



**TENDER NO: ELM 13/2025
UPGRADE AND REHABILITATION OF DIEDERICKS ROAD**

CIDB GRADE 7CE or HIGHER

EMPLOYER:	ENQUIRIES:
 <p>Emalahleni Local Municipality P.O Box 3 Witbank 1035</p> <p>Municipal Manager Tel No.: +27 (13) 690 6911 Fax No.: +27 (13) 690 6207 E-mail: maiselahs@emalahleni.gov.za/ enquiries@emalahleni.gov.za</p>	 <p>ELM Projects Technical services Mr SS Cele Tel No.: 061 874 9663 E-mail: CeleSGG@emalahleni.gov.za</p> <p>ELM Supply Chain Management Ms. Z Moroko Tel No: 013 690 6497 E-mail: masangonz@emalahleni.gov.za</p>  <p>Mafahleni Engineers & Project Managers 49 Ferreira Street Nelspruit, 1200 013 752 2937 (P) 072 327 5158/073 609 5331 Email: mlungisit@mafahleni.co.za/ trevorz@mafahleni.co.za</p>

Tender Closing Date: 11h00, 20 June 2025

TENDER PRICE	
TOTAL COST (INCL. VAT) (AMOUNT IN WORDS)

BIDDER'S DETAILS:	
Company Name	
Physical Address	
Contact No.	
E-mail Address	
Contact Person	
Central Supplier Database No.	
Company Registration No.	



TABLE OF CONTENTS

PART	DESCRIPTION	PAGE COLOUR	PAGE No.
PART T 1: THE TENDER PROCEDURE			T 3
T1.1	Tender Notice & Invitation to Tender	White	T 4 to T5
T1.2	Tender Data	Pink	T 6 to T 14
T2.1	List of Returnable Documents	Yellow	T15 to T 46
T2.1.2	List of Returnable Documents for Evaluation Purposes	Yellow	T47 to T59
PART C1: AGREEMENTS AND CONTRACT DATA			C 0 to C 30
C1.1	Form of Offer and Acceptance	Yellow	C 1
C1.2	Contract Data	Yellow	C 7
C1.3	Forms of Guarantee	White	C 20
C1.4	Adjudicators Contract	White	C 26
C1.5	Agreement in terms of the Occupational Health and Safety Act No. 85 of 1993	White	C 29
PART C2: PRICING DATA			C 31 to C 75
C2.1	Pricing Instructions	Yellow	C 31
C2.2	Schedule of Quantities	Yellow	C 34 to C 75
PART 3: SCOPE OF WORK			C 76
	Scope of Work	Blue	C 76 to C 127
PART 4: SITE INFORMATION			C 128 to C129
	Site Information	Blue	C 128
PART 5: ANNEXURES: OHS & ENVIRONMENTAL SPECIFICATION & DRAWINGS			C 130 to 161
	OHS, Environmental Management Specifications & Drawings	Blue	C 130



EMALAHLENI LOCAL MUNICIPALITY

CONTRACT NO.: ELM 13/2025

UPGRADING AND REHABILITATION OF DIEDERICKS

PROCUREMENT DOCUMENT

FOREWORD

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

The **TENDER** consists of two parts, namely:

- **T1: Tendering Procedures** to be complied with by every tenderer submitting a tender offer; and
- **T2: Documents to be returned by the Tenderer**, including the returnable schedules and forms to be completed by each tenderer, some of which will eventually be incorporated into the contract between the successful tenderer and the Employer.

The **CONTRACT** consists of seven parts, namely:

- **C1: Contract Data and Agreements.**
- **C2: Pricing Data.**
- **C3: Scope of Work**
- **C3.2: Project Specification**
- **C5.3: Particular Specification**
- **C4: Site Information;** and
- **C5: Annexures** (that may have a bearing on the contract).

Each part or volume is preceded by its own table of contents.

PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE EMALAHLENI LOCAL MUNICIPALITY					
BID NUMBER:	CLOSING DATE:	CLOSING TIME:	12H00		
DESCRIPTION	UPGRADING AND REHABILITATION OF DIEDERICKS				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT _____					
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	<input type="checkbox"/> Yes <input type="checkbox"/> No	
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]					
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3]	
TOTAL NUMBER OF ITEMS OFFERED			TOTAL BID PRICE	R	
SIGNATURE OF BIDDER		DATE		
CAPACITY UNDER WHICH THIS BID IS SIGNED					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:			TECHNICAL INFORMATION MAY BE DIRECTED TO:		
DEPARTMENT			DEPARTMENT		
CONTACT PERSON			CONTACT PERSON		
TELEPHONE NUMBER			TELEPHONE NUMBER		
E-MAIL ADDRESS			E-MAIL ADDRESS		

PART B TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:
1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION. 1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR ONLINE 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT. 1.4. THE BID OFFER MUST BE SIGNED BY A PERSON AUTHORIZED TO SIGN ON BEHALF OF THE BIDDER. 1.5. A BIDDER WHO SUBMITTED A BID AS A JOINT VENTURE HAS INCLUDED AN ACCEPTABLE JOINT VENTURE AGREEMENT WITH HIS/HER BID. 1.6. ONLY A CONSOLIDATED B-BBEE CERTIFICATE, ISSUED BY A SANAS APPROVED VERIFICATION AGENCY, WILL BE ACCEPTABLE FOR THE CLAIMING OF PREFERENCE POINTS WHERE BIDDERS SUBMITTED THEIR BID AS A JOINT VENTURE / CONSORTIUM; 1.7. A BIDDER WHO IS A JOINT VENTURE HAS INCLUDED MBD 4, 8 & 9 FOR EACH ENTITY IN THE JOINT VENTURE / CONSORTIUM WITH HIS/HER BID 1.8. THE BIDDERER OR A COMPETENT AUTHORISED REPRESENTATIVE OF THE CONTRACTOR WHO SUBMITTED THE BID HAS ATTENDED THE COMPULSORY CLARIFICATION MEETING OR SITE INSPECTION;
2. TAX COMPLIANCE REQUIREMENTS
2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS. 2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS. 2.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA. 2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3. 2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID. 2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER. 2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS
3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? <input type="checkbox"/> YES <input type="checkbox"/> NO 3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO 3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO 3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? <input type="checkbox"/> YES <input type="checkbox"/> NO 3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? <input type="checkbox"/> YES <input type="checkbox"/> NO IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.

**NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.
 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.**

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

DATE:

T1: TENDERING PROCEDURES

T1.1: TENDER NOTICE AND INVITATION TO TENDER



TENDER NOTICE AND INVITATION TO TENDER

UPGRADE AND REHABILITATION OF DIEDERICKS ROAD CONTRACT NO: ELM 13/2025 cidb Reference No. 100104498

Bids are hereby invited to tender for **UPGRADE & REHABILITATION OF DIEDERICKS ROAD** within Emalahleni Local Municipality as specified in the under-mentioned bid document. Tenderers who are registered with the Construction Industry Development Board (CIDB) with a classification grading of **7CE** or higher, are eligible to submit a tender and will be considered for an award.

Bid documents will be available as of **22 May 2025**. It is compulsory that prospective bidders download a copy of the document from the following website: www.etenders.gov.za.

Duly completed bid documents and supporting documents which are **CERTIFIED ID COPIES OF BUSINESS OWNERS, COPY OF A VALID TAX CLEARANCE CERTIFICATE WITH SARS PIN NUMBER, RATES AND TAXES CLEARANCES FROM RELEVANT LOCAL AUTHORITY, CENTRAL SUPPLIERS DATABASE REGISTRATION SUMMARY REPORT, PROOF OF CIDB REGISTRATION AND COMPANY REGISTRATION CERTIFICATE**, together with the bid document must be sealed in an envelope clearly marked with "Bid number, description, closing date and name of the bidder". Completed Bids must be deposited in the bid box at the Municipal Offices at 29 Mandela Street, Emalahleni 1035 no later than 11h00, 20 June 2025.

A non-compulsory virtual clarification meeting with representatives of the Employer will take place on Wednesday, 28 May 2025 starting at 10h00 via Microsoft Teams. Tenderers are required to register for attending the virtual briefing to be conducted by the Clients Representative by sending details (email address and representative name and surname) of the bidding entity to mlungisit@mafahleni.co.za. **A Microsoft Teams invite will be sent to the bidding entities registered not later than Tuesday, 27 May 2025 at 15:00.**

Evaluation of tenders will be done in accordance with CIDB Method 4 i.e. Financial offer, quality and Targeted Goals. The **Preferential Procurement Regulations, 2022** applies to this tender. Tenders will be assessed for functionality first. All bidders who score the minimum points for functionality will then be evaluated further for price and Specific Goals. All tender offers that fail to score the minimum of 80% of points for quality will be rejected.

NOTE TO BIDDERS ON BID CONDITIONS:

A preferential point system shall apply whereby a contract will be allocated to a tenderer in accordance with the **Preferential Procurement Regulations, 2022** and as defined in the Conditions of Tender in the tender

document, read in conjunction with the Supply Chain Management Policy of ELM, where 80 points will be allocated in respect of price and 20 points in respect of **Specific Goals**.

No awards will be made to a person:

-Who is in the service of the state:

-If that person not a natural person, of which any director, manager principal shareholder or stakeholder is a person in the service of the state and or;

-Who is an advisor or consultant contracted within the municipality or municipal entity.

The Municipality reserves the right to withdraw any invitation to tender and/or to readvertise or to reject any tender or to accept a part of it.

Queries relating to these documents may be addressed to **Mr SS Cele** 061 874 9663 and email address **CeleSGG@emalahleni.gov.za** or to **Mr Mlungisi Tshuma of Mafahleni Engineers & Project Managers** on **(013) 752 2937**, fax **(013) 752 2915** and email address: **mlungisit@mafahleni.co.za**

Procurement enquiries may be addressed to Ms Zinhle Moroku, **Tel 013 690 6497** and/ or email **masangonz@emalahleni.gov.za**.

Municipal Manager
Emalahleni Local Municipality

T1.2: TENDER DATA

The Conditions of Tender are those contained in the latest edition of 10845-3. Construction Procurement Part.3. Standard Condition of Tender.

SANS 10845-3 makes several references to the Tender Data for details that apply specifically to this tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the provisions of SANS 10845-3. Each item of data given below is across referenced to the clause in SANS 10845-3 to which it mainly applies.

Clause No	Data
3.1	The employer is Emalahleni Municipality
3.2	<p>The Tender Documents issued by the Employer comprise the following documents</p> <p>THE TENDER</p> <p>Part T1: Tendering procedures</p> <p>T1.1 – Tender notice and invitation to tender</p> <p>T1.2 – Tender data</p> <p>Part T2: Returnable documents</p> <p>T2.1 List of returnable documents</p> <p>T2.2 – Returnable schedules</p> <p>THE CONTRACT</p> <p>Part C1: Agreements and Contract Data</p> <p>C1.1 - Form of offer and acceptance</p> <p>C1.2 - Contract data</p> <p>C1.3 - Form of Guarantee</p> <p>C1.4 - Adjudicator's contract</p> <p>Part C2: Pricing data</p> <p>C2.1 - Pricing instructions</p> <p>C2.2 - Bill of Quantities</p> <p>Part C3: Scope of work</p> <p>C3 - Scope of work</p> <p>Part C4: Site information</p> <p>C4 - Site information</p>
3.4	<p>The Employer's Agent is:</p> <p>The Employer's agent is:</p> <p>Name: Mr Mlungisi Tshuma</p> <p>Company: Mafahleni Engineers & Project Managers</p> <p>Address: 49 Ferreira St Nelspruit, 1200</p> <p>Tel. 013 752 2937</p> <p>Cell 072 327 5158</p> <p>Email address: mlungisit@mafahleni.co.za</p>
3.5	The language of communication is English
3.6	The competitive selection procedure shall be applied in awarding the tender.
4.1	Only those renders who satisfy the following eligibility criteria are eligible to submit tenders:
	<p>The following tenders who are registered with the CIBD or are capable of being so registered prior to the evaluation of submissions, are eligible to submit tenders.</p> <p>a) CIBD registration</p> <p>Contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for an 7CE class of construction work; and</p> <p>Joint ventures are eligible to submit tenders provided that:</p>

	<p>1. Every member of the joint venture is registered with the CIDB:</p> <p>2. The lead partner has a contractor grading designation in the 7CE or Higher of construction work</p> <p>3. The combined contractor grading designation calculated in accordance with the Construction Industry Board the sum tendered for 7CE class of construction, or a value determine in accordance Regulations 25 (1B) or 25 (7A) of the Constriction Industry Development Regulations.</p> <p>b) Key Personnel The minimum requirements with regards to qualification, registration and experience in the civil engineering/ road construction field, for the Contractors key personnel shall be as indicated in the table below, according to the CIDB contractor grading destination determined for the contract.</p> <table border="1" data-bbox="370 689 1398 1014"> <thead> <tr> <th data-bbox="370 689 700 763">Key Personnel</th> <th colspan="2" data-bbox="700 689 1398 763">Minimum Requirements</th> </tr> <tr> <th data-bbox="370 763 700 837">Designation</th> <th data-bbox="700 763 1106 837">Minimum technical qualification or registration</th> <th data-bbox="1106 763 1398 837">Minimum relevant experience (years)</th> </tr> </thead> <tbody> <tr> <td data-bbox="370 837 700 911">Contract Manager /Site Agent</td> <td data-bbox="700 837 1106 911">NQF 6 or Higher</td> <td data-bbox="1106 837 1398 911">10</td> </tr> <tr> <td data-bbox="370 911 700 1014">Health and Safety Officer</td> <td data-bbox="700 911 1106 1014">SACPMP Registration: Construction Health and Safety Officer</td> <td data-bbox="1106 911 1398 1014">7</td> </tr> </tbody> </table> <p>¹ Relevant experience is the actual number of years, measured from the date of acquiring the base qualification, working in the civil engineering/ road construction field.</p> <p>² Registered with the Engineering Council of South Africa (ECSA) or any other international body recognised by the Employer. Foreigners with permanent South African residence longer than 5 (five) years shall be ECSA registered.</p> <p>³ South African Council for Project and Construction Management Professions (SACPMP)</p> <p>The tenderer must indicate in Forms Q1, Q2 & Q3 relating to its organisational structure and key personnel.</p> <p>Where the key personnel are no longer available to undertake the necessary work after the award of the tenderer, the contractor shall within the period of 14 working days replace the key personnel listed in the Forms Q1, Q2 and Q3 with personnel with equivalent competencies and subject to approval by the Employer. Such approval shall not be unreasonably withheld.</p> <p>Failure to satisfy the above legibility criteria is a breach of condition of tender as such, may result in a non-elicitable tender</p>	Key Personnel	Minimum Requirements		Designation	Minimum technical qualification or registration	Minimum relevant experience (years)	Contract Manager /Site Agent	NQF 6 or Higher	10	Health and Safety Officer	SACPMP Registration: Construction Health and Safety Officer	7
Key Personnel	Minimum Requirements												
Designation	Minimum technical qualification or registration	Minimum relevant experience (years)											
Contract Manager /Site Agent	NQF 6 or Higher	10											
Health and Safety Officer	SACPMP Registration: Construction Health and Safety Officer	7											
4.7	There will be no briefing session												
4.12	Alternative tender will not be considered												
4.13	<p>The Employer's details and address for delivery of tender offers and identification details that are to be shown on each cover the Employer's costs in confirming the acceptability of the detailed design.</p> <p>Location of tender box: Bid Box Physical address: Emalahleni Municipal Offices, at 29 Mandela Street Emalaheni, 1035</p>												

	Identification details: Tender reference number, Title of Tender and the closing date and time of the tender
4.13	Telephonic, telegraphic, telex, facsimile or e-mailed offers will not be accepted
4.13.4	Tenderers are required to submit all certificates as listed under returnable documents (Page T13) Failure to provide these required particulars as per the above listed certificates implies a non-responsive tender and warrants rejection of the tender on account of non-compliance with the requirements of the Tender Data
4.13.5	A two – envelope system is NOT required
4.15	The closing time for submission of tender offers is 12:00 hours on Friday, 20 June 2025
4.16	The tender offer validity period is 240 days
4.19	Access shall be provided for inspections and testing by personnel acting on behalf of the Employer
5.1	Request clarifications at least 7 days before closing of tender i.e. by Thursday, 12 June 2025
5.2	Addendum (if any) will be issued at least 5 calendar days before closing of tender
5.4	Tenders are to be opened immediately after closing time as listed on 4.15
5.11	The procedure for the evaluation of responsive tenders is Method 4

<p>5.11.5</p>	<p>Method 4: Financial offer, quality and preferences</p> <p>In this case of the financial offer, quality and preferences:</p> <ul style="list-style-type: none"> a) Score each tender in respect of the financial offer made, the preference claimed, if any, and the quality offered in accordance with the provisions of 5.11.7 to 5.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any, b) Calculate the total number of tender evaluation points (^TEV) in accordance with the following formula: <p>${}^T\text{EV} = N_{FO} + N_P + N_Q$</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> <p>N_P is the number of tender evaluation points awarded for preferences claimed in accordance with 5.11.8:</p> <p>N_Q is the number of tender evaluation points awarded for quality offered in accordance with 5.11.9,</p> <ul style="list-style-type: none"> a) Rank tender offers from the highest number of tender evaluation point to the lowest, and b) Recommended the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so. <p>Resources and re- rank all tenders should there be compelling and justifiable reasons not to recommended the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so, in which case the process set out in this subclause shall be repeated.</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 preference.</p> <p>If functionality /quality is part of the evaluation process and two or more tenderers score equal total points and equal preference points, the contract must be awarded to the tendered that scored the highest points for functionality/quality.</p> <p>If two or more tenders score equal total points in all respects, the award must be decided by the drawing of lots.</p> <p>Scores of financial offers, preference and quality, as relevant, to be given to two (2) decimal places</p>
<p>5.11.6</p>	<p>Scoring Financial Offers</p> <p>Score the offers using the following formula:</p> <p>$N_{FO} = W_1 \times A$</p> <p>Where</p> <p>N_{FO} is the number of tender evaluation points awarded for the financial offer;</p> <p>W_1 is the maximum possible number of tender evaluation points awarded for the financial offers stated below:</p>

<p>5.11.7</p>	<p>The financial offer will be scored using the following formula:</p> $N_{FO} = W_1 \times A$ <p>Where:</p> <p>N_{FO} = the number of evaluation points awarded for the financial offer</p> <p>W_1 = the maximum possible number of bid evaluation points awarded for the financial offer and will be:</p> <p>(i) 90 where the financial value inclusive of VAT of all responsive tenders received have a value in excess of R 50,000,000; or</p> <p>(ii) 80 where the financial value inclusive of VAT of one or more responsive tender offers equals or is less than R 50,000,000.</p> <p>A = the number calculated using Formula 2 (Option 1)</p> <p>Table 1: Formulae for calculating the value of A_a</p> <table border="1" data-bbox="347 725 1315 965"> <thead> <tr> <th>Formula</th> <th>Comparison aimed at achieving</th> <th>Option 1^a</th> <th>Option 2^a</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Highest price or discount</td> <td>$A = (1 + \frac{(P - P_m)}{P_m})$</td> <td>$A = P / P_m$</td> </tr> <tr> <td>2</td> <td>Lowest price or percentage commission /fee'</td> <td>$A = (1 - \frac{(P - P_m)}{P_m})$</td> <td>$A = P_m / P$</td> </tr> </tbody> </table> <p>^a P_m is the comparative offer of the most favorable comparative offer. P is the comparative offer of the tender offer under consideration.</p>	Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a	1	Highest price or discount	$A = (1 + \frac{(P - P_m)}{P_m})$	$A = P / P_m$	2	Lowest price or percentage commission /fee'	$A = (1 - \frac{(P - P_m)}{P_m})$	$A = P_m / P$
Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a										
1	Highest price or discount	$A = (1 + \frac{(P - P_m)}{P_m})$	$A = P / P_m$										
2	Lowest price or percentage commission /fee'	$A = (1 - \frac{(P - P_m)}{P_m})$	$A = P_m / P$										
<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. Points are based on a tenderer's scorecard measured in terms of the Targeted Goals of Emalahleni Local Municipality with respect to the Regulations (2017) to the Preferential Procurement Policy Framework Act (PPPFA, Act 5 of 2000). Points awarded will be according to a tenderer's specific goals summarised in the table below</p>												

Item no.	The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system)	Number of points claimed (80/20 system) (To be completed by the tenderer)																									
A total of 15 preference points shall be allocated on a proportional or pro rata basis for contracting an enterprise owned by historically disadvantaged persons or individuals who meet the following requirements -																												
1.	for 100% black person or people owned enterprise	5 points																										
2.	for at least 30% woman or women shareholding or owned enterprise	5 points																										
3.	For at least 30% youth shareholding or owned enterprise	2.5 points																										
4.	for at least 30% people living with disability shareholding or owned enterprise	2.5 points																										
A total of 5 preference points shall be allocated on a proportional or pro rata basis for implementing of programmes for RDP -																												
5.	for enterprise regarded as EME located within the local area of jurisdiction.	5 points																										
The Municipality will utilize the CSD report for the above-mentioned information.																												
<p>Eligibility for preference points will be determined as follows:</p> <p><input type="checkbox"/> Compliance with any other information requested to be attached to Returnable Schedule Form C.</p>																												
<p>The quality criteria and maximum score in respect of each of the criteria are as follows:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Quality Criterion</th> <th style="text-align: center;">Possible Full Points</th> </tr> </thead> <tbody> <tr> <td colspan="2">Experience of the Bidder</td> <td style="text-align: center;">30</td> </tr> <tr> <td rowspan="3" style="vertical-align: middle;">Key Personnel</td> <td>1. Construction Manager (Site Agent)</td> <td style="text-align: center;">15</td> </tr> <tr> <td>2. Foreman</td> <td style="text-align: center;">10</td> </tr> <tr> <td>3. Safety Officer</td> <td style="text-align: center;">5</td> </tr> <tr> <td colspan="2">Financial Capacity</td> <td style="text-align: center;">10</td> </tr> <tr> <td colspan="2">Construction Methodology</td> <td style="text-align: center;">15</td> </tr> <tr> <td colspan="2">Plant and Equipment</td> <td style="text-align: center;">15</td> </tr> <tr> <td colspan="2">Total Possible Points</td> <td style="text-align: center;">100</td> </tr> </tbody> </table> <p>The minimum number of evaluation points for quality is 70</p>				Quality Criterion		Possible Full Points	Experience of the Bidder		30	Key Personnel	1. Construction Manager (Site Agent)	15	2. Foreman	10	3. Safety Officer	5	Financial Capacity		10	Construction Methodology		15	Plant and Equipment		15	Total Possible Points		100
Quality Criterion		Possible Full Points																										
Experience of the Bidder		30																										
Key Personnel	1. Construction Manager (Site Agent)	15																										
	2. Foreman	10																										
	3. Safety Officer	5																										
Financial Capacity		10																										
Construction Methodology		15																										
Plant and Equipment		15																										
Total Possible Points		100																										

5.11.9	The minimum number of evaluation points for quality is 70				
	DETAILED BREAKDOWN OF FUNCTIONALITY POINTS				
	Quality Criteria	Sub-Criteria	Weighting	Max. Score	Criterion
	Company Experience The company has successfully completed other projects of similar nature with a value of R20 Million or higher in past five years	5 or more Projects in paved roads and storm water	30	30	Attached appointment letter and Completion Certificate. (Refer to Form P of Returnable Documents)
		4 projects in paved roads and storm water	24		
		3 projects in paved roads and storm water	18		
		2 projects in paved roads and storm water	12		
		1 project in paved roads and storm water	6		
		0 projects in paved roads and Stormwater / No response	0		
	Contracts Manager/Site Agent Site Agent personnel with at least a minimum qualification of a National Diploma (NQF 6) or equivalent in Civil Engineering or built environment, has been involved in similar projects	National Diploma (NQF Level 6) or Higher with 10 years or More experience in construction of similar projects (roads and storm water)	15	15	Attach copy of CV with traceable References. (Refer to Form Q of the Returnable Document)
		National Diploma (NQF Level 6) or Higher with 5 to 9 years' experience in construction of similar projects (roads and storm water)	10		
		National Diploma (NQF Level 6) or Higher with 4 or less years' experience in construction of similar projects (roads and storm water)	5		
		No response	0		
	Site Foreman Site Foreman personnel with at least minimum experience in similar Projects	10 years or More experience in construction of similar project	10	10	Attach copy of CV with traceable References. (Refer to Form Q of the Returnable Document)
		5-9 years' experience in construction of similar projects	5		
1-4 years' experience in construction of similar projects		3			
No response		0			
Safety Officer SACPMP Registration: Construction Health and Safety Officer	7 years or More experience in construction of similar project	5	5	Attach copy of CV with traceable References. (Refer to Form Q of the Returnable Document)	
	4-6 years' experience in construction of similar projects	3			
	1-3 years' experience in construction of similar projects	1			
	No response	0			
Financial Capacity Stamped letter from the bank not older than 3 months in addition audited financial statements (not older than 2 years)	Grade A	10	10	Attach bank letter Refer Form R of the Returnable Document)	
	Grade B	8			
	Grade C	6			
	Grade D	4			
	Grade E	2			
	Grade F-G	0			

	Construction Methodology The construction methodology must include the following subheading: Approach, Time Frames, Activities (in construction sequence), construction administration, Quality management, Health and Safety and Traffic Accommodation.	Approach Method	3	15	Construction methodology Programme of Work Quality Plan Health and Safety Plan Traffic Accommodation Plan (Refer to Form S,T & U of the Returnable Document)
		Time Frames	3		
		Activities	2		
		Construction administration,	1		
		Quality Management,	2		
		Health and Safety Plan	2		
		Traffic Accommodation Plan	2		
	Plant Ownership of construction plant and Equipment i.e Excavator, Tipper Trucks and or water tanker, Grader, Roller and Recycler.	Excavator	2	15	1.Attached Finance Asset Register/Proof of purchase (Excavator, Roller and Recycler) 2.Natis Documents for Grader, Water tanker and Tipper Trucks. NB: Hired plant will not be awarded. (Refer to Form V of the Returnable Document)
		TLB	1		
		Grader (120 or Higher)	2		
		Tipper Truck (10m3)	2		
		Vibrator Roller 12 ton or higher	2		
		Water Tanker (8000L or Higher)	2		
		Recycler	2		
		Paver	2		
		No Response	0		
	Total Points		100		

TENDERERS WITH A SCORE OF LESS THAN 70% WILL BE REGARDED AS NON-RESPONSIVE AND WILL NOT BE EVALUATED FURTHER

5.13	<p>Tender offers will only be accepted if:</p> <p>a) the tenderer is in good standing with the South African Revenue Services on his tax obligations</p> <p>b) the tenderer is registered on the Central Supplier Database (CSD) for the South African government (see https://secure.csd.gov.za)</p> <p>c) is registered with the Construction Industry Development Board in an appropriate contractor grading designation, by tender closing date;</p> <p>d) the tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;</p> <p>e) the tenderer has not</p> <p>(i) abused the Employer's Supply Chain Management System; or</p> <p>(ii) failed to perform on any previous contract and has been given a written notice to this effect; and</p> <p>f) has completed the Compulsory Enterprise Questionnaires and there are no conflicts of interest which may impact on the Tenderer's ability to perform the contract in the best interest of the employer or potentially compromise the tender process and persons in the employ of the state are not permitted to submit tenders or participate in the contract.</p> <p>g) The tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer;</p>
------	--

5.13.1	Acceptance of a tender offer (Additional conditions) The Employer shall accept a tender offer should it be considered not to present any unacceptable commercial risk, only if the tenderer: <ul style="list-style-type: none">a) is not under restrictions, or has principals who are under restrictions preventing participation in the Employers procurementb) can as necessary and in relation to the proposed contract demonstrate the possession of the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and personnel to perform the contractc) has the legal capacity to enter into a contract,d) is not insolvent, in receivership, bankrupt or being liquidated, does not have any affairs administered by a court or judicial officer, does not have suspended business activities, or is subject to legal proceedings with respect to any of the foregoing,e) complies with the legal requirements if any stated in the tender data, andf) is able in the opinion of the Employer to perform the contract free of conflict of interest.
5.17	The number of paper copies of the signed contract to be provided by the Employer is ONE (1)

T2: RETURNABLES DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

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

The list of returnable documents comprises the following: tick

T2.1.1 List of compulsory returnable documents

- A Record of Addenda to Tender Documents
- B Proposed Amendments, Qualifications & Alternatives
- C Preference Points Claim Form in Terms of The Preferential Procurement Regulations 2022.....
- D Declaration of Interest
- E Registration Certificate/ Agreement/ ID Document.....
- F Certificate of Independent BID Determination
- G Tax Compliance Status
- H Declaration of Bidder's Past Supply Chain Management Practises
- I Certificate of Authority
- J Details of Registration with CIDB.....
- K Rates and Municipal Service Clearance Certificate
- L Declaration for Procurement above R10 million (All applicable taxes included)
- M Compulsory Enterprise Questionnaire.....
- N Proposed Specialist Subcontractors
- O Audited Financial Statements / Letter from registered Audit Firm

NOTE: (The Tenderer is required to complete each and every schedule listed above on item T.2.1.A and that failure to comply with the request will deem the tender disqualified.)

T2.1.2 List of returnable documents for evaluation purposes

- P Company Experience in relation to Scope of Works
- Q Schedule of Key Personnel
- R Tender's Financial Standing and Banking Details
- S Construction Method Statement and Preliminary Programme
- T Contractors Safety Plan
- U Quality Management Questionnaire.....
- V Plant and Equipment
- W Present Commitments

A. RECORD OF ADDENDUM TO TENDER DOCUMENTS

I / We confirm that the following communications received from the Employer or his representative before the date of submission of the tender offer, amending the tender documents have been considered in this tender offer.

ADD. No	DATE	TITLE OR DETAILS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

SIGNATURE: DATE:
(of person authorised to sign on behalf of the Tenderer)

B. AMENDMENTS, QUALIFICATIONS AND ALTERNATIVES

The tenderer should record any deviations or qualifications he may wish to make to the tender documents in this returnable schedule. Alternatively, a tenderer may state such deviations and qualifications in a covering letter to his tender and reference such letter in this schedule.

The Tenderers attention is drawn to clause 5.8 of SANS 10845-3 regarding the employers handling of material deviations and qualifications.

(a) AMENDMENTS

PAGE, CLAUSE OR ITEM NO	PROPOSED AMENDMENTS

[Notes: (1) Amendments to General and Special Conditions of Contract are not acceptable.

(2) The Tenderer must give full details of all the financial implications of the amendments and qualifications in a covering letter attached to his tender.

This is not an invitation for alternatives but should the Tenderer desire to make any departure for the provision of this contract he shall det out his proposals clearly hereunder

(b) ALTERNATIVES

PROPOSED ALTERNATIVE	DESCRIPTION OF ALTERNATIVE

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

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

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

SIGNATURE:DATE.....

(of person authorised to sign on behalf of the Tenderer)

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

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

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

1. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

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

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

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

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

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

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

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

2. DEFINITIONS

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

$$Ps = 80 \left(1 - \frac{Pt - Pmin}{Pmin} \right) \text{ or } Ps = 90 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$$

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmin = Price of lowest acceptable tender

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

3.2.1. POINTS AWARDED FOR PRICE

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

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

Where

- Ps = Points scored for price of tender under consideration
- Pt = Price of tender under consideration
- Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:
- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
 - (b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

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

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

Item no.	The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system)	Number of points claimed (80/20 system) (To be completed by the tenderer)
A total of 15 preference points shall be allocated on a proportional or pro rata basis for contracting an enterprise owned by historically disadvantaged persons or individuals who meet the following requirements -			
1.	for 100% black person or people owned enterprise	5 points	
2.	for at least 30% woman or women shareholding or owned enterprise	5 points	
3.	For at least 30% youth shareholding or owned enterprise	2.5 points	
4.	for at least 30% people living with disability shareholding or owned enterprise	2.5 points	
A total of 5 preference points shall be allocated on a proportional or pro rata basis for implementing of programmes for RDP -			
5.	for enterprise regarded as EME located within the local area of jurisdiction.	5 points	
The Municipality will utilize the CSD report for the above-mentioned information.			

DECLARATION WITH REGARD TO COMPANY/FIRM

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

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

4.6.2 MUNICIPAL INFORMATION

Municipality where business is situated:
.....

Registered Account Number:

Stand Number:.....

- i. The information furnished is true and correct;
- ii. The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii. In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
- iv. If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

- (a) disqualify the person from the tendering process;
- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
- (e) forward the matter for criminal prosecution, if deemed necessary.

.....

SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

.....

.....

.....

D. DECLARATION OF INTEREST

MBD 4

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 a price quotation, advertised competitive bid, limited bid or proposal). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority 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):
.....

2.4 Company Registration Number :

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 attached 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.

.....

2.10 Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?

YES/NO

2.10.1 If so, furnish particulars.

.....

2.11 Do you or any of the directors / trustees / shareholders / members of the company have any interest in any other related companies whether or not they are bidding for this contract?

YES/NO

2.11.1 If so, furnish particulars:

.....

3 Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	Personal Tax Reference Number	State Employee Number / Persal Number

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 IN TERMS OF PARAGRAPH 23 OF THE GENERAL CONDITIONS OF CONTRACT SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

E. REGISTRATION CERTIFICATE / AGREEMENT / ID DOCUMENT

- **For Closed Corporation**

CK1 or CK2 as applicable (Founding Statement)
Certified Copies of the ID's of the Directors
Certified Shareholder Certificate

OR

- **For Companies**

A copy of Certificate of Incorporation
Certified Copies of the ID's of the Directors, and
Certified Shareholder Register

OR

- **For Joint Venture Agreements**

Joint Venture Agreement between all the parties,
As well as documents in (1) or (2) of each Joint Venture members

OR

- **For Partnership**

1. Certified Copies of ID's of the partners

OR

- **One-person Business/ Sole Trader**

2. Certified of ID

F. CERTIFICATE OF INDEPENDENT BID DETERMINATION

MBD 9

1. This Municipal Bidding Document (MBD) must form part of all bids invited.
2. Section 4 (1) (b) (iii) of the Competition Act No .89 of 1998, as amended, prohibits an agreement between, or concerted practice by , firms or a decision by an association of firms , if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging). Collusive bidding is a pe se prohibition meaning that it cannot be justify under any grounds.
3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - (a) take all reasonable steps to prevent such abuse;
 - (b) reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - (c) cancel a contract awarded to a person if the person if the committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
1. This MBD to give service 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 contract.
2. In order to give effect to the above, the attached Certificate of Bid Determination (MBD) must be completed and submitted with the bid:
3. Includes price quotations, advertised competitive bids, limited bids and proposal.
4. Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete

I, the undersigned, in submitting the accompanying bid:

Contract No: ELM 13/2025
UPGRADE AND REHABILITATION OF DIEDERICKS ROAD

(Bid Number and Description)

In response to the invitation for the bid made by:

EMALAHLENI LOCAL MUNICIPALITY

(Name of the Municipality / Municipal Entity)

do hereby make 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 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 authorised by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder
4. Each person whose signature appears of this Certificate and the accompanying bid has been authorised 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 "competition " shall include any individuals or organisation, 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 consortium 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 serve will be rendered (market allocation)
 - c) method, factors or formulas used to calculate prices:
 - d) the intention or decision to submit or not submit, a bid:
 - e) the submission of a bid which does not meet the specification and condition 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 quantity, specification and conditions or delivery particulars of the products or services to which this bid invitation rates.
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 of Corrupt Activities Act No. 12 of 2004 or any other applicable legislation.

