



**TENDER NO: SCMU10-21/22-0008**

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF  
CONCRETE LINED DRAINS**

**VOLUME 3**

**TENDER CLOSING: 11:00 ON FRIDAY 09 JULY 2021**

**Department of Transport**

**32 Cowan Close**

**Stellenbosch Park Building**

**King William's Town**

**5601**

**Company Name of Tenderer:**

.....

.....

**CRS No.** .....

**CSD No.** .....



**PROVINCE OF THE EASTERN CAPE  
DEPARTMENT OF TRANSPORT  
TENDER NO. SCMU10-21/22-0008**

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**

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**PROVINCE OF THE EASTERN CAPE**

**DEPARTMENT OF TRANSPORT**

**TENDER NO. SCMU10-21/22-0008**

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**

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**THE TENDER**  
**PART 1 (OF 2): TENDERING PROCEDURES**

**T1.1 Tender Notice and Invitation to Tender**

**T1.2 Tender Data**

## T1.1: TENDER NOTICE AND INVITATION TO TENDER

### A. BID INVITATION

**BID / Tender No.: SCMU10-21/22-0008**

Tenderers are hereby invited for the **UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**

Tenderers must be registered with the CIDB and have a valid CIDB contractor grading designation of Grade **4CE or 3CEPE**

Bid documents will be available as from **12h00** on **Friday 04 June 2021** . Documents must be downloaded on [www.ectransport.gov.za](http://www.ectransport.gov.za) or [etenders@treasury.gov.za](mailto:etenders@treasury.gov.za)

Due to COVID-19 pandemic, the compulsory briefing will not take place.

Completed Tender documents in a sealed envelope endorsed with the relevant bid number, bid description and the **closing date**, must be deposited in the bid box, Department of Transport, Room C1, Stellenbosch Park building, Flemming Street, King Williams Town, not later than **11h00 on Friday the 09<sup>th</sup> of July 2021** when tender will be opened in public. Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

### B. BID EVALUATION

**This bid will be evaluated in three (3) phases as follows:**

Phase One: Compliance, responsiveness to the bid rules and conditions, local content thereafter.  
Phase two functionality, Phase Three: Bidders passing all stages above will thereafter be evaluated on PPPFA.

### C. PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT (PPPFA)

Points will be awarded as follows:

Maximum points on price	-	<b>80 points</b>
Maximum points for BBBEE	-	<b>20 points</b>
Maximum points	-	<b>100 points</b>

### D. BID SPECIFICATIONS, CONDITIONS AND RULES

The minimum specifications, functionality and other bid conditions and rules are detailed in the bid document.

Note: Tender Validity Period is 90 days

### E. TENDER SUBMISSIONS

The completed tender document as well as any supporting documentation shall be placed in a sealed envelope clearly marked, "**TENDER NO: SCMU10-21/22-0008: UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**", and deposited in the Tender Box, Room C1, Old Building, Flemming Street, King Williams Town, not later than **11h00 am on Friday the 09<sup>th</sup> of July 2021**.

### SCM RELATED ENQUIRIES

Mr. P. Nqikashe  
Tel No: 067 419 8001  
Email Address: [Philasande.Nqikashe@ectransport.gov.za](mailto:Philasande.Nqikashe@ectransport.gov.za)

Mr. M. Cwili  
Tel No: 067 414 2504  
Email Address: [Mandiphiwe.Cwili@ectransport.gov.za](mailto:Mandiphiwe.Cwili@ectransport.gov.za)

**TECHNICAL ENQUIRIES**

Ms. N. Dyani

Tel No.: 066 381 7957

Email Address: [nelisa.dyani@ectransport.gov.za](mailto:nelisa.dyani@ectransport.gov.za)

**FOR COMPLAINTS, FRAUD, & TENDER ABUSE**

Call: 0800 701 701

# PROVINCE OF THE EASTERN CAPE DEPARTMENT

## OF TRANSPORT TENDER NO. SCMU10-21/22-0008

### UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS

#### T1.2: TENDER DATA

The tender conditions are the Standard Conditions of Tender as contained in Annexure F of the CIDB Standard for Uniformity in Construction Procurement as per CIDB Board Notice No. 86 of 2010 published in Government Gazette No. 33239 of 28 May 2010 and as amended from time to time. (see [www.cidb.org.za](http://www.cidb.org.za))

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

Each item of data given below is cross-referenced to the clause marked "F" in the above-mentioned Standard Conditions of Tender.

No	Clause	Wording
1	F.1.1	The employer is the DEPARTMENT OF TRANSPORT, Province of the Eastern Cape
2	F.1.2	<p>The tender documents issued by the employer comprise:</p> <p style="text-align: center;"><b><u>THE TENDER</u></b></p> <p><b>PART T1: TENDERING PROCEDURES</b> T1.1: Tender Notice and Invitation to Tender T1.2: Tender Data</p> <p><b>PART T2: RETURNABLE DOCUMENTS</b> T2.1: List of Returnable Documents T2.2: Returnable Schedules</p> <p style="text-align: center;"><b><u>THE CONTRACT</u></b></p> <p><b>PART C1: AGREEMENTS AND CONTRACT DATA</b> C1.1: Form of Offer and Acceptance C1.2: Contract Data C1.3: Deed of Guarantee (pro forma)</p> <p><b>PART C2: PRICING DATA</b> C2.1: Pricing Instructions C2.2: Bill of Quantities</p> <p><b>PART C3: SCOPE OF WORKS</b> C3.1: Description of the Works C3.2: Engineering C3.3: Procurement C3.4: Construction C3.5: Management</p> <p><b>PART C4: SITE INFORMATION</b> C4: Site Information</p>



3	F.1.4	<p>The Employer's agent is</p> <p>Name: In-house Design Unit</p> <p>Address: 32 Cowan Close, Stellenbosch Park Building, King Williams Town, 5601</p> <p>Tel: 063 698 0715</p> <p>E-mail: <a href="mailto:unathi.dyubula@ectransport.gov.za">unathi.dyubula@ectransport.gov.za</a></p>
4	F.1.5.1	<p>The employer may accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a tenderer for such cancellation and rejection, but will give written reasons for such action upon written request to do so.</p> <p>The Employer further reserves the right not to award a project to any tenderer found to be at a high risk of non/under-performance based on a risk assessment of the current workload or past performance of that tenderer. The employer reserves the right <b>not to award more than one project</b> (of the projects advertised Hamburg &amp; Qumbu concrete lined drains) <b>per tendering entity</b>.</p> <p>The successful Tenderer will be required to submit a valid and certified copy of their Letter of Good Standing from the Compensation Commissioner or FEMA within 21 days of receipt of their Letter of Award for this Tender.</p> <p>The successful Tenderer will be required to submit a valid and certified copy of their Letter of Good Standing from the <b>Bargaining Council of Civil Engineers (BCCEI)</b> within 21 days of receipt of their Letter of Award for this Tender, failure to meet the above will render the award null and void.</p>
5	F.2.1	<p>The following tenderers who are registered with the CIDB in grading designation <b>4CE or 3CEPE</b> are eligible to submit tenders:</p> <ol style="list-style-type: none"> <li>1) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tender for a class of construction work, or</li> <li>2) Joint ventures are eligible to submit tenders provided that: <ol style="list-style-type: none"> <li>a) every member of the joint venture is registered with the CIDB for <b>CE</b> class of work</li> <li>b) the combined contractor grading designation calculated in accordance with the Construction Industry Development Board Regulations is equal to a contractor grading designation of <b>4CE or 3CEPE</b></li> <li>c) a signed Joint Venture Agreement must be attached with the tender</li> <li>d) a valid copy of a consolidated B-BBEE for the Joint Venture must be attached with the tender</li> </ol> <p style="text-align: center;"><b>MINIMUM REQUIREMENTS</b></p> <li>e) Prospective tenderers will only be <b>eligible</b> to submit a tender if, in terms of clause F3.8.1 in Tender Data T1.2.</li> <li>f) Construction Manager (GCC 2015 term for Site Agent) with minimum of three (3) years experience in road concrete works project(s) or road related structures (i.e. storm water structures) as a Construction Manager and professionally registered as a candidate. A suitably qualified and experienced (3 years' experience) <b>Construction Manager</b> who will be the single point accountable and responsible person for the full time management of the construction works on site, who is registered with ECSA as a Candidate Professional Engineer (Pr Eng) or Candidate Professional Engineering Technologist (Pr Tech Eng) or Candidate Professional Engineering Technician (Pr Techni Eng) or Registered with SACPCMP as Candidate Professional Construction Manager (Pr CM).</li> <li>g) Construction Health and Safety Officer to manage the contractor's health and safety obligations on site with minimum of Three (3) years' experience on road projects and professionally registered.</li> </li></ol>

		<p>A suitably qualified and experienced full time <b>Construction Health and Safety Officer</b> to manage the Contractor's health and safety obligations on site who is registered with SACPCMP as a Professional Construction Health and Safety Agent (Pr CHSA) or Professional Construction Health and Safety Manager (Pr CHSM) or Professional Construction Health and Safety Officer (Pr CHSO)</p> <p>3) The contractor must have completed a minimum of 3 projects (road concrete works project(s) or road related structures (i.e. storm water structures) to the value of 4 million in the last 10 years.</p>
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6	F.2.7	For particulars regarding a compulsory site inspection, <b>There will be no briefing.</b>
7	F.2.12	No alternative offers will be considered
8	F.2.13.1	Tenderers must only offer to provide services or supplies identified in the contract data to complete the Whole Works
9	F.2.13.3	Parts of each tender offer communicated on paper shall be submitted as an original.
10	F.2.13.5	The Employer's address for delivery of tender offers and identification details is as per the Notice and Invitation to Tender T1.1.
11	F.2.13/ F.3.5	A single envelope procedure <u>will be applicable</u>
12	F.2.15	The closing time for submission of tender offers is as per Notice and Invitation to Tender T1.1.
13	F.2.15	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted
14	F.2.16	The tender offer validity period is as per Notice and Invitation to Tender T1.1.
15	F.2.19	Access shall be provided for the following inspections, tests and analysis: Borrow pit testing and any verification of geotechnical data
16	F 3.4.1 F.3.4. 2	The location for opening of the tender offers, immediately after the closing time thereof shall be as per Notice and Invitation to Tender T1.1

17	F 3.8.1	<p><b>Failure to comply with these eligibility criteria will cause the tender to be rejected.</b></p> <p>Where it is found that a specific tenderer is eligible for award of more than one contract, the employer reserves the right not to award more than one contract to such a tendering entity. Only if the Tenderer has submitted separate suitable Key Personnel for each tender/project may an additional contract be considered for award to a single tendering entity.</p>
		<p><b>PHASE 1: LOCAL CONTENT</b></p> <p><b>i) Local content declaration</b></p> <ul style="list-style-type: none"> <li>• A minimum of 100% must be scored for local content.</li> <li>• Failure to meet a minimum percentage for local content will automatically invalidate the bid for further consideration.</li> <li>• Failure to submit an exemption letter from the DTI will automatically invalidate the bid.</li> <li>• If the raw material or input to be used for a specific item is not available locally, bidders should obtain written authorization from the DTI should there be a need to import such raw material or input and a copy of this authorization letter must be submitted together with the bid document at the closing date and time.</li> <li>• An In-LoCo Inspection may be conducted prior awarding of this bid.</li> <li>• Schedule of Local content material, see SBD6.2 annexure C.</li> </ul>

7		Failure to comply with these eligibility criteria will cause the tender to be rejected.
8	F.2.7	For particulars regarding a compulsory site inspection, see Notice and Invitation to Tender T1.1. Completion of the Attendance Register at the Briefing Meeting will be deemed as proof of attendance.
9	F.2.12	No alternative offers will be considered
10	F.2.13.1	Tenderers must only offer to provide services or supplies identified in the contract data to complete the Whole Works
11	F.2.13.3	Parts of each tender offer communicated on paper shall be submitted as an original.
12	F.2.13.5	The Employer's address for delivery of tender offers and identification details is as per the Notice and Invitation to Tender T1.1.
13	F.2.13/ F.3.5	A single envelope procedure <u>will be applicable</u>
14	F.2.15	The closing time for submission of tender offers is as per Notice and Invitation to Tender T1.1.
15	F.2.15	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted
16	F.2.16	The tender offer validity period is as per Notice and Invitation to Tender T1.1.
17	F.2.19	Access shall be provided for the following inspections, tests and analysis: Borrow pit testing and any verification of geotechnical data
18	F 3.4.1 F.3.4. 2	The location for opening of the tender offers, immediately after the closing time thereof shall be as per Notice and Invitation to Tender T1.1



18	F.3.9.1	<p>Add a new bullet: "In the event of there being any rate or rates which are declared to be an unacceptable commercial risk by the Employer, the Tenderer will be requested –</p> <p>(a) to justify any specific rate or rates, i.e. to give a financial breakdown of how such rate or rates were obtained,</p> <p>(b) and subsequently to consider amending and adjusting such rate or rates while retaining the Tender Total derived under sub-clause F.3.9.2 (c) unchanged and fixed. It must be understood that in the event of the tenderer refusing to adjust any rate or rates to the satisfaction of the Employer, such refusal may prejudice his Tender."</p> <p>(c) The amount reflected on the form of offer and acceptance takes precedence over any other total amount indicated elsewhere in bidder's tender submission. If the form of offer and acceptance has no value or figure, the bidder will be regarded as having made no offer.</p> <p>(d) <b>Negotiation:</b> if the price / offer of the highest bidder(s) is believed not to be reasonable, the DEPARTMENT OF TRANSPORT through its SCM committees may negotiate the offer submitted with the highest bidder(s) with the intention to come to a reasonable &amp; acceptable offer. Bidders are not allowed to increase their offers during this process. Where there is no consensus with any of the preferred bidders, the client reserves the right to cancel the bid process.</p> <p>(e) Bid closing: it is the responsibility of the bidders to ensure that bid documents/proposals are submitting on or before closing time and at the correct location as the DEPARTMENT OF TRANSPORT will not take responsibility of wrong delivery. Bidders who are using courier services for delivery is at the correct place/location and time as the DEPARTMENT OF TRANSPORT will not be held responsible for wrong delivery.</p> <p>(f) Tenders shall remain valid for a period 90 days after the closing date. The DEPARTMENT OF TRANSPORT does not bind itself to accept the lowest bid or another bid and reserves the right to accept the whole or part of the bid.</p>								
19	F.3.11	<p>The procedure for the evaluation of responsive tenders is <b>Method 2 (Financial Offer, and Preferences)</b>.</p> <table border="1" data-bbox="323 1243 1540 1422"> <thead> <tr> <th></th> <th>Maximum number of tender evaluation points</th> </tr> </thead> <tbody> <tr> <td>Price Component</td> <td>80</td> </tr> <tr> <td>Preferential Component</td> <td>20</td> </tr> <tr> <td>Total evaluation points</td> <td><b>100</b></td> </tr> </tbody> </table> <p><b>Calculation of Points for Price (Ps)</b>  <i>The points scored for Price will be calculated using the following formula:</i></p> $P_s = \frac{P_t - P_{min}}{P_{min}}$ <p>Where <math>P_s</math> = points scored for price by tender under consideration  <math>P_{min}</math> = price of lowest acceptable tender  <math>P_t</math> = price of tender under consideration</p>		Maximum number of tender evaluation points	Price Component	80	Preferential Component	20	Total evaluation points	<b>100</b>
	Maximum number of tender evaluation points									
Price Component	80									
Preferential Component	20									
Total evaluation points	<b>100</b>									



**PROVINCE OF THE EASTERN CAPE**  
**DEPARTMENT OF TRANSPORT**  
**TENDER NO. SCMU10-21/22-0008**  
**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED**  
**DRAINS**

**THE TENDER**  
**PART 2 (OF 2): RETURNABLE DOCUMENTS**

T2.1 List of Returnable Documents T2.2  
Returnable Documents



**Note to Bidders:**

The information contained on these forms, plus the supporting information, will be used in the first stages of the evaluation of Tenders.

**T2.1 List of Returnable Documents****1. Forms to be completed**

FORM	DESCRIPTION	Checklist
SBD 1	INVITATION TO TENDER	Y <input type="checkbox"/> / N <input type="checkbox"/>
A.	CERTIFICATE OF BIDDERS'S ATTENDANCE AT COMPULSORY CLARIFICATION MEETING	Y <input type="checkbox"/> / N <input type="checkbox"/>
B.	CERTIFICATE OF AUTHORITY FOR SIGNATORY	Y <input type="checkbox"/> / N <input type="checkbox"/>
C.	SCHEDULE OF ROADS MAINTENANCE/ROADS CONSTRUCTION WORK CARRIED OUT BY THE BIDDERS IN THE PAST 10 YEARS	Y <input type="checkbox"/> / N <input type="checkbox"/>
D.	SCHEDULE OF CONSTRUCTION PLANT – <u>including</u> Letter of Intent if plant is to be hired	Y <input type="checkbox"/> / N <input type="checkbox"/>
E.	NOT APPLICABLE	Y <input type="checkbox"/> / N <input type="checkbox"/>
F.	CONTRACTOR'S ESTABLISHMENT ON SITE	Y <input type="checkbox"/> / N <input type="checkbox"/>
G.	NOTICES TO TENDERERS	Y <input type="checkbox"/> / N <input type="checkbox"/>
H	JOINT VENTURE DISCLOSURE FORM	Y <input type="checkbox"/> / N <input type="checkbox"/>
I	RATES FOR SPECIAL MATERIALS	Y <input type="checkbox"/> / N <input type="checkbox"/>
J	CONTRACTOR'S KEY PERSONNEL AND DETAILED CV'S	Y <input type="checkbox"/> / N <input type="checkbox"/>
K	AUDITOR DETAILS	Y <input type="checkbox"/> / N <input type="checkbox"/>
L	DECLARATION – FULFILLMENT OF THE CONSTRUCTION REGULATIONS, 2014	Y <input type="checkbox"/> / N <input type="checkbox"/>
M	PROOF OF REGISTRATION WITH THE CONSTRUCTION INDUSTRY DEVELOPMENT BOARD	Y <input type="checkbox"/> / N <input type="checkbox"/>
N	CENTRAL SUPPLIER DATABASE (CSD)	Y <input type="checkbox"/> / N <input type="checkbox"/>
O	PROOF OF REGISTRATION WITH THE BARGAINING COUNCIL	Y <input type="checkbox"/> / N <input type="checkbox"/>
T2.2R	COMPULSORY ENTERPRISE QUESTIONNAIRE	Y <input type="checkbox"/> / N <input type="checkbox"/>
SBD 4	DECLARATION OF INTEREST	Y <input type="checkbox"/> / N <input type="checkbox"/>
SBD 6.1	PREFERENCE POINTS CLAIM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017 (Form SBD 6.1) – including B-BBEE Certificate, EME and QSE Affidavits	Y <input type="checkbox"/> / N <input type="checkbox"/>
SBD 6.2	LOCAL CONTENT IN TERMS OF PPR 2017	Y <input type="checkbox"/> / N <input type="checkbox"/>
SBD 8	DECLARATION OF BIDDERS'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES	Y <input type="checkbox"/> / N <input type="checkbox"/>
SBD 9	CERTIFICATE OF INDEPENDENT TENDER DETERMINATION	Y <input type="checkbox"/> / N <input type="checkbox"/>

**THESE FORMS MUST BE COMPLETED USING BLACK INK**

Where the space provided in the bound document is insufficient, separate schedules may be drawn up in accordance with the given formats and bound into a separate ring-bound document. These schedules shall then be bound together with a suitable index /contents page and submitted with the tender documents. All such schedules must be signed, and clearly marked as appendices to these relevant forms.

**2. Other documents that will be incorporated into the Contract**

- C1.1 Offer and Acceptance
- C1.2 Contract Data
- C2.2 Pricing Schedule

## **T2.2 RETURNABLE DOCUMENTS**

**SBD 1: INVITATION TO BID****PART A  
INVITATION TO BID**

<b>YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE DEPARTMENT OF TRANSPORT</b>			
BID NUMBER:	SCMU10-21/22-0008	CLOSING DATE:	09 July 2021
CLOSING TIME:	11h00	DESCRIPTION	
UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS			
<b>THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).</b>			
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT:			
Department of Transport			
Room C1, Stellenbosch Park Building,			
Flemming Street, King Williams Town			
<b>SUPPLIER INFORMATION</b>			
NAME OF BIDDER			
POSTAL ADDRESS			
STREET ADDRESS			
TELEPHONE NUMBER	CODE	NUMBER	
CELLPHONE NUMBER			
FACSIMILE NUMBER	CODE	NUMBER	
E-MAIL ADDRESS			
VAT REGISTRATION NUMBER			
	TCS PIN:	OR	CSD No:
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No	B-BBEE STATUS LEVEL SWORN AFFIDAVIT	<input type="checkbox"/> Yes <input type="checkbox"/> No
IF YES, WHO WAS THE CERTIFICATE ISSUED BY?			
AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA) AND NAME THE APPLICABLE IN THE TICK BOX	<input type="checkbox"/>	AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA)	
	<input type="checkbox"/>	A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN ACCREDITATION SYSTEM (SANAS)	
	<input type="checkbox"/>	A REGISTERED AUDITOR NAME:	
<b>[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/SWORN AFFIDAVIT(FOR EMEs&amp; QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]</b>			
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	Yes No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	Yes No [IF YES ANSWER PART B:3 BELOW ]
SIGNATURE OF BIDDER	.....	DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED (Attach proof of authority to sign this bid; e.g. resolution of directors, etc.)			
TOTAL NUMBER OF ITEMS OFFERED		TOTAL BID PRICE (ALL INCLUSIVE)	
<b>BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:</b>		<b>TECHNICAL INFORMATION MAY BE DIRECTED TO:</b>	
DEPARTMENT/ PUBLIC ENTITY	Department of Transport (SCM)	CONTACT PERSON	N. Dyani
CONTACT PERSON	Mr. P. Nqikashe/ Mr. M. Cwili	TELEPHONE NO	066 381 7957
TELEPHONE NUMBER	067 419 8001/076 612 6592	E-MAIL ADDRESS	nelisa.dyani@ctransport.gov.za

**PART B  
TERMS AND CONDITIONS FOR BIDDING**

<b>1. BID SUBMISSION:</b>			
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.	BIDDERS MUST REGISTER ON THE CENTRAL SUPPLIER DATABASE (CSD) TO UPLOAD MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS; AND BANKING INFORMATION FOR VERIFICATION PURPOSES). B-BBEE CERTIFICATE OR SWORN AFFIDAVIT FOR B-BBEE MUST BE SUBMITTED TO BIDDING INSTITUTION.		
1.4.	WHERE A BIDDER IS NOT REGISTERED ON THE CSD, MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS MAY NOT BE SUBMITTED WITH THE BID DOCUMENTATION. B-BBEE CERTIFICATE OR SWORN AFFIDAVIT FOR B-BBEE MUST BE SUBMITTED TO BIDDING INSTITUTION.		
1.5.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER LEGISLATION OR SPECIAL CONDITIONS OF CONTRACT.		
<b>2. TAX COMPLIANCE REQUIREMENTS</b>			
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 TAX COMPLIANCE STATUS (TCS) 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	BIDDERS MAY ALSO SUBMIT A PRINTED TCS TOGETHER WITH THE BID.		
2.5	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE PROOF OF TCS / PIN / CSD NUMBER.		
2.6	WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.		
<b>3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS</b>			
3.1.	IS THE BIDDER A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	YES	NO
3.2.	DOES THE BIDDER HAVE A BRANCH IN THE RSA? <input type="checkbox"/> <input type="checkbox"/>	YES	
3.3.	DOES THE BIDDER HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <input type="checkbox"/>	YES	NO
3.4.	DOES THE BIDDER HAVE ANY SOURCE OF INCOME IN THE RSA? <input type="checkbox"/>	YES <input type="checkbox"/>	NO
<p><b>IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN, IT IS NOT A REQUIREMENT TO OBTAIN A TAX COMPLIANCE STATUS / TAX COMPLIANCE SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.</b></p>			

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

**A: CERTIFICATE OF ATTENDANCE AT COMPULSORY CLARIFICATION MEETING**

Due to COVID-19 pandemic, the compulsory briefing will not take place. The department has furnished the tenderers with contact information under enquiries. For any further clarity on this bid to communicate with the department.

