TENDER No. DRT 36/11/2019**

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

18.	17(8)(c)	Material Hoist daily inspection entered and signed in record book kept on the premises	Contractor
19.	17(8)(d)	Maintenance records for Material Hoist Available on site	Contractor
20.	18(9)	Records of Batch Plant maintenance and repairs On site available for inspection	Contractor
21.	19(2)(g)(ii)	Issuing and collection of cartridges and nails or studs (Explosive Powered Tools) recorded in register – recipient signed for receipt as well as return	Contractor
22.	21(1)(d)	Findings of daily inspections (prior to use) of Construction Vehicles and Mobile Plant	Contractor
23.	22(d)	Record of temporary electrical installation inspections [once a week] and electrical machinery [daily before use] in a register and kept on site	Contractor



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

ANNEXURE C

**CONSTRUCTION OCCUPATIONAL HEALTH – SAFETY – ENVIRONMENT
CHECK LIST**

CONTRACT NO: _____
DESCRIPTION: _____
CONTRACTOR: _____
CLIENT: _____
AUDIT NO: _____
DATE OF AUDIT: _____
PERSONNEL AUDITED: _____
AUDIT PERFORMED BY: _____

1. ADMINISTRATIVE & LEGAL REQUIREMENTS

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Construction. Regulation 3	Notice of carrying out Construction work	Department of Labour notified Copy of Notice available on Site		
General Admin. Regulation 4	*Copy of OH&S Act (Act 85 of 1993)	Updated copy of Act & Regulations on site. Readily available for perusal by employees.		
COID Act Section 80	*Registration with Compens. Insurer. Copy of COID Act. (Act 130 of 1996)	Written proof of registration/Letter of good standing available on Site Copy of Compensation for Occupational Injuries and Diseased Act (COID Act) on site		
Construction. Regulation 4 & 5(1)	OH&S Specification & Programme	OH&S Spec received from Client OH&S programmed developed Updated regularly		

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Section 8(2)(d) Construction. Regulation 7	*Hazard Identification & Risk Assessment	Hazard Identification carried out/Recorded Risk Assessment and – Plan drawn up/Updated RA Plan available on Site Employees/Sub-Contractors informed/trained		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Section 16(2)	*Assigned duties (Managers)	Responsibility of complying with the OH&S Act assigned to other person/s by CEO.		
Construction. Regulation 6(1)	Designation of Person Responsible on Site	Competent person appointed in writing as Construction Supervisor		
Construction. Regulation 6(2)	Designation of Assistant for above	Competent person appointed in writing as Assistant Construction Supervisor		
Section 17 & 18 General Administrative Regulations 6 & 7	*Designation of Occupational Health & Safety Representatives	More than 20 employees - one OH&S Representative, one additional OH&S Rep. for each 50 employees or part thereof. Designation in writing, period and area of responsibility specified. Meaningful OH&S Rep. reports. Reports actioned by Management.		
Section 19 & 20 General Administrative Regulations 5	*Occupational Health & Safety Committee/s	OH&S Committee/s established. Members appointed in writing. Meetings held monthly. Minutes kept. Actioned by Management.		
Section 37(1) & (2) Construction Regulation 5	*Agreement with Mandataries/ (Sub-)Contractors	Written agreement with (Sub-)Contractors List of (Sub) Contractors displayed. Proof of Registration with Compensation Insurer/Letter of Good Standing Construction Supervisor designated Written arrangements re.		

		OH&S Reps & OH&S Committee Written arrangements re. First Aid Written arrangements re. Construction Vehicles & Mobile Plant		
--	--	---	--	--



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Section 24 & General Admin. Regulation 8 COID Act Sect.38, 39 & 41	*Reporting of Incidents (Dept. of Labour)	Incident Reporting Procedure displayed. All incidents in terms of Sect. 24 reported to the Provincial Director, Department of Labour, within 3 days. (Annexure 1)(WCL 1 or 2) Cases of Occupational Disease Reported Copies of Reports available on Site Record of First Aid injuries kept		
General Admin. Regulation 9	*Investigation and Recording of Incidents	All injuries which resulted in the person receiving medical treatment other than first aid, recorded and investigated by investigator designated in writing. Copies of Reports (Annexure 1) available on Site Tabled at OH&S Committee meeting Action taken by Site Management.		
Construction. Regulation 8	Fall Prevention & Protection	Competent person appointed to draw up and supervise the Fall Protection Plan Proof of appointees competence available on Site Risk Assessment carried out for work at heights Fall Protection Plan drawn up/updated Available on Site		
Construction. Regulation 8(5)	Roofwork	Competent person appointed to plan & supervise Roofwork. Proof of appointees competence available on Site Risk Assessment carried out Roofwork Plan drawn up/updated Roofwork inspect before each shift. Inspection register kept		

		Employees medically examined for physical & psychological fitness. Written proof on site		
--	--	--	--	--



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Construction. Regulation 9	Structures	Information re. the structure being erected received from the Designer including: - geo-science technical report where relevant - the design loading of the structure - the methods & sequence of construction - anticipated dangers/hazards/special measures to construct safely Risk Assessment carried out Method statement drawn up All above available on Site Structures inspected before each shift. Inspections register kept		
Construction. Regulation 10	Formwork & Supportwork	Competent person appointed in writing to supervise erection, maintenance, use and dismantling of Support & Formwork Design drawings available on site Risk Assessment carried out Support & Formwork inspected: - before use/inspection - before pouring of concrete - weekly whilst in place - before stripping/dismantling. Inspection register kept		
Construction. Regulation 14	Scaffolding	Competent persons appointed in writing to: - erect scaffolding (Scaffold Erector/s) - act as Scaffold Team Leaders - inspect Scaffolding weekly and after inclement weather (Scaffold		

		<p>Inspector/s) Written Proof of Competence of above appointees available on Site Copy of SABS 085 available on Site Risk Assessment carried out Inspected weekly/after bad weather. Inspection register/s kept</p>		
OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Construction. Regulation 15	Suspended Platforms	<p>Competent persons appointed in writing to:</p> <ul style="list-style-type: none"> - control the erection of Susp.platforms - act as Susp.platforms Team Leaders - inspect Susp.Scaffolding weekly and after inclement weather <p>Risk Assessment conducted</p> <p>Certificate of Authorisation issued by a registered professional engineer available on Site/copy forwarded to the Department of Labour</p> <p>The following inspections of the whole installation carried out by a competent person</p> <ul style="list-style-type: none"> - after erection and before use - daily prior to use. Inspection register kept <p>The following tests to be conducted by a competent person:</p> <ul style="list-style-type: none"> - load test of whole installation and working parts every 12 months - hoisting ropes/hooks/load attaching devices quarterly. Tests log book kept <p>Employees working on Suspended Platform medically examined for physical & psychological fitness. Written proof available</p>		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Construction. Regulation 11	Excavations	Competent person/s appointed in writing to supervise and inspect excavation work Written Proof of Competence of above appointee/s available on Site Risk Assessment carried out Inspected: - before every shift - after any blasting - after an unexpected fall of ground - after any substantial damage to the shoring - after rain. Inspections register kept Method statement developed where explosives will be/ are used		
Construction. Regulation 12	Demolition Work	Competent person/s appointed in writing to supervise and control Demolition work Written Proof of Competence of above appointee/s available on Site Risk Assessment carried out Engineering survey and Method Statement available on Site Inspections to prevent premature collapse carried out by competent person before each shift. Inspection register kept		
Construction. Regulation 17	Materials Hoist	Competent person appointed in writing to inspect the Material Hoist Written Proof of Competence of above appointee available on		

		Site. Materials Hoist to be inspected weekly by a competent person. Inspections register kept.		
--	--	--	--	--