SIGNATURE

DATE

POSITION

NAME OF BIDDER

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

G. TAX COMPLIANCE STATUS

The Tax Compliance Status (TCS) PIN must be submitted together with the tender. Failure to submit the above-mentioned documentation will result in the invalidation of the tender.

In tenders where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Compliance Status (TCS) PIN.

ATTACH TAX COMPLIANCE STATUS (TCS) PIN HERE

H. DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTISES

MBD 8

- 1 This Municipal Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by municipalities and municipal entities 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 rejected if that bidder, or any of its directors have:
 - a. Abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system:
 - b. been convicted for fraud or corruption during the past five years:
 - c. wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years: or
 - d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)
- 4 **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

Item	Question	Yes	No
4.1	<p>Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as a companies or persons prohibited from doing business with the public sector? <i>(Companies or persons who are listed on this Database were informed in writing of this restriction by the audi alteram partem rule was applied).</i></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	<p>Is the bidder or any its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?</p> <p>The Register for Tender Defaulters can be accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link ay the bottom of the home page</p>	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 of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes	No
Item	Question	Yes	No
4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to other municipality /municipal entity, that is in areas for more than three months?	Yes	No
4.4.1	If so, furnish particulars (Attach certified proof of good standing from the Municipality)		
4.5	Was any contract between the bidder and the municipality/municipal entity or any other organ of? State terminated during the past five years on account of failure on or copy with the contract	Yes	No
4.5.1	If so, furnish particulars		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME) CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM 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

I. CERTIFICATE OF AUTHORITY

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

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

(i) CERTIFICATE FOR COMPANY

I..... chairperson of the Board of Directors of..... hereby confirm that by resolution of the Board (copy attached) taken on20.....

Mr/Ms acting in the capacity of, was authorised to sign all documents in connection with this tender for **Contract No: ELM 13/2025** any contract resulting from it on behalf of the company.

Chairman:

As Witnesses: 1.....
 2.....

Date:

(ii) CERTIFICATE FOR CLOSE CORPORATION

We, the undersigned, being the key members in the business trading as.....

.....hereby authorise Mr/Ms.....

acting in the capacity ofto sign all documents in connection with the tender for **Contract No: ELM 13/2025** and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE
		
		

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

(iii) CERTIFICATE FOR PARTNERSHIP

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

.....
 hereby authorise Mr/Ms

acting in the capacity of, to sign all documents in connection with the tender for **Contract No: ELM 13/2025** and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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

(iv) CERTIFICATE FOR JOINT VENTURE

We, the undersigned are submitting this tender offer in Joint Venture and hereby authorize Mr/ Ms, authorized of the company, acting in the capacity of lead partner, sign all documents in connection with the tender offer for **Contract No: ELM 13/2025** and any contract resulting from it on our behalf.

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

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

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

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

(v) CERTIFICATE FOR SOLE PROPRIETOR

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

.....
acting in the capacity of, to sign all documents in connection with the tender for **Contract No: ELM 13/2025** and any contract resulting from it on our behalf.

Signature of Sole owner

As Witnesses:

1.

2.

Date:

J. DETAILS OF REGISTRATION WITH CIDB

PRIMARY CONTRACTOR

Contractors Name:

Contractors CIDB Registration Number:

Contractors CIDB Registration Classification:

JOINT VENTURE PARTNERS 1 (Where Applicable)

Contractors Name:

Contractors CIDB Registration Number:

Contractors CIDB Registration Classification.....

JOINT VENTURE PARTNERS 2 (Where Applicable)

Contractors Name:

Contractors CIDB Registration Number:

Contractors CIDB Registration Classification.....

Note: This information will be checked on the CIDB Website

SIGNATURE:.....DATE

(of person authorised to sign on behalf of the Tenderer)

K. RATES AND MUNICIPAL SERVICES CLEARANCE CERTIFICATE

The tenderer is to affix to this page:

- Proof that they are not in arrears for more than 3 months with municipal rated and taxes and municipal service charges. The latest municipal account is to be attached.
- Signed copy of the lease agreement if the tenderer is currently leasing premises and not responsible paying municipal accounts together with a letter from the landlord stating that no levies are in arrears (only if applicable).

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 and should proof of such submission be found to be invalid, erroneous or inaccurate, this tender will no longer be considered for the award of this contract.
3. Statement must not be older than three months from the closing date of this tender.

Attach latest municipal account statement behind this page. The Statement must not be older than three months from the close of this tender.

L. DECLARATION FOR PROCUREMENT ABOVE 10 MILLION (ALL APPLICABLE TAXES INCLUDED)

MBD5

For all procurement expected to exceed R10 million (all applicable taxes included), bidders must complete the following questionnaire:

1. Are you by law required to prepare annual financial statements for auditing? **Yes/No**

1.1 If yes, submit audited annual financial statements audited by registered Auditing firm for the past three years or since the date of establishment if established during the past three years

.....
.....

1.2 If No, submit proof through a formal letter from a registered Auditing firm confirming that you are not required by law to have annual financial statements.

2. Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days **Yes/No**

2.1 If no, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than three months or other service provider in respect of which payment is overdue for more than 30 days.

2.2 If yes, provide particulars

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

3. Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract? **Yes/No**

3.1 If Yes, furnish particulars

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

4. Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality/ municipal entity is expected to be transferred out of the Republic? **Yes/No**

4.1 If yes, furnish particulars

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

CERTIFICATION

I, THE UNDERSIGNED CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS CORRECT.

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

NB: THE BIDDER IS REQUIRED TO SUBMIT THREE YEARS AUDITED ANNUAL FINANCIAL STATEMENTS BY A REGISTERED AUDITING FIRM (WHERE REQUIRED). IF NOT REQUIRED BY LAW, A LETTER FROM REGISTERED AUDITING FIRM INDICATING SUCH MUST BE ATTACHED. FAILURE TO SUBMIT WILL LEAD TO TENDER BEING DISQUALIFIED.

M. COMPULSORY ENTERPRICE QUESTIONNAIRE

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

Section 1. Name of enterprise: _____

Section 2. VAT registration number, if any: _____

Section 3. CIDB registration number, if any: _____

Section 4. Particulars of sole proprietors and partners in partnership.

Name*	Identity number*	Personal income tax number*

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

Section 5. Particulars of companies and close corporations

Company registration number: _____

Close corporation number: _____

Tax reference number: _____

Section 6. Record in the service of the state

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

- a member of the municipal council
- a member of the National Assembly or the National Council of Provinces
- a member of the board of directors of any municipal; entity
- an official of any municipal entity
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature
- an employee of any provincial department, national or provincial public entity or constitutional institution with the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)

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

*Insert separate page if necessary.

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

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

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of 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 the municipal council
- a member of the National Assembly or the National Council of Provinces
- a member of the board of directors of any municipal; entity
- an official of any municipal entity
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature
- an employee of any provincial department, national or provincial public entity or constitutional institution with the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)

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

*Insert separate page if necessary.

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

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

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent of 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 the municipal council
- a member of the National Assembly or the National Council of Provinces
- a member of the board of directors of any municipal; entity
- an official of any municipal entity
- a member of an accounting authority of any national or provincial public entity
- an employee of Parliament or a provincial legislature
- an employee of any provincial department, national or provincial public entity or constitutional institution with the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)

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

**Insert separate page if necessary.*

Signed: _____

Date: _____

Name: _____

Position: _____

Enterprise name:

N. PROPOSED SPECIALIST SUBCONTRACTORS

Notes to tenderer:

1. The tenderer shall list below the specialist items of work on this contract. Alternatives may be mentioned.
2. The tenderer shall state whether he intends to carry out any specialised work himself

Acceptance of this tender shall not be constructed as approval of all or any of the listed specialist subcontractor. Should any or all the specialist subcontractors not approved subsequent to the acceptance of the tender. It shall in no way invalidate this tender, and the tendered unit rates for the various items of work shall remain final and binding, even in the event of subcontractor not listed below being approved by the engineer.

SPECIALISED ITEM	INDICATE IF SUB-CONTRACTED (Tick correct option)	
	YES	NO

In order to complete the works under this contract. I/We propose to employ the following sub-contractors to carry out the portion/ type of work as detailed. **Affix original or certified proof of 3 previous projects for each sub-contractor**

Sub-contractor: Name, Address and Telephone No	Portion/ Type of work to be undertaken	
		Previous Value of Work:
		Previous Value of Work:
		Previous Experience:
		Previous Value of Work:
		Previous Experience:

SIGNATURE: DATE:
 (of person authorised to sign on behalf of the Tenderer)

O. AUDITED FINANCIAL STATEMENTS / LETTER FROM REGISTERED AUDIT FIRM

THE BIDDER IS REQUIRED TO SUBMIT THREE YEARS AUDITED ANNUAL FINANCIAL STATEMENTS BY A REGISTERED AUDITING FIRM (WHERE REQUIRED). IF NOT REQUIRED BY LAW, A LETTER FROM REGISTERED AUDITING FIRM INDICATING SUCH MUST BE ATTACHED. FAILURE TO SUBMIT WILL LEAD TO TENDER BEING DISQUALIFIED.

T2.1.2 LIST OF RETURNABLE DOCUMENTS FOR EVALUATION PURPOSES

P. COMPANY EXPERIENCE IN RELATION TO SCOPE OF WORKS

The Tenderer will receive a maximum of 30 points based on information provided in this schedule.

1. Points will be given for projects completed of similar nature and size (Culvert Rehabilitation, Road Works, work under similar traffic condition). No points will be allocated for building projects and/or water projects.
2. The tenderer must list at least 5 road rehabilitation projects with value of R 20m or more completed in the last 5 years.
3. The tenderer will receive a maximum 6 Quality Points for each project listed.
4. The maximum Quality points for each criterion are listed below.
5. Positive feedback from the Consulting Engineer from the designated/ listed contact person will contribute towards points allocated for the attached certified certificates of completion.
6. Positive feedback from the Employer from the designated/ listed contact person will contribute towards points allocated for the attached certified certificates of completion.
7. Only projects of similar or higher value are applicable.
8. Points for certified completion certificates attached will be given for similar nature and size projects. Negative feedback will forfeit all points, meaning zero (0) points will be allocated for the attached certificates of completion.
9. Failure to submit all relevant information per project will result in the forfeiture of all points for that relevant project.
10. The experience of the Tenderer or joint venture partners in a consortium will be evaluated on the basis of experience in similar projects or similar areas and conditions in relation to the scope of work required for this project.

T1.2: TENDER DATA

Certified Appointment letter of Relevant Work (to be attached) (max 2 points/ project) (R20m Value or More)	Consulting Engineer: Contact Person and Telephone Number	Employer Contact Person and Telephone Number	Value of Work (inclusive of VAT)	Date Completed (Attach Certified Completion Certificate) (max 4 points/ project)	Points awarded by the Engineer
Attach additional pages if more spaces are required	Total Points				

SIGNATURE: DATE:
(of person authorised to sign on behalf of the Tenderer)

Q. SCHEDULE OF KEY PERSONNEL

Note to tenderer:

The tenderer shall provide details of previous experience required for this project. The tenderer is referred to the tender data clause 4.1.1 (b) and shall insert in the space provided below details of the key personnel required be in employment of the tenderer, in order for the tenderer to be eligible to submit a tender for this project. Proof of registration, **if applicable**, must be appended to this form.

Q1. KEY PERSONNEL EXPERIENCE (CONTRACTS MANAGER/SITE AGENT)

The tenderer shall provide details of previous experience required for this project. Proof of registration must be attached for this form.

Name	Position in team	ECSA Reg No	Category	SACPCMP Reg No	Category	No of Year Experience
	Contract Manager					

Technical / Managerial Experience

(List only the most recent 5 projects of the key staff that the tenderer considers relevant to the specified scope of work.)

Description of Project	Position held	Project Start Date	Project Completion Date	Contract value	Client and Contact Person	Contact No

(DETAILED CV MUST BE ATTACHED HERETO)

SIGNATURE: DATE:

(of person authorised to sign on behalf of the Tenderer)

Q2 KEY PERSONNEL EXPERIENCE (FOREMAN)

The tenderer shall provide details of previous experience required for this project. Proof of registration must be attached for this form.

Name	Position in team	ECSA Reg No	Category	SACPCMP Reg No	Category	No of Year Experience
	FOREMAN					

Technical / Managerial Experience

(List only the most recent 5 projects of the key staff that the tenderer considers relevant to the specified scope of work.)

Description of Project	Position held	Project Start Date	Project Completion Date	Contract value	Client and Contact Person	Contact No

(DETAILED CV MUST BE ATTACHED HERETO)

SIGNATURE: DATE:

(of person authorised to sign on behalf of the Tenderer)

Q3. KEY PERSONNEL EXPERIENCE (SAFETY OFFICER)

The tenderer shall provide details of previous experience required for this project. Proof of registration must be attached for this form.

Name	Position in team	ECSA Reg No	Category	SACPCMP Reg No	Category	No of Year Experience
	SAFETY OFFICER					

Technical / Managerial Experience

(List only the most recent 5 projects of the key staff that the tenderer considers relevant to the specified scope of work.)

Description of Project	Position held	Project Start Date	Project Completion Date	Contract value	Client and Contact Person	Contact No

(DETAILED CV MUST BE ATTACHED HERETO)

SIGNATURE: DATE:
 (of person authorised to sign on behalf of the Tenderer)

R. TENDER 'S BANKING DETAILS

Notes of tenderer

- The tenderer shall attach to this form an original letter from the bank not older than three (3) months confirming the bank account, details
- 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.

BANK NAME									
ACCOUNT NAME:									
ACCOUNT TYPE:									
ACCOUNT NO:									
ADDRESS OF BANK									
CONTACT PERSON									
TEL NO. OF BANK / CONTACT									
How long has this account been in existence	<table border="1"> <tr> <td>0-6 months</td> <td></td> </tr> <tr> <td>7 – 12 months</td> <td></td> </tr> <tr> <td>13 -24 months</td> <td></td> </tr> <tr> <td>More than 24 months</td> <td></td> </tr> </table>	0-6 months		7 – 12 months		13 -24 months		More than 24 months	
0-6 months									
7 – 12 months									
13 -24 months									
More than 24 months									

(ATTACHED HERETO AN ORIGINAL LETTER FROM THE BANK, NOT OLDER THAN THREE (3) MONTHS)

SIGNATURE: DATE:
 (of person authorised to sign on behalf of the Tenderer)

S. CONSTRUCTION METHOD STATEMENT AND PRELIMINARY PROGRAMME

CONSTRUCTION METHOD STATEMENT

The tenderer will receive a maximum of 15 points based on information provided in this schedule based on the below:

- Method statement 6
- Preliminary programme 5
- Contractors safety plan see schedule W1 2
- Quality Management Questionnaire see schedule W2 2
- TOTAL 15 Points**

The construction of Diedericks road consists of the reconstruction of the existing road. This covers a total length of approximately 1.2km.

The quality criteria will be as follows (maximum 7 pages):

- 1) Approach method= 3 points
- 2) Construction Administration = 1.0 points
- 3) Traffic Accommodation = 2.0 points

The Tenderer shall attach a method statement reflecting the execution of the various activities, construction methods and quality control comprising the rehabilitation work for this contract, including accommodation of traffic during construction The statement shall be in accordance with the information supplied in the Contract, requirements of the Project Specifications and with all other aspects of this Tender.

PRELIMINARY PROGRAMME

The tenderer will receive a maximum of 5 points based on the executive programme.

The quality criteria will be as follow:

1. Applicable activities / tasks (showing more than 10 (ten) tasks) = 2 points
2. Float indicated = 1 points
3. Resources allocation indicated =1 points
4. Critical path= 1.0 points

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

The Execution Programme must be based on the completion time as specified in the Contract Data.

PLEASE NOTE: the cash flow projection from the contractor (to be submitted before commencement of the execution of the contract) must be in accordance with this execution plan in order to ensure proper cash flow management by the employer and to minimise delayed payments

Programme										
Activity and Resource	Month									

T1.2: TENDER DATA

*Attach additional pages if more space is required

SIGNATURE: DATE

(of person authorised to sign on behalf of the Tenderer)

T. CONTRACTOR'S SAFETY PLAN

The tenderer will receive a maximum of 2 points based on information provided in this schedule.

[The tenderer shall attach to this page (or submit it separately) the Contractor's Health and Safety Plan as required in terms of Regulation 5 of the Occupational Health and Safety Act 1993 Construction Regulations 2003, and referred to in Form R and in T21]

V. PLANT AND EQUIPMENT

The tender will receive a maximum of 15 points based on information provided in this schedule.

1. 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.
2. The tenderer will receive Quality points for listing of plant available for this specific contract as follows:
 - Major plant for construction works if well identified and 100% is owned and available at start of contract – 15 points maximum.
 - Plant correctly identified and owned will be calculated according to allocated points
3. Proof of ownership to be submitted.

Description, Size, Capacity etc.	Allocated Points	Quantity		Tick if Owned
Excavator	2.0	1		
TLB (48kw capacity)	1.0	1		
Grader (120 or higher)	2.0	1		
Tipper Trucks (10m ³)	2.0	1		
Vibratory Roller (12 ton or higher)	2.0	1		
Water Tanker (8000 litres or higher)	2.0	1		
Recycler	2.0	1		
Paver	2.0	1		
Total	15.0			
Total Points Allocated				

*Attach additional pages if more space is required.

SIGNATURE: DATE.....

(of person authorised to sign on behalf of the Tenderer)

W. PRESENT COMMITMENTS

Notes to Tenderer:

- (a) The tenderer shall list below all contracts currently under construction or awarded and about to commence and tenders for which offers been submitted but awards not yet made.
- (b) In the event of a joint venture enterprise, details of all the members of the joint venture shall similarly be attached to this form.
- (c) The lists must be restricted to not more than 5 contracts and 5 tenders. If a tenderer's actual commitments or potential commitments are greater than 5 each, those listed should be in descending order or expected final contract value or sum tendered

Contracts Awarded				
Employer	Project	Expected Value of contract (Inclusive of VAT)	Duration (Months)	Expected Completion Date

Tenders not Yet Awarded				
Employer	Project	Tendered Amount (Inclusive of VAT)	Tendered Duration (Months)	Expected Commencement Date

SIGNATURE:.....DATE.....
 (of person authorised to sign on behalf of the Tenderer)



CONTRACT NO: ELM 13/2025
UPGRADE AND REHABILITATION OF DIEDERICKS ROAD

CONTRACT

C1: AGREEMENTS AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE

Offer

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

CONTRACT No.: ELM 13/2025

UPGRADE AND REHABILITATION OF DIEDERICKS ROAD

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

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

.....
.....

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

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

For the Tenderer:

.....
Signature

.....
Name

.....
Capacity

Name and address of organization:

.....
.....

Signature and name of witness:

.....
Name Signature

Date:

This form is to be completed by the Employer only

Acceptance

By signing this part of the 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 1 Agreement and Contract Data, (which include this Agreement)
- Part 2 Pricing Data
- Part 3 Scope of Work
- Part 4 Site Information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

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

The Tender 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 the 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 fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the 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.

For the Employer:

.....
Signature

.....
Name

.....
Capacity

Name and address of organization:

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

C1.1: FORM OF OFFER AND ACCEPTANCE

Signature and name of witness:

.....
Signature

.....
Name

.....
Date

C1.1: FORM OF OFFER AND ACCEPTANCE

This form is to be completed by the Employer and the successful tenderer only, upon acceptance of the successful tenderer's offer

Schedule of Deviations

Notes:

1. The extent of deviations from the tender documents issued by the Employer prior to 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 becomes 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 change 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,

1. **Subject:**.....

Details:.....

2. **Subject**.....

Details:.....

3 **Subject:**

Details:.....

4 **Subject:**

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 change to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

C1.1: FORM 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 Tenderer:

For the Employer:

.....

.....

Signature

Name

.....

Capacity

.....

Name and address of organisation:

Name and address of organisation:

.....

.....

.....

.....

.....

.....

..... **Witness Signature**

..... **Witness Name**

..... **Date**

C1.1: FORM OF OFFER AND ACCEPTANCE

CONFIRMATION OF RECEIPT

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

The (Day)

of (Month)

20..... (Year)

At (Place)

For the Contractor:

.....
Signature

.....
Name

.....
Capacity

Signature and name of witness:

.....
Signature

.....
Name

C1.2: CONTRACT DATA

PROPOSED REHABILITATION OF DEIDERICKS AND BEATTY DRIVE

PART 1: DATA PROVIDED BY THE EMPLOYER

C.1.2.1: CONDITIONS OF CONTRACT

The General Conditions of Contract for Construction Works, Third Edition 2015 (GCC 2015), published by the South African Institution of Civil Engineering, Private Bag X200, Halfway House 1685, is applicable to this Contract and is obtainable from www.saice.org.za.

The General Conditions of Contract for Construction Works makes several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the contract. The contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the general conditions of contract.

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

C1.2.1.2 SPECIAL CONDITIONS OF CONTRACT

C1.2.1.2.1 GENERAL

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

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

C1.2.1.2.2 AMENDMENTS TO THE GCC 2015

SCC 1.1 Definitions

Add the following to the end of Clause 1.1:

"SCC 1.1.1.35 "Targeted Enterprise" means an enterprise as defined in Part B: Small Contractor Development of section C3.3 Particular Specifications in Part C3: Scope of Works."

SCC 4.1.1 Extent of Contractor's obligations

Add the following new paragraph to the end of Clause 4.1.1:

"If the Contractor fails to achieve the monetary value of the target set by the Employer for contract participation by Targeted Enterprises in terms of Part G: Small Contractor Development of section C3.3 Particular Specifications in Part C3: Scope of Works, the Contractor shall be liable to the Employer for a sum calculated in accordance with the Contract Data and the aforementioned Scope of Works as a penalty for such underachievement."

SCC 6.2 Security

SCC 6.2.1 Delivery of security

In the last two lines of Clause 6.2.1, delete the words “the type of security for the due performance of the Contract, as selected in the Contract Data” and replace them with the words “a fixed performance guarantees as security for the due performance of the Contract in accordance with the Contract Data Part A: Data Provided by the Employer”.

Delete the entirety of Clause 6.2.2 and replace it with the following:

“SCC 6.2.2 Contractor failing to provide security

If the Contractor fails to provide the required fixed performance guarantee within the time period stipulated in the Contract Data, or if the performance guarantee shall differ substantially from the pro forma, it shall legally be deemed that the Contractor has selected a security of ten per cent retention of the value of the Works without limiting the Employer’s right to terminate the Contract in terms of Clause 9.2.”

SCC 6.2.3 Validity of performance guarantee

Delete the entirety of the first sentence of Clause 6.2.3 and replace it with the following:

“The Contractor shall ensure that the performance guarantee remains valid and enforceable until the Certificate of Completion is issued.”

SCC 6.8.2 Application of the Contract Price Adjustment Factor

Add the following to the end of Clause 6.8.2:

“Referring to Clause 1 of the “CONTRACT PRICE ADJUSTMENT SCHEDULE” on page 86 of the GCC 2015, delete the paragraph describing the symbols “L”, “P”, “M” and “F”, and replace it with the following:

“L”, “P”, “M” and “F” are defined as follows:

“L” is the “Labour Index” and shall be the Consumer Price Index for the province as stated in the Contract Data as published in Table A of the Statistical release P0141 of Statistics South Africa.

“P” is the “Contractor’s Equipment Index” and shall be the Producer Price Index for “Civil engineering plant” as published in Table 4 of the Statistical release P0151 of Statistics South Africa.

“M” is the “Materials Index” and shall be the Producer Price Index for the “Building and construction - Civil engineering” industry as published in Table 3 of the Statistical release P0151 of Statistics South Africa.

“F” is the “Fuel Index” and shall be the Producer Price Index for “Diesel fuel wholesale - Total” as published in Table 4 of the Statistical release P0151 of Statistics South Africa.”

Additional Special Conditions of Contract

The following additional Special Conditions of Contract clauses SCC 1.1 and SCC 5.3 shall apply only in those circumstances where the Employer is required to apply for a construction work permit in terms of Construction Regulation 3(1):

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 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.”

C.1.2.2: CONTRACT SPECIFIC DATA

Each item of data give below is cross-reference to the clause in the Condition of Contract to which it applies.

Following contract specific data, referring to the General Conditions of Contract for Construction Works, Second Edition 2015, are applicable to this Contract:

1.1.1 Definitions

Add the following definition:

“1.1.1.35 “Schedule of Documents” means the document so designated in and forming part of the Tender Documents”

1.3.5 Contractor’s Copyright

Add to Clause 1.3.5

“The Contract Specific Data, Specifications (other than Standardized Specifications), Bills of Quantities and Drawing are the copyright of Mafahleni Engineers & Project Managers”

4.1.2 Contractor’s liability for own design errors

In Clause 4.1.2, line 3, amend “any drawing” to read “any design, drawings”

4.3.1 Compliance with applicable laws

Add to the end Clause 4.3.1:

“The Contractor shall, within the time stated in the Appendix to Part 1 of the Contract Data, deliver to the Employer, for his approval, a health and safety plan as required by Regulations 4 (2) and 5 (1) of the Construction Regulations, 2003 of the Occupational Health and Safety Act.

The Employer shall approve (or disapprove) the health and safety plan within the time stated in the Appendix to Part 1 of the Contract Data from the date of receipt of the submission.

The Contractor shall, within the time stated in the Appendix to Part 1 of the Contract Data, deliver to the Employer a Mandatory Form as envisaged by section 37 (2) of the Occupation Health and Safety Act. (See Pro Forma: Agreement in terms of the Occupational Health and Safety Act bound in the Tender Documents.)”

4.3.2 Proof of good standing

Add to Clause 4.3.2:

“With regard to the Compensation for Occupational Injuries and Diseases Act (Act No.130 of 1993), the Contractor shall, within such time as is stated in the Appendix to Part 1 of the Contractor Data for the production of insurance policies in terms of Clause 8.6.6, deliver to the Employer a letter, either

- (a) from his Insurance Company certifying that the Contractor has effected insurance with the Company for the full extent of his potential liability in respect of all workmen employed by him on the Contract and undertaking to notify the Employer of the expiry date of the policy at least one calendar month before such date, or
- (b) from the Compensation Commissioner certifying that the Contractor has complied with the requirements of the above-mentioned Act and is at present in good standing with the Compensation Fund”.

5.4.2 Access not exclusive

The access and possession of Site shall not be exclusive to the Contractor but as set out in the Scope of Works

4.3.2 Proof of good standing

Add to Clause 4.3.2:

“With regard to the Compensation for Occupational Injuries and Diseases Act (Act No.130 of 1993), the Contractor shall, within such time as is stated in the Appendix to Part 1 of the Contractor Data for the production of insurance policies in terms of Clause 8.6.6, deliver to the Employer a letter, either

- (a) from his Insurance Company certifying that the Contractor has effected insurance with the Company for the full extent of his potential liability in respect of all workmen employed by him on the Contract and undertaking to notify the Employer of the expiry date of the policy at least one calendar month before such date, or
- (b) from the Compensation Commissioner certifying that the Contractor has complied with the requirements of the above-mentioned Act and is at present in good standing with the Compensation Fund”.

5.4.2 Access not exclusive

The access and possession of Site shall not be exclusive to the Contractor but as set out in the Scope of Works

5.12.1 Extension of time for Practical Completion

Add to Clause 5.12.1

“Should the Contractor consider that he may, during the course of the Contract, wish to invoke “abnormal climatic conditions” as a circumstance entitling him to an extension of time for the completion of the Works, he shall, before commencing any of the Permanent Work, establish an approved weather recording station with an approved observer who shall record daily the weather conditions that the Contractor may wish to invoke. The Records shall be submitted weekly to the Engineer’s Representative, together with a statement recording the Contractor’s opinion of the effect on his programme of any weather condition that he may consider to be abnormal.”

The claim for extension of time shall be the sum of all the positive monthly totals for the Contract Period. Negative monthly totals shall be disregarded. A day shall be considered as lost when the Cluster Manager agrees that no work was done or was capable of being done on any item shown on the critical path of the current construction programme. Items which are not shown on the critical path and have been affected by rainfall will not be considered for extension of time.

MONTH	EXPECTED NUMBER OF WORKING DAYS LOST DUE TO NORMAL RAINFALL
January	4
February	2
March	2
April	1
May	1
June	1
July	1
August	1
September	1
October	3
November	3
December	4

5.12.2 Some reasons for extension of time*

Add to Clause 5.12.2.1:

“Extension of time in respect of rainfall conditions shall be calculated in accordance with the method and data given in the Scope of Work.”

Add to Clause 5.12.2.2:

Time period specified as the time for completion includes allowance for days on which it is expected that work, on the critical path items of the works, would be prevented due to weather conditions such as wind, rain falling or the subsequent waterlogged condition.

6.6.1 Provisional Sums

In Clause 6.6.1.2.1, the first line, after word “sum” insert “, excluding VAT,” and in Clause 6.6.1.2.2, the third line, after the word “amount” insert, “excluding VAT”.

6.6.2 Prime Cost Sums

In Clause 6.6.2, line 3, after the word “price”, insert”, excluding VAT,”

6.9.1 Vesting Plant and Materials

Add at the end of Clause 6.9.1:

The Contractor shall where practicable before delivery, and in any event not later than 24 hours after delivery to the Site, inform the Engineer of any materials which are not his sole property.”

6.9.2 Definition of “materials”

In Clause 6.9.2, last line, amend “Works” to read “Permanent Works”.

6.10.1 Interim Payments

In Clause 6.10.1.5, line 4 amend “documentary evidence” to read” a signed statement”.

7.2.1 Quality of Plant, Workmanship and Materials

Add at the end of Clause 7.2.1:

Unless otherwise directed in writing by the Engineer, materials for the Permanent Works shall be new and unused.

7.8.1 Making good of defects in Defects Liability Period

In Clause 7.8.1, paragraph 2, line 2, after the words “Defects Liability Period”, insert “within the period specified by the Engineer”, and amend “thereafter” to read “after the Defects Liability Period”

8.3.1 Excepted risks

In Clause 8.3.1.9 insert at the beginning, “Excepted where the Contract specifically so provides,

8.6.1 Insurances to be effected.

Add to Clause 8.6.1.3:

“The minimum amount of insurance required in terms of this Clause, as stated in the Appendix to Part 1 of the Contract Data, shall be per event, the number of events being unlimited.”

Amend Clause 8.6.1.5 to read:

“All material stored off Site, and intended for incorporation in the Permanent Works, including their delivery to the Site and off-loading on Site, to the value of such materials for which payment is made in terms of Clause 6.10.1.1 hereof.”

8.6.5 Employer to approve insurance policy

Add to Clause 8.6.5 “withheld”

“The Employer shall approved (or disapprove) the terms of the insurance within the time state in the Appendix to Part 1 of the Contract Data from the date of receipt of the policies provided in terms of Clause 8.6.5.”

8.6.6 Contractor to produce proof of payment

Add to Clause 8.6.6:

“The policies and the proof of payment of premiums and continuity of the policies shall be produced within such time as is stated in the Appendix to Part 1 of the Contract Data.”

8.6.8 Claims arising

Add new Clause 8.6.8:

“In the event of any claim arising under the policies held in terms of this Clause, the Contractor shall forthwith take all necessary steps to lodge his claim on the joint behalf of himself and the Employer, and to secure settlement of such claim, and the claim submitted by the Contractor shall cover the cost of repairing and making good as required by Clause 8.2.2.1 and 8.2.2.3.”

ADDITIONAL CLAUSES

Form of Offer

The Form of Offer to be used shall be the Offer bound in this document, which is not necessarily the same as the attached to the published version of the General Conditions of Contract.

Form of Acceptance

The Form of Acceptance to be used shall be the Acceptance bound in this document, which is not necessarily the same as that attached to the published version of the General Conditions of Contract.

Pro forma- Performance Guarantee

The Performance Guarantee shall be in the form bound in this document, which is not necessarily the same as that attached to the published version of the General Conditions of Contract.