**SIGNED ON BEHALF OF BIDDERS:** .....

**B: CERTIFICATE OF AUTHORITY FOR SIGNATORY**

Signatory for companies shall confirm his/her authority thereto by attaching a duly signed and dated copy on the company letterhead of the relevant resolution of the board of directors to this form.

**Failure to submit a duly signed resolution will render the tender non-responsive. A material tender condition**

***An example is given below:***

“By resolution of the board of directors passed at a meeting held on .....

Mr./Ms. ...., whose signature appears below, has been duly authorized

to sign all documents in connection with **TENDER NO. SCMU10-21/22-0008: UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**

and any Contract that may arise therefrom on behalf of

(Name of Bidders in block capitals)

.....

SIGNED ON BEHALF OF THE COMPANY .....

IN HIS/HER CAPACITY AS: .....

**EXAMPLE**

DATE: .....

SIGNATURE OF SIGNATORY: .....

WITNESSES: 1. ....

2. ....








**SIGNED ON BEHALF OF THE BIDDERS:** .....

**F: CONTRACTOR’S ESTABLISHMENT ON SITE**

Should the combined, extended total tender for the following section:

**Item B13.01 The Contractors general obligations:**

- (a) Fixed Obligations
- (b) Value-related Obligations
- (c) Time-related Obligations

Exceed a maximum of **15%** of the tender sum (excluding VAT), the Bidders shall clearly set out his reasons for tendering in this manner in a letter attached to this page.

In the event of there being any rate or rates which are declared to be unacceptable by the Employer for reasons which the Employer will indicate, the Bidders will be requested -

- (a) to justify any specific rate or rates, i.e. to give a financial breakdown of how such rate or rates were obtained,
- (b) and subsequently to consider amending and adjusting such rate or rates while retaining the tender sum derived under (a) unchanged and fixed unless a new **negotiated price** has been agreed in terms of Tender Data F.1.5.1. It must be understood that in the event of the Bidders refusing to adjust any rate or rates to the satisfaction of the Employer, such refusal may prejudice his tender.

Total tender for Item B13.01 expressed as a percentage of the tender sum (excluding VAT)

A: ..... %

[This percentage is to be carried forward to the Contract Data (Part 1), Clause 6.5.1.2.3]

**SIGNED ON BEHALF OF THE BIDDERS:** .....

**G: NOTICES TO TENDERERS**

In submitting my/our tender, the tender sum given in my/our tender form has been based on the following Notice(s) to Bidders. (Signed copies of all Notices to Bidders are to be attached to this page).

NOTICE NO.	SUBJECT MATTER OF NOTICE

**SIGNED ON BEHALF OF THE BIDDERS:** .....

**H: JOINT VENTURE DISCLOSURE FORM**

Tenderers submitting tenders as a joint venture are to attach a signed copy of the Joint Venture Agreement.

**SIGNED ON BEHALF OF THE BIDDERS:** .....

**PRO-FORMA FOR JOINT VENTURES:**

**Certificate of Authority for Joint Ventures**

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

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
		Signature: ..... Name: ..... Designation: .....
<h1>Pro-Forma</h1>		Signature: ..... Name: ..... Designation: .....
		Signature: ..... Name: ..... Designation: .....
		Signature: ..... Name: ..... Designation: .....

**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.
- vii) A joint venture that is awarded a contract with Department of Transport must be registered as a separate company with the Registrar of Businesses.
- viii) The joint venture must be registered with South African Revenue Services.
- ix) A separate bank account must be in place for the joint venture.

**1. JOINT VENTURE PARTICULARS**

- a) Name .....
- b) Postal address .....
- .....
- .....

- c) Physical address.....  
.....  
.....
- d) Telephone.....
- e) Fax.....

**2. IDENTITY OF EACH NON-AFFIRMABLE JOINT VENTURE PARTNER**

- 2.1(a)** Name of Firm.....
- Postal Address.....
- Physical Address.....
- Telephone.....
- Fax.....

Contact person for matters pertaining to Joint Venture Participation Goal requirements:

.....

- 2.2(a)** Name of Firm.....
- Postal 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)*

**3. IDENTITY OF EACH AFFIRMABLE JOINT VENTURE PARTNER**

**3.1(a)** Name of Firm .....  
Postal Address.....  
Physical Address .....  
Telephone.....  
Fax.....

Contact person for matters pertaining to Joint Venture Participation Goal requirements:  
.....

**3.2(a)** Name of Firm .....  
Postal Address.....  
Physical Address .....  
Telephone.....  
Fax.....

Contact person for matters pertaining to Joint Venture Participation Goal requirements:  
.....

**3.3(a)** Name of Firm .....  
Postal Address.....  
Physical Address .....  
Telephone.....  
Fax.....

Contact person for matters pertaining to Joint Venture Participation Goal requirements:  
.....



**4. BRIEF DESCRIPTION OF THE ROLES OF THE AFFIRMABLE JOINT VENTURE PARTNERS IN THE JOINT VENTURE**

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

**5. OWNERSHIP OF THE JOINT VENTURE**

- a) **Affirmable Joint Venture Partner ownership percentage(s) .....%**
- b) ***Non-Affirmable Joint Venture Partner ownership percentage(s) .....%***
- c) Affirmable Joint Venture Partner percentages in respect of: \*

- (i) Profit and loss sharing .....

- (ii) Initial capital contribution in Rands .....

.....  
.....

(\*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 quantities of equipment) to be provided by each partner.

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

**SIGNED ON BEHALF OF THE TENDERER:** .....

**I: RATES FOR SPECIAL MATERIALS**

Price adjustments for variations in the costs of special materials are **not** allowed.

**SIGNED ON BEHALF OF THE TENDERER:** .....

**J: CONTRACTOR'S KEY PERSONNEL & DETAILED CV'S**

The Bidders must state below the key management staff who will be available and intended for use on this contract (in accordance with Tender Data clause F.3.8.1). Relevant detailed CV's including certificates for qualifications as well as indicating their previous experience **must be attached** otherwise they will not meet minimum requirements for the eligibility criteria.

POSITION	NAME	CONCRETE STRUCTURES RELATED EXPERIENCE	
		Years	Qualifications
Construction Manager			
Construction Safety Officer			

**SIGNED ON BEHALF OF THE BIDDERS:** .....

**K: AUDITOR DETAILS**

The Bidders shall provide details of his auditing accountant.

**Auditor Details -** Firm Name: .....  
Address: .....  
Account Number:.....  
Contact Person: .....  
Tel No.: .....  
Fax No.: .....

**SIGNED ON BEHALF OF THE BIDDERS:** .....

**L: DECLARATION: FULFILMENT OF THE CONSTRUCTION REGULATIONS - 2014**

In terms of regulation 5(1) of the Construction Regulations, 2014 (hereinafter referred to as the Regulations), promulgated on 7 February 2014 in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) the Employer shall not appoint a contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender for the due fulfillment of all the applicable requirements of the Act and the Regulations.

Definition of a Competent Person:

“Competent person” means any person having the knowledge, training, experience and qualifications specific to the work or task being performed: Provided that where appropriate qualifications and training are registered in terms of the provisions of the South African Qualifications Authority Act, 1995 (Act No. 58 of 1995), these qualifications and training shall be deemed to be the required qualifications and training;

Tenderers shall answer the questions below:

- 1 I confirm that I am fully conversant with the Regulations and that my company has (or will acquire/procure) the necessary competencies and resources to timeously, safely and successfully comply with all of the requirements of the Regulations. (Tick)

<b>YES</b>	<input type="checkbox"/>
<b>NO</b>	<input type="checkbox"/>

Signature: ..... Name: .....

- 2 Indicate which approach shall be employed to achieve compliance with the Regulations (Tick)

Own resources, competent in terms of the Regulations (refer to 3 below)	
Own resources, still to be hired and/or trained (until competency is achieved)	
Specialist subcontract resources (competent) – specify: ..... ..... ..... ..... ..... .....	

- 3 Provide details of proposed key persons, competent in terms of the Regulations, who will form part of the Contract team as specified in the Regulations (CVs to be attached):

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

4 Provide details of proposed training (if any) that will be undergone:

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

5 List potential key risks identified and measures for addressing risks:

See the Preliminary Hazard Identification and Risk Assessment contained in the attached Health and Safety Specifications.

**Note: The successful Bidders must submit a project specific Occupational Health and Safety Plan to be approved by the Client within 21 days of being awarded the contract.**

6 I have fully included in my tender rates and prices (in the appropriate payment items provided in the Bill of Quantities) for all resources, actions, training and any other costs required for the due fulfillment of the Regulations for the duration of the construction and defects repair period.

(Tick)

YES	<input type="checkbox"/>
NO	<input type="checkbox"/>

Signature: ..... Name : .....

SIGNATURE OF PERSON AUTHORISED TO SIGN THIS TENDER:

..... ID NO: .....

**M: PROOF OF REGISTRATION WITH THE CONSTRUCTION INDUSTRY  
DEVELOPMENT BOARD**

Tenderers shall attach to this page, a recent printout of proof from the CIDB website verifying their valid CIDB registration.

**SIGNED ON BEHALF OF THE BIDDERS:** .....

**N: CENTRALIZED SUPPLIER DATABASE (CSD)**

Tenderers must be registered on the Central Supplier Database at National Treasury prior to the Award of a tender, and the Bidders' **Tax status must be compliant** (National Treasury SCM Instruction #4A of 2016/2017: Central Supplier Database);

I, the undersigned, confirm the following details of the firm/company's registration on the National Treasury Central Supplier Database:

Supplier Name: .....

Supplier CSD umber: .....

**SIGNED ON BEHALF OF THE BIDDERS:** .....



**O: PROOF OF REGISTRATION WITH THE BARGAINING COUNCIL (BCCEI)**

Tenderers must attach to this page, **proof of registration** or letter of **good standing** with the Bargaining Council of Civil Engineers.

(reference Government Gazzette No. 37750: All Civil Engineering Contractors on **CIDB grading 4CE or 3CEPE** must be registered with the Bargaining Council of Civil Engineering Industry and submit proof of registration and good standing as part of Returnable Schedules).

**Note:** submit proof of valid registration or letter of good standing with bargaining council of civil engineering industry within 21 days of appointment letter

**SIGNED ON BEHALF OF THE BIDDERS:** .....

**FORM T2.2R: COMPULSORY ENTERPRISE QUESTIONNAIRE**

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

**Section 1: Name of enterprise:** .....

**Section 2: VAT registration number, if any:** .....

**Section 3: CIDB registration number, if any:** .....

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

Name*	Identity number*	Personal income tax number*

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

**Section 5: Particulars of companies and close corporations**

Company registration number .....

Close corporation number .....

Tax reference number .....

**Section 6: The attached SBD4 must be completed for each tender and attached as a tender requirement**

**Section 7: The attached SBD6.1 and SBD6.2 must be completed for each tender and attached as a tender requirement**

**Section 8: The attached SBD8 must be completed for each tender and attached as a tender requirement**

**Section 9: The attached SBD9 must be completed for each tender and attached as a tender requirement**

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

- i) authorizes the Employer to verify Tax Compliance Status from the South African Revenue Services or the Centralised Suppliers Database (CSD);
- ii) confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud corruption;
- iv) confirms that i/we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest; and
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed \_\_\_\_\_ Date \_\_\_\_\_

Name \_\_\_\_\_ Position \_\_\_\_\_

Enterprise name \_\_\_\_\_

\* The schedule should be used where tenders are subject to the Local Government: Municipal Finance Management Act.

**SBD 4: DECLARATION OF INTEREST**

**Form SBD 4**

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

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

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

2.1 Full Name of tenderer or his or her representative:.....

2.2 Identity Number: .....

2.3 Position occupied in the Company (director, trustee, shareholder<sup>2</sup>): .....

2.4 Company Registration Number: .....

2.5 Tax Reference Number:.....

2.6 VAT Registration Number: .....

2.6.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / persal numbers must be indicated in paragraph 3 below.

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

2.7.1 If so, furnish the following particulars:

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

.....

.....

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

.....

.....

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

.....

Any other particulars:.....

.....

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

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

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

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

.....

.....

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

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

.....

.....

.....

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

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

.....

.....

.....

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

**YES / NO**



Notes:

<sup>1</sup> "State" means:

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

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

**DECLARATION**

I, THE UNDERSIGNED (NAME) .....

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

I ACCEPT THAT THE STATE MAY ACT AGAINST ME IN TERMS OF PARAGRAPH 23 OF THE GENERAL CONDITIONS OF CONTRACT SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....  
Signature

.....  
Date

.....  
Position

.....  
Name of Tenderer

**DECLARATION OF EMPLOYEES OF THE STATE OR OTHER STATE INSTITUTIONS**

**This form must be included additional to the SBD.4**

1. In terms of section 30 of the Public Service Act;

No employee shall perform or engage himself or herself to perform remunerative work outside his or her employment in the relevant department, except with the written permission of the executive authority of the department.

2.

Are any of the shareholders/ directors of your company employed by the State?	Yes/No
---	--------

3. "State" means –

- (a) Any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) Any municipality or municipal entity;
- (c) Any provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.
- (f) Any Parastatal (A company or agency owned or controlled wholly or partly by the government).

4. Should you indicate "yes" above, please provide the following details:

No	NAME & SURNAME OF DIRECTOR	STATE INSTITUTION WHERE EMPLOYED	ID NUMBER	EMPLOYEE/ PERSAL NUMBER
1				
2				
3				
4				
5				

5. Please note: The "state" is clearly defined in paragraph 3 above. In the event that "no" is selected and subsequently any false declaration are detected, the non-disclosure of such "state employment" will be deemed as "fraud". Therefore the state may reject the bid and in addition may proceed with further action should this declaration prove to be false.

**6. DECLARATION**

I, (NAME & SURNAME) .....

ID NUMBER.....CERTIFY THAT THE INFORMATION

FURNISHED IN PARAGRAPHS 2 AND 4 ABOVE IS CORRECT.

Signature.....Date.....

Position.....Name of bidder.....

**SBD 6.1 : PREFERENCE POINTS CLAIM FORM IN TERMS OF THE  
PREFERENTIAL PROCUREMENT REGULATIONS 2017  
(Including Affidavit Forms for EMEs and QSEs)**

## Form SBD6.1

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

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

---

**1. GENERAL CONDITIONS**

1.1 The following preference point systems are applicable to all bids:

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

1.2

- a) The value of this bid is estimated to **not exceed** R50 000 000 (all applicable taxes included) and therefore the **80/20** preference point system shall be applicable; or
- b) Either the 80/20 or 90/10 preference point system will be applicable to this tender (*delete whichever is not applicable for this tender*).

1.3 Points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contributor.

1.4 The maximum points for this bid are allocated as follows:

	<b>POINTS</b>
<b>PRICE</b>	<b>80</b>
<b>B-BBEE STATUS LEVEL OF CONTRIBUTOR</b>	<b>20</b>
<b>Total points for Price and B-BBEE must not exceed</b>	<b>100</b>

1.5 Failure on the part of a bidder to submit proof of B-BBEE Status level of contributor together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

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



**2. DEFINITIONS**

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

**3. POINTS AWARDED FOR PRICE**

**3.1 THE 80/20 PREFERENCE POINT SYSTEMS**

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

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

Where

- P<sub>s</sub> = Points scored for price of bid under consideration
- P<sub>t</sub> = Price of bid under consideration
- P<sub>min</sub> = Price of lowest acceptable bid

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

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

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

**5. BID DECLARATION**

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

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

6.1 B-BBEE Status Level of Contributor: . = .....(maximum of 20 points)

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

**7. SUB-CONTRACTING**

7.1 Will any portion of the contract be sub-contracted? (*Tick applicable box*)

YES	NO
-----	----

7.1.1 If yes, indicate:

- i) What percentage of the contract will be subcontracted.....%
- ii) The name of the sub-contractor.....
- iii) The B-BBEE status level of the sub-contractor.....

iv) iv) Whether the sub-contractor is an EME or QSE

**(Tick applicable box)**

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

v) terms of Preferential Procurement Regulations, 2017:

Designated Group: An EME or QSE which is at last 51% owned by:	EME	QSE
	√	√
Black people		
Black people who are youth		
Black people who are women		
Black people with disabilities		
Black people living in rural or underdeveloped areas or townships		
Cooperative owned by black people		
Black people who are military veterans		
<b>OR</b>		
Any EME		
Any QSE		

**8. DECLARATION WITH REGARD TO COMPANY/FIRM**

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

8.2 VAT registration number:.....

8.3 Company registration number:.....

8.4 TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

.....

.....

.....

.....

8.6 COMPANY CLASSIFICATION

- ┆ Manufacturer
  - ┆ Supplier
  - ┆ Professional service provider
  - ┆ Other service providers, e.g. transporter, etc.
- [TICK APPLICABLE BOX]

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

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

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
  - (a) disqualify the person from the bidding process;
  - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
  - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
  - (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and
  - (e) forward the matter for criminal prosecution.

**WITNESSES:**

- 1. ....
- 2. ....

**SIGNATURE(S) OF TENDERER(S)**

DATE: .....

ADDRESS : .....  
.....  
.....  
.....

**SWORN AFFIDAVIT – B-BBEE EXEMPTED MICRO ENTERPRISE (EME) – CONTRACTORS**

I, the undersigned,

<b>Full name &amp; Surname</b>	
<b>Identity number</b>	

Hereby declare under oath as follows:

1. The contents of this statement are to the best of my knowledge a true reflection of the facts.
2. I am a Member / Director / Owner of the following enterprise and am duly authorised to act on its behalf:

<b>Enterprise Name:</b>	
<b>Trading Name (If Applicable):</b>	
<b>Registration Number:</b>	
<b>Enterprise Physical Address:</b>	
<b>Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):</b>	
<b>Nature of Business:</b>	
<b>Definition of “Black People”</b>	<p>As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 “Black People” is a generic term which means Africans, Coloureds and Indians –</p> <p>(a) Who are citizens of the Republic of South Africa by birth or descent; or</p> <p>(b) Who became citizens of the Republic of South Africa by naturalization-</p> <ol style="list-style-type: none"> <li>i. Before 27 April 1994; or</li> <li>ii. On or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that date</li> </ol>

3. I hereby declare under Oath that:
  - The Enterprise is \_\_\_\_\_% **Black Owned** as per Amended Code Series CSC000 of the Revised Construction Sector Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
  - The Enterprise is \_\_\_\_\_% **Black Woman Owned** as per Amended Code Series CSC000 of the Revised Construction Sector Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
  - The Enterprise is \_\_\_\_\_% **Black Designated Group Owned** as per Amended Code Series CSC000 of the Revised Construction Sector Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,

- Based on the Financial Statements/Management Accounts and other information available on the latest financial year-end of \_\_, the annual Total Revenue was equal to/or less than R10,000,000.00 (ten Million Rands or less),
- Please confirm on the table below the B-BBEE level contributor, **by ticking the applicable box.**

100% Black Owned	<b>Level One</b> (135% B-BBEE procurement recognition level)	
At least 51% Black Owned but less than 100% black owned	<b>Level Two</b> (125% B-BBEE procurement recognition level)	
At least 30% Black Owned but less than 51% black owned	<b>Level Four</b> (100% B-BBEE procurement recognition level)	
Less than 30% Black Owned	<b>Level Five</b> (80% B-BBEE procurement recognition level)	

**NB: KEY NOTES FOR EMES (extract from Gazette No. 41287)**

- 3.6.2.4.1 An Exempted Micro Enterprise (EME) with a total annual revenue of less than R1.8 million in the case of BEPs and less than R3 million in the case of Contractors are :
    - A) Not subject to the discounting principle and therefore do not have to comply with the QSE Skills Development element, and
    - B) Not required to have an authorised B-BBEE verification certificate, and may present an affidavit or a certificate issued by the Companies and Intellectual Property Commission (CIPC), in respect of their ownership and annual turnover.
  - Contractors and/Built Environment Professionals are encouraged to familiarize themselves with the Construction Sector Codes (CSC000) as issued through Government Gazette No. 41287, Board No. NOTICE 931 OF 2017. Details are available on: [www.thedti.gov.za/economic\\_empowerment/bee\\_sector\\_charters.jsp](http://www.thedti.gov.za/economic_empowerment/bee_sector_charters.jsp)
  - An electronic copy can also be requested through DoT offices (Supply Chain Offices)
4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.
  5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
 Commissioner of Oaths  
 Signature & stamp

**SWORN AFFIDAVIT – B-BBEE QUALIFYING SMALL ENTERPRISE (QSE) – CONTRACTORS**

I, the undersigned,

<b>Full name &amp; Surname</b>	
<b>Identity number</b>	

Hereby declare under oath as follows:

- The contents of this statement are to the best of my knowledge a true reflection of the facts.
- I am a Member / Director / Owner of the following enterprise and am duly authorised to act on its behalf:

<b>Enterprise Name:</b>	
<b>Trading Name (If Applicable):</b>	
<b>Registration Number:</b>	
<b>Enterprise Physical Address:</b>	
<b>Type of Entity (CC, (Pty) Ltd, Sole Prop etc.):</b>	
<b>Nature of Business:</b>	
<b>Definition of "Black People"</b>	<p>As per the Broad-Based Black Economic Empowerment Act 53 of 2003 as Amended by Act No 46 of 2013 "Black People" is a generic term which means Africans, Coloureds and Indians –</p> <p>(a) Who are citizens of the Republic of South Africa by birth or descent; or</p> <p>(b) Who became citizens of the Republic of South Africa by naturalization-</p> <p>i. Before 27 April 1994; or</p> <p>ii. On or after 27 April 1994 and who would have been entitled to acquire citizenship by naturalization prior to that Date</p>

- I hereby declare under Oath that:
  - The Enterprise is \_\_\_\_\_% **Black Owned** as per Amended Code Series CSC000 of the Revised Construction Sector Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
  - The Enterprise is \_\_\_\_\_% **Black Woman Owned** as per Amended Code Series CSC000 of the Revised Construction Sector Codes of Good Practice issued under section 9 (1) of B-BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,
  - The Enterprise is \_\_\_\_\_% **Black Designated Group Owned** as per Amended Code Series CSC000 of the Revised Construction Sector Codes of Good Practice issued under section 9 (1) of B- BBEE Act No 53 of 2003 as Amended by Act No 46 of 2013,



- Based on the Financial Statements/Management Accounts and other information available on the latest financial year-end of \_\_\_\_\_, the annual Total Revenue was between 10 million (ten Million Rands) and less than R50,000,000.00 (fifty Million Rands).
- Please confirm on the table below the B-BBEE level contributor, **by ticking the applicable box.**

100% Black Owned	<b>Level One</b> (135% B-BBEE procurement recognition level)	
At least 51% Black Owned but less than 100% black owned	<b>Level Two</b> (125% B-BBEE procurement recognition level)	

**NB: KEY NOTES FOR QSE (extract from Gazette No. 41287)**

- 5.6.3 A QSE that is at least 51% Black Owned or 100% Black Owned that does not comply with paragraph 3.6.2.3 above, will be discounted by one level from that level awarded in paragraphs 5.3.1 and 5.3.2 respectively.
  - 5.3.4 Despite paragraphs 5.2, 5.3.1 and 5.3.2, an at least 51% Black Owned QSE’s BBBEE Status Level and corresponding B-BBEE Recognition Level will be enhanced by one level if it achieves full points (excluding the bonus points) for the Skills Development element of the QSE Scorecard (paragraphs 1.1, 1.2 and 1.3 of Statement CSC603) or the Preferential Procurement and Supplier Development element of the QSE Scorecard (paragraphs 1.1, 1.2, 1.3 and 2.1 of CSC604).
  - 5.3.5 For the avoidance of doubt, a Measured Entity that is measured in terms of the full QSE scorecard is not eligible for enhancement in terms of paragraph 5.3.4 above.
  - Contractors and/Built Environment Professionals are encouraged to familiarize themselves with the Construction Sector Codes (CSC000) as issued through Government Gazette No. 41287, Board No. NOTICE 931 OF 2017. Details are available on: [www.thedti.gov.za/economic\\_empowerment/bee\\_sector\\_charters.jsp](http://www.thedti.gov.za/economic_empowerment/bee_sector_charters.jsp)
  - An electronic copy can also be requested through DoT offices (Supply Chain Offices)
4. I know and understand the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.
  5. The sworn affidavit will be valid for a period of 12 months from the date signed by commissioner.

