## **GREATER LETABA MUNICIPALITY**



## **CONSTRUCTION OF RAMAROKA STREET PAVING**

**TENDER NUMBER: GLM002/2025** 

**CIDB GRADING OF 7CE or Higher** 

CLOSING DATE: 25 September 2024 @ 12H00

COMPANY NAME	
TENDER SUM (FIGURES) R	
TENDER SUM (IN WORDS)	
OLIENT	CONCULTANT
CLIENT: GREATER LETABA MUNICIPALITY	CONSULTANT:
44 Botha Street	CLEAR WATER CONSULTING ENGINEERS (PTY) LTD 266 Madumeleng Village
Modjadjiskloof	Modjadjiskloof
0835	0837
Tel:015 309 9246	Contact Person
Fax:015 309 9419	Name: Matome Rabopape
	Tel: 072 889 5515
	Email: admin@cwengineers.co.za



## THE TENDER

T1	TENDERING PROCEDURES	
T1.1	TENDER NOTICE	WHITE
T1.2	INVITATION TO TENDER	
T1.3	TENDER DATA	PINK
T1.4	FUNCTIONALITY CRITERIA	
T2	RETURNABLE DOCUMENTS	
T2.1	LIST OF RETURNABLE DOCUMENTS	YELLOW
T2.2	RETURNABLE SCHEDULES	YEL
T2.3	OTHER DOCUMENTS REQUIRED ONLY FOR TENDER EVALUATION PURPOSES	
	THE CONTRACT	
C1:	AGREEMENT AND CONTRACT DATA	
C1	FORM OF OFFER AND ACCEPTANCE	
C1.2	CONFIRMATION OF RECEIPT	WHITE
C1.3	PERFORMANCE GUARANTEE	×
C1.4	AGREEMENT IN TERMS OF SECTION 37(2) OF THE OHS ACT (No. 85 OF 1993)	
C1.5	CONTRACT DATA	
C2	PRICING DATA	>
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C2.2	BILL OF QUANTITIES	<i>-</i>
C3:	SCOPE OF WORK	
C3.1	DESCRIPTION OF WORKS	ACK)
C3.2	ENGINEERING	BLUE (BACK TO BACK)
C3.3	CONSTRUCTION	(BAC
C3.4	MANAGEMENT	
C4:	SITE INFORMATION	GREEN
C4.1	SITE INFORMATION	<u>R</u>
C5	TENDER DRAWINGS	WHITE

## **GREATER LETABA MUNICIPALITY**



## **CONSTRUCTION OF RAMAROKA STREET PAVING**

PROJECT NO: GLM002/2025

## THE TENDER

PART T1 : TENDER PROCEDURES

PART T2 : RETURNABLE DOCUMENTS

Contractor Witness 1 Employer Witness 1

## **GREATER LETABA MUNICIPALITY**



## **CONSTRUCTION OF RAMAROKA STREET PAVING**

PROJECT NO: GLM002/2025

#### PART T1: TENDER PROCEDURES

T1.1 : TENDER NOTICE & INVITATION TON TENDER

T1.2 : TENDER DATA

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Contractor	Witness 1	-	Employer	Witness 1
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#### **T1.1 TENDER NOTICE**



#### **GREATER LETABA MUNICIPALITY**

TENDI	ER NO.	PROJECT DESCRIPTION	MINIMUM NUMBER OF WORK OPPORTUNITIES EXPECTED	CIDB GRADING	SITE INSPECTION	CLOSING DATE
GLM00	02/2025	CONSTRUCTION OF RAMAROKA STREET PAVING	10	7CE or Higher	N/A	25/09/2024

Tender Documents will be available as from the **30 AUGUST 2024** at the offices of the Greater Letaba Municipality offices, at 44 Botha Street, Modjadjiskloof, 0835 during office hours. Documents may be collected upon a non-refundable cash fee of **R 2098.00** per document, only cash, EFT or card purchases will be accepted.

Tenders are hereby invited from prequalified only tenderers who can demonstrate that they will have in their employ staff which satisfy EPWP requirements during the contract validity are eligible to submit tenders.

There will be no Tender Clarification Meeting.

The Tenderer must complete the Bid Document and attach all Returnable Documents. The Bid Document must be sealed in an envelope stipulating the Project Name & Tender Number (CONSTRUCTION OF RAMAROKA STREET PAVING, GLM002/2025 Bid Documents must be deposited into the Tender Box, Ground Floor, Greater Letaba Municipality, 44 Bother Street, Modjadjiskloof, 0835 at no later than 12H00 on the 25 September 2024

Prospective Tenderers must be registered with the National Treasury's Central Supplier Database (CSD) and with the Construction Industry Development Board (CIDB). The Bidder must have CIDB Grading of **7CE or Higher** 

**N.B**: The evaluation of bids will be conducted in Two Stages. First stage will be the assessment of functionality as follows: Company work experience 30 Points; Financial Capacity 15 Points; Key personnel: 25 points; Plant & Equipment: 30 points; bidders that obtain a minimum of 70 points will be evaluated further in terms of 80/20 Preference point scoring system, where 80 points will be allocated for price only and 10 points-youth, and 10 points black-owned will be allocated based on the specific goals.

Bid Documents will be evaluated in terms of the Supply Chain Management Policy of the Greater Letaba Municipality. The lowest tender will not necessarily be accepted or deemed suitable. The Greater Letaba Municipality reserves the right not to consider any tender not suitably endorsed or comprehensively completed, as well as the right to accept the tender in whole part.

Administration queries may be directed to the Supply Chain Office: Ms P Ramafalo – 087 086 7471 or Mr Modjadji KLM - 087 086 7503

Technical Enquiries may be directed to Mrs G Nhlane-076 975 6291

SEWAPE MO-	MUNICIPAL MANAGER
<b>GREATER LET</b>	ABA MUNICIPALITY

Contractor	Witness 1	Employer	Witness 1

#### TENDERERS SHALL TAKE NOTE OF THE FOLLOWING BID CONDITIONS:

Bidders must complete the Tender Document in Blank Ink, All Pages of the Tender Document must be Initialled, All Forms Must Be Completed, the Bidder Must Sign for All Mistakes/Errors. Should the Bidder Not Adhere to these instructions and those below the Bid will be considered as being Non-Responsive and would therefore be Disqualified.

#### INSTRUCTIONS/RETURNABLE SCHEDULES THAT LEAD TO DISQUALIFICATION OF BID:

- 1. Company registration certificate (C.K certificate)
- 2. Proof of SARS Tax pin (for all companies in case of a Joint Venture)
- 3. In case of a Joint venture, Association or Consortium a formal contract agreement must be signed by both parties and be attached (if applicable).
- 4. Certified ID copies of all directors/member/shareholders of the company (for all companies in case of a Joint Venture)
- 5. Recent proof of payment for municipal rates and taxes or municipal services charges owed by that bidder or any of its directors to the Municipality which are not in arrears for not more than three months in line with regulation no.38 of the Municipal Supply Chain Management Regulations/ recent and original proof of residence from Traditional Authority or Induna in case where business is located in a non-ratable area / valid lease agreement signed between the Lessor and the Lessee(Bidder).
- 6. Company Profile or schedule indicating bidder's experiences (for all companies in case of Joint Venture)
- 7. Alterations on the bid document must be initialed or signed off on BOQ
- 8. The Bidders must submit the master registration number (Central Supplier Database registration number) to enable the Municipality to verify the bidders tax compliance and other information.
- 9. Attach Proof of Purchase (Receipt or Proof of payment)
- 10. A copy of relevant CIDB Grading downloadable from the CIDB website.
- 11. Attach bank rating letter no older than 3 months.
- 12. Letter of good standing (Compensation for Occupational Injuries and Disease Act (COIDA) from Department of Labour OR any company accredited by Department of labour
- 13. Letter of intent to provide performance guarantee.
- 14. Certificate of Authority for signatory
- 15. 3 years Recent Audited Annual Financial Statement

**NB:** The evaluation of the bid will be conducted in two stages; first stage will be assessment on functionality. Only bidders that obtain 70 points will be subjected to 80/20 Preference point scoring system, where 80 points will be allocated for price only and 20 points will be allocated based on the specific goals points scored.

Attach certified copy of Director's ID as proof of Specific goals (10 Points - 100% black owned and 10 point youth

NB.	All page:	s of the	bid do	cumen	t must	be sig	ined ar	id initia	aled a	nd mus	st be	properly	y comple	eted in	n black i	nk

Contractor	Witness 1	Fmplover	L	Witness 1

#### Bidders shall take note of the following bid conditions:

- 1. Specific goals in terms of the Preferential procurement regulations 2022 will apply on this bid.
- 2. Council reserves the right to negotiate further conditions in terms of SCM regulation 24 with the successful bidder.
- 3. Council reserves the right not to appoint.
- 4. No bidder will be appointed if not registered on Central Supplier Database.
- 5. Late, incomplete, unsigned, faxed or emailed bids will not be accepted.

**NB:** Certification on the documents should not be older than Six months.



RETURNABLE DOCUMENTS CHECKLIST								
DESCRIPTION	SUBMITTED/FULLY							
	COMPLETED(Y/N)							
Company registration certificate (C.K certificate)								
2. Proof of SARS Tax pin (for all companies in case of a Joint Venture)								
3. In case of a Joint venture, Association or Consortium a formal contract								
agreement must be signed by both parties and be attached (if applicable).								
4. Certified ID copies of all directors/members/shareholders of the company								
(for all companies in case of a Joint Venture)								
5. Recent proof of payment for municipal rates and taxes or municipal services								
charges owed by that bidder or any of its directors to the Municipality which								
are not in arrears for not more than three months in line with regulation no.38								
of the Municipal Supply Chain Management Regulations/ recent and original								
proof of residence from Traditional Authority or Induna in case where business								
is located in a non-ratable area / valid lease agreement signed between the								
Lessor and the Lessee(Bidder).								
6. Company Profile or schedule indicating bidder's experiences (for all								
companies in case of Joint Venture)								
7. Alterations on the bid document must be initialled or signed off on BOQ								
8. The Bidders must submit the master registration number (Central Supplier								
Database registration number) to enable the Municipality to verify the bidders								
tax compliance and other information.								
Attach Proof of Purchase (Receipt or Proof of payment)								
10. A copy of relevant CIDB Grading downloadable from the CIDB website.								
11. Attach bank rating letter no older than 3 months.								
12. Letter of good standing (Compensation for Occupational Injuries and								
Disease Act (COIDA) from Department of Labour OR any company accredited								
by the Department of Labour								
13. Letter of intent to provide a performance guarantee.								
14. Certificate of Authority for signatory								
15. 3 years Recent Audited Annual Financial Statement								

**NB:** Certification on the documents should not be older than six months. Bidders will be disqualified for failure to submit any of the returnable documents listed above.

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L	Contractor	Witness 1	1	Employer		Witness 1

## **Confidentiality and Copyright of Documents.**

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

Contractor	Witness 1	Empi	oyer	Witness 1

INVITATION TO BID PART A (MBD 1)

YOU ARE HERE	BY INVITED TO BID FOR	REQUIREME	NTS OF	THE (N)	AME O	F MUNI	CIPALI	TY/ MU	UNICIPA	L ENTITY)
BID NUMBER:	GLM002/2025	CLOSING DATE:		25 Sept	ember	2024	CLOS	ING T	IME:	12h00 Midday
DESCRIPTION	Construction of RAMARO	OKA STREET I	PAVING	-					'	•
THE SUCCESSF	UL BIDDER WILL BE RE	QUIRED TO F	ILL IN A	ND SIGI	N A WF	RITTEN	CONTR	RACT	FORM (N	MBD7).
	BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)									
44 Botha Street										
Modjadjiskloof, 0835										
CURRILED INFO	DMATION									
SUPPLIER INFO		T								
NAME OF BIDDE										
STREET ADDRE		CODE				NUME	BER			
CELLPHONE NU		0052				1101112	<u> </u>			
FACSIMILE NUM	MBER	CODE				NUME	BER			
E-MAIL ADDRES	SS							•		
VAT REGISTRA	TION NUMBER									
TAX COMPLIAN	CE STATUS	TCS PIN:			OR	CSD	No:			
B-BBEE STATUS VERIFICATION ( [TICK APPLICAL	CERTIFICATE	☐ Yes			AFFIDAVIT			□ Y		
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	ACCREDITED IVE IN SOUTH AFRICA IS /SERVICES /WORKS	☐Yes	LOSE PI	□No	BASI FOR	YOU A ED SUP THE GO VICES	PLIER OODS		☐Yes [ [IF YES, B:3]	No , ANSWER PART
OITEKED:					OFFE	RED?				
TOTAL NUMBER	R OF ITEMS OFFERED				TOTA	AL BID	PRICE		R	
SIGNATURE OF	BIDDER				DATE	<b>=</b>				
SIGNED	ER WHICH THIS BID IS									
	EDURE ENQUIRIES MAY	BE DIRECTE	D TO:	_		-	MATION	MAY	BE DIR	ECTED TO:
DEPARTMENT						RSON				
CONTACT PERS						NUMB				
TELEPHONE NU					L ADDI	IUMBE	K			
E-MAIL ADDRES				⊏-IVIAII	L AUUI	ヘニひひ				
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	Contractor	Witness 1			Emplo	yer	Witi	ness 1		

#### PART B

#### TERMS AND CONDITIONS FOR BIDDING

Contractor

Witness 1

Employer

Witness 1

IEK	NS 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.				
2.	TAX COMPLIANCE REQUIREMENTS				
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	, , , , , , , , , , , , , , , , , , ,				
	·				
	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)?				
	, ,				
	<b>—</b>				
	☐ YES ☐ NO				
RE	GISTER AS PER 2.3 ABOVE.				
NO E	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.  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-FILLING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILLERS 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 FOR SARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE FIN / 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.  QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS  3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?  YES \( \) NO  3.2. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?  YES \( \) NO  3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?  YES \( \) NO  3.4. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT TO REGISTER FOR A TAX OMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT EGISTER AS PER 2.3 ABOVE.  3.5 IS THE ENTITY HAVE ANY SOURCE OF INCOME IN THE BID INVALID.  3.6 IS THE ENTITY HAVE ANY SOURCE OF THE STATE.  3.6 SALTURE OF BIDDER  3.7 IN THE ADDRESS AND THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.  3.8 IN THE CONSIDERED FROM PERSONS IN THE SERVICE OF T				
SIC	IATLIDE OF RIDDED				
טוכ	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.  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 TOS 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.  3.1 IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?  YES \( \) NO  3.2 DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?  YES \( \) NO  3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?  YES \( \) NO  3.4. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT 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.				
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DAT	<u>:</u>				

#### **T1.2 TENDER DATA**

The conditions of tender are those contained in the latest edition of SANS 10845-3, Construction Procurement -Part 3: Standard Conditions 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 provision of SANS 1084-3.

Each item of data given below is cross-referenced to the clause in SANS 10845-3 to which it mainly applies.

CLAUSE	DATA						
2.1	Wherever reference is made in the documentation to Bill of Quantities it shall also mean Pricing Schedule.						
2.7	Wherever reference is made in the documentation to contractor it shall also mean service provider						
3.1	3.1 Employer is: GREATER LETABA MUNICIPALITY  The Employer 's domicilium citandi et excutandi (permanent physical business address) is:  44 Botha Street  Modjadjiskloof  0835						
3.2							
	The Tender						
	T1 Tendering Procedures						
	T 1.1 Tender Notice and Invitation to Tender						
	T1.2 Tender data						
	T2 Returnable Documents						
	T2.1 List of returnable documents						
	T2.2 Returnable Schedules for Tender Evaluation Purposes						
	The Contract						
	C1 Agreements & Contract Data						
	C1.1 Form of Offer & Acceptance						
	C1.2 Contract Data						
	C1.3 Form of Guarantees						
	C2 Pricing Data						
	C2.1 Pricing Instructions						
	C2.2 Bill of Quantities						
	C3 Scope of Work						
	C4 Site Information						
3.4	The language for communications is English.						
3.4	The employer's agent is: CLEAR WATER CONSULTING ENGINEERS  The Employer 's agent's domicilium citandi et excutandi (permanent physical business address) is:  266 Madumeleng Village  Modjadji  0837						
	Tel: 072 889 5515 E-mail: ADMIN@CWENGINEERS.CO.ZA						

3.5	The tender process may be cancelled if:
	<ul> <li>(a) Due to changed circumstances, there is no longer a need for the goods or services specified in the invitation:</li> <li>(b) Funds are no longer available to cover the total envisaged expenditure;</li> <li>(c) No acceptable tender is received; or</li> </ul>
	There is a material irregularity in the tender process
3.6	The competitive selection procedure shall be applied in awarding the tender.
4	Jurisdiction
•	Unless stated otherwise in the Tender Data, each tenderer and the Employer undertake to accept the jurisdiction of the courts of law of the Republic of South Africa.
4.1	Only those tenders who satisfy the following criteria are eligible to submit tender:
	<ul> <li>(a) The Contractor submitting the tender is under restrictions or has principals due to corrupt of fraudulent practices:</li> <li>(b) The tenderer does not have the legal capacity to enter into the contract;</li> <li>(c) The Contractor submitting the tender is insolvent, in receivership, bankrupt or being wound up, has his affairs administered by a court or a judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of the foregoing;</li> <li>(d) The tenderer does not comply with the legal requirements stated in the Employer's procurement policy;</li> <li>(e) The tenderer cannot demonstrate that he possesses the necessary professional and technical qualifications and competent, financial resources, equipment and other physical facilities, managerial capability, personnel, experience and reputation to perform the contract;</li> <li>(f) The Tenderer cannot provide proof that he is in good standing with respect to duties, taxes, levies and contributions required in terms of legislation applicable to the work in the contract.</li> <li>Only those tenderers who are registered with the Construction Industry Development Board (CIDB) with a grading equal to 7CE, or Higher or a combined grading equal to 7CE or Higher (in the case of a joint venture), as defined in the Regulation (09 August 2004 and 22 JULY 2005), in terms of the CIDB Act No 38 of 2000, are eligible to submit tender for this contract.</li> <li>Only those Tenderers who have in their employ management and supervisory staff satisfying the requirements of the scope of work for labour intensive competencies for Supervisory and management staff are eligible to submit tender</li> <li>The Tender shall, when requested by the Employer to do so, submit the names of all Management and supervisory staff that will be employed to supervise the labour - intensive portion of the work together with satisfactory evidence that such staff member satisfy the eligibility requirements.</li> </ul>
4.6	Failure to apply instructions contained in addenda may render a tenderer's offer non-responsive in terms of Condition of Tender, Clause 5.8
4.7	
4.7	There will be no compulsory clarification meeting.
4.10	Tenderers are required to state the rates and currencies in Rand
4.12	Alternative offers are generally not accepted due to possible manipulation of the tender process and resulting complexity of the evaluation.  Therefore, the submission of alternative tenders is strongly discouraged.
	The submission of alternative work will be considered as a non-responsive offer.

Employer

Witness 1

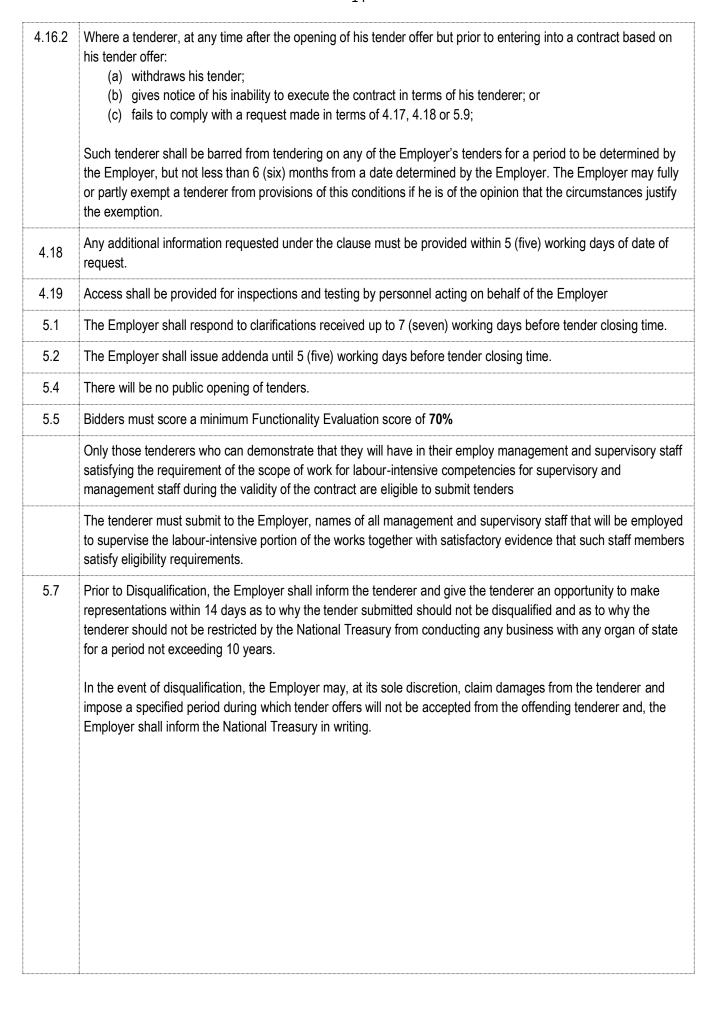
Contractor

	However, a tenderer wishing to submit an alternative offer shall first apply to the employer with full details of the principles of the alternative for confirmation that the Employer's standards and requirements are not comprised or reduced. Such confirmation must have been provided by the Employer in writing at least 5 (five) working days before the date and time of tender closing, or as extended by an addendum sent to all tenderers. The application shall not be submitted later than 7 (seven) working days before the date and time of closing given in Tender Data Clause 4.15					
4.13	Parts of each tender communicated on paper shall be submitted as an original, plus zero (0) copies.					
4.13.4	The tenderer is required to submit with his tender the following Mandatory documents:					
	<ul> <li>Company Registration Documents</li> <li>Certified Copies of Directors Identity Document</li> <li>Tax Clearance Certificates &amp; SARS TCP Pin</li> <li>Central Supplier Database (CSD) Report</li> <li>Construction Industry Development Board (CIDB) Grading Certificate 7CE or Higher</li> <li>Workman's Compensation Registration (COIDA) Certificate</li> <li>Authority of Signatory (Under Company Letter Head)</li> <li>Municipal Rates &amp; Taxes</li> <li>Bank Rating Letter</li> <li>Joint Venture Agreement</li> <li>Letter of Intent to Provide Performance Guarantee</li> <li>Receipt/Proof of Purchase of the Tender Document</li> <li>In the event of a Joint Venture submitting a tender, both members of the joint venture must submit proof of the aforementioned documents. The combined submission must meet the minimum requirements of the Tender Document</li> </ul>					
	Important Note:					
	Failure to provide the 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	Wherever reference is made in the tender documentation for non-financial proposal it shall also mean technical proposal,					
4.13.5	Tenders should be submitted in a sealed envelope indicating the Tender Information and the Delivery Address: Location of Tender Box: Greater Letaba Municipality  44 Botha Street  Modjadjiskloof  0835					
4.13.5	A two-envelope procedure is <b>NOT</b> required					
4.13.5	Telephonic, telegraphic, telex, facsimile or e-mail tender offers shall <b>NOT</b> be accepted					
4.15	The closing time for submission of tender offers is 12h00 hours on 25 September 2024.					
4.16.1	The tender validity period is 13 Weeks (90 Days)					

Contractor

Witness 1

Employer



#### 5.8 Arithmetical errors, omissions, discrepancies and imbalanced unit rates

Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.

Check responsive tender offers for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the Pricing Schedule or Bills of Quantities; or
- c) arithmetic errors in:
  - i) line-item totals resulting from the product of a unit rate in Bills of Quantities or Schedules of Prices; or
  - ii) the summation of prices;
- d) imbalanced unit rates

Notify shortlisted tenderers of all errors, omissions or re-balancing of imbalanced rates that are identified in their tender offers.

Where the tenderer elects to confirm the errors, omissions or re-balancing of imbalanced rates the tender offer shall be corrected as follows:

- a) If Bills of Quantities or Pricing Schedules apply and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the unit rate shall govern, and the line-item total shall be corrected. Where there is an obviously gross misplacement of the decimal point in unit rate, the line item total as quoted, and the unit rate shall be corrected.
- b) Where there is an error in the total of prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall be corrected.
- c) Where the unit rates are imbalanced, adjust such rates by increasing or decreasing them and selected others while retaining the total of the prices derived after any other corrections made under (a) and (b) above.

Where there is an omission of a line item, no correction is possible, and the offer may be declared non-responsive.

Declare as non-responsive and reject any offer from a tenderer who elects not to accept the corrections proposed and subject the tenderer to the sanction under 4.16.2.

The tenderer is required to submit balanced unit rates for Rate only items in the Pricing Schedule. The rates submitted for these items will be taken into account in the evaluation of tenders.

Contractor	Witness 1	Employer	Witness 1

	10
5.11	The procedure for the evaluation of responsive tenders is <b>Method 4</b>
5.11.5	METHOD 4: FINANCIAL OFFER, QUALITY & PREFERENCES
	In case of financial offer, quality and preferences;
	a) Score each tender in respect of 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 ( $T_{EV}$ ) in accordance with the following formula;
	$T_{EV} = N_{FO} + N_P + N_Q$
	<ul> <li>• N<sub>FO</sub> is the number of tender evaluation points awarded for financial offer made in accordance with 5.11.7</li> <li>• N<sub>P</sub> is the number of tender evaluation points awarded for preferences claimed in accordance with clause 5.11.8</li> <li>• N<sub>Q</sub> is the number of tender evaluation points awarded for quality offered in accordance with clause 5.11.9</li> </ul>
	c) rank tender offers from the highest number of tender evaluation points to the lowest, and
	d) Recommend 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.
	Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend 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 sub clause shall be repeated.
	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.
	If functionality/ quality is part of the evaluation process and two or more tenderer score equal total points and equal preference points, the contract must be awarded to the highest points for functionality/ quality.

If two or more tenderers score equal total points in all respects, the award must be decided by the drawing of lots.

5.11.6 Score of financial offers, preferences and quality, as relevant, to be given to two (2) decimal places

Contractor	Witness 1	Employer	Witness 1

#### 5.11.7 **SCORING FINANCIAL OFFERS**

Score the financial offers using the following formula:

 $N_{FO} = W_1 \times A$ 

Where:

- **N**<sub>FO</sub> is the number of the tender evaluation points awarded for financial offer
- $W_1$  is the maximum possible number of tender evaluation points awarded for financial offer
- A is the number calculated using relevant formula described below

The following formula shall be used to calculate the points for price (A):

$$A = \left(1 - \frac{P - P_m}{P_m}\right) W_1$$

Where:

- **P** is the comparative offer of the tender offer under consideration
- $P_m$  is the comparative offer of the most favourable comparative offer
- $W_1$  is the maximum possible number of tender evaluation points awarded for financial offer (80 Points)

In the event that the calculated value is negative, the allocated score shall be zero

#### 5.11.8 **SCORING PREFERENCES**

Up to 20 Evaluation Points (**10 points for youth and 10 points for black-owned**) will be awarded to tenderers who are found to be eligible for the Preference Point.

If the tender documents indicate that the tenderer intends to subcontract more than 25% of the value of the contract to any other person not qualifying for at least the points that the tenderer qualifies for, 0 (zero) points for preference will be awarded, unless the intended subcontractor is an EME that has the capability to execute the subcontract.

#### **SCORING QUALITY**

Score each of the criteria and sub criteria for quality in accordance with the provision of the tender data. Calculate the total number of tender evaluation points ( $N_Q$ ) using the following formula

 $N_Q = W_2 \times S_O IM_S$ 

Where:

5.11.9 **WHE** 

 $W_2$  is the maximum possible number of tender evaluation points awarded for the quality

 $S_0$  is the score for quality allocated to the submission under consideration;

 $M_s$  is the maximum possible score for quality in respect of a submission (using the table given below)

5.11.9.1 The functionality criteria (QUALITY) and, maximum score in respect of each of the sub criteria are as follows:



## **FUNCTIONALITY EVALUATION CRITERIA**

### **COMPANY EXPERIENCE**

		SCORING CRITERIA	WEIGHT	SCORE
The Bidder must attach Appointments Letters and Completion Certificates for Successfully Completed		The Bidder Scores Zero (0) points where no information regarding the Company's Relevant Past Experience has been indicated.	0	
Projects over the Value of R 10 000 000.00  The Bidder must provide Contactable Referees for the Completed Projects to allow	he he	1 Roads & Stormwater Project that was Successfully Completed within the last 10 years	5	
the Evaluation Team to confirm and validate the information  Points will only be allocated to	COMPANY E	2 Roads & Stormwater Project that were Successfully Completed within the last 10 years	10	
Projects that fit the Criteria and for Projects that are related to Roads & Stormwater Projects		3 or more Roads & Stormwater projects that were Successfully Completed within the last 10 Years	30	
		COMPANY EXPERIENCE TOTAL	30	

## FINANCIAL CAPACITY

		SCORING CRITERIA	WEIGHT	SCORE
Bidders must attach a Bank	RATING	BANK RATING = F & G	0	
Rating Letter that is not older than 3 Month.		BANK RATING = E	5	
In the case of a Joint Venture the Bank Rating Letter should	BANK F	BANK RATING = D	10	
be that of the Lead Partner.		BANK RATING = A, B, & C	15	
		FINANCIAL CAPACITY TOTAL	15	

Contractor	Witness 1	•	Employer	Witness 1

## **KEY PERSONNEL**

		SCORING CRITERIA	WEIGHT	SCORE
Certified Copies of Academic	Æ	No formal Qualification Obtained Qualifications Not Attached	0	
Qualifications Certificates must be attached. Years of	CONTRACTS MANAGER	National Certificate N6: Civil Engineering	3	
Experience will be counted from the year when the Qualification in question was	TRACTS	National Diploma (N. Dip.): Civil Engineering with less than 5 years' experience	5	
obtained	CON	National Diploma (N. Dip.): Civil Engineering with more than 5 years' experience	7	
		TOTAL	7	
		SCORING CRITERIA	WEIGHT	SCORE
		No formal Qualification Obtained Qualifications Not Attached	0	
Certified Copies of Academic Qualifications Certificates	Þ	National Certificate N6: Civil Engineering	1	
must be attached. Years of Experience will be counted from the year when the	SITE AGENT	National Diploma (N. Dip.): Civil Engineering with less than 5 years' experience	2	
Qualification in question was obtained.	S	National Diploma (N. Dip.): Civil Engineering with more than 5 years' experience	6	
		LIC NQF Level 5	4	
		TOTAL	10	
		SCORING CRITERIA	WEIGHT	SCORE
Certified Copies of Academic		No formal Qualification Obtained Qualifications Not Attached	0	
Qualifications Certificates must be attached. Years of Experience will be counted	SITE FORMAN	National Certificate N6: Civil Engineering	1	
from the year when the Qualification in question was obtained	SITE F	National Diploma (N. Dip.): Civil Engineering with more than 3 years' experience	4	
		LIC NQF Level 3	1	
		TOTAL	5	
Certified Copies of Academic	œ	SCORING CRITERIA	WEIGHT	SCORE
Qualifications Certificates must be attached. Years of Experience will be counted	OFFICE	No formal Qualification Obtained Qualifications Not Attached	0	
from the year when the Qualification in question was obtained	SAFETY OFFICER	Relevant Qualifications with more than 3 years' experience	2	
opialileu		TOTAL	2	
Certified Copies of Academic	œ	SCORING CRITERIA	WEIGHT	SCORE
Qualifications Certificates must be attached. Years of Experience will be counted	ERVISOI	No formal Qualification Obtained Qualifications Not Attached	0	
from the year when the Qualification in question was	LIC SUPERVISOR	LIC Level 4 with less than 5 years' experience	1	
obtained		TOTAL	1	
		KEY PERSONNEL TOTAL	25	

L	Contractor	Witness 1	Employer	Witness 1

## **PLANT SCHEDULE**

		SCORING CRITERIA	WEIGHT	SCORE
	EXCAVATOR x 1	5		
Certified Copies of Proof of Ownership must be attached.	ANT	TRACTOR LOADER BACKHOE (TLB) x 1	5	
In the case where the Plant is to be Hired, a Letter of Intent	CONSTRUCTION PLANT	GRADER x 1	5	
must be Attached along with Certified Copies of Proof of Ownership	ISTRUC	VIBRATORY ROLLER x 1	5	
	CON	WATER TANKER x 1	5	
		TIPPER TRUCK x 1	5	
		PLANT SCHEDULE TOTAL	30	

### TOTAL FUNCTIONALITY POINTS SCORED

CRITERIA	WEIGHT	SCORE
COMPANY EXPERIENCE	30	
FINANCIAL CAPACITY	15	
KEY PERSONNEL	25	
PLANT SCHEDULE	30	
TOTAL POINTS FOR FUNCTIONALITY	100	
FUNCTIONALITY THRESHOLD (MINIMUM SCORE)	7	0



## **GREATER LETABA MUNICIPALITY**



## **CONSTRUCTION OF RAMAROKA STREET PAVING**

PROJECT NO: GLM002/2025

#### T2: RETURNABLE DOCUMENTS

- T2.1 LIST OF RETURNABLE DOCUMENTS
- T2.2 RETURNABLE SCHEDULES
- T2.3 OTHER DOCUMENTS REQUIRED ONLY FOR TENDER EVALUATION PURPOSES

		_		
Contractor	Witness 1	-	Employer	Witness 1

T2.1: LIST OF RETURNABLE DOCUMENTS

Contractor Witness 1 Employer Witness 1

MBD2	TAX CLEARANCE CERTIFICATE REQUIREMENTS
MBD 3.1	PRICING SCHEDULE – FIRM PRICES (PURCHASES)
MBD 3.2	PRICING SCHEDULE – NON-FIRM PRICES (PURCHASES)
MBD 4	DECLARATION OF INTEREST
MBD 5	TENDERS ABOVE 10 MILLION
MBD 6.1	PREFERENCE POINTS CLAIM FORM
MBD 7.1	CONTRACT FORM – PURCHASE OF GOODS/WORKS
MBD 7.2	CONTRACT FORM - RENDERING OF SERVICES
MBD 8	DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES
MBD 9	CERTIFICATE OF INDEPENDENT BID DETERMINATION
A	CERTIFICATE OF NON-COLLUSIVE TENDER
В	CERTIFICATE OF AUTHORITY FOR SIGNATORY
С	CERTIFICATE OF BIDDER'S VISIT TO THE SITE
D	JOINT VENTURE DISCLOSURE FORM
E	RECORD OF ADDENDA TO TENDER DOCUMENTS
F	PROPOSED AMENDMENTS AND QUALIFICATIONS OF TENDER DOCUMENTS
G	ALTERATIONS BY TENDERER
H	SCHEDULE OF SUBCONTRACTORS
I	SCHEDULE OF PLANT AND EQUIPMENT
J	ORGANOGRAM AND CURRICULUM VITAE OF KEY PERSONNEL
K	SCHEDULE OF TENDERER'S EXPERIENCE
L	PROJECT PROGRAMME AND METHOD STATEMENT
M	SCHEDULE OF ESTIMATED MONTHLY EXPENDITURE
0	CONTRACTOR'S ESTABLISHMENT ON SITE
P	RATES FOR SPECIAL MATERIALS
Q	SCHEDULE OF LOCAL LABOUR CONTENT

Contractor	Witness 1	Employer	Witness 1

T2.2: RETURNABLE SCHEDULES

Contractor Witness 1 Employer Witness 1

# PRICING SCHEDULE – FIRM PRICES (PURCHASES) MBD 3.1

NOTE:

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

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

Name	of Bidder Bid Nu	mber	
Closing	g Time Closing	Date	
OFFER	R TO BE VALID FORDAYS FROM THE CL	OSING DATE OF BID.	
ITEM NO.	QUANTITY DESCRIPTION	BID PRICE IN RSA CURRENCY **(ALL APPLICABLE TAXES INCLU	DED)
-	Required by:		
-	At:		
-	Brand and Model		
-	Country of Origin		
-	Does the offer comply with the specification(s)?	*YES/NO	
-	If not to specification, indicate deviation(s)		
-	Period required for delivery	*Delivery: Firm/Not firm	
-	Delivery basis		
Note:	All delivery costs must be included in the bid price	ce, for delivery at the prescribed desti	nation.
	applicable taxes" includes value- added tax, pay a utions and skills development levies.	s you earn, income tax, unemploymer	nt insurance fund

Contractor	Witness 1	Employer	Witness 1

<sup>\*</sup>Delete if not applicable

# PRICING SCHEDULE – NON-FIRM PRICES (PURCHASES) MBD 3.2

NOTE: PRICE ADJUSTMENTS WILL BE ALLOWED AT THE PERIODS AND TIMES SPECIFIED IN THE BIDDING DOCUMENTS.

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

Name	of Bidder		Bid number		
Closing Time			Closing Date		
OFFEF		DAYS FROM THE CLO	OSING DATE OF BID.		
ITEM NO.	QUANTITY	DESCRIPTION	BID PRICE IN RSA C	CURRENCY ALL APPLICABLE TAXES INCUDED)	
-	Required by:				
-	At:				
-	Brand and model				
-	Country of origin				
	Contr	ractor Witness 1	Employer	Witness 1	

-	Does the offer comply with the specification(s)?	*YES/NO
-	If not to specification, indicate deviation(s)	
-	Period required for delivery	
-	Delivery:	*Firm/Not firm
** "all a <sub>l</sub> contribu	pplicable taxes" includes value- added tax, pay as you earn, income tax, unemplo ttions and skills development levies.	yment insurance fund
*Delete	if not applicable	

Contractor Witness 1 Employer

Witness 1

#### **PRICE ADJUSTMENTS**

#### A NON-FIRM PRICES SUBJECT TO ESCALATION

- 1. IN CASES OF PERIOD CONTRACTS, NON FIRM PRICES WILL BE ADJUSTED (LOADED) WITH THE ASSESSED CONTRACT PRICE ADJUSTMENTS IMPLICIT IN NON FIRM PRICES WHEN CALCULATING THE COMPARATIVE PRICES
- 2. IN THIS CATEGORY PRICE ESCALATIONS WILL ONLY BE CONSIDERED IN TERMS OF THE FOLLOWING FORMULA:

$$Pa = (1 - V)Pt \left( D1 \frac{R1t}{R1o} + D2 \frac{R2t}{R2o} + D3 \frac{R3t}{R3o} + D4 \frac{R4t}{R4o} \right) + VPt$$

Pa	=	The new escalated price to be calculated.

Where:

(1-V) Pt = 85% of the original bid price. **Note that Pt must always be the original bid price and not an escalated price.** 

D1, D2.. = Each factor of the bid price eg. labour, transport, clothing, footwear, etc. The total of the various factors D1,D2...etc. must add up to 100%.

R1t, R2t..... = Index figure obtained from new index (depends on the number of factors used).

R1o, R2o = Index figure at time of bidding.

VPt = 15% of the original bid price. This portion of the bid price remains firm i.e. it is not subject to any price escalations.

3. The following index/indices must be used to calculate your bid price:

Index	Dated	.Index	Dated	.Index	Dated
Indev	Dated	Indev	Dated	.Index	Dated



4.	FURNISH A BREAKDOWN OF YOUR PRICE IN TERMS OF ABOVE-MENTIONED FORMULA.	THE TOTAL OF
	THE VARIOUS FACTORS MUST ADD UP TO 100%.	

FACTOR (D1, D2 etc. eg. Labour, transport etc.)	P PERCENTAGE OF BID PRICE

Contractor	Witness 1	Employer	Witness 1

#### B PRICES SUBJECT TO RATE OF EXCHANGE VARIATIONS

1. Please furnish full particulars of your financial institution, state the currencies used in the conversion of the prices of the items to South African currency, which portion of the price is subject to rate of exchange variations and the amounts remitted abroad.

PARTICULARS OF FINANCIAL INSTITUTION	ITEM NO	PRICE	CURRENCY	RATE	PORTION OF PRICE SUBJECT TO ROE	AMOUNT IN FOREIGN CURRENCY REMITTED ABROAD
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		
				ZAR=		

2. Adjustments for rate of exchange variations during the contract period will be calculated by using the average monthly exchange rates as issued by your commercial bank for the periods indicated hereunder: (Proof from bank required)

AVERAGE MONTHLY EXCHANGE RATES FOR THE PERIOD:	DATE DOCUMENTATION MUST BE SUBMITTED TO THIS OFFICE	DATE FROM WHICH NEW CALCULATED PRICES WILL BECOME EFFECTIVE	DATE UNTIL WHICH NEW CALCULATED PRICE WILL BE EFFECTIVE

Contractor	Witness 1	Employer	Witness 1

MBD 4

#### **DECLARATION OF INTEREST**

1. No bid will be accepted from persons in the service of the state<sup>1</sup>.

3

2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

In order to give effect to the above, the following questionnaire must be completed and

	Sui	omitted with the bid.
	3.1	Full Name of bidder or his or her representative:
	3.2	Identity Number:
	3.3	Position occupied in the Company (director, trustee, hareholder²):
	3.4	Company Registration Number:
	3.5	Tax Reference Number:
	3.6	VAT Registration Number:
	3.7	The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.
	3.8	Are you presently in the service of the state? YES / NO
		3.8.1 If yes, furnish particulars.
		any provincial legislature; or
(c)	a m an c an c con No.	nember of the board of directors of any municipal entity; official of any municipality or municipal entity; employee of any national or provincial department, national or provincial public entity or stitutional institution within the meaning of the Public Finance Management Act, 1999 (Act of 1999);
` '		ember of the accounting authority of any national or provincial public entity; or employee of Parliament or a provincial legislature.

<sup>2</sup> Shareholder" means a person who owns shares in the company and is actively involved in the

Employer

management of the company or business and exercises control over the company.

Contractor

3.9	Have you been in the service of the state for the past twelve months?	YES / NO
	3.9.1 If yes, furnish particulars	
3.10	Do you have any relationship (family, friend, other) with persons	
	in the service of the state and who may be involved with	
	the evaluation and or adjudication of this bid?	YES / NO
3.11	Are you, aware of any relationship (family, friend, other) between	
	any other bidder and any persons in the service of the state who	
	may be involved with the evaluation and or adjudication of this bid?	YES / NO
3.11.	1 If yes, furnish particulars	
3.12	Are any of the company's directors, trustees, managers,	
princi	iple shareholders or stakeholders in service of the state?	YES / NO
3.12.	1 If yes, furnish particulars.	

Contractor

Witness 1

Employer

Witness 1

3.13	Are any spouse, child or parent	of the company's directo	rs	
	trustees, managers, principle s	hareholders or stakehold	lers	
	in service of the state?		YES	/ NC
	3.13.1 If yes, furnish particular	rs.		
3.14	Do you or any of the directors, t	rustees, managers,		
princ	iple shareholders, or stakeholders	s of this company		
have	any interest in any other related	companies or		
busir	ness whether or not they are biddi	ing for this contract.	YES	/ NO
3.14.	1 If yes, furnish particulars:			
4.	Full details of directors / trustees / me	embers / shareholders.		
	Full Name	Identity Number	State Employee Number	

Contractor

Witness 1

Employer

Witness 1

CERTIFICATION	
I, THE UNDERSIGNED (NAME)	
CERTIFY THAT THE INFORMATION FURNISHED ON T	THIS DECLARATION FORM IS CORRECT.
I ACCEPT THAT THE MUNICIPALITY MAY ACT AGAIN FALSE.	NST ME SHOULD THIS DECLARATION PROVE TO BE
Signature	Date
Capacity	Name of Bidder

Witness 1

Contractor

Witness 1

Employer

## DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (ALL APPLICABLE TAXES INCLUDED)

For all procurement expected to exceed R10 million (all applicable taxes included), bidders must

comp	plete the following questionnaire:		
1	Are you by law required to prepare annual financial statements for auditing?		
1.1	If yes, submit audited annual financial statements for the past three years or since the date of establishment if established during the past three years.		*YES/NO
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?		
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.		
* Dele	ete if not applicable  *YES / NO	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?

3.1	If yes, furnish particulars	
	*YES / NO	
	1E3 / NO	
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 (NAME)	
	CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARA	ATION FORM IS CORRECT.
	I ACCEPT THAT THE STATE MAY ACT AGAINST ME SHOULD THIS I	DECLARATION PROVE TO BE
	FALSE.	
	Signature	Date
	Position	Name of Bidder
	Contractor Witness 1 Employer	Witness 1

### PREFERENCE POINTS CLAIM FORM

**MBD 6.1** 

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

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

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

### 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

(delete whichever is not applicable for this tender).

- a) The applicable preference point system for this tender is the 90/10 preference point system.
- b) The applicable preference point system for this tender is the 80/20 preference point system.
- c) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.
- 1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:
  - (a) Price; and
  - (b) Specific Goals (10 points-Youth and 10 points-Black owned).

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

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	
SPECIFIC GOALS (10 points-Youth and 10 points-Black owned)	
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

Contractor	Witness 1	Employer	Witness 1

required by the organ of state.

### 2. **DEFINITIONS**

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

### 3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

### 3.1. **POINTS AWARDED FOR PRICE**

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

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

80/20 or 90/10

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

Where

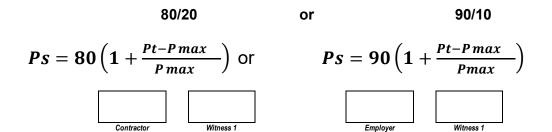
Ps = Points scored for price of tender under consideration

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:



#### Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

### 4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

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

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

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

system.)				
The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Contrac	ctor Witness 1		Employer Witr	ness 1

	DECLARATION WITH REGARD TO COMPANY/FIRM
4.3.	Name of company/firm
4.4.	Company registration number:
4.5.	TYPE OF COMPANY/ FIRM
	<ul> <li>□ Partnership/Joint Venture / Consortium</li> <li>□ One-person business/sole propriety</li> <li>□ Close corporation</li> <li>□ Public Company</li> <li>□ Personal Liability Company</li> <li>□ (Pty) Limited</li> <li>□ Non-Profit Company</li> <li>□ State Owned Company</li> <li>[TICK APPLICABLE BOX]</li> </ul>

- 4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:
  - i) The information furnished is true and correct;
  - ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
  - iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;
  - iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have
    - (a) disqualify the person from the tendering process;
    - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
    - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
    - (d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
    - (e) forward the matter for criminal prosecution, if deemed necessary.

Contractor	Witness 1	Employer	Witness 1

	SIGNATURE(S) OF TENDERER(S)
SURNAME AND NAME:	
DATE:	
ADDRESS:	

Contractor

Witness 1

Employer

Witness 1

### **CONTRACT FORM - PURCHASE OF GOODS/WORKS**

**MBD 7.1** 

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

### 1. PART 1 (TO BE FILLED IN BY THE BIDDER)

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

- 3. The following documents shall be deemed to form and be read and construed as part of this agreement:
  - (i) Bidding documents, viz
    - Invitation to bid;
    - Tax clearance certificate;
    - Pricing schedule(s);
    - Technical Specification(s);
    - Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2011;
    - Declaration of interest;
    - Declaration of bidder's past SCM practices;
    - Certificate of Independent Bid Determination;
    - Special Conditions of Contract;
  - (ii) General Conditions of Contract; and
  - (iii) Other (specify)
- 4. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the goods and/or works specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.
- 5. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.
- 6. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.
- 7. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)	
CAPACITY	 WITNESSES
SIGNATURE	 1
NAME OF FIRM	 · · · · · · · · · · · · · · · · · · ·
DATE	

Contractor	Witness 1	•	Employer		Witness 1

# **CONTRACT FORM - PURCHASE OF GOODS/WORKS**

# 8. PART 2 (TO BE FILLED IN BY THE PURCHASER)

1.	I						
2.	An (	official order indica	ting delivery instru	ctions is forthco	oming.		
3.	l un of th	dertake to make p	ayment for the goo 30 (thirty) days afte	ods/works delive er receipt of an	ered in accordance wit invoice accompanied	th the terms and co by the delivery note	nditions e.
ITEM NO.		PRICE (ALL APPLICABLE TAXES INCLUDED)	BRAND	DELIVERY PERIOD	B-BBEE STATUS LEVEL OF CONTRIBUTION	MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT (if applicable)	
4.	l co	nfirm that I am duly	/ authorized to sigr	n this contract.			
SIGNE	D AT		O	N			
	<b></b> .						
NAME	`	NT)					
OFFIC				 	WITNESSES		
01110	IAL C	717AVII			WITNESSES		
					1		
					2		
				1			

### **CONTRACT FORM - RENDERING OF SERVICES**

**MBD 7.2** 

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

### 9. PART 1 (TO BE FILLED IN BY THE SERVICE PROVIDER)

10.	I hereby undertake to render services described in the attached bidding documents to (name of the
	institution) in accordance with the requirements and task directives /
	proposals specifications stipulated in Bid Number at the price/s quoted. My offer/s
	remain binding upon me and open for acceptance by the Purchaser during the validity period indicated
	and calculated from the closing date of the bid.

- 11. The following documents shall be deemed to form and be read and construed as part of this agreement:
  - (iv) Bidding documents, viz
    - Invitation to bid;
    - Proof of tax compliance status;
    - Pricing schedule(s);
    - Filled in task directive/proposal;
    - Preference claim form for Preferential Procurement in terms of the Preferential Procurement Regulations;
    - Declaration of interest;
    - Declaration of Bidder's past SCM practices;
    - Certificate of Independent Bid Determination;
    - Special Conditions of Contract;
  - (v) General Conditions of Contract; and
  - (vi) Other (specify)
- 12. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.
- 13. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.
- 14. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.
- 15. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)	
INAIVIL (I IXIIVI)	 WITNESSES
CAPACITY	 William
SIGNATURE	 1
NAME OF FIRM	
DATE	

Contractor	Witness 1	Employer	Witness 1

## **CONTRACT FORM - RENDERING OF SERVICES**

# 16. PART 2 (TO BE FILLED IN BY THE PURCHASER)

4.	Iin my capacity asfor the rendering of services indicated hereunder and/or further specified in the annexure(s).							
5.	An official order indicating service delivery instructions is forthcoming.							
6. I undertake to make payment for the services rendered in accordance with the terms and conditions of t contract, within 30 (thirty) days after receipt of an invoice.							the	
		PTION OF RVICE	PRICE (ALL APPLICABLE TAXES INCLUDED)	COMPLETION DATE	TOTAL PREFERENCE POINTS CLAIMED	POINTS CLAIMED FOR EACH SPECIFIC GOAL		
4.	I confirm that I	am duly autho	orised to sign this	contract.				
SIGNE	D AT		ON					
NAME	(PRINT)							
SIGNA	TURE							
OFFIC	FICIAL STAMP WITNESSES							
					1			
					2			

Contractor Witness 1 Employer Witness 1

- 1 This Municipal Bidding Document must form part of all bids invited.
- 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.
- 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. willfully 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).
- 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	Is the bidder or any of its directors listed on the National Treasur		No
	Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?		
	(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the audi alteram partem rule was applied).		
	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.		
4.1.1	If so, furnish particulars:		

Contractor	Witness 1	l	Employer	J	Witness 1

4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?	Yes	No
	The Register for Tender Defaulters can be accessed on the National Treasury's website (WWW.TREASURY.GOV.ZA) by clicking on its link at the bottom of the home page.		
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 🗆
4.3.1	If so, furnish particulars:		
Item	Question	Yes	No
<b>Item</b> 4.4	Question  Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes Yes	No No
	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other		
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 any other municipality / municipal entity, that is in arrears for more than three months?		

Contractor

Witness 1

Employer

Witness 1

		48
4.7.1	If so, furnish particulars:	
	•	
	CEI	RTIFICATION
I, THE U	INDERSIGNED (FULL NAME)	
CERTIF	Y THAT THE INFORMATION FURN	ISHED ON THIS
DECLA	RATION FORM TRUE AND CORRE	ст.
	PT THAT, IN ADDITION TO CANCEL GAINST ME SHOULD THIS DECLAR	LATION OF A CONTRACT, ACTION MAY BE TAKEN RATION PROVE TO BE FALSE.
Signatu	re	Date
Position		Name of Bidder
Position	I	Name of bidder

Contractor

Witness 1

Employer

MBD 9

- 1 This Municipal Bidding Document (MBD) must form part of all bids<sup>1</sup> invited.
- Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).<sup>2</sup> Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 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 committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

<sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.

<sup>&</sup>lt;sup>2</sup> 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.