C1.2.2: CONTRACT DATA (APPLICABLE TO THIS CONTRACT)
PART A: DATA PROVIDED BY THE EMPLOYER

REFERENCE	CONTRACT SPECIFIC DATA PROVIDED BY THE EMPLOYER		
1	GENERAL		
1.1.1.13	The Defects Liability Period is 12 months		
1.1.1.14	The time for achieving Practical Completion is 12 months from the Commencement Date, including non-working days and special non-working days.		
1.1.1.15	The Name of Employer is Emalahleni Local Municipality		
1.1.1.16	The Name of Employer's Agent is Mafahleni Engineers and Project Managers		
1.1.1.26	Pricing Strategy: The Contract is to be a Re-measurement Contract.		
1.2.1.2	<p>Address of the Employer:</p> <table> <tr> <td>Physical 29 Mandela and Arras Street Emalahleni 1035</td> <td>Postal P O Box 3 Emalahleni 1035</td> </tr> </table> <p>Telephone: 013 690 6911 Fax No.: 013 690 6207</p>	Physical 29 Mandela and Arras Street Emalahleni 1035	Postal P O Box 3 Emalahleni 1035
Physical 29 Mandela and Arras Street Emalahleni 1035	Postal P O Box 3 Emalahleni 1035		
1.2.1.2	<p>Address of Employer's Agent:</p> <table> <tr> <td>Physical 49 Ferriera Street Nelspruit 1200</td> <td>Postal 49 Ferriera Street Nelspruit 1200</td> </tr> </table> <p>Email: trevorz@mafahleni.co.za or mlungisit@mafahleni.co.za Telephone: 079 307 8141 or 072 327 5158</p>	Physical 49 Ferriera Street Nelspruit 1200	Postal 49 Ferriera Street Nelspruit 1200
Physical 49 Ferriera Street Nelspruit 1200	Postal 49 Ferriera Street Nelspruit 1200		
3	EMPLOYER'S AGENT		
3.2.3	The Employer's Agent is required to obtain the specific approval of the Employer for any expenditure in excess of the Contract Price.		
4	CONTRACTOR'S GENERAL OBLIGATIONS		
4.1.1 and SCC 4.1.1:	The penalty for failing to achieve the monetary value of the target set by the Employer for contract participation by Targeted Enterprises in terms of Part G: Small Contractor Development of section C3.3 Particular Specifications in Part C3: Scope of Works, is 5% of the monetary value by which the achieved monetary value falls short of the target monetary value.		
5	TIME AND RELATED MATTERS		

REFERENCE	CONTRACT SPECIFIC DATA PROVIDED BY THE EMPLOYER
5.3.1 and 5.3.2	<p>Where the Employer is not required to apply for a permit to do construction work in terms of Construction Regulation 3(1), the following documentation is to be submitted within <u>14 days</u> from the Commencement Date:</p> <p>The documents required before commencing to carry out the Works:</p> <ul style="list-style-type: none"> • Health and Safety Plan (refer to Clause 4.3) • Initial Programme (refer to Clause 5.6) • Security (refer to Clause 6.2) • Insurance (refer to Clause 8.6) <p>Form C1.7 'Agreement in terms of Section 37(2) of the Occupational Health and Safety Act No. 85 of 1993' to be signed by the Contractor and the Employer (refer to Clause 4.3 of the GCC 2015 and to paragraph E9. CONTRACTOR'S RESPONSIBILITIES in Annexure A_ Health & Safety Specifications).</p>
SCC 5.3.1 and SCC 5.3.2	<p>Where the Employer is required to apply for a permit to do construction work in terms of Construction Regulation 3(1), the following documentation is to be submitted within <u>14 days</u> from the date that the Agreement, made in terms of the Form of Offer and Acceptance, comes into effect:</p> <p>The documents required before commencing to carry out the Works:</p> <ul style="list-style-type: none"> • Health and Safety Plan (refer to Clause 4.3) • Initial Programme (refer to Clause 5.6) • Security (refer to Clause 6.2) • Insurance (refer to Clause 8.6) • Form C1.5 'Agreement in terms of Section 37(2) of the Occupational Health and Safety Act No. 85 of 1993' to be signed by the Contractor and the Employer (refer to Clause 4.3 of the GCC 2015 and to paragraph E9. CONTRACTOR'S RESPONSIBILITIES in Annexure A_ Health & Safety Specifications). <p>And:</p> <p>The documents required by the Employer to apply for a permit to do construction work in terms of Regulations 3(1) and (2) of the Construction Regulations 2014:</p> <ul style="list-style-type: none"> • Temporary works designer's appointment duties in terms of Regulation 6(2) as have been agreed upon plus proof of registration with ECSA [CR 3(5)(b)(iii) read with CR 5(1)(e) and CR 6(2)]; • Evidence that the contractor has made adequate provision for the cost of Health and Safety, i.e., Bill of quantities [CR 3(5)(b)(iii) read with CR 5(1)(g)]; • Evidence that the Principal contractor has the necessary competencies to carry out construction work safely, viz., schedule of activities, relevant appointments and proofs of competency [CR 5(1)(h)]; • Valid Letter(s) of Good Standing for the appointed Principal Contractor(s) [CR 3(5)(b)(ii) read with CR 5(1)(j)].
5.8.1	<p>The non-working days are Sundays.</p> <p>The special non-working days are the construction industry year end break, all foreseeable statutory election days as declared by National Government, and the following statutory public holidays as declared by National Government:</p> <p>New Year's Day, Human Rights Day, Good Friday, Family Day, Freedom Day, Workers' Day, Youth Day, National Women's Day, Heritage Day, Day of Reconciliation, Christmas Day and the Day of Goodwill.</p>

REFERENCE	CONTRACT SPECIFIC DATA PROVIDED BY THE EMPLOYER
	The construction industry year end break commences on the first working day after 15 December and ends on the first working day after 5 January of the following year.
5.13.1	The penalty for failing to complete the Works is R4,600.00 per day calculated in line with the Department of Public Works Procurement Documentation Guidelines.
5.14.1	The requirements for achieving Practical Completion are as stated in clause 1210 of the COLTO Standard Specifications for Road and Bridge Works for State Road Authorities 1998 Edition, as amended in clause B1210 in Part B of C3.2: Project Specifications where applicable.
5.16.3	The latent defects period is 10 years.
6	PAYMENT AND RELATED MATTERS
6.2.1 and SCC 6.2.1	The security to be provided by the Contractor shall be: Fixed Performance Guarantee of 10% of the accepted Contract Sum.
6.5.1.2.3	The percentage allowance to cover overhead charges is 15%.
6.8.2 and SCC 6.8.2	Contract Price Adjustment shall not be applicable.
6.8.3	Price adjustments for variations in the costs of special materials are allowed.
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is 80% (subject to provision of Indemnity for Materials on Site)
6.10.3	The percentage retention on the amounts due to the Contractor is 10% of Contract Sum. A retention guarantees in lieu of a cash retention is not permitted.
6.10.4	Payment to sub-contractor for work completed must be made within 30 days of the submission of the invoice from the sub-contractor to the main contractor.
8	RISKS AND RELATED MATTERS
8.6.1.1.2	The value of Plant and materials supplied by the Employer to be included in the insurance sum is nil.
8.6.1.1.3	The amount to cover professional fees for repairing or reinstatement of damage to the Works to be included in the insurance sum is 14%.
8.6.1.3	The limit of indemnity for liability insurance is R10 000 000,00 (ten million Rand only) for any single liability claim. Liability insurance shall include spread of fire risk.
10	CLAIMS AND DISPUTES
10.5.3	The number of Adjudication Board Members to be appointed is one.
10.7.1	Dispute Determination shall be by Arbitration with the arbitrator chose by the sitting chairperson of the Association of Arbitrators Southern Africa NPC.

REFERENCE	CONTRACT SPECIFIC DATA PROVIDED BY THE EMPLOYER
<p>G1003 Refer to Part C3: Scope of Works, section C3.3 Particular Specifications, Part G: Small Contractor Development</p>	<p>CONTRACT PARTICIPATION</p> <p>(b) Contract Participation Targets Thirty percent (30%) of the contract value shall be made NON-compulsory for subcontracting to local people/companies (CoM) irrespective of the <i>domicilium et exicutandi</i> of the contractor. However contractors will be allocated points for the proposal of social responsibility/social development plan (Form C of returnables) within Emalahleni Municipality</p>

C1.3: FORM OF GUARANTEE

C1.3.1: PERFORMANCE GUARANTEE

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

1. 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.

2. 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.

3. GUARANTOR’S LIABILITY

3.1 The Guarantor’s liability shall be limited to the amount of the Guaranteed Sum.

3.2 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.

3.3 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.

4. CONDITIONS APPLICABLE TO THIS PERFORMANCE GUARANTEE

4.1 The Guarantor hereby acknowledges that:

4.1.1 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.

- 4.1.2 Its obligation under this Performance Guarantee is restricted to the payment of money.
- 4.2 Subject to the Guarantor's maximum liability referred to in 3.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.2.1 to 4.2.3:
- 4.2.1 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 4.2.2;
- 4.2.2 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 4.2.1 and the sum certified has still not been paid;
- 4.2.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.2.
- 4.3 Subject to the Guarantor's maximum liability referred to in 3.1, 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:
- 4.3.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 4.3; or
- 4.3.2 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 4.3; and
- 4.3.3 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.
- 4.4 It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4.2 and 4.3 shall not exceed the Guarantor's maximum liability in terms of 3.1.
- 4.5 Where the Guarantor has made payment in terms of 4.3, 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.
- 4.6 Payment by the Guarantor in terms of 4.2 or 4.3 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 4.7 Payment by the Guarantor in terms of 4.3 will only be made against the return of the original Performance Guarantee by the Employer.
- 4.8 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.
- 4.9 The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 4.10 This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 3.2, 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.

4.11 This Performance Guarantee, with the required demand notices in terms of 4.2 or 4.3, shall be regarded as a liquid document for the purposes of obtaining a court order.

4.12 Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrates' 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)

C1.4: RETENTION MONEY GUARANTEE

PRO FORMA

EMALAHLENI LOCAL MUNICIPALITY
P.O BOX 3
EMALAHLENI
1035

ISSUED TO: EMALAHLENI LOCAL MUNICIPALITY, represented by the Municipal Manager (hereinafter called "the Employer")

ON BEHALF OF [insert name of contractor] (hereinafter called "the Contractor")

in connection with CONTRACT No.: ELM 13/2025 for the UPGRADE AND REHABILITATION OF DIEDERICKS ROAD (hereinafter called "the Contract").

WHEREAS the Employer and the Contractor have agreed that the Contractor may provide a guarantee in lieu of the whole or a portion of the retention moneys provided for under the Contract;

NOW THEREFORE we, the undersigned, undertake, in accordance with the following provisions, to pay to the Employer such amounts as the Employer may, from time to time, demand from us.

1 Each demand by the Employer shall be in writing, signed by the Employer and delivered to us at

[INSERT GUARANTOR'S FULL STREET ADDRESS].....

..... or such other address in [INSERT NAME OF COUNTRY] as we shall in writing notify to the Employer and shall be accompanied by a certificate complying with Clause 2, signed by the Engineer in office as such in terms of the Contract.

2 The Engineer's certificates referred to in Clause 1 shall certify that:

- (a) he is the Engineer in office as such in terms of the Contract,
- (b) the Contractor is in breach of his obligations under the Contract, and
- (c) the amount demanded, which amount the certificate shall specify, does not exceed
- (i) the amount of retention moneys which, but for this guarantee, would have been retained by

the Employer in terms of the Contract at the date of the certificate, less the aggregate of the amounts of retention money retained by the Employer and the amounts previously paid by us to the Employer in terms hereof,

(ii)a genuine estimate of the cost to the Employer of having the breach referred to in paragraph (b) remedied less the aggregate of any amounts withheld by the Employer from payments due to the Contractor in terms of the Contract by reason of the breach referred to, and any amount of retention money actually held by the Employer save to the extent that the same had been deducted from any previous demand in terms hereof;

3 We shall within fourteen (14) days after our receipt of a demand complying with the provisions in Clauses 1 and 2 make payment to the Employer of the amount demanded at the employer’s address as listed in the contract data or at such other address in the Republic of South Africa as the Employer shall in writing notify to us.

4 Subject to compliance with the provisions hereof, our liability to make the payments herein referred to shall be unconditional and shall not be affected or diminished by any disputes, claims or counterclaims between the Employer and the Contractor.

5 Our aggregate liability under this guarantee is limited to

..... (R)

6 This guarantee shall expire on the date on which the last of the retention moneys, which but for this guarantee would have been retained by the Employer, becomes payable to the Contractor.

7 This guarantee is not transferable and must be produced for endorsement if any part payment is made and must be returned to us against final payment of our aggregate liability or on the date of the expiry of the guarantee in terms of Clause 6, whichever is the earlier.

Signed in the presence of the subscribing witnesses:

At for and on behalf of

on this the day of 20.....

SIGNATURE :

CAPACITY :

ADDRESS :

:

:

AS WITNESSES: 1

2

C1.4: ADJUDICATOR'S CONTRACT

C.1.4.1: DISCLOSURE STATEMENT

Contract : _____

Contractor : _____

Employer : _____

Engineer : _____

Dear Sirs

I am willing and available to serve as (*ad-hoc/standing*) Adjudication Board Member in the above- mentioned Contract.

In accordance with the General Conditions of Contract for Construction Works Adjudication Board Rules relating to disclosure statements by selected or nominated persons to the adjudication, I hereby state that:

- I shall act with complete impartiality and know of nothing at this time, which could affect my impartiality.
- I have had no previous involvement with this project.
- I do not have any financial interest in this project.
- I am not currently employed by the contractor, Employer or Engineer.
- I do not have any financial connections with the Contractor, Employer or Engineer.
- I do not have or have not had a personal relationship with any authoritative, member of the Contractor, Employer or the Engineer which could affect my impartiality.
- I undertake to immediately disclose to the parties any changes in the above position which could affect my impartiality or be perceived to affect same.

Should there be any deviation from foregoing statements, details shall be given.

I further declare that I am experienced in the work which is carried out under the Contract and in interpreting contract documentation.

Name in full: _____

Signature: _____

C1.4.2: ADJUDICATION BOARD MEMBER AGREEMENT

This Agreement is entered into between:

Adjudication Board Member:

Contractor:

Employer

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

The parties entered into a contract for which provides that a dispute under or in connection with the General Condition of Contract for Construction Works, Third Edition 2015, must be referred to

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

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

Upon submission of an invoice for fees and expenses to the Parties, the shall pay the full amount within 28 days of receipt of the invoice and he shall be reimbursed by the other party by half the amount so that the fees and expenses are borne equally by the Parties. Late payment of such invoice shall attract interest at prime plus 3% points compounded monthly at the prime rate

charged by the Adjudication Board Member's bank.

This Agreement is entered into by:

Contractor's signature:

Contractor's name:.....

Place:

Date:.....

Employer's signature:

Employer's name:.....

Place:

Date:

Adjudication Board Member's signature:

Adjudication Board Member's name:.....

Place:

Date:

**Delete the inapplicable party*

**C1.5: AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY
ACT No 85 OF 1993**

THIS AGREEMENT is made between

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

(Hereinafter called the EMPLOYER) of the one part, herein represented by:

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

in his capacity as:

.....

AND:

(hereinafter called the CONTRACTOR) of the other part, herein represented by:

.....
.....

in his capacity as:

.....

duly authorized to sign on behalf of the Contractor.

WHEREAS the CONTRACTOR is the Mandatory of the EMPLOYER in consequence of an agreement between the CONTRACTOR and the EMPLOYER in respect of

CONTRACT No.: ELM 13/2025

UPGRADE AND REHABILITATION OF DIEDERICKS ROAD for the construction, completion and maintenance of the works;

AND WHEREAS the EMPLOYER and the CONTRACTOR have agreed to enter into an agreement in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act No 85 of 1993, as amended by OHS Act Amendment Act No 181/1993 (hereinafter referred to as the ACT);

NOW THEREFORE the parties agree as follows:

1. The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
2. The CONTRACTOR undertakes to fully comply with all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations: Provided that should the EMPLOYER have prescribed certain arrangements and procedures that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
3. The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures, if any, imposed by the ACT and Regulations, and the CONTRACTOR expressly absolves the EMPLOYER and the Employer's

CONSULTING ENGINEERS from being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedures in respect of the work included in the contract.

4. The CONTRACTOR agrees that any duly authorized officials of the EMPLOYER shall be entitled, although not obliged, to take such steps- as may be necessary to ensure that the CONTRACTOR has complied with his undertakings as more fully set out in paragraphs 1 and 2 above, which steps- may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to take such steps- it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.
5. The CONTRACTOR shall be obliged to report forthwith to the EMPLOYER any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this agreement, and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge.

Thus signed at for and on behalf of the **CONTRACTOR** on this the day of 20.....

SIGNATURE:.....

NAME AND SURNAME:.....

CAPACITY:.....

WITNESSES: 1.....

2.....

Thus signed at for and on behalf of the **EMPLOYER** on this the day of 20.....

SIGNATURE:.....

NAME AND SURNAME:.....

CAPACITY:.....

WITNESSES: 1.....

2.....

C2: PRICING DATA

C2.1 PRICING INSTRUCTIONS

C2.1: PRICING INSTRUCTIONS

- 1 The Tender Data, the Contract Data, the Scope of Work, the Site Information and the Drawings shall be read in conjunction with the Schedule of Quantities.
- 2 The Schedule comprises items covering the Contractor's profit and costs of general liabilities and of the construction of Temporary and Permanent Works.

Although the Tenderer is at liberty to insert a rate of his own choosing for each item in the Schedule, he should note the fact that the Contractor is entitled, under various circumstances, to payment for additional work carried out and that the Employer's Agent is obliged to base his assessment of the rates to be paid for such additional work on the rates the Contractor inserted in the Schedule.

The measurement and payment clauses of each Specification, read together with the relevant clauses of the Specification Data, all set out which ancillary or associated activities are included in the rates for the specified operations.
- 3 Descriptions in the Schedule of Quantities are abbreviated and may differ from those in the Standardized and Specification Data. No consideration will be given to any claim by the Contractor submitted on such a basis. The Schedule has been drawn up generally in accordance with the latest issue of Civil Engineering Quantities¹. Should any requirement of the measurement and payment clause of the appropriate Standardized or Specification Data be contrary to the terms of the Schedule or, when relevant, to the Civil Engineering Quantities, the requirement of the appropriate Standardized Specification or Specification Data as the case may be, shall prevail.
- 4 Unless stated to the contrary, items are measured and paid for net, in accordance with the Drawings, without any allowance having been made for waste.
- 5 The amounts and rates to be inserted in the Schedule of Quantities shall be the full inclusive amounts to the Employer for the work described under the several items. Such amounts shall cover all the costs and expenses that may be required in and for the construction of the work described, and shall cover the costs of all general risks, profits, taxes (but excluding value-added tax), liabilities and obligations set forth or implied in the documents on which the Tender is based.
- 6 An amount or rate shall be entered against each item in the Schedule of Quantities, whether or not quantities are stated. An item against which no amount or rate is entered will be considered to be covered by the other amounts or rates in the Schedule.

The Tenderer shall also fill in a rate against the items where the words "rate only" appears in the amount column. Although no work is foreseen under these items and no quantities are consequently given in the quantity column, the tender rates shall apply should work under these items actually be required.

Should the Tenderer group a number of items together and tender one sum for such group of items, the single tender sum shall apply to that group of items pro rata and not to each individual item, or should he indicate against any item that full compensation for such item has been included in another item, the rate for the item included in another item shall be deemed to be nil.

The tender rates, prices and sums shall, subject only to the provisions of the General Conditions of Contract, remain valid irrespective of any change in the quantities during the execution of the Contract.
- 7 The quantities of work as measured and accepted and certified for payment in accordance with the General Conditions of Contract, and not the quantities stated in the Schedule of Quantities, will be used to determine payments to the Contractor. The validity of the Contract shall in no way be affected by any differences between the quantities in the Schedule of Quantities and the quantities certified for payment.

The ordering of materials shall **not** be based on the quantities in the Schedule of Quantities. Materials ordered from the Schedule of Quantities without prior confirmation by the Employer's Agent shall be at the risk of the Contractor. No compensation shall be paid for materials ordered erroneously and all costs shall be borne by the Contractor.

1 The standard system of measurement of civil engineering quantities published by the South African Institution of Civil Engineers.

8 The quantities of work as measured and accepted and certified for payment in accordance with the General Conditions of Contract, and **not** the quantities stated in the Schedule of Quantities, will be used to determine payments to the Contractor. The validity of the Contract shall in no way be affected by **any** differences between the quantities in the Schedule of Quantities and the quantities certified for payment.

The ordering of materials shall **not** be based on the quantities in the Schedule of Quantities. Materials ordered from the Schedule of Quantities without prior confirmation by the Employer's Agent shall be at the risk of the Contractor. No compensation shall be paid for materials ordered erroneously and all costs shall be borne by the Contractor.

9 For the purposes of this Schedule of Quantities, the following words shall have the meanings hereby assigned to them:

Unit :The unit of measurement for each item of work as defined in the COTO Standardized Specification for Road and Bridge Works for State Authorities (2010 edition) or the Specification Data.

Quantity: The number of units of work for each item

Rate :The payment per unit of work at which the Tenderer tenders to do the work

Amount :The quantity of an item multiplied by the tender rate of the (same) item

Sum :An amount tender for an item, the extent of which is described in the Schedule of Quantities, the Specifications or elsewhere, but of which the quantity of work is not measured in units

10. The Contractor shall determine the Contract Skills Development Goal (CSDG), expressed in Rands, which shall not be less than the tender sub-total multiplied by a CSDG (%) given in Table 2 of the Standard for the applicable class of construction works.

Table 1: Construction skills development goals for different classes of engineering and construction works contracts.

Class of construction works as identified in terms of the CIDB regulation		Construction development goal (%)	Skills
Designation	Description	development goal (%)	
CE	Civil Engineering	0.25	
CE and GB	Civil Engineering and General Building	0.375	
EB	Electrical Engineering work (Building)	0.25	
EP	Electrical Engineering Works (Infrastructure)	0.25	
GB	General Building	0.5	
ME	Mechanical Engineering	0.25	
	Specialized Works	0.25	

Final Tender Summary Section

The contractor's attention is brought to the following: The Employer shall include a line item under the final tender summary section. (Described as "Minimum Contract Skills Development Goal (CSDG)" as illustrated in the Table 1.1 below:

To prevent a tender being non-responsive, the Contractor shall take note of the required CSDG percentage (%) as prescribed in the final tender summary section. The percentage (%) factor multiplied by the sub-total of the tender amount will determine the minimum CSDG that needs to be achieved on the contract.

Table 1.1 Final Tender Summary section– Contract Skills Development Goal Example

Item	Description	Percentage (%) factor	Sub-Total of Tender Amount	Amount (Rands)
16				
16.1	Minimum Contract Skills Development Goal (CSDG) Sum = CE (0.25%) x Subtotal of the tender amount	0.25	R60 000 000	R150 000

The contractor shall determine the CSDG, expressed in Rand, which shall not be less than the sub-total multiplied by a percentage (%) factor given in **Table 2 of the CIDB Standard for Developing Skills through Infrastructure Contracts for the applicable class of construction works**. The Employer shall state the percentage (%) factor in the Final Tender Summary section dependant on the Class of Construction Works.

11. The Contractor's attention is drawn to the standard rates specification (Civil Engineering Industry Minimum Wage rates per hour; as per Government Notice R1202, 16 October 2015.) found on the SAFSEC website at www.safcec.org.za. These standard rates should be implemented for payment of all employees of the Contractor. The local labour rate **R 48,21 per Hour**
12. The units of measurement indicated in the Schedule of Quantities are metric units. The following abbreviations may appear in the Schedule of Quantities:

mm	=	millimetre
m	=	meter
km	=	kilometre
km-pass	=	kilometre-pass
m ²	=	square metre
m ² -pass	=	square meter-pass
ha	=	hectare
m ³	=	cubic meter
m ³ -km	=	cubic meter kilometre
kW	=	kilowatt
kN	=	kilo-Newton
kg	=	kilogram
l	=	litre
kl	=	kilolitre
MI	=	mega litre
t	=	ton (1 000 kg)
%	=	per cent
MN	=	mega-Newton
MN-m	=	mega-Newton-meter
PC Sum	=	Prime Cost Sum
Prov Sum	=	Provisional Sum
Sum	=	Lump Sum

THE BILLS OF QUANTITIES

C1.2 GENERAL REQUIREMENTS AND PROVISIONS

Item	Description	Unit	Quantity	Rate	Amount (R)
C1.2	GENERAL REQUIREMENTS AND PROVISIONS				
C1.2.1	Environmental Management:				
C1.2.1.1	Monitoring of compliance with and reporting on the EMP	month	12.0		
C1.2.1.2	Dedicated Environmental Officer	Prov Sum			300,000.00
PS					
C1.2.1.2					
C1.2.2	Programming and Reporting:				
C1.2.3	Submission of a Scheme 2 Initial Programme	lump sum			
PS 1.1					
C1.2.2.3					
C1.2.2.4	Submission of a Scheme 2 Full Programme	lump sum	1.0		
PS					
C1.2.2.3					
C1.2.2.5	Reviewing and updating a Scheme 2 programme every month	month	12.0		
PS					
C1.2.2.5					
C1.2.2.6	Preparation and submission of all information and reports specified in the Contract Documentation	month	12.0		
C1.2.3	Routine road maintenance of existing public roads within the Site of the Works or other public roads outside the Site of the Works which are used as detours:	km	1.0		
C1.2.3.2	Drain cleaning				
C1.2.3.3	Cleaning out culverts	m ³	0.2		
C1.2.3.4	Collection of rubbish / litter	km	1.0		
C1.2.3.9	Grading of temporary gravel deviations and existing roads used as detours	km	0.5		
C1.2.3.10	Watering of temporary gravel deviations and existing roads used as detours	kℓ	2,000.0		
C1.2.3.11	Other road maintenance work ordered by the Engineer	Prov sum	1.0	100,000.00	100,000.00
C1.2.3.12	Handling cost, profit and all other charges in respect of item C1.2.3.11	%	100,000.0		
C1.2.4	Stakeholder Management and Liaison	month	12.0		
PS 20					
C1.2.5	Health and Safety:				
C1.2.5.1	Health and safety plan	lump sum	1.0		
PS 9					
C1.2.5.2	Implementation of health and safety plan	month	12.0		
PS 9					
C1.2.6	Work adjacent to properties:				
C1.2.6.1	Survey of adjacent properties	No	20.0		
Total Carried Forward					

C1.2 GENERAL REQUIREMENTS AND PROVISIONS

Item	Description	Unit	Quantity	Rate	Amount (R)
Brought Forward					
C1.2.6.2	Preventive and / or mitigation measures	Prov Sum	1.0	50,000.00	50,000.00
C1.2.6.3	Handling cost, profit and all other charges in respect of item C1.2.6.2	%	50,000.0		
C1.2.7	Road safety audits:				
C1.2.7.1	Stage 4 work zone traffic management audit	Prov Sum	1.0	50,000.00	50,000.00
C1.2.7.2	Handling cost, profit and all other charges in respect of item C1.2.6.1	%	50,000.0		
C1.2.7.3	Stage 5 pre-opening stage traffic safety audit	Prov Sum	1.0	20,000.00	20,000.00
C1.2.7.4	Handling cost, profit and all other charges in respect of item C1.2.6.3	%	20,000.0		
C1.2.8	Dayworks:				
C1.2.8.1	Personnel:				
	(a) Unskilled labourer	h	150.0		
	(b) Semi-skilled labourer	h	75.0		
	(c) Skilled labourer	h	75.0		
	(e) Foreman	h	50.0		
	(f) Skilled Artisan	h	50.0		
C1.2.8.2	Construction equipment (specify size and / or model number):				
	(a) Motor grader (CAT 140G or Similar)	h	50.0		
	(b) Vibratory roller	h	50.0		
	(c) Pneumatic roller	h	50.0		
	(d) Front end loader	h	50.0		
	(e) Tractor loader backhoe	h	50.0		
	(f) Excavator	h	50.0		
	(g) Compressor	h	50.0		
	(h) Compactor (Bomag BW 90 or Similar)	h	50.0		
	(i) Water Trucks (5000 litre minimum)	h	50.0		
	(j) Mechanical broom Tractor-trailer combination (43 kW, 3ton min)	h	50.0		
	(k) Small utility loader with attachments (Bobcat or Similar)	h	50.0		
Total Carried Forward					

C1.4 FACILITIES FOR THE ENGINEER

Item	Description	Unit	Quantity	Rate	Amount (R)
C1.4	FACILITIES FOR THE ENGINEER				
C1.4.1	Site accommodation:				
C1.4.1.1	Offices and conference room	m ²	50.0		
C1.4.1.6	Car ports	No	4.0		
C1.4.1.7	Ablution unit (equipped as specified)	No	5.0		
C1.4.1.9	Kitchen unit (equipped as specified)	No	1.0		
C1.4.1.13	Rented housing paid for by the Contractor	Prov Sum	1.0	150,000.00	150,000.00
C1.4.1.14	Contractor's handling costs, profit and all other charges in respect of item C1.4.1.13	%	150,000.0		
C1.4.3	Items measured by number:				
C1.4.3.1	Office swivel chair	No	6.0		
C1.4.3.2	Office chair	No	10.0		
C1.4.3.6	Typist desk (L-shaped)	No	2.0		
C1.4.3.8	Conference table	No	1.0		
C1.4.3.9	Bookcase	No	4.0		
C1.4.3.11	General purpose steel cabinet with shelves	No	2.0		
C1.4.3.12	Wall mounted pivot plan filing system	No	2.0		
C1.4.3.13	220 / 250 volt power outlet plug point	No	25.0		
C1.4.3.16	Single 1 500 mm, 22 watt LED tube ceiling light	No	4.0		
C1.4.3.18	7 watt LED bulb ceiling light	No	8.0		
C1.4.3.19	Wash-hand basin	No	2.0		
C1.4.3.23	Fire extinguisher 9,0 kg, dry powder type	No	5.0		
C1.4.3.26	Concrete specimen curing bath	No	1.0		
C1.4.3.27	Waste paper basket	No	6.0		
C1.4.3.31	Rain gauge	No	1.0		
C1.4.3.33	Digital thermometer	No	2.0		
C1.4.3.36	Measuring wheel	No	2.0		
C1.4.3.37	First aid kit	No	4.0		
C1.4.4	Prime cost items:				
C1.4.4.1	Cell phones costs, including pro-rata rentals, for calls made in connection with contract administration	PC sum	1.0	30,000.00	30,000.00
C1.4.4.2	Handling costs and profit in respect of item C1.4.4.1	%	30,000.0		
Total Carried Forward					

C1.4 FACILITIES FOR THE ENGINEER

Item	Description	Unit	Quantity	Rate	Amount (R)
Brought Forward					
C1.4.4.5	The provision of internet connectivity and WiFi data for Engineer's site staff	PC sum	1.0	10,000.00	10,000.00
C1.4.4.6	Handling costs and profit in respect of item C1.4.4.5	%	10,000.0		
C1.4.4.7	The provision of paper and ink for a combination colour printer / copier / scanner	PC sum	1.0	20,000.00	20,000.00
C1.4.4.8	Handling costs and profit in respect of item C1.4.4.7	%	20,000.0		
C1.4.4.9	The provision of a complete 220 / 250 volt single phase electrical power installation, including all poles, insulators, wiring, switchboards, mains connections, meters, etc.	PC sum	1.0	15,000.00	15,000.00
C1.4.4.10	Handling costs and profit in respect of item C1.4.4.9	%	15,000.0		
C1.4.4.11	The provision of a complete 440 / 231 volt three phase electrical power installation, including all poles, insulators, wiring, switchboards, mains connections, meters, etc.	PC sum	1.0	17,000.00	17,000.00
C1.4.4.12	Handling costs and profit in respect of item C1.4.4.11	%	17,000.0		
C1.4.4.13	Provision of a 440 / 231 volt three phase electricity generator if electricity from a power supply authority is not available on site	PC sum	1.0	75,000.00	75,000.00
C1.4.4.14	Handling costs and profit in respect of item C1.4.4.13	%	75,000.0		
C1.4.5	Services at site offices, laboratories and site accommodation:				
C1.4.5.1	Fixed costs	lump sum	1.0		
C1.4.5.2	Running costs	month	12.0		
C1.4.6	Office staff:				
C1.4.6.1	Secretary / receptionist	Prov Sum	1.0	100,000.00	100,000.00
C1.4.6.2	Technical assistant (2 x Min 3 yrs Diploma)	Prov Sum	1.0	200,000.00	200,000.00
C1.4.8	Site security measures for the Engineer's facilities:				
C1.4.8.1	Supply and installation of all required security measures at the Engineer's site offices and laboratories	lump sum	1.0		
C1.4.8.2	Provision of security guards / watchmen and an armed response service at the Engineer's site offices and laboratories	month	12.0		
PS 20	Professional Services Allowance for progress Photographs every month, digital and aerial	PC sum	1.0	50,000.00	50,000.00
PS20	Handling costs and profit in respect of item above	%	50,000.0		
PS 23	Allowance for Professional Services	PC sum	1.0	650,000.00	650,000.00
Total Carried Forward					

C1.5 ACCOMMODATION OF TRAFFIC

Item	Description	Unit	Quantity	Rate	Amount (R)
C1.5	ACCOMMODATION OF TRAFFIC				
C1.5.1	Accommodation of pedestrian and non-motorised traffic:				
C.1.5.1.1	Accommodation of pedestrian and non-motorised traffic	month	12.0		
C1.5.2	Accommodation of vehicular traffic	month	12.0		
C1.5.3	Liaison with traffic authorities	month	12.0		
C1.5.7	Temporary traffic control facilities:				
C1.5.7.1	Delineators including mounting bases and ballast:				
	(b) Double sided, reversible left or right	No	500.0		
C1.5.7.2	Traffic cones, minimum height 750 mm	No	100.0		
C1.5.7.3	Flagmen	man-shift	3,500.0		
C1.5.7.4	Traffic controllers	man-shift	800.0		
C1.5.7.5	Provision of illuminated traffic signs:				
	(a) Sign mounted flashing amber lights (2 lights with the specified power supply) mounted on a backing board which is:				
	(i) 900 mm wide x 150 mm high	No	8.0		
	(ii) 1 200 mm wide x 200 mm high	No	8.0		
	(b) Flashing LED illuminated arrow board	No	4.0		
	(c) Illuminated road sign – R & TR series (diameter indicated)	No	10.0		
	(d) Illuminated road sign – TW series (length of sides indicated)	No	10.0		
	(e) Mobile variable message sign	No	2.0		
C1.5.7.6	Maintenance of illuminated traffic signs:				
	(a) Sign mounted flashing amber lights (a pair of two lights mounted on a separate backing board)	month	12.0		
	(b) Flashing LED illuminated arrow board	month	12.0		
	(c) Illuminated road sign – R & TR series (diameter indicated)	month	12.0		
	(d) Illuminated road sign – TW series (length of sides indicated)	month	12.0		
	(e) Mobile variable message sign	month	12.0		
C1.5.11	Provision of safety equipment for visitors				
C1.5.11.1	Provision of reflective safety vests for visitors	No	10.0		
Total Carried Forward					

C1.7 LOADING AND HAULING

Item	Description	Unit	Quantity	Rate	Amount (R)
C1.7	LOADING AND HAULING				
C1.7.1	Loading:				
C1.7.1.1	Loading from stockpile using machines and some hand labour where necessary	m ³	1,000.0		
C1.7.1.3	Loading by hand only from stockpile or heaps when labour enhancement work is specified or it is not possible to use machines	m ³	500.0		
C1.7.2	Hauling:				
C1.7.2.1	Hauling material for use in the Works and off-loading it on the site of the Works:				
	(a) Soil, gravel, crushed stone and pavement layer material	m ³ -km	5,000.0		
	(b) Boulders and hard material	m ³ -km	100.0		
C1.7.2.2	Hauling material to spoil and off-loading it at a designated spoil area:				
	(a) Cleared and grubbed material (organic matter and all other unsuitable or waste material)	m ³ -km	2,000.0		
	(b) Soil and gravel material	m ³ -km	3,000.0		
	(c) Boulders and hard material	m ³ -km	100.0		
Total Carried Forward to Summary					

C2.1 GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES

Item	Description	Unit	Quantity	Rate	Amount (R)
C2.1	GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES				
C2.1.1	Location, identification, protection and relocation of existing services:				
C2.1.1.1	Contractor's obligations	lump sum	1.0		
C2.1.1.2	Permanent services relocation or protection work by others by others (Water, Sewer, Electricity, Cable Duct, Telecoms, Street lighting etc)	PC sum	1.0	600,000.00	600,000.00
C2.1.1.3	Handling costs and profit in respect of item C2.1.1.2 above	%	600,000.0		
C2.1.2	Existing services location, detection and verification:				
C2.1.2.1	Using specialist detection services (ground penetrating radar, radio detection, etc.)	PC sum	1.0	200,000.00	200,000.00
C2.1.2.2	Handling costs and profit in respect of item C2.1.2.1 above	%	200,000.0		
C2.1.2.5	Using hand excavation to locate, expose and verify services	m ³	500.0		
C2.1.3	Obtaining construction or work permits	lump sum	1.0		
C2.1.6	Trench excavation (in soft material):				
C2.1.6.1	Trenches up to 1,0 m wide:				
	(a) Up to 1,0 m deep	m ³	200.0		
	(b) Over 1,0 m and up to 2,0 m deep	m ³	250.0		
	(c) Over 2,0 m deep, etc. to be inserted, increased by additional 1,0 m depths as required	m ³	100.0		
C2.1.6.2	Trenches over 1,0 m and up to 2,0 m wide:				
	(a) Up to 1,0 m deep	m ³	100.0		
	(b) Over 1,0 m and up to 2,0 m deep	m ³	150.0		
	(c) Over 2,0 m deep, etc., increased by additional 1,0 m depths as required	m ³	100.0		
C2.1.7	Extra over items C2.1.6, C2.1.8 and C2.1.16 for excavating in:				
C2.1.7.1	Hard material irrespective of depth	m ³	50.0		
C2.1.7.2	Stabilised material irrespective of depth	m ³	100.0		
C2.1.8	Excavations outside the normal trench profile	m ³	150.0		
C2.1.9	Trench excavation using labour enhanced construction methods:				
C2.1.9.1	Trenches up to 1,0 m wide (in soft material):				
	(a) Up to 1,0 m deep	m ³	50.0		
Total Carried Forward					