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Construction. Regulation 24	Water Environments (Incl Caissons & Cofferdams)	Competent person appointed in writing to supervise, control & inspect work on or over water and the construction, installation/dismantling of caissons/ cofferdams Written Proof of Competence of above appointee available on Site Risk Assessment carried out To be inspected daily by a competent person. Inspections register kept		
Construction. Regulation 19	Explosive Powered Tools	Competent person appointed to control the issue of the Explosive Powered Tools & cartridges and the service, maintenance and cleaning. Register kept of above Empty cartridge cases/nails/fixing bolts returns recorded Cleaned daily after use		
Construction. Regulation 18	Batch Plants	Competent person appointed to control the operation of the Batch Plant and the service, maintenance and cleaning. Register kept of above Risk Assessment carried out Batch Plant to be inspected weekly by a competent person. Inspections register kept		
Construction. Regulation 130/ Mine H&S Act	Tunnelling	Complying with Mines Health & Safety Act (29 of 1996) Risk Assessment carried out		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Construction. Regulation 20/ Driven Machinery Regulations 18 & 19	Cranes & Lifting Machines Equipment	Competent person appointed in writing to inspect Cranes, Lifting Machines & Equipment Written Proof of Competence of above appointee available on Site. Cranes & Lifting tackle identified/numbered Register kept for Lifting Tackle Log Book kept for each individual Crane Inspection: - All cranes - daily by operator - Tower Crane/s - after erection/6monthly - Other cranes - annually by comp. person - Lifting tackle (slings/ropes/chain slings etc.) - 3 monthly		
Construction. Regulation 22/Electrical Machinery Regulations 9 & 10/ Electrical Installation Regulations	*Inspection & Maintenance of Electrical Installation & Equipment (including portable electrical tools)	Competent person appointed in writing to inspect/test the installation and equipment. Written Proof of Competence of above appointee available on Site. Inspections: - Electrical Installation & equipment inspected after installation, after alterations and quarterly. Inspection Registers kept Portable electric tools and -lights and extension leads identified/numbered. Monthly visual inspection by User/Issuer/ Storeman. Register kept.		
Diving Regulations	Diving Operations	Competent person appointed in writing to Supervise Diving Operations and ensure maintenance, statutory inspection and		

		testing by an Approved Inspection Authority of equipment used		
Construction. Regulation 26/ General Safety Regulation 8(1)(a)	*Designation of Stacking & Storage Supervisor.	Competent Person/s with specific knowledge and experience designated to supervise all Stacking & Storage Written Proof of Competence of above appointee available on Site		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Construction. Regulation 27/ Environmental Regulation 9	*Designation of a Person to Co-ordinate Emergency Planning And Fire Protection	Person/s with specific knowledge and experience designated to co-ordinate emergency contingency planning and execution and fire prevention measures Emergency Evacuation Plan developed: - Drilled/Practiced - Plan & Records of Drills/Practices available on Site Fire Risk Assessment carried out All Fire Extinguishing Equipment identified and on register . Inspected weekly. Inspection Register kept Serviced annually		
General Safety Regulation 3	*First Aid	Every workplace provided with sufficient number of First Aid boxes. (Required where 5 persons or more are employed) First Aid freely available Equipment as per the list in the OH&S Act. One qualified First Aider appointed for every 50 employees. (Required where more than 10 persons are employed) List of First Aiders and Certificates Name of person/s in charge of First Aid box/es displayed. Location of F/Aid box/es clearly indicated. Signs instructing employees to report all injuries/illness including first aid injuries		
General Safety Regulation 2	Personal Safety Equipment (PSE)	PSE Risk Assessment carried out Items of PSE prescribed/use enforced Records of Issue kept		

		Undertaking by Employees to use/wear PSE		
--	--	--	--	--



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
General Safety Regulation 9	*Inspection & Use of Welding/Flame Cutting Equipment	Competent Person/s with specific knowledge and experience designated to Inspect Electric Arc, Gas Welding and Flame Cutting Equipment Written Proof of Competence of above appointee available on Site Equipment identified/numbered and entered into a register Equipment inspected monthly. Inspection Register kept		
Hazardous Chemical Substances (HCS) Regulations Construction Regulation 23	*Control of Storage & Usage of HCS and Flammables	Competent Person/s with specific knowledge and experience designated to Control the Storage & Usage of HCS (including Flammables) Written Proof of Competence of above appointee available on Site Risk Assessment carried out Register of HCS kept/used on Site		
Vessels under Pressure Regulations	Vessels under Pressure (VUP)	Competent Person/s with specific knowledge and experience designated to supervise the use, storage, maintenance, statutory inspections & testing of VUP's Written Proof of Competence of above appointee available on Site Risk Assessment carried out Certificates of Manufacture available on Site Register of VUP's on Site Inspections & Testing by Approved Inspection Authority (AIA): - after installation/re-erection or repairs - every 36 months. - Register/Log kept of inspections, tests. Modifications &		

		repair		
--	--	--------	--	--



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Construction. Regulation 21	Construction Vehicles & Earth Moving Equipment	Operators/Drivers appointed to: - Carry out a daily inspection prior to use - Drive the vehicle/plant that he/she is competent to operate/drive Written Proof of Competence of above appointee available on Site Record of Daily inspections kept		
General Safety Regulation 13A	*Inspection of Ladders	Competent person appointed in writing to inspect Ladders Ladders inspected at arrival on site and monthly there after. Inspections register kept		
General Safety regulation 13B	Ramps	Competent person appointed in writing to Supervise the erection & inspection of Ramps. Inspection register kept.		

2. EDUCATION & TRAINING

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Section 7(1)	*Company OH&S Policy	Policy signed by CEO and published/Circulated to Employees Policy displayed on Employee Notice Boards Management and employees committed.		

Section 13(a)	*Company/Site OH&S Rules	Rules published Rules displayed on Employee Notice Boards Rules issued and explained to employees: written proof Follow-up to ensure employees understand/adhere to the rules.		
---------------	--------------------------	---	--	--



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

OHS Act Section/ Regulation	Subject	Requirements	Yes/No	Remarks
Section 13(a)	*Induction & Task Safety Training	All new employees receive OH&S Induction Training. Training includes Task Safety Instructions. Employees acknowledge receipt of training. Follow-up to ensure employees understand/adhere to instructions.		
Section 13(a)	*General OH&S Training	All employees receive basic OH&S training: written proof Operators of Plant & Equipment receive specialised training Follow-up to ensure employees understand/adhere to instructions.		
Section 13(a)	*Occupational Health & Safety Promotion	<u>Incident Experience Board indicating e.g.</u> * No. of hours worked without an Injury * No. of days worked without an Injury Star Grading - Board kept up to date. Safety Posters displayed & changed regularly Employee Notice Board for OH&S Notices. Site OH&S Competition. Company OH&S Competition. Participation in Regional OH&S Competition Suggestion scheme.		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

3. PUBLIC SAFETY, SECURITY MEASURES & EMERGENCY PREPAREDNESS

Subject	Requirement	Yes/No	Remarks
*Notices & Signs	<p>Notices & Signs at entrances / along perimeters indicating “No Unauthorised Entry”.</p> <p>Notices & Signs at entrance instructing visitors and non - employees what to do, where to go and where to report on entering the site/yard with directional signs. e.g. “Visitors to report to Office”</p> <p>Notices & Signs posted to warn of overhead work and other hazardous activities. e.g. General Warning Signs</p>		
Site Safeguarding	Nets, Canopies, Stalls, Fans etc. to protect members of the public passing / entering the site.		
*Security Measures	<p>Access control measures/register in operation</p> <p>Security patrols after hours/weekends</p> <p>Sufficient lighting after dark</p> <p>Guard has access to telephone/other means of emergency communication</p>		
*Emergency Preparedness	<p>Emergency contact numbers displayed near Telephone</p> <p>Emergency Evacuation instructions posted up on all notice boards (including employees’ notice boards)</p> <p>Emergency contingency plan available on site/in yard</p> <p>Doors open outwards/unobstructed</p> <p>Emergency alarm audible all over (including in toilets)</p>		
*Emergency Drill & Evacuation	<p>Adequate No. of employees trained to use Fire Equipment.</p> <p>Emergency Evacuation Plan available, displayed and practised.</p> <p>(See Section 1 for Designation & Register)</p>		

4. PERSONAL PROTECTIVE EQUIPMENT

Subject	Requirement	Yes/No	Remarks
*PPE needs analysis	Need for PPE identified and prescribed in writing.		
*Head Protection	All persons on site wearing Safety Helmets including Sub-contractors and Visitors (where prescribed)		
*Foot Protection	All persons on site wearing Safety Footwear including Gumboots for concrete / wet work and non-slip shoes for roof work.		