Deponent Signature:.....

Date:.....

.....  
Commissioner of Oaths

Signature & stamp

**SBD 6.2: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS**

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

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

### 1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 8) make provision for the promotion of local production and content.
- 1.2. Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced or manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for tenders referred to in paragraph 1.2 above, a two-stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

- |   |  |
|---|--|
| x | is the imported content in Rand                          |
| y | is the bid price in Rand excluding value added tax (VAT) |

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

**The SABS approved technical specification number SATS 1286:2011 is accessible on [http://www.thedti.gov.za/industrial development/ip.jsp](http://www.thedti.gov.za/industrial%20development/ip.jsp) at no cost.**

- 1.6. A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation

**2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:**

<u>Description of services, works or goods</u>	<u>Stipulated minimum threshold</u>
Steel Reinforcement	100%

3. Does any portion of the goods or services offered have any imported content?  
(**Tick applicable box**)

YES	<input type="checkbox"/>	NO	<input type="checkbox"/>
-----	--------------------------	----	--------------------------

3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on [www.reservebank.co.za](http://www.reservebank.co.za)

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

<b>Currency</b>	<b>Rates of exchange</b>
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

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

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

**LOCAL CONTENT DECLARATION  
(REFER TO ANNEX B OF SATS 1286:2011)**

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

**IN RESPECT OF BID NO.** .....

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

NB:

1. The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.
  
2. Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on <http://www.thdti.gov.za/industrial-development/ip.jsp>. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, ..... (full names),

do hereby declare, in my capacity as .....

of .....(name of bidder entity), the following:

- (a) The facts contained herein are within my own personal knowledge.
  
- (b) I have satisfied myself that:
  - (i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and
  
- (c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

**If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.**

**The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.**

- (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.
- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPFA), 2000 (Act No. 5 of 2000).

**SIGNATURE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**WITNESS No. 1** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**WITNESS No. 2** \_\_\_\_\_

**DATE:** \_\_\_\_\_

Annex C

**Local Content Declaration - Summary Schedule**

**Note:** VAT to be excluded from all calculations

<b>Tender No.</b>	SCMU10- 21/22-0008		
<b>Tender description:</b>	UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS		
<b>Designated product(s)</b>	STEEL PRODUCTS AND COMPONENTS		
<b>Tender Authority:</b>	Pula		EU
<b>Tendering Entity name:</b>			
<b>Tender Exchange Rate:</b>			
<b>Specified local content %</b>	100%		

Tender item no's	List of items	Calculation of local content						Tender summary			
		Tender price - each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)
B23.12	Steel Reinforcement (c) Welded steel fabric							5850			

<b>Signature of Bidders from Annex B</b>	(C20) Total tender value	
	(C21) Total Exempt imported content	
	(C22) Total Tender value net of exempt imported content	
	(C23) Total Imported content	
	(C24) Total local content	
	(C25) Average local content % of tender	

Date: \_\_\_\_\_

<b>SBD 8: DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES</b>
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**Form SBD 8**

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

Item	Question	Yes	No
4.1	Is the Bidders or any of its directors listed on the National Treasury's database 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 National Treasury after the audi alteram partem rule was applied).	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	Is the Bidders 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)?  To access this Register enter the National Treasury's website, <a href="http://www.treasury.gov.za">www.treasury.gov.za</a> , click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445.	Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	Was the Bidders or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the Bidders and any organ of state terminated during the past five years on account of failure to perform or comply with the contract?	Yes <input checked="" type="checkbox"/>	No <input checked="" type="checkbox"/>
4.4.1	If so, furnish particulars:		

**CERTIFICATION**

I, THE UNDERSIGNED (FULL NAME) .....

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND  
CORRECT.

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

.....  
Signature

.....  
Date

.....  
Position

.....  
Name of Bidders

SIGNED ON BEHALF OF THE BIDDERS:  
.....



**SBD 9: CERTIFICATE OF INDEPENDENT TENDER DETERMINATION**

Form SBD 9

- 1 This Standard Bidding Document (SBD) must form part of all bids<sup>1</sup> invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).<sup>2</sup> Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
- a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
  - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- 4 This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid- rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

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

<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:

**TENDER NO: SCMU10-21/22-0008: UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**

in response to the invitation for the bid made by:

**The Department of Transport, Province of the Eastern Cape**

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

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

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether affiliated with the bidder, who:
  - (a) has been requested to submit a bid in response to this bid invitation;
  - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
  - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium<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.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

<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.

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

.....  
Signature

.....  
Date

.....  
Position

.....  
Name of Bidder

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DRAINS**

<p><b>CONTRACT</b> <b>PART 1 (OF 4): AGREEMENTS AND CONTRACT DATA</b></p>
---

- C1.1 Form of Offer and Acceptance**
- C1.2 Contract Data**
- C1.3 Form of Security (Pro Forma)**

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**DEPARTMENT OF TRANSPORT**  
**TENDER NO. SCMU10-21/22-0008**

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE  
LINED DRAINS**

<b>C1.1: FORM OF OFFER AND ACCEPTANCE</b>
---

**1. OFFER**

The employer, identified in the acceptance signature block, has solicited offers to enter into a contract for the procurement:

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**

The Bidders, 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 tender conditions.

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

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

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**

.....

.....

..... **Rand (in words);**

**R..... (in figures)**

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

OFFER SIGNATURE BLOCK

**Authorised Signatory for the Tenderer:**

**Witness:**

.....  
Signature

.....  
Signature

.....  
Name

.....  
Name

.....  
Capacity

.....  
Date

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

**2. ACCEPTANCE**

By signing this part of this Form of Offer and Acceptance, the employer identified below accepts the Tenderers 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 Tenderers offer shall form an agreement between the employer and the Bidders 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 as well as the Appendices.**

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 Bidders and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule, which must be duly signed by the authorised representative(s) of both parties.

The Bidders shall, within two weeks after receiving a completed copy of this agreement including the schedule of deviation (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 the 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 Bidders receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the Bidders (now contractor), within five (5) working days of the date of such receipt, notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

ACCEPTANCE SIGNATURE BLOCK

For **The Employer**

**Witness**

.....  
Signature

.....  
Signature

.....  
Name

.....  
Name

.....  
Capacity  
for the **Employer:**  
**Department of Transport**  
**Room C1, Stellenbosch Park Building,**  
**Flemming Street,**  
**King Williams Town,**  
**5601**

.....  
Date

**3. SCHEDULE OF DEVIATIONS**

**Notes:**

- 1. The extent of deviations from the tender documents issued by the employer before the tender closing date is limited to those permitted in terms of the tender conditions.
- 2. A Tenderers covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, be the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here, as contained in GCC 2015 pg.100 (Appendix 1).
- 3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents, and which it is agreed by the parties becomes an obligation of the contract, shall also be recorded here.
- 4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the contract.

- 1. Subject .....  
Details .....
- 2. Subject .....  
Details .....
- 3. Subject .....  
Details .....
- 4. Subject .....  
Details .....
- 5. Subject .....  
Details .....

By the duly authorized representatives signing this schedule of deviations, the employer and the Bidders 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 Bidders 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 Bidders of a completed signed copy of this agreement shall have any meaning or effect in the contract between the parties arising from this agreement.



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## UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS

<b>C1.2: CONTRACT DATA (PART 1)</b>		
<b>PART 1: DATA PROVIDED BY THE EMPLOYER</b>		
<b>CONDITIONS OF CONTRACT</b>		
The General Conditions of Contract for Construction Works (Third Edition 2015) [hereinafter referred to as GCC 2015], published by the South African Institution of Civil Engineering (SAICE) are applicable to this contract.		
<b>CONTRACT SPECIFIC DATA</b>		
The following contract specific data, amendments, additions, or omissions are applicable to this Contract.		
No.	Clause	Description
1	1.1.1.13	The Defects Liability Period is <b>10 months</b> measured from the date of the Certificate of Completion.
2	1.1.1.14	The time for completing the works is <b>10 months</b> including all relevant special non-working days.
3	1.1.1.15	The Employer is THE DEPARTMENT OF TRANSPORT, EASTERN CAPE
4	1.1.1.16	The Employers Agent is a partner/director/member of the firm stated in Clause 1.2.1.2, duly authorised to this position in writing.
5	1.1.1.26	The Pricing Strategy is a Re-measurement Contract
6	1.1.1.35	Add the following Clause 1.1.1.35 "Value of Works" means the value of Works certified by the Employers Agent as having been satisfactorily executed and shall include the value of the work done, the value of the materials and/or goods and Contract Price Adjustments.
8	1.2.1.2	The Employer's address for receipt of communications and notices is: <b>During Tender Stage</b> Telephone: 066 381 7957 E-mail: <a href="mailto:nelisa.dyani@ectransport.gov.za">nelisa.dyani@ectransport.gov.za</a> Address (Physical): Department of Transport Room C1, Stellenbosch Park Building, Flemming Street, King Williams Town, 5601

No.	Clause	Description
9	1.2.1.2	The Employers Agent's address for receipt of communications and notices will be given once available.
10	1.3.6	Add the following as 1.3.6 "The Contractor hereby indemnifies the Employer against any action, claim, damages or legal cost that may be instituted against the Employer on the grounds of an alleged infringement of any copyright or any other intellectual property right in connection with the Works outlined in this Contract."
11	1.3.7	Add the following as 1.3.7 "All information, documents, recommendations, programmed and reports collected or compiled must be regarded as confidential and may not be communicated or made available to any person outside the Employer's service and may not be published either during the currency of this Contract or after termination thereof without the prior written consent of the Employer."
12	2.4.1	Add the following: "In the event of any ambiguity, conflict or discrepancy between the various contract documents, lists and schedules, the order of precedence (from highest to lowest) shall be as follows:  <ol style="list-style-type: none"> <li>1. Form of Offer and Acceptance and Schedule of Deviations</li> <li>2. Contract Data</li> <li>3. General Conditions of Contract (2015)</li> <li>4. Project Specifications</li> <li>5. Working Drawings</li> <li>6. Standard Specifications of Roads and Bridgeworks (1998)</li> <li>7. Departmental guidelines and manuals/prescripts</li> <li>8. Schedule of Quantities"</li> </ol>
13	3.2.3	The Employers Agent shall obtain specific approval from the Employer before executing any of his functions or duties according to the following Clauses of the General Condition of Contract: <ul style="list-style-type: none"> <li>• Nominating the Employers Agent's Representative in terms of Clause 3.2.1</li> <li>• The issuing of instructions for dealing with fossils and the like in terms of Clause 4.7</li> <li>• Authorising the Contractor to repair and make good excepted risks in terms of Clause 7.5.5</li> <li>• The issuing of variation orders in terms of Clause 6.3.2</li> <li>• The issuing of an instruction to accelerate progress in terms of Clause 5.12.4</li> <li>• The approval of any extension of time for completion in terms of Clause 5.12.1</li> <li>• The reduction of a penalty for delay in terms of Clause 5.13.2</li> <li>• The issuing of penalties in terms of Clause 5.13</li> <li>• The determination of additional or reduced costs arising from changes in legislation in terms of Clause 6.8.4</li> <li>• The giving of a ruling on a Contractor's claim in terms of Clause 10.1.5</li> <li>• The agreeing of the adjustment of the sums for general items in terms of Clause 6.11</li> </ul>
14	3.2.4	Delete the last sentence of the Clause
15	3.3.6	Add the following: "The time limit for referring the matter to the Employers Agent by the Contractor shall be twenty one (21) days after the decision in question was given by the Employers Agent's Representative".
16	4.3.1.2	Add the following new sub-clause

No.	Clause	Description
		<p>“The Employer and the Contractor hereby agree, in terms of the provisions of section 37 (2) of the Occupational Health &amp; Safety Act, 1993 (Act 85 of 1993, hereinafter referred to as ‘the Act’), that the following arrangements and procedures shall apply between them to ensure compliance by the Contractor with the provisions of the Act, namely:</p> <p>(a) The Contractor undertakes that the appropriate officials and employees of the Contractor will fully acquaint themselves with all relevant provisions of the Act and the Regulations promulgated in terms of the Act;</p> <p>(b) The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the Act and regulations will be fully complied with.</p> <p>(c) The Contractor hereby accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and Regulations, and expressly absolves the Employer from itself being obliged to comply with any of the aforesaid duties, obligations, and prohibitions; with the exception of such duties, obligations and prohibitions expressly assigned to the Employer in terms of the Act and its associated Regulations.</p> <p>(d) The Contractor agrees that any duly authorised official of the Employer shall be entitled (although not obliged) to take such steps as may be necessary to ensure that the Contractor has complied with his undertakings as set out more fully in paragraphs (a) and (b) above, which steps may include, but will not be limited to, the right to inspect any appropriate site or premises occupied by the Contractor, or to inspect any appropriate records or Safety Plans held by the Contractor;</p> <p>(e) The Contractor shall be obliged to report forthwith to the Employer any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act and regulations, pursuant to work performed in terms of this Contract, and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge.</p> <p>(f) The Contractor shall furthermore, in compliance with the Constructional Regulations of 2014</p> <p>(i) Acquaint himself with the requirements of the Employer’s Health and Safety Specification as laid down in regulation 4(1)(a) of the Construction Regulation of 2014, and prepare a suitably and sufficiently documented Health and Safety Plan as contemplated in regulation 5(1) of the Construction Regulation of 2014 for approval by the Employer or his assigned agent. The Contractor’s Health and Safety Plan and risk assessment shall be submitted to the employer for approval within 21 days from the date of signing the Form of Acceptance and shall be implemented and maintained from the Commencement of the Works.</p> <p>(ii) The Employer, or his assigned agent, reserves the right to conduct periodic audits, as contemplated in the Construction Regulations 2014, to monitor that the Contractor is compliant in respect of his obligations. Failure by the Contractor to comply with requirements of these Regulations shall entitle the Employers Agent, at the request of the Employer or his Agent, to suspend all or any part of the Works, with no recourse whatsoever by the Contractor for any damages incurred as a result of such suspension, until such time as the Employer or his Agents are satisfied that the issues in which the Contractor has been in default have been rectified.”</p>
17	4.3.3	<p>Add the following new sub-clause:</p> <p>“4.3.3 The Contractor shall assume responsibility for compliance with the Environmental Management Programme (EMPR) in respect of the sites and shall ensure that the sites are rehabilitated before the conclusion of the Contract.”</p>
18	4.9.2	<p>Add the following as 4.9.2</p> <p>“In order to preclude seizure by the owner of any constructional plant being held by the Contractor on a hire or hire-purchase agreement for the purposes of the Contract, the Employer shall be entitled to pay any such owner the amount of any outstanding instalment</p>

No.	Clause	Description
		or other sum owing under any hire or hire-purchase agreement and in the event of his doing so, any amount thus paid by him shall be a debt payable to the Employer by the Contractor and may be deducted by the Employer from any moneys owing or that may become owing to the Contractor in terms of the Contract, or be recovered at law from the Contractor by the Employer.”
19	4.9.3	Add the following as 4.9.3 “When entering into any subcontract for the execution of any part of the works, the Contractor shall incorporate in such subcontract, by reference or otherwise, the provisions of Clauses 4.9.1 and 4.9.2 in respect of constructional plant brought to the site by the subcontract.”
20	5.3.1	The documentation required before commencement with Works execution are: An approved, project specific Health and Safety Plan (Refer Clause 4.3) Maintenance programme (Refer Clause 5.6) Security/Performance Guarantee (Refer Clause 6.2) Insurances (Refer Clause 8.6) Signed agreement in terms of Section 37.2 of the OHS Act, 1993 A valid Letter of Good Standing from the Compensation Commissioner or FEMA Proof of Registration and Good Standing with BCCEI
21	5.3.2	The time to submit the documentation required before commencement with Works execution is within <b>21 days</b> of receipt of the signed Form of Offer and Acceptance
22	5.8.1	The special non-working days are statutory public holidays, Saturdays, Sundays and the year-end break, as determined by <b>SAFCEC</b> . These days will be included for time calculations. Due to the contract being a maintenance contract, the contractor shall provide a full service during all special non-working days.
23	5.8.2	Add the following to Clause 5.8.2: “The cost of supervision by the Employers Agent or his representatives outside of normal (Monday to Friday) working hours as defined in Government Gazette 18491 of 5 December 1997 shall be to the Contractor’s account.”
24	5.11.1	<i>In the third line, after the word “progress”, insert “or alter the order”.</i>
25	5.12.1	Delete the contents of the Clause and replace with the following: “There will be no extension of time unless agreed to by all parties in writing.”
26	5.12.2.2	Add to Clause 5.12.2.2: “The time period specified as the time for completion includes allowances for those days on which it is expected that work, on the critical path items of the works, would be prevented due to weather conditions such as wind, rainfall or the subsequent waterlogged condition. Based on average weather conditions of wind, rain and sunshine the allowances are: <ul style="list-style-type: none"> <li>• 2 working days per month for the months of May to October</li> <li>• 3 working days per month for the months of November to April</li> </ul> It should be noted that due to the Contract being a fixed term maintenance contract, there will be no extension of time awarded. The recording of abnormal climate conditions are for record purposes only.”
27	5.13	Add the following new sub-clauses: “5.13.3 The provisions of sub-clause 5.13.1 shall also apply to completion of a specified stage of work as described in the Tender Forms, the Agreement, and the Contract Scope of Works. Where a penalty is enforced by the Employer for late completion of any stage of work, the penalty shall not be refundable even if subsequent stages of completion are achieved on schedule.

No.	Clause	Description
		<p>If late completion of more than one stage occurs, the total penalty per day shall not exceed the penalty for late completion of the contract as defined in the Tender Forms, the Agreement or the Contract Scope of Works.</p> <p>5.13.4 All penalties for which the Contractor becomes liable in terms of Sub-clauses 5.13.1 to 5.13.4 shall be deducted on a monthly basis from the Payment Certificates and will be accumulative. The Employer may, without prejudice to any other method of recovery, deduct the amounts of all such penalties from any monies in his possession that are or may become due to the Contractor.</p> <p>5.13.5 The imposition of any penalties in terms of Sub-clauses 5.13.1 to 5.13.4 shall not limit the Employers Agent's nor Employer's right to act in terms of Sub-clause 9.2.</p> <p>5.13.6 The Contractor should notice that the following fines apply for non-conformance with the Project Specifications:</p> <ul style="list-style-type: none"> <li>• As per Clause B1502 (j) for Accommodation of Traffic.</li> <li>• As per Clause B13011 for Occupational Health and Safety nonconformities.</li> <li>• As per Clause C3.3.2.1 for utilization of MEs</li> <li>• As per Clause C3.3.2.1 for utilization of Local Labour</li> <li>• As per Clause B12016 for Environmental nonconformities</li> </ul>
28	5.14.5.5	Delete Clause 5.14.5.5 and replace with: "Insurance of the works shall continue until the expiration of the Defects Liability Period."
29	5.16.3	The Latent Defects Liability Period is 10 years measured from the date of the Certificate of Completion.
30	6.2.1	<p>Replace the wording "as selected" in Clause 6.2.1 with "as stated".</p> <p>The security to be provided by the Contractor shall be:</p> <ul style="list-style-type: none"> <li>• a Performance Guarantee of <b>five per cent (5%)</b> of the Contract Sum</li> </ul> <p>The Performance Guarantee shall be from an approved Insurance Company or Bank to be jointly and severally bound with the Contractor, in accordance with the provisions of the Performance Guarantee. A Retention Money Guarantee is not permitted.</p> <p>The wording of the Performance Guarantee shall be identical to the pro-forma provided under Clause C1.3: Performance Guarantee of the Contract Data</p> <p>The time to deliver the Performance Guarantee is within fourteen (14) days after the Commencement Date.</p>
31	6.3.1	<i>In the fifth line, after the word "shall", insert "with the approval of the Employer".</i>
32	6.3.4	<p>Add the following new sub-clause 6.3.4:</p> <p>"Where the decrease or increase in the quantity of work has not resulted from a written variation order (or an additional agreement) in terms of Clause 6.3, but from the fact that the quantities are less or more than those given in the Bill of Quantities, the tendered rates or sums shall still apply, except in the case of a sub-item (or item not subdivided into sub-items) in the Bill of Quantities, which covers work, the value of which during the tender stage exceeds 30% of the value of the tender sum, and where the quantity of such sub-item or item, upon completion of the Contract, deviates by more than 30% from the quantity given in the Bill of Quantities, so that the scale of activities or the method of construction consequently changes to such an extent that the tendered rate or sum no longer applies. In such case the Employers Agent, should he deem it to be in the interest of the Employer or should the Contractor enter a claim, shall, considering the extent by which the deviation in respect of the quantity of the sub-item or item concerned exceeds 30%, determine a sum which will be equitable in the circumstances, and shall certify that such sum shall be deducted from or added to the sums owing to the Contractor."</p>