C2.1 GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES

Item	Description	Unit	Quantity	Rate	Amount (R)
Brought Forward					
	(b) Over 1,0 m and up to 1,5 m deep	m ³	20.0		
C2.1.9.2	Trenches over 1,0 m and up to 2,0 m wide (in soft material):				
	(a) Up to 1,0 m deep	m ³	50.0		
	(b) Over 1,0 m and up to 1,5 m deep	m ³	20.0		
C2.1.11	Backfilling of trenches:				
C2.1.11.1	Backfill compacted to 93 % (100 % for sand) of MDD (areas subject to traffic loads) using material:				
	(a) From the excavated trench material	m ³	150.0		
	(b) From other excavations on Site	m ³	100.0		
	(d) From sources provided by the Contractor	m ³	50.0		
	(e) From commercial sources (Type G7 material)	m ³	50.0		
C2.1.13	Extra over item C2.1.11 for backfilling with soil cement or stabilised material:				
C2.1.13.1	Backfilling trenches using soil cement using (state type of material i.e. G5, G7 or G8) material	m ³	200.0		
C2.1.14	Extra over items C2.1.11, C2.1.12 and C2.1.13 for additional compaction of backfill:				
C2.1.14.1	Compaction increased from 90 % of MDD to 93 % of MDD	m ³	150.0		
C2.1.17	Removal and disposal of spoil material from trench excavations:				
C2.1.17.2	To spoil sites or dumping areas provided by the Contractor	m ³	100.0		
C2.1.18	Timbering, strutting and shoring:				
C2.1.18.1	Timbering, strutting and shoring left in excavations	m ²	10,000.0		
C2.1.19	Dealing with water during services work:				
C2.1.19.1	Dealing with surface water	lump sum	1		
C2.1.19.2	Dealing with subsurface water	lump sum	1		
C2.1.24	Saw-cutting before excavation:				
C2.1.24.1	Saw-cutting asphalt to an average depth:				
	(a) Not exceeding 50 mm	m ²	50.0		
	(b) Exceeding 50 mm but not exceeding 100 mm	m ²	25.0		
C2.1.25	Removal of existing services:				
Total Carried Forward					

C3.1 DRAINS

Item	Description	Unit	Quantity	Rate	Amount (R)
C3.1	DRAINS				
C3.1.1	Excavation for open drains:				
C3.1.1.1	Excavating all material situated within the following depth ranges below the surface level using conventional methods:				
	(a) 0 m to 1,5 m	m ³	300.0		
	(b) Exceeding 1,5 m and up to 3,0 m	m ³	100.0		
C3.1.1.2	Extra over sub-item C3.1.1.1 for excavation in hard and boulder material irrespective of depth	m ³	50.0		
C3.1.1.4	Excavating soft material situated 0 m to 1,5 m below the surface level using labour enhanced construction methods	m ³	100.0		
C3.1.1.5	Excavating intermediate material situated 0 m to 1,5 m below the surface level using labour enhanced construction methods	m ³	50.0		
C3.1.2	Clearing, shaping and disposal of accumulated sediment in existing unlined open drains:				
C3.1.2.1	Using conventional methods	m ³	100.0		
C3.1.3	Excavation, clearing and disposal of accumulated sediment in existing lined drains and drainage systems:				
C3.1.3.1	Using conventional methods (up to 1,5 m):				
	(a) Manholes and inlet and outlet structures	m ³	20.0		
	(b) Culvert barrels	m ³	20.0		
	(c) Concrete or other lined side drains	m ³	200.0		
C3.1.7	Natural permeable material in subsoil drainage systems (approved crushed stone):				
C3.1.7.2	Crushed stone obtained from commercial sources (19mm nominal size aggregate)	m ³	50.0		
C3.1.8	Natural permeable material in subsoil drainage systems (approved natural sand):				
C3.1.8.2	Natural sand from commercial sources (Course grade 4.75mm nominal particle)	m ³	100.0		
C3.1.9	Pipes in subsoil drainage systems:				
C3.1.9.1	U-PVC pipes and fittings, normal duty, complete with couplings (100mm perforated)	m	300.0		
C3.1.10	Polymer film sheeting or similar approved material, for lining subsoil drainage systems:				
C3.1.11	Geotextiles (Synthetic-fibre filter fabric non-woven, Grade 2)	m ²	500.0		
Total Carried Forward					

C3.2 CULVERTS

Item	Description	Unit	Quantity	Rate	Amount (R)
C3.2	CULVERTS				
C3.2.1	Excavation for culvert structures:				
C3.2.1.1	Excavating in all material situated within the following depth ranges below the surface level:				
	(a) 0 m to 1,5 m	m ³	2,500.0		
	(b) Exceeding 1,5 m and up to 3,0 m	m ³	1,500.0		
	(c) Etc., in increments of 1,5 m	m ³	500.0		
C3.2.1.4	Extra over sub-item C3.2.1.1 for excavation in hard or boulder material, irrespective of depth	m ³	100.0		
C3.2.1.5	Extra over sub-item C3.2.1.1 for excavation in stabilised existing road layers, irrespective of depth	m ³	100.0		
C3.2.2	Backfilling:				
C3.2.2.1	Using the excavated material	m ³	2,000.0		
C3.2.2.2	Using imported selected material:				
	(a) From commercial sources (G5 material)	m ³	200.0		
	(b) From sources on site (G7, G8 & G9)	m ³	500.0		
C3.2.2.3	Extra over sub-items C3.2.2.1 and C3.2.2.2 for soil cement backfilling:				
	(a) With wet mixture of 4 % cement	m ³	100.0		
C3.2.3	Concrete pipe culverts:				
C3.2.3.2	On Class B bedding				
	(a) 450mm dia. Class 75D	m	100.0		
	(b) 600mm dia. Class 75D	m	100.0		
	(c) 900mm dia. Class 75D	m	1,100.0		
C3.2.7	Cast-in-situ concrete and formwork:				
C3.2.7.1	In Class A bedding, screeds, concrete backfill and the encasing for pipes, including formwork, (class of concrete indicated)	m ³	50.0		
C3.2.7.5	In inlet and outlet structures including kerbs, chutes and downpipes, skewed ends, catchpits, manholes, thrust and anchor blocks, excluding formwork but including Class U2 surfacing finish (Class 20/19 concrete)	m ³	150.0		
C3.2.7.6	Formwork of concrete under items C3.2.7.3 to 5 above				
	(a) Class F1 surface finish	m ²	300.0		
	(b) Class F2 surface finish	m ²	100.0		
Total Carried Forward					

C3.2 CULVERTS

Item	Description	Unit	Quantity	Rate	Amount (R)
Brought Forward					
C3.2.10	Reinforcement:				
C3.2.10.1	Mild steel bars	t	1.0		
C3.2.10.2	High-tensile steel bars	t	2.0		
C3.2.10.3	Welded steel fabric	kg	200.0		
C3.2.12	Demolition of concrete members or elements:				
C3.2.12.1	Full member or element (along the road)	m ³	10.0		
C3.2.15	Manholes and catch pits, with prefabricated elements:				
PC 3.2.15.5	Catchpit (Complete until as per drawing)	No	15.0		
C3.2.16	Brickwork (engineering bricks):				
C3.2.16.1	115 mm thick	m ²	50.0		
C3.2.16.2	230 mm thick	m ²	50.0		
C3.2.17	Plaster	m ²	5.0		
C3.2.20	Anchors for pipes (description)	No			
C3.2.23	Breaking into existing drainage structures and building in pipes or culverts of the following size (600-900mm pipe diameter)	No	2.0		
C3.2.24	Compaction of bedding for inlets, outlets, manholes and catchpits:				
C3.2.24.1	Preparation and compaction of in-situ bedding material to 90 % of MDD (up to 2m depth)	m ³	3.0		
C3.2.24.2	Extra-over sub-item C3.2.24.1 for compaction to 93 % of MDD (up to 2m depth)	m ³	3.0		
Total Carried Forward to Summary					

C3.3 CONCRETE KERBING AND CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS

Item	Description	Unit	Quantity	Rate	Amount (R)
C3.3	CONCRETE KERBING AND CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS				
C3.3.1	Concrete kerbing:				
C3.3.1.1	Prefabricated kerbing:				
	(a) Precast 6 kerbing to SABS 927	m	4,000.0		
	(b) Precast Figure 8 kerbing to SANS 927	m	500.0		
C3.3.2	Concrete kerbing-channelling combination:				
C3.3.2.1	Prefabricated kerbing-channelling:				
	(a) Prefabricated Figure 8 kerbing to SABS 927, with 300mm wide Figure C900 concrete channel as shown on drawings	m	500.0		
	b) Prefabricated Beany Block Kerb drainage system completely as per drawing no. RDS-014 & 015-T. Rate to include for excavation, bedding, anchor concrete, backfilling etc	m	200.0		
C3.3.3	Extra over items C3.3.1 and C3.3.2 for concrete kerbing or concrete kerbing and channelling on curves:				
C3.3.3.1	On curves of radii more than or equal to 5,0 m but less than 20,0 m	m	200.0		
C3.3.3.2	On curves with radii more than or equal to 1,0 m but less than 5,0 m	m	100.0		
C3.3.3.3	On curves with radii less than 1,0 m	m	50.0		
C3.3.4	Extra over item C3.3.2 for drop kerbs at pedestrian crossings and driveways	m	100.0		
C3.3.9	Formwork to cast-in-situ concrete lining for open drains (Class F2 surface finish):				
C3.3.9.1	To sides with formwork on the internal face only	m ²	100.0		
C3.3.9.2	To sides with formwork on both internal and external faces (each face measured)	m ²	200.0		
C3.3.9.3	To ends of slabs	m ²	50.0		
C3.3.10	Sealed joints in concrete and stone pitched linings of open drains	m	150.0		
C3.3.14	Cutting bituminous surfacing and pavement layers for concrete kerbing, channelling or concrete-lined drains	m	3,500.0		
C3.3.16	Demolition and removal of existing kerbs and / or channel (up to 1.5m wide)	m ³	200.0		
Total Carried Forward to Summary					

C4.3 EXISTING ROAD MATERIALS

Item	Description	Unit	Quantity	Rate	Amount (R)
C4.3	EXISTING ROAD MATERIALS				
C4.3.1	Additional material investigations:				
C4.3.1.1	Cost of additional trial pits, sampling of asphalt and laboratory testing	Prov Sum	1.0	40,000.00	40,000.00
C4.3.1.2	Handling cost and profit in respect of item C4.3.1.1	%	40,000.0		
C4.3.2	Cleaning the existing road surface:				
C4.3.2.1	Cost to clean the road surface	Prov Sum	1.0	50,000.00	50,000.00
C4.3.2.2	Handling costs and profit in respect of item C4.3.1.1	%	50,000.0		
C4.3.4	Saw-cutting existing materials within the following average depth ranges:				
C4.3.4.1	Asphalt material:				
	(a) Up to 50 mm	m	200.0		
	(b) Exceeding 50 mm and up to 100 mm	m	100.0		
C4.3.5	Providing the milling machine on the site:				
C4.3.5.2	Large milling machine with a cutting width exceeding 1,2 m	No	1.0		
C4.3.6	Milling and removal of existing asphalt layers with an average milling depth (Contractor takes ownership):				
C4.3.6.1	Not exceeding 50 mm	m ³	700.0		
C4.3.6.2	Exceeding 50 mm but not exceeding 100 mm	m ³	300.0		
C4.3.6.3	Exceeding 100 mm	m ³	200.0		
C4.3.8	Excavating material by milling:				
C4.3.8.1	Crushed stone material	m ³	500.0		
C4.3.8.2	Cemented material	m ³	500.0		
C4.3.8.3	Natural gravel material	m ³	500.0		
C4.3.11	Breaking down a stabilised layer by using conventional road construction equipment	m ³	200.0		
C4.3.12	Removing of existing concrete material within the following average depth ranges:				
C4.3.12.1	The break-up method:				
	(a) Not exceeding 150 mm	m ³	100.0		
	(b) Exceeding 150 mm but not exceeding 250 mm	m ³	100.0		
C4.3.13	Lifting of existing paving blocks (specify the type or size and thickness):				
C4.3.13.1	Using construction equipment	m ²	100.0		Rate Only
Total Carried Forward					

C4.3 EXISTING ROAD MATERIALS

Item	Description	Unit	Quantity	Rate	Amount (R)
Brought Forward					
C4.3.13.2	Using labour enhanced methods of construction	m ²	300.0		Rate Only
C4.3.14	Removing of existing road edging and services structures:				
C4.3.14.1	Removing of existing road edging using construction equipment:				
	(a) Kerbing and edge beams:				
	(i) In-situ concrete kerbing and edge beams	m ³	200.0		
	(iii) Precast concrete kerbing (specify type or figure) and situ concrete channel (specify dimensions)	m	400.0		
	(b) Kerb inlets	No	5.0		
	(c) Grid inlets	No	2.0		
	(d) Etc., for other services structures	No	10.0		
C4.3.15	Stockpiling of road layer materials:				
C4.3.15.1	Asphalt material	m ³	1,000.0		
C4.3.15.2	Crushed stone material	m ³	800.0		
C4.3.15.3	Cemented material	m ³	500.0		
C4.3.15.4	Natural gravel material	m ³	800.0		
C4.3.18	Excavate non-compliant or excess pavement layer material to spoil in sites designated by the Contractor, material consisting of:				
C4.3.18.1	Asphalt material	m ³	200.0		
C4.3.18.2	Crushed stone, macadam, gravel and sand material	m ³	500.0		
C4.3.18.3	Cemented material	m ³	200.0		
C4.3.20	Spoiling of paving blocks and road edging in spoil sites designated by the Contractor:				
C4.3.20.1	Paving blocks	m ³	100.0		
C4.3.20.2	Precast and in-situ concrete kerbing, edge beams and channels at precast kerbing	m ³	200.0		
C4.3.20.3	Kerb and grid inlets, and other services structures	No	20.0		
Total Carried Forward to Summary					

C4.4 COMMERCIAL MATERIALS

Item	Description	Unit	Quantity	Rate	Amount (R)
C4.4	COMMERCIAL MATERIALS				
C4.4.2	Commercial materials identified by the Contractor from commercial, private or other non-commercial suppliers:				
C4.4.2.1	Pavement layer material:				
	(d) Type G4 materials	m ³	3,000.0		
	(f) Type G6 materials	m ³	4,000.0		
	(g) Type G7 materials	m ³	3,000.0		
	(i) Type G9 material	m ³			Rate Only
	(p) Natural or crushed gravel material for an unsealed shoulder layer	m ³	700.0		
C4.4.2.5	Fill material in the earthworks:				
	(a) Normal or coarse fill	m ³	500.0		
C4.4.4	Cementitious stabilising agents:				
C4.4.4.1	Cement (CEM II (B-M) 32.5N)	t	300.0		
C4.4.5	Bituminous stabilising agents:				
C4.4.5.2	Emulsion stable grade (Anionic Stable Grade 60%)	t	400.0		
C4.4.6	Fillers for bituminous stabilisation (specify filler types separately)	t	20.0		
C4.4.7	Sampling and material testing by a commercial laboratory for the stabilisation designs:				
C4.4.7.1	Cost of sampling and material testing	prov sum	1.0		
C4.4.7.2	Handling cost and profit in respect of item C4.4.7.1	%	150,000.0		
Total Carried Forward to Summary					

C5.1 ROADBED

Item	Description	Unit	Quantity	Rate	Amount (R)
C5.1	ROADBED				
C5.1.1	Roadbed construction and compaction:				
C5.1.1.1	Compaction of in-situ material to 90 % of MDD	m ³	3,000.0		
C5.1.2	Excavate material to spoil from roadbed construction:				
C5.1.2.1	Excavate material to spoil from roadbed construction, material obtained from:				
	(a) Soft excavation	m ³	500.0		
C5.1.4	Removal of unsuitable material to spoil:				
C5.1.4.1	In layer thicknesses of 200 mm and less:				
	(a) Stable material	m ³	100.0		
	(b) Unstable material	m ³	100.0		
C5.1.6	Roller-pass compaction:				
C5.1.6.2	Pad foot vibratory rollers	m ²	800.0		
C5.1.6.3	Smooth drum vibratory rollers	m ²	800.0		
Total Carried Forward to Summary					

C5.4 STABILISATION

Item	Description	Unit	Quantity	Rate	Amount (R)
C5.4	STABILISATION				
C5.4.2	Chemical stabilisation:				
C5.4.2.1	Chemical stabilisation (200mm thick) of pavement layers (G6 to C4)	m ³	4,000.0		
C5.4.5	Cementitious stabilisation agents for pavement layers:				
C5.4.5.2	Addition of cementitious stabilisation agents (specify agent separately) for pavement layers and spreading the agent using bags and labour enhancement methods:				
	(a) Cement (for pavement layer)	t	250.0		
C5.4.7	Bituminous stabilisation of pavement layers:				
C5.4.7.1	Bituminous stabilisation (150mm thick) of pavement layers (G4A material)	ℓ	45,000.0		
C5.4.8	Bituminous stabilisation agent (specify agents separately):				
C5.4.8.1	60 % anionic emulsion	ℓ	25,000.0		
C5.4.9	Filler for bituminous stabilisation:				
C5.4.9.2	Filler for bituminous stabilisation spreading the agent or filler using labour enhanced methods of construction (specify agents separately)	t	200.0		
C5.4.10	Provision and application of water for curing	kℓ	100.0		
C5.4.11	Curing by covering with the subsequent layer	m ²	6,000.0		
C5.4.12	Curing with a membrane (type of material to be specified):				
C5.4.12.1	Cut back bitumen	ℓ	3,600.0		
C5.4.12.3	Spray grade emulsion	ℓ	3,000.0		
C5.4.14	Trial section for a chemically stabilised layer				
	a)C4 cement stabilised subbase	m ³	200.0		
	b)BMS cement and emulsion treated base	m ³	100.0		
Total Carried Forward to Summary					

C8.8 PATCHING AND EDGE BREAK REPAIR

Item	Description	Unit	Quantity	Rate	Amount (R)
C8.8	PATCHING AND EDGE BREAK REPAIR				
C8.8.1	Saw cutting pavement layers for patching:				
C8.8.1.1	Asphalt or bituminous surfacing to an average depth:				
	(a) Not exceeding 50 mm	m	50.0		
	(b) Exceeding 50 mm but not exceeding 100 mm	m	20.0		
C8.8.1.2	Cemented pavement layers to an average depth:				
	(a) Not exceeding 100 mm	m	50.0		
	(b) Exceeding 100 mm but not exceeding 200 mm	m	20.0		
C8.8.1.3	Granular layers to an average depth:				
	(a) Not exceeding 100 mm	m	20.0		
	(b) Not exceeding 200 mm	m	20.0		
C8.8.2	Excavation in existing pavements for patching (non-milling):				
C8.8.2.1	Asphalt layers:				
	(a) Not exceeding 10 m ² including for edge repairs wider than 250 mm	m ³	100.0		
	(b) Exceeding 10 m ² but not exceeding 50 m ² including for edge repairs wider than 250 mm	m ³	50.0		
C8.8.2.2	Cemented layers:				
	(a) Not exceeding 10 m ² including for edge repairs wider than 250 mm	m ³	20.0		
	(b) Exceeding 10 m ² but not exceeding 50 m ² including for edge repairs wider than 250 mm	m ³	20.0		
C8.8.4	Backfilling of excavations for patching with:				
C8.8.4.1	Chemically stabilized pavement material (state the pavement material and the stabilising agent) for a patch with a surface area:				
	(a) Not exceeding 10 m ² including for edge repairs wider than 250 mm	m ³	100.0		
	(b) Exceeding 10 m ² but not exceeding 50 m ² including for edge repairs wider than 250 mm	m ³	50.0		
C8.8.4.2	Bitumen Stabilised Material (specify type and level of compaction) for a patch with a surface area:				
	(a) Not exceeding 10 m ² including for edge repairs wider than 250 mm	m ³	100.0		
	(b) Exceeding 10 m ² but not exceeding 50 m ² including for edge repairs wider than 250 mm	m ³	50.0		
Total Carried Forward					

C9.1 ASPHALT LAYERS

Item	Description	Unit	Quantity	Rate	Amount (R)
C9.1	ASPHALT LAYERS				
C9.1.1	Asphalt mix designs:				
C9.1.1.2	Sand skeletal mixes:				
	(a) Continuously graded base or surfacing (58V-22 (PG), Mix Design III, 40mm thick) place by paver	lump sum	1.0		
C9.1.2	Construction of trial sections:				
C9.1.2.1	Asphalt layers (58V-22 (PG), Mix Design III, 40mm thick) place by paver	m ²	200.0		
C9.1.3	Application of bond coat:				
C9.1.3.1	Stable – grade 30 % net bitumen emulsion as specified. Applied with a calibrated distributor	ℓ	10,000.0		
C9.1.3.3	Applied by hand using brushes on all exposed transverse and longitudinal construction joints	ℓ	200.0		
C9.1.5	Asphalt surfacing:				
C9.1.5.1	New construction:				
	(a) Sand skeletal mix – continuously graded as defined (58V-22 (PG), Mix Design III, 40mm thick) place by paver	m ²			
C9.1.7	Placing and compacting asphalt in restricted areas:				
C9.1.7.1	Extra over payment items C9.1.4.1 and C9.1.5.1 (state layer thickness, mix class, binder type, nominal maximum particle size and placing technique (hand / paver))	m ²			
C9.1.10	Variation rates:				
C9.1.10.1	Bitumen (58V-22 (PG))	t	10.0		Rate Only
C9.1.10.2	Aggregate	t	10.0		Rate Only
C9.1.10.5	Rolled-in chippings	t	10.0		Rate Only
C9.1.10.6	Bituminous bond coat – net bitumen (state type)	t	10.0		Rate Only
C9.1.13	Coring of asphalt layers:				
C9.1.13.1	100 mm diameter	No	50.0		
C9.1.13.2	150 mm diameter	No	50.0		
C9.1.14	Surface regularity testing as described in Clause A9.1.8.4:				
C9.1.14.2	Profiler Surveys utilising equipment as specified - Base layers and surfacing layers	km	1.2		
Total Carried Forward to Summary					

C11.4 ROAD RESTRAINT SYSTEMS

Item	Description	Unit	Quantity	Rate	Amount (R)
C11.4	ROAD RESTRAINT SYSTEMS				
C11.4.1	Erecting of guardrails at 3,81 m spacing:				
C11.4.1.1	Complete galvanized system compliant to SANS 1350:				
	(a) On timber posts (drawing reference)	m	300.0		
	(d) Extra over C11.4.1.1(a) and C11.4.1.1(b) for excavating holes of posts using labour enhanced methods (soft and intermediate)	m	50.0		
C11.4.1.2	Terminal sections for 3,81 guardrails comprising of:				
	(a) End wings to SANS 1350	No	20.0		
	(b) Bullnoses to SANS 1350	No	20.0		
C11.4.4	Extra over for horizontally curved guard rails:				
C11.4.4.1	Extra over C11.4.1 and C11.4.11 for horizontally curved guard rails factory bent to a radius of less than 45 m	m	50.0		
C11.4.5	Additional guardrail posts for 3,81 m systems:				
C11.4.5.1	Timber	No	20.0		
C11.4.5.3	Extra over C11.4.5.1 and C11.4.5.2 for excavating holes of posts using labour enhanced methods	No	20.0		
C11.4.6	Reflective plates:				
C11.4.6.1	Steel plates	No	15.0		
C11.4.7	Removing existing guardrails	m	150.0		
C11.4.9	Re-erection of guardrails with recovered or provided material:				
C11.4.9.1	Single guardrail	m	100.0		
C11.4.9.3	Extra over C11.4.9.1 and C11.4.9.2 for excavating holes of posts using labour enhanced methods	m	50.0		
C11.4.10	End treatments to existing guardrails with recovered or provided material:				
C11.4.10.1	End wings	No	10.0		
C11.4.10.2	Bullnoses	No	10.0		
Total Carried Forward to Summary					

C11.6 ROAD SIGNS

Item	Description	Unit	Quantity	Rate	Amount (R)
C11.6	ROAD SIGNS				
C11.6.1	Road signboards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or in Class I retro-reflective material, where the sign board is constructed from:				
C11.6.1.1	Aluminium sheet (2,0 mm thick):				
	(a) Area 0 to 0,5 m ²	m ²	30.0		
	(b) Area exceeding 0,5 m ² but not 2,0 m ²	m ²	50.0		
C11.6.2	Extra over on item C11.6.1 for using:				
C11.6.2.1	Background of retro-reflective material:				
	(b) Class III	m ²	40.0		
C11.6.2.2	Lettering, symbols, numbers, arrows, emblems and borders of retro-reflective material:				
	(a) Class III	m ²	12.0		
C11.6.3	Road sign supports (overhead road sign structures excluded):				
C11.6.3.2	Timber (diameter and type indicated)	m	150.0		
C11.6.4	Kilometre markers:				
C11.6.4.2	Replace marker boards on existing kilometre posts	m ²	3.0		
C11.6.5	Excavation and backfilling for road sign supports (not applicable to kilometre posts):				
C11.6.5.1	Excavating soft material and backfilling	m ³	50.0		
C11.6.5.2	Excavating soft or intermediate material and backfilling using labour enhanced construction methods	m ³	20.0		
C11.6.5.3	Extra over item C11.6.5.1 and 2 for cement-treated soil backfill	m ³	10.0		
C11.6.5.5	Imported backfill material from commercial sources	m ³	5.0		
C11.6.6	Dismantling, storing and re-erecting road signs with a surface area of:				
C11.6.6.1	Area 0 to 0,5 m ²	m ²	10.0		
C11.6.6.2	Area exceeding 0,5 m ² but not 2,0 m ²	m ²	5.0		
C11.6.6.3	Exceeding 2,0 m ² but not 10 m ²	m ²	5.0		
Total Carried Forward to Summary					

SUMMARY OF SECTIONS

Section	Description	Amount (R)
C 1.2	GENERAL REQUIREMENTS AND PROVISIONS	
C 1.3	CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATION	
C 1.4	FACILITIES FOR THE ENGINEER	
C 1.5	ACCOMMODATION OF TRAFFIC	
C 1.6	CLEARING AND GRUBBING	
C 1.7	LOADING AND HAULING	
C 2.1	GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES	
C 2.4	ENERGY AND OTHER SERVICES	
C 3.1	DRAINS	
C 3.2	CULVERTS	
C 3.3	CONCRETE KERBING AND CHANNELING, ASPHALT BERMS, CHUTES, DOWNPIPES, CONCRETE, STONE PITCHED AND GABION LININGS FOR OPEN DRAINS	
C 4.2	CUT MATERIALS	
C 4.3	EXISTING ROAD MATERIALS	
C 4.4	COMMERCIAL MATERIALS	
C 5.1	ROADBED	
C 5.2	FILL	
C 5.3	ROAD PAVEMENT LAYERS	
C 5.4	STABILISATION	
C 6.2	SEGMENTAL BLOCK PAVING LAYERS	
C 8.1	PRIME COAT	
C 8.8	PATCHING AND EDGE BREAK REPAIR	
C 9.1	ASPHALT LAYERS	
C 11.1	PITCHING, STONEMWORK, CASRT IN SITU CONCRETE FOR PROTECTION AGAINST EROSION	
C 11.2	NON-STRUCTURAL GABIONS	
C 11.4	ROAD RESTRAINT SYSTEMS	
C 11.6	ROAD SIGNS	
C 11.7	ROAD MARKING & ROAD STUDS	
C 20.1	TESTING MATERIALS AND JUDGEMENT OF WORKMANSHIP	
SUB-TOTAL 1		

TENDER SUMMARY

SUB-TOTAL 1	
ADD 10% CONTINGENCIES	
SUB -TOTAL 2	
ADD: Skills Development: Minimum Contract Skills Development Goal (CSDG) Sum = CE (0.25%) x Subtotal of the tender amount**	
SUB -TOTAL 3	
Add 15% VAT	
TOTAL CARRIED OVER TO FORM OF OFFER	

***See note 10 on pricing data*

Signed on behalf of the Tenderer: **(Signature)**

Date:

Tenderer's Name: **(Company Name)**

C3:1 SCOPE OF WORK

C3.1 DESCRIPTION OF THE WORKS

C3.1.1 Employer's Objectives

Municipality intends to Propose Rehabilitation of Diedericks Road at Emalahleni. The total length of upgrade is 1.2 km long.

C3.1.2 Overview of the Works

The works involves road upgrade of existing road from intersection of R 544 to the railway bridge at Diedericks at KM 1.2. The other works will involve the upgrading of existing Road, Construction of pedestrian walkways, streetlights, and street beautification.

C3.1.3 Extent of the Works

C3.1.3.1 Scope of Works

The works include the following aspects:

- Upgrade and Rehabilitation of 1.18km Diedericks Road to improve safety

Chainage	Existing Condition	Proposed Work
+0.00 KM to 740 KM	Single carriageway (one lane each direction) 3.0 m wide lane section with mountable kerbs/v-drain	Upgrade to Dual carriageway with 3.5m wide lanes width, 1200mm median and walkways both sides. The work also includes stormwater upgrade and streetlight
+740 KM to 1180 KM	Single carriageway (three lanes) with 3.0m wide lanes and walkway on one side	Upgrade to three lanes (two lanes to one direction and one lane to other direction) with 3.5m wide lane width. The work also includes stormwater upgrade and streetlights

The pavement structure will be as follows:

Proposed Pavement Structure	
Existing surfaces	Widening
20 to 40mm Asphalt	40mm Asphalt (Continuously Graded-Medium)
150mm to 400mm Gravel wearing Course	150 mm BSM 1 Base Course
700 to 1500mm in-situ roadbed	200mm C4 Subbase
	150mm G7 material
	150mm G9 material
	150mm In-Situ Subgrade

- Installation of streetlights
- Landscaping and street beautification

C3.1.3.2 Features Requiring Special Attention

C3.1.3.2.1 Labour Intensive Construction Methods

C3.1.3.2.1.1 General

The Contractor's attention is specifically drawn to the fact that certain aspects of the Works which can be executed using labour intensive methods, and semi-skilled labour, shall be carried out as such. The Employer's purpose in using labour intensive construction methods is to provide employment for as many of the unemployed people in the area as possible.

A list of local labour including their names and abilities (or trades if any) will be made available to the Contractor by the Community Liaison Officer (CLO). The CLO will be responsible for assisting the Contractor in sourcing local labour. As such, the Contractor will be required to submit labour requirements to the CLO for his swift action. The CLO shall ensure that the labour required by the Contractor is available within 24 hours.

The Contractor will only be allowed to use his own personnel in respect of specialized activities. Equipment such as picks and spades shall be supplied by the Contractor on a "lease-lend" basis to each "subcontractor". All manufactured materials shall be purchased by the Contractor and supplied to the "subcontractors" as necessary. The Contractor is at liberty to employ specific "subcontractors" for specific tasks, or to employ such "subcontractors" for a variety of tasks.

The method of payment and any other necessary agreement between the Contractor and his "subcontractors" shall be drawn up by the Contractor himself. The Contractor is expected to declare the payment rates to the local labour prior to engagement and the dates for payment as well as the duration of employment. Any local labour disputes will be brought to the attention of the CLO. The Project Steering Committee will be required to assist the CLO on matters which cannot be resolved by him and which do not need the interference of the Engineer. However, such shall be reported during monthly site meetings.

C3.1.3.2.1.2 Documentation

Every fortnight the Contractor shall submit to the Engineer a schedule listing all the local labour employed on the project and giving the wages earned, sex, age and disability status. No Payment Certificates will be processed without proof of employed labour which proof must accompany the certificate.

C3.1.3.2.1.3 Drawings and Quantities are Provisional

All drawings and quantities issued with this document are preliminary. Prior to commencement of the construction, all levels and dimensions shall be carefully checked with the Engineer and be revised if necessary.

The quantities in the Schedule are provisional only and do not necessarily present the actual and final amount of work to be done. Unless otherwise stated, items will be measured nett in accordance with the drawings and actually installed and no allowance will be allowed for waste.

The contract amount for the complete contract shall be computed from the actual measured quantities of authorized work done to the satisfaction of the Engineer, valued at prices tendered against the respective items in the Schedule of Quantities.

C3.1.3.2.1.4 Safety Regulations

Both the "Factories, Machinery and Building Work Act (Act 22 of 1941)" and the "Machinery and Occupational Safety Act (Act 6 of 1983)" must, wherever they appear in the SABS1200 (Edition 1998) standardized specifications, be replaced by the "Occupational Health and Safety Act (Act 85 of 1993)".

C3.1.4 Location of the Works

Diedericks Road is approximately 1.2 km starting from the intersection of R 544 and finishing at the railway bridge in the southern direction from Emalahleni CBD. Diedericks road is the main entrance from Lynville and beyond the Emalahleni CBD.

The co-ordinates of the site are as follows:

Start Point Co-ordinates	Latitude: 25°52'37.48"S	Longitude: 29°12'32.17"E
End Point Co-ordinates	Latitude: 25°53'3.69"S	Longitude: 29°12'9.59"E

C3.1.5 **Temporary Works**
No temporary works are envisaged

C.3.2. ENGINEERING

C.3.2.1. Design

WORKS DESIGNED	RESPONSIBILITY
Concept, feasibility and overall process	Engineer
Basic engineering and detail layouts to tender stage	Engineer
Final design to approval for construction stage	Engineer
Temporary works	N/A
Preparation of as-built drawing	Contractor

C.3.2.2. Employer's Design

The brief description of the work is indicative rather than absolute and shall not limit the work to be executed by the Contractor under this contract. Approximate quantities of the various types of work to be carried out in accordance with the contract documents are listed in the schedule of quantities.

C.3.2.3. Detailed description of the project

The works to be constructed are as shown on the drawings which are included in the contract and as outlined in the project specifications. The work consists of the following:

The following are pavement designs appropriate to this project:

(a) Pavement Design for the widening

Layers	Description	Thickness (mm)
Surfacing	AC: continuously graded Asphalt (medium grade)	40
Base	BMS 1 - High strength bitumen stabilised material normally using crushed stone or RA source material: PI>10, P0,0075 (5 to 25%), UCS of 1000 kPa @ 102% Mod AASHTO, ITS (wet) 80 kPa, Min GM of 1,2	150
Subbase	C4 – Min. Lab. UCS of 750kPa @ 97% Mod AASHTO Density, min. ITS of 200kN, Min.GM of 1.2, Max. PI of 6.	150
Upper Selected Layer	G6 - CBR≥45 @ 95% Mod AASHTO Density	150
Lower Selected Layer	In-situ material: G7 – CBR ≥20 @ 93% Mod AASHTO Density	150

(b) Pavement Design for 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

- **Road Signs and Markings:** there will be painting of road markings and installation of traffic signs as indicated on the drawings.
- **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.
- **Structures:** Major structure are included in this project and some of the existing culvert structures shall be cleaned to effect unhindered flow of surface water.
- **Street Lights:** Installation of streetlights as per standards adopted by the Employer
- **In-situ Materials:** Existing layer-works material will be stockpiled and used for lower selected layer. Material deemed surplus to requirements shall be taken to the nearest licensed landfill site.