Subject	Requirement	Yes/No	Remarks
*Eye and Face Protection	<p><u>Eye and Face Protection</u> (Goggles, Face Shields, Welding Helmets etc.) used when operating the following:</p> <ul style="list-style-type: none"> * Jack/ Kango Hammers * Angle / Bench Grinders * Electric Drills (Overhead work into concrete / cement / bricks * Explosive Powered tools * Concrete Vibrators / Pokers * Hammers & Chisels * Cutting / Welding Torches * Arc Welding Equipment * Skill / Bench Saws * Spray Painting Equipment etc. 		
*Hearing Protection	<p><u>Hearing Protectors</u> (Muffs, Plugs etc.) used when operating the following:</p> <ul style="list-style-type: none"> * Jack / Kango Hammers * Explosive Powered Tools * Wood/Aluminium Working Machines e.g. saws, planers, routers 		
*Hand Protection	<p><u>Protective Gloves</u> worn by employees handling / using:</p> <ul style="list-style-type: none"> * Cement / Bricks / Steel / Chemicals * Welding Equipment * Hammers & Chisels 		

	* Jack / Kango Hammers etc.		
*Respiratory Protection	Suitable/efficient <u>Respirators</u> worn correctly by employees handling / using: * Dry cement * Dusty areas * Hazardous chemicals * Angle Grinders * Spray Painting etc.		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

Subject	Requirement	Yes/No	Remarks
*Fall Prevention Equipment	Suitable <u>Safety Belts</u> / Fall Arrest Equipment correctly used by persons working on / in unguarded, elevated positions e.g.: * Scaffolding * Riggers * Lift shafts * Edge work * Ring beam edges etc. Other methods of fall prevention applied e.g. catch nets		
*Protective Clothing	All jobs requiring protective clothing (Overalls, Rain Wear, Welding Aprons etc.) Identified and clothing worn.		
*PPE Issue & Control	Identified Equipment issued free of charge. All PPE maintained in good condition. (Regular checks). Workers instructed in the proper use & maintenance of PPE. Commitment obtained from wearer accepting conditions and to wear the PPE. Record of PPE issued kept on file.		

Subject	Requirement	Yes/No	Remarks
*Scrap Removal System	All items of Scrap / Unusable Offcuts / Rubble and redundant material removed from working areas on a regular basis. (Daily). Scrap / Waste removal from heights by chute / hoist / crane. (Nothing thrown / swept over sides). Scrap disposed of in designated containers / areas.		

	Removal from site/yard on a regular basis.		
--	--	--	--

5. HOUSEKEEPING



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

Subject	Requirement	Yes/No	Remarks
Stacking & Storage (See Section 1 for Designation & Register)	<p><u>Stacking:</u> Stable/* On firm level surface / base. Not leaning / collapsing. * Irregular shapes bonded. * Not exceeding 3 x the base. * Stacks accessible * Removal from top only</p> <p><u>Storage:</u> Adequate storage areas provided. * Functional - e.g. demarcated storage areas/racks / bins etc. * Special areas identified and demarcated. e.g. Flammable Gas, Cement etc. * Neat, safe, stable and square. * Store/storage areas clear of superfluous material. * Storage behind sheds etc. neat/under control * Storage areas free from weeds, litter etc. *Waste Control/Reclamation</p>		
*Waste Control/Reclamation	<p>Re-usable Offcuts and other re-useable material removed daily and kept to a minimum in the work areas. All re-useable materials neatly stacked / stored in designated areas. (Nails removed / bent over in re-useable timber). Issue of hardware/nails/screws/cartridges etc. controlled and return of unused items monitored.</p>		
Sub-Contractors (Housekeeping)	Sub-contractors required to comply with Housekeeping requirements.		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

6. WORKING AT HEIGHTS (including Roofwork)

Subject	Requirement	Yes/No	Remarks
Openings	Unprotected openings adequately guarded/fenced/barricaded/catchnets installed		
	Roof work discontinued when bad/hazardous weather Fall protection measures (including warning notices) when working close to edges or on fragile roofing material Covers over openings in roof of robust construction/secured against displacement		

7. SCAFFOLDING / FORMWORK / SUPPORT WORK

Subject	Requirement	Yes/No	Remarks
Access/System Scaffolding (See Section 1 for Designation & Register)	Foundation firm / stable Sufficient bracing. Tied to Structure/prevented from side or cross movement Platform boards in good condition/sufficient/secured. Handrails and toe boards provided. Access ladders / stairs provided. Area/s under scaffolding tidy. Safe/unsafe for use signs		
Free Standing Scaffolding	Foundation firm / stable Sufficient bracing. Platform boards in good condition/sufficient/secured. Handrails and toe boards provided. Access ladders / stairs provided.		

	Height to base ratio correct Outriggers used /tied to structure where necessary Complying with OH&S Act/SABS 085		
--	---	--	--

Subject	Requirement	Yes/No	Remarks
*Mobile Scaffolding	Foundation firm / stable Sufficient bracing. Platform boards in good condition/sufficient/secured. Handrails and toe boards provided. Access ladders / stairs provided. Area/s under scaffolding tidy. Safe/unsafe for use signs		
*Mobile Scaffolding	Wheels / swivels in good condition Brakes working and applied. Height to base ratio correct. Outriggers used where necessary Complying with OH&S Act/SABS 085		
Suspended Scaffolding	Outriggers securely supported and anchored. Correct No. of steel wire ropes used. Platform as close as possible to the structure. Handrails on all sides All winches / ropes / cables / brakes inspected regularly. Scaffolding complies with OHS Act (Act 85/93) Winch/es maintained by competent person		
Formwork / Support Work	All components in good condition. Foundation firm / stable. Adequate bracing / stability ensured. Good workmanship / uprights straight and plumb. Good cantilever construction. Safe access provided. Areas under support work tidy. Same standards as for system scaffolding.		
Special Scaffolding	Special Scaffolding e.g. Cantilever, Jib and Truss-out scaffolds erected to an acceptable standard and inspected by specialists.		N/A



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

Subject	Requirement	Yes/No	Remarks
Edges & Openings	Edges barricaded to acceptable standards. Manhole openings covered / barricaded. Openings in floor / other openings covered, barricaded/fenced. Stairs provided with handrails. Lift shafts barricaded / fenced off.		N/A

8. LADDERS

Subject	Requirement	Yes/No	Remarks
*Physical Condition / Use & Storage (See Section 1 for Designation & Register	Stepladders - hinges/stays/braces/stiles in order. Extension ladders - ropes/rungs/stiles/safety latch/hook in order. Extension / Straight ladders secured or tied at the bottom / top. No joined ladders used All ladders stored on hooks / racks and not on ground. Ladders protrude 900 mm above landings / platforms / roof. Fixed ladders higher than 5 m have cages/Fall arrest system		N/A



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

9. ELECTRICITY

Subject	Requirement	Yes/No	Remarks
*Electrical Distribution Boards & Earth Leakage	Colour coded / numbered / symbolic sign displayed. Area in front kept clear and unobstructed. Fitted with inside cover plate / openings blanked off / no exposed “live” conductors / terminals/Door kept close Switches / circuit breakers identified. Earth leakage protection unit fitted and operating. Earth leakage protection unit fitted and operating. Tested with instrument: Test results within 15 – 30 milli-amps Aperture/Opening/s provided for the plugging in and removal of extension leads without the need to open the door		

Subject	Requirement	Yes/No	Remarks
*Electrical Installations & Wiring	Temporary wiring / extension leads in good condition / no bare or exposed wires. Earthing continuity / polarity correct: “ Brown is live, Blue is not, Green and Yellow earth the lot” Cables protected from mechanical damage and moisture. Correct loading observed e.g. no heating appliance used from lighting circuit etc. Light fittings/lamps protected from mechanical damage/moisture.		
*Physical condition of Electrical Appliances & Tools	<u>Electrical Equipment and Tools:</u> (includes all items plugging in to a 15 Amp supply socket) Insulation / casing in good condition. Earth wire connected/intact where not of double insulated design		