No.	Clause	Description
33	6.5.1.2.3	The percentage allowances to cover all overhead charges are limited to a <b>maximum of 20%</b> of the Tender Sum (excluding VAT).
34	6.6.1.2	After all references to the word "sums", insert "excluding VAT"
35	6.8.1	Add the following: "The tender rates and prices shall also be exclusive of Value Added Tax (VAT). Provision is made for the addition of VAT in the summary of the Bill of Quantities."
36	6.8.2	The Contract Price Adjustment is not applicable.
37	6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is <b>80%</b> .
38	6.10.1.9	<u>Add the following new clause:</u>  "The Contractor is required to submit completed, accurate and signed monthly Expanded Public Works Programme (EPWP) reports, as per annexures to this tender document in Appendix C, together with all monthly payment certificates. Payment to the Contractor will not be processed until the EPWP reporting for a specific month is provided."
39	6.10.2	Add the following: "Payment for materials on site will only be considered for those materials which are physically on site. Any statement in which a claim for materials off site is included, shall have attached a declaration that the materials listed in the statement are owned by the Contractor, accompanied by proof of ownership. The ownership of materials shall be transferred to the Employer in accordance with the relevant pro-forma"
40	6.10.3	The percentage retention on the amounts due to the Contractor is <b>Five (5%)</b> of the Contract Price (excluding VAT).
41	6.11.1.3	<i>Delete the words "15 percent and replace with "30 percent".</i>
42	7.2.1	Add the following at the end of the paragraph: "subject to approval of the Employers Agent".
43	7.8.2.2	In subsubclause 7.8.2.2 add the following:  ", subject to such work being done on a written instruction by the Employer's Agent."
44	8.2.2.3	Add the following to the end of Clause 8.2.2.3 "risk arising from political riot and malicious damage, unless these risks are insurable with The South African Special Risk Insurance Association at the time of tendering and it is stipulated in the Contract that the Contractor is to effect insurance against these risks".
45	8.6	Delete Clause 8.6 and replace it with: (1) Without limiting his obligations in terms of the Contract, the Contractor shall before commencement of the Works effect and maintain the following insurances covering the respective interests of the Contractor and the Employer: (a) Insurance of the Works and of all movables on the Site intended for incorporation in the Works against damage or physical loss from whatsoever cause arising (other than causes set out in Clause 8.3.1) (i) for the period for which the Contractor is responsible for the Works in terms of Clause 8.2, and (ii) for a sum insured which shall, unless otherwise specified in the Contract, be the aggregate of (aa) the Contract Price,

No.	Clause	Description
		<p>(bb) a sum to cover the value (specified at the time of delivery to the Contractor) of materials supplied by the Employer for incorporation in the Works and not included in the Contract Price, and</p> <p>(cc) a sum to cover professional fees, not included in the Contract Price, payable in respect of the repair or reinstatement of damage to the Works or said movables.</p> <p>(b) A Coupon Policy for Special Risks Insurance issued by the South African Special Risks Insurance Association is required.</p> <p>(c) Public Liability insurance from the Commencement Date to the date of the Certificate of Completion or the end of the Defects Liability Period (if any) for a minimum limit of indemnity of R10 000 000, with no limitation on the number of accidents in any one year, covering the Employer and the Contractor against their respective liability for the death of or injury to any person or loss of or damage to any property (other than property while it is insured in terms of paragraph (a)) arising out of or in the course of the performance of the Contract:</p> <p>Provided that</p> <p>(i) the insurance shall not be required to cover any liability arising out of any of the matters referred to in the provisos of Clause 8.3.1, and</p> <p>(ii) the insurance shall include a cross-liability clause such that the insurance shall apply to the Contractor and to the Employer as separate insured parties.</p> <p>(2) Save as otherwise provided in the Contract, nothing herein contained shall oblige the Contractor to effect any insurance which is not generally obtainable from a registered insurer in the Republic of South Africa.</p> <p>(3) The insurances referred to in Sub-Clause (1) shall be effected with an insurance company registered in the Republic of South Africa and the terms thereof shall be subject to approval by the Employer, which approval shall not be unreasonably withheld.</p> <p>(4) The Contractor shall produce to the Employer the policies by which the insurances are effected and proof of the due payment of all premiums thereunder and of the continuity of the policies for the required period within 14 days of receipt of the Letter of Acceptance.</p> <p>(5) The Contractor and the Employer shall comply with the terms and conditions of the insurance policies.</p> <p>(6) If the Contractor shall fail to effect and keep in force any of the insurances referred to in Sub-Clause (1), the Employer may effect and keep in force such insurance and pay such premium or premiums as may be necessary for the purpose and the Contractor shall refund the amounts of such premiums to the Employer.</p> <p>(7) The Contractor shall provide proof that he has paid all contributions required in terms of the Compensation for Occupational Injuries and Diseases Act, No. 130 of 1993, and that he has complied with the provisions of the Occupational Health and Safety Act, No. 85 of 1993.</p>
46	10.5.3	The number of Adjudication Board Members to be appointed is three. Adjudication shall be used to resolve disputes arising during the performance of a contract prior to proceeding to either arbitration or litigation.
47		Tenderers must submit proof of registration and good standing with the bargaining council (BCCEI) within 21 days of appointment letter.

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**C1.2: CONTRACT DATA (PART 2)**

**PART 2: DATA PROVIDED BY THE CONTRACTOR**

No.	Clause	Description		
1	1.1.1.9	The Contractor is ..... <i>[The Legal name of the Contractor].</i>		
2	1.2.1.2	The Contractor's address for receipt of communications and notices is: Telephone: ..... Facsimile: ..... E-mail: ..... Address (Postal):..... Address (Physical): ..... ..... ..... .....		
3	6.2.1	The security to be provided by the Contractor shall be: <table border="1" style="margin-left: 20px; width: 80%;"> <tr> <td style="padding: 2px;"><b>Type of Security</b></td> </tr> <tr> <td style="padding: 2px;">Performance Guarantee of <b>5%</b> of the Contract Sum</td> </tr> </table>	<b>Type of Security</b>	Performance Guarantee of <b>5%</b> of the Contract Sum
<b>Type of Security</b>				
Performance Guarantee of <b>5%</b> of the Contract Sum				
4	6.5.1.2.3	The percentage allowance to cover all overhead charges is.....		



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C1.3: PERFORMANCE GUARANTEE (PRO FORMA)

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means: .....

Physical address: .....

"Employer" means: .....

"Contractor" means: .....

"Engineer" means: .....

"Works" means: .....

"Site" means: .....

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

"Contract Sum" means: The accepted amount inclusive of tax of R.....

Amount in words: .....

"Guaranteed Sum" means: The maximum aggregate amount of R.....

Amount in words: .....

"Expiry Date" means.....

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

PERFORMANCE GUARANTEE

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

Signed at ..... Date.....

Guarantor's signatory (1.....

Capacity.....

Guarantor's signatory (2) .....

Capacity.....

PROVINCE OF THE EASTERN CAPE

DEPARTMENT OF TRANSPORT

TENDER NO. SCMU10-21/22-0008

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED  
DRAINS**

**CONTRACT**  
**PART 2 (OF 4): PRICING DATA**

**C2.1 Pricing Instructions**

**C2.2 Bill of Quantities**

## PROVINCE OF THE EASTERN CAPE

## DEPARTMENT OF TRANSPORT

## TENDER NO. SCMU10-21/22-0008

## UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS

<b>C2.1: PRICING INSTRUCTIONS</b>
-----------------------------------

C2.1.1 For the purposes of this Bill of Quantities, the following words shall have the meanings hereby assigned to them.

Unit: The unit of measurement for each item of work as defined in the Standard Specifications or the Project Specifications.

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

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

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

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

C2.1.2 This Bill of Quantities forms part of the contract documents and must be read in conjunction with all the other documents comprising the contract documents.

C2.1.3 The quantities set out in the Bill of Quantities are only approximate quantities. The quantities of work finally accepted and certified for payment, and not the quantities given in the Bill of Quantities, will be used to determine payments to the Contractor.

The validity of the contract shall in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment. Work is valued at the rates or lump sums tender, subject only to the provisions of subclause 1209 (a) of the Standard Specifications.

C2.1.4 Rates and lump sums shall include full compensation for overheads, profits, incidentals, tax (other than VAT), etc. and for the completed items of work as specified, all in accordance with subclause 1209 (b) of the Standard Specifications. Full compensation for completing and maintaining, during the defects liability period, all the work shown on the drawings and specified in the Standard Specifications and Project Specifications and for all the risks, obligations and responsibilities specified in the General Conditions of Contract, Special Conditions of Contract, Standard Specifications and Project Specifications shall be considered as provided for collectively in the items of payment given in the Bill of Quantities, except in so far as the quantities given in the Bill of Quantities are only approximate.

C2.1.5 The Bidders shall fill in a rate or a lump sum for each item where provision is made for it even where no quantities are given. Items against which no rate or lump sum has been entered in the tender will not be paid for when the work is executed, as payment for such work will be regarded as being covered by other rates or lump sums in the Bill of Quantities

The Bidders shall fill in a rate against all items where the words "rate only" appear in the amount column. Although no work is foreseen under such item and no quantities are consequently given in the quantity column, the tender rate shall apply should work under this item actually be required. Tenderers should note the provisions of paragraph 12 of this preamble.

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

the rate for the item included in another item shall be deemed to be nil.

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

- C2.1.6 The works executed are measured for payment in accordance with the methods described in the contract documents under the various payment items, notwithstanding any custom to the contrary. Attention is directed to the provisions of Clause 1220 of the Standard Specifications regarding the measurements of quantities for payment. Except where specified otherwise than in Clause 1220, the net measurement or mass of the finished work in place shall be taken for payment, and any volume or mass of work in excess of that prescribed, shall be excluded.
- C2.1.7 The amount of work or the quantities of material stated in the Bill of Quantities shall not be considered as restricting or extending the amount of work to be done or quantity of material to be supplied by the Contractor.
- C2.1.8 The statement of quantities of material or the amount of work in the Bill of Quantities shall not be regarded as authorisation for the Contractor to order material or to execute work. The Contractor shall obtain the Engineer's detailed instructions for all work before ordering any materials or executing work or making arrangements in this regard.
- C2.1.9 The short descriptions of the payment items in the Bill of Quantities are only given to identify the items and to provide specific details. Reference shall, inter alia, be made to the drawings, Standard Specifications, Project Specifications, General Conditions of Contract and Special Conditions of Contract for more detailed information regarding the extent of work entailed under each item.
- C2.1.10 The provisions of Clause 6.6 of the General Conditions of Contract shall apply to provisional sums and prime cost sums.
- C2.1.11 Subject to the conditions stated in paragraph C2.1.12 below, the rates and lump sums filled in by the Bidders in the Bill of Quantities shall be final and binding with regard to submitting the tender, and may not be adjusted should there be any mistakes in the extensions thereof and in the total sums appearing in the tender. Adjustment of the rates will take place prior to the signing of the contract. In their own interest Tenderers must make doubly sure of the correctness of their tender rates, the extensions and the Tender Sum.

Arithmetical errors of responsive tenders will be corrected in the following manner:

- Where there is a discrepancy between an amount shown in figures, and the corresponding amount stated in words, the amount stated in words shall take preference.
- In the Bill of Quantities, if there is an error in the line item total resulting from the product of the quantity and the unit rate, the line item total shall govern, and the rate shall be corrected. Where there is a misplacement of the decimal point in the unit rate, the line item total shall govern, and the unit rate will be corrected.
- Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the Tenderers addition of prices, the total of the prices shall govern and the Bidders will be asked to revise selected item prices (and their rates in the Bill of Quantities) to achieve the tender total of the prices.

Should a Bidders be unwilling to make the corrections ordered by the Engineer, the tender may be disqualified.

- C2.1.12 A tender may be rejected if the unit rates or lump sums for some of the items in the Bill of Quantities are, in the opinion of the Employer, unreasonable or out of proportion, and if the Bidders fails, within a period of seven (7) days of having been notified in writing by the Employer to adjust the unit rates or lump sums for such items, to make such adjustments.

C2.1.13 The units of measurement indicated in the Bill of Quantities are metric units the following abbreviations are used in the Bill of Quantities:

mm	=	Millimeter
m	=	Metre
km	=	Kilometre
km-pass	=	kilometre-pass
m <sup>2</sup>	=	square metre
m <sup>2</sup> -pass	=	square metre pass
ha	=	Hectare
m <sup>3</sup>	=	cubic metre
m <sup>3</sup> -km	=	cubic metre kilometer
L	=	Litre
kl	=	Kiloliter
kg	=	Kilogram
T	=	ton (1000 kg)
No	=	Number
mn	=	Meganewton
mn-m	=	meganewton-metre
%	=	Percent
kW	=	Kilowatt
Kn	=	Kilonewton
PC sum	=	prime cost sum
Prov sum	=	provisional sum

C2.1.14 All rates and sums of money quoted in the Bill of Quantities shall be in Rands and whole cents. Fractions of a cent shall be discarded

C2.1.15 The item numbers appearing in the Bill of Quantities refer to the corresponding item numbers in the Standard Specifications. Item numbers prefixed by the letter B refer to payment items described under Part B of the Project Specifications, those with C to payment items described under Part C, and so on for further parts of the project specifications.

## PROVINCE OF THE EASTERN CAPE

## DEPARTMENT OF TRANSPORT

TENDER NO. SCMU10-21/22-0008

## UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS

<b>C2.2: BILL OF QUANTITIES</b>
---------------------------------

**CONTRACT No : SCMU10-21/22-0008**

PART A : PRELIMINARY AND GENERAL

SECTION 1200

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
<b>1200</b>	<b>GENERAL REQUIREMENTS AND PROVISIONS</b>				
B12.03	Relocation and reinstatement of water and sewer lines belonging to the local authority				
	(a) Direct payment to the authority or its agent	Prov Sum	1	25 000	25 000
	(b) Handling costs and profit in respect of B12.03(a)	%	25 000		
TOTAL CARRIED FORWARD TO SUMMARY					



PART A : PRELIMINARY AND GENERAL

SECTION 1300

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
1300	<b>CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS</b>				
B13.01	Contractor's general obligations				
	(a) Fixed obligations	Lump Sum	1		
	(b) Value-related obligations	Lump Sum	1		
	(c) Time-related obligations	Month	10		
TOTAL CARRIED FORWARD TO SUMMARY					

TOTAL CARRIED FORWARD TO SUMMARY					

## PART A : PRELIMINARY AND GENERAL

## SECTION 1500

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
<b>1500</b>	<b>ACCOMMODATION OF TRAFFIC</b>				
15,03	Temporary traffic-control facilities:				
	(a) Flagmen	man-day	4400		
	(b) Portable STOP and GO-RY signs	number	2		
	(c) Temporary traffic-control signals as specified or as shown on the drawings	number	1		Rate only
	(h) Delineators (DTG50J) plastic type(800mm x 200mm				
	(i) Single	number	1		Rate only
	(ii) Mounted back to back	number	150		
	(i) Movable barricade/road sign combination				
	(i) TR104:1200mm	number	1		Rate only
	(ii) TW411:1800X300mm	number	1		Rate only
	(j) Traffic cones 750mm height	number	20		
	(m) Two-way communication devices	number	1		Rate only
B15.14	Traffic safety officer	month	1		Rate only

TOTAL CARRIED FORWARD TO SUMMARY					

PART A : PRELIMINARY AND GENERAL

SECTION 1600

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
<b>1600</b>	<b>OVERHAUL</b>				
16,01	Overhaul on material hauled in excess of a free-haul distance of 0,5 km, for haul up to or through 1,0 km (restricted overhaul)	m <sup>3</sup>	4200		
B16.02	Overhaul on material hauled in excess of 1,0 km (ordinary overhaul)	m <sup>3</sup> km	1		Rate only

TOTAL CARRIED FORWARD TO SUMMARY				

PART A : PRELIMINARY AND GENERAL

SUMMARY OF SECTIONS

SECTION	DESCRIPTION	AMOUNT (RAND)
1200	GENERAL REQUIREMENTS AND PROVISIONS	
1300	CONTRACTOR'S ESTABLISHMENT ON SITE AND GENERAL OBLIGATIONS	
1400	HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE   PERSONNEL	
1500	ACCOMODATION OF TRAFFIC	
1600	OVERHAUL	

TOTAL CARRIED FORWARD TO SUMMARY OF SCHEDULES		

## PART B : ROADWORKS

## SECTION 1800

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
<b>1800</b>	<b>DAYWORKS</b>				
B18.01	Personnel during normal working hours				
	(a) Unskilled labour	hr	1		Rate only
	(b) Semi-skilled labour	hr	1		Rate only
	(c) Skilled labour	hr	1		Rate only
	(d) Ganger	hr	1		Rate only
	(e) Flagmen	hr	1		Rate only
B18.02	Personnel outside normal working hours:				
	(a) Outside normal working hours and Saturdays:				
	(i) Unskilled labour	hr	1		Rate only
	(ii) Semi-skilled labour	hr	1		Rate only
	(iii) Skilled labour	hr	1		Rate only
	(iv) Ganger	hr	1		Rate only

	(v) Flagmen	hr	1		Rate only
	(b) Sundays and public holidays:				
	(i) Unskilled labour	hr	1		Rate only
	(ii) Semi-skilled labour	hr	1		Rate only
	(iii) Skilled labour	hr	1		Rate only
	(iv) Ganger	hr	1		Rate only
	(v) Flagmen	hr	1		Rate only
TOTAL CARRIED FORWARD					
B18.03 Plant					
	(a) Air compressor of at least 7 m3/min (includes breakers and hose)	hr	1		Rate only
	(b) Generator or Alternator set of at least 10 kW capacity	hr	1		Rate only
	(c) Vibrating plate compactor	hr	1		Rate only
	(d) Tracked Dozer, (D8)	hr	1		Rate only
	(e) Grader (CAT 140G or similar)	hr	1		Rate only
TOTAL CARRIED FORWARD					

## PART B : ROADWORKS

## SECTION 1800

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD					
	(f) Front End Loader minimum power 90 kW	hr	1		Rate only
	(g) Tractor/Loader/Backhoe	hr	1		Rate only
	(h) Tippers (5m3)	hr	1		Rate only
	(i) Tippers (10m3)	hr	1		Rate only
	(j) Traxcavator 80 kW power	hr	1		Rate only
	(k) Mobile crane with lifting capacity of 5t	hr	1		Rate only
	(l) Self-propelled vibratory roller, 9-12t	hr	1		Rate only
	(m) Pneumatic tyred roller, 9-12t	hr	1		Rate only
	(n) Flat steel wheeled roller, 9-12t	hr	1		Rate only
	(o) Grid roller, 15t	hr	1		Rate only
	(p) Hand propelled vibratory roller, 0,5t	hr	1		Rate only
	(q) Water Tanker (5000 litres)	hr	1		Rate only
B18.04	Materials				

	(a) Procurement of materials	Prov Sum	1	75 000	75 000,00
	(b) Contractor's handling costs, profit and all other charges in respect of sub item B18.04 (a)	%	75 000		
B18.05	Transport				
	(a) LDV	km	1		Rate only
	(b) Flatbed truck (incl crane)	km	3 168		
B18.06	Other plant not specified above	Prov Sum	1	10 000	10 000,00
TOTAL CARRIED FORWARD TO SUMMARY					

PART B : ROADWORKS

SECTION 2100

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
<b>2100</b>	<b>DRAINS</b>				
21,19	Selected backfill material under concrete-lined side drains compacted to 93% of modified AASHTO density	m <sup>3</sup>	13 000		



TOTAL CARRIED FORWARD TO SUMMARY					

## PART B : ROADWORKS

## SECTION 2300

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
<b>2300</b>	<b>CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS</b>				
23,07	Trimming of excavations for concrete-lined open drains:				
	(a) In soft material	m <sup>2</sup>	4 500		
	(b) In hard material	m <sup>2</sup>	1 800		
23,08	Concrete lining for open drains:				
	(a) Cast in situ class 25 /19 concrete lining in concrete side drains refer to drawing no. ECS / 23 / 3 / C1	m <sup>3</sup>	563		
	(b) Class U2 surface finish to cast in situ concrete in concrete side drains refer to drawing no. ECS / 23 / 3 / C1	m <sup>2</sup>	4 500		
23,09	Formwork to cast in situ concrete lining for open drains (class F2 surface finish):				
	(c) To ends of slabs	m <sup>2</sup>	4 500		

23,10	Sealed joints in concrete linings of open drains with Flexcell and polysulphide seal, complete as shown on the Drawings	m	1 800		
23,12	Steel reinforcement  (c) Welded steel fabric (Mesh 6mm diametre)	kg	22050		
TOTAL CARRIED FORWARD TO SUMMARY					

## PART B : ROADWORKS

## SECTION 8100

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
<b>8100</b>	<b>TESTING MATERIALS AND WORKMANSHIP</b>				
81,02	Other special tests requested by the Engineer	Prov Sum	1	50 000,00	50 000,00
	Profit and mark up	%		50 000.00	
TOTAL CARRIED FORWARD TO SUMMARY					

## PART B : ROADWORKS

## SUMMARY OF SECTIONS

SECTION N	DESCRIPTION	AMOUNT (RAND)
1800	DAYWORKS	
2100	DRAINS	
2300	CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES,AND CONCRETE LININGS FOR OPEN DRAINS	
8100	TESTING MATERIALS AND WORKMANSHIP	
TOTAL CARRIED FORWARD TO SUMMARY OF SCHEDULES		

## PART C : OCCUPATIONAL HEALTH AND SAFETY

## SECTION C3-6

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>C3-6</b>	<b>CONTRACTOR'S OBLIGATIONS IN TERMS OF HEALTH &amp; SAFETY ITEMS</b>				
C3-6 / 01	Preparation of site specific Health & Safety Plan	Lump Sum	1		
C3-6 / 04	(a) Provision of full time Construction Occupational Health & Safety Officer	Month	10		
C3-6 / 05	Provision of personal protective equipment (PPE)				
	(a) Reflective vests	No	15		
	(b) Reflective bibs	No	15		
	(c) Hard hats	No	15		
	(d) Protective foot wear	No	15		
	(e) Steel toed gumboots	No	15		
	(f) Earplugs	No	15		
	(g) Dust masks - FF2 standard	No	50		
	(h) Gloves	Pair	30		
	(i) Specific equipment as required by the Engineer	Prov Sum	1	30 000,00	30 000,00
	(j) Handling costs and profit in respect of subitem C3-6 / 05 (i)	%		30 000.00	
C3-6 / 06	Cost of medical certificates and medical surveillance				
	(a) Initial (baseline) medical examinations	No	15		
	(b) Exit examinations	No	15		
C3-6 / 07	Induction training	No	15		
TOTAL CARRIED FORWARD					

## PART C : OCCUPATIONAL HEALTH AND SAFETY

## SECTION C3-6

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD					
C3-6 / 10	Provision of First Aid Boxes	No	1		
C3-6 / 11	Transportation for workers on site	Month	10		
C3-6 / 14	HIV/AIDS awareness education				
	(a) Preparation and submission of HIV/AIDS service provider workshop plan	Lump Sum	1		
	(b) Conduct HIV/AIDS awareness workshops on site for all local and other workers employed on the contract, inclusive of all direct and indirect costs.	Lump Sum	1		
	(c) Provide and maintain condom dispensers (for both male and female condom) on site for the duration of the contract	Lump Sum	1		
	(d) Provide and maintain HIV/AIDS awareness posters on site	Lump Sum	1		
	(e) Provide information regarding the voluntary testing of all workers on site, counselling support and care.	Lump Sum	1,00		
	(f) Appointment of a HIV/AIDS awareness champion	Lump Sum	1,00		
	(g) Supply Sanitary Towels (for females) on site	Lump Sum	1,00		
TOTAL CARRIED FORWARD TO SUMMARY OF SCHEDULES					