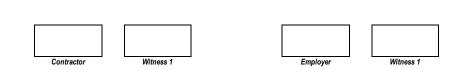
### CERTIFICATE OF INDEPENDENT BID DETERMINATION

i, the undersigned, in submitting the accompanying bid:	
(Bid Number and Description)	
in response to the invitation for the bid made by:	
(Name of Municipality / Municipal Entity)	
do hereby make the following statements that I certify to be true and complete in e	very respect:
I certify, on behalf of:	that:
(Name of Bidder)	

- 1. I have read and I understand the contents of this Certificate;
- 2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
- 3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
- 4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
- 5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
  - (a) has been requested to submit a bid in response to this bid invitation;
  - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
  - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

Contractor	Witness 1	Employer	Witness 1

- 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<sup>3</sup> will not be construed as collusive bidding.
- 7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - (a) prices;
  - (b) geographical area where product or service will be rendered (market allocation)
  - (c) methods, factors or formulas used to calculate prices;
  - (d) the intention or decision to submit or not to submit, a bid;
  - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
  - (f) bidding with the intention not to win the bid.
- 8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 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.



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

### **CERTIFICATE OF NON-COLLUSIVE TENDER**

### 1. IN THE CASE OF A SINGLE CONSTRUCTION CONCERN:

I/We certify that this is a bona fide tender.

I/We also certify that I/We have not done and I/We undertake not to do any of the following at any time before the hour and date specified for the closure of submission of tenders for this contract.

- a) Fix or adjust the amount of this tender by or under or in accordance with any agreement or arrangement with any other person;
- b) communicate to a person other than the person calling for these tenders the amount or approximate amount of the proposed tender, except when the confidential disclosure of the approximate amount of the tender is necessary to obtain the insurance-premium quotations required for preparation of the tender;
- c) cause or induce any other person to communicate to me/us the amount or approximate amount of any rival tender for this contract;
- d) enter into any agreement or arrangement with any other person to induce him to refrain from tendering for this contract, or to influence the amount of any tender or the conditions of any tender to be submitted, nor cause or induce any other person to enter into any such agreement or arrangement;
- e) offer or pay or give or agree to pay or to give any sum of money or valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done in relation to any tender or proposed tender for this contract, any action similar to those described above.

In this certificate the term "person" includes any persons, body of persons or association, whether corporate or not, and the term "agreement or arrangement" includes any agreement or arrangement, whether formal or informal and whether legally binding or not.

CERTIFICATION	
Company Name	
Full Name	Capacity
Signature	Date

Contractor	Witness 1	Employer	Witness 1

### 2. IN THE CASE OF A CONSORTIUM OF CONSTRUCTION CONCERNS:

We certify that this is a bona fide tender.

We also certify that we have not done and we undertake not to do any of the following at any time before the hour and date specified for the closure of submission of tenders for this contract:

- a) Fix or adjust the amount of this tender by or under or in accordance with any agreement or arrangement with any person outside this consortium;
- b) communicate to a person outside this consortium other than the person calling for these tenders, the amount or approximate amount of the proposed tender, except when the confidential disclosure of the approximate amount of the tender is necessary to obtain insurance premium quotations required for preparation of the tender;
- c) cause or induce any person outside this consortium to communicate to us the amount or approximate amount of any rival tender for this contract.
- d) enter into any agreement or arrangement with any person outside this consortium to induce him to refrain from tendering for this contract, or to influence the amount of any tender or the conditions of any tender to be submitted, nor cause or induce any person outside this consortium to enter into any such agreement or arrangement;
- e) offer or pay or give or agree to give any sum of money or valuable consideration directly or indirectly to any person outside this consortium for doing or having done or causing or having caused to be done in relation to any tender or proposed tender for this contract, any action similar to those described above.

In this certificate the term "person" includes any persons, body of persons or association, whether corporate or not, the term "agreement or arrangement" includes any agreement or arrangement, whether formal or informal and whether legally binding or not, and the term "person outside this consortium" means, when the consortium is a partnership, a person other than a partner or an employee of a partner or the partnership, or when the consortium is a company, a person other than a person or company holdings shares in the consortium, or any employee of such a person, company or the consortium.

	CERTIFICATION	
	Company Name	
Full Name		Capacity
Signature		Date

Contractor	Witness 1	Employer	Witness 1

# **CERTIFICATE OF AUTHORITY FOR SIGNATORY**

В

Signatory for companies shall confirm their authority thereto by attaching a duly signed and dated copy of the relevant resolution of the boards of directors to this form.

PROJECT NAME:	CONSTRUCTION OF RAMAROKA STREET PAVING					
CONTRACT NUMBER: GLM002/2025						
By resolution of the boathe	ard of directors passed at a meeting held on	(Date)				
t						
Mr/Mrs						
, whose signature appe mentioned	ears below, has been duly authorised to sign all documents in connection with the above-					
Tender and any Conti	ract that may arise there from on behalf of (name of Tenderer in block capitals)					
SIGNED ON BEHALF O	F THE COMPANY:					
IN HIS/HER CAPACITY	AS:					
DATE:						
SIGNATURE OF SIGNA	TORY:					
WITNESSES:						
WITNESSES:						

Contractor

Witness 1

Employer

		С
This is to Certify that, I		
Name of Firm		
Postal address		
 Physical address		
Telephone		
Fax		
Engineer's Representative		
Date of Site Visit		
further certify that I have ma	de myself familiar with all local conditions likely to influence the w	ork & the cost thereo
	scription of the work and the explanations given by the said Eng	
ind that I understand perfect	y the work to be done, as specified and implied, in the execution	or this contract.
TENDERER'S REPRESENTATIV	E: (Signature)	
	(Name)	
EMPLOYER'S REPRESENTATIV	<u>/E:</u> (Signature)	
	(Name)	

D

### JOINT VENTURE DISCLOSURE FORM

**GENERAL** 

- i. All the information requested must be filled in the spaces provided. If additional space is required, additional sheets may be used and attached to the original documents.
- ii. A copy of the joint venture agreement must be attached to this form, in order to demonstrate the Affirmable, Joint Venture Partner's share in the ownership, control, management responsibilities, risks and profits of the joint venture, the proposed joint venture agreement must include specific details relating to:
  - a) the contributions of capital and equipment
  - b) work items to be performed by the Affirmable Joint Venture Partner's own forces
  - c) work items to be performed under the supervision of the Affirmable Joint Venture Partner.
- iii. Copies of all written agreements between partners concerning the contract must be attached to this form including those, which relate to ownership options and to restrictions/limits regarding ownership and control.
- iv. ABE partners must complete ABE Declaration Affidavits.
- v. The joint venture must be formalised. All pages of the joint venture agreement must be signed by all the parties concerned. A letter/ notice of intention to formalise a joint venture once the contract has been awarded will not be considered.
- vi. Should any of the above not be complied with, the joint venture will be deemed null and void and will be considered non-responsive.

	JOINT VENTURE PARTICULARS
Joint Venture Name	
Postal address	
Physical address	
Telephone	
Fax	
	Postal address  Physical address  Telephone

Contractor	Witness 1	Employer	Witness 1

2.		IDENTITY OF EACH NON-AFFIRMABLE JOINT VENTURE PARTNER
2.1 a)	Name of Firm	
	Postal address	
	Physical address	
	Telephone	
	Fax	
Contac	t person for matters per	taining to Joint Venture Participation Goal requirements:
2.2 b)	Name of Firm	
	Postal address	
	Dhysical address	
	Physical address	
	Telephone	
	Fax	

Contact person for matters pertaining to Joint Venture Participation Goal requirements: (Continue as required for further non-Affirmable Joint Venture Partners)

Contractor	J	Witness 1	Employer	Witness 1

3.		IDENTITY OF EACH AFFIRMABLE JOINT VENTURE PARTNER
3.1 a)	Name of Firm	
	Postal address	
	Physical address	
	Telephone	
	Fax	
Contac	t person for matters perta	ining to Joint Venture Participation Goal requirements:
3.2 b)	Name of Firm	
	Postal address	
	Physical address	
	Telephone	
	Fax	
Contac		ining to Joint Venture Participation Goal requirements:
	(Cc	ontinue as required for further Affirmable Joint Venture Partners)
4.	DESCRIPTION OF THE	ROLES OF THE AFFIRMABLE JOINT VENTURE PARTNERS IN THE JOINT VENTURE

<u>OW</u>	NERSHIP OF THE JOINT VENTURE					
Affir	mable Joint Venture Partner ownership percentage(s)	%				
Non	Non-Affirmable Joint Venture Partner ownership percentage(s) %					
Affir	mable Joint Venture Partner percentages in respect of*					
(i)	Initial Profit and Loss Sharing					
(ii)	Initial capital contribution in Rand					
	(*Brief descriptions and further particulars should be	provided to clarify percentages).				
(iii)	Anticipated on-going Capital Contributions in Rands					
(iv)	contributions of equipment - specify types, quality, and quality	antities of equipment) to be provided by each				
	nartnar					
	partner					
	partner					
	partner					
<u>RE(</u>	CENT CONTRACTS EXECUTED BY PARTNERS IN THEIR					
	CENT CONTRACTS EXECUTED BY PARTNERS IN THEIR PARTNERS IN OTHER JO	NT VENTURES				
	CENT CONTRACTS EXECUTED BY PARTNERS IN THEIR					
	CENT CONTRACTS EXECUTED BY PARTNERS IN THEIR PARTNERS IN OTHER JO	NT VENTURES				
	CENT CONTRACTS EXECUTED BY PARTNERS IN THEIR PARTNERS IN OTHER JO	NT VENTURES				
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	CENT CONTRACTS EXECUTED BY PARTNERS IN THEIR PARTNERS IN OTHER JO	NT VENTURES				
	CENT CONTRACTS EXECUTED BY PARTNERS IN THEIF PARTNERS IN OTHER JO  DN-AFFIRMABLE JOINT VENTURE PARTNERS	PROJECT NAME				
	CENT CONTRACTS EXECUTED BY PARTNERS IN THEIF PARTNERS IN OTHER JO  DN-AFFIRMABLE JOINT VENTURE PARTNERS	PROJECT NAME				
	CENT CONTRACTS EXECUTED BY PARTNERS IN THEIF PARTNERS IN OTHER JO  DN-AFFIRMABLE JOINT VENTURE PARTNERS	PROJECT NAME				

Contractor

Witness 1

Employer

Witness 1

# 7. CONTROL AND PARTICIPATION IN THE JOINT VENTURE

(Identify by name and firm those individuals who are, or will be, responsible for, and have authority to engage in the relevant management functions and policy and decision making, indicating any limitations in their authority e.g. cosignature requirements and Rand limits).

Joint Venture Cheque Signing
Authority to enter into Contracts on behalf of the Joint Venture
Signing, Co-Signing and/or Collateralising of Loans
Acquisition of Lines of Credit
Acquisition of Performance Bonds
Negotiating and Signing Labour Agreements

	NAGEMENT OF CONTRACT PERFORM Il in the name and firm of the responsible p	person).	
(a)	Supervision of field operations		
(b)	Major purchasing		
(c)	Estimating		
(d)	Technical management		
9.	MANAGEMENT AND CONTROL OF J	OINT VENTURE	
(a)	Identify the "managing partner", if any,		
(b)	What authority does each partner have suppliers, subcontractors and/or other p		
(c)	Describe the management structure for	the Joint Venture's work under the co	ontract
	MANAGEMENT FUNCTION / DESIGNATION	NAME	PARTNER*
		nture Partner" or "ex non-Affirmable Jo	

## 10. PERSONNEL

(a)	State the approximate number of operative personnel (by trade/function/discipline) needed to perform the Join
	Venture work under the Contract.

TRADE/FUNCTION/ DISCIPLINE	NUMBER EX AFFIRMABLE JOINT VENTURE PARTNERS	NUMBER EX NON-AFFIRMABLE JOINT VENTURE PARTNERS		
( <del>-</del>				
(Fill in "ex Affirmable Joint Venture Partner" or "ex non-Affirmable Joint Venture Partner").				
Number of operative personnel to be employed on the Contract who are currently in the employ of partners.				
(i) Number currently employed by Affirmable Joint Venture Partners				

(b)	Nun	nber of operative personnel to be employed on the Contract who are currently in the employ of partners.
	(i)	Number currently employed by Affirmable Joint Venture Partners
	(ii)	Number currently employed by the Joint Venture
(c)		nber of operative personnel who are not currently in the employ of the respective partner and will be engaged on project by the Joint Venture
(d)	Nan	ne of individual(s) who will be responsible for hiring Joint Venture employees
(e)	Nan	ne of partner who will be responsible for preparation of Joint Venture payrolls

## 11. CONTROL AND STRUCTURE OF THE JOINT VENTURE

Briefly describe the ma	anner in which the	e Joint Venture	e is structured an	d controlled.			
			]		Г		
	Contractor	Witness 1		Employer		Witness 1	

The undersigned warrants that he/she is duly authorised to sign this Joint Venture Disclosure Form and affirms that the foregoing statements are true and correct and include all material information necessary to identify and explain the terms and operations of the Joint Venture and the intended participation of each partner in the undertaking.

The undersigned further covenants and agrees to provide the Employer with complete and accurate information regarding actual Joint Venture work and the payment therefore, and any proposed changes in any provisions of the Joint Venture agreement, and to permit the audit and examination of the books, records and files of the Joint Venture, or those of each partner relevant to the Joint Venture, by duly authorised representatives of the Employer.

Signature	
On behalf of	
Name	
Address	
Telephone	
Date	
Signature	
On behalf of	
Name	
Address	
Telephone	
Telephone	



# RECORD OF ADDENDA TO TENDER DOCUMENTS

Ε

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

NO.	DATE	TITLE OR DETAILS
		CERTIFICATION
		CERTIFICATION
		Company Name
	Full Nam	ne Capacity
	Signatur	e Date
	Contractor	Witness 1 Employer Witness 1

### PROPOSED AMENDMENTS AND QUALIFICATIONS OF TENDER DOCUMENTS

F

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 Tenderer's attention is drawn to clause F.3.8 of the Standard Conditions of Tender referenced in the Tender Data regarding the employer's handling of material deviations and qualifications.

PAGE	CLAUSE OR ITEM	PR	OPOSAL	
CERTIFICATION				
		ON		
		Company Name		
	Full Nam	e	Capacity	
	Signatur	e	Date	
	Contractor	Witness 1 Employ	rer Witness 1	

G

### **ALTERATIONS BY TENDERER**

Should the Tenderer desire to make any departure or modification to the General Conditions of Contract, Special Conditions of Contract, Specifications, Schedule of Quantities or Drawings, or to qualify his Tender in any way, he shall set out his proposals clearly hereunder, or alternatively, state them in a covering letter attached to his Tender and referred to hereunder, failing which the Tender will be deemed to be unqualified.

DOCUMENT REFERENCE	CLAUSE/ITEM (PAGE)	DESCRIPTION
	CERTIFICATION	
	Company Name	
	Company Name	
Full Name		Capacity
Signature		Date

### SCHEDULE OF SUBCONTRACTORS

Н

This table is **NOT TO BE USED** to capture SMME Subcontractors/Suppliers contributing towards the SMME project goal

# SMME COMPANIES TO BE USED AS SUB-CONTRACTORS / SUPPLIERS MUST BE CAPTURED UNDER FORM: RDP 2 (E) EMPLOYMENT OF SMME's

We notify you that it is our intention to employ the following Subcontractors for work in this contract.

If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.

NO.	Name and Address of Proposed Subcontractor	Company Registration Number & CIDB Classification	Description of Work to be Executed by Subcontractor
		CERTIFICATION	
		Company Name	
	Full Name		Capacity
	Signature		Date

The Bidder shall insert in the Schedule hereunder, a list of the major plant and equipment he proposes to use on this Contract. Failure to complete this schedule will be taken to indicate that Bidder does not have access to adequate plant and equipment.

DESCRIPTION OF PLANT	OWNER	AVAILABILIT
Equipment not owned by the Bidder	must be qualified as hire, on loan, etc	

CERTIFICATION	
Company Name	
Full Name	Capacity
Signature	Date
Contractor Witness 1	Employer Witness 1

ORGANOGRAM AND CURRICULUM VITAE OF KEY PERSONNEL	ORGANOGRAM AND	CURRICULUM VITAE	OF KEY PERSONNEL
--	----------------	------------------	------------------

Tenderer to supply an organogram for the management of the contract and include signed curricula vitae of key personnel. These curricula vitae shall provide evidence of relevant experience of the key staff in the organogram. The personnel included here shall be used on the project unless otherwise agreed to by the engineer.

### **KEY PERSONNEL**

ITEM	DESIGNATION	NAME OF PERSONNEL	YEARS OF EXPERIENCE
1	Contracts Manager		
2	Site Agent		
3	General Foreman		
4	Health and Safety Officer		
5	LIC Manager		

<sup>\*\*</sup> Please refer to the required Qualification under the Functionality Criteria.

NOTE: THE TENDERER SHOULD PROVIDE APPOINTMENT LETTERS OR SWORN AFFIDAVIT AS EVIDENCE THAT THE ABOVE PERSONNEL IS EMPLOYED BY THE FIRM. THE APPOINTED PERSONNEL MUST SIGN BOTH DOCUMENT

CERTIFICAT	TION
Company Na	
Full Name	Capacity
Signature	Date

Contractor	Witness 1	Employer	Witness 1

# SCHEDULE OF TENDERER'S EXPERIENCE

K

Bidders must furnish hereunder details of similar works/service, which they have satisfactorily completed in the past.

	 1 1						mpleted in the pa	
COMPLETION DATE								
VALUE OF WORK							Capacity	Date
NATURE OF WORK							Full Name	Signature
EMPLOYER								
	Contractor	Witness	1	E	mployer	Witness 1		

	PROGRAMME	AND METUOD	OTATEMENT
PROJECT	PRUGRAMME		SIAIEMENI

TENDERER PUST PROVIDE A PROJECT PROGRAMME OF WORKS, USING ACCEPTABLE PROJECT MANAGEMENT SOFTWARE, THE PROGAMME OF WORKS MUST CONTAIN SUFFICIENT DETAIL TO COVER THE VARIOUS FACETS OF THE WORK.

THIS PROGRAMME OF WORKS IS TO BE SUPPORTED BY A METHOD STATEMENT INDICATING THE TENDERER'S PROPOSED WORK PLAN FOR THE CONSTRUCTION OF THE WORKS.

THE PROGRAMME OF WORKS IS TO BE APPROVED BY THE ENGINEER UPON APPOINTMENT

CERTIFICATION	
Company Name	
Full Name	Capacity
Signature	

Contractor	Witness 1	Employer	Witness 1

M

# SCHEDULE OF ESTIMATED MONTHLY EXPENDITURE

The tenderer shall state his estimated value of the work to be completed every month, based on his preliminary programme and his tendered unit rates, in the table below. The amounts for contingencies and contract price adjustment shall not be included.

prior adjustment shall not be moraded.				
NO.	MONTH	VALUE (ALL INCLUSIVE)		
1		R		
2		R		
3		R		
4		R		
5		R		
6		R		
7		R		
TOTAL	: R	(EXCLUDING CONTINGENCIES AND CONTRACT PRICE ADJUSTMENT)		
CERTIFICATION				
Company Name				

Full Name	;	 	(	Capacity	
Signature		 		Date	
Contractor	Witness 1	Employer	Witness 1		

CONTRACTOR'S ESTABLISHMENT ON SIT	E	0
The combined extended total tendered for Section 1300 for the contractor's ger	neral obligations; i.e.	
(a) Fixed obligations		
(b) Value-related obligations		
(c) Time-related obligations		
shall not exceed a maximum of 15 % of the tender sum (excluding VAT).  Total tendered for Section 1300 expressed as a percentage of the tender sum (	excluding VAT) = %	ı
CERTIFICATION		
Company Name		
Full Name	Capacity	
Signature	Date	

Employer

Contractor

## **RATES FOR SPECIAL MATERIALS**

Р

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

SPECIAL MATERIAL	UNIT	RATE (AT BASE MONTH
When called upon to do so, the contractor shall s evidence from t	ubstantiate the above rates or p he applicable suppliers.	rices with acceptable docum
	and the second second	
CER	TIFICATION	
Con	npany Name	
	· ·	
Full Name		Capacity
Signature		Date

Employer

Contractor

CULEDIII E	CELOCAL	ABOUR CONTENT	
20.0EDJU E	UP IULAI	ADUUK UUNIENI	

Q

The Tenderer must complete the table below to reflect the labour force anticipated to be employed on this contract, including labour employed by sub-contractors.

The specified target value is 10%.

Note: 100% of this labour content shall be from the LOCAL COMMUNITY where Local Community means those in the im

mediate vicinity of the project. The contractor's own skilled personnel will not be counted towards the said 100%.

Permanent Labour  Temporary Labour  SM ME/HDI's Labour  TOTAL PERCENTAGE  Notes to Tenderer:  Labour is defined as hourly paid personnel.  CERTIFICATION  Company Name	TYPE OF LABOUR	MAN-HOURS	MINIMUM WAGE RATE	TOTAL WAGE COS (VAT EXCLUSIVE)
SM ME/HDI's Labour  TOTAL PERCENTAGE  otes to Tenderer: Labour is defined as hourly paid personnel.  CERTIFICATION	ent Labour			
TOTAL PERCENTAGE  otes to Tenderer: Labour is defined as hourly paid personnel.  CERTIFICATION	ary Labour			
otes to Tenderer:  Labour is defined as hourly paid personnel.  CERTIFICATION	'HDI's Labour			
otes to Tenderer:  Labour is defined as hourly paid personnel.  CERTIFICATION			TOTAL	
Labour is defined as hourly paid personnel.  CERTIFICATION			PERCENTAGE	
Company Name	ur is defined as hourly paid person	nel.		
	ur is defined as hourly paid person			
Full Name Capacity	ur is defined as hourly paid person	CERTIFICATION		
Signature Date		CERTIFICATION		Capacity



T2.3: OTHER DOCUMENTS REQUIRED ONLY FOR TENDER EVALUATION PURPOSES

	ANNEXURES
ANNEXURE 1	COMPANY PROFILE
ANNEXURE 2	COMPANY REGISTRATION CERTIFICATE (CIPC CK)
ANNEXURE 3	CERTIFIED COPIES OF DIRECTORS'S IDENTITY DOCUMENT
ANNEXURE 4	TAX CLEARANCE CERTIFICATE & SARS TCP PIN
ANNEXURE 5	B-BBEE CERTIFICATE
ANNEXURE 6	CENTRAL SUPPLIER DATABASE (CSD) REPORT
ANNEXURE 7	CONSTRUCTION INDUSTRY DEVELOPMENT BOARD (CIDB) GRADING CERTIFICATE
ANNEXURE 8	WORKMAN'S COMPENSATION REGISTRATION (COIDA)
ANNEXURE 9	AUTHORITY OF SIGNATORY (UNDER COMPANY LETTER HEAD)
ANNEXURE 10	MUNICIPAL RATES & TAXES (PROOF OF ADDRESS)
ANNEXURE 11	3 YEAR AUDITED FINANCIAL STATMENTS
ANNEXURE 12	COMPANY EXPERIENCE (APPOINTMENT LETTERS & COMPLETION CERTIFICATES)
ANNEXURE 13	FINANCIAL CAPACITY (BANK RATING LETTER)
ANNEXURE 14	ORGANOGRAM OF PROJECT TEAM
ANNEXURE 15	CV'S OF KEY PERSONNEL
ANNEXURE 16	PLANT SCHEDULE
ANNEXURE 17	CONSTRUCTION METHOD
ANNEXURE 18	PROGRAM OF WORKS
ANNEXURE 19	JOINT VENTURE AGREEMENT
ANNEXURE 20	OTHER

	1450		1454
Contractor	Witness 1	Employer	Witness 1

# **GREATER LETABA MUNICIPALITY**



# **CONSTRUCTION OF RAMAROKA STREET PAVING**

PROJECT NO: GLM002/2025

# THE CONTRACT

PART C1 : AGREEMENT AND CONTRACT DATA

PART C2 : PRICING DATA

PART C3 : SCOPE OF WORK

PART C4 : SITE INFORMATION

PART C5 : ANNEXURES

Contractor Witness 1 Employer Witness 1

# **GREATER LETABA MUNICIPALITY**



# **CONSTRUCTION OF RAMAROKA STREET PAVING**

PROJECT NO: GLM002/2025

PART C1: AGREEMENT AND CONTRACT DATA

		_		
Contractor	Witness 1	-	Employer	Witness 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.: GLM002/2025 - CONSTRUCTION OF RAMAROKA STREET PAVING

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

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

## THE OFFERED TOTAL OF THE PRICE INCLUSIVE OF VALUE ADDED TAX IS (CONTRACT PRICE)

	(in words)
R	(in figures)
This Amount shall overwrite any other amount o instruction pertained in the Bid Document. Shou	pject shall be the amount as written on the Form of Offer (as above), or clause on the Pricing Schedule, Pricing Instructions or any other all the Rates on the Pricing Schedule not equate to the value on the that they equate to the value on the Form of Offer.
one copy of this document to the tenderer before the	ing the acceptance part of this form of offer and acceptance and returning the end of the period of validity stated in the tender data, whereupon the r in the conditions of contract identified in the contract data.
FOR THE TENDERER:	
Signature	Date
Full Names	
Capacity	
Name of Organization	
Address of Organization	
Signature of Witness	Date
Name of Witness	

#### **ACCEPTANCE**

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract are contained in:

PART C1 : Agreements and contract data, (which includes this agreement)

PART C2 : Pricing data
PART C3 : Scope of work
PART C4 : Site information

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

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule, which must be signed by the authorised representative(s) of both parties.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one copy of the fully signed original 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 - GREATER LETABA MUNICIPALITY

Signature	Date
Full Names	
Capacity	
Municipality Address	44 Botha Street
	Modjadjiskloof
	0835
Signature of Witness	Date
Name of Witness	
Γ	

#### SCHEDULE OF DEVIATIONS

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,

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

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,

Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final Contract Document,

1 Subject	 
Details	
2 Subject	 
Details	 
3 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 changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance.

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



# FOR THE TENDERER

Signature		Date
Full Names		
Capacity		
Name of Organization		
Address of Organization		
Signature of Witness		Date
Name of Witness		
FOR THE EMPLOYER		
Signature		Date
Full Names		
Capacity		
Addressed to	Municipal Manager (Greater Letaba Municipality)	
Address of Organization	44 Botha Street	
	Modjadjiskloof	
	0835	
Signature of Witness		Date
Name of Witness		



### **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	)	(Year)
At		(Place)	)	
FOR THE TENDERER				
Signature			Date	
Full Names				
Capacity				
-				
Name of Organization				
Address of Organization				
-				
-				
Signature of Witness			Date	
Name of Witness				

Contractor Witness 1 Employer Witness 1

### **CONTRACT DATA**

### **CONDITIONS OF CONTRACT**

The Conditions of Contract are the *General Conditions of Contract for Construction Works Third Edition (2015)* published by the South African Institution of Civil Engineering (SAICE). Copies of these conditions of contract may be obtained from the South African Institute of Civil Engineering **WWW.SAICE.ORG.ZA**.

Each item below cross-references a clause in the General Conditions of Contract for Construction Works Third Edition (2015)

### PART 1: DATA PROVIDED BY THE EMPLOYER

Clause	Data
1.1.1.5	Clause 1.1.1.5 is replaced by the following: "Commencement date" means the date the Site is Handed Over to the Contractor
1.1.1.13	The defects liability period shall be 12 months, commencing on the day the Completion Certificate is issued.
1.1.1.14	The Project will be implemented in a multi-year approach, with the total duration of 15 months( total of three financial years)
1.1.1.15	The Employer is the GREATER LETABA MUNICIPALITY.
1.1.1.16	The Employer's Agent is <b>CLEAR WATER CONSULTING ENGINEERS</b> , represented by Mr. M.T Rabopape
1.1.1.26	The Pricing Strategy is Re-measurable Contract.
1.2.1	The Employer's (GREATER LETABA MUNICIPALITY) address for receipt of communications is: 44 Botha Street Modjadjiskloof 0835
	Tel:015 309 9246 Fax:015 309 9419
1.2.1	The Employer's Agent's (CLEAR WATER CONSULTING ENGINEERS) address for receipt of communication is: 266 Madumeleng Village Modjadji 0837
	Tel: 072 889 5515 e-mail: admin@cwengineers.co.za
3.2.3	The Employer's Agent is required to obtain specific approvals from the employer for the following:  • Approval of Extension of Time;  • Approval of Additional Costs;  • Approval of Variation Orders;  • Approval of Penalties;  • Approval for the utilization of Contingencies.
4.11.1	Curriculum Vitae's of the following Competent Employees must be approved by the Employer's Agent:
	<ul> <li>Contracts Manager (refer to Clause 4.12.2)</li> <li>Site Agent</li> <li>Safety Officer</li> </ul>
	the state of the s

		, ,		
		7		
Contractor	Witness 1		Employer	Witness 1

5.3.1.	The documentation required before commencement with Works are:			
	Performance Guarantee			
	Liability Insurance			
	<ul> <li>Health &amp; Safety Plan (OHS File)</li> <li>Curriculum Vitae of Contractor 's Key Personnel for the Employer's Agent's approval</li> </ul>			
	Initial Programme of Works with associated Cash Flow & Labour Schedule			
5.3.2.	The said Documents must be submitted and approved within 14 Days after the Commencement Date			
5.8.1	Contractual Non-Working Times for the Project include the Following			
	<ul><li>Sundays</li><li>South African Gazetted Public Holidays</li></ul>			
	Construction Break (Year-End Break) as determined by South African Forum of Civil Engineering Contractors			
	<ul><li>(SAFCEC)</li><li>Including all foreseeable statutory declared election days</li></ul>			
5.13.1	The penalty for delay is <b>R 5 000.00</b> per day or part thereof, including special or non-working days.			
5.16.3	The latent defect liability period is 10 years after the date of the final approval certificate			
6.2.1	The Guarantee is to contain the same wording as indicated in the document included under clause C1.3			
6.2.1	The amount of the Guarantee must be 10% of the Contract Price.			
6.5.1.2.3	Profit on Daywork allowances as tendered in Bill of Quantities are limited to materials at cost plus 15%.			
6.8.2	The value of payment certificates is to be adjusted in accordance with the Contract Price Adjustment Schedule, where			
	$(1-x)\left[\frac{aL_t}{L_o} + \frac{bP_t}{P_o} + \frac{cM_t}{M_o} + \frac{dF_t}{F_o} - 1\right]$			
	The value of "x" is 0,10 The values of the co-efficient are:			
	New Road Construction Rehabilitation Concrete Work			
	a = 0,20			
	b = 0,40 0,35 0,20			
	c = 0,25 0,35 0,55			
	d = 0,15 0,10 0,10 "L" is the "Labour Index" and shall be the "Consumer Price Index" for the urban area nearest to the Site			
	"P" is the "Plant Index" and shall be the "Civil Engineering Plant Index"			
	"M" is the "Materials Index" and shall be the "Civil Engineering Materials Index"			
	"F" is the "Fuel Index" and shall be the "Diesel at wholesale level for the Area The suffix "o" denotes the basic indices applicable to the base month as stated in the Contract Data,			
	The suffix "t" denotes the current indices applicable to the month in which payment certificate relates.			
	The indices published monthly by the South African Forum of Civil Engineering Contractors (SAFCEC). If the index relevant to any particular certificate is not known at the time when the certificate is prepared, the Engineer shall			
	estimate the value of such index. Any correction, which may be necessary when the correct indices become			
	known, shall be made by the Engineer in subsequent payment certificates.			
	The urban area nearest the site is <b>Modjadjiskloof</b> The base month is <b>August 2024.</b> (or the month prior to the month in which the closing date of the tender falls)			
6.8.3	Price adjustments for variations in the costs of special materials are allowed subject to the Employer's approval.			
6.10.1.5	The Contractor will only be permitted to claim payment for up to a limit of 80% for Material On-Site			
6.10.3	The percentage retention is 10% of the certified work done (including VAT).			
6.10.3	The limit of retention money is 10% of the certified work done (including VAT).			
1				

Employer

Contractor

hould not be less than the contract amount.
cation
nt to <b>arbitration</b> .
Works as being labour-intensive shall only be made in accordance with the constructed strictly in accordance with the provisions of the Scope of relieve the Contractor in any way from his obligations either in contract
accompanied by labour information for the corresponding period in a actor chooses to delay submitting payment invoices, labour returns shall rame stipulated by the Employer. The contractor's invoices shall not be been submitted.
Iso downloadable at www.epwp.gov.za), Expanded Public Works Condition of Employment Act of 1997 by the Minister of Labour in escribed in the scope of work as being labour-intensive and which are
endered rates in line with competitive market rates in the event tendered rates are exorbitant.
ustment if discovered and proven that such rates are exorbitant.

# PART 1: DATA PROVIDED BY THE CONTRACTOR

Clause	Data
	The contractor is :
	The contractor's address for receipt of communication is:
	Telephone: Facsimile: Facsimile:
	E-mail:
	Address:
	The Works shall be completed within Months as proposed by the contractor.
	The percentage allowances to cover all charges for the contractor's and subcontractor's profits, timekeeping, clerical work,
	insurance, establishment, superintendence and the use of hand tools is% (Maximum 15%).

Contractor	Witness 1	Emp	oloyer	Witness 1

# PERFORMANCE GUARANTEE

(Not to be completed at Tender Stage)

To be used in conjunction with the General Conditions of Contract for Construction Works, Third Edition, 2015:

Description of Contract:	CONSTRUCTION OF RAMAROKA STREET PAVING	
Contract Number:	GLM002/2025	
	GUARANTOR DETAILS AND DEFINITIONS	
"Guarantor" means:	(Name of Firm)	
Physical Address:	Postal Address:	
"Employer" means:	GREATER LETABA MUNICIPALITY	
"Contractor" means:	(Name of Firm)	
"Engineer" means:	CLEAR WATER CONSULTING ENGINEERS	
"Works" means:	Permanent works together with temporary works	
"Site" means:	The land and other places, made available by the Employer for the purpose of the contract, or through which the works are to be executed or carried out.	on under over in
"Contract" means:	The Agreement made in terms of the Form of Offer and Acceptance and such amendments the Contract as may be agreed in writing between the parties.	or additions to
"Contract Sum" means:	The Contract Amount as seen on the Form of Offer (All Inclusive)	
"Guaranteed Sum" means:	The Amount of the Guarantee (All Inclusive)	
"Expiry Date" means:	This Guarantee shall expire upon the issue of the Final Completion Certificate issued by The signed by the Director of Engineering Services, and confirmed in writing by the Engineer.	e Employer
Engineer issues: Interim	n Payment Certificates, Final Payment Certificate and the Certificate of Completion of to defined in the Contract.	the Works as
CONTRACT SUM:		(in figures)
		(in words)
GUARANTEED SUM:		(in figures)
		(in words)

Witness 1

#### PERFORMANCE GUARANTEE

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

- 1. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
- 2. The Guarantor's period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including Expiry Date or the date of issue by the Engineer of the Certificate of Completion of the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. The Engineer and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.
- 3. The Guarantor hereby acknowledges that:
  - 3.1. any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
  - 3.2. It's obligation under this Performance Guarantee is restricted to the payment of money.
- 4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:
  - 4.1. A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim of Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
  - 4.2. A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
  - 4.3. A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
- 5. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
  - 5.1. the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
  - 5.2. a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
  - 5.3. the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
- 6. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1. Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
- 7. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 8. Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
- 9. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
- 10. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 11. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- 12. This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
- 13. Where the Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.



# PERFORMANCE GUARANTEE

SIGNED AT		
DATE	 	
GUARANTOR'S SIGNATORY (1)	 	
CAPACITY	 	
GUARANTOR'S SIGNATORY (2)	 	
CAPACITY	 	
WITNESS SIGNATORY (1)		
WITNESS SIGNATORY (2)	 	



# OCCUPATIONAL HEALTH & SAFETY AGREEMENT

In Terms of Section 37(2) of the OHS Act (No. 85 OF 1993)

# THIS AGREEMENT MADE AT:

			(Place)
On The	(Day) of	(Month)	(Year)
		BETWEEN	
	THE CON	TRACTOR (THE MANDATARY)	
Company Name			
Address			
Represented By:			
Capacity			
Signature			Date
Oignataro			
Signature of Witness			Date
Name of Witness			
		AND	
		, 111D	
	GREATER LETA	ABA MUNICIPALITY (THE EMPLO	DYER)
Address	44 Botha Street		
	Modjadjiskloof		
	0835		
Represented By:			
Capacity			
Signature			Date
Signature of Witness			Date
Name of Witness			
	Contractor Witness 1	Employer	Witness 1

#### NOW THEREFORE THIS AGREEMENT WITNESSETH AS FOLLOWS:

The Mandatary shall execute the work in accordance with the contract documents pertaining to this Contract.

This Agreement shall hold good from its commencement date, which shall be the date on which the site is handed over to the Mandatary by an order in writing from the Engineer, to either:

- (a) the date of the final certificate issued in terms of clause 52(1) of the General Conditions of Contract 2015 (hereinafter referred to as "the GCC"), as applicable to this Contract, or
- (b) the date of termination of the contract in terms of clause 55 or clause 56 of the GCC.

The Mandatary declares himself to be conversant with the following:

- (a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), hereinafter referred to as "The Act", together with its amendments and with special reference to the following Sections of The Act:
- (i) Section 8: General duties of employers to their employees;
- (ii) Section 9: General duties of employers and self-employed persons to persons

other than employees;

- (iii) Section 37: Acts or omissions by employees or mandataries; and
- (iv) Sub-section 37(2) relating to the purpose and meaning of this Agreement.
- (b) The procedures and safety rules of the Employer as pertaining to the Mandatary and to all his subcontractors.

In addition to the requirements of Clause 36 of the General Conditions of Contract and all relevant requirements of the Contract, the Mandatary agrees to execute all the works forming part of this Contract and to operate and utilize all machinery, plant and equipment in accordance with the Act.

The Mandatary is responsible for the compliance with the Act by all his subcontractors, whether or not selected and/or approved by the Employer.



# **GREATER LETABA MUNICIPALITY**



PROJECT NO: GLM002/2025

# **CONSTRUCTION OF RAMAROKA STREET PAVING**

### C2. PRICING DATA

C2.1 : PRICING INSTRUCTIONS

C2.2 : BILL OF QUANTITIES



#### PRICING INSTRUCTIONS

#### GENERAL

The pricing instructions describe the criteria and assumptions which will be assumed in the Contract that the Bidder has taken into account when developing his prices. The Bill of Quantities record the Contractor's rates for providing supplies, services engineering and construction works in accordance with the Scope of Work.

The terms of payment and the provisions for price adjustment, if applicable, are established in the Contract Data. These items are not described in the Pricing Data.

The bidder's obligations in pricing the Bid offer and the Employer's undertakings in the checking and correction of arithmetical errors are dealt with in the Standard Conditions of Bid contained in Annexure C of the South African National Standards SANS 110845-3:2015, as amended in and red in conjunction with the Bid Data.

#### 2. DOCUMENTS MUTUALLY EXPLANATORY

The documents forming the Contract are to be taken as mutually explanatory of one another. The Bill off Quantities forms an integral part of the Contract Documents and shall be read in conjunction with the Bid Data, Contract Data, Scope of Work, Site Information General and Special Conditions of Contract, the Specifications and the Drawings.

#### 3. **DEFINITIONS**

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

Unit : The unit of measurement for each item of work as defined in the Committee of Land Transport Officials

(COLTO) - Standard Specification for Road and Bridge Works for State Authorities (1998).

Quantity : The number of Unit of work for each item

Rate : The payment per unit of measurement at which the Bidder Bids to do the work.

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

Sum : An amount Bided for an item, the extent of which is described in the Schedule of Quantities, the

specifications or elsewhere but the quantity of work of which is described in the Schedule of

Quantities, the specification or elsewhere but the quantity of work of which is not measured in any units.

Prime Cost Sum: A sum fixed by the Engineer and entered in the Schedule of Quantities as the net sum provided to cover

the cost of specific goods or materials to be supplied under the contract, or the net sum to be paid by

the Contract to merchants or others for such articles or materials.1

Provisional Sum: A sum of money fixed by the Engineer and entered in the Schedule of Quantities to provide for work not

defined at the Bid stage and includes any allowance specifically made for unforeseen contingencies. 1

Extra Over : Qualifies an operation (or combination of operation) which is common in a varying degree to a number

of other operations and which is scheduled once as "extra over" those other operations in order to avoid a multiplicity of items each reflecting the degree to which the common operations apply. The term "extra over" invariably denoted double measurement, no deduction being made from one on account of the

other.



#### 4. DESCRIPTION

Description in the Bill of Quantities are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each Standardised Specification, read together with the relevant clause of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification, or the Scope of Work, conflict with the terms of the Bill, the requirements of the Standardised Specification or Scope of Work, as applicable, shall prevail.

#### 5. REFERENCES

The General Conditions of Contract, the Special Conditions of Contract (if any) the specifications (including the project specification) and the Drawings are to be read in conjunction with the schedule of quantities. Descriptions in the schedule of quantities are abbreviated and the schedule has been drawn up generally in accordance with COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition) as amended in the Scope of Works. Should any requirement of measurement and payment clause of applicable Standardised Specification, or the Project Specifications, or the Particular Specification(s) conflict with terms of the schedule or, when relevant, COLTO, the requirement of the Standardised, Project or Particular Specification, as applicable, shall prevail.

Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made for waste. The prices and rates to be inserted in the schedule of quantities are to be full inclusive prices to the Employer for the work described under the several items, value added tax excluded. Such prices shall cover all costs and expenses that may be required in and for construction of the work described and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the quotation is based.

A price or rate is to be entered against each item in the Schedule of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the schedule

#### 6. UNITS OF MEASUREMENT

millimetre mm m metre kilometre km  $M^2$ square metre М³ cube m<sup>3</sup>.km cube per kilometre Kilogram kg t Ton % Percentage

#### 7. NET MEASUREMENTS

Unless otherwise state, items are measured net in accordance with the Drawings, and no allowance is made for off-cuts and waste.



#### 8. QUANTITIES

The quantities set out in these Bill of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.

The item numbers appearing in the Bill of Quantities refer to the corresponding item numbers in COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition)

#### 9. CUURENCY

All rates and sums of money quoted in the Bill of Quantities shall be in Rand and whole cents. Fractions of cent shall be discounted.

#### 10. VALUE ADDED TAX

Valued Added Tax shall be excluded from the rates and sums contracted for the various items of work included in the Bill of Quantities. VAT will be added as a single entry to the summary

### 11. RATES AND PRICES

General

The Contractor must price each item in the Bill of Quantities in Black Ink. Reproduced computer printouts of the Bills of Quantities will not be acceptable.

The rates and prices to be inserted in the Bill of Quantities shall cover all the services and incidentals for the prescribed under the several items. Such prices and rates shall cover all costs, and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Bid is Based, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.

Where the Contractor is required to furnish detailed drawings and designs or other information in terms of the Contract Data, all costs thereof shall be deemed to have been provided for and included in the unit rates and sum amounts contracted for the items scheduled in the Bill of Quantities. Separate additional payments will not be made.

A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill. The Contractor will not be paid for items against which no rate or lump sum has been entered in the Bill of Quantities.

Should the Contractor group number of items and contract one lump sum for such group of items, this single lump sum shall apply to that group of items and not to each individual item.

Should the Contractor indicate against any item that compensation for such item is included in another item; the rate for the item included in another item shall be deemed nil.



A submission may be regarded as non-responsive if any rates or lump sums in the Bill of Quantities are, in the opinion of the Employer, unreasonable or out of proportion.

"Rate only" items

The Contractor shall fill in a rate (in the rate column) against all items where the words "rate only" appear in the Amount column, which rate will constitute payment for work which may be done in terms of this item. Such "rate-only" items are used where it is estimated that little or no work will be required under item or where the item is to be considered as an alternative to another item for which a quantity is given.

#### Arithmetic

Excepting where Sum Amounts are required or where Provisional Sum have been indicated, the Contractor shall enter an applicable rate in the Rate column on the Bill of Quantities for each scheduled item. He shall also enter an appropriate sum in the A mount column for each scheduled item, by determining in the applicable line item the product of the Quantity, the rate shall be binding and the error of extension as entered in the Bid offer will be corrected by the Employer in determining the Contract Price.

Where there is an error in addition, either as a result of other corrections required by this checking process or in the Bidder's addition of prices, such error will be corrected by the Employer in determining the Contract Price.

#### 12. VARIATION IN TEXT

No alteration or addition is to be made in the text of the Bill of Quantities. Should any alteration, erasure or addition be made, it will be recognized; the original working of the Bill of Quantities will be adhered to.

- 13. Those parts of the contract to be constructed using labour- intensive methods have been marked in the bill of quantities with the letters LI in a separate column or as a prefix or suffix against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of works, is a deviation from the contract. The items marked with letters "LI" are not necessarily an exhaustive list of all the activities, which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour-intensive specification in the Scope of Works
- **14.** Where minimum labour intensity is specified by the design the contractor is expected to use their initiative to identify additional activities that can be done labour-intensively In order to comply with the set minimum labour intensity target.
- **15.** Payment for items which are designated to be constructed labour- intensively (either in this schedule or in the scope of works) will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work, which was to be done labour-intensively will not be condoned, and any works so constructed will not be certified for payment.



# **BILL OF QUANTITIES**

Standard Specifications for Road & Bridge Works for State Authorities - Committee of Land Transport Officials (COLTO)

1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATION
1400	HOUSING, OFFICES, AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL
1500	ACCOMMODATION OF TRAFFIC
1600	OVERHAUL
1700	CLEARING AND GRUBBING
1800	DAY WORKS
2100	DRAINS
2200	PREFABRICATED CULVERTS
2300	KERBING, CONCRETE CHANNELLING, & CONCRETE LININGS FOR OPEN DRAINS
3100	BORROW MATERIAL
3300	MASS EARTHWORKS
3400	PAVEMENT LAYERS OF GRAVEL MATERIAL
3500	STABILIZATION
4100	PRIME COAT
4200	ASPHALT BASE AND SURFACING
5100	PITCHING, STONEWORK AND PROTECTION AGAINST EROSION
5500	FENCING
5600	ROAD SIGNS
5700	ROAD MARKINGS
5900	FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS
6100	FOUNDATIONS FOR STRUCTURES
7300	CONCRETE BLOCK PAVING FOR ROADS

**GENERAL REQUIREMENTS AND PROVISIONS** 

1200

Contractor	Witness 1	Employer	Witness 1

### GREATER LETABA MUNICIPALITY

CONTRACT NO.: GLM002/2025 - RAMAROKA STREET PAVING

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
1200		GENERAL REQUIREMENTS AND PROVISIONS				
B12.01	LIC	Locating existing services	Prov Sum	1	R 10 000,00	R 10 000,00
B12.02	LIC	Hand excavation to determine the positions of existing services	m <sup>a</sup>	120		
B12.03		Quality control tests ordered by the Engineer	P C Sum	1	R 50 000,00	R 50 000,00
B12.04		Employment of Community Liaison Officer for the duration of the contract	Prov Sum	1	R 75 000,00	R 75 000,00
B12.05		Provisional sum for protection and/ or relocation of existing services by others	Prov Sum	1	R 50 000,00	R 50 000,00
B12.06		Provisional sum for payment of contract notice board as instructed by Engineer	Prov Sum	1	R 15 000,00	R 15 000,00
B12.07		Employment of a Safety Representative for the duration of the contract	P C Sum	1	R 75 000,00	R 75 000,00
B12.08	LIC	Relocation of services by Contractor Supply lay on class B bedding, test and backfill the following reticulation				
		(a) uPVC Class 9 110mm	m	80		
		(b) uPVC Class 9 75mm	m			Rate Only
		(c) HDPE Class 10 50mm	m	40		
		(d) HDPE Class 10 32mm	m	204		
B12.09		Percentage for charges and profit on the provisional sums for contractor's cost and profit	%	275 000		
TOTAL CA	ARRIED FOR	l WARD				

Contractor	Wi	itness 1	Employer	ļ	Witness 1

ITEM N	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
TOTAL BRO	UGHT FO	RWARD				
B12.10		a) Training allowance paid to targeted labour in terms of formal training and including engineering student trainning for the duration of the contract     b) Extra-over for administration of payment of training allowances to targeted labour	P C Sum	1 150 000	R 150 000,00	R 150 000,00
B12,11		Sub Consultants Fees				
(a)		Occupational Health and Safety Consultant fees	Prov Sum	1	R 150 000,00	R 150 000,00
(b)		Social Consultant fees	Prov Sum	1	R 100 000,00	R 100 000,00
(d)		(i) Handling cost and profit in respect of subitems B12.11 (a & b)	%	R250 000,00		
B12,12		OCCUPATIONAL HEALTH AND SAFETY PROVISION				
		Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	L/sum	1		
		Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Month	15		
		Submission of the Health and Safety File	L/sum	1		

Contractor	Witness 1	J	Employer	ļ	Witness 1

ITEM METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS				
B13.01	Contractor's general obligations				
	(a) Fixed obligations	Lump Sum	1		
	(b) Value-related obligations	Lump Sum	1		
	(c) Time-related obligations	Month	15		
	(d) Health and safety obligations	Month	15		
B13,02	Site Establishment for year 1,2 and 3	Lump Sum	1		
B13,03	Site De-establishment for year 1,2 and 3	Lump Sum	1		
TOTAL CARRIED FOR	NB: The combined tendered total for subitem (a) (b)and (c) should not exceed 15% of the excluding VAT.				