	Double insulation mark where no earth wire. Cord in good condition/no bare wires/secured to machine & plug. Plug in good condition, connected correctly and correct polarity.		
--	---	--	--

10. EMERGENCY/FIRE PREVENTION AND PROTECTION

Subject	Requirement	Yes/No	Remarks
*Fire Extinguishing Equipment (See Section 1 for Designation & Register)	Fire Risks Identified and on record <u>Fire Extinguishing Equipment available for:</u> * Offices * General Stores * Flammable Store * Fuel Storage Tank/s * Gas Welding / Cutting operations * Where flammable substances are being used / applied.		
*Maintenance	Fire equipment serviced minimum annually/preferably 6 monthly		
*Location & Signs	<u>Fire Extinguishing Equipment:</u> * Clearly visible * Unobstructed * Sign posted including "No Smoking" / "No Naked Lights" where required. (Flammable store, Gas store, Fuel tanks etc.)		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

Subject	Requirement	Yes/No	Remarks
<p>* Storage Issue & Control of Flammables (incl. Gas cylinders)</p>	<p>Storage Area provided for flammables with suitable doors, ventilation, bund etc. Flammable store neat / tidy and no Class A combustibles. Decanting of flammable substances carried out in ignition free and adequately ventilated area. Container bonding principles applied Only sufficient quantities issued for one day’s usage Special gas cylinder store/storage area. Gas Cylinders stored / used / transported upright and secured in trolley/cradle/structure and ventilated. Types of Gas Cylinders identified/stored separately Full cylinders stored separately from empty cylinders</p>		
<p>*Storage, Issue & Control of Hazardous Chemical Substances (HCS) (See Section 1 for Designation & Register)</p>	<p>HCS storage principles applied: products segregated Provision made for leakage/spillage containment Emergency showers/eye wash facilities provided HCS under lock & key controlled by designated person Decanted/issued in containers with information/warning labels Disposal of unwanted HCS by recognised disposal agent</p>		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

11. EXCAVATIONS

Subject	Requirement	Yes/No	Remarks
Excavations deeper than 1.5 m. (See Section 1 for Designation & Register)	Shored / Braced to prevent caving / falling in. Provided with an access ladder. Excavations guarded/barricaded/lighted after dark in public areas Soil dumped at least 1 m away from edge of excavation On sloping ground soil dumped on lower side of excavation		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

12. TOOLS

Subject	Requirement	Yes/No	Remarks
*Hand Tools	<p><u>Shovels / Spades / Picks:</u></p> <ul style="list-style-type: none"> * Handles free from cracks and splinters * Handles fit securely * Working end sharp and true <p><u>Hammers:</u></p> <ul style="list-style-type: none"> * Good quality handles, no pipe or reinforcing steel handles. * Handles free from cracks and splinters Handles fit securely <p><u>Chisels:</u></p> <ul style="list-style-type: none"> * No mushroomed heads / heads chamfered * Not hardened * Cutting edge sharp and square <p><u>Saws:</u></p> <ul style="list-style-type: none"> * Teeth sharp and set correctly * Correct saw used for the job 		
*Explosive Powered Tools. (See Section 1 for Designation & Register)	<p>Only used by trained / authorised personnel.</p> <p>Prescribed warning signs placed / displayed where tool is in use.</p> <p>Inspected at least monthly by competent person and results recorded.</p> <p>Issue and return recorded including cartridges / nails and unused cartridges / nails / empty shells recorded.</p> <p>Cleaned daily after use.</p>		

13. CRANES

Subject	Requirement	Yes/No	Remarks
Tower Crane (See Section 1 for Designation & Register)	Only operated by trained authorised operator with valid certificate of training Structure - no visible defects Electrical installation good/safe Crane hook: Throat pop marked/safety latch fitted/functional SWL/MML displayed Limit switches fitted/operational Access Ladder fitted with backrests/Fall arrest system installed Lifting tackle in good condition/inspection colour coding current		
*Mobile Crane (See Section 1 for Designation & Register)	Only operated by trained authorised operator with valid certificate of training Rear view mirrors Windscreen visibility good Windscreen wipers operating effectively Indicators operational Hooter working Tyres safe/sufficient tread/pressure visibly sufficient No missing Wheel nuts Headlights, taillights operational		
*Mobile Crane continued (See Section 1 for Designation & Register)	Grease nipples and grease on all joints No Oil leaks Hydraulic pipes visibly sound/no leaks No corrosion on Battery terminals Boom visibly in good condition/no apparent damage Cable/sheaves greased/no visible damage/split wires/corrosion Brakes working properly Crane hook: Throat pop marked/safety latch fitted/functional SWL/MML displayed By-pass valves operational Deflection chart displayed/visible to operator/driver Outriggers functional used		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

15. TRANSPORT & MATERIALS HANDLING EQUIPMENT

Subject	Requirement	Yes/No	Remarks
*Site Vehicles	All Site Vehicles, Dumpers, Bobcats, Loaders etc; checked daily before used by driver / operator. Inventory of vehicles used/operated on site Inspection by means of a checklist / results recorded. No persons riding on equipment not designed for passengers. Site speed limit posted and not exceeded. Drivers / Operators trained / licensed. No unauthorised persons allowed to drive / operate equipment.		
Subject	Requirement	Yes/No	Remarks
Conveyors	Conveyor belt nip points and drive guarded. Emergency stop/lever/brake fitted, clearly marked & accessible.		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

16. SITE PLANT AND MACHINERY

Subject	Requirement	Yes/No	Remarks
Brick Cutting Machine	Operator Trained. Only authorised persons use the machine. Emergency stop switch clearly marked and accessible. Area around the machine dry and slip/trip free/clear of offcuts All moving drive parts guarded/electrical supply cable protected Operator using correct PPE - eye/face/hearing/foot/hands/body.		
*Electric Arc Welder	Welder Trained. Only authorised / trained persons use welder. Adequately earthed. Electrode holder in good condition/safe Cables, clamps & lugs/connectors in good condition. Area in which welding machine is used is dry/protected from wet. Welder using correct PPE - eye/ face/foot/body/respirator. Screens & warning signs placed		
*Woodworking Machines	Operators Trained. Only authorised persons use machines. Provided with guards. Guards used. Operators using correct PPE - eye/face/foot/hearing		
*Compressors	Relief valves set and locked / sealed. Maximum Safe Working Pressure (MSWP) indicated on face of pressure gauge face: not on glass cover.		

C Page 468 of 488

Subject	Requirement	Yes/No	Remarks
	All drives adequately guarded. Receiver/lines drained daily Hoses good condition/clamped, not wired		

Subject	Requirement	Yes/No	Remarks
Concrete Mixer / Batch Plant	Top platform provided with guardrails. Dust abatement methods in use. Operators using correct PPE - eye / hands / respirators. All moving drive parts guarded. Emergency stops identified / indicated and accessible. Area kept clean/dry/and free from tripping and slipping hazards. Banksman identified and crane signals displayed and used.		
*Gas Welding / Flame Cutting Equipment	Only authorised/trained persons use the equipment. Torches and gauges in good condition. Flashback arrestors fitted at cylinders and gauges. Hoses in good condition/correct type/all connections with clamps Cylinders stored, used and transported in upright position, secured in trolley / cradle / to structure. Fire prevention/control methods applied/hot work permits		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

17. PLANT & STORAGE YARDS/SITE WORKSHOPS SPECIFICS

Subject	Requirements	Yes/No	Remarks
Section 8(2)(1) General Machinery Regulation 2(1): Supervision of the Use & Maintenance of Machinery	Person/s with specific knowledge and experience designated to Supervise the Use & Maintenance of Machinery Critical items of Machinery identified/numbered/placed on register/inventory Inspection/maintenance schedules for abovementioned Inspections/maintenance carried out to above schedules Results recorded		
General Machinery Regulation 9(2): Notices re. Operation of Machinery	Schedule D Notice posted in Work areas		
Vessels under Pressure Regulation 13(1)(b): Supervision of the Use & Maintenance of Vessels under Pressure (VuP)	Person/s with specific knowledge and experience designated to Supervise the Use & Maintenance of VuP's VuP's identified/numbered/placed on register/Manufacturers plate intact Inspection/maintenance schedules for abovementioned Inspections/maintenance carried out to above schedules Results recorded/Test certificates available		
Subject	Requirement	Yes/No	Remarks
Lock-out Procedure	Lock-out procedure in operation		
Ergonomics	Ergonomics survey conducted – results on record Survey results applied		
Demarcation & Colour Coding	Demarcation principles applied All services, pipes, electrical installation, stop-start controls, emergency controls etc. colour coded to own published or SABS standard		