C.3.2.3.1. Borrow Materials

No borrow pits were cited for this project as all available possible borrow pits in close proximity are exhausted. Materials for base, subbase and upper selected layer will be sourced from a commercial quarries within the municipality.

Water for road construction can be obtained from the local rivers but only after acceptance testing at the time of usage. Water for concrete can be obtained from Municipal supply.

C.3.2.3.2. Contractor’s Design

Where the 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.

C.3.2.3.3. Drawings

The Contractor will be supplied with three (3) prints of each of the drawings. These prints are issued free of charge and the Contractor shall make any additional prints he may require at his own cost.

Any information in the possession of the Contractor which is necessary for the Engineer’s Representative for completing his as-built drawings shall be supplied to the Engineer’s Representative before a certificate of completion will be issued.

Only figured dimensions shall be used and drawings shall not be scaled unless so directed by the Engineer. The Engineer will supply any figured dimensions which may have been omitted from the drawings.

All designs and modifications thereto shall be communicated in writing and the Contractor and the Engineer shall maintain master lists to record and track all deviations.

The drawings for the design of the permanent Works are bound in reduced drawing book of drawings Volume 2 or as supplied during the contract. The Contractor and the Engineer shall maintain master lists indicating the supply and revision of such document

C3.3: PROCUREMENT

C3.3 PROCUREMENT

C3.3.1 PREFERENTIAL PROCUREMENT

C3.3.1.1 Requirements

Tenders will be evaluated in terms of the Emalahleni Local Municipality Preferential Procurement Policy. Points will be awarded for price and specific contract participation goals as contained in the Tender Data.

C3.3.1.2 Resource standard pertaining to targeted procurement

The Preferential Procurement Policy (PPP) of the Emalahleni Local Municipality is applicable to this project. Refer to the Tender Data.

C3.3.2 SUBCONTRACTING

Local subcontractors should be considered provided they are capable.

C3.3.2.2 Preferred subcontractors/suppliers

Where possible, local subcontractors should be considered for subcontract work provided they are capable and must provide the following:

1. CIPC Certificate
2. COIDA
3. Tax certificate & CSD
4. CIDB grading certificate

C3.3.2.3 Subcontracting procedures

The contractor is solely responsible for negotiating with local subcontractors.

C3.3.2.4 Attendance on subcontractors

Not applicable.

C3.4.CONSTRUCTION

C3.4.1..WORKS SPECIFICATIONS

The following specifications shall apply for the construction of the Works.

C3.4.1.1 Standard Specifications

The COTO Standard Specifications for Road and Bridge Works for State Road Authorities (2020 Edition) shall apply for the construction of the Works.

The term "project specification" must be replaced by "scope of works" wherever it appears in these standardised specifications.

The term "Engineer" must be replaced by "Employer's Agent" wherever it appears in these standardized specifications.

C3.4.1.2 National and International Standards

The SANS or BS Specifications and Codes of Practice shall apply for the construction of the Works.

Wherever any reference is made to the South African National Standards (SANS) 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.

C3.4.1.3 Particular Specifications

The following particular specifications shall apply for the construction of the Works.

Various other specifications specified in the COTO Standard Specifications or the Project Specifications.

Latest Sabita Manual, Manual 25 entitled "*Quality Management in the Handling and Transport of Bituminous Binders*".

TG2 Second Edition May 2009, "*Technical Guideline for Bitumen Stabilised Materials (BSM)*" issued by the Asphalt Academy.

C3.4.2: STANDARD SPECIFICATIONS

C3.4.2.1 **T h e** Specifications on which this contract is based are the COTO (Committee of Transport Officials) Standard Specifications for Road and Bridge Works for South African Road Authorities. This document is obtainable separately, and Tenderers shall obtain their own copies of the applicable Sections.

C.3.4.2.2 AMENDMENTS TO THE STANDARD

SPECIFICATIONS INTRODUCTION

In certain clauses the standard, standardized and particular 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 alternative or additional requirements applicable to this contract are contained in this part of the project specifications. It also

contains additional 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 PS 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 payment item, which does not form part of a clause or a payment item in the standard specifications and which is included here, is also prefixed by PS, but followed by a new number which follows on the last clause or item number used in the relevant section of the standard specifications.

PS C1.2	GENERAL REQUIREMENT AND PROVISIONS
PS C1.2.1.1	Monitoring of compliance with and reporting on the EMP
	In addition to the standard specification, all requirements according to the Environmental Management Plan as detailed in C3.4: Particular Specifications, will be adhered to.
PS C1.2.1.2	Dedicated Environmental officer
	<p>The Environmental Control Officer (ECO) shall conduct the following activities:</p> <ul style="list-style-type: none"> • Brief the Contractor about the requirements of the Environmental Specification, Environmental Management Plan and any other relevant document, specification or Act as applicable. • Audit, monitor, report and keep a record of the performance of the Contractor / Project in terms of environmental compliance one a monthly basis. • Provide technical advice relating to environmental issues as required. • Attend monthly site meetings to report on the performance of the Contractor / Project • Conduct a close out audit and report on the Project once the construction camp has been cleared.
PS C1.2.2.3	Submission of Scheme 2 Programme
	<p>It is essential that the construction programme, which shall conform in all respects to Clause 5.6 of the General Conditions of Contract, be furnished within the time stated in the Contract Data (refer to Clause 5.3.1/2).</p> <p>The preliminary programme to be submitted with the tender shall be used as basis for this programme.</p> <p>The Tenderer's attention is drawn to the fact that a number of factors will affect the programming of and method of carrying out the works. The more important of these are:</p> <ul style="list-style-type: none"> (a) Items mentioned in In addition to PS1, (b) All pavement designs to be done and submitted at-least one month before the pavement is to be laid. <p>Those known, existing services in the area of the works have been depicted on the contract drawings. It is evident, however, that the status of existing service records as far as can be ascertained might not reflect the actual situation in the field. As such, due allowance has been made in the Bill of Quantities for the proving of services where directed by the Engineer.</p>
PS C1.2.2.5	Reviewing and Updating a Scheme 2 Programme every month:
	<p>The contractor shall update the programme every month and submit to the Engineer.</p> <p>The Contractor shall revise the programme when instructed to do so by the Engineer in accordance with the requirements of the Conditions of Contract or when the</p>

	<p>Contractor is aware that the programme no longer reflects the way in which the Contractor plans to execute the remaining work.</p> <p>Payment shall be made only upon the revised programme being accepted by the Employer's Agent, regardless of the number of iterations / revisions / corrections made before the programme was accepted by the Employer's Agent.</p>
PS C1.2.3.7	Base and/or Surface Patching using Hot Plant Mixed Asphalt:
	In addition, the rate shall include for saw-cutting the failed asphalt, application of a tack coat, supply and compact the asphalt to a level to suit to the existing road, including loading, hauling and disposal of the failed asphalt, all labour, plant, tools and equipment.
PS C1.3	THE CONTRACTOR'S SITE ESTABLISHMENT AND GENERAL OBLIGATIONS
PS C1.3.1	The Contractor's General Obligations:
	<p>In addition to the Standard Specification, the Contractors General Obligations shall also include:</p> <ul style="list-style-type: none"> • Training and supervision of local labour • Management of labour where labour enhance construction methods are specified • Compliance with, and application of the Compensation for Occupational Injuries and Diseases Act • The Contractor's camp site and store yard. <p>Note: The Contractor's office for this contract shall be as required to fulfill his obligations under the Contract. The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel and labourers.</p> <p>The Employer has not made a site available to the contractor. If the Employer can make any specific site available to the Contractor, such site will be pointed out to the Contractor.</p> <p>However the Contractor may, if he prefers to, have a camp site at another location and must first obtain the written permission of the landowner, and subsequently the Engineer, to do so.</p> <p>Any clearing of the site that is necessary and the making good after de- establishment will be the responsibility of the Contractor.</p> <p>The following conditions shall also apply:</p> <ol style="list-style-type: none"> i. None of the existing roads shall be damaged in any way. ii. No waterborne sewerage facilities or potable water connection are available on the site. The Contractor shall make his own arrangements in this regard iii. No electrical facilities exist on site. iv. It shall be the responsibility of the Contractor to make good any damage caused to the camp site area or any improvements on it, including services, and for reinstating it to its former condition when vacated. The standard of reinstatement must be to the satisfaction of the Engineer; Deputy Head: Real Estate and/or Deputy Head of Parks, Recreation and Beaches Department; or other owner. Particular attention should be directed to these requirements and written clearances from the relevant Departments or other owners will be required. <p>No employees except for security guards will be allowed to sleep or be accommodated</p>

	<p>on the site in urban areas. No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to site.</p> <p>No informal housing or squatting will be allowed. Chemical toilets only will be allowed where temporary facilities have to be provided.</p>
PS C1.3.2	Contract Sign Boards:
	<p>The typical notice board layout is given in the drawings.</p> <p>The tendered rate shall include full compensation for providing and erecting each sign board (two), including for timber poles, concrete bases if required, fixings, excavation and backfill, and for the later removal of the sign board, structures and fixings, and reinstating the area upon completion of the contract. The rate shall include for all labour, plant, tools, materials and equipment.</p>
PS C1.4	FACILITIES FOR THE ENGINEER
	<p>General: The offices and ablution facilities shall, unless otherwise agreed, be erected in close proximity to the Contractor's offices, and the entire area shall be fenced. Access to the area shall be controlled by security, posted at the gates. All reasonable precautions shall be taken by the Contractor to prevent unauthorized entry to the Engineer's offices.</p>
PS C1.4.1.1	Offices and Conference Room
	<p>The Engineer's offices shall comprise of:</p> <ul style="list-style-type: none"> - 3 No. (three) lockable, air-conditioned offices with area of 9 to 12m², all fully furnished - 1 No. (one) of 18m² air-conditioned office to be used as a boardroom - 2 No. (two) sanitary facilities - 4 No. (four) shaded carports for the sole use of the Engineer, his site personnel and the Employer. <p>The offices shall allow for a desk with 4 drawers, filing cabinet, drawing racks, 1 swivel chair and 2 padded chairs. All the necessary insurance shall to be provided for all the above equipment. The contractor will be required to provide maintenance/cleaning to the Engineer's office.</p>
PS C1.4.1.2	Power supply, water and other services
	<p>The Contractor shall make his own arrangements concerning the supply of electrical power, water and all other services. No direct payment will be made for the provision of electricity, water 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, or in the Contractor's preliminary and general items as the case may be.</p> <p>(a) Water for Works</p> <p>The Contractor shall allow in his Establishment rates for the securing of a suitable water supply, the payment of any connection fee and for any water charges for the duration of the contract.</p> <p>(b) Power Supply for Works. The Contractor shall allow in his Establishment rates for the securing a legal electrical connection, the payment of any connection fee and for any electrical charges for the duration of the contract.</p>

PS C1.6.4.1	<p>Removal of buildings and structures</p> <p>Removal of Stormwater manholes and inlet; covers and frames: The unit of measurement shall be number (No.) and the rate shall include for the labour and plant necessary for the careful removal of the inlet covers and frames, loading and either:</p> <ul style="list-style-type: none"> (a) storing on site for re-use, or; (b) transporting to the Municipal store or; (c) transporting to the approved tip and dumping. <p>Demolition of brickwork of Manholes and inlets. The unit of measurement shall be number (No.) and the rate shall include for the labour, plant and material necessary for:</p> <ul style="list-style-type: none"> (a) breaking down brickwork to 1 m below formation level; (b) sealing the incoming and outgoing pipes with concrete; (c) backfilling with clean, coarse sand and compacting to 95% MDD (d) storing manhole covers on site for re-use or spoiling to tip. <p>Sealing concrete pipe, the concrete shall be paid for under a separate item.</p> <p>Removal of pipe culverts:</p> <p>The unit of measure is meter (m). The rate shall cover labour and plant necessary for the removal of the existing pipe culverts, loading and spoiling at the approved spoil site.</p>
PS C2.2	GENERAL REQUIREMENTS AND TRENCHING FOR SERVICES
PS C2.1.1.1	Contractors Obligations:
	<p>Before any work commences, the Contractor shall contact all private owners or public authorities controlling services so that they may, either protect, move or relocate any service as required, or confirm that all such work has been completed.</p> <p>Payment will not be made for any inconvenience caused to the Contractor in regard to any services crossing the site or any authority working on or relocating any such services, nor will any delays caused by such work or relocation be accepted as a basis for claiming an extension of time for completing the works.</p> <p>All known existing services and those services which require relocation and protection, are shown on the services plans. The Contractor's attention is drawn to the fact that such services information is based on information supplied by others, and the accuracy and completeness of this information has not been confirmed. The Contractor will therefore be required to proceed with extreme caution in order to avoid damage to existing services. Before commencing any work in the vicinity of services, the Contractor shall contact the relevant service authorities for assistance in locating the exact position of the services and where necessary the Contractor shall accurately locate the services by careful hand excavation.</p> <p>In general, the Engineer may call upon the Contractor to re-excavate trenches previously dug and backfilled by others where in the opinion of the Engineer such work is necessary to ensure the stability of any other works over such trenches. This in no way relieves the Contractor of his responsibilities in terms of the works.</p>
PS C2.1.6	Trench Excavation
	<p>The Tenderer's attention is drawn to the presence of existing services in the area. The Contractor may find it impractical to use mechanical plant for excavation on some portions of the works due to conditions caused by the presence of these services.</p>

	<p>The Tenderer's attention is further drawn to the fact that his rates for excavation and backfilling must include for all costs associated with working around these existing services and their protection and accommodation, as no claim for extra payment will be accepted for increased working space or for the inability to use plant in any circumstances.</p> <p>The following requirements in respect of trench excavation, backfilling and reinstatement shall be adhered to:</p> <ol style="list-style-type: none"> 1) It is considered that portion of the excavated material will not comply with the specification for material suitable for backfilling. It will be the Contractor's responsibility to use selective methods of excavation to ensure that this unsuitable material does not contaminate other materials suitable for reuse. 2) It is considered that portion of the excavated material will not comply with the specification for material suitable for backfilling in areas subject to traffic loading. An item has been included in the Bill of Quantities for the disposal of unsuitable material to tip and the Contractor's tendered rate for this item shall include for stockpiling if deemed necessary. 3) Where the Contractor chooses to trench by open excavation e.g. battering sides of the trenches, this over-excavation shall not be backfilled with unsuitable excavated material but shall be backfilled with the same imported material as used for the pay-width of the trench. Payment for the imported backfill shall be limited to the pay-width of the trench only and the Contractor shall allow in his rates for any extra backfill material that may be required as a result of over-excavating 4) Notwithstanding the method of trench excavation adopted by the Contractor, the restriction on the maximum trench width must be strictly adhered to. Should the Contractor over-excavate the trench then he will be responsible for increasing the pipe strength and / or bedding class to be used, all to his cost. <p>The measurements for excavation shall be the total through-length along the centre-line of a pipeline measured HORIZONTALLY with deductions for manholes. In addition, trench depth will be measured vertically on the centre-line of the pipeline from the existing ground level to the invert level.</p>
	<p>Shoring of Trenches to Excavation</p>
	<p>The Contractor shall be responsible for the design and installation of all shoring where applicable, which must not only comply with all of the relevant safety regulations pertaining to the provision of safe working conditions in earthwork excavations but also will provide sufficient lateral support to minimise any damage to adjacent structures, services or road surfaces.</p> <p>In addition to the above all excavations in road reserves and adjacent to structures and where excavations are in excess of 1,0 m in depth shall be supported with close shoring and no open or intermittent shoring of any description will be permitted.</p> <p>The minimum requirements for shoring of these trench excavations shall be as follows:</p> <ol style="list-style-type: none"> 1) Either ribbed steel trench sheeting of suitable thickness with an edged return for interlocking or suitably sized timber poling boards or runners are to be used. Adequate sized walings at suitable intervals are to be provided. Struts shall consist of either adjustable tubular steel jacks or timber suitably sized for the load application. 2) The shoring for the excavations shall be progressively installed as the excavation proceeds. Care being taken to ensure the soil is not removed within a minimum 300 mm of the toe of the runners.

	<p>3) Installation of shoring after the trench has been excavated to a depth in excess of 1,5 m is not acceptable.</p> <p>4) Details of the proposed shoring must be supplied to the Engineer at least two weeks before the operation commences. During the backfilling, the sides of the trench including the road layers above any over-excavated sections are to be cut back to a point behind the over excavation.</p> <p>5) No separate item has been allowed for in the Bill of quantities and the Contractor shall allow in his excavation rates for shoring as necessary.</p> <p>The cutting back of the trench sides shall be to the Contractor's account.</p>																						
<p>PS C2.1.16</p>	<p>Subsurface Drains in Trench Bottoms:</p>																						
	<p>The unit of measurement shall be the metre of subsoil drain constructed complete as specified or shown on the drawings.</p> <p>These shall be "Netlon" plastic subsoil pipes complying with SABS 791 as amended, or the new Flo Drain system.</p> <p>Hole Size : 5 □ 1 mm Diameter</p> <p>Diameter of Pipe: 100 □ 10 mm.</p> <p>Pipe Invert : 25% of the circumference of the pipe is to be free from slots or holes to form an invert to the pipe.</p> <p>The outfall end of each run of subsoil drain shall be built into the nearest inlet/manhole or headwall.</p> <p>The stone aggregate used for the subsoil drain filter shall consist of 9,5 mm crushed stone conforming to the following grading:</p> <table border="1" data-bbox="472 1200 1126 1319"> <tr> <td>Sieve size mm</td> <td>132</td> <td>95</td> <td>67</td> <td>475</td> <td>236</td> </tr> <tr> <td>% Passing</td> <td>100</td> <td>85 - 100</td> <td>0 - 55</td> <td>0 - 25</td> <td>0 - 5</td> </tr> </table> <p>River sand for subsoil drain filter shall consist of clean river sand conforming to the following grading :</p> <table border="1" data-bbox="472 1442 1043 1576"> <tr> <td>Sieve size mm</td> <td>67</td> <td>475</td> <td>150</td> <td>75</td> </tr> <tr> <td>% Passing</td> <td>100</td> <td>90 -100</td> <td>0 - 15</td> <td>0 – 3</td> </tr> </table> <p>and having a Fineness Modulus of 2,0 - 3,5.</p> <p>The geofabric shall include for wrapping the geofabric around either the subsoil pipe, subsoil drain or stone bedding</p> <p>The tendered rate shall include full compensation for constructing the subsoil drain complete, including excavation by hand in soft material, the supply and installation of geotextiles and pipes and the supply and placing of any drainage aggregate. The rate shall be subject to an extra over-payment under item C2.1.7 and shall also be subject to additional payment under item C2.1.17 for the removal disposal of any surplus or unsuitable excavated material to spoil sites provided either by the Employer or the Contractor.</p>	Sieve size mm	132	95	67	475	236	% Passing	100	85 - 100	0 - 55	0 - 25	0 - 5	Sieve size mm	67	475	150	75	% Passing	100	90 -100	0 - 15	0 – 3
Sieve size mm	132	95	67	475	236																		
% Passing	100	85 - 100	0 - 55	0 - 25	0 - 5																		
Sieve size mm	67	475	150	75																			
% Passing	100	90 -100	0 - 15	0 – 3																			
<p>PS C2.1.27.1</p>	<p>Demolition pf Existing Manholes, Access Chambers and Other Service Structures Consisting of: Unreinforced Concrete</p>																						

	<p>Where partial demolition is required for extension work to existing structures, the contact face shall be cut to predetermined lines and levels, and any loose and fragmented material shall be removed. Where partial demolition is not required but extension work only, the contact surface shall be roughened and cleaned of all dirt and loose particles.</p> <p>Only hand operated breaking equipment shall be used for the demolition of concrete where extension work is required.</p> <p>The unit of measurement shall be the cubic meter of plain concrete demolished.</p> <p>The tendered rate shall include full compensation for all labour, plant and equipment (including any specialised equipment) required to demolish the existing concrete.</p> <p>The tendered rate shall include disposal of the product of the demolition to an approved borrow pit. The tendered rate shall also include for any river diversions, cofferdamming and/or any dewatering activities that is necessary for the demolition activities.</p> <p>The tendered rate shall also include full compensation for any necessary measures to ensure no debris contaminates or restricts the stream flow in rivers and for any debris that has fallen into rivers to be recovered.</p> <p>In the case of retaining structures (example of wing walls) and slabs, beams or bridge superstructures, the tendered rate shall include for any falsework access required to demolish the structure and the removal thereafter. The Contractor shall be entirely responsible for the foundation assessment, loading assessment, analysis, safe design, production of working drawings, construction and dismantling of the Falsework.</p> <p>The tendered rate shall include for safe retention of material behind the demolished retaining structure during demolishing activities and safe retention of material after the demolishing activity is complete.</p> <p>The contractor is to submit a detailed method statement for the pre and post demolition activity that is to be reviewed by the engineer for record and comment, prior to the construction activity. Approval by the Engineer of the contractor's proposals for falsework, retaining of banks shall not relieve the contractor of his responsibility for its stability or for any loss or damage arising out of design errors or the use of defective materials.</p>
<p>PS C2.1.27.2</p>	<p>Demolition of Existing Manholes, Access Chamber and Other Services Structure Consisting of: Reinforced Concrete</p>
	<p>Where partial demolition is required for extension work to existing structures, the contact face shall be cut to predetermined lines and levels, any loose and fragmented material shall be removed, and projecting steel cleaned and bent as directed by the engineer. Where partial demolition is not required but extension work only, the contact surface shall be roughened and cleaned of all dirt and loose particles.</p> <p>The contractor shall take great care to ensure that the reinforcement required to tie in any extension work is not cut off or damaged in the demolition process. Where reinforcement is cut off, or where in the opinion of the engineer, the reinforcement has been damaged to such an extent that it will not adequately perform its function, the contractor shall, at his own expense, install dowel bars of the same diameter as the bar cut off or damaged, to the satisfaction of the engineer.</p> <p>Only hand operated breaking equipment shall be used for the demolition of concrete where extension work is required.</p> <p>The unit of measurement shall be the cubic meter of plain or reinforced concrete demolished. The tendered rate shall include full compensation for all labour, plant and equipment (including any specialised equipment) required to demolish the existing concrete.</p>

	<p>The tendered rate shall include disposal of the product of the demolition to an approved borrow pit. The tendered rate shall also include for any river diversions, cofferdamming and/or any dewatering activities that is necessary for the demolition activities.</p> <p>The tendered rate shall also include full compensation for any necessary measures to ensure no debris contaminates or restricts the stream flow in rivers and for any debris that has fallen into rivers to be recovered.</p> <p>In the case of retaining structures (example of wing walls) and slabs, beams or bridge superstructures, the tendered rate shall include for any falsework access required to demolish the structure and the removal thereafter. The Contractor shall be entirely responsible for the foundation assessment, loading assessment, analysis, safe design, production of working drawings, construction and dismantling of the Falsework.</p> <p>The tendered rate shall include for safe retention of material behind the demolished retaining structure during demolishing activities and safe retention of material after the demolishing activity is complete.</p> <p>The contractor is to submit a detailed method statement for the pre and post demolition activity that is to be reviewed by the engineer for record and comment, prior to the construction activity.</p> <p>Approval by the Engineer of the contractor's proposals for falsework, retaining of banks shall not relieve the contractor of his responsibility for its stability or for any loss or damage arising out of design errors or the use of defective materials.</p>
<p>PS C2.1.27.3</p>	<p>Demolition of Existing Manholes, Access Chambers and Other Services Structures Consisting of Masonry</p>
	<p>The rate shall include for the labour, plant and material necessary for:</p> <ul style="list-style-type: none"> (a) breaking down brickwork to 1 m below formation level; (b) sealing the incoming and outgoing pipes with concrete; (c) backfilling with clean, coarse sand and compacting to 95% MOD AASHTO; (d) storing manhole covers on site for re-use or spoiling to tip.
<p>PS C2.2.1.1</p>	<p>Cable Ducts</p>
	<p>The following ducts shall be used for this aspect of the project. 110mm or 160mm ribbed HDPE duct (Kabelflex or similar approved).</p> <p>On completion of duct laying and backfilling, the ducts shall be proved by twice pulling through a cylindrical cleaning brush, once in each direction. The ducts shall then be proved by drawing through a wooden or Teflon mandrel 400mm long and 5mm less in diameter than the duct. The sub-contractor shall provide a method statement for carrying out of the duct proving</p>
<p>PS C3.2.3.2</p>	<p>Brick Headwall to Ducts:</p>
	<p><i>A3.5.2 Culvert Material</i></p> <p><i>c) Prefabricated concrete pipe culvert units – Replace “Ogee joints” with “Spigot and Socket pipes”</i></p> <p>Reinforced concrete pipes for stormwater shall -</p> <ul style="list-style-type: none"> A. comply with S.A.B.S. 677 for S.C. type pipes without lifting holes; B. be manufactured with a spigot and socket type joint suitable for use with a rubber ring joint; and C. comply with the proof load requirements for the various classes of pipe as indicated on the contract drawings and/or in the schedule of quantities. <p>The rubber ring joints shall comply with S.A.B.S. 974 - Part 1. Laying:</p>

	<p>All pipelaying and jointing shall be undertaken by experienced pipelayers who shall, when requested, produce proof of their capabilities to the satisfaction of the Engineer. The various types of pipes and culverts shall be handled and laid in accordance with the manufacturer's instructions. The Contractor shall provide the latest copy of the instructions and shall ensure that all pipe layers have a good working knowledge of the required procedures. Notwithstanding anything contained in the instructions, the Engineer's interpretation shall be final.</p> <p>Pipes and culverts shall be lowered gently and carefully into the trench without jarring or bumping by crane, derrick, or other approved lifting tackle and care shall be taken not to damage the items. The hand installation of pipes shall only be permitted when using U.P.V.C. or A.C. pipes up to a nominal diameter of 150 mm unless authorised by the Engineer.</p> <p>Control of the level and line of the pipeline, to ensure correct placing to designed line and level, shall be by side and top lines or other acceptable means approved by the Engineer.</p> <p>All internal surfaces of pipes and fittings shall be kept clean and free of foreign matter both during and after laying. The surfaces of all joints shall be thoroughly cleaned before the pipe or special is placed in its final position. No water shall be allowed to come in contact with or run through any pipe before the joint has been completed and at no time shall muddy, clayey or dirty water be allowed to enter the pipe.</p> <p>Exposed ends of pipe and fittings in the trench shall be sealed by suitable end caps at all times when pipelaying is not actually in progress.</p> <p>Laying shall commence at the lower end of the trench and proceed upgrade. Pipes and fittings must be laid with their spigots or male end pointing in the direction of the flow. All pipes and culverts shall be laid in a straight line, both in the horizontal and vertical plane, between adjacent manholes or catchpits except where shown on the contract drawings or directed by the Engineer.</p> <p>Each pipe, fitting or culvert unit shall mate uniformly with the next to preserve an invert free from steps. Except with the prior consent of the Engineer, the laying of pipes and the bedding cradle, if specified, between any two consecutive manholes shall be checked by the Engineer's representative for line and level before the selected fill blanket is placed.</p> <p>Where pipes are required to be cut on site, only manufacturer's recommended special machines shall be used and the resultant pipe end must be clean and uniform.</p> <p>No pipes shall be left overnight or during rainy weather without sufficient backfilling between pipe couplings to prevent flotation. Where pipes are indicated on the contract drawings to be laid to a horizontally curved alignment the pipes must be fully jointed in a straight line and subsequently deflected with the previously laid pipe suitably anchored to prevent movement. Care must be taken to ensure the pipes are laid in a smooth curve with equal deflections at each joint.</p> <p>Jointing: All pipe joints and the operation of jointing shall be carried out strictly in accordance with the pipe suppliers instructions. In particular:</p> <ul style="list-style-type: none">A. all rubber rings and seals shall be carefully inspected after being placed in position and before the joint is closed to ensure that they have not suffered any cuts, tears or other damage and are not in any other way defective;B. care shall be taken to ensure that:<ul style="list-style-type: none">I. all jointing surfaces are cleaned immediately prior to jointing;II. the joint gaps in the bedding remain clear and the alignment of the pipe remains true;III. the full weight of the pipe does not rest on the rubber ring during jointing;
--	---

	<p>IV. pipes with damaged jointing surfaces are not used in the pipe run between manholes but are set aside for building into manhole walls etc.;</p> <p>C. pipes and fittings of different materials shall be jointed only with special adaptors recommended by the pipe manufacturer; and</p> <p>D. where a pipeline passes through a rigid structure and to prevent possible shear failure of the pipe, two flexible joints shall be positioned on each side of the structure. These shall be positioned 0,3 m and 0,8 m respectively from the nearside faces of the structures.</p> <p>Concrete Encasement of Pipes: The lower part of the encasement shall be constructed as for a class A bedding. Once the line has been tested and approved, the encasement of the pipes shall be completed, care being taken to ensure that the expansion joints in the upper part of the encasement coincide with that in the lower part. No backfilling over the concrete shall be commenced until the concrete has achieved a compressive strength of 15 MPa.</p> <p>Pay Trench Width: For payment purposes only, where measurement is specified by volume and a pipe is to be laid, the pay trench width shall be as indicated in the table below which is based on the excavation having vertical sides. Wherever the pay width is used to compute the measurement of volume in the following measurement and payment items provision shall be allowed in the rates for additional excavation necessary to either shore or batter back, the trench sides, if open battered trench excavations is permitted.</p> <table border="1" data-bbox="459 1055 1243 1357"> <thead> <tr> <th colspan="2">Nominal Diameter (mm)</th> <th>Trench Width (mm)</th> </tr> <tr> <th>over</th> <th>upto</th> <th></th> </tr> </thead> <tbody> <tr> <td>0</td> <td>100</td> <td>700</td> </tr> <tr> <td>100</td> <td>700</td> <td>nominal internal diameter plus 600</td> </tr> <tr> <td>700</td> <td>1000</td> <td>" plus 800</td> </tr> <tr> <td>1000</td> <td>2000</td> <td>" plus 1 000</td> </tr> <tr> <td>2000</td> <td>-</td> <td>" plus 1 200</td> </tr> </tbody> </table> <p>Pipe laying shall also include: compaction of bedding, the laying, including curved alignment where specified, building pipes into manholes, catchpits and through rigid structures, all cutting and wastage of materials.</p>	Nominal Diameter (mm)		Trench Width (mm)	over	upto		0	100	700	100	700	nominal internal diameter plus 600	700	1000	" plus 800	1000	2000	" plus 1 000	2000	-	" plus 1 200
Nominal Diameter (mm)		Trench Width (mm)																				
over	upto																					
0	100	700																				
100	700	nominal internal diameter plus 600																				
700	1000	" plus 800																				
1000	2000	" plus 1 000																				
2000	-	" plus 1 200																				
<p>PS C 3.2.15.2</p>	<p>Manholes</p>																					
	<p>The tendered rate for these items shall be the number of complete manholes or inlet units (as shown on the drawings, including all concrete, blinding brickwork, covers, frames, grids and other accessories) that fall within the designated depth ranges listed. Standard drawings refer to drawing nos. EMAL-2024-RDS-016-T-00</p> <p>The tendered rates shall include full compensation for the supply and installation of any precast elements as required to complete the manholes and catchpits, supplying, testing, loading, transporting and off-loading of all items, providing and placing, and installing, laying and jointing the prefabricated elements as specified, including cutting on the site, and waste. Where precast elements are installed on cast in situ concrete floors or walls or on brickwork walls, no additional payment shall be made for any additional costs arising from the change between cast in situ and precast work. No additional payments shall be made for working in depts greater than 1.0m (payment item C3.2. 15.4 shall not apply). The rate shall further cover the cast-in-situ concrete, including the channel with serrations, mixing, laying, float finishing, setting out, all supervision, plant,</p>																					

	<p>labour, equipment, materials, protection and incidentals necessary to complete the work as specified.</p> <p>Unit of Measure: Number (No.) Refer to COTO A3.2.</p>
	<p>Inlets</p>
	<p>The tendered rate for these items shall be the number of complete manholes or inlet units (as shown on the drawings, including all concrete, blinding, brickwork, covers, frames, grids and other accessories) that fall within the designated depth ranges listed.</p> <p>Standard drawings refer to drawing No: EMAL-2024-RDS-016-T-00</p> <p>The tendered rates shall include full compensation for the supply and installation of any precast elements as required to complete the manholes and catchpits, supplying, testing, loading, transporting and off-loading of all items, providing and placing, and installing, laying and jointing the prefabricated elements as specified, including cutting on the site, and waste. Where precast elements are installed on cast in situ concrete floors or walls or on brickwork walls, no additional payment shall be made for any additional costs arising from the change between cast in situ and precast work. No additional payments shall be made for working in depts greater than 1.0m (payment item C3.2.15.4 shall not apply).The rate shall further cover the cast-in-situ concrete, including the channel with serrations, mixing, laying, float finishing, setting out, all supervision, plant, labour, equipment, materials, protection and incidentals necessary to complete the work as specified.</p> <p>Unit of Measure: Number (No.) Refer to COTO A3.2.</p>
PS C3.2.9	<p>Headwalls</p>
	<p>The tendered rate for these items shall be the number of complete headwalls (as shown on the drawings, including all concrete, brickwork, and other accessories).</p> <p>Standard drawings refer to drawing no. EMAL-2024-RDS-018-T-00</p> <p>The tendered rates shall include full compensation for the supply and installation of any precast elements as required to complete the headwalls, supplying, testing, loading, transporting and off-loading of all items, providing and placing, and installing, laying and jointing the prefabricated elements as specified, including cutting on the site, and waste. Where precast elements are installed on cast in situ concrete floors or walls or on brickwork walls, no additional payment shall be made for any additional costs arising from the change between cast in situ and precast work. The rate shall further cover the cast-in-situ concrete, energy dissipation blocks, mixing, laying, float finishing, setting out, all supervision, plant, labour, equipment, materials, protection and incidentals necessary to complete the work as specified.</p> <p>All headwalls shall be cast in-situ unless otherwise stated. The use of prefabricated Units may be used subject to approved by the Engineer prior to use. Prefabricated units, drawings, specs and installation methodology shall be issued to the engineer minimum of 3 weeks prior to its programmed construction.</p> <p>Unit of Measure: Number (No.) Refer to COTO A3.2, A.2.7.11</p>
PS 3.2.28	<p>Removal of brickwork from manholes/inlets:</p>
	<p>The unit of measurement is cubic metre (m³) net in place before demolition. The rate shall cover the complete demolition of the structure and associated works and disposal of the material to an approved tip. Backfilling of any resulting cavities shall be</p>

	paid for separately.
PS C3.2.30	Raising or lowering of Existing Manholes and inlets:
	<p>The unit of measurement shall be number (No.) measured in increments of 0,25 m in paved or unpaved areas.</p> <p>The tendered rate shall include for the removal of the existing adapter slab, cover and frame, storing on site for re-use, demolition of the manhole as necessary, provision of labour and materials for rebuilding the manhole to the designated new level and setting and cover and frame to the correct level. Extra Over items for the various types of cover and frame will be scheduled if new covers and frames are to be provided. The Extra Over rate should include for the supply of the new covers and frames and the removal from site of the old ones.</p>
PS C3.3.2.1	Precast Concrete Kerbing and Cast In-situ Channeling
	<p>The grade of concrete for all cast in-situ work shall be grade 20/13</p> <p>The sealer shall conform to B.S.4254 of 1967 - Two part polysulphide based sealants for the building industry, as amended.</p> <p>All kerbs shall be precast, supplied in 1 m lengths and shall conform to the requirements of S.A.B.S. 927 of 1969 - Precast concrete kerbs and channels as published in General Notice 463 dated 9 July 1982.</p> <p>If the curve radius is less than 25 m, but greater than 2 m, the maximum permissible length of kerb shall be 300 mm. Where the kerb radius is less than 2 m the kerb and channel shall be cast-in-situ.</p> <p>It is essential that moulds are manufactured and braced from a material which will not warp or distort after repeated use.</p> <p>Kerbs and in-situ channels shall be laid on a concrete foundation true to line and level to the dimensions shown on the contract drawings. The correct grade and line shall be maintained by use of an approved cord or line. The Contractor shall place sufficient pegs to ensure that the kerbs are laid on a true curve and NOT in a series of chords. Levels shall be adhered to strictly, particularly when graded channels are required between inlets. Kerbs shall be laid with a 13 mm gap and this joint shall be filled with cement mortar and the outside face of the joint shall be struck with a semi-circular jointer.</p> <p>In addition, suitable expansion joints 13 mm in width shall be provided at $\pm 18,0$ m centres through kerb, channel and supporting concrete. This joint shall consist of a compressible material and polysulphide filler which shall match the colour of the concrete.</p> <p>Unless otherwise stated in the drawing, the interface between the channel/fillet and the road asphalt is the sett position, as such the kerbs and channels/fillets shall be constructed relative to the sett position and true to level. The precast items and cast-in-situ channels/fillets shall be protected from damage from the remaining road construction operations.</p> <p>For COTO item C3.3.2.1, the Kerb only shall be prefabricated, and all other components shall be cast in-situ (channels, backing, base etc.)</p> <p>The unit of measurement shall be the metre (m) and the rate shall cover the supply of all precast items, including transporting, loading, laying and jointing (including all expansion joints and sealer), cast-in-situ concrete foundation, including mixing, laying, float finishing, setting out of kerb and channel, all supervision, plant, testing, labour, equipment, materials, protection and incidentals necessary to complete the work as specified.</p> <p>Unit of Measure: Meter (m)</p>