Contractor	Witness 1	Employer	Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
1400		HOUSING, OFFICES AND LABORA- TORY FOR THE ENGINEER'S SITE PERSONNEL				
B14.01		Office and laboratory accomodation: The provision of accomodation as specified, including roof, external and internal walls, windows complete with glazing, doors with locks and fittings, burglar proofing, painting, floors, fencing, the provision of a 220/250 volt electrical installation wit  (a) Offices (interior floor space only)	m²	15		
		(e) Ablution units	m <sup>2</sup>	5		
B14.02		Office and laboratory furniture: (a) Chairs (d) Desks, complete with drawers and	No No	10 1		
		locks (f) Conference tables	No	1		
14,08		Services				
14,00		(a) Services at office and laboratories (i) Fixed costs (ii) Running costs	Lump Sum Month	1 8		
TOTAL CA	RRIED FOR	WARD TO SUMMARY				

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			İ	
Contractor	Witness 1	Employer		Witness 1

#### SECTION 1500

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT
1500		ACCOMMODATION OF TRAFFIC				
15,01		Accommodation traffic and maintaining temporary deviations	km	3,89		
B15.02		Earthworks for temporary deviations:				
	LIC	(a) Flagmen	man-day	1162		
		(b) Portable STOP and GO-RY signs	No			
		(e) Road signs, R- and TR-series, (1200mm diameter)	No	22		
		(f) Road signs, TW-series, (1500mm sides)	No	22		
		(p) Provision of high visibilty safety jackets	No	3		
TOTAL CA	ARRIED FOR	WARD TO SUMMARY				

Contractor Witness 1 Employer Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
1600		OVERHAUL				
16,01		Ovehaul on material hauled in excess of a free-haul distance of 0.5km, for haul up to or through 1.0km (restricted overhaul)	m <sup>3</sup>	6835		
B16.02		Overhaul on material hauled in excess of 1.0km (ordinary overhaul) from borrowpit	m³km	65353		
TOTAL CA	ARRIED FOR	RWARD TO SUMMARY				

Contractor	Witness 1	Employer	_	Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R	
1700		CLEARING AND GRUBBING					
B17.01		Clearing and grubbing	ha	5,09			
17,02		Removal and grubbing of large trees and stumps					
	LIC	(a) Girth exceeding 1m up to and including 2m	No	4			
		(b) Girth exceeding 2m up to and including 3m	No	1			
TOTAL CARRIED FORWARD TO SUMMARY							

Contractor	Witness 1	Employe	er Witness 1

#### SECTION B1800

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
B18.00 B18.01		DAYWORK SCHEDULE Day work				
		(a) Normal hours of duty of:				
	LIC	(i) Unskilled labour	hr			Rate Only
	LIC	(ii) Semi-skilled labour	hr			Rate Only
		(iii) Skilled labour	hr			Rate Only
		(iv) Foreman	hr			Rate Only
B18.02		Hire of construction equipment				
		(a) Excavator Minimum power: 75kW (16 ton)				
		Manufacturer	hr			Rate Only
		(b) TL Backactor	""			Rate Only
		Minimu power: 50kW (similar to Case 580G)				
		Manufacturer				
		Model	hr			Rate Only
		(c) Front end loader Minimum power: 60kW (Similar to Cat				
		920) Manufacturer				
		Model	hr			Rate Only
		(d) Platform truck Minimum load mass: 4t	hr			Rate Only
		(e) Tip truck				
		Minimum load mass: 4t Minimum load capacity: 6m3	hr			Rate Only
		(f) Grader (CAT 140G or similar)	hr			Rate Only
		(g) Walk behind roller (Bomag BW90 or similar)	hr			Rate Only
		(h) Mechanical Broom	hr			Rate Only
		(i) D6 Dozer	hr			Rate Only
		(j) Compressor complete with two hand-				
		held tools and attachments Minimum capacity: 7m3/minute				
		Manufacturer	hr			Rate Only
						rate only
		(k) Submersible dewatering pump, 40 m3/h, with hoses and power supply				
		Manufacturer	hr			Rate Only
TOTAL CA	ARRIED FOR	RWARD TO SUMMARY				

Contractor	<u> </u>	Witness 1	l	Employer	Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
2100		DRAINS				
21,01		Excavation for open drains				
	LIC	(a) Excavating soft material situated within the following depth ranges below the surface level:				
	LIC	(i) 0m up to 1.5m	m <sup>3</sup>	687,5		
		(ii) Exceeding 1.5m and up to 3.0m	m <sup>2</sup>			Rate Only
21,02	LIC	Clearing and shaping existing open drains	m <sup>3</sup>			Rate Only
21,03		Excavation for subsoil drainage systems:	"			
		(a) Excavating material situated within the following depth ranges below the surface level:				
		(i) 0m up to 1,5m	m <sup>3</sup>	48		
		(b) Extra over subitem 21.01(a) for excavation in hard material, irrespective of depth	m <sup>3</sup>	72		
21,06		Natural permeable material in subsoil drainage systems (crushed stone)				
		(b) Crushed stone obtained from commercial sources (19.0mm)	m <sup>s</sup>	19,2		
21,08		Pipes in subsoil drainage systems:				
	LIC	(c) 110mm Ø HDPE perforated pipes and fittings, normal duty, complete with couplings	m	40		
21,09	LIC	Polyethylene sheeting 0.25mm thick, or similar, approved material, for lining subsoil systems	m²	152		
21. 10	LIC	Geotextile/Geomembrane	m²	128		
21,12		Concrete outlet structures, manhole boxes, junction boxes and cleaning eyes for drainage systems:				
	LIC	(a) Outlet structures	No	3		
	LIC	(b) Manhole boxes	No	3		
	LIC	(d) Cleaning eyes	No	5		
21,13		Concrete caps for subsoil drain pipes	No	5		
21,15		Overhaul for material hauled in excess of 1,0km free haul (normal overhaul)	m <sup>3</sup> km	80		
21,20		Galvanised wire mesh 250x250mm at the outlets of subsoil drainage systems. Mesh 10mm x 2.5mm wire diameter	No	3		
21,21		Subsoil Markers	No	5		
21/33,04		Cut to spoil, including free-haul up to 0.5km. Material				
(c)		obtained from : Hard Excavation	m <sup>3</sup>	197,5		
(d)		Boulder excavation class A	m³	128,75		
(e)		Boulder excavation class B	m³	74,375		
TOTAL CA	ARRIED FOR	RWARD TO SUMMARY				

_	Contractor	Witness 1	Employer	Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
2200 22,01		PREFABRICATED CULVERTS Excavation:				
		(a) Excavating soft material situated within the following depth ranges below the surface level:				
	LIC	(i) 0m up to 1.5m	m <sup>a</sup>			Rate Only
		(ii) Exceeding 1.5m and up to 3.0m	m <sup>a</sup>			Rate Only
		(b) Extra over subitem 22.01(a) for excavation in hard material, irrespective of depth	m <sup>a</sup>			Rate Only
22,02		Backfilling:				
	LIC	(a) Using the excavated material	m³			Rate Only
	LIC	(b) Using imported selected material	m <sup>a</sup>			Rate Only
		(c ) Extra over subitems 22.02(a) and (b) for soil cement backfiling (4%)	m³			Rate Only
22,03	LIC	Prefabricated pipe culverts:				
		(b) On Class C bedding				
		(i) 1050mm diameter	m			Rate Only
		(ii) 900mm diameter	m			Rate Only
		(iii) 825mm diameter	m			Rate Only
		(iv) 750mm diameter	m			Rate Only
		(vi) 600mm diameter	m			Rate Only
		(v) 525mm diameter	m			Rate Only
		(viii) 450mm diameter	m			Rate Only
22,07	LIC	(c) Inlet and outlet strucutres, skewed ends, catchpits, manholes, thrust and anchor blocks, excluding formwork but including class U2 surface finish				
		(Class 30/19)	m <sup>3</sup>			Rate Only
	LIC	(d) Formwork of concrete under subitem 22.07(c) above (F2 finish)	m²			Rate Only
22. 10		Steel reinforcement				
	LIC	(b) High-tensile steel bars	t			Rate Only
	LIC	(c) Welded steel fabric Ref 311	kg			Rate Only
22,17		Manholes, catchpits, precast inlet and outlet structure complete				
	LIC	Field / Grid Inlets as per drawing	No			Rate Only
		Kerb Inlets as per drawing	No			Rate Only
		Manholes as per drawing	No			Rate Only
TOTAL CA	RRIED FOR	WARD TO SUMMARY				

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- 1						
L			1		ļ	
	Contractor	Witness 1		Employer		Witness 1
Ĺ	Contractor	Witness 1		Employer		Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
2300		CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS				
23,01	LIC	Concrete Kerbing				
		(a) Cast in situ kerbing (Class 25/19)				
		(ii) Figure 14 Cast in-situ mountable kerb (Class 25/19)	m			Rate Only
		(c) Precast kerb to SABS 927 (Class 25/19)				
		(i) Figure 8c mountable kerb (Class 25/19)	m	6900		
		(ii) Figure 7 non-mountable kerb (Class 25/19) with 480mm wide channel	m			Rate Only
		(iii) Figure 8c 300mm mountable kerb (Class 25/19)	m	360		
B23.07		Trimming of excavations for concrete lined open drains:				
		(a) In soft material	m²	7797		
		(b) In hard material	m²			Rate Only
23,08		Concrete lining for open drains				
		(a) Cast in-situ concrete lining (class 30/19; 1.5m-3m wide); including class U2 surface finish to cast in-situ concrete (1.5m-3m wide)	m³	974,63		
		(b) Cast in-situ concrete lining (class 30/19; 6m wide <b>Drift</b> on connecting streets); including class U2 surface finish to cast in-situ concrete (6m wide)	m³	273,75		
		(c) Cast in-situ concrete /precast on site (class 30/19) for access ramps; including class U2 surface finish to cast in-situ concrete (panels size ranging from 1,7-2.2m wide over the drain)	m²	120		
23,09		Formwork to cast in-situ concrete lining for open drains (Class F2 surface finish)				
		(b) To sides with formwork on both internal and external faces (each face measured) for access ramps	m²	3009,72		
23.10		Sealed joints in concrete linings of open drains (type 2)	m	4993,35		
23,11		Concrete infill on access ramps				
		(b) Class 25/19	m³	12		
23,12		Steel reinforcement				
		(b) Welded steel fabric Ref 193	kg	31359,14		
		(c) Welded steel fabric Ref 311 for access slabs	kg	500,00		
		(d) High-tensile steel bars for access slabs( Y12 )	t	0,50		
23,13		Polyethylene sheeting (0.15mm thick) for concrete-lined open drains	m²	9986,98726		
23,15		Precast blocks in outlet structures	No	20		
B23,16		Brickwork (b) 230mm thick(plastered)	m²	160		
TOTAL CA	ARRIED FOR	RWARD TO SUMMARY				



ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
3100		BORROW MATERIALS				
31,01		Excess overburden	m³	6435		
31,03		Finishing-off borrow areas in:				
- 1,00		(a) Hard material	ha			Rate Only
		(b) Intermediate material	ha			Rate Only
		(c) Soft material	ha	2,2		ĺ
TOTAL CA	ARRIED FOR	WARD TO SUMMARY				

Contractor	Witness 1	Employer	Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
3300		MASS EARTHWORKS				
33,01		Cut and borrow to fill, including free-haul up to 1.0km:				
		(a) Material in compacted layer thickness of 200mm and less:				
		(iii) Min G8 gravel material or similar compacted to 90% of modified AASHTO density	m <sup>3</sup>	4376,3		
33,04		Cut to spoil, including free-haul up to 1.0km. Material obtained from:				
		(a) Soft excavation	m³	1988,125		
		(b) Intermediate excavation	m <sup>3</sup>	100		
		(c) Hard excavation	m <sup>a</sup>	486,9		
		(d) Boulder excavation Class B	m <sup>3</sup>	30		
33,05		Overbreak in hard and class A excavation	m²	100		
33,07		Removal of unsuitable material (including free-haul of 0.5 km):				
		(b) In layer thicknesses exceeding 150mm				
		(i) Stable material	m <sup>3</sup>			Rate Only
		(ii) Unstable material	m <sup>a</sup>			Rate Only
33. 10		Roadbed preparation and compaction of material:				
		(b) Min G8 gravel material or similar compaction to 90% of Mod AASHTO density	m³	3923,33		
33,13		Finishing-off cut and fill slopes, medians and interchange areas:				
		(a) Cut slopes	m²	3390		
		(b) Fill slopes	m²	1017		
TOTAL CA	ARRIED FOR	RWARD TO SUMMARY				

Contractor	<u> </u>	Witness 1	l	Employer	Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
TOTAL CA	ARRIED FOR	WARD TO SUMMARY				
33,18		Extra over items 33.10 and 33.12 for preparing and/or treating the roadbed and compacting material in restricted areas:  (a) Item 33.10 for roadbed preparation and the compaction of material	m³	200		
				230		
TOTAL CA	ARRIED FOR	WARD TO SUMMARY				

Contractor	Witness 1	Employer	Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
3400		PAVEMENT LAYERS OF GRAVEL MATERIAL				
B34.01		Pavement layers constructed from gravel taken from cut to stock pile on site or borrow, including free-haul up to 1,0 km:				
		(a) Gravel selected layer compacted to:				
		(ii) Min G7 gravel material or similar compacted to 93% of modified AASHTO density (150mm layer thickness)	m³	4219,50		
		(d) Gravel subbase (G7)(Tensar TX160 Geogrid stabilized gravel) compacted to:				
		i) 95% of modified AASHTO density (250mm layer thickness)	m³			Rate Only
		(e) Gravel subbase(G7) (stabilized gravel) compacted to:				
		(i) 95% of modified AASHTO density (150mm layer thickness)	m³	3990,68		
34,07		Extra over for item B34.01 (a)(ii), (d)(i) and (e)(i) for blading to side & stockpile	m³			Rate Only
		(g) Gravel shoulder compacted to:				
		(i) Min G7 gravel material or similar compacted to 93% of modified AASHTO density (150mm layer thickness)	m³	1355,4		
34,02		Extra over item 34.01 for excavation of material in:				
		(a) Intermediate excavation	m³	100		
		(b) Hard excavation	m <sup>3</sup>	632,925		
TOTAL CAP	RRIED FOR	RWARD TO SUMMARY				

Contractor	Witness 1	Employer	Witness 1

extra over unstabilized compacted layers (subbase layer)  Additive for stabilization:  (a) CEM II 32.5 N at 3% application rate  (a) Tensar TX160 Geogrid  Provisions and application of water for curing  Rate Only  Rate Only	ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
Chemical stabilisation 150mm layer thickness) extra over unstabilized compacted layers (subbase layer)  B35.01  Tensar TX160 Geogrid stabilization:  (a) CEM II 32.5 N at 3% application rate (a) Tensar TX160 Geogrid  Type of the compacted layers (subbase layer)  Additive for stabilization:  (a) CEM II 32.5 N at 3% application rate (a) Tensar TX160 Geogrid  Type of the compacted layers (subbase layer)  Rate Only  Type of the compacted layers (subbase layer)  Type of the compacted layers (subbase layer)  Rate Only  Type of the compacted layers (subbase layer)  Type of th	3500		STABILISATION				
extra over unstabilized compacted layers (subbase layer)  Additive for stabilization:  (a) CEM II 32.5 N at 3% application rate  (a) Tensar TX160 Geogrid  Provisions and application of water for curing  Rate Only  Rate Only	35,01		Chemical stabilisation 150mm layer thickness) extra over unstabilized compacted layers (subbase layer)	m <sup>a</sup>	3990,68		
(a) CEM II 32.5 N at 3% application rate (b) Tensar TX160 Geogrid (c) Tensar TX160 Geogrid (d) Tensar TX160 Geogrid (e) Provisions and application of water for curing (e) Type TX160 Geogrid (f) TYP TX160 Geogrid (g) Tensar TX160 Geogrid (h) TYP TX160 Geogrid (h) TX160 Geogrid (h) TYP TX160 Geogrid (h)	B35.01		Tensar TX160 Geogrid stabilisation 250mm layer thickness) extra over unstabilized compacted layers (subbase layer)	m <sup>a</sup>			Rate Only
(a) Tensar TX160 Geogrid m² Rate Only  Provisions and application of water for curing kl 17000  Rate Only	B35.09		Additive for stabilization:				
35,04 Provisions and application of water for curing ki 17000			(a) CEM II 32.5 N at 3% application rate	t	285		
			(a) Tensar TX160 Geogrid	m²			Rate Only
	35,04		Provisions and application of water for curing	kl	17000		
TOTAL CARRIED FORWARD TO SUMMARY	TOTAL C	DDIES EC	Land to summary				

Contractor	Witness 1	Employer	Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
4100		PRIME COAT				
41.01/13.01		Establishment of Prime Team	Lump Sum			
41,01		Prime coat:				
		(c) MC30 cut-back bitumem	1			Rate Only
		(e) MSP1 cut-back bitumen or similar	1			
41,02		Aggregate for blinding	m²			Rate Only
TOTAL CA	RRIED FOR	WARD TO SUMMARY				

Contractor	Witness 1	Emplo	yer Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
42 00		ASPHALT BASE AND SURFACING				
42,02		(a) Asphalt surfacing, 30mm, continuously graded (TPA mild 60/70 pen bitumen and 13,2 mm maximum aggregate size)				
42,02		Rolled in chippings (13.2mm) in surfacing	t t			Rate Only
42,04		Tack coat of 30% stable-grade emulsion	litre			I Rate Only
42,05		Binder variations				
12,00		(a) Class A-E1 modified binder	l t			Rate Only
42,06		Variations in active filler content:				
		(a) Cement	t			Rate Only
		(b) Hydrated Lime	t			Rate Only
42,07		Trial sections				
		(a) 30mm surfacing	m²			Rate Only
B42.08		100 mm cores in asphalt paving	No			Rate Only
B42.21		Aggregate variations	t			Rate Only
B42.22		Establishment and removal of sealwork unit	Lump Cum			Boto Only
		on site Construction of asphalt speedhumps	Lump Sum			Rate Only
B42.23		(6m x 3.5m x 85mm)	No			Rate Only
		,				,
TOTAL CA	RRIED FOR	WARD TO SUMMARY				

Contractor	Witness 1	Employer	_	Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
5100		PITCHING, STONEWORK AND PROTECTION AGAINST EROSION				
51,01		Stone pitching:				
	LIC	(b) Grouted stone pitching	m²	60		
51,05		Concrete edge beams, 300 x 300mm in 2m sections				
	LIC	(a) Class 25/19	m <sup>a</sup>	8,64		
TAT: -						
TOTAL CA	ARRIED FOR	RWARD TO SUMMARY				

Contractor	Witness 1	Employer	Witness 1

FENCING   LIC   Moving of existing fences and gates: (a) Fences: (i) Pedestrian fences   m   250   (ii) Gates   No   2
55,04 LIC Moving of existing fences and gates:  (a) Fences:  (i) Pedestrian fences m 250
(a) Fences: (i) Pedestrian fences m 250
(i) Pedestrian fences m 250
(ii) Gates No 2
TOTAL CARRIED FORWARD TO SUMMARY

			7	
Contractor	Witness 1	Employer		Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
5600		ROAD SIGNS				
56,01		Road sign boards with painted or coloured semi-matt background. Symbols, lettering and borders in semi-matt black or in Class I retroreflective material where the sign board is constructed from:				
		(c ) Prepainted galvanised steel plate (chromadek 1.6mm or approved equivalent):				
		(ii) Area not exceeding 2m² (iii)Area exceeding 2m² but not 10m² (iii) Area exceeding 10m²	m² m² m²	60 40		Rate Only
56,03		Road sign supports				
	LIC	(a) 75mm diameter galvanized steel tubing	t	2,2		
56,04	LIC	Kilometre posts (a) Concrete	No			Rate Only
56,05	LIC	Excavation and backfilling for road sign supports	m³	51		
56,06	LIC	Extra over item 56.05 for cement treated soil backfill	m³	16		
56,07		Extra over item 56.05 for rock excavation	m <sup>a</sup>	8		
B56.10	LIC	Danger plates at culverts/structures (a) Type A stormwater culverts (150mmx600mm)	No	48		
		(b) Type B at 90° Curve (400mmx400mm)	No	10		
TOTAL CA	RRIED FOR	WARD TO SUMMARY				

Contractor	<u> </u>	Witness 1	l	Employer	Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
5700		ROAD MARKINGS				
57,01		Road-marking paint				
07,01		(a) White lines(broken or unbroken)				
	LIC	(1) 100 mm wide	km	3,39		
	LIC	(2) 150 mm wide	km	0,15		
	2.0	(b) Yellow lines (broken or unbroken)		0,10		
	LIC	(1) 100 mm wide	km			Rate Only
	LIC	(d) White lettering and symbols	m²	250		Tune only
	LIC	(e) Yellow lettering and symbols	m²	250		Rate Only
	LIC	(f) Transverse lines, painted island and	"			Nate Only
	Lio	arrestor bed markings (any colour)	m²			Rate Only
57,06	LIC	Setting out and premarking the lines (Excluding traffic-island markings, lettering and symbols)	km	3,39		
B57.07		Establishing the painting unit during construction period	Lump Sum	1		
B57.08		Re-establishing the painting unit at the end of the maintenance period	Lump Sum			Rate Only
TOTAL CA	RRIED FOR	WARD TO SUMMARY				

Contractor	Witness 1	•	Employer	Witness 1

CONTRACT NO .: GLM002/2025 - RAMAROKA STREET PAVING

FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS  59,01 Finishing the road and road reserve:  (b) Single carriageway road km 3,39	ITEM		DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
(b) Single carriageway road km 3,39	5900		RESERVE AND TREATING OLD				
	59,01		Finishing the road and road reserve:				
TOTAL CARRIED ENDWARD TO SIMMARY			(b) Single carriageway road	km	3,39		
TOTAL CARRIED FORWARD TO SHIMMARY							
TOTAL CARRIED ENDWARD TO SIMMARY							
TOTAL CARRIED EDRWARD TO SIMMARY							
TOTAL CARRIED FORWARD TO SHIMMARY							
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TOTAL CARRIED FORWARD TO SIMMARY							
TOTAL CARRIED FORWARD TO SUMMARY							
TOTAL CARRIED FORWARD TO SHIMMARY							
TOTAL CARRIED FORWARD TO SLIMMARY							
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TOTAL CARRIED FORWARD TO SUMMARY							
	TOTAL CA	ARRIED FOR	RWARD TO SUMMARY				

Contractor	Witness 1	ı	Employer	Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
6100		FOUNDATIONS FOR STRUCTURES				
61,02		Excavation:				
		(a) Excavating soft material situated within the following successive depth ranges:				
	LIC	(i) 0m up to 2m	m <sup>3</sup>			Rate Only
		(ii) 2m up to 4m	m <sup>a</sup>			Rate Only
		(b) Extra over subitem 61.02(a) for excavation in hard material irrespective of depth	m <sup>3</sup>			Rate Only
	LIC	(d) Extra over subitem 61.02(a) for excavation by hand	m <sup>a</sup>			Rate Only
TOTAL CA	ARRIED FOR	RWARD TO SUMMARY				

_	Contractor	ı	Witness 1	l	Employer	Witness 1

ITEM	METHOD	DESCRIPTION	UNIT	QTY	Rate	AMOUNT R
7300 73,01	LIC	CONCRETE BLOCK PAVING FOR ROADS  Concrete block paving (80mm thick, 25MPa, Grey, Type S-A(A) (UTG2) interlocking concrete block paving laid in herringbone bond	m²	21240		
TOTAL CA	ARRIED FOR	RWARD TO SUMMARY				

Contractor	Witness 1	Employer	Witness 1

CONTRACT NO.: GLM002/2025 - RAMAROKA STREET PAVING

### SUMMARY OF SCHEDULES

SECTION	METHOD	DESCRIPTION	AMOUNT R
SECTION 1200		GENERAL	
SECTION 1300		CONTRACTOR'S ESTABLISHMENT ON SITE GENERAL OBLIGATION	
SECTION 1400	LIC	HOUSING OFFICES AND LABORATORY FOR THE ENGINEER'S SITE PERSONNEL	
SECTION 1500	LIC	ACCOMMODATION OF TRAFFIC	
SECTION 1600		OVERHAUL	
SECTION 1700		CLEAR AND GRUBBING	
SECTION B 1800		DAYWORK SCHEDULE	
SECTION 2100	LIC	DRAINS	
SECTION 2200	LIC	PREFABRICATED CULVERTS	
SECTION 2300	LIC	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS	
SECTION 3100		BORROW MATERIALS	
SECTION 3300		MASS EARTHWORKS	
SECTION 3400		PAVEMENT LAYERS OF GRAVEL MATERIAL	
SECTION 3500		STABILISATION	
SECTION 4100		PRIME COAT	
SECTION 4200		ASPHALT BASE AND SURFACING	
SECTION 5100	LIC	PITCHING, STONEWORK AND PROTECTION AGAINST EROSION	
SECTION 5500	LIC	FENCING	
SECTION 5600	LIC	ROAD SIGNS	
SECTION 5700	LIC	ROAD MARKINGS	
SECTION 5900		FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	
SECTION 6100	LIC	FOUNDATIONS FOR STRUCTURES	
SECTION 7300	LIC	CONCRETE BLOCK PAVING FOR ROADS	
TOTAL CARRIE	FORWA	RD TO SUMMARY OF SCHEDULES	

Contractor	Witness 1	Employer	Witness 1

## CONTRACT NO.: GLM002/2025 - RAMAROKA STREET PAVING

Contractor

Witness 1

Employer

Witness 1

CALCULATION OF TENDER AMOUNT
TOTAL OF THE SUMMARY OF SCHEDULES
CONTRACT PRICE ADJUSTMENT (5%)(Subject to Employer's approval) Sum provided in terms of the provisions of the General Conditions of Contract
SUB TOTAL
CONTIGENCIES (Subject to Employer's approval) The Tenderer shall add contingencies of 5% of the total amount of Schedule of Quantities
SUB TOTAL
VALUE ADDED TAX The Tenderer shall add 15% of the subtotal for value added tax
CONSTRUCTION COST



## PROJECT NO: GLM002/2025

## **CONSTRUCTION OF RAMAROKA STREET PAVING**

C3. SCOPE OF WORK

Contractor Witness 1 Employer Witness 1

## SCOPE OF WORK

## PART C3: SCOPE OF WORK

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## C3.1 DESCRIPTION OF THE WORKS

### C3.1.1 General Description of the project

This project involves the upgrading of the existing gravel Ramaroka road and Storm water. This project will be the first phase. It also includes all the associated civil services such as storm water drainage structures, road signs and road markings. The upgrading is from gravel to block paved standards, of approximately 3.39km and a regraveling section of approximately 500m.

### C3.1.1 Employer's Objectives

The employer's objectives are to deliver public infrastructure using labour intensive methods in accordance with EPWP Guidelines

#### Labour-intensive works

Labour-intensive works shall be constructed/maintained using local workers who are temporarily employed in terms of this Scope of Work.

## Labour-intensive competencies of supervisory and management staff

Contractors shall engage supervisory and management staff in labour-intensive works that have completed the skills programme including Foremen/Supervisors at NQF "National Certificate: Supervision of Civil Engineering Construction Processes" and Site Agent/Manager at NQF level 5 "Manage labour-intensive Construction Processes" or equivalent QCTO qualifications.

#### C3.1.2 Location of Works

The project is located approximately 22km north-east of Modjadjiskloof town and falls in the Greater Letaba Municipality jurisdiction within the boundaries of the Mopani District Municipality. The road provides the main access to the Ramaroka settlements. The road starts at the intersection with the district road, D4253, about 22km north-east from Modjadjiskloof town at the Ramaroka settlement on the southern end. The new road will continue from the existing gravel district road, D3195 in a north-eastern direction and will follow a loop road back existing gravel district road, D3195.

The project is located in the Ward 21 within the Greater Letaba Municipality and Mopani District Municipality.

The following shows the coordinates of the project location:

• Ramaroka (Ward 21): 23°30'31.84"S. (latitude) 30°21'23.15"E. (longitude)

#### C3.1.3 Extent of Works

The project is intended to be labour-intensive as far as practically possible for job creation in line with the objectives of the Employer and legislation of the Republic of South Africa.

The project consists out of the following:



- Upgrading the existing gravel road from gravel to block paved standards. The road is approximately 3.39km in length. The road has also a regravelling portion of approximately 500m
- 80mm Block paving, 6m wide from kerb to kerb and speed humps.
- Mountable kerbs on both sides of the street.
- 1m Gravel shoulders behind the kerb line on both sides of the road.
- Approximately 3.9 km concrete-lined drains, with drifts and earth open drains.
- Road furniture (road signs)

### C3.1.5 Temporary Works

All temporary works for concrete works, deep excavations, shoring and camp site, must be removed and cleared from site after completion to adherence to environmental protection.

#### C3.1.6 General Information

### C3.1.6.1 Drawings

The reduced drawings contained in Annexure C5.3 that form part of the tender document shall be used for tender purposes only. Further drawings are to be provided on an on-going basis by the engineer.

Any information in the possession of the contractor, which the resident engineer requires to complete the as-built drawings, shall be supplied to the resident engineer before a certificate of completion will be issued.

Only figured dimensions shall be used and drawings shall not be scaled unless so instructed by the engineer. The engineer will supply all figured dimensions omitted from the drawings.

### C3.1.6.2 Power, Water Supply and Other Services

The contractor shall make his own arrangements concerning the supply of electrical power and all other services. No direct payment will be made for the provision of electrical and other services. The cost of providing these services will be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required.

#### C3.1.6.3 Contractor's Camp Site and Security

The contractor shall make his own arrangements regarding the establishment of a camp site and housing for his construction personnel and all regulations stipulated by the local authority shall be adhered to.

It is anticipated that the contractor's choice of a camp site will be influenced by the availability of telephone and electrical connections as well as the supply of potable water.

Provision is made in these specifications for the erection of a security fence around the site offices. The contractor shall be responsible for the security of his personnel and constructional plant on and around the site of the works and for the security of his camp, and the employer will consider no claims in this regard.

C3.1.6.4	Additional	Requirements	for Construction	Activities
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Contractor Witness 1 Emp	oloyer Witness 1

- C3.1.6.4.1 The contractor may not commence constructional activities 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.
- C3.1.6.4.2 The contractor shall submit proposals in connection with directional signs to the engineer for approval.
- C3.1.6.5 Programme Requirements for Construction Activities

The contractor shall programme his activities to be suitable in terms of his resources to complete the contract inside the stipulated time period.

#### C3.1.6.6 Construction in Confined Areas

It may be necessary for the contractor to work in confined areas. In certain areas the width of the fill material and pavement layers may reduce to zero and the working space may be confined. The method of construction in these confined areas depends on the contractor's construction plant. However, the contractor must note that measurement and payment will be in accordance with the specified cross-sections and dimensions, irrespective of the method used to achieve these cross-sections and dimensions, and that the rates and amounts tendered will be deemed to include full compensation for any special equipment or construction methods or for any difficulty encountered in working in confined areas and narrow widths, and at or around obstructions, and that no extra payment will be made nor will any claim for payment be considered on account of these difficulties.

### C3.1.7 Labour Regulations

### A27 Payment for the labour-intensive component of the works

Payment for works identified in clause 3.1.3 "the Extent of the Project" in the Project Specifications as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the scope of work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

### A28 Applicable labour laws

The Ministerial Determination for Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice N° R949 in Government Gazette 33665 of 22 October 2010, as reproduced below, shall apply to works described in the scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.

#### A29 Introduction

This document contains the standard terms and conditions for workers employed in elementary occupations on a Special Public Works Programme (EPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of a EPWP.

#### A29.2 In this document -

- (a) "department" means any department of the State, implementing agent or contractor;
- (b) "employer" means any department, implementing agency or contractor that hires workers to work in elementary occupations on a EPWP:
- (c) "worker" means any person working in an elementary occupation on a EPWP;

d)	"elemen	tary occupation	" means any oc	cupation invo	lving u	nskilled or	semi-skilled v	work;
	Contractor	Witness 1		Employer	l L	Witness 1		

- (e) "management" means any person employed by a department or implementing agency to administer or execute an EPWP:
- (f) "task" means a fixed quantity of work;
- (g) "task-based work" means work in which a worker is paid a fixed rate for performing a task;
- (h) "task-rated worker" means a worker paid on the basis of the number of tasks completed;
- (i) "time-rated worker" means a worker paid on the basis of the length of time worked.

#### A30 Terms of Work

- A30.1 Workers on a EPWP are employed on a temporary basis.
- A30.2 A worker may NOT be employed for longer than 24 months in any five-year cycle on a EPWP.
- A30.2 Employment on a EPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.

#### A31 Normal Hours of Work

- A31.1 An employer may not set tasks or hours of work that require a worker to work-
  - (a) more than forty hours in any week
  - (b) on more than five days in any week; and
  - (c for more than eight hours on any day.
- A31.2 An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.
- A31.3 A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

#### A32 Meal Breaks

- A32.1 A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.
- A32.2 An employer and worker may agree on longer meal breaks.
- A32.3 A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.
- A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

#### A33 Special Conditions for Security Guards

- A33.1 A security guard may work up to 55 hours per week and up to eleven hours per day.
- A33.2 A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

### A34 Daily Rest Period

Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured



from the time the worker ends work on one day until the time the worker starts work on the next day.

### A35 Weekly Rest Period

Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").

## A36 Work on Sundays and Public Holidays

- A36.1 A worker may only work on a Sunday or public holiday to perform emergency or security work.
- A36.2 Work on Sundays is paid at the ordinary rate of pay.
- A36.3 A task-rated worker who works on a public holiday must be paid
  - (a) the worker's daily task rate, if the worker works for less than four hours;
  - (b) double the worker's daily task rate, if the worker works for more than four hours.
- A36.4 A time-rated worker who works on a public holiday must be paid
  - (a) the worker's daily rate of pay, if the worker works for less than four hours on the public holiday;
  - (b) double the worker's daily rate of pay, if the worker works for more than four hours on the public holiday.

#### A37 Sick Leave

- A37.1 Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.
- A37.2 A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.
- A37.3 A worker may accumulate a maximum of twelve days' sick leave in a year.
- A37.4 Accumulated sick-leave may not be transferred from one contract to another contract.
- A37.5 An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.
- A37.6 An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.
- A37.7 An employer must pay a worker sick pay on the worker's usual payday.
- A37.8 Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is
  - (a) absent from work for more than two consecutive days; or
  - (b) absent from work on more than two occasions in any eight-week period.
- A37.9 A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.

A37.10	A worker is not entitle	ed to paid sick-leave for	a work-related injury or	r occupational disease for which
	the worker can claim	compensation under the	e Compensation for Occ	cupational Injuries and Diseases
	Contractor	Witness 1	Employer	Witness 1

Act.

### A38 Maternity Leave

- A38.1 A worker may take up to four consecutive months' unpaid maternity leave.
- A38.2 A worker is not entitled to any payment or employment-related benefits during maternity leave.
- A38.3 A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.
- A38.4 A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of her child, unless a medical practitioner, midwife or qualified nurse certifies that she is fit to do so.
- A38.5 A worker may begin maternity leave
  - (a) four weeks before the expected date of birth; or
  - (b) on an earlier date -
    - (i) if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or
    - (ii) if agreed to between employer and worker; or
  - (c) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.
- A38.6 A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.
- A38.7 A worker who returns to work after maternity leave, has the right to start a new cycle of twenty-four months employment, unless the EPWP on which she was employed has ended.

### A39 Family responsibility leave

- A39.1 Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances -
  - (a) when the employee's child is born;
  - (b) when the employee's child is sick;
  - (c) in the event of a death of
    - (i) the employee's spouse or life partner;
    - (ii) the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

#### A40 Statement of Conditions

- A40.1 An employer must give a worker a statement containing the following details at the start of employment
  - (a) the employer's name and address and the name of the EPWP;
  - (b) the tasks or job that the worker is to perform; and
  - (c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract:

Contractor Witness 1 Employer	Witness 1

- (d) the worker's rate of pay and how this is to be calculated;
- (e) the training that the worker will receive during the EPWP.
- A40.2 An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.
- A40.3 An employer must supply each worker with a copy of these conditions of employment.

#### A 41 Keeping Records

- A41.1 Every employer must keep a written record of at least the following
  - (a) the worker's name and position;
  - (b) in the case of a task-rated worker, the number of tasks completed by the worker;
  - (c) in the case of a time-rated worker, the time worked by the worker;
  - (d) payments made to each worker.
- A41.2 The employer must keep this record for a period of at least three years after the completion of the EPWP.

## A42 Payment

- A42.1 An employer must pay all wages at least monthly in cash or by cheque or into a bank account.
- A42.2 A task-rated worker will only be paid for tasks that have been completed.
- A42.3 An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer.
- A42.4 A time-rated worker will be paid at the end of each month.
- A42.5 Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.
- A42.6 Payment in cash or by cheque must take place
  - (a) at the workplace or at a place agreed to by the worker;
  - (b) during the worker's working hours or within fifteen minutes of the start or finish of work;
  - (c) in a sealed envelope which becomes the property of the worker.
- A42.7 An employer must give a worker the following information in writing
  - (a) the period for which payment is made;
  - (b) the numbers of tasks completed or hours worked;
  - (c) the worker's earnings;
  - (d) any money deducted from the payment;
  - (e) the actual amount paid to the worker.
- A42.8 If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it
- A42.9 If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.



#### A43 Deductions

- A43.1 An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.
- A43.2 An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.
- A43.3 An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned.
- A43.4 An employer may not require or allow a worker to
  - (a) repay any payment except an overpayment previously made by the employer by mistake;
  - (b) state that the worker received a greater amount of money than the employer actually paid to the worker; or
  - (c) pay the employer or any other person for having been employed.

### A44 Health and Safety

- A44.1 Employers must take all reasonable steps to ensure that the working environment is healthy and safe.
- A44.2 A worker must–
  - (a) work in a way that does not endanger his/her health and safety or that of any other person;
  - (b) obey any health and safety instruction;
  - (c) obey all health and safety rules of the EPWP;
  - (d) use any personal protective equipment or clothing issued by the employer;
  - report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

### A45 Compensation for Injuries and Diseases

- A45.1 It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a EPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.
- A45.2 A worker must report any work-related injury or occupational disease to their employer or manager.
- A45.3 The employer must report the accident or disease to the Compensation Commissioner.
- A45.4 An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount by the Compensation Commissioner. This does NOT apply to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

#### A46 Termination

- A46.1 The employer may terminate the employment of a worker for good cause after following a fair procedure.
- A46.2 A worker will not receive severance pay on termination.

Witness

A46.3 A worker is not required to give notice to terminate employment. However, a worker who wishes to

Employer

resign should advise the employer in advance to allow the employer to find a replacement.

- A46.4 A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.
- A46.5 A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

#### A47 Certificate of Service

- A47.1 On termination of employment, a worker is entitled to a certificate stating
  - (a) the worker's full name;
  - (b) the name and address of the employer;
  - (c) the EPWP on which the worker worked;
  - (d) the work performed by the worker;
  - (e) any training received by the worker as part of the EPWP;
  - (f) the period for which the worker worked on the EPWP;
  - (g) any other information agreed on by the employer and worker.

### A48 Contractor's default in payment to Labourers and Employees

Any dispute between the Contractor and labourers, regarding delayed payment or default in payment of fair wages, if not resolved immediately may compel the Employer to intervene.

The Employer may, upon the Contractor defaulting payment, pay the moneys due to the workers not honoured in time, out of any moneys due or which may become due to the Contractor under the Contract.

### A49 Provision of Hand tools

The Contractor shall provide his labour force with hand tools of adequate quality, sufficient in numbers and make the necessary provisions to maintain the tools in good and safe working conditions

#### A50 Reporting

The Contractor shall submit monthly returns/reports as specified below:

- Signed Muster rolls/pay sheets of temporary workers and permanent staff detailing the number, category, gender, rate of pay and daily attendance.
- Copies of certified identity documents of workers
- Number of persons who have attended training including nature and duration of training provided
- Assets created, rehabilitated or maintained in accordance with indicators in the EPWP M&E framework.
- Plant utilization returns
- Progress report detailing production output compared to the programme of works

Contractor Witness 1		

## A51 Project Steering Committee (PSC)

The Contractor shall pay five (5) PSC members per sitting per month as specified below:

R 160 per member per attended sitting per site progress meetings.

## A52 Project Steering Committee (PSC)

The Contractor shall pay general labour at a rate per day as specified below:

R 150 per labourer per day.

## A53 Remuneration of Community Liaison Officer (CLO)

The Contractor shall pay the CLO a monthly salary as specified below:

R 5000 per month.

## A54 Remuneration of Safety Representative

The Contractor shall pay the Safety Representative a monthly salary as specified below:

• R 5000 per month.

Contractor	Witness 1	Employer	Witness 1

### C3.2 ENGINEERING

## C3.2.1 Design

- (a) The **Employer** is responsible for the design of the permanent Works as reflected in these Contract Documents unless otherwise stated.
- (b) The **Contractor** is responsible for the design of the temporary Works and their compatibility with the permanent Works.
- (c) The **Contractor** shall supply all details necessary to assist the engineer in the compilation of the as-built drawings.

## C3.2.2 Employer's Design

- (a) Detail description of Works
- (b) General Works

## C3.2.3 Contractor's Design

Where contractor is to supply the design of designated parts of the permanent Works or temporary Works he shall supply full working drawings supported by a professional engineer's design certificate.

## C3.2.4 Design procedures

All designs and modifications thereto shall be communicated in writing and the contractor and engineer shall maintain master lists to record and track all transactions.

Contractor	Witness 1	Employer	Witness 1

### C3.3 PROCUREMENT

#### PREFERENTIAL PROCUREMENT POINT SYSTEM POLICY

#### C3.3.1 DEFINITIONS

The words in this policy shall bear a meaning as prescribed and/or ascribed by applicable legislation, and in the event of a conflict, the meaning attached thereto by National Legislation shall prevail.

- (a) "Act" means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000);
- (b) "Comparative price" means the price after the factors of a non-firm price and all unconditional discounts that can be utilised have been taken into consideration;
- (c) "Consortium or Joint Venture" means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract;
- (d) "Contract" means the agreement that results from the acceptance of a tender by an organ of state;
- (e) "Disability" means, in respect of a person, a permanent impairment of a physical, intellectual, or sensory function, which results in restricted, or lack of, ability to perform an activity in the manner, or within the range, considered normal for a human being;
- (f) "Firm price" is the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of a law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;
- (g) "Management" in relation to an enterprise or business, means an activity inclusive of control and performed on a daily basis, by any person who is a principal executive officer of the company, by whatever name that person may be designated, and whether or not that person is a director;
- (h) "Non-firm prices" means all prices other than "firm" prices;
- (i) "Person" includes reference to a juristic person;

Contractor	Witness 1	Employ	er Witness 1

137 (j) "Rand value" means the total estimated value of a contract in Rand denomination which is calculated at the time of tender invitations and includes all applicable taxes and excise duties: (k) "Sub-Contracting" means the primary contractor's assigning or leasing or making out work to, or employing, "Trust" means the arrangement through which the property of one person is made over or (l) bequeathed to a trustee to administer such property for the benefit of another person; (m) "Trustee" means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person. "Individual" an individual shall mean a natural person; (n) "The Municipality" means the Greater Letaba Municipality; (o) "Companies and Shares" shall be read so as to include Close Corporations and members interests (p) mutatis mutandis; "Executive Management Committee" shall mean a committee comprising the Municipality's Heads (q) of Divisions and any other Manager so invited. (r) "Tender" means a written offer or bid in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services or goods; "EME" means Exempted Micro Enterprise (s) "B-BBEE" stands for Broad Based Black Economic Empowerment (t) "SANAS" stands for South African National Accreditation System (u)

"IRBA" stands for Independent Regulatory Board of Auditors

(v)

Contractor Witness 1 Employer Witness 1

#### C3.3.2 PREAMBLE

Whereas the Greater Letaba Municipality, being the Municipality, as defined, and engaged in contracts for the acquisition of goods and services and obliged to do so in accordance with a system which is fair, equitable, transparent, competitive and cost effective, hereby provides for a procurement policy to that effect.

#### C3.3.3 GOALS

The broad goals of this policy are to:

- (a) Ensure effective and efficient application of resources;
- (b) Promote accountability, transparency and fairness;
- (c) Create opportunities for local small, medium and micro enterprises;
- (d) Enhance quality services;
- (e) Stimulate socio-economic development;
- (f) Eliminate and counter corruption;
- (g) Contribute towards reduction of unemployment.

#### C3.3.4 OBJECTIVES

The specific objectives of the policy are to:

- (a) Implement best procurement practises through effective planning, strategic purchasing and contract management;
- (b) Standardise levels of skill and knowledge of employees/workers;
- (c) Promote HDI enterprises providing services and goods within the Province;
- (d) Introduce a systematic approach to the appointment of service providers and to promote consistency in respect of supply chain management and offer related policy initiatives.

Contractor	Witness 1	Employer	Witness 1

#### C3.3.5 LEGISLATIVE FRAMEWORK

The procurement system is prescribed and regulated by legislation, amongst which being:

- (a) Section 217 of the Constitution, Act 108 of 1996 which provides that in contracting for goods and services, organs of state must do so in accordance with a system that is fair, equitable, transparent, competitive and cost effective;
- (b) Municipal Finance Management Act, 56 of 2003 which aims to regulate financial management of certain organs of state to ensure that all revenue, expenditure, assets and liabilities are managed efficiently and effectively;
- (c) Preferential Procurement Policy Act, 5 of 2000 ("the Act") and the regulations promulgated in terms of the Act giving effect to Section 217(3) of the Constitution by providing a framework for the implementation of the preferential procurement policy contemplated in Section 217 (2) of the Constitution;
- (f) All other applicable laws, policies and regulations.

#### C3.3.6 GENERAL CONDITIONS

The abovementioned provisions of this policy document shall apply, subject to the following terms and conditions:

### C3.3.6.1 Company Registration

Whereas the Municipality shall have the above responsibilities, the respective and prospective service providers shall be:

- (a) Registered with the South African Revenue Services for all categories of taxes applicable to it.
- (b) The Municipality reserves the right to have access and/or require production of the original or certified proof of any such registration at a time agreed to by the parties or as may be prescribed by law.

#### C3.3.6.2 Tender Evaluation

(a) Only a tenderer who has complied with the tender evaluation requirements may be considered for evaluation.



- (c) The Municipality shall, when calculating comparative prices, take into account any discounts, which have been offered unconditionally.
- (d) A discount, which has been offered conditionally must, despite not being taken into account for evaluation purposes, must be implemented when payment is affected.
- (e) In the event that different prices are tendered for different periods of a contract, the price for each period must be regarded as a firm price if it conforms to the definition of a "firm price".
- (f) Points scored must be rounded off to the nearest two decimals.
- (g) In the event that two or more tenders have scored equal total points, the successful tenderer must be the one scoring the highest number of points in terms of B-BBEE verification level certificate. Should two or more tenders be equal in all respects, the award shall be decided by the drawing of lots.

### C3.3.6.3 Principles

- (a) B-BBEE verification level certificate shall be considered for evaluation purpose. This certificate must be issued by a SANAS accredited verification agency or registered auditors approved by the IRBA. The municipality has the right to check the validity of the certificate (B-BBEE)
- (b) In the event where there is a change in the B-BBEE status after the closing date of the tender, before the award, the tenderer must notify The Municipality and such a tenderer will not be eligible for any preference points.
- (c) The contract must be awarded to the tenderer, which scores the highest points.

#### C3.3.6.4 Declarations

A tenderer must, in the stipulated manner, declare that-

- (a) The information provided is true and correct;
- (b) The signatory to the tender document is duly authorised; and
- (c) Documentary proof regarding sub-clause C3.3.6.3(a), shall be submitted to the Municipality.

### C3.3.6.5 Penalties

- (a) Upon detecting that a B-BBEE certificate in terms of the Act, the regulations or this policy have been obtained on a fraudulent basis, or any specified goals are not attained in the performance of the contract, the Municipality shall act against the person awarded the contract.
- (b) The Municipality may, in addition to any other remedy it may have against the person contemplated in sub-clause C3.3.6.5(a):
  - I. Recover all costs, losses or damages it has incurred or suffered as a result of that person's conduct;
  - II. 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;

III. Restrict the contractor and its shareholders, directors, partners, sole proprietor, joint venture, trusts, etc from obtaining business from the Municipality for a period not exceeding 10 years. The Municipality reserves the right to have access and/or require production of the original or certified proof of any such registration at a time agreed to by the parties or as may be prescribed by law.

# C3.3.6.6 Areas of Policy Coverage

The above-mentioned provisions of this policy shall apply to, but not limited to, the following entities and/or activity:

- (a) Procurement of goods or services;
- (b) Appointment of consultants;
- (c) Appointment of contractors, consortia and joint venture contractors;

#### C3.3.6.7 Criteria for Tender Evaluation

The Municipality shall use the following criteria to evaluate tenders: -

- (a) Compliance with tender conditions;
- (b) 90/10 points system on tenders with a Rand value above R1 000 000 (one million rand) and preference point system 80/20 for tenders with a Rand value equal to, or above R30 000 but up to a Rand value of R1 000 000 (one million rand);
- (c) Price and functionality.

# C3.3.6.8 Preference Point System: 90/10

The following formula must be used to calculate the points in respect of tenders/procurement with a Rand value above R1 000 000.00 (one million rand). This formula should be used to determine points for price.

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

Where:

Ps = Point scored for price for the tender under consideration.

Pt = Rand value of tender under consideration.

Pmin = Rand value of the lowest acceptable tender.

# C3.3.6.9 Award of Contract to Tenderer not scoring the Highest Number of Points



Despite the fact that only the tenderer with the highest number of points scored may be awarded, a contract may, on reasonable and justifiable ground, be awarded to a tender that did not score the highest number of points.

Note: The municipality shall adjudicate and award tenders in accordance with the <u>Preferential Procurement Policy Framework Act. 5/2000</u> and revised <u>Preferential Procurement regulation June 2011</u> on 100 points for functionality and 90/10 points system where 90 points are for the price and 10 points for B-BBEE according to the said legislation. Tenderers are required to submit valid B-BBEE status level verification certificates. Tenders will remain valid for 90 (ninety) days. The lowest and any tender will not necessarily be accepted and the Municipality reserves the right not to consider any tender not fully completed. Bidders are required to initialize each page of the tender document and sign where necessary.

## C3.3.7 PROCUREMENT OF GOODS AND SERVICES

Directive for purchasing goods and services below a Rand value of R200 000.00.

#### C3.3.7.1 Service Providers

In procuring goods and services, a database, for different service providers, shall be compiled from which service providers, in their respective categories of operation, will be selected for specifically identified requirements.

The inclusion into the database shall be by way of invitation through advertisements. The database shall be used for the purposes of rotating requests for quotations from appropriate suppliers. The database shall include service providers supplying stationery, refreshments, security services, minor repairs, etc., but excluding specialized professional services such as HR Consulting, Engineering, etc.

## C3.3.7.2 Requirements for Inclusion in the Database

The respective and prospective service providers shall be:

- (a) Registered with the South African Revenue Services for all categories of taxes applicable to it.
- (b) Reserve the right to have access and/or require production of the original or certified proof of any such registration at a time agreed to by the parties or as may be prescribed by law.

# C3.3.7.3 Procedures and Processes

The following procedures and processes, in respect of procuring goods and services shall be applicable: -

(a) Requests for quotations shall be issued as per 512(1) of the Greater Letaba SCM Policy.

# C3.3.8 APPOINTMENT OF CONSULTANTS

In procuring services of professional consultants, databases for different professions shall be compiled from which consulting firms will be selected for specific projects and evaluated according to the Greater Letaba SCM Policy.



# C3.3.8.1 Requirements for Inclusion in the Database

The inclusion in the database shall be by way of invitations, through advertisements. In order to be considered for inclusion in the database the service provider shall:

- (a) Comply with all statutory labour requirements;
- (b) Be registered with the South African Revenue Service, for all categories of taxes applicable to it;
- (c) The offer to Consultants shall be made provided there's a Professional person by the time of submission.
- (d) Have Professional Indemnity Insurance;
- (e) Submit, together with application forms, an Original Valid Tax Clearance Certificate;
- (f) Be willing to submit to the physical inspection of the offices for verification of the information supplied in the application forms.

# C3.3.8.2 Selection of Consultants for Appointment

The criteria for the selection of consultants for appointment shall take the following order:

- (a) B-BBEE verification level certificate must be submitted
- (b) Firms with relevant expertise and experience to perform in relation to the service under consideration:
- (c) Firms with the capacity in terms of personnel and equipment in relation to the size of the project under consideration;
- (d) Giving opportunity to others before re-appointing one firm for the second time within the appointment cycle, except for specialized type of service;
- (e) Performance history (quality, efficiency, etc.)

# C3.3.8.3 Authority to Appoint

The Accounting Officer shall have the authority to appoint consultants, upon recommendation by the Bid Adjudication Committee. Accounting Officer has delegated powers to appoint to the Bid Adjudication Committee, the committee shall appoint.

# C3.3.8.4 Changes in Scope of Work

- (a) The Municipality shall have the right to revise the scope of work, including discontinuing with the project during the design stage;
- (b) The consultant shall have the right to be compensated for work done prior and up to cancellation stage;
- (c) The discontinued project shall be deemed to have been removed from the Municipality's programme



of work and the consultant shall have no right to be appointed on the same project should the project be revived at a later stage.

# C3.3.9 APPOINTMENT OF CONTRACTORS

#### C3.3.9.1 Procedure for Invitation of Tenders

Tenders will be invited publicly through the general media and other forms of communication to ensure that target communities are reached. The intention is to ensure that the SMME's in rural areas that may not be in a position to access the general press is also reached.

In the event where normal tendering is not practical due to other constraints, at least three (3) selected service providers shall be invited to submit quotations.

## C3.3.9.2 The tender invitation shall include:

- (a) Specifications and description of project or services to be procured;
- (b) Tendering information and documentation will be in English;
- (c) A non-refundable charge shall be payable to cover the cost of the tender documents and specifications;

## C3.3.9.3 Compulsory Requirements

The following requirements shall be applicable to all tenders and non-adherence thereto shall result in an automatic disgualification for the advertised tender:

- (a) Attendance of site inspection for briefing;
- (b) Submission of valid original tax clearance certificate;
- (c) Authority to act and contractually bind the tenderer.
- (d) Tenderers are required to register with the Construction Industry Development Board (CIDB), (9 July 2015) which will then allocate a grade applicable to the tenderer. The grades applicable are shown in the table below.

WORKS CAPABILITY							
Designation	Maximum value of contractor is considered capable of performing	Largest contract completed, during the 5 years immediately preceding the application, in the class of construction works applied for					
2	R 650,000.00	R 130,000.00					
3	R 2,000,000.00	R 450,000.00					
4	R 4,000,000.00	R 900,000.00					
5	R 6,500,000.00	R 1,500,000.00					
6	R 13,000,000.00	R 3,000,000.00					
7	R 40,000,000.00	R 9,000,000.00					
8	R 130,000,000.00	R 30,000,000.00					
9	No Limit	R 90,000,000.00					

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	J		l			
Contractor		Witness 1		Employer		Witness 1
				,		

(e) Any special condition which may be attached to any tender of the Municipality.

# C3.3.9.4 Closure and Opening of Tenders

Tenders shall close on a date and time specified in the tender document and shall be opened and read in public.

#### C3.3.9.5 Evaluation of Tenders

Tenders to be evaluated shall comply with the requirements as outlined under C3.3.9.3.

# C3.3.9.6 Points In Respect of Status of Enterprise

A maximum of 20 (twenty) potential points in respect of 80/20 and a maximum of 10 (ten) potential points in respect of 90/10 will be awarded in respect of the status of the B-BBEE

# C3.3.9.7 Points In Respect of Price and Functionality

Tenders shall be evaluated on 80 points for price and 20 for B-BBEE as per the Greater Letaba SCM Policy.