## PART D: ENVIRONMENTAL MANAGEMENT

## SECTION C3-5

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
C3-5 / 01	Penalty for unnecessary removal or damage to trees for the following girth sizes.				
	(a) 2600 mm girth or less	No		-5 000,00	
	(b) Greater than 2600 mm but less than 6180 mm	No		-10 000,00	
	(c) Greater than 6180 mm girth	No		-30 000,00	
C3-5 / 02	Penalty for serious violations				
	(a) Hazardous chemical/oil spill and/or dumping in non-approved sites	No		-10 000,00	
	(b) General damage to sensitive environments	No		-5 000,00	
	(c) Damage to cultural and historic sites	No		-5 000,00	
	(d) Pollution of water sources	No		-10 000,00	
	(e) Unauthorised blasting activities	No		-5 000,00	
	(f) Uncontrolled / unmanaged erosion (Rehabilitation will be at Contractor's expense)	No		-5 000,00	
	(g) Damage to sensitive vegetation in no-go areas. (Rehabilitation will be at Contractor's expense)	m <sup>2</sup>		-2 000,00	
C3-5 / 03	Penalty for less serious violations				
	(a) Littering on site	No		-1 000,00	
	(b) Lighting of illegal fires on site	No		-1 000,00	
	(c) Persistent or un-repaired fuel and oil leaks	No		-1 000,00	
	(d) Any person related to the contractor's operations found within designated no-go areas.	No		-500,00	
	(e) As per (d) above but for vehicles or equipment	No		-3 000,00	
	(f) Excess dust or noise emanating from the site	No		-1 000,00	
	(g) Dumping of milled materials in side drains or grassed areas	No		-1 000,00	
	(h) Possession or use of intoxicating substances on site	No		-500,00	
TOTAL CARRIED FORWARD TO SUMMARY					

## PART D: ENVIRONMENTAL MANAGEMENT

## SECTION C3-5

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
BROUGHT FORWARD					
	(i) Vehicles driven in excess of designated speed limit	No		-500,00	
	(j) Removal and/or damage to flora cultural or heritage objects on site, and/or killing of wildlife	No		-2 000,00	
	(k) Illegal hunting	No		-2 000,00	
	(l) Urination or defecation except in proper latrines	No		-500,00	



TOTAL CARRIED FORWARD TO SUMMARY OF SCHEDULES	
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**PROVINCE OF THE EASTERN CAPE**

**DEPARTMENT OF TRANSPORT**

**CONTRACT NO. SCMU10-21/22-0008**

**CONSTRUCTION OF SIDE DRAINS IN R72 - HAMBURG**

**SUMMARY OF SCHEDULE OF QUANTITIES**

	<u>DESCRIPTION</u>	<u>AMOUNT</u>
PART A	PRELIMINARY AND GENERAL	
PART B	ROADWORKS	
PART C	OCCUPATIONAL HEALTH AND SAFETY	
PART D	ENVIRONMENTAL MANAGEMENT	
TOTAL OF BILL OF QUANTITIES		
<hr/>		
<hr/>		
	SUBTOTAL 1.....	
<hr/>		
	CONTINGENCIES 5% OF SUBTOTAL 1.....	
<hr/>		
	SUBTOTAL 2 (SUBTOTAL 1 + CONTINGENCIES).....	
<hr/>		
	CONTRACT PRICE ADJUSTMENT (CPA) 5% OF SUBTOTAL 1.....	
<hr/>		
	SUBTOTAL 3 (SUBTOTAL 2 + CPA).....	
<hr/>		
	VAT @ 15% OF SUBTOTAL 3 .....	
<hr/>		
<b>BID SUM</b>		

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The tender sum must be transferred to a Form of Offer

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PROVINCE OF THE EASTERN CAPE

DEPARTMENT OF TRANSPORT

TENDER NO. SCMU10-21/22-0008

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED  
DRAINS**

<b>CONTRACT PART 3 (OF 4): SCOPE OF WORKS</b>		
<b>ITEM</b>		<b>PAGE</b>
<b>C3.1</b>	<b>Description of the Works</b>	<b>C3.2</b>
<b>C3.2</b>	<b>Engineering</b>	<b>C3.6</b>
<b>C3.3</b>	<b>Procurement</b>	<b>C3.7</b>
<b>C3.4</b>	<b>Construction</b>	<b>C3.8</b>
<b>C3.5</b>	<b>Management</b>	<b>C3.128</b>

## PROVINCE OF THE EASTERN CAPE

## DEPARTMENT OF TRANSPORT

## TENDER NO. SCMU10-21/22-0008

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE  
LINED DRAINS****C3.1: DESCRIPTION OF THE WORKS****C3.1.1 EMPLOYER'S OBJECTIVES**

Main Road 0522 Hamburg road is designated as a Class 3 Minor Arterial/District distributor. MR00522 provide a vital and much needed link from the R72 to Hamburg. The Hamburg Road extends from the R72, the main road between East London and Port Alfred, to the village of Hamburg on the right bank of the Kieskamma River. It also serves the villages of Tuwa, Bell and Bodiam.

Due to the increase in traffic and the generally poor condition of the road surface, it is proposed to upgrade to a geometrically-designed surfaced road. This change in status will promote local economic development that will improve the quality of life of the rural communities serviced by this access road. The 13.5km stretch of road will be constructed as a single unit with a few separate sub-contracts.

Environmental studies indicates that the upgrade impacts a number of wet lands and a river which runs close to and within the road reserve, these areas only have an impact on majority of the second half of the road. The entire road upgrade alone will not only improve access to Hamburg village/town but will also improve access to the residential villages of Tuwa and Bodiam.

**C3.1.2 OVERVIEW OF THE WORKS (SCOPE)**

The bulk of the in-situ soils found along the entire road length are considered suitable for road subgrade preparation and are classified as G7 to G10 according to the TRH14 soils classification scheme. The second half of this road stretch also include a bridge over the Nyulutsi River and provides excess to a primary school on the right hand side by km 8+100. The Nyulutsi River flows through a wide plain with a flat gradient. Further downstream, the river is incised in a deep gorge.

### **C3.1.3 EXTENT OF THE WORKS**

The Works to be carried out include the following main activities:

- a. Establishment on site and clearing and grubbing
- b. Provision of traffic accommodation facilities.
- c. Access to all properties to be catered for throughout the contract
- d. Part of the selected materials to be imported from borrow pits.
- e. Part of the selected materials to be imported from commercial sources.
- f. Backfilling and compact the imported subgrade to 93% Mod AASHTO.
- g. Installation of subsoil drains in cuttings.
- h. The rehabilitation, landscaping and finishing of roadway.
- i. Training programmes for local residents
- j. Finishing off.
- k. De-establishment after all construction activities and 12 month defects liability period.

#### **C3.1.3.1 GENERAL**

- Establishment of camps on site.
- Accommodation of traffic.

#### **C3.1.3.3 DRAINAGE**

- Excavation and preparation of side drains, including subsoils, stone pitching and concrete lined drainage.
- Construction of manholes

### **C3.1.4 LOCATION OF THE WORKS**

MR00522 is located in the small tourism town of Hamburg which falls under the jurisdiction of Ngqushwa Municipality in the Amathole District Municipality of the Eastern Cape. The project starts at the MR00522 & R72 intersection (33°14'55.94"S, 27°20'54.12"E). This point is 31 km South East of Peddie, 65 km North East of Port Alfred and 72km South West of East London. This project will extend from R72 intersection and 13.5km towards Hamburg, passing a number access road intersections serving the adjoining communities.

### **C3.1.5 TEMPORARY WORKS**

#### **C3.1.5.1 SPECIAL WATER HAZARDS CONTROL**

It should be noted that certain areas of the Works are fairly low lying and due to blocked and inadequate storm water control structures, these areas are prone to flooding and ponding during and subsequent to rainy periods.

Therefore, roadworks and trenching /open excavations may also be delayed due to ponding of water and the Contractor will have to allow for various methods of removing ponding storm water and other de-watering methods to enable a minimum of delay to occur.

#### **C3.1.5.2 OTHER SERVICES (TELKOM, ELECTRICITY, ETC)**

Items have been allowed in the Bill of Quantities for dealing with and protecting existing services where they are known.

The Contractor will, however, ensure that prior to construction all the necessary Record Drawings and Wayleaves for all services have been obtained and verified on site by the relevant Service Providers in his presence. The Contractor must request in writing the relevant Official to indicate the said services at least 48 hours prior to commencement of work,

after which the responsibility rests with the Service Department if the services are not indicated to the Contractor as requested.

The Contractor shall take whatever extra precautions are required to protect all existing services from damage during the period of the Contract. Any damage to existing services indicated by the relevant service providers or other damage as a result thereof, shall be for the Contractor's account.

### **C3.1.5.3 SURVEY BEACONS AND BENCHMARKS**

The Contractor shall be responsible for the preservation of all land survey, erf or other pegs, benchmarks and beacons. If damage or disturbance of any such pegs or beacons is caused by the operations of the Contractor or his subcontractors, the pegs are to be replaced by a Registered Land Surveyor at the cost of the Contractor.

Benchmarks will be replaced by the Engineer at the Contractor's expense. Information regarding the position of all such pegs will be made available to the Contractor by the Engineer on request. The Contractor is to ensure that no spoil is placed over an erf peg or benchmarks and that these are adequately protected for the full duration of the Contract.

Where disturbances of boundary pegs is unavoidable due to excavation or other operations adjacent to the pegs, the Contractor shall advise the Engineer or his Representative immediately, and agreement is to be reached that the disturbance of the peg is unavoidable and a strict record of such disturbed pegs is to be kept. Such pegs are to be replaced by a Registered Land Surveyor as described above and the Contractor is to submit proof of the cost of replacement of pegs. The Contractor will be reimbursed on a basis pro-rata to the total cost of peg replacement determined on completion of the Works.

### **C3.1.5.4 TIDYING UP OF THE WORKS**

The Contractor shall take note that progressive and systematic finishing and tidying will form an essential part of this contract. On no account shall spoil, rubble, materials, equipment or unfinished operations be allowed to accumulate in such a manner as to unnecessarily be a hindrance to or impede the activities of other contractors or service providers or public. In the event of this occurring, the Employer shall have the right to withhold payment for as long as may be necessary in respect of the relevant works in the area(s) concerned. In this regard, the Contractor's attention is drawn to NEMWA.

Upon completion of the Works or any portion thereof, the ground, fences, gates and any structures that have been interfered with are to be carefully restored to their original condition and all rubbish, tools, tackle, plant and material must be removed so as to leave the Site in a clean and orderly condition. No additional payment shall be made for work set out above.

### **C3.1.5.5 UTILISATION OF MEs**

The Contractor shall be required to utilise ME contractors in the execution of the works below;

- Accommodation of traffic;
- Installation of stormwater culverts;
- Brickwork;
- Pitching, stonework and protection against erosion;
- Gabions;
- Guardrails;
- Road signs;

**C3.1.5.5 EMPLOYMENT OF LOCAL LABOUR**

The Contractor shall be required to create employment (min of 5% of works value) for the duration of the contract period.

The employment of the above local labour is over and above the local labour which will be employed by the Micro Enterprises.

***A “local labourer” is defined as a person whose domicilium citandi et executandi shall be in the Local Municipal Area in which the project is based.***

## PROVINCE OF THE EASTERN CAPE

## DEPARTMENT OF TRANSPORT

## TENDER NO. SCMU10-21/22-0008

## UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS

## C3.2: ENGINEERING

**C3.2.1 DESIGN SERVICES AND ACTIVITY MATRIX****Works designed by, per design stage:**

Concept, feasibility and overall process	Employer
Basic engineering and detail layout to tender stage	Engineer
Final design to approved for construction stage	Engineer
Temporary works of Contractor	Contractor
Preparation of as-built drawings	Contractor

**C3.2.2 DRAWINGS AND DOCUMENTS**

The drawings listed below are attached in order to give an overview of the project.

Additional construction drawings will, in terms of Clause 5.9.1 of the General Conditions of Contract (2010), be issued to the Contractor by the Engineer/Employer on the commencement date and from time to time as required.

The reduced drawings that form part of the tender documents shall be used for tender purposes only. The Contractor will be supplied with 3 sets of unreduced paper prints of each drawing free of charge. Any additional prints will be for the account of the Contractor.

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

Drawing No	Title	
<b>Volume 1</b>	General Conditions of Contract (2015)	To be obtained by Contractor
<b>Volume 2</b>	The Standard Specifications for Road and Bridge Works for State Road Authorities (COLTO 1998 Edition)	To be obtained by Contractor
<b>Volume 3</b>	This Volume	
<b>Volume 4</b>	Set of drawings issued with Volume 3 for tender purposes (may be bound in at the back of Volume 3 or issued as a separate volume)	
1078-T-01	Locality Plan	Included in Volume 3
1078-T-02	Contract Name Board	Included in Volume 3
1078-T-03	Identity Board	Included in Volume 3

**C3.2.3 DESIGN PROCEDURES**

The Contractor is responsible for the design of all temporary works required for the construction of the permanent works. This includes, inter alia, temporary access roads, trench shoring, dewatering and temporary support system

PROVINCE OF THE EASTERN CAPE

DEPARTMENT OF TRANSPORT

TENDER NO. SCMU10-21/22-0008

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE  
LINED DRAINS**

**C3.3: PROCUREMENT**

**C3.3.1 PREFERENTIAL PROCUREMENT PROCEDURES**

**C3.3.1.1 Resources standards**

Refer to the Tender Data in Part T1

**C3.3.1.2 Requirements**

Refer to the Returnable Documents in Part T2

**C3.3.2 UTILIZATION OF MEs**

The Employer has committed itself to the utilization of MEs in road maintenance.

The vision is that the Main Contractor subcontracts a minimum of **30%** of the Contract Value to MEs based in the Local Municipal Area.

The Professional Team, made up of a representative of the Employer, Engineer and Contractor, shall prepare subcontract documents and request for RFQ's in the first three months of the contract period.

**C3.3.2.1 PENALTY CALCULATION**

**Use of ME Contractors**

Should the contractor fail to meet the minimum requirement of subletting at least **30%** of the Contract value to ME's based in the Local Municipal Area (emerging sub-contractors), a penalty of 1,2 \* the value of the amount to be sublet, minus the actual value sublet, will be implemented. This amount will be deducted from the Contractor's payment certificate.

**Use of Local Labour**

Should the contractor fail to meet the minimum requirement of creating employment (min of 5% of works value) for the duration of the contract, a penalty of 1,5 \* the value of the amount of employment that was not created, calculated at R180.00 per day per person, will be calculated and imposed. This amount will be deducted from the Contractor's payment certificate.

The Contractor is to indicate to the Client via a report certified by their auditors indicating the payments made to Local Labour and ME's.



PROVINCE OF THE EASTERN CAPE

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**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE  
LINED DRAINS**

**C3.4: CONSTRUCTION**

**C3.4.1 WORKS SPECIFICATION**

**C3.4.1.1 Applicable Standards**

The Standard Specifications for Road and Bridge Works for State Road Authorities (1998 Edition) as prepared by the Committee of Land Transport Officials (COLTO) are applicable to this Contract. It shall however be noted that reference is made in certain of the specifications to other standardised specifications which may or may not be included in this document. Where such specifications are not included, they shall however be deemed to be included in the Contract documents.

The Contractor shall have available for reference on site at all times a full set of the above specifications, together with any other to which they refer. These specifications shall remain the property of the Contractor but shall be made available to the Engineer whenever required throughout the duration of the Contract.

In addition, the following Particular Specifications that are bound into this document will also apply:

- Section 1900: Dayworks (provisional)
- Section 12000: Environmental Management Programme implementation
- Section 13000: Occupation Health & Safety specifications
- Section 14000: HIV Training for the Construction Industry
- Section 15000: Utilisation of ME's and Local Labour

**C3.4.1.2.1** The term "Project Specifications" appearing in any of the COLTO standardised specifications must be replaced with the terms "scope of work".

**C3.4.1.2.2** The variations and additions to the specifications listed in C3.4.1.2.2 are as follows:

The Standard Specifications for Road and Bridge Works for State Road Authorities 1998, prepared by the Committee of Land Transport Officials, (COLTO), as amended, shall apply to this Contract. The amendments are those issued by COLTO and reproduced below, together with additional amendments as set out herein.

The Routine Road Maintenance and Re-gravelling, as well as the Road Betterment Procedures Manuals, as issued by the Department of Transport of the Eastern Cape will be referred to as a guideline, for the repair / construction and maintenance activities to be conducted under this Contract.

## **C3.4.2 SITE FACILITIES**

### **C3.4.2.1 Facilities for the Engineer**

Site facilities as specified in the schedule of quantities are required. Site meetings will be held in the Contractor's site office and must make allowance to seat at least 25 people.

### **C3.4.2.2 Sanitary Facilities**

The Contractor shall supply chemical toilets for use by his employees and temporary workers and shall be entirely responsible for maintaining such toilets in a clean and sanitary condition to the satisfaction of the Engineer and the health authorities. The number of toilets shall be based on one toilet per fifteen personnel on site and the Contractor shall make his own arrangements and pay all charges for the removal of sewage.

### **C3.4.2.3 Contractor's Camp Site**

The establishment of all labour, plant and materials on site and all arrangements in this respect is the responsibility of the Contractor.

The Contractor shall provide within his own on-site facilities, a suitably furnished office or other venue capable of comfortably accommodating a minimum of **twenty-five (25)** persons at site meetings. The Engineer shall be allowed free use of such a venue for the conducting of any other meetings concerning the Contract at all reasonable times. The cost of providing the above facility will be viewed to be inclusive of the Contractor's establishment costs.

Before the erection of his camp, office, stores, plant and accommodation units or any facilities, the Contractor shall satisfy the Engineer that he is familiar with and has taken due cognisance of any pertinent local by-laws, availability of services and statutory regulations. The Contractor's attention is specifically drawn to the regulations pertaining to the accommodation of labourers.

### **C3.4.2.4 Telephone and Communication Facilities**

The Contractor shall provide and maintain a continuous means of on-site communication between his site supervision staff (i.e. the people responsible for the day to day running of the Contract) and the staff of the Engineer's Representative.

The Engineer and his Representative will use their own cellular and office telephones for this contract. The provision and use of cellular phones for the Contractor's personnel will be for his own cost.

### **C3.4.2.5 Accommodation for Employees**

The Contractor shall make his own arrangements for the accommodation of his employees. It is the prerogative of the Contractor in planning his works, to either provide the Departmental employees with temporary accommodation and camping allowance per day (or in accordance with the ruling Public Service Act, presently dated 28 December 2011) when working away from their base camp / depot, or either provide transportation on a daily basis to and from the work site. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work.

### **C3.4.2.6 Security**

The Contractor shall be responsible for the security of his own personnel and constructional plant, as well as that of the Departmental employees on and around the site of the works and for the security of his camp and laboratory, and no claims in this regard will be considered by the Employer

### **C3.4.2.7 Water, Power Supply and other Services**

The Contractor shall make his own arrangements concerning the supply of water, electrical power and all other services for use at the site camps, as well as for all construction and maintenance purposes. No direct payment will be made for the provision of water, electrical power and other services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work.

**C3.4.3 FEATURES REQUIRING SPECIAL ATTENTION**

**C3.4.3.1 Public Safety**

The Contractor shall at all times ensure that his operations do not endanger any member of the public, his own personnel as well as the departmentally seconded personnel. All works are to be carried out in accordance with the approved Occupational Health and Safety Plan.

**C3.4.3.2 Adjoining Properties**

The sites of the Works are surrounded by private properties. The Contractor shall exercise strict control over his employees to ensure that they do not trespass outside the road reserve or interfere in any way with the adjacent owners, tenants and their properties. In addition, the Contractor shall liaise with the owners regarding all matters that may affect them such as the provision of water and the like.

**C3.4.3.3 Construction and Maintenance Activities in Confined Areas**

It may be necessary for the Contractor to work within confined areas. Except where provided for in the project specifications, no additional payment will be made for work done in restricted areas.

The Contractor must note that measurement and payment will be in accordance with the specified cross-sections and dimensions only, irrespective of the method used for achieving these cross-sections and dimensions and that the tendered rates and amounts shall include full compensation for all special equipment and construction / maintenance methods and for all difficulties encountered when 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 additional payment be considered in such cases.

**C3.4.4 STANDARD AMENDMENTS TO THE STANDARD SPECIFICATIONS ISSUED BY COLTO**

No amendments have been issued.

**PROJECT SPECIFICATIONS REFERRING TO THE STANDARD SPECIFICATIONS AND  
ADDITIONAL SPECIFICATIONS**

In certain clauses the Standard Specifications allow a choice to be specified in the Scope of Works 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 Scope of Works. It also contains some additional specifications required for this particular Contract.

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

<b>SECTION 1100</b>	<b>DEFINITIONS AND TERMS</b>
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Add the following additional clauses:

**“B1156 ACCEPTANCE CONTROL**

Acceptance control means whatever testing the Engineer carries out over and above the process control testing already carried out in order to decide on the acceptability of any work submitted by the Contractor. Such testing will be carried out at the cost of the Employer in a laboratory approved by him.

**B1157 COMMERCIAL SOURCE**

An offsite source of materials chosen by the Contractor will also be viewed as a commercial source. The Contractor shall take full responsibility for the quality of all materials and services supplied from commercial sources.

**B1158 PROCESS CONTROL**

Process control means all testing required to be carried out by the Contractor on the works in order to ensure that the completed permanent works comply with the specifications and drawings. All such testing will be subject to inspection and approval by the Engineer.”

**SECTION 1200: GENERAL REQUIREMENTS AND PROVISIONS**

**B1202 SERVICES**

*Add the following first paragraph:*

“All reference to services in this clause shall also mean utility services as well as traffic monitoring devices such as Comprehensive Traffic Observation (CTO), Speed Measuring Device (SMD) and Weigh-in-Motion (WIM) stations.”

*In the final paragraph, replace “clause 15” in the second line with “clause 5.6”*

*In the second paragraph, delete the word “utility” at the end of the second line.*

*In the final paragraph delete the second and third sentences starting with ‘Should’ and replace with the following:*

“The Existing Services Drawing(s) indicates all known services on the site. Before any work can commence the contractor shall verify the actual position of each service and bring to the attention of the engineer any service that is not recorded. As the contractor is not authorised to remove or replace these facilities he shall:

- i) Give preliminary notice, in writing to the relevant service provider, that the services on the site will require removal or protection prior to works being carried out in the vicinity of each station. The contractor shall advise the service provider of
  - a) The number of services, their locations and station ID numbers and
  - b) The proposed dates when work will commence in the vicinity of each service.
- ii) In addition to the above preliminary notice, give the service provider 14 days written notice of the intention to commence work in the vicinity of each facility.
- iii) Upon completion of the work in the vicinity of each facility, the contractor shall notify the service provider, in writing, that work is complete, and the service may be reinstated.

Any delay resulting from the removal/replacement of a service shall not be the subject of a potential claim, unless the contractor can demonstrate that every effort has been made to timeously request and/or apply for the removal/replacement of the said service. In addition, the contractor shall be deemed to have employed the services of the service provider as a subcontractor for purposes of removing and/or replacing the relevant service.

Any cost of repairs, replacement and/or installation of the stations and equipment resulting from the contractor’s negligence or unauthorised action shall be to the contractor’s account.”