Subject	Requirements	Yes/No	Remarks
	Employees trained to identify colour coding		
Portable & Bench Grinders	Area around grinder clear/trip/slip free Bench grinders mounted securely/grinder generally in good condition/No excessive vibration On/Off switch/button clearly demarcated/accessible Adequate guards in place Toolrest – secure/square/max. 2 mm gap Stone/disk - correct type and size/mounted correctly/dressed Use of Eye protection enforced		
Battery Storage & Charging	Adequately ventilated, ignition free room/area/no smoking sign/s Batteries placed on rubber/wooden surface Emergency shower/eye wash provided No acid storage in area		
Ancillary Lifting Equipment	Chain Blocks/Tirfors/jacks/mobile gantries etc. identified/ numbered on register Chains in good condition/links no excessive wear Lifting hooks – throat pop marked/safety latch fitted SWL/MML marked/displayed		
Ancillary Lifting Equipment	Chain Blocks/Tirfors/jacks/mobile gantries etc. identified/ numbered on register Chains in good condition/links no excessive wear Lifting hooks – throat pop marked/safety latch fitted SWL/MML marked/displayed		
Subject	Requirement	Yes/No	Remarks
Presses/Guillotines/ Shears	Only operated by trained/authorised persons Interlocks/lock-outs fitted		

18. WORKPLACE ENVIRONMENT, HEALTH AND HYGIENE

Subject	Requirement	Yes/No	Remarks
*Lighting	Adequate lighting in places where work is being executed e.g. stairwells and basements. Light fittings placed / installed causing no irritating/blinding glare.		

C Page 471 of 488

Subject	Requirement	Yes/No	Remarks
*Ventilation	Adequate ventilation / extraction / exhausting in hazardous areas e.g. chemicals / adhesives / welding / petrol or diesel/ motors running and in confined spaces / basements.		
*Noise	Tasks identified where noise exceeds 85 dBa. All reasonable steps taken to reduce noise levels at the source. Hearing protection used where noise levels could not be reduced to below 85 dBa.		N/A
*Heat Stress	Measures in place to prevent heat exhaustion in heat stress problem areas e.g. steel decks, when the WBGT index reaches 30. (See Environmental Regulation 4) Cold drinking water readily available when extreme temperatures are experienced.		
*Ablutions	Sufficient toilets provided – 1 per 30 employees (National Building Regulations prescribe chemical toilets for Construction sites) Toilet paper available. Male/ Female use indicated. Sufficient showers provided. Facilities for washing hands provided Soap available for washing hands Means of drying hands available Changing facilities / area provided Ablution facilities hygienic and clean.		
*Eating / Cooking Facilities	Adequate storage facilities provided. Ablution facilities hygienic and clean. Weather protected eating area provided, separate from changing area Refuse bins with lids provided. Facilities clean and hygienic.		



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

Subject	Requirement	Yes/No	Remarks
*Pollution of Environment	Measures in place to minimize dust generation. Accumulation of empty cement pockets, plastic wrapping / bags, packing materials etc. prevented. Spillage / discarding of oil, chemicals and diesel into storm water and other drains prevented.		
*Hazardous Chemical Substances (See Section 1 for Designation & Register)	All substances identified and list available e.g. acids, flammables, poisons etc. Material Safety Data Sheets (MSDS) indicating hazardous properties and emergency procedures in case of incident on file and readily available. Substances stored safely.		

Auditor Signature _____

Date _____

Received by
Manager/ Supervisor _____

Date _____

Tabled at OH&S Committee _____



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C2.5.2 ENVIRONMENTAL MANAGEMENT PLAN

CONTENTS

- C2.5.2.1 Introduction
- C2.5.2.2 Policy Statement
- C2.5.2.3 Objectives of the EMP
- C2.5.2.4 Designated Environmental Officer
- C2.5.2.5 Legal Requirements
- C2.5.2.6 Mitigation Measures
- C2.5.2.7 Measurement and Payment

C2.5.2.1. INTRODUCTION

The EMP will address the environmental impacts during the design, construction and operational phases of a project. Due regard must be given to environmental protection during the entire road project. In order to achieve this, a number of environmental specifications/recommendations are made. These are aimed at ensuring that the contractor maintains adequate control over the project in order to:

- Minimise the extent of impact during construction,
- Ensure appropriate restoration of areas affected by construction.
- Prevent long term environmental degradation.

The contractor must be made aware of the environmental obligations that are stipulated in this document, and declares himself/herself to be conversant of all relevant environmental legislation. The contractor should also be aware that the engineer will monitor the implementation of the procedures.

C2.5.2.2. POLICY STATEMENT

The Construction will be to the best management practices as identified to minimize the environmental impact of activities associated with the development.

C2.5.2.3. OBJECTIVES OF THE EMP

The EMP has the following goals:

- Identifying those construction activities that may have a detrimental impact on the environment;
- Detailing the mitigation measures that will need to be taken, and the procedures for their implementation;
- Establishing the reporting system to be undertaken during the construction.

The EMP also serves to highlight specific requirements that will be monitored during the development and should the environmental impacts not have been satisfactorily prevented or mitigated, corrective action will have to be taken. The document should, therefore, be seen as a guideline that will assist in minimising the potential environmental impact of activities.

C2.5.2.4. DESIGNATED ENVIRONMENTAL OFFICER

For the purpose of the EMP, a nominated representative of the contractor should be the designated environmental officer for the project. The nominated representative of the contractor will therefore be responsible for ensuring that the provisions of the EMP are complied with. The engineer will be responsible for issuing instructions to the contractor where environmental considerations call for action to be taken. The environmental officer will submit monthly reports to the engineer on site who will verify the information.

C2.5.2.5. LEGAL REQUIREMENTS

Under normal circumstances an EMP would be the end result or the final stage in the EIA procedure. However, a working agreement was negotiated between the National Department of Environmental Affairs and Tourism (DEAT) and the Department. The agreement stipulates the project types the Department need to submit to DEAT for approval and those project types the Department do not need to submit for approval. For those actions that do not need approval, the Department undertook to compile generic EMP's to assist in minimizing degradation to the area. The following project types fall in this non-approval category: periodic maintenance, special maintenance, rehabilitation and specific upgrades.

C2.5.2.6. MITIGATION MEASURES

In setting mitigation measures, the practical implications of executing these measures must be borne in mind. With early planning, both the cost and the impacts can be minimised.

C2.5.2.6.1 Establishment of site offices

C2.5.2.6.1.1 Site plan

The contractor shall provide the engineer on site with a plan detailing the layout of site offices facilities, such as chemical toilets, areas for stockpiling of material, storage of hazardous materials and provision of containers. The site offices should not be sited in close proximity to steep areas as this will increase soil erosion. Preferred locations would be flat areas along the route. If the route traverses water courses, streams and rivers, it is recommended that the site, and in particular the ablution facilities, aggregate stockpiles and hazardous material stockpiles are located as far away as possible from any water course.

The site plan shall be submitted before the site hand over meeting. Read with COLTO Specification 1302 (a), 1402 (e).

C2.5.2.6.1.2 Vegetation

The vegetation surrounding the site offices is to be left as intact as possible and vegetation planted at the site should be indigenous. Only trees directly affected by the works and such others as may be indicated by the engineer in writing, may be sawn off/removed.

The project specification for the rehabilitation of the grass cover shall be strictly adhered to. Any proclaimed weed or alien invader plant shall be cleared by hand before seeding. Read with COLTO Specification 5801(b), 5802(b), (c), (d), and (e), 5804, 5805, 5806 and 5807.