# (a) Calculation of percentage for price

The financial offer will be scored using the following:

$$Ps = W_1 \left( 1 - \frac{P_t - P_{min}}{P_{min}} \right)$$

Where

Ps = Points scored for functionality and price of the bid/proposal

W<sub>1</sub> = (1) 90 where the financial value inclusive of VAT of all

responsive tenders received have a value in excess of

R50 000 000.00; or

(2) 80 where the financial value inclusive of VAT of one or more

responsive tender offers equals or is less than R50 000 000.00.

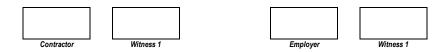
Pt = Rand value of tender under consideration

Pmin = Rand value of the lowest acceptable tender

#### C3.3.9.8 Cessions

A service provider awarded a contract may not cede or subcontract a contract/project or any part thereof without written consent of the Municipality and where such consent is granted, a signed agreement involving the cedent, cessionary and the Municipality shall be entered into.

The minimum of 25% must be sub contracted to a local emerging contractor. A contractor is not allowed to subcontract more than 25% of the contract value to another enterprise that does not have equal or higher B-BBEE status level, unless the intended subcontractor is an EME that has capability and ability to execute the subcontract. Both the cedent and the cessionary shall be jointly and severally liable for the quality of the material supplied and workmanship.



# C3.3.9.9 Performance Guarantees

The Municipality shall strive to facilitate the participation of HDI's and SMME by waiving or reducing the maximum amounts of sureties as follows:

- (a) No surety for projects between R0 to 500 000
- (b) 1% surety for projects between R500 000 and R1 million
- (c) 2,5% surety for projects between R1 million and R2 million
- (d) 5% surety for projects above R2 million not exceeding R5 million
- (e) 10% surety for projects above R5 million

The period required to provide surety shall be 21 calendar days. However, depending on circumstances, a shorter period may be prescribed. In the event of failure to submit the surety within the stipulated period, the Municipality shall be entitled to cancel the contract and award the tender to a suitable contractor.

Sureties may only be accepted from a banking institution registered in terms of the Banks Act, 1996, an insurer registered in terms of the Short-term Insurance Act (Act 53 of 1998), or from governmental institutions established for such purposes.

# C3.3.9.10 Notification of Acceptance

Successful service providers or tenderers shall be notified before the tender validity period expires.

# C3.3.9.11 Contractual Agreement

The relationship between the Municipality and the contractor shall be managed under the following contractual documents:

- (a) The tender document submitted by the tenderer;
- (b) The project drawings relevant for the tendered project;
- (c) The General Conditions of Contract for Construction Works (2015) published by the South African Institution of Civil Engineering (GCC) and the COLTO Standards Specifications for Road Bridge Works for State Authorities as they may apply from time to time..
- (d) The Municipality's Procurement Policy
- (e) Any other relevant legislation aimed at meeting other government policy initiatives.

#### C3.3.9.12 Tax Clearance Certificate

No contract shall be awarded to an entity which fails to submit a valid original Tax Clearance Certificate or Pin from the South African Revenue Service (SARS), certifying that the taxes of the said entity are in order.



In cases where the successful tenderer has only submitted a letter from SARS, the tenderer will be given seven (7) working days to submit the original Tax Clearance Certificate. Failure to do so, shall lead to the disqualification of the tenderer. The tenderer with the second highest points shall be awarded the contract.

# C3.3.9.13 Variations

The Municipality shall have the right to reduce or increase the scope of work by no more than 20% of the tendered amount.

Contractor	Witness 1	Employer	Witness 1

## C3.4 CONSTRUCTION

## C3.4.1 STANDARD SPECIFICATIONS

- (a) The following specifications shall apply for the construction of the Works.
- (i) The COLTO Standard Specifications for Road and Bridge Works for State Road Authorities (1998).

The contractor may purchase copies of Volume (i) from the South African Institution of Civil Engineers.

SAICE Tel: (011) 805-5947 Waterfall Park / Postnet Suite 81 Fax: (011) 805-5971

Howick Gardens / Private Bag X65

Vorna Valley / Halfwayhouse Contact Person : Angeline Aylward

Becker Street / 1685

Midrand

(b) SABS or BS Specifications and Codes of Practice

Wherever any reference is made to the South African Bureau of Standards (SABS) and the British Standards Specification (BSS) in either these Bill of Quantities or the Specification of Materials and Methods to be Used (OOG-001E), this reference shall be deemed to read "SABS or equivalent standard" and BS or equivalent standard" respectively.

- (c) Various other specifications specified in the COLTO Standard Specifications or the Project Specifications.
- (d) Latest **Sabita Manual**, Manual 25 entitled "Quality Management in the Handling and Transport of Bituminous Binders".

Contractor	Witness 1	Employer	Witness 1

# C3.4.2 PROJECT SPECIFICATIONS RELATING TO STANDARD SPECIFICATIONS

# C3.4.2.1 General Conditions of Contract Referred to in the Standard Specifications

The references to the General Conditions of Contract appearing in the COLTO Standard Specifications refer to the COLTO General Conditions of Contract which is superseded in this contract by the General Conditions of Contract for Construction Works 2015. The corresponding clause in the latter document pertaining to the reference in the COLTO Standard Specifications is listed in the table below.

Clause No. in the Standard Specifications	Clause No. in COLTO General Conditions	Equivalent Clause No. in General Conditions of Contract 2015
1204	15	5.6.1
1206	14	Deleted
1209	52	6.10.2
1210	54	5.1.1
1212(1)	49	6.10.1
1215	45	5.12.1
1217	35	8.2.1
1303	49	6.8
1303	53	6.11
1303	12	5.6
1303	45	5.12.1
1403	40(1)	6.4.1
1505	40	6.4
31.03	40	6.4
3204(b)	40	6.4
3303(b)	2	3
5803(c)	40	6.4
5805(d)	40	6.4
6103(c)	40	6.4
Item 83.03	22	5.15
ALL SECTIONS	48	6.6

# C3.4.2.2 Amendments to the Standard Specifications

There are no amendments to the Standard Specifications as issued by the Committee of Land Transport Officials (COLTO).



# C3.4.2.3 Project Specifications Relating to Standard Specifications

This part of the project specifications deals with matters relating to the standard specifications. Where reference is made in the standard specifications to the project specifications this part shall also contain the relevant information e.g. the requirements where a choice of materials or construction methods are provided for the standard specifications.

In certain clauses the standard specifications allow a choice to be specified in the project specifications between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract. Details of such alternatives or additional requirements applicable to this contract are contained in this part of the project specifications. It also contains some additional specifications and amendments of the standard specifications required for this particular contract.

The number of each clause and each payment item in this part of the project specifications consists of the prefix B followed by a number corresponding to the number of the relevant clause or payment item in the standard specifications. The number of a new clause or a new payment item, which does not form part of a clause or a payment item in the standard specifications and is included here, is also prefixed by B followed by a new number. The new numbers follow on the last clause or item number used in the relevant section of the standard specifications.

Clauses and pay items referring to labour intensive methods are prefixed by L in the project specifications.

Clauses and pay items referring to emerging contractors are prefixed by E in the project specifications.

# C3.4.2.4 REQUIREMENTS OF EXPANDED PUBLIC WORKS PROGRAMME

# **EPWP Special Project Specification**

As much as is economically feasible all work shall be implemented by employing Labour Intensive Construction methods. Over and above the normal Building and Allied works to be implemented by employing skilled and unskilled labour the works specified in the "Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)" shall be undertaken using Labour Intensive Construction methods.

Contractor	Witness 1	Employer	Witness 1

## EMPLOYMENT OF UNSKILLED AND SEMI-SKILLED WORKERS IN LABOUR-INTENSIVE WORKS

# Requirements for the sourcing and engagement of labour.

- C.1.1. Unskilled and semi-skilled labour required for the execution of all labour intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.
- C.1.2. The rate of pay set for the EPWP is R140 per day. Determined by the Municipality in terms of clause 2.2 of these Guidelines)
- C.1.3. Tasks established by the contractor must be such that:
  - a) the average worker completes 5 tasks per week in 40 hours or less; and
  - b) the weakest worker completes 5 tasks per week in 55 hours or less.
- C.1.4. The contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 1.1.3.
- C.1.5. The Contractor shall, through all available community structures, inform the local community of the labour intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and / or who come from households:
  - a) where the head of the household has less than a primary school education;
  - b) that have less than one full time person earning an income;
  - c) where subsistence agriculture is the source of income.
  - d) those who are not in receipt of any social security pension income
- C.1.6. The Contractor shall endeavour to ensure that the expenditure on the employment of temporary workers is in the following proportions:
  - a) 60 % women;
  - b) 55% youth who are between the ages of 18 and 35; and
  - c) 2% on persons with disabilities.

# Specific provisions pertaining to SANS 1914-5

C.1.7. Definitions

Targeted labour: Unemployed persons who are employed as local labour on the project.

- C.1.8. Contract participation goals
- C.1.9. There is no specified contract participation goal for the contract. The contract participation goal shall be measured in the performance of the contract to enable the employment provided to targeted labour to be quantified.
- C.1.10. The wages and allowances used to calculate the contract participation goal shall, with respect to both time-rated and task rated workers, comprise all wages paid and any training allowance paid in respect of agreed training programmes.
- C.1.11. Terms and conditions for the engagement of targeted labour

Further to the provisions of clause 3.3.2 of SANS 1914-5, written contracts shall be entered into with targeted labour.

Contractor		Witness 1	Employer		Witness 1
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- C.1.12. Variations to SANS 1914-5
- C.1.13. The definition for net amount shall be amended as follows: Financial value of the contract upon completion, exclusive of any value added tax or sales tax which the law requires the employer to pay the contractor.
- C.1.14. The schedule referred to in 5.2 shall in addition reflect the status of targeted labour as women, youth and persons with disabilities and the number of days of formal training provided to targeted labour.

# Training of targeted labour

- C.1.15. The contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.
- C.1.16. The cost of the formal training of targeted labour, will be funded by the provincial office of the Department of Labour. This training should take place as close to the project site as practically possible. The contractor, must access this projecttraining by informing the relevant provincial office of the Department of Labour in writing, within 14 days of being awarded the contract, of the likely number of persons that will undergo training and when such training is required. The employer must be furnished with a copy of this request.
- C.1.17. A copy of this training request made by the contractor to the DOL provincial office must also be faxed to the EPWP Training Director in the Department of Public Works— Cinderella Makunike, Fax Number 012 328 6820 or email cinderella.makunike@dpw.gov.za Tel: 083 677 4026
- C.1.18. The contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with a minimum of six (6) days of formal training if he/she is employed for 3 months or less and a minimum of ten (10) days if he she is employed for 4 months or more.
- C.1.19. The contractors shall do nothing to dissuade targeted labour from participating in the above mentioned training programmes.
- C.1.20. An allowance equal to 100% of the task rate or daily rate shall be paid by the contractor to workers who attend formal training, in terms of 1.3.4 above.
- C.1.21. Proof of compliance with the requirements of 1.3.2 to 1.3.6 must be provided by the Contractor to the Employer prior to submission of the final payment certificate.

# **GENERIC LABOUR-INTENSIVE SPECIFICATION**

The Generic Labour-intensive specification below is the same as SANS 1921-5,

Construction and management requirement for works contracts- Part 5: Earthworks activities which are to be performed by hand and should be included in the scope of works without amendment or modification as set out below.

#### **SCOPE**

This specification establishes general requirements for activities which are to be executed by hand involving the following:

- a) trenches having a depth of less than 1.5 metres
- b) stormwater drainage
- c) low-volume roads and sidewalks

	l			
Contractor	•	Witness 1	Employer	Witness 1

## **PRECEDENCE**

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail.

#### HAND EXCAVATEABLE MATERIAL

Hand excavateable material is material:

- a) granular materials:
- whose consistency when profiled may in terms of table 1 be classified as very loose, loose, medium dense, or dense; or
- where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

# b) cohesive materials:

- i) whose consistency when profiled may in terms of table 1 be classified as very soft, soft, firm, stiff and stiff / very stiff; or
- ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

#### Note:

- 1) A boulder, a cobble and gravel is material with a particle size greater than 200mm, between 60 and 200mm.
- A dynamic cone penetrometer is an instrument used to measure the insitu shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle of 60° with resepect to the horizontal) into the material being used.

Table 1: Consistency of materials when profiled

Contractor	Witness 1	Employer	Witness 1

GRANULAR MA	TERIALS	COHESIVE MATERIALS		
CONSISTENCY	DESCRIPTION	CONSISTENCY	DESCRIPTION	
Very loose	Crumbles very easily when scraped with a geological pick.	Very soft	Geological pick head can easily be pushed in as far as the shaft of the handle.	
Loose	Small resistance to penetration by sharp end of a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40 mm; can be moulded by fingers with some pressure.	
Medium dense	Considerable resistance to penetration by sharp end of a geological pick.	Firm	Indented by thumb with effort; sharp end of geological pick can be pushed in up to 10 mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.	
Dense	Very high resistance to penetration by the sharp end of geological pick; requires many blows for excavation.	Stiff	Can be indented by thumbnail; slight indentation produced by pushing geological pick point into soil; cannot be moulded by fingers.	
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumbnail with difficulty; slight indentation produced by blow of a geological pick point.	

		_		
Contractor	Witness 1		Employer	Witness 1

## TRENCH EXCAVATION

All hand excavateable material in trenches having a depth of less than 1,5 metres shall be excavated by hand.

# COMPACTION OF BACKFILLING TO TRENCHES (AREAS NOT SUBJECT TO TRAFFIC)

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers

- a) to 90% Proctor density;
- b) such that in excess of 5 blows of a dynamic come penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than 10% gravel of size less than 10mm and contains no isolated boulders, or
- c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

## **EXCAVATION**

All hand excavateable material including topsoil classified as hand excavateable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand.

The excavation of any material which presents the possibility of danger or injury to workers shall not be excavated by hand.

#### **CLEARING AND GRUBBING**

Grass and small bushes shall be cleared by hand.

## **SHAPING**

All shaping shall be undertaken by hand.

#### LOADING

All loading shall be done by hand, regardless of the method of haulage.

#### HAUL

Excavation material shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150 m.

Contractor	Witness 1	1	Employer	Witness 1

# **Amendments to the Standard Specifications**

There are no amendments to the Standard Specifications as issued by the Committee of Land Transport Officials (COLTO).

# **Project Specifications Relating to Standard Specifications**

This part of the project specifications deals with matters relating to the standard specifications. Where reference is made in the standard specifications to the project specifications this part shall also contain the relevant information e.g. the requirements where a choice of materials or construction methods are provided for the standard specifications.

In certain clauses the standard specifications allow a choice to be specified in the project specifications between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract. Details of such alternatives or additional requirements applicable to this contract are contained in this part of the project specifications. It also contains some additional specifications and amendments of the standard specifications required for this particular contract.

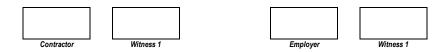
The number of each clause and each payment item in this part of the project specifications consists of the prefix B followed by a number corresponding to the number of the relevant clause or payment item in the standard specifications. The number of a new clause or a new payment item, which does not form part of a clause or a payment item in the standard specifications and is included here, is also prefixed by B followed by a new number. The new numbers follow on the last clause or item number used in the relevant section of the standard specifications.

Clauses and pay items referring to labour intensive methods are prefixed by L in the project specifications. Clauses and pay items referring to emerging contractors are prefixed by E in the project specifications.

Contractor	Witness 1	l	Employer	Witness 1

# MATTERS RELATING TO THE STANDARD SPECIFICATIONS

SECTION 1200 : GENERAL REQUIREMENTS AND PROVISIONS	
SECTION 1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
SECTION 1400: HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL	
SECTION 1500: ACCOMMODATION OF TRAFFIC	C.169
SECTION 1700: CLEARING AND GRUBBING	C.172
SECTION 1800: DAYWORK SCHEDULE	
SECTION 2100 : DRAINS	C.174
SECTION 2200 : PREFABRICATED CULVERTS	C.174
SECTION 2300: CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES AND CONCRETE LININGS FOR OPEN DRAINS	
SECTION 3100: BORROW MATERIALS	C.177
SECTION 3300: MASS EARTHWORKS	
SECTION 3400: PAVEMENT LAYERS OF GRAVEL MATERIAL	C.179
SECTION 4300 : SEALS: MATERIALS AND GENERAL REQUIREMENTS	
SECTION 4500 : DOUBLE SEALS	C.187
SECTION 5200 : GABIONS	
SECTION 5600 : ROAD SIGNS	
SECTION 5700: ROAD MARKINGS	
SECTION 5900: FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS	
SECTION 6400 · CONCRETE FOR STRUCTURES	C 10/



#### SECTION 1200: GENERAL REQUIREMENTS AND PROVISIONS

## B1202 SERVICES

Add the following to the fifth paragraph:

"Provision is made in the bill of quantities for payment for searching and exposing of known or unknown services as well as the relocation and/or protection of existing services. Any moving of existing services which may be required within the proclaimed road reserve will be undertaken by the relevant service authorities or by a selected subcontractor if so ordered by the engineer."

## B1204 PROGRAMME OF WORK

# (a) General requirements

Amend the word "network" in the fourth line of the first paragraph to read as "bar (Gantt) chart".

Add the following after the third paragraph:

"The bar-chart programme to be provided by the contractor shall show the various activities in such detail as may be required by the engineer. Progress in terms of the programme shall be updated monthly by the contractor in accordance with the progress made by the contractor.

In compiling the programme of work, the contractor shall indicate and make due allowance for the following, as specified elsewhere in the contract documents:

- The requirements regarding the accommodation of traffic and areas that may be occupied at any time for construction purposes (as indicated on the drawings and specified in Section 1500 of the specifications)
- Requirements regarding the training of labourers and Emerging Contractors (EC's).
- The requirements for work to be undertaken by labourers and work to be undertaken by EC's.

# (b) Programme of work for rehabilitation work

Amend the word "network" in the fourth line of the second paragraph to read as "bar (Gantt) chart".

## B1205 WORKMANSHIP AND QUALITY CONTROL

Add the following to the third paragraph:

"The engineer shall, however, undertake acceptance control tests for the judgement of workmanship and quality, without accepting any obligations vested with the contractor in terms of the contract with specific reference to quality of materials and workmanship. Such acceptance control test done by the engineer shall not relieve the contractor of his obligations to maintaining his own quality control system."

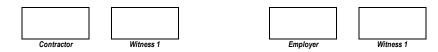
Add the following at the end of this clause:

"The engineer shall, for the purpose of acceptance control on products and workmanship, assess test results and measurements in accordance with the provisions of section 8300 of the standard specifications. Where small quantities of work are involved, a lot shall mean a full day's production for a specific item of work subject to acceptance control testing."

# B1206 THE SETTING-OUT OF THE WORK AND PROTECTION OF BEACONS

Add the following:

"The contractor shall be responsible for the true and proper setting out of the Works and for the correctness of the position, levels, dimensions and alignment of all parts of the Works and for the provision of all necessary



instruments, appliances and labour in connection therewith."

The Contractor shall take care that property beacons, trigonometrical survey beacons or setting-out beacons are not displaced or destroyed without the consent of the Engineer. Property beacons and trigonometrical survey beacons that have been displaced or destroyed shall be replaced by a registered land surveyor, who shall certify such replacement.

The cost of replacing all beacons displaced or destroyed during the course of the Contract without the consent of the Engineer shall be borne by the Contractor."

#### B1209 PAYMENT

# (b) Rates to be inclusive

Add the following:

"VAT shall be excluded from the rates and provided for as a lump sum in the Summary of Bill of Quantities".

# (e) Materials on the site

Add the following:

"In addition, the engineer may at his sole discretion also allow payments under "Materials on Site" in respect of any construction materials if stored off-site providing that:

- (a) The site selected for this purpose is approved by the engineer
- (b) Such land is physically separated from any production plant or operation
- (c) Only materials for use under this contract is stockpiled on such land
- (d) The contractor has provided proof of an agreement with the owner of such land that the owner has no claim whatsoever on any materials stockpiled on such land
- (e) Materials obtained by the contractor for or on behalf of emerging subcontractors (SMME's) shall remain the responsibility of the contractor after payment has been made in respect of materials on site."

# B1215 EXTENSION OF TIME RESULTING FROM ABNORMAL RAINFALL

Add the following after the first paragraph of this clause:

"For the purposes of this contract, extension of time resulting from abnormal rainfall or other forms of inclement weather shall be determined according to the requirements of Method i (rainfall formula)."

#### **Extension of time due to Abnormal Rainfall**

Extension of time for completion of the Contract shall be allowed in the event of

abnormal rainfall in accordance with the following formula:

$$V = (N_w-N_n) + (R_w-R_n)/20$$

Where:

V = Extension of time in calendar days for the calendar month under consideration

Nw = Actual number of days during the calendar month under

consideration on which a rainfall of 10mm and more is recorded

R<sub>w</sub> = Actual total rainfall in mm recorded during the calendar month



Nn = Average number of days, derived from rainfall records, on which a rainfall of 10mm and more was recorded during the relevant calendar month as per the data tabulated hereinafter

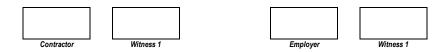
Rn = Average total rainfall in mm for the relevant calendar month, derived from rainfall records, as tabulated hereinafter

Where the extension of time due to abnormal rainfall has to be calculated for portion of a calendar month, pro rata values shall be used. Should V be negative for any particular month, and should its absolute value exceed the corresponding value of  $N_n$ , then V shall be taken as being equal to minus  $N_n$ . The total extension of time to be granted shall be the algebraic sum of all the monthly extensions, provided that if this total is negative then the time for completion shall not be reduced due to subnormal rainfall.

Rainfall records for the period of construction shall be taken on Site. The Contractor shall provide and install all the necessary equipment for accurately measuring the rainfall. The Contractor shall also provide, erect and maintain a security fence plus gate, padlock and keys at each measuring station, all at his own cost. The Engineer or his Representative shall take and record the daily rainfall readings. The Contractor shall be permitted to attend these readings, in the company of the Engineer's Representative. Access to the measuring gauge(s) shall at all times be under the Engineer's control.

The rainfall records applicable to this Contract are those recorded at Letaba Weather Station. The following values of  $N_n$  and  $R_n$  shall apply:

Month	R <sub>n</sub> (mm)	N <sub>n</sub> (days)
January	287.5	13.1
February	143.2	6.5
March	85.2	3.9
April	125.0	5.7
May	13.1	0.6
June	13.8	0.6
July	18.9	0.9
August	9.4	0.4
September	25.3	1.2
October	69.5	3.2
November	242.2	11.0
December	205.0	9.3
TOTAL	1238.1	56.4



Unless otherwise provided in the Site Information, the value of "n" shall be taken as equal to the tendered time for completion of the Works in months, rounded off to an integer.

Extension of time during normal working days will be granted to the degree to which actual delays as determined in accordance with clause 42.5 hereof, exceed the number of "n" normal working days.

The value of "n" does not take into account further or concurrent delays which are caused by other abnormal climatic conditions such as floods, which have to be determined separately in accordance with clause 42.5 hereof.

# B1217 PROTECTION OF THE WORKS AND REQUIREMENTS TO BE MET BEFORE CONSTRUCTION OF NEW WORK ON TOP OF COMPLETED WORK IS COMMENCED

Add the following subclause:

"(h) No concrete kerbing or concrete drains directly adjoining the bituminous surfacing shall be constructed prior to the completion of the bituminous surfacing."

#### B1222 USE OF EXPLOSIVES

Add the following subclause:

"(h) Where blasting operations are undertaken in close proximity of temporary deviations, the contractor shall implement all such safeguarding measures as may be required and instructed by the engineer."

# B1224 THE HANDING-OVER OF THE ROAD RESERVE

Add the following:

"The total length of the road reserve between the specified limits of construction will be handed over to the contractor on the commencement date. Reference shall, however, be made to the requirements of section 1500 of these specifications where limitations in respect of work-areas are specified. In the event of the non-adherence by the contractor in terms of the mentioned specifications, the engineer shall withdraw such sections of the road reserve as may be justified to ensure suitable progress of the works or safe passage of traffic."

## B1229 SABS CEMENT SPECIFICATIONS

Replace the last paragraph of this clause with the following:

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

# SABS ENV 197-1: Cement-composition, specifications and conformity criteria.

Part 1: Common cements.

Furthermore, where reference is made in this specification or the standard specifications to the different cement types, the following new names/types shall apply:

Old product	Typical new product nomenclature				
nomenclature	Cement type	Cement strength class			
OPC	CEMI	32,5			
	CEMI	32,5R			

Contractor	Witness 1	Employer	Witness 1
Contractor	Williess i	Linployer	With 633 T

Old product	Typical new product nomenclature				
nomenclature	Cement type	Cement strength class			
RHC	CEMI	42,5			
	CEMI	42,5R			
LASRC	No provision made	No provision made			
PC15SL	CEM II/A-S	32,5			
	CEM II/A-S	32,5R			
	CEM II/A-S	42,5			
PC15FA	CEM II/A-V	32,5			
	CEM II/A-V	32,5R			
	CEM II/A-W	32,5			
	CEM II/A-W	32,5R			
RH15FA	CEM II/A-V	42,5			
	CEM II/A-V	42,5R			
	CEM II/A-W	42,5			
	CEM II/A-W	42,5R			
PBFC	CEM III/A	32,5			
	CEM III/A	32,5R			
PFAC	CEM II/B-V	32,5			
	CEM II/B-W	32,5			
RH30SL	CEM II/B-S	32,5R			
	CEM II/B-S	42,5			
RH40SL	CEM III/A	32,5R			
	CEM III/A	42,5			

CEM I 32,5, CEM II A-S 32,5, CEM II/A-V 32,5, or CEM III A may be used for the manufacture of reinforced concrete members."

Add the following new clauses:

# "B1230: IN-SERVICE TRAINING

The contractor shall implement in-service training. Labourers shall be trained progressively throughout the duration of the contract, in the various stages of a particular type of work.

# (a) Details of in-service training

- (i) The contractor shall attach to form RDP 1(E) basic details of his proposed in-service training programme, which details shall inter alia include the following:
  - the details of training to be provided
  - the manner in which the training is to be delivered
  - the number and details of trainers to be utilised.
- (ii) The in-service training programme shall be submitted with the initial works programme. The progress in relation to this programme will be recorded monthly and attached to the site meeting minutes and payment certificate.

(iii)	The	contractor	shall	provide on s	site,	sufficient	skilled	d and c	comp	eter	nt trainers to	o train	all labo	ourers
		Contractor		Witness 1				Employe	er		Witness 1	_		

engaged on the contract, in the various skills required for the execution and completion of the works.

- (iv) All labourers shall be remunerated in respect of all time spent undergoing training.
- (v) Every worker engaged on the contract shall on the termination of his participation on the contract, be entitled to receive from the contractor, a certificate of service in which the following information shall be recorded:
  - the name of the contractor
  - the name of the employee
  - the name of the project/contract
  - the nature of the work satisfactorily executed by the worker and the time spent thereon
  - the nature and extent of training provided to the worker
  - the dates of service.

The cost of the above obligations shall be deemed to be covered by the sums and rates tendered for items B13.01(a), (b) and (c) in the bill of quantities. The performance of the contractor in providing in-service training, shall be taken into consideration should the contractor fail to reach his CPG at the completion of the project.

# (b) Lead time for training

The training of labour as specified shall, as far as possible, take place before commencement of each activity and the contractor shall take into account in his programme the lead-time he requires for such training. All training herein specified shall be deemed to be a construction activity and a non-negotiable condition of the contract".

# B1231 COMMUNITY LIAISON OFFICER (CLO)

The contractor or his appointed agent will appoint a Community Liaison Officer (CLO) after consultation with the local communities, the engineer and the employer. The contractor shall direct all his liaison efforts with the local communities through the appointed officer.

The contractor shall, however, accept the appointed as part of his management personnel.

# (a) Duties of the Community Liaison Officer

The Community Liaison Officer's duties will be:

- (i) To be available on site daily between the hours of 07:00 and 11:00 and at other times as the need arises. His normal working day will extend from 07:00 in the morning until 15:30 in the afternoon.
- (ii) To determine, in consultation with the contractor, the needs of the temporary labour for relevant skills training. He will be responsible for the identification of suitable trainees and will attend one of each of the training sessions.
- (iii) To communicate daily with the contractor and the engineer to determine the labour requirements with regard to numbers and skill, to facilitate in labour disputes and to assist in their resolution.
- (iv) To assist in and facilitate in the recruitment of suitable temporary labour and the establishment of a "labour desk".
- (v) To attend all meetings in which the community and/or labour are present or are required to be represented.



- (vi) To assist in the identification, and screening of labourers from the community in accordance with the contractor's requirements.
- (vii) To inform temporary labour of their conditions of temporary employment and to inform temporary labourers as early as possible when their period of employment will be terminated.
- (viii) To attend disciplinary proceedings to ensure that hearings are fair and reasonable.
- (ix) To keep a daily written record of his interviews and community liaison.
- (x) To attend monthly site meetings to report on labour and RDP matters.
- (xi) All such other duties as agreed upon between all parties concerned.
- (xii) To submit monthly returns regarding community liaison as illustrated in Part C5.1 of this document (form RDP 12(E)).

# (b) Payment for the community liaison officer

A special pay item is incorporated in section 1200 of the bill of quantities relating to payment of the liaison officer on a prime cost sum basis. This payment shall only be made for the period for which the duties of the liaison officer are required and not necessarily for the full duration of the contract. The remuneration of the CLO shall be R3600 / month as determined by the employer.

# (c) Period of employment of the community liaison officer

The period of employment of the community liaison officer shall be as decided upon jointly by the contractor, engineer and employer.

# B1232 SUBCONTRACTORS

Over and above the stipulations of clause 8 of the General Conditions of Contract 1998, regarding subletting of part of the works, it is a condition of the contract that an approved subcontractor shall not sublet part of his work, covered in his appointment by the main contractor, to another subcontractor without the consent and approval of the engineer. Subletting shall in all cases be critically considered by the engineer.

In addition to the provisions of clause 8 of the general conditions of contract regarding subcontracting of the works, it is a requirement of this contract that an approved subcontractor shall not further subcontract work subcontracted to him by the main contractor, to another subcontractor without the consent and approval of the engineer. Subcontracting shall in all cases be critically considered by the engineer. The engineer reserves the right to limit the extent or the volume of work subcontracted by the contractor, should he deem it necessary in terms of progress or quality of workmanship.

# B1233 WORKMEN'S COMPENSATION ACT

All labour employed on the site shall be covered by the Workmen's Compensation Act. The contractor shall pay in full, including the payment of the necessary levies, such amounts, as are due in terms of the Act. The contractor at the commencement of the contract shall resolve the manner in which Workmen's Compensation will be handled. Amounts paid by the contractor shall not be included in the wage rates but shall be an extra payment allowed for by the contractor.



**MEASUREMENT AND PAYMENT** 

B1234

DIZ34	WEASUREMENT AND PATMENT	
Add the fo	ollowing items:	
ITEM		UNIT
B12.01	Locating Existing Services	Provisional Sum
"ITEM		UNIT
B12.02	Hand Excavation to determine the positions of exist	ing services
	To determine the positions of existing services	cubic metre (m³)
Measuren	nent and payment shall be as specified for item 22.01 in the	standard specifications.
ITEM		UNIT
B12.03	Quality Control Test Ordered by the Engineer	
	Quality Control Test Ordered by the Engineer	Prime Cost Sum
ITEM		UNIT
B12.04	Provision for a Community Liaison Officer	
	Provisional sum for the payment of the Community	
	Liaison Officer	Provisional Sum
ITEM		UNIT
B12.05	Provisional sum for protection and/ relocation of ex	isting services by others
	Provisional sum for the payment of the protection and/	
	relocation of existing services by others	Provisional Sum
ITEM		UNIT
B12.06	Provisional sum for payment of EPWP Branded e Engineer	contract notice board as instructed by
	Provisional sum for the payment of the EPWP Branded	contract notice board Provisional Sum
ITEM		UNIT
B12.07	Provisional sum for payment of the compensation o	f landowners
	Provisional sum for compensation of landowners	Prime Cost Sum

ITEM			UNIT
B12.08	Relocation of services by Contractor		J.III
	Supply, lay, bed, backfill & test following r	eticulation	
	(a) uPVC Class 9 110mm		m
	(b) uPVC Class 9 75mm		m
	(c) HDPE Class 10 50mm		m
	(d) HDPE Class 10 32mm		m
	· ·		
ITEM			UNIT
B12.09	Percentage for charges and profit on	the provisional sums for contract	ctor's cost and profit
	Percentage for charges and profit on	the provisional sums	Percentage (%)
Expenditu	re of the above item shall be made in accorda	nce with the general conditions of co	ontract.
	red percentage is a percentage of the amoun		
ITEM			UNIT
B12.10	Training allowance paid to targeted engineering student trainning for the d		ning and including
	(a) Training allowance paid to targeted labour in terms of formal training	ır	Prime Cost Sum
	(b) Extra-over for administration of payme	nt for training Percent	age (%)
Expenditu	re of the above item shall be made in accorda	nce with the general conditions of co	ontract.
	red percentage is a percentage of the amoun		
ITEM			UNIT
B12.11	Topographical survey		
	(a) Topographical survey		Prime Cost Sum
	(b) Extra-over for administration of payme	nt for Topo survey Percent	age (%)
Expenditu	re of the above item shall be made in accorda	nce with the general conditions of co	ontract.
The tende	red percentage is a percentage of the amoun	at actually spent under all the provisi	ional sums sub-items,

ITEM UNIT

# B12.12 Geotechnical Investigation

(a) Geotechnical Investigation

Prime Cost Sum

(b) Extra-over for administration of payment for Geotechnical Investigation

Percentage (%)

Expenditure of the above item shall be made in accordance with the general conditions of contract.

The tendered percentage is a percentage of the amount actually spent under all the provisional sums sub-items, which shall include full compensation for the handling costs of the contractor, and the profit."

ITEM UNIT

# **B12.13** Environmental Impact Assessment

(a) Environmental Impact Assessment

Prime Cost Sum

(b) Extra-over for administration of payment for Environmental Impact Assessment

Percentage (%)

Expenditure of the above item shall be made in accordance with the general conditions of contract.

The tendered percentage is a percentage of the amount actually spent under all the provisional sums sub-items, which shall include full compensation for the handling costs of the contractor, and the profit."

Contractor	Witness 1	Employer	Witness 1

#### SECTION 1300: CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS

## B1302 GENERAL REQUIREMENTS

# (a) Camps, constructional plant and testing facilities

Add the following:

"The contractor shall, at each area where work is being undertaken, provide on a daily basis at least one portable chemical latrine unit for use by construction workers employed on the project. The latrine units shall be serviced daily and kept in a hygienic and orderly state to the satisfaction of the engineer. No separate payment shall be made for this requirement and shall be deemed to be included in the rates tendered for the contractor's time-related obligations."

B1303 PAYMENT

ITEM UNIT

# B13.01 The contractor's general obligations

(As specified)

Add the following after the fifth paragraph:

"The combined total tendered for sub-items (a), (b) and (c) shall not exceed 15% of the tender sum, excluding VAT.

Should the contractor be of the opinion that 15% is inadequate to cover his costs in terms of section 1300, he shall indicate separately with his tender where such costs have been allowed for in his tender. If no such indication is given, the contractor shall not at any stage during the contract for any reason whatsoever claim additional compensation under this item."

ITEM UNIT

# B13.01 The contractor's general obligations

(d) Health and Safety obligations Month

(e) Health and Safety Audits conducted by Provisional Sum Independent company

(f) Percentage for charges and profit on the provisional sums for Item (e) above.

Contractor	Witness 1	•	Employer	Witness 1

# SECTION 1400: HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL

#### B1402 OFFICES AND LABORATORIES

## (a) General

Add the following:

"The facilities to be provided for the engineer in terms of these specifications shall be fenced off by a two metre high security fence. A security gate shall be provided in the fence which shall be guarded at all times by an acceptable watchman provided by the contractor.

The engineer's establishment may be incorporated within the contractor's establishment provided that the preceding requirements are met to the satisfaction of the engineer.

#### b) Offices

Add the following new sub-sub-clause:

"(xviii) The engineer's site supervisory staff shall use cellular telephones for site communication purposes. Provision is made in the bill of quantities for separate payment of operating costs of such cellular phones."

**SECTION 1500: ACCOMMODATION OF TRAFFIC** 

#### B1502 GENERAL REQUIREMENTS

## (e) Access to properties

Add the following:

"Where the alignment of the new road coincides with the alignment of the existing road, a number of accesses to private properties will have to be operational and maintained during the constructional period. No separate payment will be made for providing acceptable and safe access across the new road at all times during construction of the road."

# (i) Traffic safety officer

Add the following after subclause (viii):

- "(ix) be responsible for contacting all the relevant authorities in the event of an accident on the site of the Works
- (vi) arrange for the removal of broken down vehicles that obstruct the normal traffic flow

The Contractor shall provide the traffic safety officer with all the necessary resources to carry out his duties as specified, inter alia, light delivery van (LDV), personnel, warning signs and revolving amber flashing lights. A warning sign with the words "CONTRACTOR TRAFFIC CONTROL" and/or "AANNEMER VERKEERSBEHEER" in clearly legible letters shall be mounted on the vehicle at least 1,5m above ground level to be clearly visible. The vehicle shall be equipped with two revolving amber-coloured flashing lights with a minimum intensity of 55W. The flashing lights shall be switched on and the warning sign be displayed at all times when the vehicle is used on the site.

No separate payment will be made for the traffic safety officer, his vehicle, personnel and equipment and the cost thereof shall be included in the Contractor's cost for his establishment and general obligations (Section 1300)."

Add the following new subclauses:

# "(j) Handing over the site

Contractor	Witness 1	Employer	Witness 1

The total extent of the site between the limits of construction as described in this document and indicated on the drawings will be handed over to the contractor at the commencement of the contract period. The engineer however reserves the right to adjust this arrangement should progress or safe passage of traffic warrant such a change.

# (k) Use of explosives in close proximity of temporary deviations

The contractor shall arrange all necessary traffic control and other requirements to safeguard the traffic on temporary deviations during blasting operations.

# (I) Land taken up for deviations

Negotiations with landowners to obtain the land taken up by temporary deviations will be undertaken by the employer. A prime cost sum is allowed in the bill of quantities for payment of compensation to affected landowners. All other negotiations regarding temporary access to properties, land-use, fencing requirements etc. shall be dealt with by the contractor in conjunction with the engineer and be confirmed in writing and be kept on record by the contractor.

# "(m) Maximum lengths of construction areas

A temporary deviation, where the proposed road follows the existing route shall be constructed along the length of existing road. Traffic shall generally be accommodated as follows:

On a two-way two lane gravel deviation (Class 1) constructed partially outside or adjacent to the existing road reserve boundaries of road.

(i) On one-way single lane gravel deviation (Class 2) constructed inside the existing road reserve boundaries and on either side of road. In this instance special cognisance shall be taken to accommodate traffic to private properties.

A maximum length of one section of approximately 5,0km or two sections of 3,0km each of deviation (Class 1 or 2) shall be operational at a time and no relieve of this limitation shall be considered by the engineer except where the programme necessitates such at the construction of bridges."

# B1503 TEMPORARY TRAFFIC CONTROL FACILITIES

Add the following after the first paragraph:

"All temporary road signs, devices, sequences, layouts and spacing shall comply with the requirements of the Road Traffic Act, 1996 (Act 93 of 1996), the National Road Traffic Regulations, 2000, the South African Road Traffic Signs Manual, the requirements of the relevant road authority and the drawings. All temporary traffic control facilities shall comply with the guidelines set in SA Road Traffic Signs Manual, Volume 2, Chapter 13: Roadworks Signing, (SARTSM, June 1999, obtainable from the Government Pinter, Pretoria)."

# (b) Road signs and barricades

Add the following:

"All the temporary road signs are to be mounted on posts as specified in section 5600 of the specifications. Provision shall be made for the supply and erection of the signs and the maintenance of the signs during the construction period. Provisions shall also be made for the removal of the temporary road signs on completion of the construction work when such signs are no longer required.

Temporary road signs and channelization devices shall be manufactured in accordance with the latest edition of the South African Road Traffic Signs Manual (June 1999) and placed as shown on the drawings and in Road Signs Note 13. Delineators shall be manufactured from a non-metal material and shall be mounted on a base section also manufactured of non-metal material. Single as well as back-to-back mounted delineators are required.

	Witness 1		1477
Contractor	Witness 1	Employer	Witness 1

The obligation to arrange safe passage of traffic shall always be vested with the contractor regardless what is indicated on the drawings of the engineer."

# (c) Channelization devices and barricades

Add the following:

"Drums shall not be used as channelization devices.

TW 401 and TW 402 delineators shall comply with the following requirements:

- a) It shall be manufactured from a flexible material and shall comply with SABS 1555. The blade portion of the delineator shall be positively affixed to a base unit which in turn shall be stable on its own or be stabilized by means of sandbags when used on the road.
- ii) The blade shall be retro-reflectorised, with class 1 yellow sheeting on the side facing oncoming traffic..
- iii) It shall nominally be 1000mm high x 250mm wide and the bottom edge of the delineator shall not be more than 200mm above the road surface.
- iv) It shall be subject to the approval of the Engineer.

The maximum spacing between centres of delineators shall be as shown on the drawings or as directed by the Engineer."

# e) Warning devices

Add the following:

"It is a requirement of this contract that all construction vehicles and plant used on the works will be equipped with rotating amber flashing lights and warning boards as specified in the standard specifications. Construction vehicles travelling outside the limits of construction areas shall however, not operate the warning lights.

The warning lights shall have a base diameter of at least 170mm and the amber bulb cover a height of a least 150mm high. It shall be a requirement that the contractor also provides the engineer's site personnel with warning lights for their vehicles (a maximum of two lights are required) without any payment applicable.

Add the following clause:

#### B1517 RETRO-REFLECTIVE MATERIAL

"Retro-reflective material for temporary signs shall comply with the requirements of SABS 1519-1 for weathered material. Tests shall be carried out with a field retro-reflectometer and the testing procedure and classification are described in CLAUSE b 8118. The value of the coefficient of Retro-Reflection shall be at least 60% of the values indicated in Table B8118/1."

# B1518 MEASUREMENT AND PAYMENT

Renumber item 15.01 as B15.01 and add the following:

"The tendered rate shall also include for all measures necessary to safeguard traffic on temporary deviations during blasting operations."

Renumber item 15.03 as B15.02

Add the following sub-item:



# B15.02 Temporary traffic control facilities

(p) Provision of high visibility safety jackets

number (No)

The unit of measurement shall be the number of safety jackets supplied to the supervisory staff.

The tendered rate shall include full compensation for providing and maintaining hats and the jackets equipped with high visibility retro-reflective and/or fluorescent panels in red, yellow and white for the duration of the contract".

**SECTION 1700: CLEARING AND GRUBBING** 

B1702 DESCRIPTION OF WORK

a) Clearing

Add the following:

"Clearing shall include the removal of material to a thickness of up to 150mm in-situ material as ordered by the engineer. No payment shall be made for temporary stockpiling of topsoil material in the case where this material is applied as topsoil after completion of road side slopes.

Should the required depth exceed 150mm, the total volume of material removed shall either be classified as "temporary stockpiling of topsoil" or "unsuitable roadbed material" or "cut to spoil" whichever is applicable as allowed for in the standard specifications. In these cases no payment shall be made for clearing and grubbing.

Clearing as described shall in all cases be undertaken in such a manner that the topsoil is preserved and not contaminated with other debris or rubbish. Cross-sections for the determination of earthworks quantities shall be taken after clearing (topsoil or unsuitable roadbed material) and roadbed preparation if applicable.

Payment for gabion boxes and mattresses which have to be removed and the material sorted and stacked shall be made under section 5200"

#### B1704 MEASUREMENT AND PAYMENT

Change item 17.01 to read as follows:

ITEM UNIT

B17.01 Clearing and grubbing of:

Clearing and grubbing hectare (ha)

#### **SECTION 1800: DAYWORK SCHEDULE**

Note: This is a new section added to the Standard Specifications.

Add the following:

#### B1801 SCOPE

This section covers the listing of day work items for use in determining payment for work which cannot be quantified in specific pay item "units" in the bill of quantities or work ordered by the engineer during the construction period which was not foreseen at tender stage for which no applicable rate exists in the schedule or for work of a special or different character warranting special payment as decided by the engineer.



# B1802 ORDERING OF DAYWORK

No daywork shall be undertaken unless specific written authorisation is obtained from the engineer.

# B1803 MEASUREMENT AND PAYMENT

The engineer may order the following daywork items:

ITEM	DESCRIPTION	UNIT
B18.01	(a) Normal hours of duty of:	
	(i) Unskilled	Hour (h)
	(ii) Semi-skilled	Hour (h)
	(iii) Skilled	Hour (h)
	(iv) Foreman	Hour (h)
B18.02	Hire of construction equipment	
	(a) Excavator 3 – 5 ton	
	(b) TL Backactor	Hour (h)
	(c) Front end loader	Hour (h)
	(d) Platform truck	Hour (h)
	(e) Tip truck	Hour (h)
	(f) Grader (CAT 140G or similar)	Hour (h)
	(g) Walk behind roller (Bomag BW90 or similar)	Hour (h)
	(h) Mechanical Broom	Hour (h)
	(i) D6 Dozer	Hour (h)
	(j) Compressor	Hour (h)
	() Submersible dewatering pump	Hour (h)
		Hour (h)

The unit of measurement shall be the actual number of hours worked by labourers or foremen or an item of plant.

The tendered rates shall include full compensation for all cost items including overheads, head-office expenses and profits as described in subclause 40(3) of the general conditions of contract and shall be subject to contract price adjustment as provided for in the contract.

The mark-ups on daywork items in accordance with the Appendix to the Tender shall not be applicable on daywork items listed in the bill of quantities in terms of the above specifications. In the event of new daywork rates being requested for items not appearing in the bill of quantities, then the provisions of the general conditions of contract and the Appendix to the Tender shall apply.

Prior to the commencement of any work by the labourers described under item B18.01, the contractor must obtain written consent from the engineer regarding the classification and composition of all labourers in terms of "unskilled" and "skilled" labourers required for the work as ordered by the engineer."



**SECTION 2100: DRAINS** 

## B2103 BANKS AND DYKES

Add the following:

"Mitre banks at culvert inlets should be considered at such a skew angle that it guides the water into the inlet with a minimum loss of velocity (energy)."

B2104 SUBSOIL DRAINAGE

# (a) Materials

(i) Pipes

Delete the last sentence of the fifth paragraph and substitute it with the following:

"Perforation for 100mm pipes shall be spaced in two rows, one on each side of the vertical centre line of the pipe, and at one third of the circumference. The perforation for the 150mm pipes shall be spaced in four rows, two as described for 100mm pipes, and the other two rows at two thirds of the circumference."

(ii) Synthetic-fibre filter fabric

Add the following:

"All filter fabric shall be a non-woven needle punched type material and must be approved by the engineer. Filter fabrics shall have a minimum co-efficient of permeability of 3 x 10-3 m per second."

#### **SECTION 2200: PREFABRICATED CULVERTS**

#### B2201 SCOPE

Add the following:

"Section 2200, Prefabricated culverts will read, Section B2200, Constructed culverts.

The attention of the contractor is drawn to the fact that information given on the plans, longitudinal sections or drainage schedules may have to be altered to suit actual site conditions and, therefore, the contractor shall only construct these culverts after the engineer has verified the information on the drawings from detail surveys taken on site by the contractor as directed by the engineer.

Precast units shall be ordered by the contractor from actual measurements of length acquired on the site and not from lengths stated in the drainage schedule or from the bill of quantities.

No precast units shall be ordered until the engineer has satisfied himself that the proposed units have been manufactured to the required tolerances and loading standards. The engineer must be given the opportunity to load test units if he considers this necessary".

#### B2203 MATERIALS

# (f) Skewed Ends

Delete the second and third paragraphs and substitute with the following:

"Precast portal and rectangular culverts placed on a skew shall be supplied with cast in situ skewed ends as shown on the drawings. In situ skew ends are to be constructed simultaneously with the wingwalls and headwalls".

#### B2204 CONSTRUCTION METHODS

Add the following:

"In all cases where soft founding materials is classified as suitable for culvert bedding construction, the in situ



material shall be ripped, moistened and compacted to 90% or 93% modified AASHTO density. The depth of preparation and compaction of founding material shall be as indicated on the drawings or as specified by the engineer. Allowance for measurement and payment for this work is made in the bill of quantities under this section."

# B2205 EXCAVATION FOR CONSTRUCTION BY TRENCH METHOD

Add the following subclauses:

# "(d) Drainage of excavations

The contractor shall apply suitable, effective drainage and dewatering methods for preventing the ingress of water into the excavation and to keep them dry.

Drainage measures, with the exception of pumping, shall be maintained until the backfilling has been completed. Between various construction stages, pumping may be interrupted in consultation with the engineer.

Any draining or pumping of water shall be done in a manner as will preclude the concrete or materials or any part thereof from being carried away.

Allowance for measurement and payment for dewatering and keeping dry of culvert excavations is made in the schedule in this section".

#### B2211 BACKFILLING OF PREFABRICATED CULVERTS

Change the last sentence in the fourth paragraph to read "90% or 93% as shown on the drawings or as directed by the engineer."

# B2212 INLET AND OUTLET STRUCTURES, CATCHPITS AND MANHOLES

# (b) Concrete work

Add the following:

"The type of surface finish for in situ concrete in the culverts shall be as indicated on the drawings. Generally all exposed faces shall be of Class F2 formwork and faces covered by backfill shall be Class F1. The top of parapet walls and wingwalls shall be finished to a Class U2 surface finish."

# (h) Prefabricated inlet and outlet structures

Add the following:

"The use of precast concrete inlets and outlets as described in clause 2212(h), shall not be allowed under any circumstances. Cast in situ concrete wingwall type inlets and outlets shall be constructed as indicated on the drawings and shall be in accordance with section 6000 of the Standard Specifications. Allowance for measurement and payment for wingwall type inlets and outlets is made in the schedule in this section."

# B2218 MEASUREMENTS AND PAYMENT

Add the following:

"The tendered rate shall be full compensation for the cutting, by means of mechanical saw (angle grinder) and finishing off of the pipes for the specific angle of skew at which the pipes must be laid. The tendered rate for concrete pipe culverts shall include the additional cost of units that are half the standard length. The standard length of a concrete pipe is 2.44m"

Contractor	Witness 1	Employer	Witness 1

# SECTION 2300: CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES AND CONCRETE LININGS FOR OPEN DRAINS

B2301 SCOPE

Add the following:

"The position and length of the following types of concrete kerbs and channels are indicated on the standard drawings.

Type B : Precast concrete kerbing, semi-mountable (SABS 927-1969)

Type C : In situ concrete kerbing at intersections

Edge beam : In situ concrete kerbing at farm access and bus stops

## B2304 CONSTRUCTION

# (d) Slip form kerbing

Add the following:

"Slip-form kerbing shall under no circumstances be allowed."

# (e) Cast in situ kerbs and channels

Add the following:

"Forming and templates used to form joints between alternate sections shall be of steel plate of which the thickness shall not be less than 5mm."

Add the following new subclauses:

## (i) Construction sequence

Replace paragraphs (i), (ii) and (iii) with the following:

"In all cases where kerbing and/or channelling adjoin the bituminous surface of the road, the kerbing and/or channelling may only be constructed after the bituminous surface has been completed.

Before commencing with the kerbing and/or channelling, the surfacing and the base, shall be accurately cut to line with a mechanical saw to a minimum depth of 75mm. After excavation the concrete shall then be cast against the cut surface without formwork. All material outside the cut line must be carefully removed to the required thickness of concrete without damaging the edge before commencing with the casting of the concrete. No payment shall be made for repair work as instructed by the engineer to damage caused by the cutting/excavating process of surfacing and base layers. Any concrete spilt onto the surfacing shall immediately be removed and cleaned. Where so required by the engineer, the contractor shall, without any additional compensation, paint emulsion over the stained surface.

Add the following subclause:

## (k) Formwork and finish

"Formwork and finish of concrete kerbs shall comply with the requirements of section 6200. All visible edges on the sides or at joints of cast in situ concrete kerbs or channels shall be rounded with a rounding tool."



**SECTION 3100: BORROW MATERIALS** 

#### B3102 NEGOTIATIONS WITH OWNERS AND AUTHORITIES

Add the following to sub-clause 3102(a):

"Arrangements regarding to access to borrow pits and the alignment of haul roads shall be made between the contractor and the owners of the land on which borrow pits are situated. The engineer's representative on site shall be present at all such negotiations, which shall be confirmed in writing by the contractor. All costs involved with such negotiations as well as the requirements contained in clause 3102 and clause 1225 of the specifications shall be borne entirely by the contractor and will be deemed to have been included in his rates for borrow materials."