**Measurement and payment**

<b>Item</b>	<b>Unit</b>
<b>B12.02 Proving of Existing Services by hand in all classes of material.....</b>	lump sum (LS)
The unit of measurement shall be the cubic metre of material removed by hand to expose existing services.  The tendered rate shall include full compensation for all labour and tools required for removing the material. The re-instatement of the service shall be paid for under the relevant items for backfilling of trenches and reinstatement.	

**B1204 PROGRAMME OF WORK**

*Insert the following before the first paragraph:*

"A network-based programme in accordance with the precedence method shall be provided showing the various activities in such detail as may be required by the Engineer. The programme shall be updated monthly in accordance with the progress made by the Contractor.

Failure to comply with these requirements will entitle the Engineer to apply a programme based on his own assumptions for the purpose of evaluating claims for additional compensation."

**B1206 SETTING OUT OF THE WORKS AND PROTECTION OF BEACONS**

In second line of first paragraph, replace Clause 14 with 4.1.2, 4.5, 4.15 and 4.15.3 of SANS 1921-1.

GCC2015 contains no specific clauses pertaining to the setting out of the works. Setting out is included in the Scope of Works and correctness will be addressed under the Quality as given in section 7 of GCC2015.

Replace "clause 14" in the first paragraph with "all relevant clauses in terms of Scope of Works and Quality".

*Delete "and of clause 14 of the general conditions of contract" in the sixth paragraph.*

*Add the following paragraph:*

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

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

**Measurement and Payment**

<b>Item</b>	<b>Unit</b>
<b>B12.06 Setting out of work and protection of beacon</b>	<b>Prov. Sum</b>
(a) Provision for new survey beacons to be constructed, or for existing survey beacons to be protected during construction	Prov. Sum
(b) Handling costs and charges for Contractor on items B13.07 (a)	(%)

**B1209 PAYMENT**

**(b) Rates to be inclusive**

*In the 3<sup>rd</sup> line, after the word "quantities", insert "together with the payment of VAT as a separate item,"*

**(f) Materials on Site**

In the first line of the first paragraph, delete "Clause 52" and replace with "Clause 6.10.1".

*Add the following sub clause:*

**“(g) Trade names**

Where materials are specified under trade names, tenders must be based on those specified materials. Alternative materials may be submitted as alternative tenders and the Engineer may, after receipt of tenders, approve the use of equivalent materials.”

**B1210 CERTIFICATE OF PRACTICAL COMPLETION OF THE WORKS**

*Insert the following:*

In the fourth line of the first paragraph, delete “Clause 54” and replace with “Clause 5.14”.

*Add the following paragraph:*

**“Only a Certificate of Completion will be issued on successful completion of the works.”**

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

*Add the following to the first paragraph of subclause (d)(ii)*

“This is also required with respect to fences, gates, camp sites, bypasses and material spoiled on private property.”

*Add the following after subclause (e)*

“These written statements, as required in Clause 1214(b)-(e) shall be handed to the Engineer before the final certificate will be issued.”

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

In second line of first paragraph, replace “Clause 35” with “Clause 8.2”.

**B1229 SABS CEMENT SPECIFICATIONS**

*Add the following to this subclause:*

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

SANS 50197-1 “Cement composition, specifications and conformity criteria Part 1: Common cements.”

Furthermore, where reference is made in this specification or the standard specification to a different cement type, the following names will apply, and the Engineer will confirm the relevant new name from the table overleaf:



*Add the following new clauses:*

**B1230 DAILY RECORDS**

The Contractor shall furnish the Engineer daily with records of work executed by him for each activity. The records shall include information such as description, location, measurement, plant and labour hours, where applicable, and all other information the Engineer may require for the record and measurement purposes, in accordance with the reporting forms included in **Appendix B** attached to this Volume.

No separate payment items will be scheduled for the administrative costs incurred by the Contractor to provide the Engineer with the activity sheets and other information that will be required. These costs will be deemed to be inclusive of the rates tendered for the works.

**B1232 COMMUNITY LIASON OFFICER (CLO)**

The Community Liaison Officer (CLO) is to be selected by the Project Steering Committee (PSC) / Local Council and the Employer (through his agent) and appointed by the Contractor. The Contractor shall, however, accept the appointment as part of his management personnel.

The duties of the CLO will be:

- To be available on site daily during normal working hours and at other times as the need arises. His normal working day and his period of employment will be mutually agreed upon by the Employer and the Engineer accordingly.
- To determine, in consultation with the Contractor, the needs of the local labour/SMMEs for relevant training if so required.
- To communicate daily with the Contractor and the Engineer to determine the labour/SMME requirements with regard to numbers and skill, to identify possible labour disputes and to assist in their resolution.
- To attend all meetings in which the community and/or labour is present or is required to be represented. In particular, he will attend the first part of the monthly/site meeting to report on the local community involvement.
- To inform local labour of their conditions of temporary employment and to inform local labourers as early as possible when their period of employment will be terminated.
- To attend disciplinary proceedings to ensure that hearings are fair and reasonable.
- To keep a daily written record of his interviews and project liaison conducted.
- All such other duties as agreed upon between all parties concerned.

A payment item has been allowed for in the Bill of Quantities for the payment of the CLO.

**B1233 COMMUNITY PARTICIPATION**

In order to give effect to the need for the participation and transparency in the process of delivering services, the community should participate in the decision-making process throughout the duration of the project. This shall be achieved through structured engagement between those responsible for the delivery of the project and the community.

A Project Steering Committee (PSC) which will be voluntary organizations shall be formed from representatives of the Roads Forum, the Employer, the Engineer, the Contractor, interested and affected parties. The PSC shall meet at least once every month.

The PSC shall make decisions and recommendations by consensus for the consideration and final approval of the Employer.

The tasks of the PSC will be to:

- Identify problems and opportunities that result from the location, construction and operation of the roads.
- Participate in the prioritization process of the works in the development of the Maintenance Plan which will form the basis of the Construction Programme.
- Keep the community informed of all decisions taken and revisions relating to the Construction Programme.
- Keep the community informed with regards to progress being made on a monthly basis.
- To assist with community liaison and resolution of non-contractual disputes.
- To devise fair and transparent procedures that will assist the Contractor in the engagement of labour.

**B1235 PROVIDING CONTRACT MANAGEMENT TO THE HOUSEHOLD CONTRACTORS LOCATED WITHIN THE LMA**

The Eastern Cape Department of Roads and Transport is responsible for the Household Contractor Maintenance Programme.

The Household Contractor Maintenance Programme is aimed at poverty alleviation through community households located along the proposed road, who conduct basic road construction functions such as culverts, installation of gabions, guardrails, etc.

It is the Employer’s intention that the provision of Contract Administration, Quality Control, Preparation of Reports and General Management of the programme be conducted by one full time foreman provided by the Main Contractor. The foreman is also required to provide the community contractors with basic training on how to conduct the said construction works to Departmental standards.

**B1239 MEASUREMENT AND PAYMENT FOR CERTAIN GENERAL ITEMS**

Payment will be made under this Section for certain temporary work items as follows:

<b>Item</b>	<b>Unit</b>
<b>B12.01 Community Liaison Officer</b>	
(a) Community Liaison Officer cost	provisional sum
(b) Monthly transport allowance for CLO	provisional sum
(c) Remuneration of PSC representatives from the community	
to attend official meetings	provisional sum
(d) Handling costs and charges for Contractor for items (a) (b) and (c)	percentage (%)

A provisional sum is provided for the cost of community liaison, which will include the salary of the Community Liaison Officer for the duration of the Contract. The Community Liaison Officer may possibly not be required on a full time basis.

Provisional sums are also allowed for the monthly transport allowance for the CLO, as well as for the payment of PSC members for attending official meetings as scheduled by the Engineer. All the above provisional sums will only be expended as instructed by the Engineer and approved by the Employer.

The percentage tendered for handling costs and charges shall cover all additional costs for the Contractor over and above the sums paid under sub items (a), (b) and (c).”

**Item**

**Unit**

**B12.11 Providing Contract Management to Household  
Contractors within the LMA ..... month**

The unit of measurement shall be per month or pro rata of 21 days for which the Foreman provides the function of Contract Administration, Quality Control, Preparation of Reports and General Management of the programme as well as training.

The tendered rate shall include for full compensation for all overheads, one full time foreman, one LDV and any other incidentals that may be required to provide the above service complete.

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

**B1303 PAYMENT****B13.01 The Contractor's general obligations**

Add the following:

"References to Clause 49 must be amended to read Clause 6.8.1"

"References to Clause 53 must be amended to read Clause 6.11"

*Add the following:*

The Scope shall also include the requirements of the Occupational Health and Safety specifications and relevant payment items contained in the tender documentation.

Add the following to sub-clause (i):

"The tendered sum for sub item 13.01(a) also includes full compensation for the complete relocation of the Contractor's camp or temporary road camps from one road or area to another during the course of the contract as per the approved programme.

The Contractor will further provide a 15-seater mini-bus for inspecting the works during monthly site meetings (one day per month). This vehicle shall be in a neat and roadworthy condition and the Contractor will be responsible for the insurance of such vehicle. The Contractor will also ensure that this vehicle has the necessary permits required for the transportation of personnel."

It is a requirement of the Contract that the Contractor shall erect a security fence around the campsite with a six-metre double leaf security gate. The security fence shall be at least two metres high, be clad with diamond mesh, have sufficient secure straining posts and lateral wire supports and shall have a functional and presentable appearance.

The Contractor is to clear and maintain a two-metre-wide strip within the camp along all boundaries of the camp. No plant, material, sheds or buildings will be permitted within the two metre wide cleared area.

Proper latrines shall be provided at the camp site. The latrines shall be regularly and properly maintained and shall be removed on completion.

The tendered rates and amounts for the relevant items in the schedule of quantities shall include full compensation for all additional costs which may arise from complying with the above requirement. Claims for additional compensation will not be considered.

The Contractor is duly warned that the proposed site for a possible campsite may be within and adjacent to occupied residential erven and the temporary use thereof is subject to all normal bylaws, the Contractor may not house any employees other than the night watchmen (maximum of two) on the campsite."

*Add the following after the fourth paragraph:*

"Should the combined total tendered for sub-items (a), (b), and (c) exceed 20% of the tender sum (excluding CPA, contingencies and VAT, as per returnable **Form F**), the tenderer shall state his reasons in writing for tendering in this manner."

*Add the following at the end of the pay item:*

"The amount payable to the Contractor for time related costs arising from extensions of time granted by the Employer, where the Contractor is fairly entitled to such compensation in terms of Clause 5.12 of the General Conditions of Contract, shall be calculated as follows:

- (i) Account shall be taken of all time-related items scheduled in Sections 1200,1300, 1400, 12000, 13000 and 14000.

**B13.01 (d) Compliance to Health and Safety Obligations**

(1) OHS Act Safety Officer:

(a) Appointment

The Contractor shall appoint an Occupational Health and Safety Officer to assist and advise on matters related to occupational health and safety on site. It is the responsibility of the Contractor to ensure that the Occupational Health and Safety Act and the Construction Regulations are adhered to. The appointment of the Health and Safety Officer by the Contractor does not relieve the Contractor of his duties and obligations as required by the OHS Act and the Construction Regulations. It is the duty of the Contractor to acquire the applicable OHS Act and relevant Construction Regulations for the contract. The Contractor shall make available all information related to occupational health and safety on site as and when required from him by the Engineer.

**B1303 PAYMENT**

**B13.01 The contractor's general obligations**

*Add the following pay sub-items*

<b>Item</b>	<b>Unit</b>
<b>B13.01(d) Compliance with Occupational Health and Safety Act (Act 85 of 1993) and its regulations (in particular the construction regulations, 2014) and with the Employer's Health and Safety Specification (Particular Specifications Part 3): .....</b>	<b>month (m)</b>

Expenditure under this item shall be made in accordance with the General Conditions of Contract.

Payment of the rate per month for sub-item B13.01(d) shall include full compensation for all the contractor's obligations relevant to health and safety legislation.

*Add the following paragraphs:*

Payment of the rate per month for sub-item 13.01(d) shall include full compensation for all the contractor's obligations relevant to health and safety legislation.

*The following paragraph relates to the treatment of all pay items for which the unit of measurement is the month and shall become applicable only for use in calculations of approved extensions of time in terms of GCC2015:*

"All pay items for which the unit of measurement is "month" are deemed to be based on 23 working days per month."

Item	Unit
<b>B13.01(e) Appointment of Health &amp; Safety Officer.....</b>	<b>Month</b>

The monthly payments shall be in equal payments, for the term of appointment. This term shall be not less than six months or the negotiated project contract duration. The appointment will be to the approval of the Engineer. The **Health & Safety Officer** shall be charged with the duty of the work being undertaken as described in PS10 and the effects thereof on the community.

*Insert the following paragraphs:*

“The tendered percentage under item (e) shall be the day, or part thereof, for which the vehicle was hired and used for its intended purpose. The rate tendered shall include full compensation for the hire of the vehicle including cost of insurances, fuel, wear and tear and any other incidentals.”

Item	Unit
<b>B13.01 (f) Health &amp; Safety Training</b>	<b>Lump Sum</b>

Payment under sub-items B13.01(f) (i) shall be the amounts actually paid to the training institutions and shall be made in accordance with the provisions of the General Conditions of Contract.

The tendered lump sum tendered shall include full compensation for the Contractor's handling costs, profit, mentoring, record keeping, reporting and all other charges in connection with providing the services; as well as the provision of a suitable training venue, for all necessary lighting, furniture, stationary, consumables and study material, and for transportation of the workers to and from the training venue.

This payment shall be in full and final compensation in respect of "Payment of the lump sum will be made in two instalments as follows:

- (i) The first instalment, 75% of the lump sum, will be paid after the Contractor has met all his obligations regarding the provision of the training venue as specified.
- (ii) The second and final instalment, 25% of the lump sum, will be paid after the Contractor has met all his obligations regarding the provision of all the training programmes specified in the document.

**B13.02 NOTICES, SIGNS AND ADVERTISEMENTS**

*Replace the second paragraph with the following:*

“Two (2) contract Nameboard shall be erected and maintained for the duration of the Contract at points to be indicated by the Engineer. Details of the contract Nameboard are provided in the standard drawings, whilst a layout of the identity boards is included with the tender drawings.”

*Delete the final paragraph and replace with the following:*

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

<b>SECTION 1400:</b>	<b>HOUSING, OFFICES AND LABORATORIES FOR THE ENGINEER'S SITE PERSONNEL</b>
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**B1402 OFFICES AND LABORATORIES****(a) General**

*Add the following before the last paragraph of sub-clause(a):*

The engineer's office establishment shall, unless otherwise agreed, be erected in close proximity to the contractor's offices, and the entire area shall be fenced with security fencing and provided with a gate. The contractor shall take all reasonable precautions to prevent unauthorised entry to the engineer's office establishment and to ensure the general security of the offices.

**(b) Offices**

Air-conditioned site office facilities are required for use by the Engineer for the duration of the contract.

**(c) Laboratories**

"No on-site laboratories are required. The Contractor may make use of SANAS accredited laboratories for all his process control testing, including Departmental laboratories where available."

<b>SECTION 1500:</b>	<b>ACCOMMODATION OF TRAFFIC</b>
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**B1501 SCOPE**

*Add the following:*

Certain parts of the work to be carried out under this section may be reserved for selected sub-contractors.

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

It is a condition of this contract that traffic is accommodated taking into account the provisions of the latest edition of the South African Road Traffic Signs Manual (SARTSM). The latest version for use in the accommodation of traffic is Volume 2, Chapter 13 of the June 1999 edition.

Copies of this publication are available from Government Printers attention Anna Steyn Tel. (012) 334-4500, e-mail: [asteyn@print.pwv.gov.za](mailto:asteyn@print.pwv.gov.za)"

**B1502 GENERAL REQUIREMENTS****(a) Safety**

*Add the following at the end of the second paragraph of this subclause:*

"The entire site will be handed over to the Contractor. The Contractor may, however, only occupy such areas on the site in accordance with the approved construction programme or as approved by the Engineer.

The Contractor shall submit a programme for the accommodation of traffic to the Engineer for approval."

*Add the following:*

"The Contractor shall be responsible for maintaining the existing road surface both within the works area and the advance warning and termination areas in a safe and trafficable condition for the duration of the contract."

**f) Approval of temporary deviations**

*Add the following:*

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

**(i) Traffic Safety Officer**

*Add the following after the second paragraph:*

"The Contractor shall submit a CV of the candidate to the Engineer for approval before the Traffic Safety Officer is appointed. The Traffic Safety Officer shall be made available to discuss road safety and traffic accommodation matters whenever required by the Engineer. This Traffic Safety Officer shall not be the same person as the Construction Health and Safety Officer contemplated in Part C of this specification. If a Traffic Safety Officer is found to be incompetent by the Engineer, the Engineer will instruct the Contractor to remove and replace him with a competent person. The Traffic Safety Officer will report to the Construction Health and Safety Officer"

*At the end of the subclause add the following:*

"The duties of the responsible persons shall include liaison with the relevant traffic authorities and in the event of an accident on the section of road under construction, the Traffic Safety Officer or his assistants shall be responsible for contacting the traffic authority and South African Police Service."



Replace sub-sub-clauses (ii) and (iii) with the following:

“(ii) Record on neat and dimensioned sketches and submit to the Engineer the position and sign reference number where applicable of each sign, barricade, delineator, cone, amber flicker light, guardrail and permanent or temporary painted road marking feature. The position of each of the above-mentioned signs and road marking features shall be adequately referenced to identifiable permanent features located along the site of the works.

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

The records shall be amended whenever changes are made in the field and the amended detailed sketches shall be submitted to the Engineer. Such amendments shall record the position(s) of flagmen and stop/go control men and their associated traffic accommodation equipment wherever they are used.

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

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

*Add the following sub-clauses:*

“(i) The traffic safety officer shall be equipped with a cellular telephone and shall have a vehicle and sufficient labourers at his disposal 24 hours a day, including special non-working days and shall not be available for other duties. He shall be directly answerable to the Contractor’s site agent.

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

“(x) Ensure that all obstructions related to the Contractor's activities be removed before nightfall, where applicable or as instructed by the Engineer and that the roads are safe for night traffic.

(xi) Be responsible for implementing actions requested in writing by the traffic authorities with regard to the work to be carried out and be responsible for the erection and maintenance of all traffic signs necessary for the accommodation of traffic.

(xii) In the event of an accident, the traffic safety officer shall record details of the accident in a written report accompanied by photographs and a neat sketch plan which show identifiable permanent features, relevant dimensions and the position of all temporary road signs, barricades, delineators and other devices used for traffic accommodation. The traffic safety officer is also to record the GPS coordinates of the accident scene. ”

(xiii) Also ensure full compliance with all the requirements of the Occupational Health and Safety Act and Construction Regulations (2014) which may pertain to the accommodation of traffic.

(xiv) Keep the responsible Traffic Police fully informed with regard to any changes in the accommodation of traffic planned by the Contractor due to construction activities.”

Add the following sub-clauses:

**(j) Failure to comply with provisions for the accommodation of traffic**

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

Work related Penalties

A fixed penalty of **R 500** per occurrence shall be deducted for each and every occurrence of non-compliance with any of the requirements of Section 1500 of the Standard Specifications and Section B1500 of the Scope of Works.

In addition a time-related penalty of **R 300** per hour over and above the fixed penalty shall be deducted for non-compliance to rectify any defects in the accommodation of traffic within the allowable time after an instruction to this effect has been given by the Engineer. The Engineer's instruction shall state the allowable time, which shall be the time in hours for reinstatement of the defects. Should the Contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

Health and Safety related Penalties

Penalties in respect of Occupational Health and Safety related issues are as per the table in Section 13000 of this document.

**(k) Site personnel**

The Contractor shall ensure that all his personnel, excluding those who are permanently office bound, are equipped with reflective safety jackets and that these are worn at all times when working on or near to the travelled way.

Any person found not wearing a reflective jacket under these circumstances shall be removed from the site until such time as he is in possession of and wearing a reflective jacket. Furthermore, the above penalties will also be applied. Reflective safety jackets shall be kept in good condition and any jackets that are, in the opinion of the Engineer, ineffective shall be immediately replaced by the Contractor.

**(l) Use of the road by the public**

The Contractor shall plan and conduct his activities so as to bring about the least possible disruption to the traffic on the roads on which he works. The Contractor shall deal with deliberate courtesy and understanding in any discussions or disputes at all points of contact with the travelling public.

**(m) Extension of time for completion**

No delays caused by the requirement that public traffic be accommodated during the construction of the works and that traffic flows be maintained as specified will be regarded a reason for an extension of time in terms of the general conditions of contract.

**(n) Provision of safety equipment for the Engineer**

The Engineer shall be provided with the following traffic safety equipment:

- (i) Amber rotating flashing lights for mobile use which shall be approved by the Engineer:

The Contractor shall provide the Engineer and the Engineer's Representative with amber rotating warning lights. All lights shall be operational whenever the vehicles operate within the road reserve.

All lights shall have a minimum height of 200 mm and 50-watt output, be of the revolving reflector type and shall have a magnetic base, flexible cable and a connection suitable for insertion into a 12V automobile cigarette lighter socket.

(ii) Maintenance sticker

The Contractor shall supply the Engineer and the Engineer's Representative with magnetic "maintenance" stickers. The stickers must read "MAINTENANCE" in 170 mm letters on a yellow retro-reflective background.

(iii) Safety jackets

The Contractor shall provide the Engineer, the Engineer's Representative and visitors with safety jackets for moving around on site. The jackets shall be of an approved type, orange in colour and shall be to the approval of the Engineer. The Contractor is to allow for fifteen jackets.

(iv) Hard hats

The Contractor shall provide the Engineer and visitors with hard hats for moving around on site where they may be required. The Contractor is to allow for fifteen hard hats.

No additional payment will be made for the above items and the costs will be deemed to be inclusive in the establishment costs."

**(o) Flagmen**

Where required by the Engineer, flagmen shall be provided for the control of traffic at lane closures and road accidents if and when they occur.

Flagmen shall be adequately trained in the standard flagging techniques as described in the South African Road Signs Manual (Volume 2, Chapter 13) on Figure 13.23 (Detail 13.23.1) and be provided with conspicuous clothing such as safety jackets utilising retro-reflective and/or fluorescent panels in red, yellow and / or white.

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

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

Flagmen shall be placed at positions as shown on the drawings or as directed by the Engineer. Such positions shall be a sufficient distance from the work areas to allow vehicles to slow down before entering the work area but not so far away that the drivers tend to increase speed before entering the work areas. The minimum requirement shall be one flagman at the start of each closure.

During the daytime, at least two flagmen shall be provided at each traffic control point in addition to the STOP/GO sign operator, one flagman at the 80 km/h sign and a second roving flagman to indicate to the traffic at the end of the queue to stop.

At night time at least one roving flagman equipped with a Stromberg Lightman xenon strobe, or similar approved, and a torch is required at each traffic control point as well as the traffic light operator. Where the shoulder of the road is closed to traffic, a flagman shall be provided at the leading end of the closure during daytime. This flagman shall be provided at the 80-km/h sign to warn the traffic about the closure. No flagman shall be on duty for a period of more than 10 hours

per day.

The traffic control site shall be well lighted at night with at least one floodlight positioned so as to illuminate the area and not shine into the oncoming traffic.