C2.5.2.6.1.3 Rehabilitation

The site offices will require rehabilitation at the end of the contract. All construction material, including concrete slabs and braai areas are to be removed from the site on completion of the contract. Read with COLTO Specifications 1302 (a), 5800 and 5900.

C2.5.2.6.1.4 Water for human consumption

Water for human consumption must be tested and treated in accordance with recommendations.

C2.5.2.6.2 Sewage treatment

Adequate toilet facilities are to be provided. Use of the veld for this purpose shall not, under any circumstances, be allowed. The contractor shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the engineer. Latrines shall be positioned within walking distance from wherever employees are employed on the works.

Safe and effective sewage treatment will require one of the following sewage handling methods: septic tanks and soak aways, dry composting toilets such as "enviro loos", or the use of chemical toilets which are supplied and maintained by a subcontractor. The type of sewage treatment will depend on the geology of the area selected, the duration of the contract and proximity (availability) of providers of chemical toilets is to be done in consultation with the site engineer.

Read with Colto Specifications 1402 (g) and 1404 (a) and Part B of the Project Specifications, clause 1302 (d).

C2.5.2.6.3 Waste management

Waste management and waste minimisation must be implemented at the outset of the contract.

C2.5.2.6.3.1 Litter

No littering by construction workers must be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition and the site is to be kept free of litter. Read with Colto Specification 1302 (b).

C2.5.2.6.3.2 Removal of solid waste

Solid waste is to be stored in an appointed area for collection and disposal. A refuse control system must be established for the collection and removal of refuse to the satisfaction of the engineer. Disposal of solid waste will be in a Department of Water Affairs and Forestry (DWAF) licensed landfill site. Read with Colto Specification 1404 (a).

C2.5.2.6.3.3 Hazardous waste

Hazardous waste such as bitumen, tar, oils, etc. shall be disposed of in a Department of Water Affairs and Forestry approved landfill site. Special care must be taken when using tar products such as tar prime or pre-coating fluid to avoid water-soluble phenols from entering the ground or contaminating water.

C2.5.2.6.4 Soil management

C2.5.2.6.4.1 Topsoil

The contract provides for the stripping and stockpiling of topsoil from the site for later reuse. Topsoil is considered to be of a maximum thickness of approximately 300 mm of the natural soil, including all the vegetation and organic matter. The areas to be cleared of topsoil shall include the storage areas. Weeds appearing on the stockpiled topsoil shall be removed by hand before seeding. Soils contaminated by hazardous substances shall be disposed of in an approved Department of Water Affairs and Forestry waste disposal site. Read with Colto Specifications 3104 (a), 5802 (a), (g), 5804 (a), (b), and (c).

C2.5.2.6.4.2 Borrow material

The contractor's attention is drawn to the requirements set forth by the Department of Mineral and Energy Affairs in terms of the submission of EMPR's for establishment, operation and rehabilitation of borrow pits and quarries. The cost of complying with the requirements shall be deemed to be included in existing rates in the Bill of Quantities. Read with Colto Specification 3100.C2.5.2.6.5 Discovery of archaeological sites, artifacts or graves

C2.5.2.6.5.1 Archaeological site

If an artefact on site is uncovered, work in the immediate vicinity must be stopped immediately. The contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the engineer of such discovery. The National Monuments Council must be contacted who will appoint an archaeological consultant. Work may only resume once clearance is given in writing by the archaeologist. Read with Colto General Conditions of Contract Clause 18.

C2.5.2.6.5.2 Graves

If a grave on site is uncovered, work in the immediate vicinity must be stopped and an undertaker as well as the National Monuments Council should be contacted. The undertaker will place advertisements in the newspapers concerning the grave. He will also provide for the relocation of bones, should it be necessary. Read with Colto General Conditions of Contract Clause 18.

C2.5.2.6.6 Stockpiled material

The contractor shall so plan his activities that materials excavated from borrow pits and cuttings, in so far as possible, can be transported direct to and placed at the point where it is to be used. However, should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material must be indicated and demarcated on the site plan and approved in writing by the engineer.

The area chosen shall be devoid of indigenous trees and shrubs. Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles. After the stockpiled material has been removed, the site shall be reinstated as closely as possible to its original condition. All areas affected by stockpiling shall be landscaped, top soiled and grassed to the engineer's approval and at the contractor's cost.

Material milled out of the existing road surface that is temporarily stockpiled within the road reserve shall:

- be stockpiled so as to be as inconspicuous as possible
- be prevented from contaminating water courses,
- be cleared of weeds.

In all cases, the areas for stockpiling and disposal of construction rubble shall be approved by the engineer before such operation commences.

Read with Colto Specification 3202 and 4306.

C2.5.2.6.7 Fuel, diesel and other hazardous materials

C2.5.2.6.7.1 Hazardous materials

All hazardous materials i.e. bitumen binders shall be stored in an appointed area that is fenced and has restricted entry. Storage of bituminous products shall only take place using suitable containers to the approval of the engineer.

Under no circumstances shall the spoiling of bituminous products on the site, over embankments, in borrow pits or any burying, be allowed. Unused or rejected bituminous products shall be taken to the supplier's production plant. No spillage of bituminous products shall be allowed on site. Affected areas shall be promptly reinstated to the satisfaction of the engineer.

C2.5.2.6.7.2 Fuel

Should any fuel storage tank be required on site, the contractor shall ensure that he has complied with the necessary legal requirements for the erection of such tanks. Leakage must be avoided. The fuel and diesel areas should be bunded to accommodate any spillage or overflow from these activities.

C2.5.2.6.7.3 Oil, grease

Oil, grease and cleaning materials from the maintenance of vehicles and machinery shall be collected in a sump and sent back to the supplier or, otherwise disposed of at a registered site.

C2.5.2.6.7.4 Cooking oil

The contractor should ensure that sufficient fuel is available for heating and cooking purposes should this be necessary.

C2.5.2.6.7.5 Spillages

Streams, rivers and dams must be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and bituminous products. In the event of a spillage, prompt action must be taken by competent operators to clear the affected area.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

C2.5.2.6.8 General Considerations

Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a designated register and the response noted with the date and action taken. This record must be submitted with the monthly reports.

Any avoidable non-compliance with the above-mentioned measures may be considered sufficient ground for withholding payment of part or all amounts to be paid for the said item.

C2.5.2.7. PENALTIES

The following penalties need to be applied for non-compliance with the specified environmental issues:

Penalty for unnecessary removal or damage to trees

for the following diameter sizes

- | | | |
|-----|--|-------------------|
| (a) | 2600mm girth or less | R 5 000 per tree |
| (b) | Greater than 2600mm, but less than 61800mm girth | R 10 000 per tree |
| (c) | Greater than 6180mm girth | R 30 000 per tree |

The unit of measurement shall be the number of trees by diameter removed unnecessary or damaged.

Penalty for serious violations

- | | | |
|-----|--|-----------------------|
| (a) | Hazardous chemical/oil spill and/or dumping in non-approved sites | R 10 000 per incident |
| (b) | General damage to sensitive environments | R 5 000 per incident |
| (c) | Damage to cultural and historical sites | R 5 000 per incident |
| (d) | Pollution of water sources | R 10 000 per incident |
| (e) | Unauthorised blasting activities | R 5 000 per incident |
| (f) | Uncontrolled/unmanaged erosion
(Depending on environment impacts, plus Rehabilitation at Contractor's cost) | R 1 000 per incident |
| (g) | Damage to sensitive vegetation within "no-go" areas
(Depending on vegetation damaged, plus rehabilitation thereof at Contractor's cost) | R 5 000 per incident |

The unit of measurement shall be the number of serious violation incidents.