Add the following to sub-clause 3102(c):

"The contractor shall also adhere to all statutory requirements including applying for and completing Environmental Programme Management documents (EMP) for the Department of Mines and Energy. All costs for application and completion of EMP shall be borne by the contractor and will be deemed to have been included in his rates for borrow materials."

#### B3103 OBTAINING BORROW MATERIALS

#### (a) General

Add the following:

"The expropriation and compensation for land from which borrow materials is obtained shall be negotiated and paid for by the employer."

#### (b) Use of borrow materials

Add the following to the second paragraph of this subclause:

"Compensation to owners and arrangements with owners for taking material from alternative borrow pits proposed by the contractor shall be the contractor's responsibility and entirely at his own expenses."

#### B3104 OPENING AND WORKING BORROW PITS AND HAUL ROADS

#### (c) Excess overburden

Add the following:

"All excess overburden removed at borrow pits shall be replaced over the entire area of the borrow pit after initial shaping has been undertaken in an even layer. Payment for this requirement shall be deemed to be included in pay item 31.01

#### f) Protecting borrow pits

Add the following:

"It is a requirement of the contract that, where-ever required by the landowner, borrow pits shall be provided with temporary fencing around the perimeters of the borrow areas. The temporary fencing shall be erected prior to entering the land for borrowing purposes and shall on final finishing of the borrow areas as specified, be dismantled and removed and discarded as decided upon by the contractor. Payment for temporary fencing around borrow pits shall be made in accordance with the stipulations of section 5500 in these specifications."

Add the following new subclause:



#### "(h) Haul roads

Haul roads to designated borrow pits along the road shall be constructed along alignments as instructed by the engineer and shall be maintained at the contractor's own cost to the satisfaction of the engineer."

#### B3105 FINISHING-OFF BORROW AREAS AND HAUL ROADS

Add the following to this clause:

"Should the employer, engineer or any other authority approved by the engineer, require a higher standard of shaping and finishing off of borrow pits than specified in the standard specifications, measurement and payment for such extra work shall be made using daywork items.

The above notwithstanding, the finishing-off borrow pits and haul roads must be to a minimum requirement acceptable to the Department of Minerals and Energy. The payment to achieve the minimum standard shall be deemed included in the pay items for borrow materials"

#### **SECTION 3300: MASS EARTHWORKS**

#### B3305 TREATING THE ROADBED

#### (a) Removing unsuitable material

Add the following to the third paragraph:

"For the purpose of this contract, excavation and removal of in-situ clayey material over areas where the road is in a fill condition, shall be classified as removal of unsuitable material, irrespective of the stability or moisture condition of the in-situ material".

#### (c) Preparing and compacting the roadbed

Delete the last sentence of the first paragraph "If necessary, roadbed......depth of compaction" and replace as follows:

"Where demarcated by the engineer, prior to the roadbed being scarified, the excess in situ material forming part of the present roadway, and within the limits of the roadbed, and in close proximity of the layer works, but falling within the limits of the layerworks, shall be bladed to controlled level in order to achieve the required level and necessary depth of compaction."

#### B3307 FILLS

#### (c) Constructing a pioneer layer

Add the following to the first paragraph:

"For the purpose of this contract, pioneer layers shall be completed by means of eight-pass roller compaction using vibratory rollers as specified in subclause 3304(b) of the standard specifications."

#### (d) Benching

Add the following:

"Benching of fill and pavement layer material is required to be undertaken into the existing fill embankments and pavement layers. No additional payment shall be made over and above the normal pay items applicable to earthworks and pavement layers where benching is required for widening of the existing road formation. Benching shall be undertaken as shown on the drawings.

It is a requirement that benching shall always be started at the bottom of the existing fill progressing to the top of the formation. The dimensions and details of benching are shown on the drawings."



#### SECTION 3400: PAVEMENT LAYERS OF GRAVEL MATERIAL

#### B3402 MATERIALS

#### (a) General

Add the following:

"Material requirements for gravel pavement layers are in accordance with TRH4 and shall be indicated on the drawings."

#### Add the following:

Tensar TriAx Stabilisation Geogrid – Model – TX160

- 1. The stabilisation geogrid shall be Tensar TriAx TX160.
- 2. The stabilisation geogrid shall have European Technical Approval (ETA) Certification for the intended use of stabilisation of unbound layers by way of interlock with the aggregate, issued in accordance with European Organisation for Technical Assessment (EOTA®) Technical report TR41.
- 3. The stabilisation geogrid shall be manufactured in accordance with a management system which complies with the requirement of BS EN ISO 9001:2008. If required by the Engineer, the Contractor shall provide evidence of the manufacturer's certification of its Quality Assurance System.
- 4. The stabilisation geogrid shall be manufactured from polypropylene.
- 5. The stabilisation geogrid class shall be 'punched and stretched'.
- 6. The stabilisation geogrid shall have a hexagonal structure with ribs oriented in three directions. The resulting triangular-shaped apertures are defined by ribs of rectangular cross section having a high degree of molecular orientation which is continuous through the node.
- 7. The Radial Secant Stiffness measured at 0.5% strain shall be 390kN/m (within a tolerance of -75kN/m), measured in accordance with EOTA® Technical report TR41 B.1. (1)
- 8. The Radial Secant Stiffness Ratio shall be 0.8 (within a tolerance of -0.15), measured in accordance with EOTA® Technical report TR41 B.1. (1)
- 9. The Junction Efficiency shall be 100% (within a tolerance of -10%) measured in accordance with EOTA® Technical report TR41 B.2. (1)
- 10. The Hexagon Pitch of the geogrid shall be 80mm (within a tolerance of ±4mm). Where hexagon pitch is the distance between alternate parallel ribs, measured in accordance with EOTA® Technical report TR41 B.4. (1)
- 11. The stabilisation geogrid shall have a minimum of 2% finely divided carbon black, well dispersed in the polymer matrix to inhibit attack by ultra violet light, determined in accordance with ASTM D1603-06
- 12. The minimum working life is assumed to be 100 years in natural soils with a pH value between 4 and 9 and in soil temperatures less than 15°C, and is expected to be 50 years in natural soils with a pH value between 4 and 9 and in soil temperatures less than 25°C, when covered within 30 days. Determined in accordance with EN 12224, EN 13438, and EN 14030.

For product identification purposes the following characteristics shall be used.

a. The Radial Secant Stiffness measured at 2% strain shall be 290kN/m (within a tolerance of -65kN/m), measured in accordance with EOTA® Technical report TR41 B.1. (1)

b. The H	lexagon F	Pitch of the	geogri	id shall be	80mm	(within	a tole	rance	of ±4n	nm).	Where	hexagon	pitch	is the
		Contractor		Witness 1				Employe	er		Witness 1			

distance between alternate parallel ribs, measured in accordance with EOTA® Technical report TR41 B.4. (1)

c. Weight of the product shall be 0.220 kg/m2 (within a tolerance of -0.035kg/m2) Measured in accordance with EOTA® Technical Report TR41 B.3. (1)

#### Notes

The values declared are expressed as a nominal value and a tolerance in such a manner that the nominal value + or – the tolerance represents 99.7% of the population, i.e. a 99.7% 'tolerance interval'.

#### B3405 CONSTRUCTION TOLERANCES

#### (f) Surface regularity

Add the following:

"Where transverse construction joints in base layers are made between newly and previously constructed sections, the contractor shall exercise level control at such joints by installing level poles at 5m intervals on either side of the joint of the layer covering at least a 30m length into the newly constructed section."

#### B3406 QUALITY OF MATERIALS AND WORKMANSHIP

Add the following:

"Test results and measurements shall be assessed by the engineer according to the provisions of Section 8300 of the standard specifications".

**SECTION 3500: STABILISATION** 

**B3503 CHEMICAL STABILISATION** 

#### (a) Preparing the layer

Add the following:

Breaking-down and removal of oversize material and addition of material to make to required thickness shall be completed before stabilising agent shall be added."

#### (h) Curing the stabilised work

Add the following:

"It is the intention of this contract that curing of chemically stabilised layers shall be undertaken in accordance to protection method (ii) as specified. Any other method of curing shall only be allowed in special circumstances as decided upon by the engineer, but no additional payment whatsoever over and above that allowed for in item 35.05 will be made."

#### (i) Construction limitations

In table 3503/1, rep	olace "8 hours" v	with "6 hours."			
•	Contractor	Witness 1	•	Employer	Witness 1

#### **B3506 TOLERANCES**

#### (b) Uniformity of mix (chemical stabilisation)

Add the following:

"All pavement layers, especially layers which are to be chemically stabilised, shall, apart from the application of other mixing equipment, include at least two motor grader blade mixing operations to the full depth of the layer.

The in-place mixing of chemical stabilising agents with gravel materials shall be executed in such a manner that the coefficient of variation in the uniformity of the mix shall not exceed 30% when the stabilised layer is subjected to the chemical titration test, TMH1 method A15d. For plant-mixed stabilised materials the coefficient of variation shall not exceed 20%.

The coefficient of variation, C<sub>v</sub>, is calculated by the formula:

 $C_v = S_n \times 100 \text{ where},$   $X_n$ 

 $S_n$  = standard deviation of n determinations of stabilising agent content

 $X_n$  = mean percentage of n determinations of stabilising agent content with n = 4 minimum."

#### B3509 QUALITY OF MATERIALS AND WORKMANSHIP

Add the following:

"The preparation of chemically stabilised material for the determination of the modified AASHTO density of the material shall be executed in accordance with TMH1 test method A16T and compaction thereof in accordance with TMH1 test method A7."

#### SECTION 4300: SEALS: MATERIALS AND GENERAL REQUIREMENTS

#### **B4302 MATERIALS**

(a) Bituminous binders

ADD THE FOLLOWING PARAGRAPH AFTER THE INTRODUCTORY PARAGRAPH:

"Any tests referred to in Technical Guideline (TG1)"Use of Modified Bituminous Binders in Road Construction, October 2001", published by the Asphalt Academy, shall supersede those specified in the Colto Standard Specifications for Road and Bridge Works 1998."

(v) Homogeneous hot applied polymer modified binders (summer grades)

DELETE THE ENTIRE SUB SUB-CLAUSE AND REPLACE WITH THE FOLLOWING:

"(1) Base bitumen

The base bitumen shall comply with the requirements of SABS 307 or a blend of such bitumens. In addition, the chemical composition of the bitumen shall be such as to permit blending with the proposed polymer to form a stable product that will satisfy the relevant requirements.

(2) Polymer



The type and percentage of polymer to be blended with the bitumen is not prescribed, however, the contractor shall state, in the space provided in the schedule of quantities, the type of polymer he will use.

#### (3) Polymer modified blend

The polymer modified bitumen shall be blended at the factory.

The polymer modified bitumen to be used shall be binder class S-E1 and shall satisfy the relevant requirements listed in table B4302/7.

The binder for the days production shall be tested on site to determine the softening point before any seal work is commenced with. No claim for delays due to this requirement shall be considered. As a control, a hand held spindle viscometer shall be used to monitor the viscosity of the binder at the spray temperature.

TABLE B4302/7: Requirements for hot applied homogeneous modified binders

Property	Unit	Test Method	Binder Class
Порых	Offic	rest Method	S-E1
Softening point (R&B)	οС	MB-17	50 (min)
Dynamic viscosity @165oC	Pa.s	MB-18	0,55(max)
Ductility @ 15oC	cm	MB-19	75 (min)
Force ductility @ 15oC	N	-	Report*1
Complex shear modulus (G* / $\sin \delta$ @ rad/s)	οС	AASHTO: TP 5	Report
Creep stiffness: Bending Beam Rheometer	mPa	AASHTO: TP 1	Report
Elastic recovery @ 15oC	%	MB-4	50 (min)
Flash point	OC	ASTM: D93-97	230 (min)
Stability (R&B diff. @ 160oC)	οС	MB-6	5 (max)
Adhesion @ 5oC	%	MB-7	90 (min)
Torsional recovery @ 15oC (*3)	%	MB-5	Report
Torsional recovery @ 25oC	%	MB-5	Report
Properties after ageing (RTFOT)			
Difference in softening point	οС	MB-17	-2 to +8
Elastic recovery @ 15oC	%	MB-4	40 (min)
Mass change	%	MB-3	1.0 (max)
Dynamic viscosity @ 165oC	Pa.s	MB-18	Report
Torsional recovery @ 25oC	%	MB-5	Report

<sup>\*</sup> Note: The properties listed "report only" will only be carried out on instruction by the engineer. The contractor shall not be responsible for the costs of any such testing.

#### (b) Aggregates

(i) Aggregates for seals

ADD THE FOLLOWING:

"The nominal aggregate size for application of the double seal shall be 13,2 mm and 6,7 mm."

	_		_		_	
	J		l			
Contractor		Witness 1		Employer		Witness 1
				,		

#### (1) Grading

#### ADD THE FOLLOWING:

"Only Grade 1 aggregate shall be used for the construction of seals".

#### (3) Shape

#### ADD THE FOLLOWING:

"The average least dimension (ALD) of the 13,2 mm nominal size aggregate, shall not be less than 8,0 mm when tested in accordance with TMH1 test method B18.

#### (d) Hydrophilic aggregates

(i) Pre-coating of aggregate for stockpiling or for immediate use:

In the fourth paragraph, delete "12 litre" in the second sentence, and add the following new sentence:

"Precoating fluid shall be manufactured from petroleum based products. The use of tar based precoating fluids will not be permitted. For tender purposes the nominal quantity of precoating fluid for the relevant nominal aggregate sizes is specified in table B4302/14."

Table B4302/14: Nominal Application Rates for Precoating Fluid

Nominal aggregate size (mm)	Nominal precoating application rate (I/m³)
19,0	12
13,2	16
9,5	19
6,7	22

#### ADD THE FOLLOWING SUB CLAUSES:

#### "(e) Water for diluting emulsions

Water used for the dilution of emulsions on site shall be suitable potable water, and each source of water used shall be tested for compatibility with the emulsion before it is added to the bulk emulsion.

#### (f) Testing of polymer modified bitumen/emulsion

Testing shall be in accordance with the methods described in "Technical Guideline: The use of Modified Bituminous Binder in Road Construction TGI (October 2001), published by the Asphalt Academy.

During spraying of each batch, the contractor shall draw off at least three test samples of the modified bitumen/emulsion product and submit them to the engineer for acceptance testing purposes. The supplier shall submit all his tests results to the engineer for correlation purposes,

Contractor	Witness 1	Employer	Witness 1

failing which; the engineer's results shall be binding in terms of acceptance or rejection of the product."

#### ADD THE FOLLOWING SUB CLAUSE:

#### "(g) Sources of aggregates

Aggregates for seal work shall preferably be obtained from sources within the Limpopo Province e.g. crushing plants at Polokwane, Mussina, Tzaneen etc. If, for reasons of limited production rates of seal work aggregate or quality of the aggregates, adequate quantities of aggregates cannot be obtained from local sources, the aggregates may be obtained from sources outside the Limpopo Province. No provision is made in the schedule of quantities for an extra over payment on seal work rates where aggregates have to be obtained from outside sources and tenderers will be deemed to have taken the source of the aggregates into account in their tendered rates."

#### **B4303 PLANT AND EQUIPMENT**

#### (a) General

#### ADD THE FOLLOWING:

"Apart from the specified capacity and condition of plant used for seal work, the operators and attendants of binder distributors and chip spreaders shall prove their abilities to the engineer to apply the binder and seal work aggregate within the specified tolerances for application rates, widths of application and making good of all seemingly minor defects which may occur during seal work operations. Able operators and attendants shall be kept in service throughout the construction period and not rotated with reserve staff who might not be familiar with the equipment or final product requirements.

The engineer will instruct the removal of incompetent staff from site if satisfactory performance is not achieved and maintained."

#### (b) Binder distributor

#### ADD THE FOLLOWING:

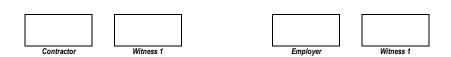
"The binder distributor shall be capable of spraying the binder to the specified application rates and to the satisfaction of the engineer.

It is important that the pump of the distributor shall be capable of delivering the binder at the spray-bar nozzles at the correct pressure to obtain the specified application rates, irrespective of the viscosity properties of the proposed binder.

The spray bar of the distributor shall be fitted with fishplates at the outside edge of the bar to prevent over spraying onto gravel shoulders when spraying adjacent to such shoulders, or staining of concrete elements on the edge of the surfacing of the road. If instructed by the engineer, the outside nozzles of the spray bar shall be turned to a 45° angle to achieve a thickened edge of binder along the outside limits of the seal work area.

A calibration certificate, not older than 3 months, for the binder distributor shall be presented to the engineer before any binder is sprayed.

The binder distributor shall be fitted with a suitable valve or other access gate for taking of samples of the binder for testing purposes".



#### (c) Chip spreaders

#### DELETE THE SECOND AND THIRD PARAGRAPH AND REPLACE WITH THE FOLLOWING:

"All chip spreaders for use in seal work operations shall be self-propelled and a minimum of two such chip spreaders shall be available at the site of the work during seal work operations."

#### (k) Miscellaneous equipment

#### ADD THE FOLLOWING:

"Apart from the specified plant and equipment for construction of surfacing seals, the contractor shall provide an additional pneumatic-tyred roller with a mass of at least ten tons to carry out rolling where the back-chipping team operating behind the seal work unit places seal work aggregates by hand in areas which are deficient in stone in terms of the required application rate of aggregate. The pneumatic-tyred roller shall cover the back-chipped areas with at least four passes. No separate payment shall be made for the provision and operation of the additional roller."

#### **B4304 GENERAL LIMITATIONS AND REQUIREMENTS**

#### (a) Weather limitations

#### ADD THE FOLLOWING:

"As soon as the minimum air temperature at night is forecast to fall below 8°C, seal work shall cease until warmer weather conditions are experienced. Seal work using polymer modified binder shall not be permitted during the months of May, June, July and August. Winter-grade binders shall not be used in any seal work and the contractor's programme of work shall reflect this limitation. Seal work with polymer modified binder shall also not be permitted if rainy weather is eminent.

Seal work shall also not be undertaken if rain is forecast or imminent.

Application of binder shall not be allowed if existing cracks in the road contain moisture after rainy spells."

#### B4305 HEATING AND STORAGE OF BITUMINOUS BINDERS

(e) Homogeneous hot-applied modified binders (summer grade)

IN THE SECOND PARAGRAPH, DELETE "TABLE 4305/3" AND REPLACE WITH "TABLE B4305/3"

TABLE B4305/3: Storage limits for hot homogeneous modified binders

	Short term	handling	Stor	age	Sprayi	ng/Asphalt	mixing
Binder Class	Max	Max	Max	Max	Max	Min	Max
Dilluci Ciass	Temp	Time	Temp	Time	Temp	Temp	Time
	(oC)	(hrs)	(oC)	(hrs)	(oC)	(oC)	(hrs)
S-E1/S-E2	180	24	150	240	200	185	8
C-E1	160	24	140	240	170	160	8
A-E1/A-E2/A-P1	180	24	140	240	170	160	36

#### **B4307 CONSTRUCTION OF SEAL**

(b) Single and double aggregate seals

(i) Application	ation (	of tack coat	and aggregate		
Contractor	L	Witness 1		Fmplover	Witness 1

### DELETE THE LAST SENTENCE OF THE FOURTH PARAGRAPH AND REPLACE WITH THE FOLLOWING:

"The contractor shall construct the seal in such a way that the resulting longitudinal joints fall on the planned positions of the line markings."

#### ADD THE FOLLOWING TO THE FOURTH PARAGRAPH:

"Joints shall be straight and aggregate shall be broomed back in a neat straight line before the next spray. String lines shall be used to demarcate joint edges. All stone-loss and "tram-lining/roping" shall be made good by the contractor at no additional cost."

#### (iii) Broom drag and final rolling of aggregate

#### ADD THE FOLLOWING AFTER THE FIRST PARAGRAPH:

"The broom drag on the newly constructed seal shall not be executed using a rotary broom but a drag broom as specified in subsubclause 4303(e)(i) of the standard specifications. The contractor shall provide a back-chipping team, together with a pneumatic-tyred roller, of such capacity that back-chipping and rolling of aggregate shall be complete within thirty minutes after initial application of the aggregate."

#### (iv) Joints between binder sprays

#### ADD THE FOLLOWING:

"Allowance is made in the schedule of quantities for the provision and use of reinforced paper to ensure neat transverse joints between successive binder applications."

#### ADD THE FOLLOWING SUBSUBCLAUSES:

"(vi) Disposal of unused or rejected bituminous products

No unused or rejected bituminous products shall be dumped on the site of the works, nor in other areas, but such products shall be returned to the supplier's production plant.

#### **B4314 TOLERANCES AND FINISH REQUIREMENTS**

- (a) New work
  - (v) General

#### ADD THE FOLLOWING:

"Immediately before the tack coat and first application of aggregate is applied, the centre line of the road as well as the edges of the surfacing area shall be demarcated with a clearly visible weatherable fibre rope pegged down with nails driven into the existing surface 15m apart on straight sections, or 3m apart on curves."

#### (c) The rate of application

#### REPLACE THE FIRST PARAGRAPH THE FOLLOWING:

"The maximum permissible variation from the rates of application of aggregate or slurry, as ordered by the engineer, shall be plus or minus 5%.

For binders, the maximum permissible variation from that specified shall be 5% for conventional bitumen and all emulsions (measured net cold), and 5% for hot applied modified binders

(measured at spray temperature). Provided he is satisfied that the seal will perform satisfactorily, the engineer may, at his discretion, conditionally accept out of tolerance variations at the reduced rates of payment listed in Table B4314/1 below. However, variations in total binder application rates in excess of those tabled shall be deemed rejected. Rejected sprays will not be considered for payment unless corrected to the satisfaction of the engineer.

A lot for acceptance control purposes shall be at least 2000 litres. Lots smaller than 2000 litres shall be combined with succeeding lots until a combined lot not less than 2000 litres is obtained.

Table B4314/1: Payment Reduction Factors For Conditionally Accepted Binder Application Rates

Conventional bitumen and emulsion. Deviation from specified spray rate Net cold bitumen. (%)	Hot applied homogeneous and non-homogeneous modified bitumen.  Deviation from specified rate. At spray temperature. (%)	% Payment of tendered rate for seal
±5,0	±5,0	100%
±6,0	±6,0	97,5%
±7,0	±7,0	95%
±8.0	±8,0	90%
±9,0	±9,0	85%
±10.0	±10,0	80%

#### ADD THE FOLLOWING AT THE END OF THE LAST PARAGRAPH:

"The completed bituminous surfacing shall be of uniform texture without gaps or patches and shall be free from corrugations and any loose aggregate or binder spillage.

The edges of the completed bituminous surfacing shall be true to line."

#### **SECTION 4500: DOUBLE SEALS**

#### **B4503 CONSTRUCTION**

(a) Application of tack coat and first layer of aggregate

#### ADD THE FOLLOWING:

"The aggregate for the first layer shall be 13,2 mm nominal size. The application rate of S-E1 binder shall be determined when aggregate properties and other design requirements for the seal have been determined. The nominal rate of application shall be taken as 1,0  $\ell$ /m<sup>2</sup> of homogenous hot modified binder at spray temperature.

#### (b) Initial rolling

#### ADD THE FOLLOWING:

"Immediately after application of the aggregate, but before back-chipping operations commence, the first layer of aggregate shall be rolled with one (1) pass of a three wheel steel-wheeled roller with a mass not exceeding 6 ton, if ordered by the engineer, after which pneumatic-tyred rolling shall follow as specified."

(d) Second application of bituminous binder and aggregate

#### ADD THE FOLLOWING:

"The aggregate for construction of the second layer shall be 6,7 mm nominal size. The application rate of the S-E1 binder where specified shall be determined when aggregate properties and other

Contractor	Witness 1	Employer	Witness 1

design requirements for the seal have been determined. The nominal rate of application shall be taken as 1,0  $\ell/m^2$  homogenous modified binder at spray temperature.

#### (h) Precoating of aggregate

#### ADD THE FOLLOWING:

"The first application of aggregate used in the construction of double seals shall be precoated with "Sacrosote 70" at a rate of 16 l/m³. The precoating shall be undertaken as described in clause 4302(d) of the standard specifications. Precoating of aggregate shall be undertaken sufficiently ahead of sealing operations to permit the aggregate to dry, but at least 72 hours before application of the aggregate. Prior to application of the aggregate no free precoating fluid shall be notable when the aggregate is inspected by handling it."

#### ADD THE FOLLOWING NEW SUB CLAUSE:

#### "(i) Construction trial sections

Before the contractor commences with permanent surfacing a successful trial section as described in section 4300 of the project specifications shall be constructed and approved by the engineer."

#### **SECTION 5200: GABIONS**

#### B5201 SCOPE

Add the following paragraph

"This section also covers the removal, dismantling and stacking of existing gabion work, and the reuse of these materials where authorised by the engineer."

#### B5203 CONSTRUCTION OF GABION CAGES

#### (a) General

Add the following new sub-clause:

"(iii) Reno mattresses or similar may be used as alternative to gabion boxes. These Reno mattresses are to be manufactured of 80mm x 100mm mesh (2,5mm diameter wires, diaphragm spacing 0,6m).

#### B5204 CONSTRUCTING GABIONS

#### (c) Assembly

Delete and substitute with:

#### (c) Assembly, erection and stretching

#### (i) Assembly

"Prior to assembly, the gabion material shall be opened out flat on the ground and stretched to remove any kinks and bends. The gabion boxes shall then be assembled individually by raising the sides, ends and diaphragms ensuring that all creases are in the correct position and that the tops of all four sides are even. The four corners of the gabion boxes shall be laced first followed by the edges of internal diaphragms to the sides. In all cases lacing shall commence at the top of the box by twisting the end of the lacing wire around the selvages. It shall then be passed round two edges being joined, through each mesh in turn and securely tied off at the bottom. The ends of all lacing wire shall be turned to the inside of the box on completion of each lacing operation.

#### (ii) Erection

Only assembled boxes, or groups of boxes, shall be positioned in the structure. The side, or end, from which work is to proceed, shall be secured to either completed work or by rods or stakes driven into the ground at the corners. These must be secured and reach at least to the top of the gabion box. Further gabions shall then be positioned in the structure as required, each being securely laced to the preceding one at all corners and diaphragm points.

#### (iii) Stretching

On completion of erection of a suitable length of gabion, the gabion boxes shall be stretched using a wire strainer or winch of at least one ton capacity firmly secured to the free end of the assembled gabion boxes.

Whilst under tension the gabion boxes shall be securely laced along edges (top, bottom and sides) and at diaphragm points, to all adjacent boxes and shall thereafter be filled."

#### (d) Rock filling

Add the following new sub-sub-clause:

#### (iii) General

"Filling shall be carried out only whilst gabion boxes are under tension. Filling material shall consist of rock of size not less than 120mm and not greater than 250mm so placed to produce a neat face and line with a minimum of voids.

Internal horizontal bracing wire shall be provided at 500mm vertical centres or such spacing to ensure a ratio of four to every 1m³ of filling. These bracing wires shall be wrapped around two mesh wires and extended from front to back so positioned to ensure a neat face and line free of excessive bulges and depressions. Gabion boxes shall be filled in stages and horizontal bracing wires inserted as filling is brought up.

Similar bracing wires used vertically shall be provided in 0,5mm deep gabions at 330mm horizontal centres where water falls directly onto gabions or where a neat face is required.

Tension on the gabion boxes shall be released only when sufficiently full to prevent the mesh from slackening.

Gabion boxes shall be overfilled by 20 to 50mm above their tops to allow subsequent settlement of the filling."

Add the following new sub-clauses:

#### (e) Final wiring

"Closing and wiring down of lids shall proceed as soon as possible after filling operations and certainly in the likelihood of storms or floods during construction. The wiring down shall consist of wrapping around wire at such intervals as required or specified.

Lids shall be stretched tight over the filling with bars and wired down securely through each mesh along all edges, ends and diaphragms. The ends of all tying and bracing wires shall be turned into the gabion box on completion of all lacing operations.

Tightness of mesh, well packed filling and secure lacing is essential in all structures."

#### (f) Removal, dismantling and stacking of gabions

Exist	ing gabions,	, either damag	ed or not,	that req	uire to be re	move	ed or moved	to a new local	tion
<u> </u>	Contractor	Witness 1		l.	Employer		Witness 1		

shall be dismantled. Material not required for re-assembly or unsuitable for re-use shall be neatly stacked at approved locations in accordance with the engineer's instructions. Payment will be made only for gabions removed in accordance with the written instruction of the engineer.

Where gabions require moving, or as declared suitable by the engineer are re-usable, the contractor shall re-use all the material, plus supply such new materials as may be required to re-assemble the gabion again to the standard specification for new gabions."

#### **SECTION 5600: ROAD SIGNS**

#### B5601 SCOPE

"This section also covers the supply and erection of permanent danger plates at culverts and bridges at the locations indicated on the drawings or as directed by the engineer."

#### **B5602 MATERIALS**

#### (g) Retro-reflective material

In the first sentence, replace "SABS 1519" with "SABS 1519-1" and delete "and the adhesion requirements of CKS 191."

Add the following:

"When measured with a field retro-reflectometer in accordance with section B8118, the coefficient of retro-reflection of a retro-reflective material shall not be less than the appropriate value given in Table B8118/1

#### (k) Black vinyl

In the second sentence, replace "SABS 1519" with "SABS 1519-1" and delete the rest of the sentence.

Add the following sub-clause:

#### "(m) Temporary covers for road signs

When required, existing road signs shall be fully or partially covered with burlap or other approved material to obscure destinations that are temporarily inapplicable or irrelevant.

The covers shall be neatly applied and firmly fixed in position on the rear side of the sign so that they will be able to withstand strong gusts of wind or eddies caused by passing traffic."

#### B5603 MANUFACTURING OF ROAD SIGN BOARDS AND SUPPORTS

#### (a) Road signboards

Add the following:

"The contractor shall	l make every	effort to ensure	that signboards	are correct ir	n all	respect and	before dis	patching
the boards from the	manufacture	r's factory shall	provide the Engi	neer with a 1	00m	ım x 150mm	colour pho	otograph
of each sign face for	r approval of	the correctness	s of the legend.	Such approve	al w	ill not imply f	inal accep	tance of
			-					

the board.

If the Contractor is in any doubt as to the correctness of the sign detail, the sign designer shall be contacted for verification."

(i) Steel plate road sign boards

Add the following as the fourth paragraph:

"Steel plate used to manufacture guidance signs shall be pre-punched by means of an automated process with 5 mm holes in a rectangular grid pattern not exceeding 150 mm c/c."

(ii) Steel profile road signboards

Add the following:

"Where the letter or legends cross the horizontal joints of the sign panels, the letter shall be cut on the joint and both ends folded around the radius.

Retro-reflective material to adjoining Chromadek panels on a sign shall be practical visual match of the specified colour."

#### B5604 ROAD SIGN FACES AND PAINTING

Add the following new sub-clause:

#### "(e) Application of retro-reflective material

All sign faces shall be faced with diamond grade retro-reflective material. Painted front sign faces shall not be used.

Where applied to Chromadek sections, retro-reflective material shall be applied as specified for aluminium section in Clause 5603(d) of the Standard Specification, and of Clause B5603(a)(ii) of this project Specification."

#### B5605 STORAGE AND HANDLING

Add the following:

"The following shall not be allowed on the sign face:

Drilling of holes, except for the fastening of overlays

Application of any form of adhesive

Cleaning with any chemicals that are not specifically approved by the manufacturer of the retro-reflective material Covering the sign face with an impermeable material that does not allow free circulation of air."

#### B5606 ERECTING ROAD SIGNS

#### (c) Erection

Add the following:

"After erection the signboard shall be thoroughly cleaned with a cleaning agent approved by the retro-reflective material's manufacturer.

All vegetation obstructing the new or replaced sign board shall be removed and disposed of as instructed by the Engineer."



#### **B5609 MEASUREMENT AND PAYMENT**

Add the following items:

"<u>Item</u> <u>Unit</u>

B56.10 Danger plates at culverts / structures

(a) Type A storm water culverts (150mm x 600mm) No

(b) Type B at 90° Curves (450mm x 450mm)

No

The unit of measurement shall include full compensation for be the actual number danger plates erected at storm water structures or at 90° Curves.

#### **SECTION 5700: ROAD MARKINGS**

#### B5702 MATERIALS

#### (a) Paint

(ii) Retro-reflective road marking paint

Add the following:

"When measured in accordance with SABS Method 1261-1998 within a period of two weeks after application, the coefficient of retro-reflected luminance, R<sub>L</sub>, shall be at least 150 mcd/m².lx for white markings and 100 mcd/m².lx for yellow markings.

Retro-reflective road-marking paint shall be used to paint road markings during the contract period and to re-paint all road markings at the end of the maintenance period."

Add sub sub-clause (v):

#### "(v) Other roadmarking materials

The contractor may use other roadmarking materials which would ensure more durable markings and which would meet the specified performance criteria.

Such materials shall comply with a standard set by a recognised national standards institution. Information on such materials and the standards to which they comply shall be submitted to the engineer for approval prior to the materials being used.

#### B5705 SURFACE PREPARATION

Add the following at the end of the second paragraph:

"The onus is on the contractor to ensure that the surface on which the road markings are to be applied are sufficiently clean, dry and non-flaky to ensure that the quality of the road markings will not be adversely affected. The contractor is also responsible for protecting roadstuds from being painted over."

#### B5707 APPLYING THE PAINT

Add the following:

"The Contractor's establishment on site and general obligation shall be deemed to fully include the establishment of the road-marking team, irrespective of the number of times the road-marking team is required to be onsite or is required to move within the site."



#### B5708 APPLYING THE RETRO-REFLECTIVE BEADS

Replace the second sentence with the following:

"The rate of application of the beads shall be such that the coefficient of retro-reflected luminance, R<sub>L</sub>, specified in section B 5702(a)(ii) is achieved, but shall not be less than 0,34kg/m<sup>2</sup> of marking."

#### B5711 GENERAL

Insert the following into the last sentence of the last paragraph between "black paint" and "or chemical paint remover":

", bituminous emulsion, slurry"

Add the following to the last paragraph:

"Where black paint is used, it shall be matt."

#### **B5714 MEASUREMENT AND PAYMENT**

Add the following items:

"Item Unit

B57.07 Establishment of painting unit during the construction period Lump sum

B57.08 Re-Establishment of painting unit at the end of the maintenance period Rate Only

The unit of measurement shall be the lump sum to compensate the contractor for the establishment and removal of the painting unit after the retention period.

The tendered lump sum shall include full compensation for the establishment on site and for the removal of all equipment, personnel, etc. as may be required for the application of the road marking.

#### SECTION 5900: FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS

#### B5902 FINISHING THE ROAD AND ROAD RESERVE

Add the following to the first paragraph:

"The contractor shall pay special attention to the collection and removal of all waste materials originating from the construction activities. All materials trimmed or excavated from the road shall be collected and removed from the road reserve to the satisfaction of the engineer.

This requirement shall be deemed to be incorporated in the tendered rates for item 59.01 of the bill of quantities or such other items as the contractor may decide upon.

The engineer may order additional finishing of the road reserve which will entail the collection and disposal of loose rocks etc. Payment for this work will be made under daywork items included in section 5900 of the bill of quantities as described in section 1800 of these project specifications."

#### **SECTION 6100: FOUNDATIONS FOR STRUCTURES**

c)	Exc	avation				
		Contractor	ı	Witness 1	Employer	Witness 1

Add the following paragraphs:

"Where excavation is in soft material, the final 0.75m and in the case of hard material, the final 0.25m of material shall be removed using suitable hand tools such as pick and shovel or pneumatic tools.

**SECTION 6400: CONCRETE FOR STRUCTURES** 

B6402 MATERIALS

(a) Cement

Replace this sub-section with the following:

"Refer to section 1142 for specification of cement."

CEM I 32,5, CEM II A-S 32,5, CEM II/A-V 32,5, or CEM III A may be used for the manufacture of reinforced concrete members.

B6404 CONCRETE QUALITY

#### (b) Strength concrete

Add the following paragraph:

"The cement content for any class of structural concrete or mass concrete used in structures shall not be less than 300kg/m³ of concrete.

The contractor must provide the engineer with complete mix designs and materials for strength concrete at least six (6) weeks before the first concrete is cast on the project".

#### B6405 MEASURING THE MATERIALS

#### (c) Aggregates

Add the following:

"All concrete for structures shall be manufactured by mechanical mass batching unless authorised otherwise by the engineer for minor concrete structures or for labour-intensive methods."

#### B6407 PLACING AND COMPACTING

#### (a) General

Add the following after the third paragraph:

"Concrete shall only be placed up to 20:00 at the latest. Under exceptional circumstances the Engineer may allow night work on condition that proper lighting arrangements can be made and a new and rested shift for night work is provided and ambient temperatures are such as to not adversely affect the setting of the concrete."

#### B6408 CONSTRUCTION JOINTS

#### (a) General

Add the following:

"No construction joints other than those indicated on the drawings will be permitted without the written approval of the engineer".

#### B6409 CURING AND PROTECTING

Add the following:

	1			
Contractor		Witness 1	Employer	Witness 1

The surface area of bridge and culvert floor slabs and decks shall be cured as follows:

- (i) The area of freshly cast and finished concrete surface shall be immediately covered as specified in clause 6409(e).
- (ii) After the concrete has set sufficiently the entire area shall be treated with an approved curing compound as specified in clause 6409(f)."

#### B6414 QUALITY OF MATERIALS AND WORKMANSHIP

#### (a) Criteria for compliance with the requirements

Add the following:

"Quality control shall be carried out by the engineer as specified in Section 8200 : Quality Control (Scheme 1)."

Add the following new paragraph:

#### (d) Concrete cores - strength requirements

"Cores will only be drilled if authorised by the engineer. This will only be considered if the contractor's own cubes, when crushed by the engineer, attained the required 28-day cube strength."

#### B6416 MEASUREMENT AND PAYMENT

ITEM UNIT

#### B64.01 Cast in situ concrete:

cubic metre (m³)

Add the following after the first paragraph:

"Where foundation slabs are set directly against the face of excavations, the volume of concrete measured for payment shall include the total volumes of concrete placed, allowing for up to a maximum over the neat footing dimensions of 200mm where in the opinion of the engineer accurate excavation to neat lines and levels indicated on the drawings is not possible. (No formwork to the footing shall be measured when the concrete is cast against the face of the excavations)."

The Generic Labour-intensive specification below is the same as SANS 1921-5, Construction and management requirement for works contracts- Part 5: Earthworks activities which are to be performed by hand and should be included in the scope of works without amendment or modification as set out below.

#### T.SCOPE

This specification establishes general requirements for activities which are to be executed by hand involving the following:

- a) trenches having a depth of less than 1.5 metres
- b) stormwater drainage
- c) low-volume roads and sidewalks

#### **U.PRECEDENCE**

Contractor	Witness 1	Employer	Witness 1

Where this specification is in conflict with any other standard or specification referred to in the Scope of Works to this Contract, the requirements of this specification shall prevail.

#### V.HAND EXCAVATEABLE MATERIAL

Hand excavatable material is material:

- a) granular materials:
- i) whose consistency when profiled may in terms of table 1 be classified as very loose, loose, medium dense, or dense; or
- ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;
- b) cohesive materials:
- i) whose consistency when profiled may in terms of table 1 be classified as very soft, soft, firm, stiff and stiff / very stiff; or
- ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

Note:

- 1) A boulder, a cobble and gravel is material with a particle size greater than 200mm, between 60 and 200mm.
- 2) A dynamic cone penetrometer is an instrument used to measure the insitu shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle

of 60° with respect to the horizontal) into the material being used.

Table 1: Consistency of materials when profiled

Contractor	Witness 1	Employer	Witness 1

CONSISTENCY	DESCRIPTION	CONSISTENCY	DESCRIPTION
Very loose	Crumbles very easily when scraped with a geological pick.	Very soft	Geological pick head can easily be pushed in as far as the shaft of the handle.
Loose	Small resistance to penetration by sharp end of a geological pick.	Soft	Easily dented by thumb; sharp end of a geological pick can be pushed in 30-40 mm; can be moulded by fingers with some pressure.
Medium dense	Considerable resistance to penetration by sharp end of a geological pick.	Firm	Indented by thumb with effort; sharp end of geological pick can be pushed in upto 10 mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.
Dense	Very high resistance to penetration by the sharp end of geological pick; requires many blows for excavation.	Stiff	Can be indented by thumb-nail; slight indentation produced by pushing geological pick point into soil; cannot be moulded by fingers.
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumb-nail with difficulty; slight indentation produced by blow of a geologica pick point.

#### Trench excavation

All hand excavateable material in trenches having a depth of less than 1,5 metres shall be excavated by hand.

#### Compaction of backfilling to trenches (areas not subject to traffic)

Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers

- a) to 90% Proctor density;
- b) such that in excess of 5 blows of a dynamic come penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than 10% gravel of size less than 10mm and contains no isolated boulders, or
- c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

#### Excavation

All hand excavateable material including topsoil classified as hand excavateable shall be excavated by hand. Harder material may be loosened by mechanical means prior to excavation by hand.

The excavation of any material which presents the possibility of danger or injury to workers shall not be excavated by hand.

#### (d) Drainage of excavations

The contractor shall apply suitable, effective drainage and dewatering methods for preventing the ingress of water into the excavation and to keep them dry.

Drainage measures, with the exception of pumping, shall be maintained until the backfilling has been completed. Between various construction stages, pumping may be interrupted in consultation with the engineer.

ı				
	Contractor	Witness 1	Employer	Witness 1

Any draining	g or pumping	of water	shall be	done in a	a manner	as will	preclude	the con	crete or	r materials	or any	/ part
thereof from	being carrie	d away.										

Allowance for measurement and payment for dewatering and keeping dry of culvert excavations is made in the schedule in this section".

Contractor	Witness 1	Employer	Witness 1

# C3.4.3.1 REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS C3.4.3.2 ENVIRONMENTAL MANAGEMENT PLAN C3.4.3.3 PROVISION OF STRUCTURED TRAINING C3.4.3.4 PROVISION OF THE TEMPORARY WORKFORCE C3.4.3.5 THE PROCUREMENT POLICY / SUPPLY CHAIN POLICY OF GREATER LETABA MUNICIPALITY C3.4.3.6 REQUIREMENTS OF EXTENDED PUBLIC WORKS PROGRAMME



#### C3.4.3.1 OCCUPATIONAL HEALTH AND SAFETY ACT 1993: HEALTH AND SAFETY SPECIFICATION

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C3.4.3.1.2 SCOPE

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ANNEXURE 1: MEASURING INJURY EXPERIENCE

ANNEXURE 2: EXECUTIVE SHE RISK MANAGEMENT REPORT

ANNEXURE 3: LIST OF RISK ASSESSMENTS

#### Introduction

In terms of the Construction Regulation 4(1) (a) of the Occupational Health and Safety Act, No. 85 of 1993, Greater Letaba Municipality, as the Client, is required to compile a Health & Safety Specification for any intended project and provide such specification to any prospective tenderer.

The Client's further duties are as in C3.5.1.3.1.1. below and in the Construction Regulations, 2003.

This specification has as objective to ensure that Principal Contractors entering into a Contract with the Greater Letaba Municipality achieve an acceptable level of OH&S performance. This document forms an integral part of the Contract and Principal and other Contractors should make it part of any Contracts that they may have with Contractors and/or Suppliers.

Compliance with this document does not absolve the Principal Contractor from complying with minimum legal requirements and the Principal Contractor remains responsible for the health & safety of his employees and those of his Mandataries.

#### Scope

Development of a health & safety specification that addresses all aspects of occupational health and safety as affected by the abovementioned contract work.

The specification will provide the requirements that Principal Contractors and other Contractors will have to comply with in order to reduce the risks associated with the abovementioned contract work that may lead to incidents causing injury and/or ill health, to a level as low as reasonably practicable.

Contractor	Witness 1	Employer	Witness 1

#### **General Occupational Health & Safety Provisions**

- (a) Hazard Identification & Risk Assessment (Construction Regulation 7)
  - (i) Risk Assessments

Annexure 3 contains a list of Risk Assessment headings that have been identified by Greater Letaba Municipality as possibly applicable to the abovementioned contract work. It is, by no means, exhaustive and is offered as an assistance to Contractors intending to tender.

Based on the Risk Assessments, the Principal Contractor must develop a set of site-specific OH&S rules that will be applied to regulate the OH&S aspects of the construction.

The Risk Assessments, together with the site-specific OH&S rules must be submitted to the Greater Letaba Municipality before mobilisation on site commences.

Despite the Risk Assessments listed in Annexure 3, the Principal Contractor is required to conduct a baseline Risk Assessment and the aforesaid listed Risk Assessments must be incorporated into the baseline Risk Assessment. The baseline Risk Assessment must further include the Standard Working procedures (SWP) and the applicable Method Statements based on the Risk Assessments

All out-of-scope work must be associated with a Risk Assessment.

#### (ii) Review of Risk Assessments

The Principal Contractor is to review the Hazard Identification, Risk Assessments and SWP's at each Production Planning and Progress Report meeting as the Contract work develops and progresses and each time changes are made to the designs, plans and construction methods and processes.

The Principal Contractor must provide the Client, other Contractors and all other concerned-parties with copies of any changes, alterations or amendments as contemplated in above.

Contractor	Witness 1	Employer	Witness 1

#### (b) Legal Requirements

All Contractors entering into a Contract with the Greater Letaba Municipality shall, as a minimum, comply with the

- Occupational Health & Safety Act and Regulations (Act 85 of 1993). A current, up-to-date copy of the OHS Act must be available on site at all times
- Compensation for Occupational Injuries & Diseases Act (Act 130 of 1993). The principal Contractor
  will be required to submit a letter of Registration and "good-standing" from the Compensation Insurer
  before being awarded the Contract. A current, up-to-date copy of the COID Act must be available on
  site at all times.
- Where work is being carried out on mines' premises the Contractor will have to comply with the Mine
  Health & Safety Act and Regulations (Act. 29 of 19960 and any other OH&S requirements that the
  mine may specify. A current, up-to-date copy of the OHS Act must be available on site at all times.

#### (c) Structure and Responsibilities

- (i) Overall Supervision and Responsibility for OH&S
- tis a requirement that the Principal Contractor, when he appoints Contractors (Sub-contractors) in terms of Construction Regulations 5(3), (5), (9), (10) and (12) he includes an OHS Act Section 37(2) agreement: "Agreement with Mandatary" in his agreement with such Contractors.
- \* Any OH&S Act (85/1993), Section 16(2) appointee/s as detailed in his/her/their respective appointment forms
- (ii) Further (Specific) Supervision Responsibilities for OH&S

The Contractor shall appoint designated competent employees and/or other competent persons as required by the Act and Regulations. Below is a list of identified appointments and may be used to select the appropriate appointments for the current contract:

Ref. Section/Regulation in OHSAct

**Batch Plant Supervisor** (Construction Regulation 6(1) Construction Vehicles/Mobile Plant/Machinery Supervisor (Construction Regulation 21) **Demolition Supervisor** (Construction Regulation 12) Drivers/Operators of Construction Vehicles/Plant (Construction Regulation 21) Electrical Installation and Appliances Inspector (Construction Regulation 22) Emergency/Security/Fire Coordinator (Construction Regulation 27) **Excavation Supervisor** (Construction Regulation 11) **Explosive Powered Tool Supervisor** (Construction Regulation 19) Fall Protection Supervisor (Construction Regulation 8) First Aider (General Safety Regulation 3) Fire Equipment Inspector (Construction Regulation 27) Formwork & Support work Supervisor (Construction Regulation 10)

Hazardous Chemical Substances Supervisor (HCS Regulations) Incident Investigator (General Admin Regulation 29) Ladder Inspector (General Safety Regulation 13A) Lifting Equipment Inspector (Construction Regulation 20) Materials Hoist Inspector (Construction Regulation 17) **OH&S Committee** (OHS Act Section 19) **OH&S Officer** (Construction Regulation 6(6) **OH&S** Representatives (OHS Act Section 17) Person Responsible for Machinery (General Machinery Regulation 2) Scaffolding Supervisor (Construction Regulation 14) Stacking & Storage Supervisor (Construction Regulation 26) Structures Supervisor (Construction Regulation 9) Suspended Platform Supervisor (Construction Regulation 15) **Tunneling Supervisor** (Construction Regulation 13) Vessels under Pressure Supervisor (Vessels under Pressure Regulations) Working on/next to Water Supervisor (Construction Regulation 24) Welding Supervisor (General Safety Regulation 9)

The appointments must be in writing and the responsibilities clearly stated together with the period for which the appointment is made. This information must be communicated and agreed with the appointees.

Copies of appointments must be submitted to the Greater Letaba Municipality together with concise CV's of the appointees. All appointments must be officially approved by Greater Letaba Municipality. Any changes in appointees or appointments must be communicated to Greater Letaba Municipality forthwith.

The Principal Contractor must, furthermore, provide Greater Letaba Municipality with an organogram of all Contractors that he/she has appointed or intends to appoint and keep this list updated on a weekly basis.

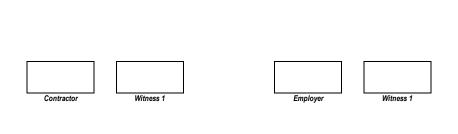
In addition Greater Letaba Municipality may require that a Traffic Safety Officer be appointed for any project.

(iii) Designation of OH&S Representatives (Section 18 of the OHS Act)

OH&S Representatives have to be designated in writing and the designation must include the area of responsibility of the person and term of the designation.

(iv) Duties and Functions of the OH&S Representatives (Section 19 of the OHS Act)

The Principal Contractor must ensure that the designated OH&S Representatives conduct a minimum monthly inspection of their respective areas of responsibility using a checklist and report thereon to the Principal Contractor



OH&S representatives must be included in accident/incident investigations

OH&S representatives must attend all OH&S committee meetings.

(v) Appointment of OH&S Committee (Section 20 of the OHS Act)

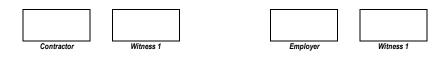
The Principal Contractor must establish an OH&S Committee consisting of all the designated OH&S Representatives together with a number of management representatives that are not allowed to exceed the number of OH&S representatives on the committee and a representative of the Client who shall act as the chairman without a vote. The members of the OH&S committee must be appointed in writing.

The OH&S Committee must meet minimum monthly and consider, at least, the following Agenda:

- 1. Opening & Welcome
- 2. Present/Apologies/Absent
- 3. Minutes of previous Meeting
- 4. Matters Arising from the previous Minutes
- 5. OH&S Reps Reports
- 6. Incident Reports & Investigations
- 7. Incident/Injury Statistics
- 8. Other Matters
- 9. Endorsement of Registers and other statutory documents by a representative of the Principal Contractor
- 10. Close/Next Meeting
- (d) Administrative Controls and the Occupational Health & Safety File
  - (i) The OH&S File (Construction Regulation 5 (7))

As required by Construction Regulation 5(7), the Principal Contractor and other Contractors will each keep an OH&S File on site containing the following documents as a minimum:

- \* Notification of Construction Work (Construction Regulation 3.)
- \* Copy of OH&S Act (updated) (General Administrative Regulation 4.)
- \* Proof of Registration and good standing with a COID Insurer (Construction Regulation 4 (g))
- \* OH&S Programme agreed with the Client including the underpinning Risk Assessment/s & Method Statements (Construction regulation 5 (1))
- Copies of OH&S Committee and other relevant Minutes
- \* Designs/drawings (Construction Regulation 5 (8))
- \* A list of Contractors (Sub-Contractors) including copies of the agreements between the parties and the type of work being done by each Contractor (Construction Regulation 9)
- \* Appointment/Designation forms as per (a)(i) & (ii) above.
- \* Registers as follows:
- \* Accident/Incident Register (Annexure 1 of the General Administrative Regulations)
- \* OH&S Representatives Inspection Register



- \* Asbestos Demolition & Stripping Register
- \* Batch Plant Inspections
- Construction Vehicles & Mobile Plant Inspections by Controller
- \* Daily Inspection of Vehicles. Plant and other Equipment by the Operator/ Driver/User
- \* Demolition Inspection Register
- \* Designer's Inspection of Structures Record
- \* Electrical Installations, -Equipment & -Appliances (including Portable Electrical Tools)
- \* Excavations Inspection
- \* Explosive Powered Tool Inspection, Maintenance, Issue & Returns Register (incl. cartridges & nails)
- \* Fall Protection Inspection Register
- \* First Aid Box Contents
- \* Fire Equipment Inspection & Maintenance
- \* Formwork & Support work Inspections
- \* Hazardous Chemical Substances Record
- Ladder Inspections
- Lifting Equipment Register
- \* Materials Hoist Inspection Register
- \* Machinery Safety Inspection Register (incl. machine guards, lock-outs etc.)
- Scaffolding Inspections
- Stacking & Storage Inspection
- \* Inspection of Structures
- \* Inspection of Suspended Platforms
- \* Inspection of Tunnelling Operations
- \* Inspection of Vessels under Pressure
- \* Welding Equipment Inspections
- \* Inspection of Work conducted on or Near Water
- \* All other applicable records

Greater Letaba Municipality will conduct an audit on the OH&S file of the Principal Contractor from time-to-time.