	Standard drawings refer to drawing No EMAL-2024-RDS-019-T-00
PS C4.2	Earthworks
	<p>Tenderers are to note that all topsoil from site is to be excavated to stockpile for later use.</p> <p>Cut material should ideally be moved directly to fill unless there are circumstance that prevent the contractor from doing so. Moving of material from cut to stockpile shall only be done with the approval of the Engineer. The exact location shall be pointed out by the Engineer. The unit of measurement shall be cubic meter (m³) and shall include for labour, plant, and material.</p> <p>The nature of the roadworks is such that a fair amount of the excavation shall be in concrete / asphalt / intermediate / hard and soft materials. Quantities for any concrete / asphalt requiring breaking up with the use of excavators / breakers shall be measured prior to excavation and agreed upon by the Engineer.</p> <p><u>No</u> additional payment shall be made for restricted excavation and the Tenderer shall therefore make due allowance in the rates for any additional work or hand excavation.</p>
	Excavation of Road Layers:
	<p>Existing road layerworks, excluding the asphalt, shall be excavated as restricted excavation ensuring no contaminating between layers and either:</p> <ul style="list-style-type: none"> (a) storing on site for re-use, or; (b) +transporting and off-loading to a point as designed by the Employer or (c) spoiling at an approved tip site. <p>The Contractor's rate for the removal of the layerworks, excluding the asphalt, shall include for the full operation, inclusive of haulage, and is to include for the restricted operation as well.</p>
	Excavation of Asphalt and Concrete in Road
	<p>The unit of measure is cubic meters (m³).</p> <p>The rate shall cover labour and plant necessary for removal of abandoned roadways, sidewalk / median, concrete sidewalks, scoops, pedestrian and vehicular, interlocking blocks, asphalt paving and brick paving.</p>
PS C4.4.4.1	Cementitious Stabilising Agents:
	<p>The cement used shall conform to SABS ENV 197-1 and shall be classified as either CEM II/A-S 42.5 or CEM III/A 32.5 respectively</p> <p>Prior to the commencement of paving of the layer the Contractor shall construct a section of trial layer to demonstrate his capability of constructing the layer in accordance with the specifications. The trial layer shall be constructed with the same materials, mix proportions and equipment as the Contractor intends using for the main layer.</p> <p>A trial section of not less than 50 m² shall be submitted for approval. The Engineer shall also have the right to call for a new trial section at any stage of the contract when, in his opinion, changes by the Contractor in the approved equipment, materials, mix or plant warrant such a procedure.</p> <p>The Contractor may, unless advised of any deficiencies in the trial layer, proceed with the main layer from a time ten days after the completion of the trial section or such earlier time as the Engineer may allow. In the event of deficiencies in the trial layer, the Engineer may order the Contractor to construct further trial sections until a satisfactory section is achieved. The Contractor may then proceed with the main layer from a time ten days after the successful completion of the satisfactory trial section.</p>

	An item has been provided in the BOQ for the trial layer section.
PS C 5.1.1.2	Roadbed Construction
	<p>Any particle size greater than 100 mm within this layer shall be removed and replaced with suitable material. The whole of the roadbed, except where stabilised shall then be proof-rolled with a vehicle having a minimum wheel load of 20 kN in order to determine any soft spots.</p> <p>The Contractor is responsible for protecting the formation at all times. No construction traffic that is likely to cause damage shall be allowed on the formation. Preparation of the formation shall only be carried out after all services and ducts have been laid. Soft spots shall be removed and replaced with suitable material and compacted in accordance with the specification.</p>
PS C9.1	Asphalt Layers:
	<i>Smoothness Applicable to Wearing Course</i>
	<p>The smoothness of the pavement will be determined by using a profilograph and the surface finish shall be tested in accordance with the following specification.</p> <p>The profile index will be determined using a California type profilograph furnished and operated by the Engineer in the presence of the Contractor. The profilograph shall be moved longitudinally along the pavement at a speed no greater than 5 kph and shall record the surface profile at full scale vertically. The results of the profilograph test will be evaluated as described in the metricated version of Test No. Calif. 526-D.</p> <p>The Contractor shall furnish paving equipment and employ methods that produce a riding surface having a profile index of 300 mm per kilometer or less for category "A" Roads and 500 mm per kilometer or less for Category "B" Roads. The profile measurements will start 10 m and will terminate 20 m from each bridge approach pavement or existing pavement that is joined by the new pavement in the direction of placement.</p> <p>Two pavement profiles will be taken of each day's production and the Profile Index shall be defined as the average of the two profiles. The position the profiles are taken will be either on the centre line of each planned traffic lane, if two traffic lanes are paved, or in the wheel paths of the traffic lane (i.e. 1 m from each edge) if only one traffic lane is included in the paved width.</p> <p>A daily average profile index shall be determined for each day's paving and a profile index of each day's production shall be established as soon as possible. A day's paving is defined as a minimum of 0,1 km of pavement placed in a day. If less than 0,1 km is paved, the day's production will be grouped with the next day's production.</p> <p>Rectification:</p> <p>The full depth of the layer shall be removed and replaced with fresh material laid and compacted to specification.</p> <p>Where the surface level is too high or too low the area rectified shall be not less than one lane wide and at least 15 m long for wearing course.</p> <p>Where the number of surface irregularities exceeds the specified limits the area to be rectified shall be 100 m long and not less than one lane wide.</p>
	Construction:
	In the areas to be patched the in-situ asphalt surfacing shall be removed to a depth of 100 mm. The sides shall be cut vertically with the edges square. The

	<p>exposed surface shall be swept of all loose material, a tack coat applied to the bottom and sides and then patched with asphalt base course. After compaction the surface of the patch shall be flush with the adjacent road surface</p>																
	<p>Laying of Asphalt:</p> <p>The Contractor shall provide the Engineer with the name of the asphalt Sub-Contractor before asphalt is laid.</p> <p>The asphalt shall be laid by an approved paving machine. Hand-laying shall be permitted at the Engineer's discretion when the area involved is small. The asphalt shall not be laid if its temperature is below 140 °C.</p> <p>The asphalt shall be rolled in accordance with the method described in chapter VI of the Asphalt Institute Paving Manual (MS-8). A final density is required of at least 96% of the Marshall density of the mix.</p> <p>An acceptance certificate for this layer will be issued by the Engineer's inspector when all requirements have been met.</p> <p>The rate tendered shall include for all extra work required to lay and compact the asphalt base and make-up courses in restricted areas.</p> <p>SIDEWALKS:</p> <p>The rates tendered for paving on sidewalks is to include the approved weedkiller "Outpace 100 GR." The use of the weedkiller will be closely monitored on site, applied on formation and after the placing of the paving.</p>																
	<p>Tenderers are to further take note of the Technical Specification for Asphalt Contained at the end of this section</p>																
PS C11.7.1	Road Markings																
	<p>The plastic road marking material shall also comply with the requirements of Specification BS.3262, 1987 Part 3.</p> <p>a) The material shall consist of a light-coloured aggregate, pigment and extender, bound together with a thermoplastic resin, plasticised as necessary.</p> <p>The approximate composition of the material as laid is dependent on the appropriate specification, but for example shall be:</p> <table style="margin-left: 40px;"> <tr> <td>Aggregate</td> <td>40 parts</td> </tr> <tr> <td>Solid Glass Beads</td> <td>20 parts</td> </tr> <tr> <td>Pigment and Extender</td> <td>20 parts</td> </tr> <tr> <td>Binder</td> <td>20 parts</td> </tr> </table> <p>The proportioning of the various ingredients shall be such that the material, when in a molten state, can be sprayed readily onto the road surface to give an even line of good definition.</p> <p>b) Aggregate: The aggregate shall consist of white silica sand, crushed calcite calcined flint, quartz, or other approved aggregate.</p> <p>c) Reflectorisation: The solid glass beads incorporated in the mixture shall comply with the Class A category of BS 6088 (1981) that is:</p> <table style="margin-left: 40px;"> <tr> <td>Sieve</td> <td>% Retained</td> </tr> <tr> <td>0,18 mm</td> <td>0 - 3</td> </tr> <tr> <td>0,850 mm</td> <td>5 - 20</td> </tr> <tr> <td>0,425 mm</td> <td>65 - 95</td> </tr> </table>	Aggregate	40 parts	Solid Glass Beads	20 parts	Pigment and Extender	20 parts	Binder	20 parts	Sieve	% Retained	0,18 mm	0 - 3	0,850 mm	5 - 20	0,425 mm	65 - 95
Aggregate	40 parts																
Solid Glass Beads	20 parts																
Pigment and Extender	20 parts																
Binder	20 parts																
Sieve	% Retained																
0,18 mm	0 - 3																
0,850 mm	5 - 20																
0,425 mm	65 - 95																

	<p style="text-align: center;">Below 0,425 mm 0 - 10</p> <p style="text-align: center;">Minimum of spherical beads by number 70%</p> <p>d) Luminance: The luminance factor of white SPRAYPLASTIC shall be not less than 70</p> <p>e) Flow resistance: The percentage decrease in the height of the cone of SPRAYPLASTIC shall not be more than 25 after testing for 48 hours at 23 C (temperate grade) or 40 C (semi-tropical or tropical grades).</p> <p>f) Low Temperature Impact Resistance: SPRAYPLASTIC shall pass the impact test when tested at -10 C (temperate grade) or -1 C (semi-tropical or tropical grades).</p> <p>g) Abrasion resistance: The abrasive wear of SPRAYPLASTIC shall typically be less than 0,5 g per 100 revolutions.</p> <p>Items have been included in the Bill of Quantities for the provision of temporary road marking using P.V.A. paint.</p>
PS C11.7.2	Road Studs
	<p>The <u>Temporary Road Studs</u> will be used for all temporary works, i.e. deviations / detours. The unit of measurement shall be number (No.). The rate shall include for the supply, installation and removal of the markers. They shall be amber and red in colour.</p> <p>The <u>Permanent Road Studs</u> will be used in the permanent works. The unit of measurement shall be number (No.). The rate shall include for the supply and installation of the studs. They shall be white, yellow and red in colour.</p>
PS C12.3.20	Dumprock:
	<p>The dumprock shall consist of fresh to slightly weathered upgraded waste rock from mining activities, blasting or rock excavation. Shales, slates or other laminated mudrocks shall not be accepted.</p> <p>Dumprock shall have a minimum size not more than two-thirds of the compacted thickness of the layer. The rock shall otherwise be upgraded but shall contain less than 10% passing the 37,5 mm sieve when spread on site. Dumprock shall have a minimum 10% FACT value of 100 kN when dry and 40 kN when tested drained after 24 hours soaking.</p> <p>Dumprock shall be spread and levelled such that when compacted it is at the specified thickness and levels. When the correct road profile has been attained the dumprock layer shall be rolled 5 passes of a 10/12 ton static three wheel steel roller or equivalent vibrating roller. Dry, fine material (13,2 mm down) with a Plastic Index of between 0 and 7 shall then be applied in a blanket over the full width of the layer. With hand labour following the roller, the fine material shall be rolled and broomed into the voids of the stone. This procedure shall be repeated until the stone layer will accept no further fines.</p> <p>Compaction of the layer shall continue until movement of the material under the compactor becomes negligible or for a maximum of 10 passes of the roller whichever occurs first.</p> <p>The completed dumprock layer shall be measured in cubic metre (m³). The rate shall cover the supply, loading, transporting, dumping, spreading of all materials and all processing of the layer and proof rolling, all as detailed.</p>

	Geofabrics:																																																																																																																							
	<p>The synthetic fibres of a geotextile blanket shall consist of at least 100% by mass of polypropylene, polyethylene or a polyester polymer and shall contain such additives as are necessary to render the filaments resistant to the effects of ultra- violet radiation in accordance with the following requirement: The geotextile shall retain 80% of its specified strength after an effective exposure period of 1500 hours to direct sunlight.</p> <p>The grade of geotextile shall conform to Table 1 of SABS 0221-1988:</p> <p style="text-align: center;">TABLE 1 - GRADES OF GEOTEXTILES</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> <th>11</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Property</td> <td colspan="10" style="text-align: center;">Grades</td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> <td>9</td> <td>10</td> </tr> <tr> <td rowspan="2">Thickness, mm</td> <td colspan="10" style="text-align: center;">Minimum value</td> </tr> <tr> <td colspan="10" style="text-align: center;">as specified by manufacturer</td> </tr> <tr> <td>Mass per unit area, g/m²</td> <td>100</td> <td>100</td> <td>140</td> <td>140</td> <td>200</td> <td>200</td> <td>240</td> <td>240</td> <td>300</td> <td>300</td> </tr> <tr> <td>Penetration load, kN</td> <td>1,0</td> <td>1,0</td> <td>1,5</td> <td>1,5</td> <td>2,5</td> <td>2,5</td> <td>3,0</td> <td>3,0</td> <td>4,0</td> <td>5,0</td> </tr> <tr> <td>Tensile strength, kN/m</td> <td>6</td> <td>6</td> <td>10</td> <td>10</td> <td>13</td> <td>13</td> <td>18</td> <td>18</td> <td>25</td> <td>30</td> </tr> <tr> <td>Permeability, 1/s.m²</td> <td></td> </tr> <tr> <td>High flow</td> <td>200</td> <td>-</td> <td>170</td> <td>-</td> <td>130</td> <td>-</td> <td>80</td> <td>-</td> <td>40</td> <td>-</td> </tr> <tr> <td>Low flow</td> <td>-</td> <td>25</td> <td>-</td> <td>20</td> <td>-</td> <td>15</td> <td>-</td> <td>10</td> <td>-</td> <td>5</td> </tr> </tbody> </table>	1	2	3	4	5	6	7	8	9	10	11	Property	Grades										1	2	3	4	5	6	7	8	9	10	Thickness, mm	Minimum value										as specified by manufacturer										Mass per unit area, g/m ²	100	100	140	140	200	200	240	240	300	300	Penetration load, kN	1,0	1,0	1,5	1,5	2,5	2,5	3,0	3,0	4,0	5,0	Tensile strength, kN/m	6	6	10	10	13	13	18	18	25	30	Permeability, 1/s.m ²											High flow	200	-	170	-	130	-	80	-	40	-	Low flow	-	25	-	20	-	15	-	10	-	5
1	2	3	4	5	6	7	8	9	10	11																																																																																																														
Property	Grades																																																																																																																							
	1	2	3	4	5	6	7	8	9	10																																																																																																														
Thickness, mm	Minimum value																																																																																																																							
	as specified by manufacturer																																																																																																																							
Mass per unit area, g/m ²	100	100	140	140	200	200	240	240	300	300																																																																																																														
Penetration load, kN	1,0	1,0	1,5	1,5	2,5	2,5	3,0	3,0	4,0	5,0																																																																																																														
Tensile strength, kN/m	6	6	10	10	13	13	18	18	25	30																																																																																																														
Permeability, 1/s.m ²																																																																																																																								
High flow	200	-	170	-	130	-	80	-	40	-																																																																																																														
Low flow	-	25	-	20	-	15	-	10	-	5																																																																																																														
PS C12.11	Geosynthetics																																																																																																																							
	<p>The Engineer's approval of the make and grade of the geosynthetic shall be obtained by the Contractor before any geosynthetic is ordered or used on the works.</p> <p>The instruction from the Employer's Agent to use a certain geosynthetic shall require the Contractor to supply and install that geosynthetic or an approved equivalent by the Employer's Agent.</p> <p>The unit of measurement shall be the square metre (m²). The rate shall include for the supply of the material, laying, joining, cutting and waste. Refer to COTO A12.11 for all geosynthetics</p> <p>Goetextile: The synthetic fibres of a geotextile blanket shall consist of at least 100% by mass of polypropylene, polyethylene or a polyester polymer and shall contain such additives as are necessary to render the filaments resistant to the effects of ultraviolet radiation in accordance with the following requirement : The geotextile shall retain 80% of its specified strength after an effective exposure period of 1500 hours to direct sunlight.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th colspan="10" style="text-align: center;">GRADES</th> </tr> <tr> <th></th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> </tr> </thead> <tbody> <tr> <td></td> <td colspan="10" style="text-align: center;">MINIMUM VALUE</td> </tr> <tr> <td>Thickness, mm</td> <td colspan="10" style="text-align: center;">As specified by manufacturer</td> </tr> <tr> <td>Mass per unit area g/m²</td> <td>10</td> <td>10</td> <td>14</td> <td>14</td> <td>20</td> <td>20</td> <td>24</td> <td>24</td> <td>30</td> <td>30</td> </tr> <tr> <td>Penetration load, kN</td> <td>1</td> <td>1</td> <td>1.5</td> <td>1.5</td> <td>2.5</td> <td>2.5</td> <td>3</td> <td>3</td> <td>4</td> <td>5</td> </tr> </tbody> </table>		GRADES											1	2	3	4	5	6	7	8	9	10		MINIMUM VALUE										Thickness, mm	As specified by manufacturer										Mass per unit area g/m ²	10	10	14	14	20	20	24	24	30	30	Penetration load, kN	1	1	1.5	1.5	2.5	2.5	3	3	4	5																																																					
	GRADES																																																																																																																							
	1	2	3	4	5	6	7	8	9	10																																																																																																														
	MINIMUM VALUE																																																																																																																							
Thickness, mm	As specified by manufacturer																																																																																																																							
Mass per unit area g/m ²	10	10	14	14	20	20	24	24	30	30																																																																																																														
Penetration load, kN	1	1	1.5	1.5	2.5	2.5	3	3	4	5																																																																																																														

C3.6: PROJECT SPECIFICATIONS

	Tensile Strength kN/m	6	6	10	10	13	13	18	18	25	30	
	Permeability 1/s.m2	High flow	20		17		13		80		40	
		Low Flow		25		20		15		10		5
PS C12.11.1	Geosynthetics: Embankment protection											
	The unit of measurement shall be the square metre (m ²). The rate shall include for the supply of the material, laying, joining, cutting and waste.											

C3.5 MANAGEMENT

C3.5.1 **MANAGEMENT OF THE WORKS**

C3.5.1.1 **Applicable COLTO Standards**

The COTO Standard Specifications for Road and Bridge Works for State Road Authorities (2020 Edition) Standardized Specifications listed in C3.4.1.1 are applicable.

C3.5.1.2 **Particular/Generic Specifications**

Not applicable.

C3.5.1.3 **Methods and Procedures**

(a) Maintenance of access and streets

The operation of construction vehicles on existing roads or streets, or streets that have been completed to the level of subbase, base or surfaced treatment, shall be limited to the traffic with an axle load not exceeding that allowed by the Road Traffic Ordinance of the authority concerned, or any amendment thereof. Hauling is strictly forbidden on sections of road or streets that have been completed as described above. The Contractor shall make use of a temporary haul road, or where not practically possible, program his work in such a manner that the haulage materials shall be restricted to that required for the particular section of street. No additional payment shall be made for the use of temporary haul roads and all relevant costs shall be deemed covered by the appropriate rates.

No additional payment will be made for the construction of temporary access roads to the construction site, borrow areas or the spoil sites, except for payment made under payment item 15.01 in the Bill of Quantities.

Should the Contractor make use of existing roads or streets for haulage, he shall be held responsible to clear the road or street of any spillage caused by his activities within one (1) day after such spillage occurred. No additional payment will be made for the cleaning of the spillage.

(b) Blasting operation

All blasting shall be carried out by a competent, registered blaster. The blaster shall furnish to the Engineer copies of all the permits required to purchase, transport, use and dispose of unused blasting material. The Contractor shall inform the commander of the local SAPS at least 1 day prior to the date and time blasting is about to take place.

No blasting operations shall take place on weekends or holidays or weekdays after 17h00.

The Contractor shall ensure that sufficient suitable material, to the satisfaction of the blaster, is available and in place before the blast is initiated.

(c) Normal working hours

Normal working hours shall be from 07h00 until 17h00 on weekdays from Monday to Friday. It shall be from 07h00 until 13h00 on Saturdays.

Work on other days will only be allowed after written approval has been granted by the Engineer.

(d) Interference with municipal staff and operations

The Contractor shall ensure that none of his staff interfere in any way with any municipal staff member or their functions.

Any person ignoring this shall be removed permanently from site, all at the expense of the Contractor.

(e) Access for other contractors

The Contractor shall provide reasonable access to other Contractors carrying out work on the site from time to time, as and when such access is required. The Contractor is entitled to request reasonable notification of at least 24 hours before access by others is required.

The contractual responsibilities of the Contractor shall remain in full force in spite of the other Contractors having access to the site.

(f) Giving notice of work to be covered up

The Contractor shall give the Engineer at least 24 hours' notice prior to a request for examination of materials or work to be covered up. This request must be made in the request book on site.

Should such a request be made and upon inspection the Engineer found that the works or materials are not yet ready for inspection, the Contractor shall reimburse the Engineer within 30 days of invoice for all expenses incurred as a result.

(g) Sequence of the works

The Contractor shall execute the Works in accordance with the approved programme.

C3.5.1.4 Quality plans and control (Testing)

Refer to Section C3.4.2.5(b).

C3.5.1.5 Environmental Management Plan (EMP)

a) Demarcation of the site

.. For the purpose of the EMP, the site shall be demarcated into two distinct areas, viz.;

- (i) The construction camp comprising all buildings, hostels, offices, lay down yards, vehicle wash areas, fuel and material storage area, batching areas and other infrastructure that is required for the running of the job.
- (ii) The working area in which construction activities are permitted to take place. No infrastructure, permanent lay down or storage areas shall be established in this working area unless specified in the project specification or prior approval is obtained from the Engineer.

(b) Construction camp

The Contractor shall provide the Engineer with a plan showing the positions of all buildings, yards, vehicle wash areas, batching areas and other infrastructure for approval by the Engineer at least ten (10) days prior to the commencement date.

(c) Fencing of site

If a temporary fence is required, the Contractor shall erect and maintain such a fence (demarcating the boundary of the working area, construction camp and access roads) to the satisfaction of the Engineer.

This fence shall be erected before the commencement of any other work on site. The fence shall be removed after completion of the project and the site reinstated to its original state.

(d) Workshops

All workshops shall be located inside the demarcated construction camp area as approved by the Engineer

prior to establishment. The workshop shall have a smooth impermeable concrete floor sloped to one side where oil is trapped in an oil trap or sump to contain any spillages of substances such as oil.

Waste material shall be disposed of in accordance with the national, regional and local by-laws regulations and by-laws. The waste shall be regularly removed and disposed of at an approved site.

(e) Eating areas

The Contractor's employees shall eat in a designated eating area indicated on the drawing approved by the Engineer. The Contractor shall provide adequate shade and provide scavenger proof and waterproof refuse bins. Cooking will only take place in this area on well-maintained gas cookers with fire extinguishers present. Open fires other than the gas cookers shall not be allowed.

(f) Watchmen

The Contractor shall have a watchman present on site during non-working hours and on holidays to ensure the safety of plant and materials on site.

(g) Ablution facilities

The exact location of toilets shall be approved by the Engineer. The Contractor shall provide the toilets and maintain and service it on a daily basis. The toilets shall be kept clean. Regular inspections shall be conducted by the Engineer. Burial of waste on site is strictly forbidden. Leaking or broken toilets shall be removed and replaced immediately by the Contractor.

(h) Solid waste

"Solid waste" refers to construction debris, chemical waste, tins, cans, paper, wrappers, excess concrete, waste timber, etc.

The Contractor shall establish a waste control and removal system. He shall submit a method statement to the Engineer for approval prior to commencement.

Appropriate solid waste containers shall be provided for the storage of waste. The containers shall be water proof. The waste shall be removed on a regular basis to prevent the accumulation of waste on site and disposed of at an approved waste site.

(i) Wastewater

Water shall be used sparingly on site. Where possible, wastewater shall be recycled. A wastewater management plan shall be submitted to the Engineer for approval 10 days prior to the commencement date.

The management plan shall detail the expected extent of the contamination of each wastewater stream and how the Contractor plans to deal with it.

Wastewater shall be prevented from flowing into the Olifants River.

(j) Fuel storage area

Fuel shall be stored on site in a depot at a location as agreed with the Engineer. The Contractor shall ensure that liquid fuels are stored in tanks with lids. The tanks shall be placed on a sloped smooth concrete surface with an oil trap on the lower end to collect any spillage.

Fuel shall be kept under lock at all times.

(k) Concrete batching area

Cement and concrete is hazardous to the environment due to the high pH of the material and the chemicals it contains.

The Contractor shall furnish to the Engineer for approval a method statement for the mixing of concrete. Concrete shall not be mixed directly on the ground. Care must be taken to ensure that wastewater and contaminated material is collected and disposed of correctly

(l) Equipment maintenance and storage

All equipment and vehicles shall be kept in good working order and serviced regularly. Leaking equipment shall be repaired immediately or removed from site. Where possible, maintenance and service shall take place only in the workshop. Permission must be obtained from the Engineer if the aforementioned cannot be adhered to.

The Contractor shall demarcate an area in which the equipment and vehicles may be stored. The location shall be approved by the Engineer.

(m) Materials handling, use and storage

The Contractor is responsible to ensure that all material suppliers are aware of the EMP's restrictions and conditions. The Contractor shall be held responsible should deliveries not comply with the EMP requirements.

The Contractor shall comply with all relevant national, regional and local legislation with regard to the transport, use and disposal of hazardous material.

The Contractor shall furnish to the Engineer a list of all hazardous materials to be used on site, together with the handling, storage and disposal procedures of the materials. This information shall be available to all personnel on site.

The location of the hazardous material store shall be within the demarcated construction camp area. The location shall be approved by the Engineer.

Where possible, the Contractor shall ensure that the refueling of vehicles takes place only at the fuel storage area in the construction camp. If this is not possible, the Contractor shall obtain permission from the Engineer to refuel at any other place. Contaminated material and water at the refueling area shall be contained and disposed of correctly.

(n) Emergency procedures

The Contractor shall ensure that emergency procedures for the following situations are submitted for approval to the Engineer;

Fire – the Contractor shall inform the relevant authority immediately as soon as a fire starts. The Contractor shall ensure that his staff and subcontractors are fully aware of the procedures to be followed in the event of a fire.

Spillages – the Contractor shall ensure that his staff and subcontractors are fully aware of the procedures to be followed in the event of a spillage. The Engineer must be informed immediately about a spill. The Contractor shall ensure that the necessary materials and equipment is on site to deal with spills and leaks. The cleanup of spills and leaks shall be for the account of the Contractor.

(o) Care of surrounding areas

The Contractor shall ensure that no contamination of or damage to the surrounding areas or watercourses shall occur as a result of any of his activities during construction.

C3.5.1.6 Planning and programming

The programme to be furnished by the Contractor to the Engineer for approval shall be in the form of a Gantt chart. The critical path shall be indicated in red.

C3.5.1.7 Other Contractors on site

No other water treatment contractors will be on site during the implementation of the project.

C3.5.1.8 Recording of weather

The Contractor shall record the weather conditions on a daily basis in the site diary. Rainfall figures and strong wind which could delay the Works shall be noted and recorded.

C3.5.1.9 Format of communications

All communication regarding the Contract shall be channelled through the Engineer or his representative.

C3.5.1.10 Planning and programming

Management meeting shall be held monthly on site for the duration of the project on dates to be agreed upon.

C3.5.1.11 Daily records

Daily records of plant, personnel, materials, etc., shall be kept daily by the Contractor and noted in the site diary to be supplied by the Contractor.

C3.5.1.12 Inspection by Engineer

No stage of construction shall be proceeded with until the Engineer or his representative has examined and approved the previous stage. If any work is covered or hidden from view before the Engineer has inspected same, the Contractor shall at his own cost open the covered work for inspection. The Contractor shall also be responsible for making good any work damaged by such uncovering.

C3.5.1.13 Employment of local labour

It is a specific criterion of this project that should as far as possible adhere to RDP principles, and to meet these principles the following procedures will be followed:

All labour is to be sourced from the Emalahleni Local Municipal area of jurisdiction and the Contractor may only bring in key personnel from outside this area.

The Contractor's attention is drawn to the standard rates specification (*Civil Engineering Industry Minimum Wage rates per hour; as per Government Notice R1202, 16 October 2015.*) found on the SAFSEC website at www.safcec.org.za. These standard rates should be implemented for payment of all employees of the Contractor. The local labour rate **R48,21 per Hour**. This is subject to change in September 2025.

Key personnel would typically include the Contracts Manager, Site Agent, and Supervisor for each discipline and operators of plant where the operator must be seated.

A Monthly labour report on all local labour i.e. payments and labour days should be submitted to the Engineer at the end of each month in order for the Engineer to submit a report to the Employer.

None of the Works shall be executed except between sunrise and sunset on Monday to Saturday, inclusive, of any week, and none of the Works shall be executed on any special non-working days stated in the Contract Data, unless:

- The Engineer's permission in writing is obtained, subject to such conditions as may be laid down by the Engineer; or
- Provision is specifically made for it in the Contract; or
- Work is unavoidable or necessary for the saving of life or property or for the safety of the Works.

C3.5.1.14 Site Meetings

Regular meetings will be held between all relevant parties to establish the progress and / or delays and problems that might occur on site. Any problems of delays will be address accordingly and the Contractor will receive proper instructions with reference to this matter.

C3.6 HEALTH AND SAFETY

C3.6.1 HEALTH AND SAFETY REQUIREMENTS AND PROCEDURES

Before starting work on site, the Contractor shall present to the Engineer his Health and Safety Plan which includes the COVID-19 plan for approval. He shall also appoint a health and Safety Officer in writing and give a copy of the letter of appointment to the Engineer.

The Health and Safety Specification is attached as Appendix B and must be referred to when compiling the Health and Safety Plan.

(a) Construction Regulations, 2003

The Contractor shall be required to comply with the Occupational Health and Safety Act, 1993: Construction Regulations, 2003 (the regulations) as promulgated in Government Gazette No 25207 and Regulation Gazette No 7721 of 18 July 2003 Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

The proposed type of work, materials to be used and potential hazards likely to be encountered on this Contract are detailed in the Project Specifications, Schedule of Quantity and Drawings, as well as in the Employers' Health and Safety Specifications (regulation 4(1)) of the Construction Regulations 2003.

The Contractor shall in terms of regulation 5(1) provide a comprehensive health and safety plan detailing his proposed compliance with the regulations, for approval by the Employer.

The Contractor shall at all times be responsible for full compliance with the approved plan as well as the Construction Regulations and no extension of time will be considered for delays due to non-compliance with the abovementioned plan or regulations.

Payment items are included in the Schedule of Quantities to cover the Contractor's cost for compliance with the OHS Act and the abovementioned regulations.

C3.6.2 PROTECTION OF THE PUBLIC

The site is accessible to the general public. The Contractor shall ensure that all personnel entering the construction site is fully informed about the dangers, dos and don'ts on the site. The Contractor shall ensure that non-construction personnel are protected within the guidelines of the OH&S Regulations.

C3.6.3 BARRICADES AND LIGHTING

All excavations, into which a person may fall, shall be securely barricaded at all times in accordance with the requirements of the applicable OH&S Regulations.

C3.6.4 .. TRAFFIC CONTROL ON ROADS

The Safety Officer shall take full responsibility for the traffic control in and around the site. The personnel on site shall be fully informed and trained by the Safety Officer regarding the construction traffic and general traffic control.

- C3.6.5 .. MEASURES AGAINST DISEASE AND EPIDEMICS

Necessary measures must be adopted and implement occupational health and safety measures to reduce and eliminate the escalations of infections in workplaces against disease, epidemics and pandemics on site as and when directed by the Department of Labour.

- C3.6.6 .. AIDS AWARENESS

All construction personnel shall be given an Aids Awareness briefing session by the Safety Officer.

C3.7 PROJECT SPECIFICATIONS

PREAMBLE

In the event of any discrepancy between a part or parts of the Standard or Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Employer's Agent before the execution of the work under the relevant item.

C3.2.1 GENERAL

PS.1 PROGRAMME, METHOD OF WORK, AND ACCOMMODATION OF TRAFFIC

This Clause is to be read in conjunction with the provisions and obligations as contained in SANS 1921-1 and SANS 1921-2.

PS.1.1 Preliminary Programme

The Contractor shall include with his tender a preliminary programme on the prescribed form (see T2.2: Preliminary Programme) to be completed by all Tenderers. The programme shall be in the form of a simplified bar chart with sufficient details to show clearly how the works will be performed within the time for completion as stated in the Contract Data.

Tenderers may submit tenders for an alternative Time for Completion in addition to a tender based on the specified Time for Completion. Each such alternative tender shall include a preliminary programme similar to the programme above for the execution of the works, and shall motivate his proposal clearly by stating all the financial implications of the alternative completion time.

The Contractor shall be deemed to have allowed fully in his tendered rates and prices as well as in his programme for all possible delays due to normal adverse weather conditions (refer to Clause 5.12.2.2) and special non-working days (refer to Clause 5.1.1.1) as specified in the in the Contract Data.