Penalty for less serious violations

(a)	Littering on site:	R 1 000 per incident
(b)	Lighting of illegal fires on site	R 1 000 per incident
(c)	Persistent or un-repaired fuel and oil leaks	R 1 000 per incident
(d)	Any person related to the Contractor's operations found within the designated "no-go" areas	R 500 per incident
(e)	Any vehicles or equipment related to the Contractor's operations found within the designated "no-go" areas	R 3 000 per incident
(f)	Excess dust or excess noise emanating from site	R 1 000 per incident
(g)	Dumping of milled material in side drains or on grassed areas	R 1 000 per incident
(h)	Possession or use of intoxicating substances on site	R 500 per incident
(i)	Any vehicles being driven in excess of designated speed limits	R 500 per incident
(j)	Removal and/or damage to flora or cultural or heritage objects on site, and/or killing of wildlife	R 2 000 per incident
(k)	Illegal hunting	R 2 000 per incident
(l)	Urination and defecating anywhere except in designated areas	R 500 per incident

The engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final. The calculation shall include allied construction activities in the same way as the calculation of reduced payments under section 8200. The imposition of such a penalty shall not preclude the relevant provincial or national authority from applying an additional penalty in accordance with its statutory powers. Any non-compliance with the agreed procedures of the EMP is a transgression of the various statutes and laws that define the manner by which the environment is managed.

Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression, as it deems fit.

Table 1: Summary of mitigation measures

ENVIRONMENTAL COMPONENT	ACTIVITY	MITIGATION	RELEVANT COLTO SPECIFICATION
Establishment of site offices	Siting of offices	Preferred areas would be flat areas along the route. Avoid steep areas as soil erosion could increase. Avoid water courses	1302 (a)
	Site Plan	Contractor will provide engineer detail of layout of site facilities within two weeks of moving to the site i.e. chemical toilets, the demarcation of areas for stockpiling of materials, storage of hazardous materials and the provision of containers. The offices shall be fenced. The site plan will be submitted before the site hand over meeting.	1302 (a) 1402 (e)
Site rehabilitation	Cleanup	All construction material is to be removed from the site on completion of the contract.	1302 (a) 5800 5900
Vegetation	On site	Vegetation planted on the site should be indigenous. Only trees directly affected by works as indicated in writing by engineer, shall be sawn off/removed	5802 (d) 5804 5807
	Weeds	Clearance of weeds must be done by hand before seeding.	5801 (b)
	Grass cover	The grass cover surrounding the construction site is to be left as intact as possible or restored to its original condition.	5802 (b), (c), (e) 5805 5806
Water	Available for human consumption	Water for human consumption must be tested and treated in accordance with recommendations.	

ENVIRONMENTAL COMPONENT	ACTIVITY	MITIGATION	RELEVANT COLTO SPECIFICATION
Soil management	Topsoil	The topsoil (\pm 300 mm) of any excavation shall be removed and stockpiled separately from underlying material in an appointment area	3104(a) 5802(a), (g) 5804
	Borrow material	EMPR's for borrow pits to be submitted to the Department of Mineral and Energy Affairs for approval	3100
Archaeological & Cultural sites	Discover of archaeological sites of artefacts	If an artefact on site is uncovered, work in the immediate vicinity must be stopped immediately and an archaeological consultant must be contacted. Work may only resume once clearance is given in writing by the archaeologist.	GCC Clause 4.7
Graves	Discovery of graves	If a grave on site is uncovered, work in the immediate vicinity must be stopped and an undertaker should be contacted	GCC Clause 4.7
Waste management	Solid & Construction waste	Solid waste is to be stored in an appointment area for collection and disposal. Disposal of waste will be in a DWAF licensed landfill, and no waste may be burnt on site.	1404 (a)
	Litter	The site is to be kept free of litter	1302 (b)
Sewage treatment	Toilet facilities	Adequate toilet facilities are to be provided, and the siting of chemical toilets is to be done in consultation with the site engineer. Use of the veld for this purpose shall not be allowed.	1402 (g) 1404 (a)

ENVIRONMENTAL COMPONENT	ACTIVITY	MITIGATION	RELEVANT COLTO SPECIFICATION
Fuel, diesel & hazardous materials	Hazardous Materials	All hazardous materials i.e. bitumen binders will be stored in an appointed area that is fenced and has restricted entry. No spoiling of bituminous products on site, over embankments, in borrow pits or any burying. No spillage of bituminous products shall be allowed on site.	
	Fuels	All fuel tanks will be stored in an appointed area. Leakage will be avoided.	
	Cooking fuel	The contractor should ensure that sufficient fuel is available for heating and cooking purposes should this be necessary.	1404 (b)
	Oil, grease	Oil, grease and cleaning materials from maintenance of vehicles shall be collected in a sump and sent back to supplier or otherwise disposed of at a registered site.	
	Spillages	Streams, rivers or dams must be protected against spillages of pollutants mentioned in 6.7 (e). In the event of a spillage, prompt action must be taken to clear the affected area.	
General considerations	Lines of authority	A nominated representative of the contractor will be the designated Environmental Officer for the site.	
	Reports	The Environmental Officer will submit monthly reports to the engineer who will verify the information	
	Complaints	Complaints received regarding activities on the construction site pertaining to the environment should be recorded in a designated register, and the response noted with the date and action taken. This record must be submitted with the monthly report	

C2.5.3 MANAGEMENT MEETINGS

The following meetings will be required as minimum for the management of the contract.

- (a) Monthly client site meeting (using standard agenda for management control).
- (b) Technical meetings as required for each phase of the work.
- (c) Monthly safety meetings in terms of the OHS requirements.
- (d) Weekly progress meetings
- (e) Special meetings as and when specified by the Engineer

C2.5.4 QUALITY CONTROL

Contractor to supply details of quality plan, procedures and method statements. These shall include:

- Accommodation of traffic.
- Inspection and test plans.
- Stockpile Management
- Approval process.
- Hold-points.
- Milestones.



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

PART C3: SITE INFORMATION



TENDER No. DRT 36/11/2019

CONSTRUCTION OF ROAD P1-1 (R82) (57) PHASE 3 FROM D1073 (WALKERVILLE) TO K164 (DE DEUR) – (APPROXIMATELY 11.3KM) AND ROAD K164 BETWEEN ROAD D904 AND ROAD D905 (APPROXIMATELY 4.1KM). A TOTAL OF APPROXIMATELY 15.4KM

PART C3: SITE INFORMATION

- C3.1 EXTRACT FROM THE TRANSPORT INFRASTRUCTURE ACT 2001
(ACT NO. 8 OF 2001)
- C3.2 SITE INFORMATION
- C3.3 LOCALITY PLAN
- C3.4 GEOTECHNICAL REPORT
- C3.5 RECORD OF DECISIONS

**C4.1 EXTRACT FROM THE TRANSPORT INFRASTRUCTURE ACT 2001
(ACT NO. 8 OF 2001)**

The term “MEC” shall be interpreted to mean the “Member of the Executive Council for Public Transport, Roads and Works in the Gauteng Province”.

The Member of the Executive Council for Public Transport, Roads and Works in the Gauteng Province has made the regulations set out in the Schedule in terms of the Gauteng Transport Infrastructure Act, 2001 (Act No. 8 of 2001).

ENTRY UPON OR TAKING POSSESSION OF LAND FOR CERTAIN PURPOSES

- 20 (1) Subject to subsections (2), (4), (5) and (6), the MEC may enter upon any land with the necessary workers, machines, vehicles, equipment, tools, instruments or materials to perform or carry out on, below the surface of or in connection with that land, an investigation, survey, observation or other act that the MEC deems necessary for or in connection with the construction or maintenance of any transport infrastructure or take possession temporarily of land for a purpose in connection with the construction or maintenance of such infrastructure.
- (2) Where the owner or occupier of the land has not consented to the MEC acting in terms of subsection (1), the MEC must give the owner or occupier of the land written notice of the MEC's intention so to act not less than seven days before the land is entered, setting out the purpose for which entry upon the land is authorized, the acts that may be performed on the land in connection with that purpose and the persons by whom, the means whereby or the manner in which they are to be performed.
- (3) If the owner or occupier objects to the proposed actions, he or she may state those objections in writing not less than 48 hours before the proposed entry on the land, in which case the MEC must consider the objections. If the MEC is of the opinion that the objections are not well founded or it is in the public interest to act in spite of the objections, the MEC must notify the owner or occupier accordingly before entering on the land.
- (4) The provisions of subsection (1) may not be used to gain access to a dwelling house or other building on the land in use for residential purposes unless the occupier of the house or other building agrees to the MEC entering it for the purpose of performing or carrying out therein an activity mentioned in subsection (1).