(e) OH&S Goals & Objectives & Arrangements for Monitoring & Review of OH&S Performance

The Principal Contractor is required to maintain a CIFR of at least 8 (See Annexure 1. to this document: "Measuring Injury Experience) and report on this to Greater Letaba Municipality on a monthly basis.



#### (f) Notification of Construction Work (Construction Regulation 3.)

The Principal Contractor must, where the Contract meets the requirements laid down in Construction Regulation 3, within 5 working days, notify the Department of Labour of the intention to carry out construction work and use the form (Annexure A in the Construction Regulations) for the purpose. A copy must be held on the OH&S File and a copy must be forwarded to Greater Letaba Municipality for record keeping purposes.

#### (g) Training, Awareness and Competence

The contents and syllabi of all training required by the Act and Regulations are to be included in the Principal Contractor's OH&S Plan.

#### (i) General Induction Training

All members of Contractor's Site management as well as all the persons appointed as responsible for OH&S in terms of the Construction and other Regulations will be required to attend a general induction session by the Client

All employees of the Principal and other Contractors to be in possession of proof of General Induction training.

#### (ii) Site Specific Induction Training

The Principal Contractor will be required to develop Contract work project specific induction training based on the Risk Assessments for the Contract work and train all employees and other Contractors and their employees in this.

All employees of the Principal and other Contractors to be in possession of proof of Site Specific OH&S Induction training at all times.

#### (iii) Other Training

All operators, drivers and users of construction vehicles, mobile plant and other equipment to be in possession of valid proof of training.

All employees in jobs requiring training in terms of the Act and Regulations to be in possession of valid proof of training as follows:

OH&S Training Requirements: (as required by the Construction Regulations and as indicated by the OH&S Specification & the Risk Assessment/s):

- \* General Induction (Section 8 of the Act)
- \* Site/Job Specific Induction (also visitors) (Sections 8 & 9 of the Act)
- \* Site/Project Manager
- Construction Supervisor
- \* OH&S Representatives (Section 18 (3) of the Act)
- Training of the Appointees indicated above

Contractor	Witness 1	Employer	Witness 1

- \* Operators & Drivers of Construction Vehicles & Mobile Plant (Construction Regulation 21)
- \* Basic Fire Prevention & Protection (Environmental Regulations 9 and Construction regulation 27)
- \* Basic First Aid (General Safety Regulations 3)
- Storekeeping Methods & Safe Stacking (Construction Regulation 26)
- \* Emergency, Security and Fire Co-coordinator

#### (iv) Awareness & Promotion

The Principal Contractor is required to have a promotion and awareness scheme in place to create an OH&S culture in employees. The following are some of the methods that may be used:

- Toolbox Talks
- OH&S Posters
- Videos
- Competitions
- Suggestion schemes
- Participative activities such as OH&S Safety circles.

#### (v) Competence

The Principal Contractor shall ensure that his and other Contractor's personnel appointed are competent and that all training required to do the work safely and without risk to health, has been completed before work commences

The Principal Contractor shall ensure that follow-up and refresher training is conducted as the contract work progresses and the work situation changes.

Records of all training must be kept on the OH&S File for auditing purposes.

#### (h) Consultation, Communication and Liaison

OH&S Liaison between the Client, the principal Contractor, the other Contractors, the Designer and other concerned parties will be through the OH&S committee as contemplated in above.

In addition to the above, communication may be directly to the Client or his appointed Agent, verbally or in writing, as and when the need arises.

Consultation with the workforce on OH&S matters will be through their Supervisors, OH&S Representatives, the OH&S committee and their elected Trade Union Representatives, if any.

The Principal Contractor will be responsible for the dissemination of all relevant OH&S information to the other Contractors e.g. design changes agreed with the Client and the Designer, instructions by the Client



and/or his/her agent, exchange of information between Contractors, the reporting of hazardous/dangerous conditions/ situations etc.

The Principal Contractor will be required to do Site Safety Walks with Greater Letaba Municipality at least on a basis to be determined between the two parties.

The Principal and other Contractors will be required to conduct Toolbox Talks with their employees on a weekly basis and records of these must be kept on the OH&S File. Employees must acknowledge the receipt of Toolbox Talks which record must, likewise be kept on the OH&S File.

The Principal Contractors most senior manager on site will be required to attend all Greater Letaba Municipality OH&S meetings and a list of dates, times and venues will be provided to the Principal Contractor by Greater Letaba Municipality.

- (i) Checking, Reporting and Corrective Actions
  - (i) Monthly Audit by Client (Construction Regulation 1(d))

Greater Letaba Municipality will be conducting a Monthly Audit to comply with Construction Regulation 4(1)(d) to ensure that the principal Contractor has implemented and is maintaining the agreed and approved OH&S Plan.

(ii) Other Audits and Inspections by Greater Letaba Municipality:

Greater Letaba Municipality reserves the right to conduct other ad hoc audits and inspections as deemed necessary. This will include Site Safety Walks.

(iii) Conducting an Audit

A representative of the Principal Contractor must accompany Greater Letaba Municipality on all Audits and Inspections and may conduct his/her own audit/inspection at the same time. Each party will, however, take responsibility for the results of his/her own audit/inspection results.

(iv) Contractor's Audits and Inspections

The Principal Contractor is to conduct his own monthly internal audits to verify compliance with his own OH&S Management system as well as of with this specification.

(v) Inspections by OH&S Representative's and other Appointees

OH&S Representatives must conduct weekly inspections of their areas of responsibility and report thereon to their foreman or supervisor whilst other appointees must conduct inspections and report thereon as specified in their appointments e.g. vehicle, plant and machinery drivers, operators and users must conduct daily inspections before start-up.

(vi) Recording and Review of Inspection Results

All the results of the abovementioned inspections to be in writing, reviewed at OH&S committee meetings, endorsed by the chairman of the meeting and placed on the OH&S File.



#### (vii) Reporting of Inspection Results

The Principal Contractor is required to provide the Client with a monthly report in the format as per the attached Annexure 2: "SHE Risk Management Report"

#### (j) Incident Reporting and Investigation

Reporting of Accidents and Incidents (Section 24 and General Administrative Regulation 8 of the OHS Act)

The Principal Contractor must report all incidents where an employee is injured on duty to the extent that he/she:

- \* dies
- \* becomes unconscious
- \* loses a limb or part of a limb
- is injured or becomes ill to such a degree that he/she is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he/she was usually employed

#### OR where:

- a major incident occurred
- \* the health or safety of any person was endangered
- \* where a dangerous substance was spilled
- \* the uncontrolled release of any substance under pressure took place
- \* machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- \* machinery ran out of control

to Greater Letaba Municipality within two days and to the Provincial Director of the Department of Labour within seven days (Section 24 of the Act & General Administrative Regulation 8.) EXCEPT that, where a person has died, has become unconscious for any reason or has lost a limb or part of a limb or may die or suffer a permanent physical defect, the incident must be reported to both Greater Letaba Municipality and the Provincial Director of the Department of Labour forthwith by telephone, telefax or E-mail.

The Principal Contractor is required to provide Greater Letaba Municipality with copies of all statutory reports required in terms of the Act within 7 days of the incident occurring.

The Principal Contractor is required to provide Greater Letaba Municipality with copies of all internal and external accident/incident investigation reports including the reports contemplated below within 7 days of the incident occurring.

Accident and Incident Investigation (General Administrative Regulation 9)

The Principal Contractor is responsible for the investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she/they had to be referred for medical treatment by a doctor, hospital or clinic

The results of the investigation to be entered into the Accident/Incident Register listed in above.



The Principal Contractor is responsible for the investigation of all minor and non-injury incidents as described in Section 24 (1) (b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

The Principal Contractor is responsible for the investigation of all road traffic accidents and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

The Greater Letaba Municipality reserves the right to hold its own investigation into an incident or call for an independent external investigation.

#### **Operational Control**

(a) Emergency Preparedness, Contingency Planning and Response

The Principal Contractor must appoint a competent person to act as Emergency Controller/Coordinator.

The Principal Contractor must conduct an emergency identification exercise and establish what emergencies could possibly develop. He/she must then develop detailed contingency plans and emergency procedures, taking into account any emergency plan that Greater Letaba Municipality may have in place.

The Principal Contractor and the other Contractors must hold regular practice drills of contingency plans and emergency procedures to test them and familiarise employees with them.

(b) First Aid (General Safety Regulation 3)

The Principal Contractor must provide First Aid equipment (including a stretcher) and have qualified First Aider/s as required by General Safety Regulation 3 of the OHS Act.

The Contingency Plan of the Principal Contractor must include the arrangements for speedily and timeously transporting injured/ill person/s to a medical facility or of getting emergency medical aid to person/s that may require it.

The Principal Contractor must have firm arrangements with his other Contractors in place regarding the responsibility of the other Contractors injured/ill employees

#### (c) Security

The Principal Contractor must establish site access rules and implement and maintain these throughout the construction period. Access control must include the rule that non-employees will not be allowed on site unaccompanied.

The Principal Contractor must develop a set of Security rules and procedures and maintain these throughout the construction period



(d) Fall Protection (Working in Elevated Positions (Construction regulation 8.)

A pre-emptive Risk Assessment will be required for any work to be carried out above two metres from the ground or any floor level and will be classified as "Work in Elevated Positions".

As far as is practicable, any person working in an elevated position will work from a platform, ladder or other device that is at least as safe as if he/she is working at ground level and whilst working in this position be wearing a single belt with lanyard that will be worn to prevent the person falling from the platform, ladder or other device utilised. This safety belt will be, as far as is possible, secured to a point away from the edge over which the person might fall and the lanyard must be of such a length that the person will not be able to move over the edge.

Alternatively any platform, slab, deck or surface forming an edge over which a person may fall may be fitted with guard rails at two different heights as prescribed in SABS 085: Code of Practice for the Design, Erection, Use and Inspection of Access Scaffolding.

Where the requirement in is not practicable, the person will be provided with a full body harness that will be worn and attached above the wearer's head at all times and the lanyard must be fitted with a shock absorbing device OR the person must be attached to an approved, by Greater Letaba Municipality, fall arrest system.

Where the requirements are not practicable, a suitable catch net must be erected.

Workers working in elevated positions must be trained to do this safely and without risk to health

Where work on roofs is carried out, the Risk Assessment must take into account the possibility of persons falling through fragile material. Skylights and openings in the roof.

#### **Measurement and Payment**

Payment for the contractor's obligations in respect of the Occupational Health and Safety act and Construction Regulations shall be made through three payment items described below. The three payment items together shall include full compensation for all personnel (including a dedicated full time Construction Safety Officer), cost and incidentals in respect of compliance with the enforcement of the Health and Safety Specifications, which shall include for the compilation, presentation, implementation and maintenance of the Health and Safety Plan as contemplated. In tendering rates for the three items the contractor shall ensure that the sum of the amounts for the three items shall not be less than one percent (1%) of the Tender Amount.

Contractor	Witness 1	Employer	Witness 1

Item Unit

## C1.1 Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations

Lump Sum

The full amount will be paid in one instalment only once:-

- (a) The contractor has notified the Provincial Director of the Department of Labour in writing of the project.
- (b) The contractor has made the required initial appointments of employees and sub-contractors.
- (c) The client has approved the contractor's Health and Safety Plan.
- (d) The contractor has set up his Health and Safety File.

Payment will be made under Item B13.01(d).

ltem Unit

## C1.2 Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations

Month

The tendered monthly amount shall represent full compensation for that part of the contractor's general obligations in terms of the Occupational Health and Safety Act and the Construction Regulations which are mainly a function of time. This includes inter alia payment of all costs for the appointment of all staff contemplated in the construction regulations and the transport of employees on site. Payment will be made under Item **B13.01(d)**.

ltem Unit

#### C1.3 Submission of the Health and Safety File

Lump Sum

The tendered lump sum shall represent full compensation for the contractor meeting all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and for the preparation and submission of his Health and Safety File complete as envisaged on this specification to the Client's satisfaction.

This amount will be paid only once the contractor has met all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and has submitted his Health and Safety File complete as envisaged on this specification to the Client's satisfaction. Payment will be made under Item **B13.01(d)**.

Contractor	Witness 1	Employer	Witness 1

# Project/Site Specific Requirements

See Annexure 3

**Annexure 1: Measuring Injury Experience** 

Annexure 2: SHE Risk Management Report

Annexure 3. List of Risk Assessments

Contractor	Witness 1	!	Employer	Witness 1

#### **ANNEXURE 1: MEASURING INJURY EXPERIENCE**

Injury experience has traditionally been measured by the use of a disabling injury frequency rate, the so-called "DIFR". The DIFR is calculated by multiplying the number of disabling injuries by 1 million and dividing by the number of man-hours worked.

Lately the DIFR has been replaced internationally with a DIIR: disabling injury incidence rate. The only difference between the two rates are that the 10 million in the calculation is replaced with 200 000. (200 000 purported to be the number of hours and average person works in a lifetime.)

The use of the two rates above has proved to be somewhat problematical as they are open to manipulation and disabling injuries are often "hidden" by returning the injured employee to the workplace so as not to lose a shift and therefore having to register a disabling injury.

The Construction Industry recently decided to promote the use of a new frequency rate based on the number of compensation injury claims as these are more difficult to hide or manipulate because the reporting of compensable injuries is a legal requirement.

The industry is hoping that adoption of this new measurement of injury experience will enable the industry to monitor itself as far as work related injuries are concerned.

Below follows an explanation of this new rating system.

## **COMPENSATION INCIDENCE FREQUENCY RATE (CIFR)**

#### **FORMULA**

No. of Compensation Claims X 200 000 /

\*220 man hours X No. of Employees

**DEFINITIONS** 

No. of Compensation

Claims: The number of claims lodged with the COID insurer for the period under review

**200 000:** The fixed factor to align the rate with other rates used internationally Manhours Worked

Include: \* Hourly Paid Employees

- \* Sub-contactors (No. of Employees X \*220 each)
- \* Staff (No. of Employees X \*220 hours each)

**220 manhours:** The \*average number of hours worked by one employee in one month in the Construction industry.

\* Overtime, absence on leave or sick leave, unrecorded after hours time worked by senior and middle management factored into this average.

**No. of Employees:** The actual or average number of employees employed for the period under review.

#### ANNEXURE 2: EXECUTIVE SHE RISK MANAGEMENT REPORT

The SAFCEC OH&S committee recently developed the following report in an attempt to standardise on reporting and assist contractors in obtaining a clear picture of their SHE Risk Management performance. It is hoped that clients will also accept this standardised report. Your comments/suggestions for improvement is invited.

#### **EXAMPLE ONLY: ALL INFORMATION IS FICTITIOUS**

Xyz construction

\*SHE RISK MANAGEMENT REPORT

PERIOD JANUARY TO MARCH 2002

\*(SHE = Safety, Health & Environment)

#### 1. Introduction

We hope that this new format of quarterly SHE Risk Management reporting will provide a clear picture of the company's performance as far as occupational health & safety is concerned.

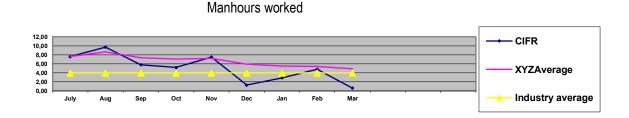
The first quarter of 2002 generally reflected an improvement in injury experience and shows a decline in the number of injuries. Although Building was the only division where there was an increase in compensation claims, figures are still well down from the average 2001 figures. A sub-contractor experienced one fatality.

All divisions are eagerly awaiting the final implementation in May of the new electronic SHE Management system that will make the tools to implement the SHE programme available to all management and supervisory staff.

## 2. Incident Statistics

# **Compensation Incident Frequency Rate (CIFR)**

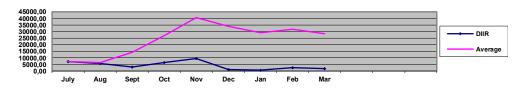
CIFR = Total No. of Claims against the Workmen's Compensation Fund X 200 000



#### 2.2. Disabling Injury Incidence Rate (DIIR)

DIIR = No. Disabling Injuries X 200 000

Manhours worked





# 2.3. Other Major Incidents

Three other major incidents were experienced in the period under review:

- 2.3.1. A major trench collapsed at Job. 00123: XYZ Head Office, Bochum: No personnel injured, extensive damage to foundations: 3 days delay.
- 2.3.2. A concrete dumper ran away when its brakes failed. It smashed into the glass façade of the building on Job 00332: McDonalds, Polokwane. The driver jumped off and was not injured. Cost of damage to façade: R45 000.
- 2.3.3. A storage hut on Job 00567: BP Petrol Station, Swartruggens was demolished by fire when the night watchman made a fire inside the storage hut which contained concrete vibrators and levelling machines. Cost of replacing the hut and machines: R30 000

## 3. RISK AREAS

The following items of concern need priority consideration by management:

- 3.1. New employees must undergo pre-employment medical examinations to:
  - protect XYZ from claims at a later stage
  - ensure that only healthy persons are employed
  - prevent injuries and illness in the workplace
  - enhance XYZ image
- 3.2. Vehicle drivers and plant operators must be instructed to inspect their vehicles daily before start-up using the prescribed checklists to ensure that these are safe to operate and in good condition.

Contractor	Witness 1	Employer	Witness 1

# 4. AUDITS

Three SHE audits were conducted in February and March:

4.1. Job 00432: Gillooly's Mall Compliance: 56%(\*)

Job 00786: Cullinan Head Office Compliance: 83%(\*\*\*\*)

Job 00589: Cleveland Station Compliance: 76%(\*\*\*)

# 5. **TRAINING**

One hundred and forty two employees, representing 7% of employees, attended nine training courses. \*Our objective is to train 5,5% of employees quarterly.

Month	No. of Employees Trained	Course	Source
January	26	Induction	Internal
	15	OH&S Reps	Consultant
	3	Crane Drivers	External
February	23	Induction	Internal
	17	OH&S Reps	Consultant
March	43	Induction	Internal
	9	OH&S Reps	Consultant
	3	Bomag Rollers	Supplier
	3	First Aiders	St. John's

#### 6. **LEGAL ISSUES**

6.1. An inspector of the Department of Labour issued an improvement notice on Job 00987: Gillooly's Mall. The notice requires that all scaffolding comply with the SABS standards for the Erection and Maintenance of Access Scaffolding (SABS 085). This is currently being attended to and the inspector will return on 15 April 2002 to ascertain if the notice has been complied with.



#### 8. OCCUPATIONAL AIND OTHER HEALTH MATTERS

#### 8.1. HIV Aids

The proposed SAFCEC clinic will soon be operational and we will then be able to send our employees who have tested positive to the clinic for counselling and eventual treatment when necessary

The mobile clinic saw and tested fifty employee volunteers at 3 sites this month. Eighteen of them tested positive.

## 8.2. Tuberculosis

The mobile clinic will be calling at Gillooly's Mall and Cleveland Station on 15 and 16 October respectively to screen employees for TB.

## 8.3. Noise

All suspected noise pollution areas have been tested and the results are awaited. Employees working in areas testing over 85dBa will be issued with suitable hearing protectors.

#### 9. ENVIRONMENTAL MEASURES

Inspectors from the Botswana Department of the Environment visited Djwaneng and inspected the site and yard. They gave it a "clean bill of health" and advised that we should increase the dust control measures by spraying roads three times per day instead of the present twice per day.

#### 10. **ACHIEVEMENTS/AWARDS**

- 10.1. The client at Djwaneng (Job 00786) awarded the XYZ site first position in the housekeeping competition conducted bi-monthly by the client's SHE managers. The project manager and his team are to be congratulated for this sterling effort.
- 10.2. Job 0987: Refurbishment of Pretoria Main Railway Station has just completed 1million compensation claim free days. This was no easy achievement if we consider the conditions being worked under after the extensive fire that caused major damage.

Contractor	Witness 1	Employer	Witness 1

#### ANNEXURE 3: LIST OF RISK ASSESSMENTS

- Clearing & Grubbing of the Area/Site
- \* Site Establishment including:
  - Office/s
  - Secure/safe storage for materials, plant & equipment
  - Ablutions
  - Sheltered eating area
  - Maintenance workshop
  - Vehicle access to the site
- Dealing with existing structures
- Location of existing services
- \* Installation and maintenance of temporary construction electrical supply, lighting and equipment
- \* Adjacent land uses/surrounding property exposures
- \* Boundary and access control/Public Liability Exposures (NB: the Employer is also responsible for the OH&S of non-employees affected by his/her work activities.)
- \* Health risks arising from neighbouring as well as own activities and from the environment e.g. threats by dogs, bees, snakes, lightning etc.
- \* Exposure to noise
- \* Exposure to vibration
- \* Protection against dehydration and heat exhaustion
- \* Protection from wet & cold conditions
- \* Dealing with HIV/Aids and other diseases
- Use of Portable Electrical Equipment including
  - Angle grinder
  - Electrical drilling machine
  - Skill saw
- \* Excavations including
  - Ground/soil conditions
  - Trenching
  - Shoring
  - Drainage of trench
- Welding including
  - Arc Welding
  - Gas welding
  - Flame cutting
  - Use of LP gas torches and appliances
- Loading & offloading of trucks
- \* Aggregate/sand and other materials delivery
- \* Manual and mechanical handling
- Lifting and lowering operations

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	Contractor	Witness 1	Employer	Witness 1

- \* Driving & operation of construction vehicles and mobile plant including
  - Trenching machine
  - Excavator
  - Bomag roller
  - Plate compactor
  - Front end loader
  - Mobile cranes and the ancillary lifting tackle
  - Parking of vehicles & mobile plant
  - Towing of vehicles & mobile plant
- \* Use and storage of flammable liquids and other hazardous substances
- \* Layering and bedding
- \* Installation of pipes in trenches
- \* Pressure testing of pipelines
- \* Backfilling of trenches
- Protection against flooding
- \* Gabion work
- \* Use of explosives
- \* Protection from overhead power lines
- \* As discovered by the Principal Contractor's hazard identification exercise
- \* As discovered from any inspections and audits conducted by the Client or by the Principal Contractor or any other Contractor on site
- \* As discovered from any accident/incident investigation.

Contractor	Witness 1	1	Employer	l I	Witness 1

#### C3.4.3.2 ENVIRONMENTAL MANAGEMENT PLAN

CONTENTS	
C3.4.3.2.1	SCOPE
C3.4.3.2.2	DEFINITIONS
C3.4.3.2.3	IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS
C3.4.3.2.4	LEGAL REQUIREMENTS
C3.4.3.2.5	ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS
C3.4.3.2.6	TRAINING
C3.4.3.2.7	ACTIVITIES/ASPECTS CAUSING IMPACTS
C3.4.3.2.8	ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES
C3.4.3.2.9	RECORD KEEPING
C3.4.3.2.10	COMPLIANCE AND PENALTIES
C3.4.3.2.11	MEASUREMENT AND PAYMENT

#### C3.4.3.2.1. SCOPE

This environmental management programme (EMP) sets out the methods by which proper environmental controls are to be implemented by the contractor. The duration over which the contractor's controls shall be in place cover the construction period of the project as well as the limited time after contract completion defined by the General Conditions of Contract, and the project specifications, as the defects notification period (maintenance period).

The provisions of this EMP are binding on the contractor during the life of the contract. They are to be read in conjunction with all the documents that comprise the suite of documents for this contract. In the event that any conflict occurs between the terms of the EMP and the project specifications or Record of Decision, the terms herein shall be subordinate.

The EMP is a dynamic document subject to similar influences and changes as are brought by variations to the provisions of the project specification. Any substantial changes shall be submitted to the Roads Municipality Limpopo in writing for approval.

The EMP identifies the following:

Construction activities that will impact on the environment.

Specifications with which the contractor shall comply in order to protect the environment from the identified impacts.

Actions that shall be taken in the event of non-compliance.

#### C3.4.3.2.2. DEFINITIONS

**Alien Vegetation**: alien vegetation is defined as undesirable plant growth which shall include, but not be limited to, all declared category 1 and 2 listed invader species as set out in the Conservation of Agricultural Resources Act (CARA) regulations. Other vegetation deemed to be alien shall be those plant species that show the potential to occupy in number, any area within the defined construction area and which are declared to be undesirable.



**Construction Activity**: a construction activity is any action taken by the contractor, his subcontractors, suppliers or personnel during the construction process as defined in the South African National Roads Municipality Limited and National Roads Act, 1998 (Act No. 7, 1998)

Environment: environment means the surroundings within which humans exist and that could be made up of -

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

**Environmental Aspect**: an environmental aspect is any component of a contractor's construction activity that is likely to interact with the environment.

**Environmental Impact**: an impact or environmental impact is the change to the environment, whether desirable or undesirable, that will result from the effect of a construction activity. An impact may be the direct or indirect consequence of a construction activity.

**Record of Decision**: a record of decision is a written statement from the Limpopo Department of Economic Development, Environment and Tourism, that records its approval of a planned undertaking to improve, upgrade or rehabilitate a section of road and the mitigating measures required to prevent or reduce the effects of environmental impacts during the life of a contract.

**Road Reserve**: the road reserve is a corridor of land, defined by co-ordinates and proclamation, within which the road, including access intersections or interchanges, is situated. A road reserve may, or may not, be bounded by a fence.

**Road Width**: for the purposes of the EMP, the road width is defined as the area within the road reserve i.e. fence line to fence line, but also includes all areas beyond the road reserve that are affected by the continuous presence of the road, e.g. a reach of a water course.

#### C3.4.3.2.3. IDENTIFICATION OF ENVIRONMENTAL ASPECTS AND IMPACTS

The contractor shall identify likely aspects before commencing with any construction activity. Examples of environment aspects include:

- waste generation
- stormwater discharge
- emission of pollutants into the atmosphere
- chemical use operations
- energy use operations
- water use operations
- use of natural resources
- noise generation

Thereafter the contractor shall programme h	is work in such a way that each cause and effect of a
construction activity is also identified and the	ne activity planned so as to prevent any impact from
happening. If prevention is not practicable, or	in the event of mishap or misapplication, the contractor

	Contractor		Witness 1	-	Employer		Witness 1
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shall provide plans and measures for the engineer's approval, which will limit and contain the magnitude, duration and intensity of the impact. The contractor shall demonstrate that he/she is capable of carrying out any repair and reinstatement of the damaged environment. These requirements shall be concurrent with the time constraints to produce an approved construction programme according to subclause 8.3 as amended by Particular Condition of the general conditions of contract and clause B1204 of these project specifications.

Listed below are some environmental impacts that could adversely alter an aspect of the environment through usual construction activities:

Pollution of atmosphere, soil or water

Destruction or removal of fauna and flora and effect on biological diversity

Deformation of the landscape

Soil erosion

Destruction of historical/heritage sites

Effect on the built environment

Effect on agricultural land and wetlands

General good construction practice will play an important role in avoiding the occurrence of an Impact. The contractor's attention is drawn, in this regard, to C1008. Environmental Management of Construction Activities

#### C3.4.3.2.4. LEGAL REQUIREMENTS

## a) General

Construction will be according to the best industry practices, as identified in the project documents. This EMP, which forms an integral part of the contract documents, informs the contractor as to his duties in the fulfilment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with the project. The contractor should note that obligations imposed by the EMP are legally binding in terms of environmental statutory legislation and in terms of the additional conditions to the general conditions of contract that pertain to this project. In the event that any rights and obligations contained in this document contradict those specified in the standard or project specifications then the latter shall prevail.

b) Statutory and other applicable legislation

The contractor is deemed to have made himself conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the contract.

#### C3.4.3.2.5. ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS

a) Appointment of a Designated Environmental Officer (DEO)

For the purposes of implementing the conditions contained herein, the contractor shall submit to the engineer for approval the appointment of a nominated representative of the contractor as the DEO for the contract. The request shall be given, in writing, at least fourteen days before the start of any work clearly setting out reasons for the nomination, and with sufficient detail to enable the engineer to make a decision. The engineer will, within seven days of receiving the request, approve, reject or call for more information on the nomination. Once a nominated representative of the contractor has been approved he/she shall be the DEO and shall be the responsible person for ensuring that the



provisions of the EMP are complied with during the life of the contract. The engineer will be responsible for issuing instructions to the contractor where environmental considerations call for action to be taken. The DEO shall submit regular written reports to the engineer, but not less frequently than once a month.

The engineer shall have the authority to instruct the contractor to replace the DEO if, in the engineer's opinion, the appointed officer is not fulfilling his/her duties in terms of the requirements of the EMP or this specification. Such instruction will be in writing and shall clearly set out the reasons why a replacement is required.

There shall be an approved DEO on the site at all times.

#### b) Administration

Before the contractor begins each construction activity the DEO shall give to the engineer a written statement setting out the following:

The type of construction activity.

Locality where the activity will take place.

Identification of the environmental aspects and impacts that might result from the activity.

Methodology for impact prevention for each activity or aspect.

Methodology for impact containment for each activity or aspect.

Emergency/disaster incident and reaction procedures.

Treatment and continued maintenance of impacted environment.

The contractor may provide such information in advance of any or all construction activities provided that new submissions shall be given to the engineer whenever there is a change or variation to the original.

The engineer may provide comment on the methodology and procedures proposed by the DEO, but he shall not be responsible for the contractor's chosen measures of impact mitigation and emergency/disaster management systems. However, the contractor shall demonstrate at inception and at least once during the contract that the approved measures and procedures function properly.

#### c) Good Housekeeping

The Contractor shall undertake "good housekeeping" practices during construction as stated in clause 1217 of the COLTO Standard Specifications for Roads and Bridges and subclauses 4.18 and 11.11 of the General Conditions of Contract. This will help avoid disputes on responsibility and allow for the smooth running of the contract as a whole. Good housekeeping extends beyond the wise practice of construction methods that leaves production in a safe state from the ravages of weather to include the care for and preservation of the environment within which the site is situated.

#### C3.4.3.2.6. TRAINING

The designated environmental officer (DEO) must be conversant with all legislation pertaining to the environment applicable to this contract and must be appropriately trained in environmental management and must possess the skills necessary to impart environmental management skills to all personnel involved in the contract.

The contractor shall ensure that adequate environmental training takes place. All employees shall have been given an induction presentation on environmental awareness. Where possible, the presentation needs to be conducted in the language of the employees. The environmental training should, as a minimum, include the following:



- The importance of conformance with all environmental policies
- The environmental impacts, actual or potential, of their work activities;
- The environmental benefits of improved personal performance;
- Their roles and responsibilities in achieving conformance with the environmental policy and procedures and with the requirement of the Municipality's environmental management systems, including emergency preparedness and response requirements;
- The potential consequences of departure from specified operating procedures;
- The mitigation measures required to be implemented when carrying out their work activities.

In the case of permanent staff the contractor shall provide evidence that such induction courses have been presented. In the case of new staff (including contract labour) the contractor shall inform the engineer when and how he/she intends concluding his environmental training obligations.

#### C3.4.3.2.7. ACTIVITIES/ASPECTS CAUSING IMPACTS

A list of possible causes of environmental impacts that occur during construction activities is given in Table 7/1: Aspects or Activities that Cause Environmental Impacts during Construction Activities, which is to be found at the end of this part. This list is not exhaustive, and shall be used for guideline purposes only.

#### C3.4.3.2.8. ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES

- a) Site Establishment
- i) Site Plan

The contractor shall establish his construction camps, offices, workshops, staff accommodation and testing facilities on the site in a manner that does not adversely affect the environment. However, before construction can begin, the contractor shall submit to the engineer for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the contractor proposes to put in place.

The plans shall detail the locality as well as the layout of the waste treatment facilities for litter, kitchen refuse, sewage and workshop-derived effluents. The site offices should not be sited in close proximity to steep areas, as this will increase soil erosion. Preferred locations would be flat areas along the route. If the route traverses water courses, streams and rivers, it is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course as possible. Regardless of the chosen site, the contractor's intended mitigation measures shall be indicated on the plan. The site plan shall be submitted not later than the first site meeting. Detailed, electronic colour photographs shall be taken of the proposed site before any clearing may commence. These records are to be kept by the engineer for consultation during rehabilitation of the site. Read with COLTO Specification 1302(a), 1402 (e).

## ii) Vegetation

The contractor has a responsibility to inform his staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.

The natural vegetation encountered on the site is to be conserved and left as intact as possible. Vegetation planted at the site shall be indigenous and in accordance with instructions issued by the

Contractor Witness 1	Employer	Witness 1

engineer. Only trees and shrubs directly affected by the works, and such others as may be indicated by the engineer in writing, may be felled or cleared. In wooded areas where natural vegetation has been cleared out of necessity, the same species of indigenous trees as were occurring, shall be reestablished.

The project specification for the rehabilitation of the grass cover shall be strictly adhered to. Any proclaimed weed or alien species that propagates during the contract period shall be cleared by hand before seeding. (Read in conjunction with COLTO Specification 5801(b), 5802(b), (c), (d) and (e), 5804, 5805, 5806 and 5807). Fires shall only be allowed in facilities or equipment specially constructed for this purpose. A firebreak shall be cleared and maintained around the perimeter of the camp and office sites.

#### iii) Rehabilitation

The area where the site offices were erected will require rehabilitation at the end of the contract. All construction material, including concrete slabs and braai areas shall be removed from the site on completion of the contract.

# iv) Water for human consumption

Water for human consumption shall be available at the site offices and at other convenient locations on site.

All effluent water from the camp / office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources (streams, rivers, pans dams etc). Only domestic type wastewater shall be allowed to enter this drain.

# v) Heating and Cooking fuel

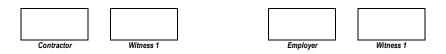
The contractor shall provide adequate facilities for his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.

#### b) Sewage treatment

Particular reference in the site establishment plan shall be given to the treatment of sewage generated at the site offices, site laboratory and staff accommodation and at all localities on the site where there will be a concentration of labour. Sanitary arrangements should be to the satisfaction of project management, the local authorities and legal requirements.

Safe and effective sewage treatment will require one of the following sewage handling methods: septic tanks and soak-aways, dry-composting toilets such as "enviro loos", or the use of chemical toilets which are supplied and maintained by a subcontractor. The type of sewage treatment will depend on the geology of the area selected, the duration of the contract and proximity (availability) of providers of chemical toilets. Should a soak-away system be used, it shall not be closer than 800 metres from any natural water course or water retention system. The waste material generated from these facilities shall be serviced on a regular basis. The positioning of the chemical toilets shall be done in consultation with the engineer. Read with COLTO Specifications 1402(g) and 1404(a).

Toilets and latrines shall be easily accessible and shall be positioned within walking distance from wherever employees are employed on the works. Use of the veld for this purpose shall not, under any circumstances, be allowed.



Outside toilets shall be provided with locks and doors and shall be secured to prevent them from blowing over. The toilets shall also be placed outside areas susceptible to flooding. The contractor shall arrange for regular emptying of toilets and shall be entirely responsible for enforcing their use and for maintaining such latrines in a clean, orderly and sanitary condition to the satisfaction of the engineer.

# c) Waste Management

The contractor's intended methods for waste management and waste minimisation shall be implemented at the outset of the contract. All personnel shall be instructed to dispose of all waste in the proper manner.

## i) Solid Waste

Solid waste shall be stored in an appointed area in covered, tip proof metal drums for collection and disposal. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the engineer. Disposal of solid waste shall be at a Department of Water Affairs and Forestry (DWAF) licensed landfill site or at a site approved by DWAF in the event that an existing operating landfill site is not within reasonable distance from the site offices and staff accommodation. No waste shall be burned or buried at or near the site offices, nor anywhere else on the site, including the approved solid waste disposal site. Read with COLTO Specification 1404(a).

#### ii) Litter

No littering by construction workers shall be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition and the site shall be kept free of litter.

Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work the contractor shall provide litter collection facilities for later safe disposal at approved sites. (Read with COLTO Specification 1302(b)).

#### iii) Hazardous waste

Hazardous waste such as bitumen, tar, oils etc. shall be disposed of in a Department of Water Affairs and Forestry approved landfill site. Special care shall be taken to avoid spillage of tar or bitumen products such as binders or pre-coating fluid to avoid water-soluble phenols from entering the ground or contaminating water.

Under no circumstances shall the spoiling of tar or bituminous products on the site, over embankments, in borrow pits or any burying, be allowed. Unused or rejected tar or bituminous products shall be returned to the supplier's production plant. Any spillage of tar or bituminous products shall be attended to immediately and affected areas shall be promptly reinstated to the satisfaction of the engineer.

#### d) Control at the workshop

The contractor's management and maintenance of his plant and machinery will be strictly monitored according to the criteria given below, regardless whether it is serviced on the site (i.e. at the place of construction activity or at a formalised workshop).

## i) Safety

All the necessary handling and safety equipment required for the safe use of petrochemicals and oils shall be provided by the contractor to, and used or worn by, the staff whose duty it is to manage and maintain the contractor's and his subcontractor's and supplier's plant, machinery and equipment.

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	Contractor	Witness 1	Employer	Witness 1

#### ii) Hazardous Material Storage

Petrochemicals, oils and identified hazardous substances shall only be stored under controlled conditions. All hazardous materials e.g. tar or bitumen binders shall be stored in a secured, appointed area that is fenced and has restricted entry. Storage of tar or bituminous products shall only take place using suitable containers to the approval of the engineer.

The contractor shall provide proof to the engineer that relevant authorisation to store such substances has been obtained from the relevant authority. In addition, hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure. Before containment or storage facilities can be erected the contractor shall furnish the engineer with details of the preventative measures he proposes to install in order to mitigate against pollution of the surrounding environment from leaks or spillage. The preferred method shall be a concrete floor that is bunded. Any deviation from the method will require proof from the relevant authority that the alternative method proposed is acceptable to that authority. The proposals shall also indicate the emergency procedures in the event of misuse or spillage that will negatively affect an individual or the environment.

## iii) Fuel and Gas Storage

Fuel shall be stored in a secure area in a steel tank supplied and maintained by the fuel suppliers.. An adequate bund wall, 110% of volume, shall be provided for fuel and diesel areas to accommodate any leakage spillage or overflow of these substances. The area inside the bund wall shall be lined with an impervious lining to prevent infiltration of the fuel into the soil. Any leakage, spillage or overflow of fuel shall be attended to without delay.

Gas welding cylinders and LPG cylinders shall be stored in a secure, well-ventilated area.

# iv) Oil and Lubricant Waste

Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery shall be collected in a holding tank and sent back to the supplier. Water and oil should be separated in an oil trap. Oils collected in this manner, shall be retained in a safe holding tank and removed from site by a specialist oil recycling company for disposal at approved waste disposal sites for toxic/hazardous materials. Oil collected by a mobile servicing unit shall be stored in the service unit's sludge tank and discharged into the safe holding tank for collection by the specialist oil recycling company.

All used filter materials shall be stored in a secure bin for disposal off site. Any contaminated soil shall be removed and replaced. Soils contaminated by oils and lubricants shall be collected and disposed of at a facility designated by the local authority to accept contaminated materials.

# e) Clearing the Site

In all areas where the contractor intends to, or is required to clear the natural vegetation and soil, either within the road reserve, or at designated or instructed areas outside the road reserve, a plan of action shall first be submitted to the engineer for his approval.

The plan shall contain a photographic record and chainage/land reference of the areas to be disturbed. This shall be submitted to the engineer for his records before any disturbance/stockpiling may occur. The record shall be comprehensive and clear, allowing for easy identification during subsequent inspections.

The contractor shall be responsible for the re-establishment of grass within the road reserve boundaries for all areas disturbed during road construction. This includes, for example, service

roads, stockpile areas, stop/go facilities, windrows and wherever material generated for, or from, road construction has to be stored temporarily or otherwise within the road reserve, or at designated or instructed areas outside the road reserve. This responsibility shall extend until expiry of the defects notification period.

- f) Soil Management
- i) Topsoil

Topsoil shall be removed from all areas where physical disturbance of the surface will occur and shall be stored and adequately protected. The contract will provide for the stripping and stockpiling of topsoil from the site for later re-use. Topsoil is considered to be the natural soil covering, including all the vegetation and organic matter. Depth may vary at each site. The areas to be cleared of topsoil shall include the storage areas. All topsoil stockpiles and windrows shall be maintained throughout the contract period in a weed-free condition. Weeds appearing on the stockpiled or windrowed topsoil shall be removed by hand. Soils contaminated by hazardous substances shall be disposed of at an approved Department of Water Affairs and Forestry waste disposal site. (Read with COLTO Specifications 3104(a), 5802(a), (g), 5804(a), (b) and (c)). The topsoil stockpiles shall be stored, shaped and sited in such a way that they do not interfere with the flow of water to cause damming or erosion, or itself be eroded by the action of water. Stockpiles of topsoil shall not exceed a height of 2m, and if they are to be left for longer than 6 months, shall be analysed, and if necessary, upgraded before replacement. Stockpiles shall be protected against infestation by weeds.

The contractor shall ensure that no topsoil is lost due to erosion – either by wind or water. Areas to be topsoiled and grassed shall be done so systematically to allow for quick cover and reduction in the chance of heavy topsoil losses due to unusual weather patterns. The contractor's programme shall clearly show the proposed rate of progress of the application of topsoil and grassing. The contractor shall be held responsible for the replacement, at his own cost, for any unnecessary loss of topsoil due to his failure to work according to the progress plan approved by the engineer. The contractor's responsibility shall also extend to the clearing of drainage or water systems within and beyond the boundaries of the road reserve that may have been affected by such negligence.

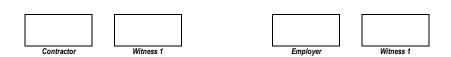
ii) Subsoil

The subsoil is the layer of soil immediately beneath the topsoil. It shall be removed, to a depth instructed by the engineer, and stored separately from the topsoil if not used for road building. This soil shall be replaced in the excavation in the original order it was removed for rehabilitation purposes.

g) Drainage

The quality, quantity and flow direction of any surface water runoff shall be established prior to disturbing any area for construction purposes. Cognisance shall be taken of these aspects and incorporated into the planning of all construction activities. Before a site is developed or expanded, it shall be established how this development or expansion will affect the drainage pattern. Recognised water users / receivers shall not be adversely affected by the expansion or redevelopment. No water source shall be polluted in any way due to proposed changes.

Streams, rivers, pans, wetlands, dams, and their catchments shall be protected from erosion and from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and bituminous or tar products.



The contractor shall submit to the engineer his proposals for prevention, containment and rehabilitation measures against environmental damage of the identified water and drainage systems that occur on the site. Consideration shall be given to the placement of sedimentation ponds or barriers where the soils are of a dispersive nature or where toxic fluids are used in the construction process. The sedimentation ponds must be large enough to contain runoff so that they function properly under heavy rain conditions.

## h) Earthworks and Layerworks

This section includes all construction activities that involve the mining of all materials, and their subsequent placement, stockpile, spoil, treatment or batching, for use in the permanent works, or temporary works in the case of deviations. Before any stripping prior to the commencement of construction, the contractor shall have complied with the requirements of sections C1008 (e) and C1008 (g). In addition, the contractor shall take cognisance of the requirements set out below.

## i) Quarries and borrow pits

The contractor's attention is drawn to the requirement of the Department of Minerals and Energy, that before entry into any quarry or borrow pit, an EMP for the establishment, operation and closure of the quarry or borrow pit shall have been approved by the Department. It is the responsibility of the contractor to ensure that he is in possession of the approved EMP or a copy thereof, prior to entry into the quarry or borrow pit. The conditions imposed by the relevant EMP are legally binding on the contractor and may be more extensive and explicit than the requirements of this specification. In the event of any conflict occurring between the requirements of the specific EMP and these specifications the former shall apply. The cost of complying with the requirements shall be deemed to be included in existing rates in the Bill of Quantities. (Read with COLTO Specification 3100 and 3200).

#### ii) Excavation, hauling and placement

The contractor shall provide the engineer with detailed plans of his intended construction processes prior to starting any cut or fill or layer. The plans shall detail the number of personnel and plant to be used and the measures by which the impacts of pollution (noise, dust, litter, fuel, oil, sewage), erosion, vegetation destruction and deformation of landscape will be prevented, contained and rehabilitated. Particular attention shall also be given to the impact that such activities will have on the adjacent built environment. The contractor shall demonstrate his "good housekeeping", particularly with respect to closure at the end of every day so that the site is left in a safe condition from rainfall overnight or over periods when there is no construction activity. (Read with COLTO Standard Specification clauses 1217 and 3309)

#### iii) Spoil sites

The contractor shall be responsible for the safe siting, operation, maintenance and closure of any spoil site he uses during the contract period, including the defects notification period. This shall include existing spoil sites that are being re-entered. Before spoil sites may be used proposals for their locality, intended method of operation, maintenance and rehabilitation shall be given to the engineer for his approval. The location of these spoil sites shall have signed approval from the affected landowner before submission to the engineer. No spoil site shall be located within 500m of any watercourse. A photographic record shall be kept of all spoil sites for monitoring purposes. This includes before the site is used and after re-vegetation.

The use of approved spoil sites for the disposal of hazardous or toxic wastes shall be prohibited unless special measures are taken to prevent leaching of the toxins into the surrounding

environment. Such special measures shall require the approval of the relevant provincial or national authority. The same shall apply for the disposal of solid waste generated from the various camp establishments. The engineer will assist the contractor in obtaining the necessary approval if requested by the contractor.

Spoil sites will be shaped to fit the natural topography. These sites shall receive a minimum of 75mm topsoil and be grassed with the recommended seed mixture. Slopes shall not exceed a vertical: horizontal ratio of 1:3. Only under exceptional circumstances will approval be given to exceed this ratio. Appropriate grassing measures to minimise soil erosion shall be undertaken by the contractor. This will include both strip and full sodding. The contractor may motivate to the engineer for other acceptable stabilising methods. The engineer may only approve a completed spoil site at the end of the defects notification period upon receipt from the contractor of a landowner's clearance notice and an engineer's certificate certifying slope stability (Read with COLTO standard Specifications clause 1214). The contractor's costs incurred in obtaining the necessary certification for opening and closing of spoil sites shall be deemed to be included in the tendered rates for spoiling.

# iv) Stockpiles

The contractor shall plan his activities so that materials excavated from borrow pits and cuttings, in so far as possible, can be transported direct to and placed at the point where it is to be used. However, should temporary stockpiling become necessary, the areas for the stockpiling of excavated and imported material shall be indicated and demarcated on the site plan submitted in writing to the engineer for his approval, together with the contractor's proposed measures for prevention, containment and rehabilitation against environmental damage.

The areas chosen shall have no naturally occurring indigenous trees and shrubs present that may be damaged during operations. Care shall be taken to preserve all vegetation in the immediate area of these temporary stockpiles. During the life of the stockpiles the contractor shall at all times ensure that they are:

- Positioned and sloped to create the least visual impact;
- Constructed and maintained so as to avoid erosion of the material and contamination of surrounding environment; and
- Kept free from all alien/undesirable vegetation.

After the stockpiled material has been removed, the site shall be re-instated to its original condition. No foreign material generated / deposited during construction shall remain on site. Areas affected by stockpiling shall be landscaped, top soiled, grassed and maintained at the contractor's cost until clearance from the engineer and the relevant Authority is received.

Material milled from the existing road surface that is temporarily stockpiled in areas approved by the engineer within the road reserve, shall be subject to the same condition as other stockpiled materials. Excess materials from windrows, in-situ milling or any detritus of material from road construction activities may not be swept off the road and left unless specifically instructed to do so in the contract drawing or under instruction from the engineer

In all cases, the engineer shall approve the areas for stockpiling and disposal of construction rubble before any operation commences and shall approve their clause only when they have been satisfactorily rehabilitated. (Read with COLTO Specification 3203 and 4306).



#### v) Blasting activities

Wherever blasting activity is required on the site (including quarries and/or borrow pits) the contractor shall rigorously adhere to the relevant statutes and regulations that control the use of explosives. In addition, the contractor shall, prior to any drilling of holes in preparation for blasting, supply the engineer with a locality plan of the blast site on which shall be shown the zones of influence of the ground and air shock-waves and expected limits of fly-rock. The plan shall show each dwelling, structure and service within the zones of influence and record all details of the dwellings/structures/services including existing positions, lengths and widths of cracks, as well as the condition of doors, windows, roofing, wells, boreholes etc. The contractor, alone, shall be responsible for any costs that can be attributed to blasting activities, including the collection of fly-rock from adjacent lands and fields. The submission of such a plan shall not in any way absolve the contractor from his responsibilities in this regard. The contractor shall also indicate to the engineer the manner in which he intends to advertise to the adjacent communities and/or road users the times and delays to be expected for each individual blast.

## i) Batching sites

Asphalt plants are considered scheduled processes listed in the second schedule to the Atmospheric Pollution Prevention Act, 1965 (Act No. 45 of 1965). Should the use of an asphalt plant be considered on site, the contractor shall be responsible to obtain the necessary permit from the Department of Environmental Affairs and Tourism, regardless of where they are sited.

Crushing plants and concrete batching plants, whether sited inside or outside of defined quarry or borrow pit areas, shall be subject to the requirements of the Department of Minerals and Energy legislation as well as the applicable industrial legislation that governs gas and dust emissions into the atmosphere. Such sites will be the subject of regular inspections by the relative authorities during the life of the project. In addition, the selection, entry onto, operation, maintenance, closure and rehabilitation of such sites shall be the same as for those under section C1008(h)(iii), with the exception that the contractor shall provide additional measures to prevent, contain and rehabilitate against environmental damage from toxic/hazardous substances. In this regard the contractor shall provide plans that take into account such additional measures as concrete floors, bunded storage facilities, linings to drainage channels and settlement dams. Ultimate approval of these measures shall be from the relevant national authority, as shall approval of closure. The engineer will assist the contractor in his submissions to the relevant authority.

Effluent from concrete batch plants and crusher plants shall be treated in a suitable designated sedimentation dam to the legally required standards to prevent surface and groundwater pollution. The designs of such a facility should be submitted to the engineer for approval.

The contractor shall invite the relevant department to inspect the site within 2 months after any plant is commissioned and at regular intervals thereafter, not exceeding 12 months apart

## j) Spillages

Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and tar or bituminous products. In the event of a spillage, the contractor shall be liable to arrange for professional service providers to clear the affected area.

Responsibility for spill treatment lies with the contractor. The individual responsible for, or who discovers a hazardous waste spill must report the incident to his/her DEO or to the engineer. The Designated Environmental Officer will assess the situation in consultation with the engineer and act

Contractor	Witness 1	<u> </u>	Employer	Witness 1

as required. In all cases, the immediate response shall be to contain the spill. The exact treatment of polluted soil / water shall be determined by the contractor in consultation with the DEO and the engineer. Areas cleared of hazardous waste shall be re-vegetated according to the engineer's instructions

Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed. The requirement for such input shall be agreed with the engineer. The costs of containment and rehabilitation shall be for the contractor's account, including the costs of specialist input.

# k) Areas of Specific Importance

Any area, as determined and identified within the project document as sensitive or of special interest within the site shall be treated according to the express instructions contained in these specifications or the approved EMP. The contractor may offer alternative solutions to the engineer in writing should he consider that construction will be affected in any way by the hindrance of the designated sensitive area or feature. However, the overriding principle is that such defined areas requiring protection shall not be changed. Every effort to identify such areas within the site will have been made prior to the project going out to tender. The discovery of other sites with archaeological or historical interest that have not been identified shall require ad hoc treatment.

# i) Archaeological Sites

If an artefact on site is uncovered, work in the immediate vicinity shall be stopped immediately. The contractor shall take reasonable precautions to prevent any person from removing or damaging any such article and shall immediately upon discovery thereof inform the engineer of such discovery. The South African Heritage Research Municipality (SAHRA) is to be contacted who will appoint an archaeological consultant. Work may only resume once clearance is given in writing by the archaeologist. (Read with COLTO General Condition of Contract Subclause 4.24 as amended by Particular Condition).

#### ii) Graves and middens

If a grave or midden is uncovered on site, or discovered before the commencement of work, then all work in the immediate vicinity of the graves/middens shall be stopped and the engineer informed of the discovery. SAHRA should be contacted and in the case of graves, arrangements made for an undertaker to carry out exhumation and reburial. The Employer will be responsible for attempts to contact family of the deceased and for the site where the exhumed remains can be re-interred. (Read with COLTO General Conditions of Contract Subclause 4.24 as amended by Particular Condition).