PS.1.2 Programme in Terms of Clause 5.6 of the General Conditions of Contract

It is essential that the construction programme, which shall conform in all respects to Clause 5.6 of the General Conditions of Contract, be furnished within the time stated in the Contract Data (refer to Clause 5.3.1/2).

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

The Tenderer's attention is drawn to the fact that a number of factors will affect the programming of and method of carrying out the works. The more important of these are:

- a. Relocation of Services: The notice period required for the relocation of services is a

minimum of eight weeks from date of proving and providing of notice. Those known existing services in the area of the works have been depicted on the contract drawings. It is evident, however, that the status of existing service records as far as can be ascertained might not reflect the actual situation in the field. As such, due allowance has been made in the Bill of Quantities for the proving of services where directed by the Employers Agent.

- b. All pavement designs to be done and submitted at-least one month before the pavement is to be laid.
- c. Existing electrical Poles will need to be relocated prior to the bridge construction. Allow for relocation as per PS.2.
- d. Methodology for all structures to be done and submitted to the Engineer at-least 2 week before the works commence.
- e. Those known existing services in the area of the works have been depicted on the contract drawings. It is evident, however, that the status of existing service records as far as can be ascertained might not reflect the actual situation in the field. As such, due allowance has been made in the Bill of Quantities for the proving of services where directed by the Engineer.

PS.1.3 Requirements for Accommodation of Traffic

PS.1.3.1 General

Accommodation of traffic, where applicable, shall comply with SANS 1921-2: 2004: Construction and Management Requirements for Works Contracts, Part 2: Accommodation of Traffic on Public Roads occupied by the Contractor. The Contractor shall obtain this specification from Standards South Africa if accommodation of traffic will be involved on any part of the construction works.

Clause 4.10.4 of SANS 1921-2: 2004 shall be replaced with the following:

“Road signs and markings shall comply with the requirements of the “SADC Road Traffic Signs Manual - Volume 2: Roadworks Signing”.

PS.1.3.2 Basic Requirements

The travelling public shall have the right of way on public roads, and the Contractor shall make use of approved methods to control the movement of his equipment and vehicles so as not to constitute a hazard on the road.

The Contractor shall ensure that all road signs, barricades, delineators, flagmen and speed controls are effective, and that courtesy is extended to the public at all times.

Failure to maintain road signs, warning signs or flicker lights, etc, in a good condition shall constitute ample reason for the Employer’s Agent to suspend the work until the road signs, etc, have been repaired to his satisfaction.

The Contractor may not commence constructional activities affecting existing roads before adequate provision has been made to accommodate traffic in accordance with the requirements of this document and the South African Road Traffic Signs Manual.

The Contractor shall construct and maintain all temporary drainage works necessary for temporary deviations. The Contractor shall ensure that the existing property accesses are maintained at all times. Where necessary the Contractor shall make allowance in the rates for completing the work required to the accesses out of normal hours.

The Contractor shall programme in his works the traffic accommodation required to carry out the construction of the works and to include the protection of any services in doing so.

PS.1.3.3 Traffic Safety Officer

Where warranted by traffic conditions on or near the site, the Contractor shall nominate a suitable member of his staff as traffic safety officer to be responsible for the arrangement and maintenance of all the measures for the accommodation of traffic for the duration of the project. Duties of the traffic safety officer shall be in compliance with the Occupational Health and Safety Act 1993 and the Construction Regulations 2014.

PS.1.3.4 Payment

The Contractor's tendered rates for the relevant items in the Bill of Quantities shall include full compensation for all possible additional costs which may arise from this, and no claims for extra payment due to inconvenience as a result of the modus operandi will be considered.

PS.1.3.5 Pedestrian Movement

The Contractor shall make provision for accommodating all pedestrian movements in the area of the works. Allowance shall be made in the relevant rates for any barricades and signs required.

PS.1.3.6 Temporary Reinstatement

Provided always that if in the course or for the purpose of the execution of the works or any part thereof any road or way shall have been broken up, then notwithstanding anything herein contained:

- (a) if the permanent reinstatement of such road or way is to be carried out by the appropriate authority or by some person other than the contractor (or any subcontractor to him), the contractor shall at his own cost and independently of any requirement of or notice from the Engineer be responsible for the making good of any subsidence or shrinkage or other defect, imperfection or fault in the temporary reinstatement of such road or way, and for the execution of any necessary repair or amendment thereof from whatever cause the necessity arises, until the end of the period of maintenance in respect of works beneath such road or way until the authority or other person as aforesaid shall have taken possession of the site for the purpose of carrying out permanent reinstatement (whichever is the earlier), and shall indemnify and save harmless that Council against and from any damage or injury to the Council or to third parties arising out of or in consequence of any neglect or failure of the Contractor to comply with the foregoing obligations or any of them and against and from all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

- (b) where the authority or person as aforesaid shall take possession of the site as aforesaid in sections or lengths, the responsibility of the contractor under paragraph (a) of this sub-clause shall cease in regard to any such section or length at the time possession thereof is so taken, but shall during the continuance of the said period of maintenance continue in regard to any length of which possession has not been taken and the indemnity given by the contractor under the said paragraph shall be construed and have effect accordingly.

PS.1.4 Penalties for Non-Compliance of Traffic Accommodation Clauses

For every road and traffic rule violation by the Contractor and his Sub-Contractor's, Suppliers and labourers (including local labour), he shall be charged a penalty for that offence. The engineer will raise the charge. A fixed cost of R2000/event shall be applicable for every event of non-compliance. A Time related cost of R1000/hour shall be applicable for delay caused by the above-mentioned noncompliance. The measurement of time shall be from when the Level of Service in vehicular capacity has reduced due to the act of non-compliance to the time that the Level of Service is restored to before the incident had occurred.

PS.2 SERVICES

This Clause is to be read in conjunction with the provisions and obligations as contained in COTO A2.

PS.2.1 Existing Services

The Tenderer's attention is drawn to the numerous existing services in the area. Although every effort has been made to depict these services accurately the positions shown must be regarded as approximate.

The Contractor shall make himself acquainted with the position of all existing services before any excavation or other work likely to affect the existing services is commenced.

The Contractor will comply with the conditions for dealing with existing services as attached in C3.4, Particular Specifications, and approach the relevant authorities for additional information where applicable.

Before any work commences, the Contractor shall contact all private owners or public authorities controlling services so that they may, either protect, move or relocate any service as required, or confirm that all such work has been completed.

All known existing services and those services which require relocation and protection, are shown on the services plans. The Contractor's attention is drawn to the fact that such services information is based on information supplied by others, and the accuracy and completeness of this information has not been confirmed.

The Contractor will therefore be required to proceed with extreme caution in order to avoid damage to existing services. Before commencing any work in the vicinity of services, the Contractor shall contact the relevant service authorities for assistance in locating the exact position of the services and where necessary the Contractor shall accurately locate the services by careful hand excavation. The Contractor shall allow in his programme minimum of eight weeks for the relocation of services from notification of service relocation to service provider and this period must be shown in the contractor's programme.

In general, the Employers Agent may call upon the Contractor to re-excavate trenches previously excavated and backfilled by others where in the opinion of the Employers Agent such work is necessary to ensure the stability of any other works over such trenches. This in no way relieves the Contractor of his responsibilities in terms of the works.

PS.2.2 Proving Underground Services

This clause must be read in conjunction with COTO Ch2, the requirements of which shall be extended to cover all earthworks operations whether for trenching or bulk earthworks, in the vicinity of underground services.

It is stressed that all services in a particular area must be proven before commencing work in that area.

Insofar as bulk earthworks are concerned, where services are indicated on the drawings or where from site observations can reasonably be expected that such services are likely to exist where excavations are to take place, the Contractor shall without instructions from the Employer's Agent carefully excavate by hand to expose and prove their positions.

The cost of the proving trenches is to be included in the work covered in the BOQ..

When a service is not located in its expected position the Contractor shall immediately report such circumstances to the Employer's Agent who will decide what further searching or other necessary action is to be carried out and shall instruct the Contractor accordingly. The cost of this additional searching shall be to the Council's cost and shall be paid for under items in the BOQ.

Should any service be damaged by the Contractor in carrying out the works and should it be found that the procedure as laid down in this clause has not been followed then all costs in connection with the repair of the service will be to the Contractor's account.

When electrical cables are not in the positions shown on drawings of Emalahleni Electricity and cannot be found after proving trenches have been put down, assistance may be obtained by calling an official of the Works Branch on Telephone No. 311-1111 during office hours, or by contacting Control on Telephone No. 305-7171 after hours.

It should be noted that 33,000 Volt and 132,000 Volt cables may only be exposed by the Emalahleni Electricity's personnel. The cables are usually protected by concrete covering slabs, and therefore if the slabs are inadvertently exposed, excavation work must stop, and the Emalahleni Electricity shall be contacted immediately on the above telephone numbers.

Proving of services shall be completed at least eight weeks in advance of the actual programmed date for commencing work in the area. The position of these services located must be coordinated and levelled by the Contractor, and the information given in writing to the Employer's Agent's Representative.

The requirements of this clause do not relieve the Contractor of any obligations as detailed in the Conditions of Contract or under Clause 4.17 of SANS 1921-1.

PS.2.3 New Services and Relocation of Existing

This clause shall be read in conjunction with Clause PS.1.

New services are either to be installed by the Contractor as part of the contract or by others during the contract period. In the latter case excavation and subsequent backfilling of the trench from the top of the bedding layer shall generally be carried out by the Contractor.

Relocation of services shall generally be carried out by the relevant services organisation. Generally their work shall include the excavating and bedding the service which will include backfilling to a depth of approximately 300 mm above the service. The remainder of the backfilling shall be carried out by the Contractor.

Generally work shall only commence on the installation of new services once the bulk earthworks have been completed and roughly trimmed to level along a substantial portion of the services route. In addition no sidewalk, verge, median or island shall be surfaced or topsoiled until all work on the services has been completed.

Services affected by the contract are described as follows:

- PS.3: Watermains;
- PS.4: Sewers;
- PS.5: Stormwater;
- PS.6: Electrical Cables / Lighting;
- PS.7: Telkom, Liquid Telekom (Neotel), Dark Fibre Africa, Dimension Data, Light Fibre, Link Africa and Other Service Providers;
- PS.8: CCTV;

Further to the above, tenderers are referred to the services drawing and are to note that several minor cables / pipes may be encountered during excavation works which may require to be relocated to some extent. It is anticipated that the eight week period required under PS.2.2 will allow sufficient time for these relocations.

PS.2.4 Accommodation of Services

Further to Clauses PS.1 and PS.2 of this specification, tenderers are to note that allowance must be made under this item and / or the appropriate rates, for all costs incurred as a result of complying with these clauses. It shall also cover liaison with the services organisations and accommodation of their work gangs / contractors on site.

PS.3 WATERMAINS

PS.3.1 General

Tenderer's attention is drawn to the following points regarding the watermains to be installed as part of this contract.

The contractor shall prove the position of water lines and ensure they are not damaged during construction. The proving of these water lines shall be included in the tenderer's rates.

All known services have been shown on the services drawing, however, should any unknown watermains be discovered the Contractor shall be responsible for ensuring that water-mains are not damaged during construction and if a need to relocate or modify, the Contractor shall notify Emalahleni Municipality.

Any relocations will be carried out by a Contractor/sub-contractor that will be approved by Emalahleni Water, while the connection to the existing main will be done by Emalahleni Water. Civil works will be carried out by the Main contractor. The Contractor shall notify the Engineer and service providers at least 8 weeks days in advance for any relocations required, to enable all parties involved to be on site timeously.

PS.3.2 Water Main Valve Access

Due to the dangerous situation occurring when water main valves are covered over, the Contractor shall maintain access to all water main valves at all times. During asphalt layer work, after each pass by the paving machine, the valves shall be exposed and access maintained in a safe condition.

Whatever method the Contractor chooses to use for this work, the cost of raising the valves from existing level to ultimate level shall be paid only once, irrespective of the number of times the valve is uncovered. Spacer rings required for the height adjustment of valve covers shall be supplied by the Water and Sanitation Unit. Tolerances on valve cover levels shall be as specified

in COTO A2. Before final setting in position of valve covers the Contractor shall liaise with the Employer's Agent regarding the direction in which covers shall be placed.

PS.3.3 Restriction on Compactive Equipment

The Contractor is to note that existing watermains traverse the site of the works and special care is to be taken in close proximity to these mains and connections. The existing mains and connections shall be proved on site by the Contractor prior to any construction work commencing in the vicinity of the watermains.

Under no circumstances will heavy road-making equipment, other heavy plant or vibratory compaction equipment be permitted to operate within 800 mm vertically or horizontally of the existing mains or connections. The permissible compaction plant within this restricted area shall be the equivalent of a "Bomag 90" under static compaction, or similar approved plant. When the roadworks are far enough

advanced to provide a minimum of 800 mm cover to the existing mains, the above restriction will fall away.

The Contractor is to take cognisance of the above requirements when entering rates in the Bill of Quantities and in the programming of the works. No claim for additional payment based on the inability to use plant as a result of the requirements of this clause will be accepted. The Contractor will be held liable for any costs should the watermain or electrical cables be damaged during construction of the road.

PS.4 SEWERS

Tenderer's attention is drawn to the fact that there are known existing sewer lines within the site. The Contractor shall be responsible for ensuring that sewer pipes are not damaged during construction and if a need to relocate or modify sewer pipes/manholes is identified, the Contractor shall notify Emalahleni Municipality.

The existing sewer line would require protection throughout the contract. The relocation of any sewer lines required shall be as per the Emalahleni Sanitation Department Specifications.

PS.4.1 Blockage of Foul Water Sewers

The Contractor shall be responsible for ensuring that cementitious sludge, sand and rubble from the works do not enter the foul water reticulation system. The Contractor shall be liable for any costs incurred by the Council or others as a result of blockages in the reticulation system attributed to failure to comply with the above requirement.

PS.5 STORMWATER

Existing stormwater services are affected by the relocation and installation of new pipes where indicated on the drawings.

Stormwater drainage will be in the form of minor and major works. The works

will comprise of the following:

- Construction of varying sizes of concrete pipes ranging in size from 375mm diameter to 600mm diameter,
- Subsoil drains, either conventional subsoils or newer methods,
- Catchpits and manholes of varying configurations,
- Catchpits with adjusted cover dimensions to suite site conditions.
- Concrete and natural V-drains.

PS.5.1 Blockage Stormwater Sewers

The Contractor shall be responsible for ensuring that cementitious sludge, sand and rubble from the

works do not enter the stormwater reticulation system. The Contractor shall be liable for any costs incurred by the Council or others as a result of blockages in the reticulation system attributed to failure to comply with the above requirement.

PS.6 ELECTRICAL PLANT

The Contractor's attention is drawn to the existing underground, surface and overhead cables, the Contractor has a responsibility to ensure there is no damage to these infrastructures.

PS.6.1 General

Various types of electrical cables including high voltage, low voltage, street lighting and domestic connection cables are affected by the contract. The laying, relocation and jointing of all cables will be carried out by Emalahleni Electricity's work gangs, or agents appointed by them, whilst the excavation and backfilling forms part of this contract. Close liaison will therefore be necessary with Emalahleni Electricity throughout the contract.

PS.6.2 Street Lighting & Traffic Lights

The existing lighting will be removed in stages and replaced in the centre median / intersection corners. Relocation will take place during this contract and be executed by Emalahleni Electricity or their agents. It is a requirement that the street lighting be operational at all times.

The Contractor shall prepare an expression of interest at the commencement of the contract to all approved / accredited Street lighting providers (list to be provided by Emalahleni Electricity) for Professional Services to carry out Design of the street lighting. This expression of interest shall be submitted to the Employer's Agent / Client for approval. On approval by the Employer's Agent / Client, the Professional Service provider shall undertake the necessary investigation and provide detailed design and drawings of the street lighting. The drawings shall be submitted to Emalahleni Electricity for approval by the Employer.

The Contractor shall prepare another expression of interest to all approved / accredited (a) Street lighting providers and (b) traffic lighting providers (list to be provided by Emalahleni Electricity) to carry out the installation/removal of street lighting. This expression of interest shall be submitted to the Employers Agent / Client for approval. On approval by the Employers Agent / Client, the Professional Service provider shall undertake the necessary investigation and provide detailed design and drawings of the street lighting. The drawings shall be submitted to Emalahleni Electricity for approvals. An allowance has been made in the BOQ for the design and installation of street lighting and a separate item has been allowed for the handling costs by the main Contractor.

PS.6.3 MV / LV Cables

Certain MV / LV cables are to be replaced within the contract area (see drawings). The actual cable work associated with this relocation and / or replacement of these cables will be carried out by Emalahleni Electricity, and it is stressed that the eight week period referred to in Clause PS.2 is the minimum period required to enable Emalahleni Electricity to be on site timeously.

PS.6.4 Relocation of Existing Services

Should it be necessary to adjust the line, level and / or position of any service not catered for in the contract to enable the construction to proceed the Contractor shall on no account effect such adjustment himself but shall notify the Engineer who will arrange for the work to be carried out at no cost to the Contractor.

PS.6.5 Overhead Cables

The contractor's attention is brought to overhead electrical cables near the site.

Electrical overhead cables run along the site, it is not envisaged that the construction will be affected by the overhead cables.

PS.7 TELKOM, CCTV, LIQUID TELEKOM (NEOTEL), DARK FIBRE AFRICA, DIMENSION DATA, LIGHT FIBRE, LINK AFRICA AND OTHER SERVICE PROVIDERS

The Contractor shall pay special attention to the following:

The tenderers attention is drawn to the fact that copper cables and fibre optic cables are existing in the contract area. The Contractor shall notify the Engineer and service providers at least eight weeks in advance for any relocations that's required.

PS.8 CCTV PLANT

No work to CCTV Plant is envisaged, but the tenderers attention is drawn to the fact that CCTV cables and fibre optic cables are existing in the contract area.

PS.9 MANAGEMENT OF THE ENVIRONMENT

The Contractor shall pay special attention to the following:

PS.9.1 Natural Vegetation

The Contractor shall confine his operation to as small an area of the site as may be practical for the purpose of constructing the works.

Only those trees and shrubs directly affected by the works and such others as the Employer's Agent may direct in writing shall be cut down and stumped. The natural vegetation, grassing and other plants shall not be disturbed other than in areas where it is essential for the execution of the work or where directed by the Engineer.

PS.9.2 Fires

The Contractor shall comply with the statutory and local fire regulations. He shall also take all necessary precautions to prevent any fires. In the event of fire the Contractor shall take active steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires

which may have been caused by him or his employees.

PS.9.3 Environmental Management Plan

In addition to the above, all requirements according to the Environmental Management Plan as detailed in C3.4: Particular Specifications, will be adhered to.

PS.10 OCCUPATIONAL HEALTH AND SAFETY

PS.10.1 General Statement

When considering the safety on site the Contractor's attention is drawn to the following:

- i) The works will require machinery and plant of varying size,
- ii) The asphalt used will be delivered to site at a high temperature, which, after processing, remains hot for some time,
- iii) The stormwater pipeline excavation will have approximately 4m deep trench and near live services.
- iv) The construction is located on a high traffic road.
- v) The manual moving of heavy pre-cast products will be required,
- vi) The area is bound by business/residential/private properties,
- vii) Stormwater run-off from the site will have to be well managed,
- viii) There are numerous services which the Contractor will either have to protect or relocate,

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 Act No 85 and Amendment Act No 181 of 1993, and the OHS Act 1993 Construction Regulations 2014 issued on 7 February 2014 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of Section 37(2) of the Occupational Health and Safety Act.

PS.10.2 Health and Safety Specifications and Plans to be submitted at tender stage

PS.10.2.1 Employer's Health and Safety Specification

The Employer's Health and Safety Specification is included in C3.4: Particular Specifications.

PS.10.2.2 Tenderer's Health and Safety Plan

At tender stage only a brief overview of the tenderers perception on the safety requirements for this

contract will be adequate. This will be attached to T2.2: Contractor's Health and Safety Plan.

Only the successful Tenderer shall submit a separate Health and Safety Plan as required in terms of Regulation 7 of the Occupational Health and Safety Act 1993 Construction Regulations 2014, and referred to in T2.2: Contractor's Health and Safety Plan.

The detailed safety plan will take into consideration the site specific risks as mentioned under PS.10.1 and must cover at least the following:

- (i) A proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 9 to 29;
- (ii) Pro-active identification of potential hazards and unsafe working conditions;
- (iii) Provision of a safe working environment and equipment;
- (iv) Statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 7*);
- (v) Monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (vi) Details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 8 and other applicable regulations; and
- (vii) Details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014.

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.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs

A generic plan will not be acceptable.

PS.10.3 Cost of compliance with the OHS Act Construction Regulations

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract. Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

Items that may qualify for remuneration will be specified in the Employer's Health and Safety Specification.

PS.10.4 Due care shall be taken during the construction. This construction is taking place within a high traffic volume road and the Contractor shall ensure that he prices the tender to take this into consideration. He must employ appropriate temporary diversion measures to ensure that he can carry out the works whilst

mitigating damage to the road and adjacent properties. Sufficient traffic flow must be maintained at all times throughout construction taking into consideration road users including pedestrian.

PS.11 SITE SECURITY

The Contractor shall, for the duration of the contract, provide sufficient security and watchmen to adequately ensure the safety and protection of the works, the Contractor's staff, including local labour and subcontractors, and all site plant and construction equipment required for the works.

Site Security, in conjunction with the SAPS (where necessary), shall be responsible for removal of disruptive elements, that may interrupt the progress of the contract through acts such as, but not limited to, intimidation, threats of disruption, violent disruption, or criminal and illegal activity by the local community or independent organisations or entities that may result in slowing down or partial or total stoppage of the works.

Payment for this item shall be made under Section 1, Part AB of the Bill of Quantities.

PS.12 PERFORMANCE MONITORING OF SERVICE PROVIDERS

The performance of service providers that have been selected to provide assistance in the provision of a municipal service, otherwise than in circumstances where Chapter 8 of the Municipal Systems Act applies, is required, by Section 116 of the Municipal Finance Management Act, to be monitored and reported on (see Cl.53 of the SCM Policy).

Appropriate key performance indicators (KPIs) for the contract must be set by the Municipality as a yardstick for measuring performance.

The following KPIs will be applicable to this contract:

- (a) Time Management
- (b) Financial Management
- (c) Quality Management
- (d) Occupational Health and Safety Management
- (e) Environmental Management
- (f) Achieve CPG Targets

PS.13 Community and Public Relations

During the course of the contract, the Employer / Employers Agent may need to engage with the community and other interested and affected parties. The engagement may be in the form of electronic media, pamphlet distribution or meetings. All costs relating to this aspect will be paid for through the relevant item in the BOQ. An item has also been allowed for in the BOQ for the contractor's administration cost in this regard. It is a percentage of the cost of the Community and Public Relations item.

PS.14 CONTAMINATION OF MATERIALS

The contractor is to ensure that contamination/mixing of different materials are prevented during

excavation/handling or processing to ensure maximum reuse of suitable material (engineered fill of G9 or better quality). Should the Engineer become aware of suitable material from excavation being contaminated and that sufficient care has not been taken to prevent such contamination, he shall have recourse to request testing on such materials. If the contractor has been negligent in preventing such contamination, spoiling of such materials shall be to his account and he shall have no recourse for any payment.

PS.15 TESTING

The Contractor is to include in his unit rates for the cost of classification testing of all materials delivered to site intended for use in the layerworks and for all density of all materials delivered to site intended for use in the layerworks as per the pavement design illustrated on the contract drawings.

The Contractors is to provide results of all control testing to the Employers Agent. If the Employers Agent is satisfied with the results, the Contractor will then be given the approval by the Employers Agent's representative to proceed with the next stage of construction.

The Contractor is to also include in his unit rates for the cost of classification testing and density tests of all materials excavated from site intended for use in the bulk earthworks. The Contractors is to provide the test results of all these materials to the Employers Agent. If the Employers Agent is satisfied with the results, the Contractor will then be given the go ahead by the Employers Agent's representative to proceed with the next stage of construction.

Random acceptance testing will be undertaken by the Roads Provision Department, Pavement and Geotechnical Engineering Branch.

PS.16 TESTING REQUESTED BY EMPLOYERS AGENT

At the discretion of the Employers Agent, he may request the Contractor to undertake additional control testing of which payment shall be made in the Bill of Quantities.

PS.17 SUBMISSION OF AS-BUILT DATA

The contractor shall supply the Employers Agent with an electronic copy and hard copy of:

- (a) A list of surveyed co-ordinates of all work carried out.
- (b) The survey must include:
 - All new works carried out: kerb line including channel, road edge, road markings, edge of sidewalks, trees, access points, services (existing and new), different hatching to indicate different types of surfacing.

-
- A list of co-ordinates of different services which are newly installed, relocated or existing.
 - A coordinated list of all catchpits, manholes and headwalls, gabion and reno-mattresses structures newly constructed, modified or existing.
 - A list of surveyed co-ordinates of all retaining walls, dwellings, fencing and services within the vicinity of the works.
- (c) Materials As-Built records captured as per the Emalahleni Municipality Materials As-Built record template
- (d) Hard copies in A0 paper, and
a coordinated soft copy of the survey in .dxf/.dwg/.dr4 format.

The contractor must also give the Employers Agent a materials as-built spreadsheet in the format approved by the Senior Manager of the Pavement and Geotechnical Laboratory – Engineers.

The Certificate of Completion shall not be issued unless the above information has been forwarded and approved by the Employers Agent.

An allowance has been made for the payment for this item in the BOQ.

PS.18 ADJUDICATION

Alternate dispute resolution for the contract will commence with ad-hoc adjudication as per GCC 2015.

The proposed Adjudicators must be registered with SAICE and/or the Association of Arbitrators as an Adjudicator at the least.

An allowance has been made in the BOQ for the partial costs of the appointment and services of the Adjudicator(s). This item shall cover only 50% of the Adjudicator's(s) cost which shall be the Employers contribution only. The Contractor shall be responsible for payment of his (the Contractor) costs and shall not be allowed for in the contract.

An item has also been allowed for in the BOQ for the contractor's administration cost in this regard. It is a percentage of the cost of 50% of the Adjudicator's fees and is limited to a maximum of 7,5%.

PS.19 ROAD DEVIATIONS AND TRAFFIC CONTROL

- (a) No allowance has been made in the Bill of Quantities for deviations other than for the deviations mentioned in clause PS 1.3.1. Costs of any other deviations required by the Contractor shall be included in the rates tendered. The other deviations required by the contractor shall be of Type A, unless otherwise stated by the Employers Agent.
- (b) Deviations required by the Contractor shall comply with the requirements of COTO 1.5. Details shall be submitted to the Employers Agent for approval at least four weeks in

advance of date on which it is anticipated that work on the deviation will commence.

- (c) On deviations provided in terms of (b) above the Contractor shall ensure at all times and during all weather conditions that all temporary surfaces that are intended to carry traffic are in fact trafficable with regard to reasonable standards of safety and comfort. No additional payment shall be made to the Contractor for compliance with this clause.
- (d) Unless indicated otherwise over the entire length and for the duration of the contract, traffic is required to be accommodated in both directions at all times. The Contractor shall ensure that the full width of the road, or a width of road approved by the Employers Agent, is available for traffic during the peak traffic periods (i.e. 07:00 - 09:00 and 16:00 to 18:00).
- (a) At all times signposting shall be detailed in the part of this document : "Safety in Road Construction".

PS.20 PROGRESS PHOTOGRAPHS

A provisional sum has been included in the BOQ for digital photographs and aerial photographs to be taken. The photographs shall be taken monthly across the entire site, including aerial photos, at the discretion of the Employers Agent.

- The digital and aerial photographs shall be taken monthly across the entire site, or at the discretion of the Employers Agent. This may include the use of a drone to capture images. The Employers Agent shall provide the specifications of the drone to be used.

PS.21 SUPPLY OF PLANT, MATERIAL AND LABOUR

Except where otherwise specified the Contractor shall at his own expense supply and provide all the construction plant, temporary works, materials for both temporary and permanent works, labour (including supervision thereof), transport to and from the site and in and about the works and other things of every kind required for the construction, completion and where specified, maintenance of the works. The contractor shall also make his own arrangements with the proper authorities and at his own cost for the supply of water, electricity and any other services he may require for the construction and completion of the works.

PS.22 BARRIERS FOR ACCOMMODATION OF TRAFFIC

The contractor shall use New Jersey barriers, steel barriers or similar products as approved by the Employers Agent. Barriers shall also be suitable for the use under Highway / high volume and high speed conditions. The rate shall be in meters (m) and shall include the supply and installation of barriers for the accommodation of traffic.

The contractor must also allow for the installation and removal of the barriers, and the movement of barriers to different works areas as required for the duration of the works.

PS.23 ALLOWANCE FOR PROFESSIONAL SERVICES

During the contract, the Employers Agent may call on the services of external professionals / specialist in the field for site related issues. The payment for their services shall be made through the contract for which an item has been allowed for in the BOQ. The contractor will be paid a percentage of the cost of the professional services fee for his administration cost.

PS.24 ALLOWANCE FOR GEOTECHNICAL ENGINEER FOR INVESTIGATIONS AND TESTING, DESIGN, DETAIL, SUPERVISION AND STABILITY CERTIFICATE.

During the contract, the Employers Agent may call on the services of external professionals / specialist in the field for site related issues. The payment for their services shall be made through the contract for which an item has been allowed for in the BOQ. The contractor will be paid a percentage of the cost of the professional services fee for his administration cost.

Geotechnical investigations and testings shall be carried out at the beginning of the contract to ensure that the site from a geotechnical perspective will be safe and stable during and after the construction.

Road: Testpit and CBR are required prior to construction. These shall be carried out at the beginning of the contract.

Other works: The Employers Agent may instruct the Contractor to carry out any other geotechnical investigations as required.

The contractor will let out the Expression of Interest detailing the above-mentioned. The Employers Agent will provide all the necessary information, Or the Construction drawings may be used for the Contractor to compile for Expression of Interest. On receipt of the quotations, the contractor shall submit them to the Employer's Agent who shall undertake an evaluation and provide a recommendation of the most responsive tenderer for acceptance by the contractor. On acceptance, the contractor shall appoint the most responsive Tenderer. **It is mandatory that the geotechnical investigation commence immediately on commencement of the contract between the contractor and the Employer.**

The drawings, investigation reports and all information in this regard shall be issued to the Employer's Agent at least four weeks before the programmed commencement of the works.

PS.25 ADDITIONAL SURVEY

An item has been provided in the BOQ for additional survey to be undertaken upon the Employer's Agent's request by the contractor for the Employer's Agent's use. An item for handling cost has been provided in the BOQ for the Contractor administration in this regard.

PS.26 SURVEY OF EXISTING SERVICES

The Contractor, immediately upon commencing work, shall survey existing valves, manholes, catchpits and cable duct markers. The coordinates are to be submitted to the Employer's Agent. Particular attention should be drawn to the existing sewer line and the electrical services which is required within two weeks of commencement:

PS.27 ALLOWANCE FOR LABORATORY ACCEPTANCE TESTING.

During the Contract the Employers Agent will require acceptance testing for all earthworks, roadworks, structural works, concrete works etc.

The contractor will let out the Expression of Interest detailing the above-mentioned. The Employer's Agent will provide all the necessary information. On receipt of the quotations, the contractor shall submit them to the Employer's Agent who shall undertake an evaluation and provide a recommendation of the most responsive tenderer for acceptance by the contractor. On acceptance, the contractor shall appoint the most responsive Tenderer.

As additional item is included in the BOQ to cover the contractor's handling costs for this item.

The Control Testing done by the contractor is **not** covered by this item. Contractors control testing shall be included in the BOQ items as specified in COTO.

PS.28 INCIDENTAL EXPENSE.

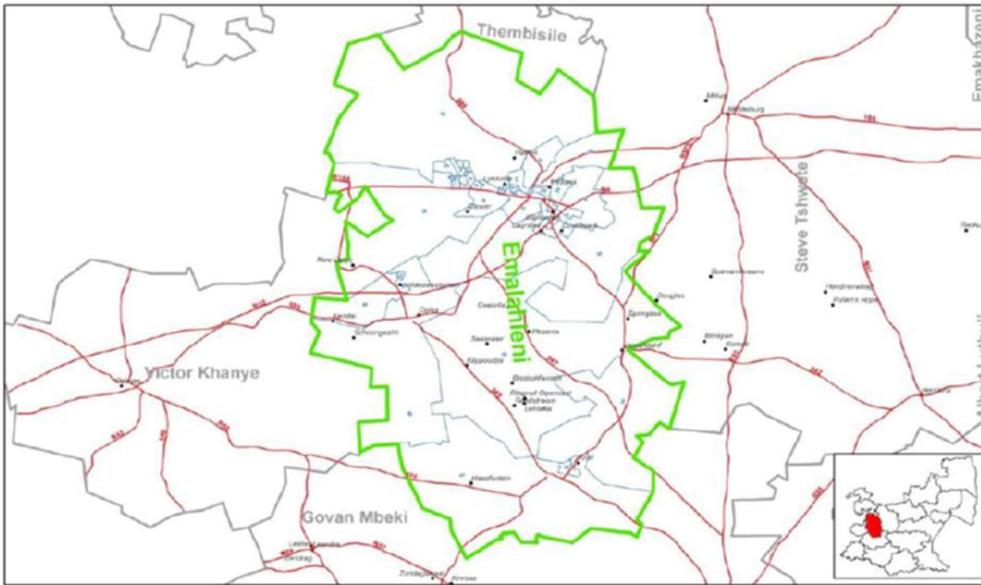
An item has been allowed for in the BOQ for Incidental Expense. This amount may be used for a possible circumstance(s) and/or future event(s) related to the works but which could not be reasonably predicted at time of tender.

This item will be used at the discretion of the Employer's Agent in consultation with the Employer.

C4: SITE INFORMATION

C4.1 CONDITIONS ON SITE

4.1 LOCALITY PLAN



4.2 ROAD NETWORK



4.3 SITE CONDITON



ANNEXURES

CONTENTS

A: OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS

B: ENVIRONMENTAL MANAGEMENT SPECIFICATIONS

C: TENDER DRAWINGS

ANNEXURE A: OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS

PARTICULAR SPECIFICATIONS.....	A-1
AGREEMENT OCCUPATIONAL HEALTH AND SAFETY	A-10
CONTRACTOR'S HEALTH AND SAFETY DECLARATION	A-13
PRO FORMA NOTIFICATION	A-1

PARTICULAR SPECIFICATIONS

SECTION OHS: OHS 1993: HEALTH AND SAFETY SPECIFICATION

- **OHS 1 SCOPE**

This specification covers the health and safety requirements to be met 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 2014, and all other safety codes and specifications referred to in the said Construction Regulations **and the COVID-19 Occupational Health and Safety Measures in Workplaces, COVID-19(C19 OHS), 2020.**

In terms of the OHS 1993 Agreement in Section (C1.4) of the Contract 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 1993, the Construction Regulations 2014 and **COVID-19(C19 OHS), 2020.**

This safety specification and the Contractor's own Safety Plan, the Construction Regulations 2014 as well as **COVID-19(C19 OHS), 2020**, shall be displayed on site or made available for inspection by all workers, employees, inspectors and any other persons entering the site of works.