CAMPS, STORAGE OF MATERIALS, TAKING OF WATER

- 20 (5). Where the MEC in terms of subsection (1) takes possession temporarily of land for -

- (a) the erection or construction of a building, hut, tent or other structure for the accommodation of workers employed on transport infrastructure or executing other work in connection therewith;
- (b) the storing thereon of stores, plant, machinery, equipment or anything else the MEC deems necessary for the construction and maintenance of transport infrastructure,

The MEC must pay to the owner rental as is agreed upon, or, failing agreement as determined in accordance with section 30, in which case costs shall be calculated and awarded in accordance with section 31.

OPENING OF FENCES AND ROADS TO QUARRIES

- 20 (6) For the purpose of exercising the rights under this section, the MEC may, after notice to the owner, make roadways or openings in fences, walls and hedges, provided that such openings must be effectively closed against trespassing or straying animals during the operations and the fence properly restored on completion of the work, and that any excavation made in the course of the work which may be a source of danger must be securely fenced off, filled in or otherwise rendered safe on completion of the works.

ACQUISITION OF MATERIAL

- 21 (1) The MEC may, subject to subsection (2), take and remove or cause to be taken and removed from land material which is necessary for the construction or maintenance of transport infrastructure, and may take possession temporarily of such land for the purpose of acquiring the material.

ADMINISTRATOR MAY SELECT PLACE FOR OBTAINING MATERIAL

- 21 (2) (a) The MEC may select a place from which the material contemplated in subsection (1) may be taken, and must give the owner notice of the place; and
- (b) the owner may, within 14 days after receipt of the notice, point out another place within the same cadastral boundaries on the land concerned and if the MEC is of the opinion that the other place is suitable and accessible and will provide suitable material, the materials must be taken from the place pointed out by the owner.
- (3) Where the MEC takes material under this section, the MEC must restore or rehabilitate the land in accordance with applicable environmental laws and -
- (a) where such restoration or rehabilitation does not have the effect of restoring the land entirely to its former state; or
 - (b) where the owner has suffered loss or damage by the taking of the material;

The MEC must pay to the owner such compensation for any loss or damage to the land, as may be agreed or failing agreement as determined in accordance with section 30, in which case costs shall be calculated and awarded in accordance with section 31.

- (4) Section 20(6) shall apply to the taking of material under this section.

CONTRACTORS MAY EXERCISE RIGHTS

- 56 (2) Subject to subsection (3), a power or duty granted to the MEC, provided that where compensation is payable as a result of exercising the right or power, it may be recovered from the MEC who may in turn recover it from the contractor or agent.

“MEC” INCLUDES AUTHORISED AGENT”

- 56 (2) Subject to subsection (3), a power or duty granted to the MEC, provided that where compensation is payable as a result of exercising the right or power, it may be recovered from the MEC who may in turn recover it from the contractor or agent.

OBSTRUCTION OF MEC

- 52 (1) Despite any other law, but subject to subsection (4), no person or institution, including an organ of state as defined in section 239 of the Constitution, may, unless authorized by this Act –
- (o) Obstruct or hinder the MEC or an official, employee or agent of the Department or another person authorized by the MEC in the execution of his or her duties under this Act;
- (2) A person who contravenes a provision of subsection (1) or any other provision of this Act that is not elsewhere declared to be an offence, commits an offence.

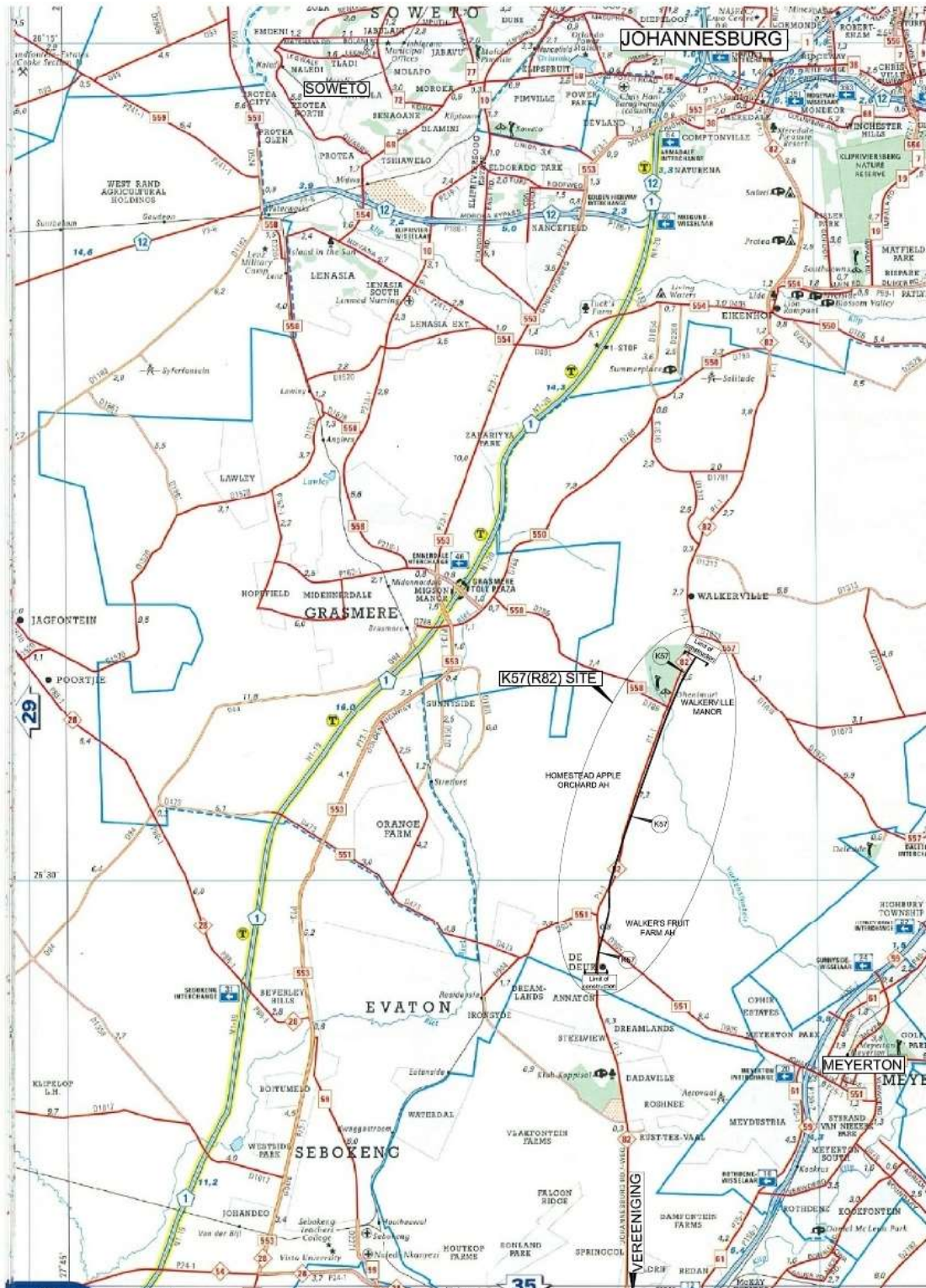
C3.2 SITE INFORMATION

The work is situated between Johannesburg and Vereeniging in Gauteng province of South Africa. The road commences in De Deur Post Office at km 0.00 and it ends in Walkerville Manor at km 11.30 and it is approximately 11.3 km long, the road is in ward 11 of Midvaal Local Municipality. Refer to C4.3 for Locality Plan.

Geotechnical report revealed that the majority of material on site is not suitable for road construction and this necessitate the use of commercial borrow pits as the source for the majority of materials as no license for borrow pits could be granted.

Certain material can be modified with a suitable stabiliser as indicated in C4.4: Geotechnical report.

C3.3 LOCALITY PLAN



C3.4 GEOTECHNICAL REPORT

C3.5 RECORD OF DECISION

ANNEXURE – COVID 19 CONSTRUCTION SITE MANAGEMENT PROCEDURE

ANNEXURE D – BASELINE RISK ASSESSMENT

ANNEXURE E – HEALTH AND SAFETY SPECIFICATION