#### I) Noise Control

The contractor shall endeavour to keep noise generating activities to a minimum. Noises that could cause a major disturbance, for instance blasting and crushing activities, should only be carried out during daylight hours. Compliance with the appropriate legislation with respect to noise, shall be mandatory.

Should noise generating activities have to occur at night the people in the vicinity of the drilling shall be warned about the noise well in advance and the activities kept to a minimum.



# m) Dust Control

Dust caused by strong winds shall be controlled by means of water spray vehicles. Dust omission from batching plants shall be subject to the relevant legislation and shall be the subject of inspection by the relevant office of the Department of Minerals and Energy.

## n) Alien Vegetation

The contractor shall be held responsible for the removal of alien vegetation within the road reserve disturbed during road construction. This includes, for example, service roads, stockpile areas, stop/go facilities, windrows and wherever material generated for or from road construction has been stored temporarily or otherwise within the road reserve. This responsibility shall extend for the duration of the defects notification period.

Contractor	Witness 1	Employer	Witness 1

#### C3.4.3.2.9. RECORD KEEPING

The engineer and the DEO will continuously monitor the contractor's adherence to the approved impact prevention procedures and the engineer shall issue to the contractor a notice of non-compliance whenever transgressions are observed. The DEO should document the nature and magnitude of the non-compliance in a designated register, the action taken to discontinue the non-compliance, the action taken to mitigate its effects and the results of the actions. The non-compliance shall be documented and reported to the engineer in the monthly report.

Copies of any record of decision or EMP's for specific borrow pits or quarries used on the project shall be kept on site and made available for inspection by visiting officials from the employer or relevant environmental departments.

#### C3.4.3.2.10. COMPLIANCE AND PENALTIES

The contractor shall act immediately when such notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. This record shall be submitted with the monthly reports and a verbal report given at the monthly site meetings.

Any avoidable non-compliance with the above-mentioned measures shall be considered sufficient ground for the imposition of a penalty

The following penalties shall apply for environmental violations:

# a) Unnecessary removal or damage to trees

2600mm girth or less
 Greater than 2600mm, but less than 6180mm girth
 Greater than 6180mm girth
 R 5 000 per tree
 R10 000 per tree
 R30 000 per tree

#### b) Serious violations:

Hazardous chemical/oil spill and/or dumping in non-approved sites.
 R10 000 per incident

• General damage to sensitive environments. : R 5 000 per incident

• Damage to cultural and historical sites. : R 5 000 per incident

 Uncontrolled/unmanaged erosion (plus rehabilitation at contractor's or

(plus rehabilitation at contractor's cost). : R1 000 to R5 000 per incident

Unauthorised blasting activities.
 R 5 000 per incident

Pollution of water sources.
 R 10 000 per incident

The engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final.



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• Littering on site. : R1 000 per incident

Lighting of illegal fires on site.
 R1 000 per incident

Persistent or un-repaired fuel and oil leaks.
 R1 000 per incident

Excess dust or excess noise emanating from site.
 R1 000 per incident

Dumping of milled material in side drains or on grassed areas: R1 000 per incident

Possession or use of intoxicating substances on site.
 R 500 per incident

Any vehicles being driven in excess of designated

speed limits. : R 500 per incident

 Removal and/or damage to flora or cultural or horitage objects on site and/or killing of wildlife.

heritage objects on site, and/or killing of wildlife. : R2 000 per incident

• Illegal hunting. : R2 000 per incident

Urination and defecation anywhere except in designated areas.

R 500 per incident

The engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final. The calculation shall include allied construction activities in the same way as the calculation of reduced payments under section 8200. The imposition of such a penalty shall not preclude the relevant provincial or national authority from applying an additional penalty in accordance with its statutory powers. Any non-compliance with the agreed procedures of the EMP is a transgression of the various statutes and laws that define the manner by which the environment is managed.

Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression, as it deems fit.

#### C3.4.3.2.11. MEASUREMENT AND PAYMENT

The cost of complying to this specification shall be deemed to be included in the rates tendered for this project.

ltem Unit

#### C100.01 Penalty for unnecessary removal or damage to trees

for the following diameter sizes

(a) 2600mm girth or less number (No)

(b) Greater than 2600mm, but less than 6180mm girth number (No)

(c) Greater than 6180mm girth number (No)

The unit of measurement shall be the number of trees by diameter size removed unnecessary or damaged. The penalty rates applied shall be those stated in clause C3.5.2.10.

Item Unit

## C100.02 Penalty for serious violations

(a) Hazardous chemical/oil spill and/or dumping in non-approved sites number (No)

(b) General damage to sensitive environments



(c)	Damage to cultural and historical sites	number (No)
(d)	Pollution of water sources	number (No)
(e)	Unauthorised blasting activities	number (No)
(f)	Uncontrolled/unmanaged erosion per incident, depending on environment impacts, plus rehabilitation at contractor's cost)	number (No)

The unit of measurement for C100.02 (a) to (f) shall be the number of serious violation incidents. The penalty rates to be applied shall be those stated in clause C3.5.2.10.

Item		Unit
C100.03	Penalty for less serious violations	
•	Littering on site	number (No)
•	Lighting of illegal fires on site	number (No)
•	Persistent or un-repaired fuel and oil leaks	number (No)
	<ul> <li>Excess dust or excess noise emanating from site</li> </ul>	number (No)
	<ul> <li>Dumping of milled material in side drains or on grassed areas</li> </ul>	number (No)
	<ul> <li>Possession or use of intoxicating substances on site</li> </ul>	number (No)
	<ul> <li>Any vehicles being driven in excess of designated speed limits</li> </ul>	number (No)
	<ul> <li>Removal and/or damage to flora or cultural or heritage objects on site, and/or killing of wildlife</li> </ul>	number (No)
•	Illegal hunting	number (No)
•	Urination and defecation anywhere except in designated areas	number (No)

The unit of measurement shall be the number of less serious violation incidents. The penalty rates applied shall be those stated in clause C3.5.2.10.

The engineer's decision with regard to what is considered a violation, its seriousness and the penalty imposed shall be final. The calculation shall include allied construction activities in the same way as the calculation of reduced payments under section 8200. The imposition of such a penalty shall not preclude the relevant provincial or national authority from applying an additional penalty in accordance with its statutory powers. Any non-compliance with the agreed procedures of the EMP is a transgression of the various statutes and laws that define the manner by which the environment is managed.

Failure to redress the cause shall be reported to the relevant authority for them to deal with the transgression, as it deems fit.

Contractor			
	Witness 1	Employer	Witness 1

Table 1: Mechanisms that Cause Environmental Impacts during Construction Activities

				ENVIRONMENTAL IMPACTS		
SECTION	CONTENTS	POLLUTION TYPE	DEFORMATION OF LANDSCAPE	SOIL EROSION	ALIEN VEGETATION	SENSITIVE AREAS (to be completed by compiler)
1300	Camp Establishment	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
1400	Housing, Offices and laboratories	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
1500	Accommodation of Traffic	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
1600	Overhaul	Spillage Storage Noise/lights Dust control Exhaust fumes Washing waste	Turning circles Parking areas	Restrict access to sensitive areas	Protection of indigenous vegetation Preserve topsoil	

Co	ntractor	1	Witness 1	_!	Employer	ı	Witness 1
Co	ntractor	1	Witness 1		Employer		Witness 1

				ENVIRONMENTAL IMPACTS		
SECTION	CONTENTS	POLLUTION TYPE	DEFORMATION OF LANDSCAPE	SOIL EROSION	ALIEN VEGETATION	SENSITIVE AREAS (to be completed by compiler)
1700	Clearing and grubbing	Waste treatment Hazardous waste Water supply Noise /lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Protection of indigenous vegetation Preserve topsoil	
2100 - 2400	Drainage	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
3100	Borrow pits	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
3200	Stockpiling	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
3300	Mass Earthworks	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	

Contractor	Witness 1	•	Employer	Witness 1

3400 3900	- Pavement layers	Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas Maintenance of windrows	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds
4100	Asphalt works / sealing operations	Waste treatment Hazardous waste Water supply Spillage Storage Noise / lights Dust control Smoke control Storage of materials	Selection of site Preserve indigenous vegetation Preserve topsoil Turning circles Parking areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil
5000	Ancilliary roadworks	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds
6000	Structures	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds
7000	Concrete pavements etc	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds

Contractor	Witness 1	Employer	Witness 1

## C3.4.3.3 PROVISION OF STRUCTURED TRAINING

C3.4.3.3.1 SCOPE

C3.4.3.3.2 GENERIC TRAINING

C3.4.3.3.3 ENTREPRENEURIAL SKILLS TRAINING

C3.4.3.3.4 MEASUREMENT AND PAYMENT

## C3.4.3.3.1 SCOPE

This specification covers the requirements for the provision of structured training to be arranged by the contractor over the period of this contract.

# C3.4.3.3.2 GENERIC TRAINING

C3.4.3.3.2.1 The contractor shall, from the commencement of the contract, implement a structured progressive training programme.

C3.4.3.3.2.2 The generic training will inter alia comprise, but not be limited to the following subjects:

COURSE DESCRIPTION		ESTIMATED No. OF TRAINEES	ESTIMATEDDU RATION (DAYS)
1	ROAD SAFETY FOR CONSTRUCTION WORKERS		
2	FLAGMEN		
3	CONCRETE HANDLING, PLACING AND FINISHING		
4	GUARDRAILS		
5	BITUMINOUS ROAD SURFACING		

C3.4.3.3.2.3 Training shall be at or by an approved accredited organisation and shall be delivered by suitably qualified and experienced trainers.

Contractor	Witness 1	Employer	Witness 1	

- C3.4.3.3.2.4 The tenderer shall provide with his tender full details of the structured training programme he intends to implement, which details shall include the following:
  - (a) The name of the training institution and programme
  - (b) The manner in which the training is to be delivered.
  - (c) The numbers and details of the trainers

Such details shall be entered on or attached to Form RDP 6 (E) included herein.

- C3.4.3.3.2.5 The contractor shall be responsible for the provision of everything necessary for the delivery of the generic training programme, including the following:
  - (a) A suitable venue with sufficient furniture, lighting and power.
  - (b) All necessary stationery consumables and study material
  - (c) Transport of the students (as necessary)
- C3.4.3.3.2.6 Generic training courses shall commence within one month of possession of site and be completed before the end of the contract period.
- C3.4.3.3.2.7 The contractor's training programme shall be subject to the approval of the engineer, and the contractor shall if so instructed by the engineer alter or amend the programme and course content if a need is identified once the contract commences.
- C3.4.3.3.2.8 The contractor shall keep comprehensive records of the training given to each student and whenever required shall provide copies of such records to the engineer. At the successful completion of each course each student shall be issued with a certificate indicating the course contents as proof of attendance and completion.

In addition to the above, a monthly return shall be submitted by the contractor. An example of the form is illustrated in Part C5 of this document (form RDP 10 (E))

## C3.4.3.3.3 ENTREPRENEURIAL SKILLS TRAINING

- C3.4.3.3.3.1 Small contractors, subcontractors and the Project Steering Committee (PSC) will be entitled to receive a structured training programme, which will comprise both management skills as well as business development skills.
- C3.4.3.3.2 The contractor shall closely monitor the performance of all small subcontractors in the execution of their contracts and shall identify all such subcontractors who, in his opinion, display the potential to benefit from structured training as may be provided for in the contract and where required by the engineer, shall make recommendations in this regard. The final list of candidates will be decided between the contractor and the engineer.



- C3.4.3.3.3 The training will be delivered by trainers who are accredited by the Civil Engineering Training Scheme (CEITS) or other institutions recognised by the Department of Labour. Accredited training refers to both the trainers as well as to the training material.
- C3.4.3.3.4 The contractor shall facilitate in the delivery thereof, by instructing and motivating the subcontractor regarding attendance and participation therein.
- C3.4.3.3.5 The contractor shall further make all reasonable efforts to co-ordinate the programming of the subcontractor's work with that of the delivery of the structured training.
- C3.4.3.3.3.6 The structured training will comprise out of the following as decided by the Employer:

COURSE DESCRIPTION		ESTIMATED DURATION (DAYS)	
1.	BASIC BUSINESS PRINCIPLES	To be determined	
2.	BASIC SUPERVISION	To be determined	
3.	RUNNING A BUSINESS	To be determined	
4.	LEGAL PRINCIPLES	To be determined	
5.	ACHIEVING STANDARDS	To be determined	

- C3.4.3.3.3.7 The contractor shall provide with his tender, full details of the structured training programme, which he intends to implement, which details shall include the following:
  - (a) The name of the training institution and programme
    - (b) The various aspects of each type of training comprised in the programme
  - (c) The manner in which the training is to be delivered
  - (d) The numbers and details of the trainers to be utilised.

Such details of the proposed entrepreneurial training programme shall be entered on or attached to form RDP 7 (E) of the forms to be completed by the tenderer.



- C3.4.3.3.3.8 The contractor shall be responsible for the provision of everything necessary for the delivery of the entrepreneurial training programme, including the following:
  - (a) A suitably furnished venue (if required) with lighting and power.
  - (b) All necessary consumables, stationery and study material
  - (c) Transport of the subcontractors (as necessary)
- C3.4.3.3.9 All entrepreneurial training shall take place within normal working hours.
- C3.4.3.3.3.10 The contractor's training programme shall be subject to the approval of the engineer, and the contractor shall if so instructed by the engineer alter or amend the programme and course content if a need is identified once the contract commences.
- C3.4.3.3.3.11 The contractor shall keep comprehensive records of the training given to each subcontractor and whenever required shall provide copies of such records to the engineer. At the successful completion of each course each subcontractor shall be issued with a certificate indicating the course contents as proof of attendance and completion.

In addition to the above, a monthly return shall be submitted by the contractor. An example of the form to be used is illustrated in Part C5 of this document, (form RDP 11 (E)).

#### C3.4.3.3.4 MEASUREMENT AND PAYMENT

ITEM UNIT

# B12.10 Percentage for charges and profit on the provisional sums for contractor's cost and profit

(a) Training allowance paid to targeted labour in terms of formal training

Prime Cost Sum

(b) Extra-over for administration of payment for training

Percentage (%)

Expenditure of the above item shall be made in accordance with the general conditions of contract.

The tendered percentage is a percentage of the amount actually spent under all the provisional sums subitems, which shall include full compensation for the handling costs of the contractor, and the profit."



C3.4.3.4	PROVISION OF THE TEMPORARY WORKFORCE
CONTENTS	
C3.4.3.4.1	SCOPE
C3.4.3.4.2	INTERPRETATIONS
C3.4.3.4.3	PERMITTED SOURCES OF TEMPORARY WORKERS
C3.4.3.4.4	EMPLOYMENT RECORDS TO BE PROVIDED
C3.4.3.4.5	VARIATIONS IN WORKER PRODUCTION RATES
C3.4.3.4.6	TRAINING OF THE TEMPORARY WORKFORCE
C3.4.3.4.7	RECRUITMENT AND SELECTION PROCEDURES
C3.4.3.4.8	TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE
C3.4.3.4.9	LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES
C3.4.3.4.10	THE SUBCONTRACTORS' WORKFORCES
C3.4.3.4.11	MEASUREMENT AND PAYMENT
C3.4.3.4.1	SCOPE
	This Specification covers the provisions and requirements relating to the provision of the temporary workforce.
C3.4.3.4.2	INTERPRETATIONS
C3.4.3.4.2.1	Supporting documents
	The Tender Rules, Conditions of Contract, Standard and Project Specifications, Drawings and statutory minimum requirements relating to the employment and remuneration of labour shall <i>inter alia</i> be read in conjunction with this Specification.
C3.4.3.4.2.1.2	Definitions and abbreviations

For the purposes of this specification, the definitions given in the Conditions of Contract, the Standard Specifications and the Project Specifications, together with the following additional definitions shall, unless the context dictates otherwise, apply:



- (a) "Key Personnel" means all contracts managers, site agents, materials and survey technicians, trainers, supervisors, foremen, skilled plant operators, artisans and the like, and all other personnel in the permanent employ of the Contractor or Subcontractor who posses special skills and/or who play key roles in the Contractor's or Subcontractor's operation
- (b) "Project Committee" means a committee consisting of the Employer, the Engineer, the Contractor, (or their nominated representatives) as well as representatives of the temporary workforce, which is convened from time to time at the discretion of the Engineer, for the purposes of acting as an avenue for effective communication and liaison between all the parties referred to, in all matters pertaining to the Contract
- (c) "Subcontractor" means any person or group of persons in association, or firm, or body corporate (whether formally constituted or otherwise) not being the Contractor, to whom specific portions or aspects of the Works are sublet or subcontracted by the Contractor in accordance with the provisions of the Contract
- (d) "Worker" for the purposes of this Specification means any person, not being one of the Contractor's key personnel, nor any key personnel of any Subcontractor, who is engaged by the Contractor, a Subcontractor or the Employer to participate in the execution of any part of the Contract Works and shall include unskilled labour, semi-skilled and skilled labour, clerical workers and the like
- (e) "Workforce" means the aggregate body comprising all workers and shall, unless the context dictates otherwise, include the workforces of the Contractor and all Subcontractors
- (f) "Liaison Officer" means a representative from the temporary workforce, duly elected by them, to act on their behalf and through whom all matters pertaining to the temporary workforce can be channelised.

#### C3.4.3.4.2.1.3 Status

Where any provisions or requirements of this Specification are in conflict with anything elsewhere set out in the Contract, the provisions and requirements of this Specification shall take precedence and prevail.

#### C3.4.3.4.3 PERMITTED SOURCES OF TEMPORARY WORKERS

The Contractor shall as far as possible make optimum use of the human resources outside his own workforce and the workforces of all subcontractors. The temporary workforce that is to be used in the execution of the Works in terms of Part C3 may consist of the workers of various communities, and shall not be bound to one particular community.

#### C3.4.3.4.4 EMPLOYMENT RECORDS TO BE PROVIDED

- (a) The Contractor shall maintain accurate and comprehensive records of all workers engaged on the Contract and shall provide the Engineer at monthly intervals from the commencement of the Contract, with interim records substantiating the actual numbers of employment opportunities that shall have been generated to date and the amounts actually paid in respect thereof. Such interim records shall be in a format approved by the Engineer. An example of the forms to be used is illustrated in Part C5 of this document, (forms RDP 9 and 10 (E).
- (b) The Contractor shall, on completion of the Contract, and as a pre-requisite event to the release of any retention money in terms of the Conditions of Contract, provide the Engineer with copies of the Terms of Employment as well as independently audited documentary evidence of the total number of temporary and permanent employment opportunities actually generated during the Contract.

# C3.4.3.4.5 VARIATIONS IN WORKER PRODUCTION RATES

Notwithstanding anything to the contrary as may be stated in or inferred from any other provision of this Contract, the Contractor shall not be entitled to any additional payment or compensation whatever, in respect of any differences as may result between the production rates actually achieved by workers in the course of the execution of the Contract Works and those production rates on which he has based his tender.



## C3.4.3.4.6 TRAINING OF THE TEMPORARY WORKFORCE

- (a) Selected members of the workforce are to be provided with structured training in accordance with the provisions of Part C3.4.3.3.
- (b) The Contractor shall make all necessary allowances in his programme of work to accommodate and facilitate the delivery of such structured training and shall comply fully with the requirements of Part C3.4.3.3.
- (c) The provision of structured training as described in Part C3.4.3.3. shall not relieve the Contractor of any of his obligations in terms of the Conditions of Contract and the Contractor shall remain fully liable for the provision, at his own cost, of all training of the workforce, additional to that as provided for in Part C3.4.3.3, as may be necessary to achieve the execution and completion of the works strictly in accordance with the provisions of the Contract.

# C3.4.3.4.7 RECRUITMENT AND SELECTION PROCEDURES

- C3.4.3.4.7.1 The Contractor shall be fully responsible for the recruitment and selection of workers to constitute the temporary workforce.
- C3.4.3.4.7.2 The Contractor shall advise the Engineer in writing of the numbers of each category of temporary worker which he requires, together with the personal attributes which he considers desirable that each category of worker shall posses (taking due cognisance of the provisions of the Contract relating to training).
- C3.4.3.4.7.3 The Contractor shall, at his own cost, take all necessary actions to advertise within the communities comprising the personnel resources, the fact that temporary employment opportunities exist and the time and place where recruiting will occur.
- C3.4.3.4.7.4 The Contractor shall record in writing, the details of all persons applying for employment, including *inter alia*:
  - (a) Name, address, age and sex
  - (b) Marital status and number of dependants
  - (c) Qualifications and previous work experience (whether substantiated or not)
  - (d) Period since last economically active
  - (e) Preference for type of work or task.
- C3.4.3.4.7.5 The Contractor shall make his selection of workers from amongst the applicants, taking due cognisance of his requirements for the workforce and the provisions of the contract in regard to the provision of training to the workforce and in accordance with the following principles:
  - (a) No potential temporary worker shall be precluded from being employed by the Contractor on the execution of the Works, by virtue of his lack of skill in any suitable operation forming part of the Works, unless -
    - (i) all available vacancies have been or can be filled by temporary workers who already posses suitable skills, or
    - (ii) the Time for Completion allowed in the Contract, or the remaining portion of the Contract Period (as the case may be) is insufficient to facilitate the creation of the necessary skills.
  - (b) Preference shall be given to the unemployed and single heads of households.
  - (c) The Contractor shall, in so far as is reasonably practicable, give priority to accommodating the applicants' expressed preferences regarding the types of work for which they are selected.
  - (d) The selection process shall not be prejudicial to youth (over the age of fifteen years) and women.



- C3.4.3.4.7.6 After making his selection, the Contractor shall advise the Engineer thereof, in writing and the Engineer shall, without undue delay, ratify the Contractor's selection.
- C3.4.3.4.7.7 The provisions of this clause shall apply *mutatis mutandis* in respect of the selection of additional or replacement members of the workforce as may be necessary from time to time during the Contract.
- C3.4.3.4.7.8 The Contractor shall, after selecting his temporary workforce, arrange at his own cost for the appointment of the Liaison Officer as representative of the workforce to act on their behalf with regards to all matters pertaining to the workforce."
- C3.4.3.4.8 TERMS AND CONDITIONS PERTAINING TO THE EMPLOYMENT OF THE TEMPORARY WORKFORCE
- C3.4.3.4.8.1 All temporary workers engaged in accordance with the provisions of Part A of the Project Specifications, shall be employed on the terms and conditions of employment as are consistent with those as set out in this Contract. The Contractor shall implement and adhere strictly to such terms and conditions relating to the employment of the temporary workforce, and subject only to the provisions of this Contract, shall not employ any temporary worker on terms and conditions which are less favourable to the worker or inconsistent with the standards and norms generally applicable to temporary workers in the Civil Engineering Industry and applicable to the particular area.
- C3.4.3.4.8.2 The Contractor shall pay to all temporary workers engaged in terms of Part A of the Project Specifications, not less than the minimum rate of remuneration as specified in Form P : Appendix to Tender.
- C3.4.3.4.9 LABOUR RELATIONS AND WORKER GRIEVANCE PROCEDURES
- C3.4.3.4.9.1 The Contractor, as the Employer of the workforce, shall be fully responsible for the establishment and maintenance at his own cost, of satisfactory labour relations on site and the resolution of all grievances of temporary workers as may occur.
- C3.4.3.4.9.2 The Contractor shall at all times adhere to the accepted norms and standards of labour relations prevailing generally in the Civil Engineering Construction Industry and shall conduct himself in a fair and reasonable manner, within the constraints as may be imposed upon him by the terms of the Contract.
- C3.4.3.4.9.3 In the event of any temporary worker engaged by the Contractor in terms of the Contract, being aggrieved with regard to his Terms of Employment, working conditions and training, he shall have the right, at his discretion, to be supported in any inquiry or disciplinary hearing or investigation instituted by the Contractor in terms of Subclause C3.4.3.4.9.2 above, by one member of the temporary workforce and one member of the Project Committee, which persons shall be nominated by the worker.
- C3.4.3.4.9.4 In the event of any grievance not being satisfactorily resolved through the application of normal dispute resolution procedures in accordance with Sub clauses C3.4.3.4.9.2 and C3.4.3.4.9.3, then either the Contractor or the worker concerned may require that the matter be referred to the Project Committee for further consideration, with a view to facilitate the resolution thereof.
- C3.4.3.4.10 THE SUBCONTRACTORS' WORKFORCES
- C3.4.3.4.10.1 The provisions of this Part C shall apply *mutatis mutandis* to the workforces employed by all subcontractors engaged by the Contractor and the Contractor shall be fully responsible for ensuring, at his own cost, that the terms of every subcontract agreement entered into are such as to facilitate the application of these provisions in respect of the workforces of all subcontractors.
- C3.4.3.4.10.2 The Contractor shall at his own cost and to the extent necessary, assist and monitor all subcontractors in the application of the provisions of this Specification, and shall, in terms of the Conditions of Contract, remain fully liable in respect of the acts, omissions and neglects of all subcontractors, in respect of the application of the provisions of this Specification.



# C3.4.3.4.11 MEASUREMENT AND PAYMENT

The Contractor will not be separately reimbursed or compensated in respect of the provision of the workforce and creation of temporary employment opportunities and all the Contractor's costs associated with compliance with the provisions of this part of the Project Specifications shall, except to the extent provided for in Part C3.4.3.3. as relevant, be deemed to be included in the rates tendered for the various items of work listed in the Schedule of Quantities.

Contractor	Witness 1	Employer	Witness 1

# C3.4.3.5 REQUIREMENTS OF EXTENDED PUBLIC WORKS PROGRAMME

# C3.4.3.5.1 INTRODUCTION

The requirements of the Expanded Public Works Programme are contained in the document Guidelines for the Implementation of Labour Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP) included under PART 5: ANNEXURES; Subsection C5.1. These requirements will apply to labour intensive work described under PART C3: SCOPE OF THE WORK.

Refer to PART T2: RETURNABLE DOCUMENTS for schedules to be completed which relate to labour intensive issues.

Contractor	Witness 1	Employer	Witness 1

### C3.5 MANAGEMENT

### 3.5.1 Planning and Programming

The Contractor shall supply within the period stated in the contract Data a suitable and realistic construction programme, cash flow diagram, and critical path diagram for the consideration of the Engineer. This programme shall show the proposed scheduling and methods of execution of the Works and the resources to be allocated to each item or phase of the work. Quantities proposed for execution during each week and the anticipated cash-flow based upon these quantities should be shown, due allowance being made for price escalations and retention moneys.

The programme shall take provision for the accommodation of other contractor's requirements. It will be required from the contractor to liaise with other contractors to ensure continuous co-ordination and execution of the scheduled work.

- 3.5.2 Recording of weather
- 3.5.3 The Contractor shall provide and install a rain gauge on site and shall record rainfall data in the site diary. A site diary will be issued to the Contractor.
- 3.5.4 Health and Safety
- 3.5.3.1 Health and Safety Requirements

The Occupational health and Safety Act, Act85 of 1993 shall apply to this contract.

The Contractor shall comply with the Particular Specification for Occupational Health and Safety.

### 3.5.3.2 Protection of the Public

As the above entails working in an already developed area where services are provided to the general public special attention must be paid to the following aspects:

- a) No blasting or working with percussion tools will be allowed unless prior written approval from the Engineer and local authorities is obtained.
- b) Safety of the public must be of prime importance and the outmost care must be taken to ensure that the correct signs, barriers and warning devices are in place.
- c) Movement of construction equipment must be controlled on site at all times.

#### Site meetings and procedures

The Employer's Representative and the Contractor shall hold meetings relating to the progress of the works at regular intervals and at other such times as may be necessary. The Contractor shall attend all site meetings and shall ensure that all persons under his jurisdiction are notified timeously of all site meetings should the Employer's Representative require their attendance at such meetings.

The Contractor shall keep on site a set of minutes of all site meetings, daily records of resources (people and equipment employed), a site instruction book, a complete set of contract working drawings and a copy of the procurement document and make these available at all reasonable times to all persons concerned with the contract.

				]		
L	Contractor	Witness 1	Employer	j	Witness 1	

# Water and electricity

The Employer does not warrant that any water supply or electricity supply that may exist is adequate for the proper execution of the works. The responsibility strategies in terms of the tabulation below that will apply to the contract is:

a) water : A b) electricity : A

Service	Option	Option						
	A	В	С					
	Contractor responsibility	Employer responsibility						
Water	The Contractor is to provide, and remove and make good upon completion, all the necessary temporary plumbing connections and	The Contractor shall make, and upon completion remove, all the necessary connections to the Employer's water supply at designated	The Contractor shall make, and upon completion remove, all the necessary connections and water meters to the Employer's water supply					
	purchase water from the local authority for the works at his own cost.	points and make use of water free of charge for construction purposes only.	at designated points and be responsible for costs associated with all water consumed.					
Electricity	The Contractor is to provide, and remove and make good upon completion, all the necessary temporary electrical connections and installations and purchase electricity form the local authority / ESKOM for the works at his own cost.	The Contractor shall make, and upon completion remove, all the necessary electrical connections to the Employer's electrical supply at designated points and make use of electricity free of charge for construction purposes only.	The Contractor shall make, and upon completion remove, all the necessary connections and meters to the Employer's electrical supply and be responsible for costs associated with all electricity consumed.					

	21-5, Construction and management requirements for works contracts – Part 5: Earthworks which are to be performed by hand.						
Clause	Specification Data						
Essential Data:							

5.1 The depth of trenches which are to be excavated by hand is 1,5 metres.

simultaneously acquire a proper hand hold on them.

Additional clauses:

Stone pitching and rubble concrete masonry

All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, shall be collected, loaded, off loaded and placed by hand.

Sand and stone shall be hauled to its point of placement by means of wheelbarrows where the haul distance is not greater than 150m.

Grout shall be mixed and placed by hand.

Manufactured Elements

Elements manufactured or designed by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. In addition the items shall be large enough so that four workers can conveniently and

Contractor	Witness 1	Employer	Witness 1

SANS 192	SANS 1921-6, Construction and management requirements for works contracts – Part 6: HIV/AIDS						
awarenes	SS.						
4.2.1(a)	A qualified service provider is a service provider that is one that is accredited or provisionally accredited training service provider in the HIV/AIDS field.  A list of accredited service providers can be obtained from the Construction SETA (CETA) (tel 011-265)						
	5900), Health and Welfare SETA (HWSETA) (011-622 6852) or on the Health and Welfare SETA website: www.hwseta.org.za.						
4.2.1(a)	The HIV/AIDS awareness programme is to be repeated at four month intervals throughout the duration of the contract. (Four times in total, including the initial one at the start of the contract.)						
Additiona	Additional clauses						
	The duration of each workshop is not to be less than 2 ½ hours.						

#### 3.5.5 Particular / generic specifications

The management of the site shall be in accordance with the provisions of the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition), obtainable from the South African Institution of Civil Engineering.

#### 3.5.6 Recording of weather

The Contractor shall erect an effective rainfall gauge on the site and record the daily rainfall figures in a book. Such book shall be handed to the employer's representative for his signature no later than 12 days after rain that is considered to justify an extension of time occurs.

The following template for the record purposes of rainfall should be used:

Sep 1	<u>10 Oct</u>	<u>10</u>	Nov 10	Dec10	Jan 11	Feb 11	<u>Mar</u>	<u>11</u>	
+									

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22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
Total					
	i	i e			

And then summarised accordingly for each month:

<u>Month</u>	Rainfall (mm)	Rainfall Days	Place Recorded
Total			

# 3.5.7 Unauthorised persons

The Contractor shall keep unauthorized persons from the works at all times. Under no circumstances may any person except guards be allowed to sleep on the building site.

# 3.5.8 Management meetings

A progress meeting termed Site Meeting will be held within monthly intervals. The Contractor shall provide a venue and adequate seating for all members of the Project team i.e. The Client, The Engineer, the Ward Concillor, the Local Municipality's representative, members of the community's steering committee, the CLO, the Safety officer, any other stakeholders (e.g. Private Enterprise, Mentors etc) and key members of the Contractors staff. Site inspection meetings termed Technical Meetings will also be held within monthly intervals and is approximately held midway between Site Meetings. The Contractor shall in terms of the Health and Safety Regulations hold safety meeting weekly. The Minutes of the Safety meeting shall be submitted to the Engineer at every Site Meeting

#### 3.5.9 Forms for contract administration

The Contractor shall submit to the Engineer at every Site Meeting or by the 24th of every month the following schedules:

- 5.6.1 Labour Return Schedule (These forms are available electronically)
- 5.6.2 Plant Schedule
- 5.6.3 Copies of the Minutes of the Safety Meetings
- 5.6.4 Copies of the Site Diary Recordings
- 5.6.5 An updated Construction Programme

Contractor	Witness 1	Employer	Witness 1
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### 3.5.10 Electronic payments

The Contractor shall include on the Tax Invoice submitted with all claims the following banking details:

- Account Holder
- Bank Name
- Account Number
- Bank Branch Code
- Bank Branch Name
- Type of Account

The Employer is not under any obligation to transfer the Contractors payment electronically.

# 3.5.11 Daily records

The Contractor is to keep accurate daily records of the following items on an A4 Book in duplicate:

- Date
- Weather conditions (include rainfall mm and time recorded if applicable)
- Safety Measures (include signage installed, barriers, all measures undertaken with the time checked)
- Plant used
- Activities/ Production
- Labour used (differentiate between local and non-local)
- Problems or difficulties experienced
- Information request or if follow was made (include dates and times of correspondence)
   Training (if or when it is applicable

#### 3.5.12 Payment certificates

The Contractor shall submit the following information together with all claims to be verified and certified by the Engineer for payment by the Engineer:

- A detailed calculation sheet for all measurable items in accordance with the payment criteria relevant to that item.
- A complete schedule of quantities drawn up by the Contractor indicating all claims i.e. previous, present and accumulative with the total applicable to the accumulative quantities.
- A comprehensive Summary Page indicating all previous payments, retentions, escalation totals, penalties, discounts, guarantee deductions, material claimed, other costs (e.g. acceleration), value added tax, subtotals and totals.
- Escalation CPA indices were applicable.
- Proof of payment for all Preliminary Sums (e.g. CLO, Training, Daywork items etc)
- Proof of material including delivery notes for all material claimed as material on site)
- An draft copy of the Tax Invoice

The Contractor shall ensure that the projected cashflow allows 48 hours for the processing of payment certificates by the Engineer. The Contractor has to receive written acceptance from the Engineer on behalf of himself and the Client if more than one payment certificated is permitted monthly.

# 3.5.13 **Permits**

The Contractor's staff is not required by have security or entrance permits to enter the site.



# 3.5.14 Proof of compliance with the law

- 3.5.11.1 Basic Conditions of Employment Act 1997
- 3.5.11.2 Occupation Health and Safety Act

# 3.5.15 **Annexes**

A complete book of drawings is issued with this Tender Document. The Tenderers must ensure that they have received a full set of drawings and must return the set of drawings with the Tender

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	Contractor	Witness 1	Employer	Witness 1

# C3.6 PROJECT SPECIFICATIONS: ADDITIONAL SPECIFICATIONS

# C3.6.1 HEALTH AND SAFETY SPECIFICATION

CONT	ENTS
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C3.6.1.1	SCOPE
C3.6.1.2	INTERPRETATIONS
C3.6.1.3	GENERAL REQUIREMENTS OF HEALTH AND SAFETY PLAN
C3.6.1.4	RISK ASSESMENT
C3.6.1.5	RESOURCES
C3.6.1.6	MATERIALS
C3.6.1.7	CATERGORIES OF WORK
C3.6.1.8	IMPLEMENTATION OF CONTRACTOR'S HEALTH AND SAFETY PLAN
C3.6.1.9	AUDITING
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# **ANNEXURES**

ANNEXURE 1 APPOINTMENTS LETTERS

ANNEXURE 1.1: Appointment of Assistant Construction Supervisor

ANNEXURE 1.2 Appointment of Construction Site Health and Safety Officer

ANNEXURE 1.3: Appointment of Construction Vehicle and Mobile Plant Inspector

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ANNEXURE 1.6: Appointment of Excavation Work Supervisor

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ANNEXURE 1.8: Appointment of Ladder Inspector

ANNEXURE 1.9: Appointment of Risk Assessor

ANNEXURE 1.10:Appointment of Scaffolding Supervisor

ANNEXURE 1.10:Appointment of Stacking Supervisor

ANNEXURE 2 NOTIFICATION TEMPLATES

ANNEXURE 2.1: Notification for Construction Work

Contractor	Witness 1	Employer	Witness 1

#### C3.6.1.1 SCOPE

# 1.1 Scope of Specification

This specification covers the principles, duties, responsibilities, liabilities, and requirements applicable in respect of health and safety in the work place on construction work.

This document constitutes the Employers' Health and Safety Specification as defined in the Construction Regulations, 2003 of the Occupational Health and Safety Act (Act 85 of 1993).

This specification applies to tunneling although the minimum requirements for tunneling are contained in the Mines Health and Safety Act. This specification however does not apply to underground construction at this point in time as covered by the Mines Health and Safety Act, 1996 (Act 29 of 1996) as amended.

# 1.2 Philosophy

Some of the terms and requirements of the Occupational Health and Safety Act and its Regulations may be novel to Contractors. This specification has therefore been prepared as an instructive guideline without being prescriptive, constraining the competitive advantage or interfering with the legal obligations of the responding parties.

The Health and Safety Plan required in terms of this specification may also be novel to Contractors. This specification has therefore been prepared in such a way to allow Contractors to employ the services of specialist consultants for the preparation and implementation of the same during the construction of the Works.

Health and safety can only be assured on construction works if all stakeholders buy into the Health and Safety plan and when the health and safety of all is an integrated line accountability of all management staff and workers on site. The management systems that are provided for in this specification is to enable the performance statistics of health and safety to be regularly captured, the intention of these systems is not to achieve health and safety by policing the conduct of the Contractor's employees.

In addition to ensuring health and safety, the intention of the management system is rather to commercially exploit the benefit of doing things right the first time that goes hand in hand with top health and safety performance. Accidents and injuries never pay. The loss of production and the cost of injuries, however, relatively infrequent they may be, far outweigh the effort required to maintain top health and safety on construction.

The specification accordingly provides for:

- a) Independent periodic audits to ensure an unbiased pursuit of health and safety,
- b) Follow-up audits to ensure the implementation of prescribed remedial actions,
- c) The review of the efficiency and effectiveness of the Contractor's Health and Safety Plan,
- The preparation of regular reports of inspections and accidents to enable the tracking of changes in health and safety performance,

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Contractor	Witness 1	Employer	Witness 1

- e) The monitoring of conditions on a continuously pro-active basis to ensure that hazards are without delay identified, assessed and remedied should it threaten the health and safety of persons and property,
- f) Ad hoc inspections to ensure that health and safety is pursued with dedication and not out of intimidation or coercion, and
- g) Development of all aspects of the Contractor's Health and Safety Plan.

The fundamental intention of this specification is that the preservation of health and safety will become a core value of all involved during the construction of the Works.

This Specification does not require the preparation of an unduly extensive or complex risk assessment. The Contractor should rather prepare a risk assessment which takes the size of the project, the size of the Contractor's organization, the conditions of the workplace and the nature, complexity and significance of the hazards likely to be encountered during the execution of the Works into account.

#### C3.6.1.2 INTERPRETATIONS

# 2.1 Supporting specifications

Where this specification is required for a project, the following specifications (as amended) shall, inter alia, form part of the contract document:

- a) Occupational Health and Safety Act, 1993, and its regulations which shall include, but shall not be limited to the following:
  - Construction Regulations, 2003,
  - General Safety Regulations,
  - General Administrative Regulations, 1996,
  - Driven Machinery Regulations, 1988,
  - Electrical Installation Regulations, 1992,
  - Electrical Machinery Regulations, 1988,
  - Environmental Regulations for Workplaces, 1987, and
  - Facilities Regulations, 1990.
- b) Clauses 6.(5)b, 6.(6), 6.(7) and 6.(8) of the Special Conditions of Contract.
- c) The applicable SANS 1200 specifications as listed in Section 4.1 of this Contract Document.



# 2.2 Application

This specification contains clauses that are applicable to the occupational health and safety requirements of the Occupational Health and Safety Act, 1993 and its Regulations, in particular the Construction Regulations, 2003 promulgated on 18 July 2003 in terms of Section 43 of the Act.

#### 2.3 Definitions

In the Contract (as defined in clause 1.(1)(e) of the Conditions of Contract) the following words and expressions shall have the meanings hereby assigned to them except where the context otherwise requires:

- (a) "Assistant Construction Supervisor" means a competent person appointed in accordance with regulation 6.(2) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (b) "Batch Plant Supervisor" means a competent person appointed in accordance with regulation 18.(1) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (c) "Construction Health and Safety Officer" means a competent person appointed in accordance with regulation 6.(6) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (d) "Construction Supervisor" means a competent person appointed on a full-time basis in accordance with regulation 6.(1) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (e) "Construction Vehicles & Mobile Plant Inspector" means a competent person appointed in accordance with regulation 21.(1)(j) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (f) "Contractor" means the natural or juristic person or partnership whose tender has been accepted by or on behalf of the Employer and, who is defined as the Principal Contractor in the Construction Regulations, 2003.
- (g) "Demolition Work Supervisor" means a competent person appointed in accordance with regulation 12.(1) of the Construction Regulations, 2003, in writing by the Contractor with written notification to the Engineer.
- (h) "Employer's Designer" means the natural or juristic person or partnership named in the Appendix to Tender or any other natural or juristic person or partnership appointed from time to time by the Employer for the design of the portion of the Permanent Works which the Employer is responsible to design in terms of this Contract.
- (i) "Contractor's Designer" means the natural or juristic person or partnership appointed from time to time by the Contractor and notified in writing to the Engineer and Employer for the design of the portion of the Permanent Works which the Contractor is responsible to design in terms of this Contract, and for the design of the Temporary Works.



- (j) "Electrical Temporary Installation Inspector" means a competent person appointed in accordance with regulation 22.(d) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (k) "Employer" means the natural or juristic person or partnership for whom the Works are to be executed, who is named as the Employer in the Conditions of Contract and who is known as the "Client", in the Occupational Health and Safety Act, 1993 and its regulations.
- (I) "Engineer" means the natural or juristic person or partnership named as the Engineer in the Conditions of Contract and appointed by the Employer to act as the Engineer in terms of this Contract.
- (m) "Engineer's Representative" means the person appointed by the Engineer in terms of Clause 2 of the Conditions of Contract.
- (n) "Excavation Work Supervisor" means a competent person appointed in accordance with regulation 11.(1) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (o) "Explosive Powered Tools Issuer" means a competent person appointed in accordance with regulation 19.(2)(g)(i) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (p) "Fall Protection Developer" means a competent person appointed in accordance with regulation 8.(1)(a) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (q) "Fire Extinguisher Inspector" means a competent person appointed in accordance with regulation 27.(h) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (r) "Formwork and Support Work Supervisor" means a competent person appointed in accordance with regulation 15.(1) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (s) "Hazard" means any object, action or condition that can potentially harm the health and safety of persons or property.
- (t) "Hazard Identification" means the identification and documenting of existing or expected hazards.
- (u) "Health and Safety Consultant" means the natural or juristic person or partnership appointed by the Contractor to assist in any matters related to health and safety on the construction site.
- (v) "Health and Safety Plan" means a documented plan, prepared by the Contractor, of work procedures to mitigate, reduce or control hazards identified.
- (w) "Health and Safety Specification" means a documented specification of all health and safety requirements and criteria to mitigate, reduce or control hazards identified.
- (x) "Health and Safety Representative" means the person/s designated in accordance with section 17 of the Occupational Health and Safety Act.
- (y) "Ladder Inspector" means a competent person appointed in accordance with regulation 13 of the General Safety Regulations, in writing by the Contractor, with written notification to the Engineer.
- (z) "Material Hoist Inspector" means a competent person appointed in accordance with regulation 17.(8)(a) of the Construction Regulations, 2003 in writing by the Contractor, with written notification to the Engineer.



- (aa) "Method Statement" means a document detailing the key activities to mitigate, reduce or control hazards identified.
- (bb) "Professional Engineer" means any person employed from time to time by either the Employer or Contractor who holds registration as either a Professional Engineer or Professional Certificated Engineer under the Engineering Profession Act, 2000 (Act No. 46 of 2000).
- (cc) "Professional Technologist" means any person employed from time to time by either the Employer or Contractor who holds registration as a Professional Technologist under the Engineering Profession Act, 2000 (Act No. 46 of 2000).
- (dd) "Risk" means the likely occurrence and impact of a hazard.
- (ee) "Risk Assessment" means a programme carried out to identify and evaluate the likely occurrence and impact of all hazards.
- (ff) "Risk Assessor" means a competent person appointed in accordance with regulation 7.(1) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (gg) "Safety Agent" means a competent natural or juristic person or partnership named in the Appendix to Tender or any other person appointed from time to time by the Employer and notified in writing to the Contractor to act on behalf of the Employer for the purposes of this specification.
- (hh) "Scaffolding Supervisor" means a competent person appointed in accordance with regulation 14.(2) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (ii) "Stacking Supervisor" means a competent person appointed in accordance with regulation 26.(a) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.
- (jj) "Subcontractor" means the natural or juristic person or partnership who is appointed by the Contractor with prior consent of the Engineer to execute certain tasks associated with the Works and who is also an employer as defined in section 1 of the Occupational Health and Safety Act.
- (kk) "Suspended Platforms Supervisor" means a competent person appointed in accordance with regulation 15.(1) of the Construction Regulations, 2003, in writing by the Contractor, with written notification to the Engineer.

# 2.4 Duties, responsibilities and liabilities

#### 2.4.1 Principal Parties

This section covers the duties, responsibilities and liabilities of the following principal parties:

- Employer
- Employer's Safety Agent
- Contractor
- Subcontractor
- Employer's Designer

• Contract	or's Designer	•			
	Contractor	Witness 1	Fmployer	l.	Witness 1

The duties and responsibilities of the various principal parties are briefly summarized below (the numbers indicated correspond to the applicable regulation number in the Construction Regulations, 2003). The intention of the summary is not to replace the Regulations, but is included for indicative purposes. The liabilities of each party are also shown.

### a) Employer

In addition to the duties, responsibilities and liabilities specified in the Conditions of Contract, the Employer shall have the following duties and responsibilities to ensure compliance with the Construction Regulations, 2003:

- 4.(1)(a) Prepare health and safety specifications for the Works.
- 4.(1)(a) Provide copies of the specifications to Tenderers or to the appointed Contractor.
- 4.(1)(b) Provide any information to the Contractor that may affect the health and safety of his employees.
- 4.(1)(c) Appoint the Contractor in writing for the Works.
- 4.(1)(d) Take reasonable steps to ensure that the Contractor's Health and Safety Plan is implemented and maintained on the Works (which shall include monthly audits).
- 4.(1)(e) Stop the Contractor from executing work, not in accordance with, his Health and Safety Plan or which poses a threat to the health and safety of persons.
- 4.(1)(f) Ensure that sufficient health and safety information and appropriate resources are made available to the Contractor when changes are brought about to the design.
- 4.(1)(g) Ensure that the Contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to the commencement of the Works.
- 4.(1)(h) Ensure that Tenderers have made provision in their tenders for the cost of health and safety measures during the construction of the Works.
- 4.(2) Discuss and negotiate the contents of the Contractor's Health and Safety Plan.
- 4.(2) Approve the Contractor's Health and Safety Plan for implementation.
- 4.(3) On request, make available copies of the Contractor's Health and Safety Plan to his employees, his Subcontractors and inspectors.
- 4.(4) Satisfy himself on the competencies and resources of the Contractor he intends appointing.
- 4.(6) Satisfy himself on the competencies and resources of his Safety Agent should he decide to appoint one.

In terms of Clause 6.(6) of the Special Conditions of Contract, the Contractor accepts sole liability as mandatory for due compliance with the Occupational Health and Safety Act, 1993 and all its regulations including the Construction Regulations, 2003. The Employer will only be responsible for the duties imposed on the Employer in terms of the Construction Regulations, 2003 as listed above.

# b) Employer's Safety Agent

Where the Employer decides to appoint an agent in accordance with regulation 4.(5) of the Construction Regulations, 2003, the duties and responsibilities as imposed by these regulations upon the Employer shall as far as reasonably practicable apply to his Safety Agent.



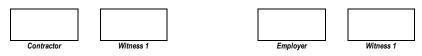
# c) Contractor

In addition to the duties, responsibilities and liabilities specified in the Conditions of Contract, the Contractor shall have the following duties and responsibilities to ensure compliance with the Construction Regulations, 2003:

- 3.(1)(a) Notify the provincial director in writing of the commencement of the construction works.
- 3.(3) Ensure that a copy of the notification letter is kept on site for inspection on request as well as proof of its receipt by the Department of Labour.
- 5.(1) Demonstrate a Health and Safety Plan, based on the Employer's health and safety specifications.
- 5.(1) Apply the Health and Safety Plan from the Commencement Date until completion of the Works.
- 5.(2) Ensure co-operation between all contractors to enable each to comply with the provisions of Construction Regulations.
- 5.(3)(a) Provide any Tenderer or Subcontractor with copies of the Employer's health and safety specifications.
- 5.(3)(b) Appoint Subcontractors in writing.
- 5.(3)(c) Ensure that each Subcontractor's Health and Safety Management Plan is implemented and maintained on their portion of the Works.
- 5.(3)(d) Stop any Subcontractor from executing Works, not in accordance with, the Contractor's Health and Safety Plan or which poses a threat to the health and safety of persons.
- 5.(3)(e) Ensure that sufficient health and safety information and appropriate resources are made available where applicable, to the Subcontractor when changes are brought about to the design of the Works.
- 5.(3)(f) Ensure that his Subcontractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to the commencement of the Works.
- 5.(3)(g) Ensure that his Tenderers have made provision in their tenders for the cost of health and safety measures during the construction of the Works in line with the requirements of the Employers Health and Safety Specification and his Health and Safety Management Plan.
- 5.(5) Discuss and negotiate the contents of his Subcontractor's Health and Safety Plan, to ensure compliance with the Employer's Health and Safety Specification and consistent with the Contractors Health and Safety Management Plan.
- 5.(5) Approve his Subcontractor's Health and Safety Plan for implementation and to keep records of all such approvals on site for auditing purposes.
- 5.(6) On request, make available a copy of his and his Subcontractor's Health and Safety Plan to an employee, inspector, contractor, the Employer or the Employer's Safety Agent.
- 5.(7) Open and maintain a record management system regarding health and safety for the Contractors own and Subcontractors' Health and Safety Documentation on the construction site.
- 5.(7) Upon request, make available his health and safety record management system to an inspector, Employer, the Employer's Safety Agent or the Contractor.



- 5.(8) Deliver the health and safety record management system to the Employer upon completion of the Works.
- 5.(9) Ensure that a comprehensive and updated list of all his Subcontractors (including their respective subcontracting agreements) are included in the health and safety record management system.
- 5.(10) Satisfy himself on the competencies and resources of the Subcontractor he intends appointing.
- 6.(1) Appoint a construction supervisor.
- 6.(3) Appoint assistant construction supervisors if required by an inspector.
- 6.(5) Appoint individual construction supervisors for individual construction sites.
- 6.(6) The Contractor shall after due consideration of the complexity, size and potential hazards and associated risks as well as controls towards the mitigation of risks, appoint a safety officer in writing. The contractor shall submit a detailed CV of the envisaged Safety Officer appointment for final acceptance thereof by the Employer or his Safety Agent.
- 6.(7) Provide opportunities to the construction safety officer to provide inputs into the Health and Safety Plan.
- 6.(8) Satisfy himself with the competencies and resources of the construction safety officer he intends appointing.
- 7.(1) Perform a risk assessment prior to the commencement of any construction work.
- 7.(2) On request, make available copies of the his/her risk assessment.
- 7.(3) Consult with the health and safety committee on the development, monitoring and review of the risk assessment.
- 7.(4) Ensure that all employees are informed, instructed and trained regarding any hazard and the related work procedures before any work commences. The contractor shall ensure that proof of such is available on site for auditing purposes.
- 7.(5) Ensure that all Subcontractors are informed regarding any hazard as stipulated in the risk assessment. Further that Subcontractors conduct their own risk assessments as and when required
- 7.(6) Analyze ergonomic related hazards and address the same in the risk assessment.
- 7.(7) Ensure that all employees undergo health and safety induction prior to permitting each employee access to the Works. The Contractor shall ensure that proof of such is available on site for auditing purposes.
- 7.(8) Ensure that all visitors undergo health and safety induction and are provided with the necessary personal protective equipment. The Contractor shall ensure that proof of such is available on site for auditing purposes.
- 7.(9) Ensure that every employee is in possession and carries at all times his proof of health and safety induction training.
- 9.(1)(a) Prevent the uncontrolled collapse of any structure which may become unstable due to the carrying out of construction work.
- 9.(1)(b) Ensure that no structure is loaded in an unsafe manner.