The following are possible risks associated with this project:

- Please insert the risks associated with the project here

Additional risks may arise from specific methods of construction selected by the Contractor which are not necessary covered in the above.

- **OHS 2 DEFINITIONS**

For the purpose of this contract the following shall apply:

Employer where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract and it shall have the exact same meaning as **“client”** as defined in the Construction Regulations 2014. **“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.

In this specification the terms **“principal contractor”** and **“contractor”** are replaced with **“Contractor”** and **“subcontractor”** respectively.

For the purpose of this contract the **Contractor** will, in terms of OHS 1993, be the mandatory, 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. In terms of the Construction Regulations the Engineer may act as agent on behalf of the Employer (the client as defined in the Construction Regulations).

• **OHS 3 TENDERS**

The Contractor shall submit the following with his tender:

- (a) a documented Health and Safety Plan as stipulated in Regulation 7 of the Construction Regulations. The Safety Plan must be based on the Construction Regulations 2014 and **COVID-19(C19 OHS), 2020** 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 2014;
- (c) a declaration to the effect that he made provision in his tender for the cost of the health and safety measures envisaged in the Construction Regulations.
- (d) Failure to submit the foregoing with his tender, will lead to the conclusion that the Contractor will not be able to carry out the work under the contract safely in accordance with the Construction Regulations.

• **OHS 4 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 3,0m or more;
- (b) the use of explosives;
- (c) construction work that will exceed 30 days or 300 person-days;
- (e) excavation work deeper than 1,0m; or
- (f) working at a height greater than 3,0m above ground or landings.

The notification must be done in the form of the pro forma included under Section T2 (Forms to be Completed by Tenderer) of the tender document.

A copy of the notification form must be kept on site, available for inspection by inspectors, Employer, Engineer, employees and persons on site.

• **OHS 5 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 9 of the Construction Regulations 2014).

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.

• **OHS 6 APPOINTMENT OF EMPLOYEES AND SUBCONTRACTORS**

6.1 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.

6.2 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 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.

• **OHS 7 APPOINTMENT OF SAFETY PERSONNEL**

7.1 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.

7.2 Construction safety officer

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** if so decided by the client. The Safety Officer shall have the necessary competence and resources to perform his duties diligently.

Provision shall be made by the Contractor in his rates, to cover the cost of this dedicated construction safety officer appointed after award of the contract.

7.3 Health and safety representatives

In terms of **Section 17 and 18 of the Act (OHS 1993)** the Contractor, being the employer in terms of the Act for the execution of the contract, shall appoint a **health and safety representative** whenever he has more than 20 employees in his employment on the site of 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 100 employees.

The function of 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.

7.4 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 recommendations and reports made by the committee.

7.5 Competent persons

In accordance with the Construction Regulations the Contractor has to appoint in writing **competent persons** responsible for supervising construction work on each of the following work situations that may be expected on the site of the works.

- (a) Risk assessment and induction training as described in Regulation 9 of the Construction Regulations;
- (b) Fall protection as described in Regulation 10;
- (c) Structures described in Regulation 11;
- (d) Temporary works described in Regulation 12;
- (e) Excavation described in Regulation 13;
- (f) Demolition work described in Regulation 14;
- (g) Tunneling as described in Regulation 15;
- (h) Scaffolding as described in Regulation 16;
- (i) Suspended platforms as described in Regulation 17;
- (j) Rope Access Work as described in Regulation 18;
- (k) Material hoists as described in Regulation 19;
- (l) Bulk mixing plant as described in Regulation 20;
- (m) Explosive actuated fastening device as described in Regulation 21;
- (n) Cranes as described in Regulation 22;
- (o) Construction vehicle and mobile as described in Regulation 23;
- (p) Electrical installations and machinery of construction sites as described in Regulation 24;
- (q) Use and temporary storage of flammable liquids on construction sites as described in

Regulation 25;

- (r) Water environments as described in Regulation 26;
 - (s) Housekeeping and general safeguarding on construction sites as described in Regulation 27;
 - (t) Stacking and storage on construction sites as described in Regulation 28;
 - (u) Fire precautions on construction sites as described in Regulation 29, and
- (s) Construction employees' facilities as described in Regulation 30.

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.

• **OHS 8 RECORDS AND REGISTERS**

In accordance with the Construction Regulations the Contractor is bound to keep records and registers related to health and safety on site for periodic inspection by inspectors, the Engineer, the Employer, trade union officials and subcontractors and employees. The following records and registers must be kept on site and shall be available for inspection at all times.

- (a) A copy of the OHS 1993 Construction Regulations 2014;
- (b) A copy of this Health and Safety Specification;
- (c) A copy of the Contractor's Health and Safety Plan (Regulation 7);
- (d) A copy of the Notification of Construction Work (Regulation 4);
- (e) A health and safety file in terms of Regulation 5(1)(b) with inputs by the Construction Safety Officer (Regulation 7(1));
- (f) A copy of the risk assessment described in Regulation 9;
- (g) A full protection plan and the corresponding records of evaluation and training of employees working from elevated positions as described in Regulation 10;
- (h) Drawings pertaining to the design of structures (Regulation 11(1)(c)) and formwork and support work structures (Regulation 12) must be kept on site;
- (i) Pronouncement of the safety of excavations must be recorded in a register to be kept on site (Regulation 13);
- (j) A copy of the certificate of the system design for suspended platforms (Regulation 17(2)(b));
- (k) A notice must be affixed around the base towers of material hoists to indicate the maximum mass load, which may be carried at any one time by material hoists (Regulation 19(5));
- (l) Maintenance records of material hoists and inspection results must be kept in a record book to be kept on site (Regulation 19(8));
- (m) A record of any repairs to or maintenance of a batch plant must be kept on site (Regulations 20(8));
- (n) A warning notice must be displayed in a conspicuous manner when and wherever an explosive powered tool is used (Regulation 19(2));

- (o) A register for recording of findings by the competent person appointed to inspect construction vehicles and mobile plant (Regulation 23(1)(k)).

- **OHS 9 CONTRACTORS RESPONSIBILITIES**

For this contract the Contractor will be the mandatory of the Employer (Client), as defined in the Act (OHSA 1993), which means that the Contractor has the status of employer in his own right in respect of the contract. The Contractor is therefore responsible for all the duties and obligations of an employer as set out in the Act (OHSA 1993) and the Construction Regulations 2014.

Before commencement of work under the contract, the Contractor shall enter into an agreement with the Employer (Client) to confirm his status as mandatory (employer) for the contract under consideration. The Contractor's duties and responsibilities are clearly set out in the Construction Regulations 2014 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.

- (a) Contractor's position in relation to the Employer (Client) (Regulation 5)

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 Principal Contractor and Contractor (Regulation 7)

The Contractor is in terms of the definition in Regulation 1 the equivalent of Principle Contractor as defined in the Construction Regulations, and he shall comply with all the provisions of Regulation 7.

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 2014.

- (c) Supervision of construction work (Regulation 8)

The Contractor shall appoint the safety and other personnel and employees as required in terms of Regulation 7 and as set out in OHS 7 above. Appointment of those personnel and employees does not relieve the Contractor from any of the obligations under Regulation 7.

- (d) Risk assessment (Regulation 9)

The Contractor shall have the risk assessment made 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 10)

Fall protection, if applicable to this contract shall comply in all respects with Regulation 8 of the Construction Regulations.

(f) Structures (Regulation 11)

The Contractor will be liable for all claims arising from 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 11 of the Construction Regulations.

(g) Temporary works (Regulation 12)

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. The provisions of Regulation 12 of the Construction Regulations shall be followed in every detail.

(h) Excavation work (Regulation 13)

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 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 13 of the Construction Regulations.

(i) Demolition work (Regulation 14)

Whenever demolition work is included in a contract, the Contractor shall comply with all the requirements of Regulation 14 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) Tunneling (Regulation 15)

The Contractor shall comply with Regulation 15 wherever tunneling of any kind is involved.

(k) Scaffolding (Regulation 16)

The Contractor shall ensure that all the provisions of Regulation 16 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 17)

HEALTH AND SAFETY SPECIFICATIONS

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 17 of the Construction Regulations.

(m) Rope Access Work (Regulation 18)

Where rope access work is required on the construction site, the Contractor shall comply with Regulation 18.

(n) Material Hoists (Regulation 19)

Wherever applicable, the Contractor shall comply with the provisions of Regulation 19 to the letter.

(o) Batch plants (Regulation 20)

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 20.

The Contractor shall ensure that the General Safety Regulations (2003), 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 21)

The Contractor shall ensure that, wherever explosive-powered tools are required to be used, all safety provisions of Regulation 21 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 22)

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 20 shall be complied with.

(r) Construction vehicles and mobile plant (Regulation 23)

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 23.

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.

Ele The Contractor shall comply with the Electrical Installation Regulations (Government

HEALTH AND SAFETY SPECIFICATIONS

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 24.

(s) Use of temporary storage of flammable liquids on construction sites (Regulation 25)

The Contractor shall comply with the provisions of the General Safety Regulations (2003) and all the provisions of Regulation 25 of the Construction Regulations to ensure a safe and hazard-free environment to all workers and other persons on site.

(t) Water environments (Regulation 26)

Where construction work is done over or in close proximity to water, the provisions of Regulation 26 shall apply.

(u) Housekeeping on Construction sites (Regulation 27)

Housekeeping on all construction sites shall be in accordance with the provisions of the environment Regulations for workplaces (Government Notice R2281 of 16 October 1987) and all the provisions of Regulation 27 of the Construction Regulations.

(v) Stacking and storage on construction sites (Regulation 28)

The provisions for the stacking of articles contained in the General Safety Regulations (2003) as well as all the provisions Regulation 28 of the Construction Regulations shall apply.

(w) electrical installation and machinery on construction sites (Regulation 24)

(x) Fire precautions on construction sites (Regulation 29)

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 29 of the Construction Regulations.

(y) Construction employees' facilities (Regulation 30)

The Contractor shall comply with the construction site provisions as in the Facilities Regulations (2004), the provisions of Regulation 30 of the Construction Regulations and **the COVID-19 Occupational Health and Safety Measures in Workplaces COVID-19 (C19 OHS), 2020.**

(z) Non-compliance with the Construction Regulations 2014

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 and **the COVID-19 Measures in Workplaces** 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 30 as listed in Regulation 33 **and COVID-19 (C19 OHS),2020**, he will be guilty of an offence and will be liable, upon conviction, to the fines or imprisonment as set out in Regulation 33.

- **The Contractor is advised in his own interest to make a careful study of the Act, the Construction Regulations and the COVID-19 (C19 OHS),2020 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.**

OHS 10 **MEASUREMENT AND PAYMENT**

10.1 **Principles**

It is a condition of this contract that Contractors, who submit tenders for this contract, shall make provision in their tenders for the cost of all health and safety measures during the construction process. All associated activities and expenditure are deemed to be included in the Contractor's tendered rates and prices.

(a) **Safety personnel**

The Construction Supervisor, the Construction Safety Officer, Health and Safety Representatives, Health and Safety Committee and Competent Persons referred to in clauses 7.1 to 7.5 shall be members of the Contractor's personnel, and no additional payment will be made for the appointment of such safety personnel

(b) **Records and Registers**

The keeping of health and safety-related records and registers as described in paragraph 8 is regarded as a normal duty of the Contractor for which no additional payment will be considered, and which is deemed to be included in the Contractor's tendered rates and price

1. AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT NO 85 OF 1993

THIS AGREEMENT is made between.....
(hereinafter called the EMPLOYER of the one part, herein represented by:
.....
.....
.....
.....

in his capacity as:

.....

AND:

(hereinafter called the CONTRACTOR) of the other part, herein represented by

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

in his capacity as:

.....

duly

authorised to sign on behalf of the Contractor.

WHEREAS the CONTRACTOR is the Mandatory of the EMPLOYER in consequence of an agreement between the CONTRACTOR and the EMPLOYER in respect of

CONTRACT:.....

AND WHEREAS the EMPLOYER and the CONTRACTOR have agreed to enter into an agreement in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act No 85 of 1993, as amended by OHS Act Amendment Act No 181/1993 (hereinafter referred to as the ACT);

NOW THEREFORE the parties agree as follows:

1. The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
2. The CONTRACTOR undertakes to fully comply with all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations: Provided that should the EMPLOYER have prescribed certain arrangements and procedures that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
3. The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures, if any, imposed by the ACT and Regulations, and the CONTRACTOR expressly absolves the EMPLOYER and the Employer's CONSULTING ENGINEERS from being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedures in respect of the work included in the contract.

4. The CONTRACTOR agrees that any duly authorised officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with his undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.
5. The CONTRACTOR shall be obliged to report forthwith to the EMPLOYER any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this agreement, and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge.

Thus signed at..... for and on behalf of the **CONTRACTOR**

on this the day of 20.....

SIGNATURE:

NAME AND SURNAME:

CAPACITY:

WITNESSES: 1.

2.

Thus signed at for and on behalf of the **EMPLOYER** on this

the day of 20.....

SIGNATURE:

NAME AND SURNAME:

CAPACITY:

WITNESSES: 1.

2.

2. CONTRACTOR'S HEALTH AND SAFETY DECLARATION

In terms of Clause 4(4) of the OHS Act 1993 Construction Regulations 2014 (referred to as "the Regulations" hereafter), a Contractor may only be appointed to perform construction work if the Employer is satisfied that the Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993 and the OHS Act 1993 Construction Regulations 2014.

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

• Declaration by Tenderer

1. I the undersigned hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and the OHS Act 1993 Construction Regulations 2014.
2. I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.
3. I propose to achieve compliance with the Regulations by one of the following:
 - (a) From my own competent resources as detailed in 4(a) hereafter:..... ***Yes / No**
 - (b) From my own resources still to be appointed or trained until competency is achieved, as detailed in 4(b) hereafter: ***Yes / No**
 - (c) From outside sources by appointment of competent specialist subcontractors as detailed in 4(c) hereafter:..... ***Yes / No**

(* = delete whatever is not applicable)

4. Details of resources I propose:

(Note: Competent resources shall include safety personnel such as a construction supervisor and construction safety officer as defined in Regulation 8, and competent persons as defined in Regulations 9-29, (all or individual regulations) as applicable to this contract)

(a) Details of the competent and qualified key persons from my company's own resources, who will form part of the contract team:

NAMES OF COMPETENT PERSONS	POSITIONS TO BE FILLED BY COMPETENT PERSONS

HEALTH AND SAFETY SPECIFICATIONS

- (b) Details of training of persons from my company's own resources (or to be hired) who still have to be trained to achieve the necessary competency:
- (i)..... By whom will training be provided?
 - (ii)..... When will training be undertaken?
 - (iii).... List the positions to be filled by persons to be trained or hired:
 -
 -
- (c) Details of competent resources to be appointed as subcontractors if competent persons cannot be supplied from own company:
- Name of proposed subcontractor:
 - Qualifications or details of competency of the subcontractor:
5. I hereby undertake, if my tender is accepted, to provide, before commencement of the works under the contract, a suitable and sufficiently documented Health and Safety Plan in accordance with Regulation 7(1) of the Construction Regulations, which plan shall be subject to approval by the Employer.
6. I confirm that copies of my company's approved Health and Safety Plan, the Employer's Safety Specifications as well as the OHS Act 1993 Construction Regulations 2014 will be provided on site and will at all times be available for inspection by the Contractor's personnel, the Employer's personnel, the Engineer, visitors, and officials and inspectors of the Department of Labour.
7. I hereby confirm that adequate provision has been made in my tendered rates and prices in the schedule of quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHS Act 1993 Construction Regulations 2014, and that I will be liable for any penalties that may be applied by the Employer in terms of the said Regulations (Regulation 33) for failure on the Contractor's part to comply with the provisions of the Act and the Regulations.
8. I agree that my failure to complete and execute this declaration to the satisfaction of the Employer will mean that I am unable to comply with the requirements of the OHS Act 1993 Construction Regulations 2014, and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer.

SIGNATURE: DATE:

(of person authorised to sign on behalf of the Tenderer)

3. PRO FORMA NOTIFICATION FORM IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993, CONSTRUCTION REGULATIONS 2014

[This form must be completed and forwarded, prior to commencement of work on site, by all Contractors that qualify in terms of Regulation 3 of the Construction Regulations 2014, to the office of the Department of Labour]

• NOTIFICATION OF CONSTRUCTION WORK

4. (a) Name and postal address of principal contractor.

.....

(b) Name and tel. pf principal contractor's contact person:

.....

5. Principal contractor's compensation registration number:

.....

6. (a) Name and postal address of client :

.....

(b) Name and tel. no of clients contact person or agent:

.....

4 (a) Name and postal address of designer (s) for the project:

.....

(b)

5. Name and telephone number of principal contractor's sub- ordinate supervisor on site appointed in terms of Regulation 8 (1).

.....

6. Name /s of principal contractor's sub- ordinate supervisor on sire appointed in terms of Regulation 8 (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.

Total: _____ Male: _____ Female _____

12. Planned number of contractors on the construction:

13. Name (s) of contractors already selected.

Principal Contractor

Date

Client's Agent (where
applicable)

Date

Client

Date

ANNEXURE B: ENVIRONMENTAL MANAGEMENT SPECIFICATION

PRE - CONSTRUCTION			
ISSUE	ACTIVITY AND MITIGATION	RESPONSIBILITY	TIMING
Authorizations, Permits and Licenses	All necessary authorizations, permits and licenses must be obtained prior to the commencement of construction.	C	Once- off
Method Statements	Method Statements must be created and submitted by the Contractor and therefore adhered to by the Contractor and Project Engineer. The ECO will monitor and ensure that the Method statement is implemented. Copies of the Method Statement should must be submitted to the appointed ECO.	ECO	Once-off
Appointment of ECO	The appointed ECO must undertake monthly site inspections and provide monthly audit reports for the duration of the construction and rehabilitation phases. Each audit report must contain the results of the full audit. Audit report results should indicate whether the audited item is in compliance, non-compliance or not applicable during site inspection. Not applicable answers are for those aspects of the construction that have not yet started or are not applicable to activities being undertaken	C ECO	Once- off Once off/ Monthly

Pre-construction and Construction Phase

Activity	Management / Mitigation	Responsibility	Frequency / Timing
Access to the Site and Surveys	Routing, Access and Surveying		
	a) Access to site must be via existing roads only. The Contractor will have to ascertain the existing condition of access roads and repair accordingly should damage occur due to construction activities.	C & PM	Prior to moving onto site and during the construction
	b) The location of all underground services and servitudes must be identified and confirmed before construction commences.	C & PM	Prior to moving onto site.
	c) Marking of survey points must be done with the ECO's approval.	PM	Prior to moving onto site.
	d) Vegetation disturbance must be kept to a minimum during the survey operations.	PM&ECO	During surveys and preliminary investigations

Activity	Management / Mitigation	Responsibility	Frequency / Timing
	e) Staff shall ensure that they drive sensibly such that the surrounding public roads and road users are not adversely affected.	C & PM	On-going
	f) Machine / vehicle operators must receive clear instructions to remain within demarcated access routes.	C & PM	On-going
Construction Camp Site	a) The Applicant must seek approval for a suitable camp site from the Engineer and ECO prior to any construction works.	C, PM & ECO	Prior to moving onto site.
	b) If the Contractor chooses to locate the camp site on private land, he must get prior permission from the Engineer, ECO and the landowner.	C, PM & ECO	Prior to moving onto site.
	c) The size of the construction camp must be minimized (especially where natural vegetation or grassland has to be cleared for its construction).	C&PM	During site establishment.
	d) The Contractor must attend to, monitor and manage drainage of the camp site. Run-off from the camp site must not discharge into neighbouring properties.	C&PM	During site establishment and on-going; the PM is to conduct on-going weekly inspections of the construction camp.
	e) No vehicle / machinery maintenance or servicing is permitted in the camp site.	C&PM	On-going
	f) The boundary of the camp site must be fenced with 1.8-2m bonnox fencing covered with shade cloth (shade cloth must have a density of no less than 80%).	C	During site establishment.
	g) No refuse outside the fence will be permitted.	C C&PM	During site establishment.
Sewage and Sanitation	Ablutions		
	a) Temporary chemical toilets must be provided by an approved and registered company at a ratio of 1 toilet per 7 workers.	C	On-going monitoring
	b) Toilets must be no closer than 32m from any watercourse. Such facilities, which shall comply with local authority regulations, shall be maintained in a clean and hygienic condition. Their use shall be strictly enforced. They must be positioned in an appropriate place, also taking into consideration, wind movement and strength, and gradient of the land.	C&ECO	During set-up, with on-going monitoring as work progresses
c) The construction of a "long-drop" is forbidden.	C	On-going	

Activity	Management / Mitigation	Responsibility	Frequency / Timing
	d) Under no circumstances may open areas, plantations, or the surrounding bush or degraded areas be used as a toilet facility.	C&ECO	On-going
	e) Under no circumstances may any worker utilise the toilet facilities of nearby residences and businesses. It is the responsibility of the Contractor to ensure that sufficient hygienic toilet facilities are provided for workers at all times.	C&ECO	On-going
	f) The sanitation facilities need to be monitored daily to ensure maintenance of high sanitation standards.	C&ECO	On-going
Education of Site Staff on General and Environmental Conduct	Education		
	a) Staff, operating equipment, shall be adequately trained and sensitised to any potential hazards associated with their tasks.	C&ECO	During staff induction, followed by on-going monitoring
	Use of environmental awareness posters on site should be advocated.	C&ECO	On-going
	No alcohol / drugs to be present on site; no vehicles or machinery are to be operated whilst under the influence of alcohol or drugs.	C	During staff induction, followed by on-going monitoring
	No fires to be permitted on site.	C&PM	During staff induction, followed by on-going monitoring
	All employees must undergo the necessary safety training and wear the necessary protective clothing at all times.	C	Within 14 days of being appointed and on-going
Education of Site Staff on Health and Safety Education and Awareness	Education		
	A health and safety induction must be conducted prior to the commencement of the project. This training must include safety in the workplace training	EAP/C	During staff induction, followed by on-going monitoring
Social Impacts	A site notice (i.e. a public notice) must be erected on the construction site giving contact details of the Applicant; the Environmental Control Officer; the project manager; the engineer; the contractor before construction activities commence.	C&ECO	Prior to moving onto the site.
	The Contractor is to inform neighbours in writing of disruptive activities at least 24 hrs beforehand. This can take place by way of distributing flyers to I&APs.	C&PM	As needed

Activity	Management / Mitigation	Responsibility	Frequency / Timing
	Drivers of construction vehicles must exercise care when travelling to and from the site – and adhere to all legally enforceable requirements	C	On-going monitoring
	A complaints register must be kept on site. Details of complaints must be incorporated into the audits as part of the monitoring process.	C, ECO	During site setup and on-going
Geology	To induce any collapse settlement in the recent dune sand and Berea formation, the upper 0.3 metres in the dune sands and Berea Formation must be ripped and recompacted to a 95% of Mod AASHTO dry density and at optimum moisture content.	E/ECO/C	Before construction activities
	Subsoil drains to intercept subsurface flows into the pavement layers.	E/ECO/C	During construction
	The subsoil drains must comprise a geofabric 'sock' which should be separated from the in-situ materials by a coarse sand.	E/ECO/C	During construction
Soil erosion	Topsoil and Stockpiling		
	Soil disturbance must be minimized by establishing the extent of the construction site (pre-construction).	C&ECO	Before construction activities and on-going
	Clear demarcation must be provided on site and on route layout.	C&ECO	Before construction activities and on-going
	No construction personnel or vehicles may leave the demarcated areas except when authorised to do so by the relevant authority / ECO.	C&ECO	On-going
	Topsoil stripped from the construction areas must be stockpiled away from any potential disturbances.	C&PM	On-going
	Stockpiles must not exceed 1.5 metres in height unless otherwise permitted by the ECO.	C&PM	On-going
	Stockpiles must not be situated such that they obstruct natural water pathways	C&PM	On-going
	Stockpiled topsoil must be vegetated with indigenous grasses, especially if left for longer than three (3) months.	C	On-going
	Conservation and Management of Soil Resources		

Activity	Management / Mitigation	Responsibility	Frequency / Timing
	Wind screening and storm water control must be undertaken to prevent soil loss from the site.	C&PM	During setup and throughout the duration of the project
	Erosion prevention and control measures must be implemented in areas where there are steep slopes. Berms, sand bags and hessian sheets must be used to contain all sediment whilst energy dissipaters must be constructed at all outflow points. The site must be monitored for any sign of off-site siltation. All exposed earth must be rehabilitated promptly with suitable vegetation to protect the soil.	C&PM	On-going
	Side tipping of soil and excavated materials shall not be permitted – all spoil material shall be disposed of as directed by the ECO and the Engineer.	C&PM	On-going
Conservation of the Natural Environment	Fauna and Flora		
	Areas which are identified by the Environmental Control Officer (ECO) as being ecologically sensitive and which are adjacent to any construction work are to be suitably demarcated to prevent damage by labour. These areas are to be recognised as “no-go” areas – especially the watercourses that are found along the route of the road to be rehabilitated.	C, ECO&PM	Prior to the commencement of construction activities
	No natural vegetation may be cleared without prior permission from the ECO and if applicable from any relevant authority. Indigenous vegetation that is removed is to be replanted either back to the point from which it was taken or must be replaced by new relevant indigenous vegetation.	C&ECO	On-going
	Care must be taken to avoid the introduction of alien plant species to the site and surrounding areas.	C&ECO	On-going
	Disturbance to birds, animals and reptiles and their habitats must be minimized wherever possible.	C&PM	On-going
Water	Stormwater Control		
	To prevent stormwater damage, the increase in stormwater runoff resulting from the construction activities must be estimated and the drainage system assessed accordingly.	C&PM	Prior to moving onto site.

Activity	Management / Mitigation	Responsibility	Frequency / Timing
	Stormwater culverts and drains are to be located and covered with metal grids to prevent blockages if deemed necessary by the ECO.	C&PM	During site establishment
	Stormwater culverts must also need to be covered with bidim geotextile to filter sand and silt to prevent it from entering the stormwater system.	C&PM	During site establishment
	The stormwater drainage system must not be contaminated by other sources; i.e. must be separated from other wastewater drainage systems. The stormwater management plan must ensure that flow from the development does not result in negative impacts on downstream properties.	C&PM	Prior to moving onto site and on-going
Hydrology and surface run-off			
	Vegetation must be preserved as far as possible.	E/ECO/C	Weekly
	If necessary, flood lines must be clearly demarcated on the layout plans.	E/ECO/C	Weekly
	Water on the road must be diverted away immediately to minimise the amount of water running directly from the road into the watercourses.	E/ECO/C	Weekly
	Activities directly impacting on watercourse must occur during the dry winter months (low or zero flow periods) in order to limit the potential impact linked to high runoff rates.	E/ECO/C	Weekly
	The watercourse areas must be monitored for any signs of off-site siltation	E/ECO/C	Weekly
	No stockpiling of any materials may take place adjacent to the drainage lines and watercourses.	E/ECO/C	Weekly
	Contractor laydown areas must be outside of watercourse areas.	E/ECO/C	Weekly
Waste Management			
On-Site Waste Management			
	The excavation and use of rubbish pits is forbidden.	C&PM	On-going
	Burning of waste is forbidden. A possible exception to this may be that the alien invasive vegetation which is removed from the site should be burned to prevent the spread of the plants.	C&PM	On-going

Activity	Management / Mitigation	Responsibility	Frequency / Timing
	Littering on the site is forbidden and the site shall be cleared of litter at the end of each working day.	C&PM	On-going
	All waste generated during construction is to be disposed of at a facility registered in terms of section 20(b) of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).	C&PM	On-going
	Waste from chemical toilets must be disposed of regularly and in a responsible manner by a registered waste contractor. Care must be taken to avoid contamination of soils and water, pollution and nuisance to adjoining areas	C&PM	On-going
Handling of Hazardous materials	Hazardous Materials		
	Material Safety Data Sheets (MSDSs) shall be readily available on site for all chemicals and hazardous substances to be used on site, this includes diesel. Where possible and available, MSDSs must additionally include information on ecological impacts and measures to minimize negative environmental impacts during accidental releases or escapes.	C, PM& ECO	On-going
	Bitumen, cement and other potential environmental pollutants must be stored in the camp site within an impervious (concrete) bunded, roofed and sign posted area.	C&PM	During site set-up and on-going
	Bitumen, cement and other potential environmental pollutants must be mixed on a concrete surface that is bunded and lipped to prevent the leakage of pollutants onto the ground.	C&PM	On-going
	All empty contaminated containers must be stored within the hazardous bunded area until collection by a reputable hazardous waste collection company. Way bills must be presented to the ECO for review and filing purposes.	C&PM	On-going
	No vehicles, especially those transporting hazardous materials to the site, may be washed on or near site. They must return to the supplier of such material to be cleaned out	C&PM	On-going
	Spill kits from a commercial supplier must be present on site and several staff members must be trained in the use thereof.	C&PM	On-going

Activity	Management / Mitigation	Responsibility	Frequency / Timing
Construction Equipment	The Use of Construction Equipment		
	Drip trays must be present under all parked vehicles; irrespective of evidence or not of oil or fuel leaks.	C&PM	On-going

• **Post-Construction and Operational Phase**

Activity	Management / Mitigation	Responsibility	Frequency / Timing
Vegetation Rehabilitation	Vegetation		
	All disturbed areas, or areas which have been disturbed for the purpose of the development, are to be re-vegetated. This will aid in preventing erosion within the site. A 100% indigenous planting plan must be adhered to in terms of all planting carried out on the site.	C, PM&ECO	Project completion
	During the Operational Phase, all rehabilitated areas must be maintained through weekly inspections until the 80% success rate has been achieved	CPM&ECO	During Operational phase
	Encroachment of invasive alien plants in this regard will need to be monitored on a regular basis to prevent re-infestation.	C,PM, A &ECO	Project completion and operational phase
Land Rehabilitation	Land		
	Rehabilitation must be executed in such a manner that surface runoff will not cause erosion of disturbed areas during and after rehabilitation.	C, PM&ECO	Project Completion
	Any rubble is to be removed from site to an appropriate disposal site. Burying of rubble on site is prohibited.	C&PM	Project Completion
	The site is to be cleared of all litter.	C&PM	Project completion and operational phase
	Monitoring and / or rehabilitation of impacted soils and / or groundwater may be required on areas where chemical spillages have occurred during construction.	C, PM & A	Project completion and operational phase
Removal and Repair	Materials and Infrastructure		

Activity	Management / Mitigation	Responsibility	Frequency / Timing
of Materials and Infrastructure	All material used for building and maintenance must be removed from site after construction or maintenance.	C&PM	Project Completion
	Fences, barriers and demarcations associated with the construction phase are to be removed from the site unless stipulated otherwise by the ECO.	C&PM	Project Completion
	The Contractor must repair any damage that the construction works has caused to adjacent areas.	C	Project Completion
Stormwater Management	Stormwater		
	Any negative stormwater effects related to the construction phase must be remediated	C	Project Completion
	On-going monitoring and assessing of stormwater drainage must occur on site during the operational phase of the proposed project.	Applicant	During Operational phase
Waste	Removal of Hazardous and Non-Hazardous Waste		
	All hazardous and non-hazardous materials and containers must be collected by a reputable hazardous waste collection company and disposed of appropriately. This must be actioned before any operations take place	C	Project completion
	Collection and disposal of non-hazardous waste to a registered landfill site must occur at least once a week.	C	During Operational phase

ANNEXURE C: DRAWINGS FOR TENDER PURPOSES

ANNEXURE C

DRAWINGS

The drawings issued to tenders as part of the tender documents must be regarded as provisional and preliminary for the tenderer's benefit to generally assess the scope of work. The drawings may be issued as a separate book of drawings or else bound in as part of this document.

The work shall be carried out in accordance with the latest available revision of the drawings approved for construction (AFC)

At commencement of the contract, the Engineer shall deliver to the Contractor copies of the AFC drawings and any instructions required for the commencement of the works. From time to time thereafter during the progress of the works, the Engineer may issue further drawings for construction purposes as may be necessary for adequate construction, completion and defects correction of the works.

Drawings issued separately are listed in the Book of Drawings. Drawings issued as part of this volume are listed hereafter.

All drawings and specifications and copies thereof remain the property of the Employer, and the Contractor shall return all drawings and copies thereof to the Employer at the completion of the contract.

LIST OF DRAWINGS:

Drawing No.	Description
EMAL-2024-RDS-000a-T	CONTRACT BOARD
EMAL-2024-RDS-000-T	ROADS LAYOUT PLAN
EMAL-2024-RDS-001-T	ROAD LAYOUT PLAN AND LONGITUDINAL SECTION: CH 0.000 - CH 0.500
EMAL-2024-RDS-002-T	ROAD LAYOUT PLAN AND LONGITUDINAL SECTION:CH 0.500 - CH 1.000
EMAL-2024-RDS-003-T	ROAD LAYOUT PLAN AND LONGITUDINAL SECTION:CH 1.000 - CH 1.198
EMAL-2024-RDS-004-T	ROADS CROSS SECTIONS: SHEET 1
EMAL-2024-RDS-005-T	ROADS CROSS SECTIONS: SHEET 2
EMAL-2024-RDS-006-T	ROADS CROSS SECTIONS: SHEET 3
EMAL-2024-RDS-007-T	ROADS CROSS SECTIONS: SHEET 4
EMAL-2024-RDS-008-T	ROADS CROSS SECTIONS: SHEET 5
EMAL-2024-RDS-009-T	ROADS CROSS SECTIONS: SHEET 6
EMAL-2024-RDS-010-T	ROAD STORMWATER LAYOUT PLAN
EMAL-2024-RDS-011-T	STORMWATER LAYOUT PLAN AND LONGITUDINAL SECTION: SHEET 1 CH 0.000 - CH 0.400
EMAL-2024-RDS-012-T	STORMWATER LAYOUT PLAN AND LONGITUDINAL SECTION: SHEET 2 CH 0.300 - CH 0.680
EMAL-2024-RDS-013-T	STORMWATER LAYOUT PLAN AND LONGITUDINAL SECTION: SHEET 3 CH 0.680 - CH 1.198
EMAL-2024-RDS-014-T	BEANY BLOCK DETAILS: SHEET 1 OF 2
EMAL-2024-RDS-015-T	BEANY BLOCK DETAILS: SHEET 2 OF 2
EMAL-2024-RDS-016-T	TYPICAL DETAILS FOR CATCHPIT
EMAL-2024-RDS-017-T	TYPICAL DETAILS FOR PIPE CULVERT HEADWALLS (CONCRETE)
EMAL-2024-RDS-018-T	TYPICAL DETAILS FOR PIPE CULVERT HEADWALLS (MANSORY)
EMAL-2024-RDS-019-T	TYPICAL DETAILS FOR KERBING: SHEET 1 OF 2
EMAL-2024-RDS-020-T	TYPICAL DETAILS FOR KERBING: SHEET 2 OF 2
EMAL-2024-RDS-021-T	TYPICAL DETAILS FOR GUARDRAIL INSTALLATION
EMAL-2024-RDS-022-T	TYPICAL DETAILS FOR CONCRETE PIPE CULVERT BEDDING