In terms of lateral clearance and safety, flagmen shall stand on the shoulder of the lane of traffic that is being controlled and under no circumstances shall flagmen be permitted to stand within the traffic lane. In order to obtain maximum visual impact for the travelling public, flagmen shall stand-alone.

**(p) Access to the works**

The Contractor's plant and equipment shall not stop on the trafficked carriageway except to unload or load traffic control facilities."

**B1503 TEMPORARY TRAFFIC-CONTROL FACILITIES**

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

"The Contractor shall provide, erect and maintain the necessary traffic-control devices, road signs, channellisation devices, barricades, warning devices and road markings (hereinafter referred to as traffic-control devices) in accordance with these special provisions and as shown on the drawings and in the SARTSM and remove them when no longer required. It shall be incumbent upon the Contractor to see to it that the abovementioned traffic-control devices are present where required at all times and are functioning properly , and he shall replace any that have been damaged, lost, stolen or obliterated at his own cost."

*Delete the last sentence of the second paragraph and substitute the following:*

"Traffic-control devices no longer required at the site of a deviation or a lane closure shall be moved for re-use. Traffic-control devices lost or damaged by the Contractor shall be replaced at his own cost."

*Replace the third paragraph with the following:*

"The type of construction, spacing and placement of traffic-control devices shall be in accordance with the latest edition of the South African Roads Traffic Signs Manual (SARTSM). The recommended arrangements of the traffic control devices illustrated and/or drawings shall not be departed from without prior approval of the Engineer. The arrangements expected to be most commonly used on this contract are shown in the Routine Road Maintenance Procedures Manual of the Department of Roads and Public Works of the Eastern Province.

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

**(a) Traffic-control devices**

*Add the following to this Subclause:*

"Flagmen shall be provided at all access exit points to the working areas."

*Add the following new paragraph:*

"The Contractor shall be responsible for the removal of all litter at the traffic control points on a daily basis to an approved dumping site."

**(b) Road signs and barricades**

*Add the following after the second paragraph of this Subclause:*

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

All temporary road signs required to remain in position for some time shall be pole mounted as shown on the drawings. All temporary road signs required to be moved more often shall be mounted on portable supports for the easy moving of signs to temporary positions. The only permitted method of ballasting the sign supports shall consist of durable sandbags filled with sand of adequate mass to prevent signs from being blown over by wind. The cost of the sandbags shall be included in the monthly rate for accommodation of traffic.

Temporary road signs and channelization devices shall be manufactured in accordance with the South African Road Traffic Signs Manual (Volume 2, Chapter 13) of June 1999 and arranged along the road as shown on the drawings and in the Manual.

*Add the following paragraphs:*

“All road signs shall be new or approved by the Engineer as new in accordance with the specifications. The Contractor shall have available on site sufficient extra road signs, barricades and delineators to replace items that have become defective or missing.

The Contractor shall be responsible for the protection and maintenance of all signs and shall take all reasonable measures to ensure minimum damages to signs and other traffic control devices.

The covering of permanent road signs, if applicable, shall be by first utilising a hessian bag, which shall be pulled over the sign in the form of a hood and fastened to the signposts. Plastic bags or other materials fastened by means of adhesive tape shall not be permitted. The cost of covering of permanent road signs shall be included the monthly rate for accommodation of traffic.

All temporary road signs required to remain in position for some time shall be pole mounted as indicated on the drawings. All temporary road signs required to be moved more often shall be mounted on portable supports for the easy moving of signs to temporary positions. The only permitted method of ballasting the portable sign supports shall consist of durable sand bags filled with sand of adequate mass to prevent signs from being blown over by wind.

No work may proceed on any section where accommodation of traffic is required until such time as the relevant requirements with regard to sign posting and other detail shown on the Contractor's drawings are met and approved by the Traffic Safety Officer in writing.”.

**(c) Channelization devices and barricades**

*Add the following:*

“The start of barricades shall be positioned such that a minimum sight distance of 150m, measured at a height of 1,05m from the road surface, is obtained.

Drums shall not be used as channelization devices.

Delineators shall:

- (i) comply with the manufacturing and reflective requirements of the SARTSM and the blades shall be reversible
- (ii) have smooth and round edges, be mounted on a post and base and all components shall be of durable plastic material.
- (iii) have the lower edge of the reflective part mounted not lower than 250 mm above the road surface.
- (iv) be capable of withstanding the movement of passing vehicles and gusting winds up to 80

km/h in typical working conditions without falling over. To achieve this, the base shall be at least 0,18 m<sup>2</sup> and ballasted by sandbags filled with sand.

- (v) together with its mounting be designed such that it will collapse in a safe manner under traffic impact and
- (vi) where work is not taking place in a section closed half width to traffic, the delineators shall be moved laterally back to the edge of the work area to provide a wider space for traffic.”.

No traffic cones are to be utilised.”

**(e) Warning devices**

*Add the following:*

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

Rotating lights shall have an amber lens of minimum height of 200 mm and shall be mounted in such a way as to be highly visible from all directions. The lights on construction vehicles shall not be switched on while vehicles are being operated on unrestricted sections of a public road, but shall be switched on while construction vehicles are operating within the accommodation of traffic area, as the vehicles decelerate to enter a construction area, or as the vehicles accelerate to the general speed when entering the road from a construction area. Lights on plant shall operate continuously while the plant is working alongside sections of road open to public traffic

All LDV's and cars operating on site shall also be equipped with rotating amber flashing lights which shall be placed so as to be highly visible and operated continuously while the vehicles are maneuvering in or out of traffic or is travelling or parked alongside roads open to public traffic.

Rotating lights and the "Maintenance Vehicle" signs on the Contractor's and Engineer's vehicles and plant shall not be paid for separately.

The Contractor shall apply and maintain lights together with temporary mounting brackets, to the approval of the Engineer. Vehicles and plant that do not comply with these requirements shall not enter the site.

*Add the following sub-clauses:*

**(g) Other traffic control measures ordered by the Engineer**

The Engineer may instruct the Contractor to provide any other road sign, reflective tape, etc. Such road signs shall conform to the requirements of the South African Road Traffic Signs Manual, or specification provided by the Engineer.

Similarly, in order to ensure that the travelling public is kept fully informed and warned on matters relating to the accommodation of traffic, construction sign posting and the effect of the construction on the flow of traffic through the site, the Engineer may arrange for advertising in the press and/or for other forms of publicity.

**B1504 WIDTH AND LENGTH OF TEMPORARY DEVIATIONS**

*Replace “10m” and “5m” in the first paragraph with “3m” and “2m” respectively.*

*Replace the second paragraph with the following:*

“Where the existing road is constructed in half widths or in full width with single direction traffic, the roadway width for accommodating one-way traffic shall be at least 3,2 m wide. The length of the half-width construction or full width construction with single direction traffic controlled by STOP and GO/RV signs shall not exceed 2, 0 km.

The traffic shall be single direction controlled by STOP and GO/RV signs during daytime and temporary traffic signals at night as agreed by the Engineer.”

**B1506 EARTHWORKS FOR TEMPORARY DEVIATIONS**

*Add the following to this Clause:*

"Wherever possible and as agreed by the Engineer topsoil shall be stripped off the area required for deviations. The topsoil shall be stockpiled in accordance with the specifications for later re-use to re-instate the deviations."

**B1517 MEASUREMENT AND PAYMENT**

*Delete the contents of this clause and replace with the following:*

"Accommodation of traffic will not be paid for separately and any costs associated with it, unless expressly stated and allowed for, must be included in the rates of the various items where accommodation of traffic is required."

<b>SECTION 1600:</b>	<b>OVERHAUL</b>
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**B1602 DEFINITIONS****(a) Overhaul material**

(iv) *Insert “selected layers” before “subbase” in the first line.*

*Insert the following as a final paragraph*

“Material procured from commercial sources shall not be regarded as overhaul material.”

**b) Overhaul**

*Replace the sub-clause with:*

“Regardless that the Standard Specification makes allowance for payment of restricted overhaul payment shall only be made for material hauled in excess of 1 kilometre. Overhaul shall be measured as the product of the volume of material hauled and the overhauled distance.

**c) Haul distance**

*Add the following paragraph:*

“Where material from one carriageway of a road is to be used on the opposite carriageway, the haul route shall be on the first carriageway to an approved crossing point or intersection. For this situation, the haul distance shall be measured from the position of obtaining the material, along the carriageway to the turning point, and then back along the other carriageway. Return travel may have to be along other roads but will not be measured separately. Existing municipal streets can be used for haul of material.

**d) Free-haul distance**

*Replace the last sentence with:*

“This distance shall be 1 kilometre in the case of all overhaul materials and this specification shall be deemed to have replaced the ‘free haul’ distance in all other sections of the standard specifications.”

*Delete “and cut to spoil” in the last sentence.*



<b>SECTION 1700:</b>	<b>CLEARING AND GRUBBING</b>
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**B1702 DESCRIPTION OF THE WORK****(b) Grubbing**

*Delete the contents of this Clause and replace with the following.*

“In the road reserve all stumps and roots are to be cut to the following heights above ground level and are to be treated with Garlan 4 with Red Dye:

- 0m to 3m from the edge of roadway: - Flush with the natural ground level
- 3m to 9m from the edge of roadway: - Maximum height of 100mm above the natural ground level

All trees of girth larger than 0,5m will not be measured separately and will be deemed inclusive of the rate.”

**B1703 EXECUTION OF WORK****(e) Cleaning out of hydraulic structures**

*Replace the contents of this clause with the following:*

“Hydraulic structures and culverts shall be cleaned when instructed by the Engineer.

Hydraulic structures and culverts shall be cleaned of all silt and debris such that all surfaces are clearly visible and accessible for inspection.

Material removed shall be disposed of in close proximity of the culverts within the road reserve or loaded and transported to spoil as directed by the Engineer. Material spoiled near the hydraulic structures and culverts shall be spread neatly well clear of the top of drainage trenches where it will not wash back.”

*Add the following new clauses:*

**(f) Removal of undesirable vegetation**

The Engineer may require the selective physical eradication of noxious weeds, invader plants and other undesired vegetation within the road reserve by uprooting and by cutting brush with suitable equipment.

For the purpose of this clause, undesirable plant growth shall include, inter alia, the following as set out in Section 29 of CARA by the Minister of Agriculture and published in the Regulation Gazette No. 7032 Vol 429, promulgated on 30 December 2001.

Category 1 Plants

Weeds characterised as Category 1 plants must not occur on any land or inland water surface throughout the Republic, except in areas designated as biological control reserves. The plants as listed below need to be removed by the land user, unless they are in specifically designated areas that have been set aside for biological control.

Lantana, Pompon Weed, Bugweed, Queen of the Night, Pampas Grass, Cat’s Claw Creeper, Red Sesbani, Fountain Grass, Water Hyacinth and Azolla.

Category 2 Plants

These plants are only allowed to be grown in areas specifically demarcated for this purpose. Appropriate steps must be taken to curtail the spread of the plants beyond these areas.

Eucalyptus, Black Wattle, Patula Pine, Cluster Pine, Grey Poplar, Guava, Watercress, Weeping Willow, Port Jackson, Rooikrans and Sisal.

Category 3 Plants

These need to be contained from spreading by removing all new seedlings.

Jacaranda, Syringa, Butterfly Orchid tree, Cotoneaster, Australian Silk Oak, St Joseph’s Lilly and New Zealand Christmas Tree.

The eradication of undesirable trees will be paid for under normal payment items scheduled for removal of trees. Additional payment items will be scheduled for the physical eradication of undesired vegetation if they are selectively removed, otherwise it will be catered for under the Clear and Grub payment.

**(h) Clearing and grubbing narrow widths**

The Engineer may require clearing and grubbing of narrow widths between 0.5 and 5m wide to be conducted adjacent to existing roadways in order for them to be widened, or for the construction of new drains and mitre drains. The description and execution of the works will be conducted in the same manner as set out in sections 1702 (a), (b) and 1703 (a).

**B1704 MEASUREMENT AND PAYMENT**

<b>Item</b>	<b>Unit</b>
<b>B17.01 Clearing and grubbing</b> .....	hectare (ha)

*Add the following paragraphs:*

“Clearing and grubbing for the construction of camp sites shall not be measured separately. Payment shall be regarded as included in the rates tendered for the applicable items for the abovementioned work”.

“The rate shall also allow for the gathering, cutting up, shredding if required, loading, transporting and disposing of at local villages located along the said roadways.”

**B17.05 Cleaning out of hydraulic structures**

*Delete the last sentence of the last paragraph.*

*Add the following items:*

<b>Item</b>	<b>Unit</b>
<b>B17.07 Mechanical cleaning of hydraulic structures, pipes and portal culverts</b>	hour (hr)

The unit of measurement shall be the number of hours of operation of a high-pressure jetting machine (minimum pressure 120 bar and flow rate of 260 l/min) as instructed by the Engineer. Non-working hours for transport, breakdown, lack of operator or any other reason shall not be measured.

The tendered rate shall be an all-inclusive charge for the use of the plant and operator, transport costs to and from the site and all other handling costs, profit and other charges.

The tendered rate shall also allow for loading the materials onto trucks, for transporting the material within a free-haul distance of 1,0km and for spoiling the material to a site agreed to with the Engineer.

<b>Item</b>	<b>Unit</b>
<b>B17.08      Removal of undesired vegetation .....</b>	square metre (m <sup>2</sup> )

The unit of measurement shall be square metres of ground cleared using mechanical or manual labour methods, to selectively remove undesirable vegetation as instructed by the Engineer, including trees with a girth of up to and including 1,0m.

The removal of undesirable vegetation within areas designated for Clear and Grub (Item 17.01 and 17.04) will not be paid for separately under this item.

The removal of undesirable trees with a girth in excess of 1,0m will be paid under item 17.02.

The tendered rate shall include for cutting the off cuts into manageable sizes, loading, offloading and spreading and hauling with a free haul distance of 1,0km.

<b>Item</b>	<b>Unit</b>
<b>B17.09      Shredding of vegetation cuttings in situ .....</b>	cubic metre (m <sup>3</sup> )

The unit of measurement shall be the volume of shredded vegetation generated from the cuttings, the volume determined from the rated capacity of the truck or container used to remove the shredded material.

The tendered rate shall include full compensation for all plant, labour and materials for stockpiling the cut material, loading and shredding and final loading of shredded vegetation onto trucks off loading and spreading and hauling with a free haul distance of 1,0km or stockpile as directed.

<b>Item</b>	<b>Unit</b>
<b>B17.10      Clearing and grubbing narrow widths.....</b>	square metre (m <sup>2</sup> )

The unit of measurement shall be square metres of ground cleared and grubbed as directed by the Engineer.

The tendered rate shall include for all work necessary for the clearing and grubbing the surface in narrow widths, the removal and grubbing of trees and tree stumps (except large trees and stumps as defined and measured separately), cutting branches, backfilling of cavities, and the removal, transportation and disposal of material, all as specified.”

<b>SECTION 1900:</b>	<b>DAYWORKS</b>
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**CONTENTS**

- B1901 SCOPE
- B1902 ORDERING OF DAYWORK
- B1903 MEASUREMENT AND PAYMENT

**B1901 SCOPE**

This Section covers the listing of day work items in accordance with the General Conditions of Contract (Clause 6.5) for determining payment for work which cannot be quantified in specific units in the Bill of Quantities, or work ordered by the Engineer during the construction period which was not foreseen at tender stage and for which no applicable rate exists in the Bill of Quantities.

**B1902 ORDERING OF DAYWORK**

No dayworks shall be undertaken unless written authorisation has been obtained from the Engineer.

**B1903 MEASUREMENT AND PAYMENT**

<b>Item</b>	<b>Unit</b>
<b>B19.01 Personnel</b>	
(a) Unskilled labour	hour (hr)
(b) Semi-skilled labour	hour (hr)
(c) Skilled labour	hour (hr)
(d) Ganger	hour (hr)
(e) Flagmen	hour (hr)
<b>Item</b>	<b>Unit</b>
<b>B19.02 Plant</b>	
(a) Flatbed truck (specify size)	hour (h)
(b) Tipper Trucks - 3 to 5-ton capacity	hour (h)
(c) Tipper Trucks - More than 5 ton	hour (h)
(d) Loader (0,5m <sup>3</sup> ) bucket	hour (h)
(e) TLB (digger loader)	hour (h)
(f) Excavator. (20-30 ton)	hour (h)
(g) Grader (AT 140 G or similar)	hour (h)
(h) Compactor (Bomag 90)	hour (h)
(i) Water truck (5000 litre)	hour (h)
(j) Dozer (D7 or similar)	hour (h)
(k) Tractor-trailor combination (43 kW, 3-ton min)	hour (h)
(l) Suitable truck/bus for transporting labourers (30 people minimum)	hour (h)
(m) Compressor (air) including hoses and tools (specify)	hour (h)
(n) Dewatering pump including generators and accessories (specify size)	hour (h)
(o) Mobile electric welding sets and accessories (specify size)	hour (h)
(p) Cutting torch with mobile electric & oxy acetylene installation	hour (h)
(q) Mobile concrete mixers (specify size)	hour (h)
(r) Light delivery vehicle (LDV)	hour (h)
(s) Centre-mount crane (specify size)	hour (h)
(t) Low bed truck (specify size)	hour (h)
(u) Other (specify)	hour (h)
(v) Shredder/chipper (specify)	hour (h)

Item	Unit
<b>B19.03 Materials</b>	
(a) Procurement of materials.....	provisional sum
(b) Contractor's handling costs, profit and all other charges in respect of Item B19.03 (a) .....	percentage (%)

The unit of measurement for items B19.01 and B19.02 shall be the hour for the item of plant or personnel. Non-working hours for transport breakdown, lack of operator or any other reason shall not be measured. The time shall be taken from the time that the personnel and/or plant depart until return.

Measurement shall only be for work instructed and directed by the Engineer, where the Engineer considers no other appropriate rate is available in the Bill of Quantities. Prior to the commencement of any work by the labourers described under item B19.01, the Contractor must obtain written consent from the Engineer regarding the classification of all labourers in terms of "unskilled", "semi-skilled" and "skilled" labourers.

The tendered rates for labour for item B19.01 shall include full compensation to cover overhead charges and profit, leave pay, bonuses, subsistence, allowances, employer's contributions, additional payment for overtime, where applicable, insurances, housing, site supervision, use of small hand tools and appliances, non-mechanical plant and equipment and consumable stores, for all administrative, supervisory, operative and contingent costs, relating to the supply of personnel.

The tendered rates for plant for item B19.02 shall be an all-inclusive hire charge for the use of the vehicle and driver or plant/equipment and operator and shall apply only to vehicles plant and equipment nominated in writing by the Engineer, for all administrative, supervisory operative and contingent cost, and profit, relating to the running of the plant.

The unit of measurement for item B19.03 (a) shall be the amount actually paid for the procurement of materials to be purchased and shall be made in accordance with the provision of the general conditions of Contract. Only the actual quantities of materials used, as verified by the Engineer, shall be paid for.

The percentage tendered for item B19.03 (b) shall be percentage of the amounts actually paid for the procurement of materials as ordered under item B19.03 (a) and shall be in full and final compensation in respect of the Contractor's handling costs, profit and all other charges in connection with the procurement and supply of the materials to the point of usage.

The abovementioned tendered rates shall be full compensation for the various items as specified and no further profit shall be paid."

<b>SECTION 2100:</b>	<b>DRAINS</b>
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**B2101 SCOPE**

*Replace the first paragraph with the following:*

“This Section covers all the activities for rehabilitative, new and maintenance work in connection with the excavation and construction of open drains, subsoil drainage and banks and dykes at the location and to the sizes, shapes, grades and dimensions shown on the drawings or as directed by the Engineer, and the test flushing of the subsoil drains.”

**B2102 OPEN DRAINS**

*Add the following subclause:*

**“(h) Concrete channels, kerb-and channel combinations, concrete side drains and median drains**

Concrete channels shall be cleaned when instructed by the Engineer. Material from the channels, kerb-and-channel combinations, side drains in cut and median drains shall either be loaded and transported to designated spoil sites or disposed of adjacent to channels where it cannot be washed back into the channel within the road reserve as directed by the Engineer.

Vegetation growing in channel joints and cracks shall be removed with roots to prevent re- growth.

Vegetation growing over channels from the edges shall be trimmed at the concrete edges and disposed of. Undesirable vegetation shall be removed with roots and spoiled where directed by the Engineer.

Concrete drainage channels shall be clear of any obstruction such that the concrete surfaces are clearly visible. All concrete drains and channels, chutes and the like are to be swept after all obstructions and debris has been removed.

Silt, debris and vegetation removed shall not be thrown up against cut or down fill slopes.”

**B2104 SUBSOIL DRAINAGE**

*Add the following new clauses:*

**(e) Draining of distressed areas**

Where the presence of subsurface water has caused failures of the pavement layers the Engineer may require the installation of subsoil drains through the road to drain the excavation before re-instatement of the pavement layers.

The subsoil drainage system to be installed shall be as instructed by the Engineer.

Where asphalt premix is to be removed for the installation of a subsoil drain the asphalt shall be cut neatly and perpendicular with approved sawing equipment to the width instructed by the Engineer before excavation.

Payment for the excavation of the asphalt premix layers and the reconstruction of the pavement layers shall be made under the relevant sections.

**(f) Maintenance of subsoil drains**

When instructed by the Engineer, blocked subsoil drains shall be unblocked by rodding through rodding eyes provided for the purpose and thorough flushing of the pipes.

Should the Contractor notice the existence of blocked or damaged subsoil drains, the Engineer shall be duly notified to issue an instruction for the execution of the relevant maintenance work.”

**B2107 MEASUREMENT AND PAYMENT**

<b>Item</b>	<b>Unit</b>
<b>B21.01 Excavation for open drains</b> .....	cubic metre (m <sup>3</sup> )

*Add the following to the penultimate paragraph:*

“The tendered rate shall also include full compensation for trimming the open drains. Only those drains designated by the Engineer for excavation will be measured. The above rate will be deemed inclusive where blading is specified in Section 3400, and will not be measured separately.

Where blading or road bed preparation is specified (Section 3400), payment for the formation of side and mitre drains up to the road reserve will be included in the blading or road bed preparation rate. However, where new drains are to be constructed to extend beyond the road reserve limits, payment will be made under this item for the length of drain outside the road reserve.”

<b>Item</b>	<b>Unit</b>
<b>B21.02 Clearing and shaping existing open drains</b> .....	cubic metre (m <sup>3</sup> )

*Add the following to the penultimate paragraph:*

“The tendered rate shall also include full compensation for trimming the open drains. Only those drains designated by the Engineer for clearing and shaping will be measured. The above rate will be deemed inclusive where blading is specified in Section 3400, and will not be measured separately.

Where blading is specified (Section 3400), payment for the formation and clearing of side and mitre drains within the road reserve will be included in the blading rate. However, where drains extend beyond the road reserve limits, payment will be made under this item for the length of drain outside the road reserve.”