9.(3) Ensure that all construction drawings are on site and available on request by an inspector, contractors, Employer, the Employer's Safety Agent or employee.

In terms of Clause 6.(6) of the Special Conditions of Contract, it shall be deemed that the parties to this Contract have agreed in writing in terms of Section 37(2) of the Occupational Health and Safety Act, 1993 that the Contractor accepts sole liability for due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures imposed by the Occupational Health and Safety Act, 1993 and all its regulations, including the Constructions Regulations, 2003, for which he is liable as mandatory.

### d) Subcontractor

To ensure compliance with the Construction Regulations, the Subcontractor shall:

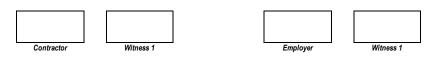
- 5.(4) Demonstrate a Health and Safety Plan, based on the Employer's health and safety specification.
- 5.(4) Apply his Health and Safety Plan from the Commencement Date and until completion of the Works.
- 5.(12) Satisfy himself on the competencies and resources of any Subcontractor he intends appointing.
- 5.(14) Provide the Contractor with any information which might affect the health and safety of any person or which might justify a review of the Health and Safety Plan.

In addition to the above items, the Subcontractor shall, to ensure compliance with the Construction Regulations, comply with regulations 5.7, 6.(1), 6.(3), 6.(5), 6.(6), 6.(7), 6.(8), 7.(1), 7.(2), 7.(3), 7.(4), 7.(6), 7.(7), 7.(8), 7.(9), 9.(1)(a), 9.(1)(b) and 9.(3), summarized in Section 2.4.1(c) above.

e) Designer (Employer's Designer or Contractor's Designer)

To ensure compliance with the Construction Regulations, 2003, the Designer (as defined in the Construction Regulations, 2003) shall:

- 9.(2) Make available to the Employer all relevant information affecting the pricing of the Works.
- 9.(b) Inform the Contractor of any hazards relating to the Works.
- 9.2(b) Make available all information required for the safe execution of the Works.
- 9.2(c) Ensure that information relating to geo-sciences, designs loads, and the methods and sequencing of construction processes are made available to the Contractor in a report.
- 9.2(d) Not include dangerous procedures or hazardous materials in the structure's design which could be avoided.
- 9.2(e) Make provision in the design of the Works for hazards likely to be encountered during its subsequent maintenance.
- 9.(2)(f) Carry out inspections of the construction work during the construction period to ensure compliance with the designs.
- 9.2(f) Keep records of the inspections carried out on the construction site.
- 9.2(g) Stop any contractor from executing works not in accordance with the designs.
- 9.2(h) Conduct a final inspection of the completed Works prior to its commissioning.



- 9.2(h) Issue a completion certificate to the Contractor subsequent to a successful final inspection.
- 9.(2)(i) Ensure that cognizance is taken of ergonomic design principles in order to minimize related hazards.

The Employer's Designer shall only accept responsibility to comply with the Construction Regulations, 2003 for that portion of the Permanent Works which the Employer is responsible to design in terms of the Contract.

The Contractor's Designer shall accept sole responsibility and liability to comply with the Construction Regulations, 2003 for that portion of the Permanent Works for which the Contractor is responsible to design in terms of the Contract as well as the design of the Temporary Works.

# 2.4.2 Secondary Parties

This section covers the duties, responsibilities and liabilities of the following secondary parties:

- Construction Health and Safety Officer
- Contractor's Employees
- Fall Protection Developer
- Health and Safety Consultant
- Health and Safety Representative
- Risk Assessor

### a) Construction Health and Safety Officer

The Construction Health and Safety Officer will act as Health and Safety advisor to the site management staff, ensuring the integrity of the Safety management System and Plan and its implementation. The Construction Health and Safety Officer can therefore never take over the line management responsibilities for safe work practices.

The Contractor is responsible for the development of the position outcomes descriptors for the Construction Health and Safety Officer. This documentation shall be available on site for auditing purposes.

The Construction Health and Safety Officer shall if given an opportunity, provide an input into the Contractor's Health and Safety Plan.

### b) Contractor's Employees

All employees will be responsible for safety on the construction site and the work place as prescribed in section 14 of the Occupational Health and Safety Act, 1993 and briefly summarized as follows:

- Take reasonable care for the health and safety of himself and of other persons who may be affected by his acts,
- Co-operate with his employer with regards to health and safety to ensure that his employer complies with requirements imposed on him,
- Obey the health and safety rules and procedures laid down by his employer,



- Report any unsafe or unhealthy situation to his employer or to the health and safety representative for his workplace,
- Immediately report any incident in which he was involved which has caused an injury to himself or others, and
- Assist in inquiries and incident investigations.

No employee shall intentionally or recklessly interfere with, damage or misuse anything which is in the interest of health and safety

### c) Fall Protection Developer

The Fall Protection Developer will be responsible for the preparation and maintenance of a fall protection plan to be implemented by the Contractor, in such a manner to ensure compliance with regulation 8 of the Construction Regulations, 2003.

# d) Health and Safety Consultant

The Health and Safety Consultant shall assist the Contractor in any health and safety matters on the Works for which he is appointed.

### e) Health and Safety Representative

The Health and Safety Representative shall fulfill the duties as set out in section 18 of the Occupational Health and Safety Act, (Act 85 of 1993). A health and safety representative shall not incur any civil liability by reason of the fact only that he failed to do anything which he may do or is required to do in terms of the Act.

# f) Risk Assessor

The Risk Assessor shall facilitate the risk assessment process of the Contractor or Subcontractor. The Risk Assessor shall be responsible for the compilation and implementation of a management plan towards the continuous mitigation of identified risks to as low as is reasonable practicable.

# 2.4.3 Supervisors, Inspectors and Issuers

This section covers the duties, responsibilities and liabilities of the following Supervisors, Inspectors and Issuers likely to be found on the Works:

# a) Batch Plant Supervisor

The Batch Plant Supervisor shall be required to ensure compliance with regulation 18 of the Construction Regulations, 2003. In addition, he shall fulfill the following duties and responsibilities:

- Manage the day to day operation of a batch plant,
- Be responsible for the maintenance of the batch plant,
- Be able to identify developing defects and hazardous situations,
- Act as the Occupational Health and Safety Representative at the batch plant, and
- Take responsibility for the safety of the personnel at the batch Plant.

The Batch Plant Supervisor will have the authority to stop operation of the plant should any hazardous situation require it.



# b) Construction Supervisor

The Construction Supervisor shall be responsible for supervising the construction work inclusive of the implementation and maintenance of safe work practices.

# c) Construction Vehicle & Mobile Plant Inspector

The Construction Vehicle and Mobile Plant Inspector will ensure the safety of all construction vehicles and plant in such a manner to ensure compliance with regulation 21 of the Construction Regulations, 2003. The inspector will also be responsible for the regular inspection of all vehicles and plant and the recording of his findings. The Contractor shall ensure that proof of such is available on site for auditing purposes.

# d) Demolition Work Supervisor

The Demolition Work Supervisor will supervise and control all demolition work on the Works in such a matter to ensure compliance with regulation 12 of the Construction Regulations, 2003. The supervisor will be responsible for all administration related to the demolition works. The Contractor shall ensure that proof of such is available on site for auditing purposes.

# e) Electrical Temporary Installation Inspector

The Electrical Temporary Installation Inspector will control all temporary electrical installations on the Works to ensure compliance with regulation 22 of the Construction Regulations, 2003, the Electrical Installations Regulations, 1992 and SANS 0142. The Contractor shall ensure that proof of such is available on site for auditing purposes.

# f) Excavation Work Supervisor

The Excavation Work Supervisor will supervise all excavation work on the Works in such a matter to ensure compliance with regulation 11 of the Construction Regulations, 2003 and shall in particular ensure that every excavation is inspected:

- On a daily basis before each shift,
- After every blasting operation,
- After an unexpected fall of ground,
- After substantial damage to supports, and
- After rains.

The Contractor shall ensure that proof of such is available on site for auditing purposes.

#### g) Explosive Power Tools Issuer

The Explosives Power Tools issuer will control the issuing and collection of explosive tools, cartridges and nails or studs to ensure compliance with regulation 19 of the Construction Regulations, 2003. The Contractor shall ensure that proof of such is available on site for auditing purposes.

# h) Fire Extinguisher Inspector

The Fire Extinguisher Inspector will be responsible for the operation and inspection of all firefighting equipment on the Works to ensure compliance with regulation 27 of the Construction Regulations, 2003. The Contractor shall ensure that proof of such is available on site for auditing purposes.



# i) Formwork and Support Work Supervisor

The Formwork and Support Work Supervisor will supervise all formwork and support work operations and will see to it that formwork and support work erectors, operators and inspectors are competent to carry out their work Works to ensure compliance with regulation 10 of the Construction Regulations, 2003. The Contractor shall ensure that proof of such is available on site for auditing purposes.

# j) Ladder Inspector

The Ladder Inspector will be responsible for the regular inspection and recording of his/her findings of all ladders on the Works and to ensure compliance with regulation 13 of the General Safety Regulations. The Contractor shall ensure that proof of such is available on site for auditing purposes.

# k) Material Hoist Inspector

The Material Hoist Inspector will be responsible for the daily inspection of material hoists or similar machinery and to ensure Works to ensure compliance with regulation 17 of the Construction Regulations, 2003. The inspector must have experience pertaining to the erection and maintenance of all hoists on the Works. The inspector must be able to determine the serviceability of the entire material hoist including guides, ropes and their connections, drums, sheaves or pulleys and all safety devices. The Contractor shall ensure that proof of such is available on site for auditing purposes..

# Scaffolding Supervisor

The Scaffold Supervisor will be required to supervise all scaffolding work operations carried out on the Works and to ensure compliance with regulation 14 of the Construction Regulations, 2003 as well as ensure compliance with applicable SANS 085 specifications. The Contractor shall ensure that proof of such is available on site for auditing purposes.

# m) Stacking Supervisor

The Stacking Supervisor shall supervise the stacking and storage of all articles on site and shall be responsible to ensure compliance with regulation 26 of the Construction Regulations, 2003.

# n) Suspended Platform Supervisor

The Suspended Platform Supervisor will supervise all suspended platform work operations carried out on the Works and to ensure compliance with regulation 15 of the Construction Regulations, 2003. The supervisor will also see to it that all suspended platform erectors, operators and inspectors are competent to carry out their work. The Contractor shall ensure that proof of such is available on site for auditing purposes.

#### C3.6.1.3 GENERAL REQUIREMENTS OF HEALTH AND SAFETY PLAN

### 3.1 General

It will be expected from the Contractor to include in his safety plan method statements on how to accomplish the requirements relating to the Construction Regulations, 2003 and related incorporated standards and regulations.

Contractors should describe how their safety management systems will work and what control procedures they plan on using to ensure safety on the construction site



The following generic aspects should be covered in their safety plan

- What administrative procedures the Contractor envisages to use in the implementation and maintenance of the safety plan with reference to the construction site
- How continuous assessment of the safety plan will be assessed and implemented with respect to construction site
- What control systems the Contractor envisages to implement on site to support his safety program
- How the Contractor will ensure that he adheres to the construction regulations in respect of competent persons for appointments
- What external resources the Contractor envisages on using to ensure successful implementation and sustainability of the safety plan
- What training to employees the Contractor envisages and how he would go about to execute it
- The Contractor should indicate which competent persons he plans on employing

During the tendering phase it will be expected from the tenderer to briefly explain how the abovementioned will be accomplished.

Once a successful tenderer has been appointed, the Contractor shall supply a detailed Health and Safety Plan for review by the Employer, prior to site mobilization, to ensure compliance with the Construction Regulations, 2003. Mobilization shall be dependent upon the acceptance of the Contractor's Health and Safety Management Plan by the Employer. The Contractor's Health and Safety Plan should include, but not be limited to, those sections indicated in Section 3.2 of this specification.

# 3.2 Outline of Health and Safety Plan

The Contractor's Health and Safety Plan prepared in accordance with this specification shall consist of at least the following sections and sub-sections:

- 1. Aim and Scope of Plan,
- Risk Assessment,
  - a. Alternative Forms of Risk Assessment,
  - b. Methodology of Risk Assessment,
  - Elements of Risk Assessment,
    - i. Scope of assessment,
    - ii. Risks Identified,
    - iii. Risk Analysis,
    - iv. Risk Evaluation,
    - v. Risk Treatment,
    - vi. Monitoring and reviewing,
- 3. Resources,
  - a. Health and Safety Staffing Organogram,

		_		
Contractor	Witness 1		Employer	Witness 1

- b. Supervisors, Inspectors and Issuers,
- c. Employees,
- d. Subcontractors inclusive of their scope of work and their core resources,
- e. Training,
- f. Plant,
- g. Vehicles,
- h. Equipment
- 4. Materials,
  - a. Temporary Materials
  - b. Permanent Materials
- 5. Categories of Work
- 6. Implementation of Health and Safety Plan,
  - a. Administrative systems,
  - b. Training,
  - c. Reporting,
  - d. Monitoring,
  - e. Inspections,
- 7. Auditing,
  - a. Internal audits,
  - b. Follow-up audits,
- 8. Financial Aspects,
- 9. Emergency procedures and response

# C3.6.1.4 RISK ASSESSMENT

### 4.1 General

This section of the specification provides guidelines for the Contractor in preparation of risk assessments in order to ensure compliance with Regulation 7 of the Construction Regulations, 2003. This section highlights the principles related to the preparation of suitable and sufficient risk assessments. Contractor Staff intending to prepare risk assessments should be trained and suitably experienced in the application envisaged.

A suitable and sufficient risk assessment is an assessment which:

- Accounts for risks that are likely to arise during the construction of the Works,
- Enables the development and implementation of systems to manage the risks,
- Remains valid for a reasonable period of time,



- Provides a basis for training of employees, and
- Improves working procedures and introduce long term controls.

The requirements of the Construction Regulations will not be satisfied by a single risk assessment exercise that holds good for all time. The risk assessment process on the Works is an ongoing process.

The objectives of risk assessments are to:

- Identify the risks that are mostly in need of reduction,
- Identify the various options for achieving such reduction,
- Identify the risks that require careful ongoing management, and
- Identify the nature of the required ongoing attention.

#### 4.2 Forms of Risk Assessment

In order to ensure compliance with the Construction Regulations, the Contractor will be required to carry out the following three forms of risk assessment:

### 4.2.1 Baseline or datum risk assessments

The Contractor will be required carry out a risk assessment before the commencement of construction activities on the Works. This "baseline" or "datum" risk assessment will form part of the Contractor's Health and Safety Plan. The risks and hazards to which persons, plant, vehicles and facilities may be exposed during the construction of the Works should be identified and evaluated. Measures to reduce or control these risks or hazards should be defined during this assessment. The effectiveness of the measures defined and the baseline risk assessment prepared shall be monitored and reviewed from time to time to ensure that it remains relevant and accurate.

### 4.2.2 Issue based risk assessments

The Contractor will be required to carry out separate risk assessments during construction of the Works when methods and procedures are varied, for example when:

- Designs are amended,
- New machines are introduced,
- Plant is periodically cleaned and maintained,
- Plant is started-up or shut-down,
- Systems of work change or operations alter,
- Incidents or near-misses occur, or
- Technological developments invalidate prior risk assessments.

### 4.2.3 Continuous risk assessments

The Occupational Health and Safety Act specifically requires that employers shall provide and maintain working environments that are safe and without risk to health. The general awareness of hazards needs to be raised as work ethic to maintain a safe and risk free environment on an ongoing basis. This is



achieved by continuous risk assessments, the most important form of risk assessment that takes place as an integral part of day-to-day management. Examples of continuous risk assessments include:

- Regular audits,
- Maintaining general hazard awareness,
- Pre-work risk assessment

# 4.3 Methodology for the Preparation of Risk Assessments

The Contractor shall in the preparation of his risk assessments, follow the following general principles:

- Employ a team of suitably qualified individuals with appropriately varied and relevant experience in risk assessment.
- The appointed risk assessor shall lead the risk assessment,
- Provide the team with background data, scope of work, potential hazards and underlying causes, and
- Where necessary employ experts for complex risk assessments and aspects of risk assessments that require experiential judgment,
- Institute an ongoing system of identifying aspects of the work that require risk assessment, and
- Conduct risk assessments in workshops of the team or by individual members of the team under guidance of the leader as appropriate to the situation.

#### 4.4 Elements of a Risk Assessment

#### 4.4.1 General

The process of carrying out a risk assessment consists of a number of well-defined steps. These steps improve decision-making by providing a greater understanding of the risks and their impacts. The main steps or elements of the risk assessment process are as follows:

- 1) Consider scope and nature or risks involved, determine purpose and physical and legal bounds of assessment and define risk evaluating criteria,
- 2) Systematically identify risks,
- 3) Analyze risks with regard to causes, likelihood of occurrence and possible consequences against the background of existing controls and its effectiveness,
- 4) Evaluate risks in terms of pre-established criteria to determine need and priority for attention,
- 5) Treat risks through a process of risk elimination, substitution, controlling risk at source, risk mitigation such as training and as far as risk remains, provide personal protective equipment (PPE),
- 6) Monitor and review progress and performance in terms of management system, and
- 7) Communicate and consult.

The following sections 4.4.2 to 4.4.7 deal with items (2) to (7) above. These items form the continuing process of the risk assessment as indicated in Figure 1, below.



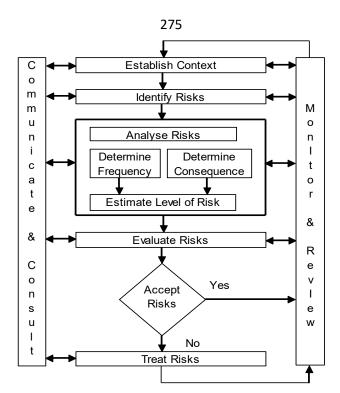


Figure 1: Risk Management Process

The Contractor shall ensure that the risk assessment compiled as part of his Health and Safety Plan contains at least these items.

### 4.4.2 Risk Identification

The Contractor should regard this step of the risk assessment as the most important. Subsequent analysis and evaluation of risks and the development of risk control measures are wasted if the risks or hazards on the Works are not carefully identified.

The Contractor should bear the following principles in mind when identifying the risks:

- i) Systematically address all risks or hazards on the Works,
- ii) Review all aspects of the work, but consider only those that have a potential to cause harm,
- iii) Rank the risks identified in order of importance and then use appropriately advanced techniques to deal with major risks,
- iv) Deal mainly with major risks and don't obscure these with unimportant information, especially minor risks.
- v) Address what actually happens in the workplace during the work activity
- vi) Consider all persons that may be affected,
- vii) Highlight those groups and individuals who may particularly be at risk, and
- viii) Review the adequacy and effectiveness of existing safety controls and measures

# 4.4.3 Risk Analysis

In this step, the Contractor will be required to analyze the risks identified by determining each risks frequency and magnitude or severity of the consequence of the risk or hazard.



The frequency of occurrence of a hazard may be expressed as the number of times that it may occur in a year, decade, lifetime, century, or longer period, according to comparative human experience. The magnitude of the likely consequence of a hazard may be expressed in terms of the degree of incapacitation, number of people or costs involved. The frequency of occurrence of a hazard and the magnitude of its consequence may be compounded as the risk that it poses as shown in the "risk matrix" in Figure 2 below.

	Severity of Consequences of Potential Hazard						
Frequency of Occurrence of Hazard	1 Medically treatable injury	1 Compensable injury	10 Compensable injuries	1 Permanently disabling injury	1 Fatality	10 Fatalities	
Frequent; 1 or more occurrences per year	Medium	High	Very high	Severe	Severe	Severe	
Several times during a career; 0.1 occurrences per year	Medium-low	Medium	High	Very high	Severe	Severe	
Unlikely, but possible during a career; 0.01 occurrences per year	Low	Medium-low	Medium	High	Very high	Severe	
Very unlikely during a career; 0.001 occurrences per year	Low	Low	Medium-low	Medium	High	Very high	
Barely credible; 0.0001 occurrences per year	Low	Low	Low	Medium-low	Medium	High	

Figure 2: Compounded Risk Matrix

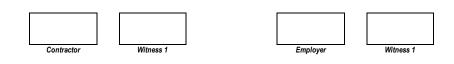
The columns in the table represent the likely consequence of the hazard and the rows, the frequency of occurrence. The scales for both quantities represent consistent progressions, albe they qualitative. The risks evidently range from low to severe. Note that diagonals in the matrix represent the risks of the identified hazards, taking the effectiveness of controls into consideration.

The table represents a typical risk matrix that need not necessarily be adopted by the Contractor. The Contractor may use an alternative risk matrix provided that it is approved as part of his Health and Safety Plan.

#### 4.4.4 Risk Evaluation

In this step the Contractor will be required to compare the assessed risk with similar risks previously experienced for the purpose of deciding how to treat the risk. A useful systematic approach for this purpose is as follows:

- If the assessed risk exceeds similar risks that have occurred in the past and that are considered to be unacceptable, the assessed risk would require treatment depending upon its magnitude as discussed in Section 4.4.5, or
- If the assessed risk exceeds similar historical risks that are acceptable, treatment of the assessed risk will depend on the extent by which it exceeds the historical risks, or
- If the assessed risk is less than historical risks that are unacceptable, treatment of the assessed risk will depend on the extent by which it is less than the historical risks, or
- If the assessed risk is less than historical risks that are acceptable, the assessed risk would also be acceptable and would not require any treatment.



### 4.4.5 Risk Treatment

In this step, the Contractor will select and implement appropriate measures for dealing with risk. Typically measures comprise the following:

- Elimination by changing designs, procedures, management methods, etc, applicable to high frequency–high consequence risks, or
- Reduction by changing designs, procedures, management methods, etc, applicable to high frequency-high consequence risks, or
- Minimization by changing designs, procedures, management methods, etc, applicable to high frequency-low consequence risks, or
- Transfer or share whole or part of the risk to another party by insurance, contractual arrangements or organizational structures, applicable to low frequency—high consequence risks, or
- Control to ensure that risks do not increase, applicable to low frequency-high consequence risks, or
- Retention together with provision of monitoring and personal protective equipment, applicable to low frequency—low consequence residual risks after reduction, or
- Acceptance without particular action other than provision of personal protective equipment, applicable to low frequency—low consequence risks.

The following principles enable the optimum treatment to be determined:

- Avoid risks altogether if possible by using different approaches, substances or methods of work,
- Combat risks at source rather than by adopting secondary measures,
- Adapt work to the individual rather than the individual to the work, that is, in the design consider the
  people and their attributes that will operate the system
- Take advantage of technological and technical progress,
- Risk prevention measures must be part of a coherent policy and approach to safety management that involves performance measurement, goal setting, feedback and analysis,
- Give preference to measures that protect the whole work force,
- Ensure that those for whom protection is provided understand what they need to do to make sure that the protection works, and
- Ensure that measures to control risks are an accepted part of an active health and safety culture supported by all levels of the organization; single risk reduction initiatives invariably fail.

# 4.4.6 Reporting and Recording

The Contractor shall ensure that the risk assessment process is recorded in the form of a report and included in his Health and Safety Plan. The report should be easily accessible to the Contractor's employees, their representatives, to inspectors, the Employer or his Safety Agent and the Engineer. The essential contents of the report should be as follows:



- Objectives and expected outcomes,
- Description of the Works under assessment,
- Summary of context of study
- Composition of risk assessment team, (including qualifications and relevant experience),
- Approach used to systematically identify risks,
- Identified risks (ranked in order of priority),
- Method adopted for assessing frequencies and consequences of risks,
- Consequences (ranked in order of magnitude),
- Identification of individuals and groups who may be affected by major hazards and risk and who may
  especially be at risk,
- Basis for defining safety standards to be achieved,
- Contractor's resources devoted to risk assessment,
- Actions proposed to reduce unacceptably high risks,
- Review effectiveness of existing safety measures to control risks, and
- Implementation programme of selected treatments (including controls to manage unacceptably high risks).

### 4.4.7 Monitoring and Review

It is necessary to monitor risks, the effectiveness of the risk treatment plan and the strategies and management system set up to control implementation. Control of the risk management program entails the setting of standards, monitoring actual performance, comparing the performance with the standards and correcting any deviations from the standard. Risks and the effectiveness of the control measures need to be monitored to ensure changing circumstances do not alter risk priorities. Few risks remain static.

Ongoing review is essential to ensure that the management plan remains relevant. Factors that affect the likelihood and consequences of an outcome may change, as may factors that affect the suitability or cost of the various treatment options. If an accident occurs, or if more is learnt about the hazards in the workplace, the risk assessment may need to be reviewed or modified. Hazards may be observed that have not been anticipated or previously identified and which may require appropriate measures to be taken. After an accident has occurred, it is important to determine whether it was predicted, whether preventive measures were identified, and if so, why they did not work, whether the risk assessment is still suitable and sufficient if it failed to predict the accident, whether to the decision to accept a predicted risk as tolerable is still valid, why the accident occurred and what should be done to prevent similar accidents occurring again. It is therefore necessary to regularly repeat the risk management cycle, the time between reviews being dependent on the nature of the risks and the degree of change likely to take place in the work activity. Review is an integral part of the risk management treatment plan.



### 4.4.8 Communication and Consultation

The Contractor will be required to communicate and consult with internal and external stakeholders during each step of the risk assessment process. Stakeholders will include the Employer and his Safety Agent, the Engineer and the Contractor's employees and consultants.

Effective communication will ensure that those responsible for implementing the risk management process and those with a vested interest, understand the basis on which decisions are made and why particular actions are taken. It will also ensure that the perceptions of all those involved are noted and accommodated during the process.

#### C3.6.1.5 RESOURCES

#### 5.1 General

In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health And Safety Act, 1993 and all its Regulations and related incorporated standards with regards to the resources and facilities intended for use on the temporary and permanent Works.

# 5.2 Employees

### 5.2.1 Inspectors, supervisors and Issuers

The Contractor shall provide in his Health and Safety Plan his intended Staffing Organogram for the Works. The organogram should include those inspectors, supervisors and issuers as envisaged in the Construction Regulations, 2003 required for the Works and any additional supervisory staff members as the Contractor (having taken the scope of the Works into account) considers necessary.

Copies of the supervisory staffs' curriculum vitae or portfolio of evidence and their appointment letters should be appended to the Contractor's Health and Safety Plan.

The Contractor's Health and Safety Plan should in addition cover at least the following aspects:

- The number of unskilled, semi-skilled and skilled (including Foreman, Charge hands, Artisans, Operators, Drivers, Clerks, Storeman and Team Leaders) employees he intends employing on the Works.
- The health and safety training to be provided to the Contractor's employees,
- The programme of the health and safety training,
- Systems for the review of the effectiveness of the training provided, and
- Systems to determine further training requirements throughout the construction period.

In preparing his Health and Safety Plan, the Contractor shall ensure compliance with Clause PS 22 in Section 4.2 of the Project Specifications.

Pro-forma letters of appointment for the various inspectors, supervisors and issuers as contemplated in the Construction Regulations, 2003 are included in Annexure 1 to this specification for use by the



Contractor. The Contractor shall ensure that he includes in his Health and Safety Plan the appointment letters for all his inspectors, supervisors and issuers appointed for the Works.

#### 5.2.2 Subcontractors

The Contractor shall with reference to the use of subcontractors on the Works and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- The steps intended to ensure that his Subcontractors prepare, implement and maintain Health and Safety Plans,
- How health and safety information will be made available to his Subcontractors when changes are brought about to the design,
- How he intends determining that his Subcontractors are registered and in good standing with the compensation fund or with a licensed compensation insurer prior to the commencement of the Works,
- How he intends determining if his Subcontractors have made provision in their tenders for the cost of health and safety measures during the construction of the Works,
- How he intends satisfying himself on the competencies and resources of Subcontractors he intends appointing, and
- How he intends ensuring that his Subcontractors perform risk assessments prior to commencing their respective portions of the Works.

# 5.2.3 Competencies

The Contractor shall establish if a person is competent to perform a certain duty or be appointed in a certain capacity by requesting all candidates to supply the required certificates of competency. Where certificates of competencies cannot be delivered, the Contractor shall request a portfolio of evidence from the respective candidates.

Contractors should do enquiries at the South African Qualifications Authority (SAQUA) relating to the qualifications required for appointment of competent persons.

#### 5.3 Plant, Vehicles and Equipment

# 5.3.1 Suspended platform

The Contractor shall with reference to Regulation 15: Suspended platforms of the Construction Regulations, 2003, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends complying with SANS 1808 and SANS 1903,
- What systems he intends using to ensure the safety of all suspended platforms,
- What tests will be performed to establish the safety of suspended platforms,
- How he intends maintaining suspended platforms being used, and
- How he will document the design, testing, maintenance and inspections of the suspended platforms.



### 5.3.2 Boatswains chairs

The Contractor shall with reference to Regulation 16: Boatswains chairs of the Construction Regulations, 2003, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Explain what systems he intends using to ensure the safety of all boatswains chairs,
- Explain how he intends maintaining boatswains chairs in use,
- · What tests will be performed to establish the safety of boatswains chairs, and
- How he will document the design, testing, maintenance and inspections of the boatswains chairs.

#### 5.3.3 Material hoists

The Contractor shall with reference to Regulation 17: Materials Hoist, of the Construction Regulations, 2003, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends confirming the construction stability of the material hoists,
- What systems he intends using to ensure the safety of all material hoists,
- What tests will be performed to establish the safety of all material hoists,
- How he intends maintaining the material hoists being used, and
- How he will document the design, testing, maintenance and inspections of all material hoists and
- What safety procedures and precautions are envisaged to ensure safe operation of the materials hoists.

### 5.3.4 Batch Plants

The Contractor shall with reference to Regulation 18: Batch plants of the Construction Regulations, 2003, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- What systems he intends using to ensure the safety of all batch plants,
- How he intends maintaining the batch plants in use, and
- How he will document the design, testing, maintenance and inspections of batch plants in use.

# 5.3.5 Explosive powered tools

The Contractor shall with reference to Regulation 19: Explosive powered tools, of the Construction Regulations, 2003, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends controlling the issuing of explosive powered tools,
- How he intends implementing safety procedures prior to use of explosive powered tools, and
- What safety measures will be required during the use of explosive powered tools.



### 5.3.6 Cranes

This section of the specification shall be read in conjunction with the provisions of the Driven Machinery Regulations, 1988.

The Contractor shall with reference to Regulation 20: Cranes, of the Construction Regulations, 2003 and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How will environmental factors be taken into account in respect to the use of cranes,
- What systems he intends using to ensure the safety of all cranes in use,
- How he intends maintaining cranes in use,
- What tests will be performed to establish the safety of all cranes in use,
- What safety procedures and precautions are envisaged to ensure the safe operation of all cranes in use.
- How he will document the design, testing, maintenance and inspections of all cranes in use, and
- The contractor shall proof compliance of the Driven Machinery Regulation, 1988, with reference to the lifting machinery and tackle being used.

# 5.3.7 Construction vehicles and mobile plant

The Contractor shall with reference to Regulation 21: Construction vehicles and mobile plant of the Construction Regulations, 2003, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends ensuring that construction vehicles and mobile plant are:
  - Of acceptable design and construction,
  - Maintained and in good working order,
  - Used according to design specifications, and
  - Are protected from falling into excavations, water or areas lower than the working surfaces.
- How he intends ensuring that workers are trained, authorised and physically fit to operate construction vehicles and mobile plant,
- What traffic arrangements and safety precautions will be implemented to ensure safe operation
  of construction vehicles and mobile plant on the Works, and
- How he intends safeguarding employees against construction vehicles and mobile plant moving on the construction site.

# 5.3.8 Electrical Installation and Machinery on construction sites

This section of the specification shall be read in conjunction with the provisions contained in the Electrical Installation Regulations, 1992.



The Contractor shall with reference to Regulation 22: Electrical Installation and machinery on construction sites of the Construction Regulations, 2003, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends safeguarding employees against electrical cables or apparatus under, over or on site, and
- How he will ensure that electrical installations are of adequate strength to withstand working conditions on a construction site.

#### 5.3.9 Ladders

The Contractor shall with reference to Regulation 13A of the General Safety Regulations and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How he intends ensuring that ladders used are safe and constructed of materials approved for its intended use, and
- What precaution will be made to ensure the stability of ladders in use.

#### C3.6.1.6 MATERIALS

#### 6.1 General

In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health and Safety Act, 1993 and all its regulations and related incorporated standards with regards to the design, supply, storage and erection of materials used for the temporary and permanent Works.

## 6.2 Fall Protection Equipment

The Contractor shall with reference to Regulation 8: Fall Protection Equipment of the Construction Regulations, 2003, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Compilation of a fall protection plan,
- How the fall protection plan will be implemented and maintained,
- How employees will be screened and declared medically fit to work in areas where fall protection equipment is needed,
- How the safeguarding of persons, plant, vehicles, equipment and facilities on the construction site is contemplated,
- Training of staff working at heights and in the use of fall protection equipment,
- How a continuous assessment of the situation will be executed.
- How fall protection equipment will be inspected for safety, and
- How corrective actions will be implemented
- Emergency plans and procedures for treatment of incidents relating to falls from height.



### 6.3 Scaffolding

The Contractor shall with reference to Regulation 14: Scaffolding of the Construction Regulations, 2003, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How compliance with SANS 085 will be ensured,
- How scaffolding in use will be maintained,
- What systems are intended to ensure the safety of scaffolding used, and
- What tests will be performed to establish the safety of scaffolding used
- Training plan for scaffold erectors and inspectors.

# 6.4 Use and temporary storage of flammable liquids on construction sites

This section of the specification shall be read in conjunction with the provisions for the use and storage of flammable goods as determined in the General Safety Regulations.

The Contractor shall with reference to Regulation 23: Use and temporary storage of flammable liquids on construction sites of the Construction Regulations, 2003, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How flammable liquids will be stored to minimize the risk of fire or explosions,
- How the contractor will identify a flammable store
- What safety precautions will be employed if ventilation of the flammable store is not possible,
- How access to flammable stores will be controlled,
- How empty vessels used for the storage of flammable liquids will be disposed of,
- What quantity of flammable liquids will be stored on the construction site,
- What systems are intended to ensure the safe storage of flammable liquids, and
- What retaining methods will be used to prevent the spreading of any spillage.

#### 6.5 Stacking and storage

This section of the specification shall be read in conjunction with the provisions for the stacking of articles contained in the General Safety Regulations.

The Contractor shall with reference to Regulation 26: Stacking and storage on construction sites of the Construction Regulations, 2003, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- Who will supervise the stacking and storage of materials on site, and
- What systems are intended to ensure the safe stacking and storage of materials on the site

# 6.6 Personnel Safety Equipment and Facilities

The Contractor shall comply with Section 2 of the General Safety Regulations, and shall in particular provide all necessary personnel protective equipment for his personnel for the duration of the construction



period. To this end the Contractor shall without limiting his obligations indicate in his Health and Safety Plan:

- Identify training requirements in the Contractors Training plan in the use and maintenance of personal protective equipment,
- The type of personnel safety equipment he will provide,
- How he intends issuing it to his employees, and
- How he will maintain the personnel safety equipment issued.

#### 6.7 First Aid, Emergency Equipment and Procedures

The Contractor shall comply with Section 3 of the General Safety Regulations regarding first aid, emergency equipment and procedures.

#### C3.6.1.7 **CATEGORIES OF WORK**

In this section of his Health and Safety Plan, the Contractor will be required to state how he intends to comply with the requirements of the Occupational Health and Safety Act, 1993 and all its regulations and related incorporated standards with regards to the execution of the following categories of work.

#### 7.1 General

The Contractor shall, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

#### 7.1.1 Construction welfare facilities

Contractors will be required to adhere to Regulation 28: Construction welfare facilities of the Construction Regulations, 2003.

This regulation must be read in conjunction with the provisions of the Facilities Regulations, 1990 (as amended) and SANS 0400.

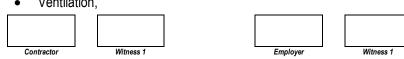
The Contractor must discuss the following in detail in his safety plan:

- How will the Contractor establish the amount of facilities required for employees to shower, change, eat and attend to sanitary needs
- What measures will the employer take to house employees on site who lives far form their residences or for the provision of transport

#### 7.1.2 Environmental regulations for workplaces

The Contractor shall comply with the Environmental Regulations for Workplaces, 1987, and shall address the following aspects as described in the regulations in his Health and Safety plan:

- Thermal requirements,
- Lighting,
- Windows,
- Ventilation.



- Housekeeping,
- Noise and hearing conservation,
- · Precautions against flooding, and
- Fire precautions and means of egress.

#### 7.1.3 Housekeeping on construction sites

Contractors will be required to adhere to Construction Regulation 25: Housekeeping on construction sites, of the Construction Regulations, 2003.

This regulation must be read in conjunction with the provisions of the Environmental Regulations for Workplaces, 1987 (as amended).

The Contractor must discuss the following in detail in his safety plan:

- How will contractors ensure the neatness of construction sites
- What measures does the Contractor envisage to
  - Store and/or stack materials,
  - Remove debris from site,
  - Prevent unauthorized entrance to the site
  - Protect employees or passers-by from falling objects

#### 7.1.4 Fire precaution on construction sites

Contractors will be required to adhere to Construction Regulation 27: Fire precautions on construction sites, of the Construction Regulations, 2003.

This regulation must be read in conjunction with the provisions of the Environmental Regulations for Workplaces, 1987 (as amended).

The Contractor must discuss the following in detail in his safety plan:

- How the Contractor will minimize the risk of fire on the site
- How the Contractor will identify potential fire hazards
- What prohibitions the Contractor will implement to manage risk areas
- How many employees the Contractor will train in fire fighting
- What organization the Contractor envisage to combat fires on sites
- What precautions and procedures will be followed to evacuate employees in the case of a fire

#### 7.1.5 Water Environments

The Contractor will be required to adhere to Construction Regulation 24: Water Environments, of the Construction Regulations, 2003.

The Contractor must discuss the following in detail in his safety plan:



- What precautions will the Contractor take to identify dangers where employees may fall into water
- What safety procedures and equipment will the Contractor implement to safeguard employees working at water environments

#### 7.1.6 Structures

The Contractor will be required to adhere to Construction Regulation 9: Structures, of the Construction Regulations, 2003.

The Contractor must discuss the following in detail in his safety plan:

- Explain what controls, test or precautions will be made to prevent structures from collapsing during construction,
- The Contractor shall indicate what steps will be taken and implemented to ensure that structures
  or parts thereof will not be loaded in such a manner that it may collapse, and
- What procedures does the Contractor envisage to implement in order to obtain all relevant data on structures before commencement of construction work.

#### 7.1.7 Watching, barricading and lighting

The Contractor will be required to adhere to regulations 11.3.(i) and 11.3.(i) of the Construction Regulations, 2003.

The Contractor must discuss the following in detail in his safety plan in respect of any excavation or other dangerous activity adjacent to public roads and thoroughfares:

- Type of barrier or fencing to be used,
- Type and spacing of warning lights and warning signs, and
- Control systems and personnel he intends employing to ensure that the above items are maintained.

#### 7.2 Site Clearance

The Contractor shall, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

#### 7.2.1 Demolition work

Contractors will be required to adhere to Construction Regulation 12: Demolition work, of the Construction Regulations, 2003.

The Contractor shall discuss the following in detail in his safety plan:

- Briefly explain how he will safeguard people and property during and after demolition works
- Briefly explain how he will protect staff from dangerous situations
- Discuss the methods proposed to safeguard the public and property against harm during demolition works



- Discuss what type of equipment he envisage to use during demolition work
- How will the Contractor ensure the safety of equipment used during demolition work
- What steps will the Contractor deem necessary to take where hazardous materials is encountered

#### 7.3 Earthworks

The Contractor shall, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

#### 7.3.1 Excavation work

Contractors will be required to adhere to Construction Regulation 11: Excavation work, of the Construction Regulations, 2003.

The Contractor must discuss the following in detail in his safety plan:

- How will the Contractor establish the stability of ground prior to excavations,
- What steps will the Contractor follow to ensure that bolstering, shoring and bracing is sufficient to ensure the safety of the excavation, and
- What steps will the Contractor follow to ensure the equipment used to safeguard an excavation is sufficient and safe.

#### 7.4 Concrete

The Contractor shall, without limiting his obligations, cover at least the following matters in his Health and Safety Plan under this category of work:

## 7.4.1 Formwork and support work

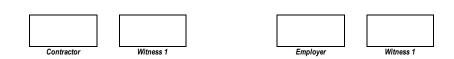
The Contractor shall with reference to Regulation 10: Formwork and support work, of the Construction Regulations, 2003, and without limiting his obligations, cover at least the following matters in his Health and Safety Plan:

- How the design of formwork and support work will be carried out,
- How the erection of formwork and support work will be managed,
- How the continuous assessment of the safety of formwork will be done,
- How the loading of formwork and support work will be managed or limited, and
- How he intends keeping records of the above.

#### 7.5 Pipes

The Contractor shall comply with Section 9 of the General Safety Regulations, with regards to the welding, flame cutting, grinding, soldering or similar operations associated with pipework.

The Contractor shall comply with Section 5 of the General Safety Regulations, with regards to work in confined spaces.



#### C3.6.1.8 IMPLEMENTATION OF CONTRACTOR'S HEALTH AND SAFETY PLAN

#### 8.1 General

The Contractor shall describe in his Health and Safety Plan how he intends implementing his plan.

The Contractor shall indicate the methods he intends using to ensure accurate record keeping of all critical elements identified in his risk assessment and covered in his Health and Safety Plan.

The Contractor shall indicate how internal audits will be carried out, how shortcomings will be addressed, how he intends to review the safety plans, how he would train staff and how he would implement the findings and recommendations of internal audits or inputs of employees.

#### 8.2 Administrative Systems

.The Contractor shall comply with Section 9 of the General Administrative Regulations, 1996. The Contractor's administrative system shall without limiting his obligations, cover the following:

- Up keep of a safety file on site,
- Maintenance of his Health and Safety plan,
- Procedures to follow for the appointment of competent persons,
- Application for permits,
- Procedures to follow for notifications.
- Injury on duty [IOD] administration,
- Recording of minutes of safety meetings,
- Recording of checklists,
- Safe keeping of checklists, and
- Internal audits.

The Contractor shall in particular ensure that at least one copy of the Occupational Health and Safety Act, 1993 and its Regulations is available on the for every 20 employees employed.

#### 8.3 Reporting Systems

The Contractor shall comply with Section 9 of the General Administrative Regulations, 1996 and shall in particular (in accordance with section 12) furnish an inspector with information relating to health and safety on the construction site, when requested to do so.

The Contractor shall notify the Employer of any investigations, complaint or criminal charge which may arise as a consequence of the provision of the Occupational Health and Safety Act, 1993 and its Regulations, pursuant to work performed in terms of this Contract.

#### 8.4 Training

The Contractor shall train all his employees in accordance with the requirements of section 13 of the Occupational Health and Safety Act, 1993. The Contractor shall ensure that every employee is informed of the following:



- The hazards of any work he has to perform or plant machinery or equipment he is permitted to use, and
- The precautionary measures which should be taken regarding the above.

The Contractor shall, without limiting his obligations, indicate in his Health and Safety Plan how he intends:

- Identifying the training needs of the personnel he intends employing, and
- Implementing the training identified.

#### 8.5 Inspections and Monitoring

The Contractor shall be required to inspect each workplace prior to works commencing to ensure that all protective equipment is in place and that by entering the workplace no person will be exposed to any hazard which could affect his health or safety. The Contractor shall without limiting his obligations, indicate the following in his Health and Safety Plan:

- The inspection and monitoring procedures he intends employing to determine the safety of workplaces, and
- Who will be responsible for the checking of each workplace at the commencement of each shift.

The Contractor shall include in his Health and safety Plan all the checklists he intends using during the inspection and monitoring of the implementation of his Health and Safety Plan.

The Contractor can expect inspections of the works by any of the following parties:

- The Employer or his Safety Agent, or
- The designated officer serving in the Department of Manpower and appointed by the Minister as chief inspector or his representative.

In addition to site inspections performed by the Employer or his safety agent they shall also do audits and asses the safety situation at the works and investigate incidents. Follow-up inspections will be performed to ensure compliance to recommendations done.

Inspections by the Chief inspector or his representative will be by appointment and the purpose would be to investigate complaints received by the Inspector or to investigate serious incidents.

The Chief Inspector or his representative may issue prohibition notices to stop the activities at the works until the situation investigated has been resolved or he may issue an improvement notice whereby the Contractor will have a period to rectify any hazard identified by the inspector.

#### C3.6.1.9 AUDITING

#### 9.1 Internal Audits

The audits contemplated in regulation 4.(1)(d) of the Construction Regulations,2003 will be carried out by the Employer or his appointed Safety Agent.

The intervals for the audits shall be agreed between the Contractor and the Employer or his Safety Agent during the preparation of the Contractor's Health and Safety Plan, but shall be carried out at least once every month or at such shorter interval that an inspector may require. The Employer or his Safety Agent shall provide at least 7 calendar days notice prior to the conducting of an audit.



The findings of each audit will be made known to the Contractor and the Employer in a report prepared by the Employer or his Safety Agent and will be submitted to all parties within seven working days of the respective audit being completed. Any shortfalls identified will be documented in the audit report together with the Contractor's proposals to rectify the same. All audit reports will be filed in the Health and Safety File.

A date for a follow up audit will be negotiated with the Contractor to verify the implementation of all actions to rectify shortfalls as identified in the audit report .

The Contractor will ensure that the same arrangement detailed above be implemented with his Contractors to ensure his compliance with the Construction Regulations and contemplated in regulation 5. (3)(c).

The audits described above only constitutes part compliance by the Employer or the Safety Agent with regulation 4.(1)(c) of the Construction Regulations, 2003.

## 9.2 Audits by Employer or Safety Agent

The Employer or Safety Agent will be entitled to carry out additional audits or follow-up audits, as the case may be, at any time during the construction period provided that:

- i) The audit or follow-up audit are carried out during ordinary working hours, and
- ii) The Employer or Safety Agent gives the Contractor at least 24 hours notice of his intention to carry out such audits.

The Contractor's employees indicated in Section 9.1 will be present during any audit carried out by the Employer or his Safety Agent.

#### C3.6.1.10 MEASUREMENT AND PAYMENT

#### 10.1 Measurement and Payment

- 10.1.1 The scheduled items for health and safety will be included in the preliminary and general section of the schedule of quantities. Measurement will be in terms of Clause 8.1.2 of SANS 1200 A.
- 10.1.2 The Contractor shall price all items scheduled in this section of the schedule of quantities to enable the Employer to comply with clause 4.1.(h) of the Construction Regulations, 2003. Failure by the Contractor to price these items will force the Employer to reject the Contractor's tender in terms of clause 4.(4) of the Construction Regulations, 2003.
- 10.1.3 Payment for the scheduled items will be in terms of clause 8.2 of SANS 1200 A.

#### 10.2 Scheduled Items

#### 10.2.1 General

The maintenance of safe work practice at all times and in all sections of the execution of the works is embedded in the day to day site activities of all the Contractor's management, staff and workforce on the contract.

However, the introduction of the Construction Regulations in 2003 requires from the Employer to ensure that the Contractor has made adequate provision for the execution of the works within the specifications of said regulations. The following items have been identified as critical towards ensuring the minimum standards of safe work practice:



It must be noted that the lists below are not exhaustive and that many items have been traditionally priced by the Contractor as an integral part of his Preliminary and General items or as part of the overhead costs of other items. The tender document, although not detailed with regards the Construction Regulations, requires that the Contractor ensures adherence to the Occupational Health and Safety Act (Act 85 of 1993) the Construction Regulations, 2003.

#### 10.2.2 Fixed-Charge Items

The fixed charge item shall include but shall not be limited to the following:

- Health and Safety Training
- Personal Protective Clothing and Equipment
- Fences, Signs and Barricades
- Establishment of Safety Administration
- Other Health and Safety Fixed-charge Obligations

#### 10.2.3 Time-related Items

The time related item shall include but shall not be limited to the following:

- The employment cost of all health and safety personnel including consultants, health and safety
  officers, inspectors, supervisors and issuers required in terms of the Contractor's Health and Safety
  Plan,
- Updating the Health and Safety Plan as needed,
- Carrying out of periodic own audits and follow-up audits,
- Compiling ongoing risk assessments and risk assessment reports as required by the Works,
- Convening of regular safety meetings with the Safety Representatives,
- Accompanying and supporting the Employer or his Safety Agent during ad hoc audits,
- Compilation of monthly safety reports and statistics for the Employer or his Safety Agent,
- Implementation and maintenance of Training
- Maintenance of personal protective clothing and equipment
- Maintenance of fences, signs and barricades
- Implementation and maintenance of safety administration
- Other Health and Safety Time-related Obligations



## **GREATER LETABA MUNICIPALITY**



PROJECT NO: GLM002/2025

# **CONSTRUCTION OF RAMAROKA STREET PAVING**

**C4: SITE INFORMATION** 

C4.1: SITE INFORMATION

Contractor Witness 1 Employer Witness 1

## **C4.1 SITE INFORMATION**

The Greater Letaba Municipality is located in the Limpopo Province within the Mopani District Municipality. It is one of the five (5) Local Municipalities falling within the Mopani District. The Municipality covers approximately 1 891 km² in area with an estimated population of 218 030 people (Community Survey 2016). The area consists of 3 clusters that have been demarcated into 30 wards. The Municipality is responsible for the Implementation of Road Infrastructure Projects within the area.

#### PROJECT LOCATION

The Project is Located in Ramaroka Village which is situated approximately 22km north-east of Modjadjiskloof town and falls in the Greater Letaba Municipality jurisdiction within the boundaries of the Mopani District Municipality. The road starts at the intersection with the district road, D4253, at the Ramaroka settlement on the southern end. The new road will continue from the existing gravel district road, D3195 in a north-eastern direction and will follow a loop road back existing gravel district road, D3195. The project is located in the Ward 21 within the Greater Letaba Municipality and Mopani District Municipality. The following shows the coordinates of the project location:

 Ramaroka (Ward 21)
 : 23°30'31.84"S. (latitude)
 30°21'23.15"E. (longitude)

 Start of Road
 : 23°30'50.20"S. (latitude)
 30°21'24.34"E. (longitude)

 End of Road
 : 23°30'33.38"S. (latitude)
 30°21'04.08"E. (longitude)

#### **TOPOGRAPHY & TERRAIN**

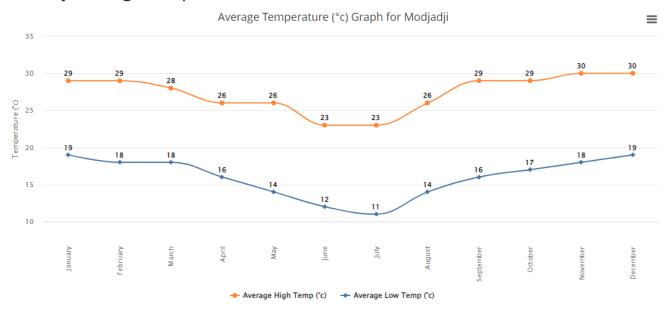
The proposed road is located in the Lowveld (Sour Bushveld) Vegetation within the Savanna Biome. The aforementioned area has a rocky and hilly terrain that is characterised by undulating slopes interrupted by valleys or river streams. The terrain generally drains from the west to the east and the vertical alignment of the existing gravel roads are generally some 250mm to 400mm below natural ground level, resulting in poorly drained roads. The sub-grade materials consist of predominantly weathered granite, rocky outcrops, boulders and sandy soils. The north-eastern portions of the street are characterized by erosion of side drains due to no storm water control and medium to steep slopes than range from 2% to 6%.

#### **CLIMATIC CONDITIONS**

The proposed road is located in a summer rainfall region with a Mean Annual Precipitation (MAP) of 1238mm. The aforementioned region is subjected to Average Daily Temperatures of about 15°C during Winter and 24°C during Summer. The graph below indicated the monthly average temperatures.

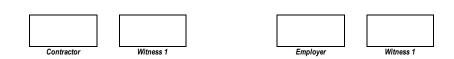


# **Monthly Average Temperature**



## **LOCALITY MAP**

A Locality Map has been included in the Tender Drawings attached.



# 296 GREATER LETABA MUNICIPALITY



PROJECT NO: GLM002/2025

## **CONSTRUCTION OF RAMAROKA STREET PAVING**

**C5: TENDER DRAWINGS** 

C5: TENDER DRAWINGS