*Delete item 21.18 and replace with the following:*

<b>Item</b>	<b>Unit</b>
<b>B21.18 Clearing of concrete drainage channels</b>	
(a) Side drains, median drains and the like .....	square metre (m <sup>2</sup> )
(b) Channels in kerbing-channeling combinations .....	metre (m)
(c) Other drains and channels within the following invert ranges	
(i) Less than 1.0m .....	square metre (m <sup>2</sup> )
(ii) 1.0m to 2.0m .....	square metre (m <sup>2</sup> )
(iii) 2.0m to 3.0m .....	square metre (m <sup>2</sup> )
(iv) Exceeding 3.0m .....	square metre (m <sup>2</sup> )

The unit of measurement shall be the square metre of channel cleared, measured in plan (no payment shall be made for vertical surfaces).

The tendered rates shall include full compensation for all labour plant and equipment required for removing the material from the channels irrespective of the depth of silt and debris and for loading, protecting the existing drains and channels, dealing with any surface or sub-surface water, off-loading and spreading when material removed is intended for spoiling at a designated spoil site.

The tendered rates shall include for transporting the excavated material to spoil sites within a free haul distance of 1,0km.

Where material is disposed of adjacent to channels, the tendered rate shall include full compensation for removing the material from the channels, irrespective of the depth of silt and debris, protecting the existing drains and channels, dealing with any surface or sub-surface water, spoiling and spreading the material adjacent to the channel where it cannot be washed back into the channel.”

*Add the following new items:*

<b>Item</b>	<b>Unit</b>
<b>B21.20      Clearing and shaping side and mitre drains by road grader .....</b>	<b>meter (m)</b>

The unit of measurement shall be the linear meter of mitre and side drain formed, cleared, opened up and shaped. The length of mitre drain will be measured from the outside of the side road drain to the approved extremity of the mitre drain. Only those mitre and side drains designated by the Engineer for clearing and shaping will be measured. Where blading is specified (Section 3400), payment for the formation and clearing of side and mitre drains up to the road reserve will be included in the blading rate. However, where roads extend beyond the road reserve limits, payment will be made under this item for the length of drain outside the road reserve.”

<b>Item</b>	<b>Unit</b>
<b>B21.21      Exposing of existing subsoil drains .....</b>	<b>(m<sup>3</sup>)</b>

The unit of measurement shall be the cubic meter of material removed by hand to expose the drain.

The rate tendered shall include for full compensation for all labour and tools required for removing the material. The re-instatement of the drain shall be paid for under the relevant items for constructing a new drain.

<b>Item</b>	<b>Unit</b>
<b>B21.22      Clearing of subsoil drains.....</b>	<b>(m)</b>

The unit of measurement shall be meter of drain cleared on the instruction of the Engineer.

The tendered rate shall include full compensation for all labour equipment, tools and transport required for clearing subsoil drains and for disposal of the cleared material at approved sites.”



**SECTION 2200: PREFABRICATED CULVERTS****B2201 SCOPE**

*Amend the first paragraph to read:*

“This Section covers all the activities in connection with the construction and maintenance of prefabricated units of culverts and other closed conduits such as storm water ducts, tremies and service ducts, together with inlet and outlet structures, manholes and other appurtenant structures.”

**B2203 MATERIALS****(b) Portal and rectangular prefabricated concrete culvert units**

*Add the following:*

“Should a pipe unit be specified as half of the standard length, the actual length of the unit will be measured for payment as it is accepted that only certain lengths are available from the manufacturers. The tendered rate for concrete pipe culverts shall also include any additional costs with respect to units that are half the standard length. The standard length of a concrete pipe will be taken as 2,44m or 2,5m depending on supplier. All pipe joints are to be wrapped with U24 Bidum or similar approved material. The cost of the wrapping of the joints will be deemed to be inclusive in the installation rate of the pipe.”

**(d) Fine granular material**

*Add the following:*

“Selected material, approved by the Engineer, may be used for the bedding.”

*Add the following clause:*

**B2212 INLET AND OUTLET STRUCTURES, CATCHPITS AND MANHOLES****(a) Excavation and backfilling**

*Amend the first paragraph to read as follows:*

“The width of excavation shall be the net external dimensions of structure plus 0,5 meter working space along or around the structure. The specifications given elsewhere in this Section for backfilling the culverts shall apply mutatis mutandis to inlet and outlet structures, catchpits and manholes. If wet soilcrete is used with vibrators the extra working space can be reduced to 150 mm.”

**B2217 MEASUREMENT AND PAYMENT**

Item	Unit
<b>B22.17 (f) Headwalls As per ECS/22/C2:</b>	<b>No</b>

the unit of measurement for B22.17 shall be the No. of headwalls erected. The tendered rate shall include full compensation for supplying and erection of headwalls.

*Add the following clause:*

**“B2219 CONSTRUCTION TOLERANCES**

The installation of prefabricated pipes, portal and rectangular culverts and ducts shall comply with the requirements stated below:

**(a) Level**

The permissible deviation from the specified level shall be  $\leq 20\text{mm}$ .

**(b) Alignment and grade**

The permissible deviation of the alignment and grade of each culvert and pipeline shall be  $\nabla 20\text{mm}$  from the specified line and level, or from the line between culvert or pipe inverts at successive manholes or catch pits, as applicable, when measured over any 7m length, and all such deviations shall be gradual. Reverse falls are unacceptable.”

**B2218 MEASUREMENT AND PAYMENT**

*Add the following new items:*

<b>Item</b>	<b>Unit</b>
<b>B22.30 Demolition of brick structures</b>	
(a) 115 mm thick brickwork .....	square metre (m <sup>2</sup> )
(b) 230 mm thick brickwork .....	square metre (m <sup>2</sup> )
(c) 345 mm thick brickwork .....	square metre (m <sup>2</sup> )

The unit of measurement shall be the square metre of brickwork demolished.

The tendered rate shall include full compensation for all labour, plant and equipment required to demolish the existing brick structure (including plasterwork and the like) and disposal of the demolition to an approved spoil site within a free-haul distance of 1km. For partial demolition, It shall also include for squaring out the brickwork and preparing the existing surface for repair or to tie into new brickwork.”

<b>SECTION 2300: CONCRETE KERBING, CONCRETE CHANNELLING, CHUTES AND DOWNPIPES, AND CONCRETE LININGS FOR OPEN DRAINS</b>
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**2304 CONSTRUCTION**

(g) Concrete-lined open drains

The exposed surfaces of the concrete linings of open drains shall be given a class U2 surface finish. Concrete shall be cured in accordance with the requirements of the clause 6409.

Sealed joints in concrete shall be in accordance with the details indicated on the drawings and the provision of the section 6600. Cold joints shall be painted with a coat of approved bituminous emulsion containing 60% of pure bitumen by mass.

Expansion joints shall be made in accordance with the drawings.

<b>SECTION 3100:           BORROW MATERIALS</b>
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**B3103     OBTAINING BORROW MATERIALS****(a)        General**

*Add to Sub-clause 3103(a) the following:*

The Contractor shall note that natural materials which meet the requirements for the selected and sub-base layers are scarce, even when the properties are improved via stabilisation. Therefore, careful selection of materials will be required in the borrow pits. The Contractor shall refer to Section 3200 of the standard specifications with regard to his liabilities in respect of the contamination of good quality materials.

**B3104     OPENING AND WORKING BORROW PITS AND HAUL ROADS****(g)        Un-proclaimed private access roads**

The Contractor is responsible for proper maintenance of haul roads in cases where the material from the borrow pit areas has to be transported over secondary, tertiary, private or access roads. At the completion of activities in the borrow pits, the haul roads shall be restored to their original state and to the satisfaction of the Engineer.

Expropriation of borrow pits on private property by the Employer, will include access roads to the borrow pits. However, the Contractor is fully responsible for negotiating details of the right of access to the borrow pits with the private owners as well as for the building, maintenance and later removal of all access roads. No additional payment will be made for this work and full remuneration will be deemed to be included in the bid rates for the various items where the material is to be used.

**SECTION 3200: SELECTIONS, STOCKPILING AND BREAKING-DOWN THE MATERIAL FROM BORROW PITS, CUTTINGS AND EXISTING PAVEMENT LAYERS, AND PLACING AND COMPACTING THE GRAVEL LAYERS**

**B3201 SCOPE**

*Add the following new paragraph at the end of clause 3201:*

“This section also includes for the crushing on site of hard rock and boulders from the necessary cutting excavations to produce G78, G7 and G5 quality materials for the layer works.

The G8 and G7 material shall both be crushed to a nominal maximum size of 75mm.

**B3203 STOCKPILING THE MATERIAL**

*Add the following new paragraph at the end of clause 3203:*

“Where so constructed by the engineer, the various materials crushed on site for the layer works shall be loaded from the crusher discharged heaps and stockpiled separately elsewhere within the general crushing and screening plant establishment area, keeping the various crushed materials entirely separate from each other to prevent contamination. Provision is made in terms of this section 3200 for payment for such separate stockpiling, after crushing, of the Layerworks material crushed on site.

**B3204 BREAKING-DOWN THE MATERIAL**

**(a) Initial breaking down of the material in cuttings, borrow pits and existing pavement layers.**

*Add the following new paragraph at the end of clause 3203:*

“Rock material from the necessary excavations shall be used primarily in the construction of the required fills or crushed on site for use in the pavement layers, and only after the completion of these processes shall the remaining excavated rock be disposed of as spoil material.

Hence, until the rock fills are complete, and the required volume of pavement layer material has been crushed, any oversize rock produced during the excavation process shall not be discarded but shall instead be further broken down sufficiently to allow the rock either to be used in the construction of the required fills or to be accepted by the crusher and crushed on site for use in the pavement layers.”

**B3205 CRUSHING AND SCREENING**

*Add the following new paragraphs after the end of the first paragraph clause 3205:*

“There is insufficient space available within the road reserve to accommodate the establishment of the crushing and screening plant together with areas for offloading the uncrushed materials and areas for discharging and stockpiling the crushed material.

**B3212 MEASUREMENT AND PAYMENT**

<b>Item.</b>	<b>Unit</b>
B32.01 Provision of crushing and/or screening plant:	Lump Sum

*Add the following after the end of the second paragraph of item 32.01:*

“The tendered rate for item B32.01 (a) for the provision of the Single stage crusher with screen shall also include compensation for the provision of the necessary screening plant.

The tendered rate for item B32.01(a) shall also include full compensation for the cleaning, preparation and subsequent levelling and reinstatement of the entirety of the crusher establishment area, including any areas onto which the excavated material is affordable prior to crushing as well as those areas onto which the crusher discharges the crushed materials, and for the protection of the discharged crushed materials from unauthorised used and theft.”

<b>SECTION 3300</b>	<b>MASS ARTHWORKS</b>
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**B3302 MATERIALS****b) Fill**

*Add the following under item (iv):*

"The maximum swell at 100% Mod AASHTO compaction shall not be more than 2%."

**B3303 CLASSIFICATION OF CUT AND BORROW EXCAVATION**

*Classification of cut and borrow excavation shall be revised as follows:*

**"a) Classes of excavation****(ii) Intermediate excavation**

No distinction shall be made between soft and intermediate excavation, and all intermediate excavation shall be classified and measured as soft excavation."

**B3305 TREATING THE ROADBED****a) Removing unsuitable material**

*Replace "or" in the eight line of the third paragraph with "and"*

**d) In-situ treatment of roadbed**

*Add the following after the second paragraph:*

"Shales and mudstone shall be treated as directed by the engineer."

**B3306 CUT AND BORROW****e) The temporary stockpiling of materials**

*Replace the contents of this sub-clause with the following:*

"The contractor shall plan his activities in such a manner so that materials excavated from borrow areas and cuttings can be directly transported to and placed at the designated points.

The temporary stockpiling of material will not be paid for separately unless instructed by the engineer, and full compensation will be deemed to have been included in the rates tendered for the various payment items for work for which the stockpiled material is to be used."

**g) General**

*Add the following after the first sentence of the second paragraph:*

"The final cut surface in hard excavation shall not be more than 0,5 m below the specified slope face, measured at right angles to the strike and dip directions of the slope face."

**B3307 FILLS**

**a) General**

*Add the following:*

"Where existing embankments are to be widened, or where new embankments are to be constructed adjacent to existing embankments, the existing side slopes shall be benched as specified in sub-clause 3307(d) and in accordance with the details on the drawings.

In addition, the material in the fill widening shall, unless otherwise instructed by the engineer, be compacted as follows:

- (i) where the thickness exceeds 1,5 m, it shall be compacted to a minimum of 93% modified AASHTO density to a depth of at least 1,5 m below the final road level; or
- (ii) where the thickness is less than 1,5 m, the in situ roadbed and fill material shall be compacted to 93% modified AASHTO density."

**d) Benching**

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

"The dimensions of benches as well as the extent to which existing fills have to be cut back to form benches shall be as indicated on the drawings or indicated by the engineer."

*Add the following after the second paragraph:*

"In order to obtain sufficient working width for road-building equipment when the existing road fill is widened, it may be necessary to form benches that extend beyond the normal road prism or to cut back into the existing road fill or both. The contractor shall submit his proposals in this regard to the engineer for approval before proceeding with such work. The contractor will be paid in accordance with the relevant payment items for work required to obtain a working width of up to 4 m. Additional work required to provide a working width in excess of 4 m shall be at the contractor's expense."



<b>SECTION 3400: PAVEMENT LAYERS OF GRAVEL MATERIAL</b>
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**B3401 SCOPE**

*Add the following paragraph:*

“The work involved under this Section also includes all activities that are required for the construction of gravel roads.

**B3402 MATERIALS****(a) General**

*Add the following to the second paragraph:*

“Materials to be used for the gravel wearing course shall be Type 1 as per Table 3402/4, with the following amendments:

- Maximum target size = 53 mm
- Oversize index = 10% maximum
- Maximum permitted oversize = 63 mm.”

**B3403 CONSTRUCTION****(b) Placing and compacting**

*Add the following new sub-clause:*

**“(iii) Re-Gravelling**

“Before the construction of the gravel wearing course is commenced, the Contractor shall ensure that the underlying subgrade is to the satisfaction of the Engineer. This shall include the submission of all relevant process control test results to the Engineer.

The wearing course material shall be dumped on the road and then spread by means of motor graders over the full width of the layer shown on the drawings and to such depth that after compaction the thickness of the layer complies with the requirements of the Scope of Works and the surface of the layer is true to elevation, grade, and cross-section.

At no stage along a road shall the continuous length of unprocessed dumped material exceed 0.5km. Passing opportunities will be provided within the dumped material at a minimum spacing of 200 meters.

The material shall be spread away from the area on which it has been dumped in such a manner as to minimise segregation of the various sizes of aggregate in the material.

Material that is oversize in terms of the requirements for size and that remains after processing or spreading or both shall be hand knapped or bladed off the road and removed and disposed of.

Where necessary, in order to increase the moisture content of the material to the optimum value of the compaction equipment employed and the density required, not more than the requisite quantity of water shall be added uniformly over the area to be compacted. The water shall be thoroughly mixed into the material until a homogeneous mixture is obtained.

Material that is too wet shall be allowed to dry out to the correct moisture content before compaction proceeds.

Compaction shall be carried out in continuous operations over the full width and length of the area being compacted until the density specified has been achieved. The required shape and cross-section shall be maintained during compaction, and all holes, ruts, and depressions shall be corrected by frequent blading with a motor grader. The top of the compacted layer shall present a hard uniform compacted appearance.

Any weak spots that become apparent during compaction shall be cut out and repaired with sound material at the Contractor's expense.

The wearing course shall be compacted to a density of at least 95% of modified AASHTO density. Only partial payment will be done, at the discretion of the Engineer, on sections of wearing course until the Contractor has submitted satisfactory process control test results for the section to the Engineer."

*Add the following new sub-clauses:*

**(f) Mixing/Blending of materials**

Where required by the Engineer, materials from different sources shall be mixed in order to produce a final layer that meets the requirements of the specification.

Materials from the different sources shall be dumped on the road in the proportions ordered by the Engineer. The two materials shall be thoroughly mixed by grader or other suitable plant so as to obtain an even mix of the different types of material dumped. The layer shall then be compacted in accordance with clause 3403 (b).

**(g) Testing of wearing course gravel**

The following minimum testing shall be undertaken by the Contractor as process control for the wearing course gravel, including material processed in-situ:

- (i) 1 CBR per kilometre of gravel wearing course.
- (ii) 3 Grading's and indicators per kilometre. (The sample is to be taken from a 1m<sup>2</sup> representative area on the road at the test position as per TMH 5)
- (iii) 3 Layer thickness measurements per kilometre.
- (iv) 3 Compaction density tests per kilometre.
- (v) 5 width of road (wearing surface) measurements to be taken every kilometre.
- (vi) Visual inspection
- (vii) Tolerance checking of surface repairs by using straight edge

In addition, there shall be at least 3 CBR tests undertaken on samples from each proposed borrow pit.

All such tests will be undertaken by the on-site or approved laboratory, utilising personnel properly trained and equipped for the purpose.

Only 70% of the applicable rate will be certified for the placing and construction of the pavement layer/gravel wearing course. Upon presentation of the above approved test results, the balance will only be payable if they conform to the set minimum requirements, failing which, the Contractor is to reprocess the section of work until it conforms to the specification. Only then will the balance of the payment be made."

**(h) Light roadbed preparation**

Light roadbed preparation will be utilised to prepare the existing roadway to conform to the required design cross section before the re-gravelling operation commences, if so required. This item will be used when the above can be achieved by using a motorised grader unit without ripping the insitu material.

The Engineer will order light roadbed preparation before re-gravelling a section of road only if the insitu roadbed material conforms to the required specification.

Blading shall commence by first cutting and shaping the side and mite drains to the required specification to ensure proper drainage, as well as the shaping of the roadway. If in the opinion of the Engineer, the material so removed is suitable to be mixed in with the imported material, it should be bladed towards the centre line from both sides with successive cuts.

If in the opinion of the Engineer the material from the formation of the cross section and drains is not suitable, it will be spread over the side slopes or disposed of as directed. During the blading operation all large stones and vegetation shall be removed from the windrowed material. Any drains blocked off by under cutting shall be opened and gravel spillage into culvert inlets and outlets removed. The Contractor is to ensure that the required cross section is neatly trimmed and approved by the Engineer, before any material is imported.

The operation will also include for providing the required cross sections and cambers on the road, as well as cutting all the mitre and side drains complete, to ensure proper drainage.

Any drains blocked off by under cutting shall be opened and the spillage into culvert inlets and outlets removed. The Contractor is to ensure that the required cross section is neatly trimmed and approved by the Engineer, before any material is imported.

**(i) Heavy roadbed preparation**

Heavy roadbed preparation will be utilised to prepare the existing roadway to conform to the required design cross section before the re-gravelling operation commences if required. This item will be used when the above can only be achieved by using a motorised grader to rip the insitu material, scarify, add water, mix, shape and compact the material to achieve the required cross section before the re-gravelling operation.

The Engineer will order heavy roadbed preparation before re-gravelling the section of road only if the insitu road bed material is of such a nature, that upon being processed, conforms to the minimum requirement to receive the imported gravel wearing course.

Heavy roadbed preparation will consist of ripping (150 mm), adding water, mixing, shape and trimming to the required cross sections and cambers inclusive of cutting all mitre and side drains complete, to ensure proper drainage.

The Contractor is to ensure that the required cross section is neatly trimmed and approved by the Engineer, before any material is imported.

Compaction during the operation must ensure that at least 95% of MOD AASHTO is achieved for the gravel wearing course layer.

Any drains blocked off by under cutting shall be opened and the spillage into culvert inlets and outlets removed. The Contractor is to ensure that the required cross section is neatly trimmed and approved by the Engineer, before any material is imported.

**(m) Quality / Standard**

The road surface on completion of the works shall give a smooth ride free from corrugation and be properly drained.

The specified camber for straight sections of roads shall be maintained and super elevation on curves shall extend across the full width of the roadway.”

<b>SECTION 5100: PITCHING, STONEMASONRY AND PROTECTION AGAINST EROSION</b>
--

**B5101 SCOPE**

*Amend the first the first paragraph to read:*

“This Section covers the furnishing of materials and the construction as well as maintenance activities of a protective covering in stone pitching, cast in situ concrete pitching, bricks or prefabricated concrete blocks on exposed surfaces such as earth slopes, drains and stream beds, as well as heavier protective layers in the form of riprap and the construction of stone masonry for walls, as well as shown on the drawings or as ordered by the Engineer.

The Routine Road Maintenance Procedures Manual (RRMPM) of the Department of Roads and Public Works of the Eastern Cape describes the causes and type of defects, as well as providing a guide on how to conduct the works as indicated below.”

**5103 Stone Pitching:****(b) Grouted stone pitching**

The work shall be done in accordance with all the requirements specified for plain pitching in sub clause 5103(a) Above, except that the stones shall be thoroughly clean and adhering dirt or clay, moistened and embedded in freshly laid cement mortar composed of one part of cement to every six parts of sand. Any spaces between the stones shall be filled with cement grout of the same composition as the mortar. The mortar and grout shall be placed in a continuous operation for any day's run for any one location. The grout shall be worked into the pitching so as to ensure that all spaces and voids between the stones will be completely filled with grout to the full depth of the stone pitching. Grout spilt on to exposed surfaces of the stone shall be removed while still soft, and the joints between stones shall be neatly finished.

The grout pitching shall be cured with wet sacking or other approved wet cover for not less than a period of four days after grouting and shall not be subjected to loading until adequate strength has been developed. Where required, weep holes shall be formed in the pitching.

**SECTION 5200                      GABIONS**

**B5201    SCOPE**

*Add the following sentence to the first paragraph:*

“This section will also cover all activities required to maintain and repair existing gabion structures.

The Routine Road Maintenance Procedures Manual (RRMPM) of the Department of Transport, Eastern Cape describes the causes and type of defects, as well as providing a guide on how to conduct the works as indicated below.”

**B5202            MATERIALS**

**(f)                Filter fabric below the gabions**

Add the following at the end of sub-clause 5202(f):

"In the case of the filter fabric used to line the earth faces of the gabion mattresses at the box culvert inlet, the following properties shall apply:

Penetration load (minimum)	3500 Newton
Puncture resistance (maximum)	15 mm
Water percolation (minimum)	20 litre / m <sup>2</sup> / sec"

**B5205            MEASUREMENT AND PAYMENT:**

*Add the following new item:*

<b>Item</b>	<b>Unit</b>
<b>B52.05 Dismantle and remove gabion structures .....</b>	<b>(m<sup>3</sup>)</b>

The unit of measurement shall be the cubic metre of gabion structure dismantled / demolished and removed to spoil.

The tendered rate shall include full compensation for all labour, plant and equipment, as well as all incidentals required to demolish the existing structure and disposal of the demolition to an approved spoil site within a free-haul distance of 1km.”

<b>SECTION 5400:            GUARDRAILS</b>
--

**B5402    MATERIALS**

**a)    Guardrails**

*At the end of the 1<sup>st</sup> sentence delete the full stop and add “or SANS 51317 and carry the SABS mark.”*

**B5403    CONSTRUCTION**

**a)    Erection**

*Replace the 7<sup>th</sup> paragraph with the following:*

“Steel posts placed on concrete retaining walls or concrete structures shall be erected and fixed as shown on the drawings. For all other applications, steel posts shall be erected and fixed in compliance with the approved guardrail system as tested and approved in terms of SANS 51317.”

**B5405    REMOVING, RENOVATING AND RE-ERECTING GUARDRAILS**

**a)    Removing the guardrails**

*In the 3<sup>rd</sup> line of the 1<sup>st</sup> paragraph, after “150mm layers,” delete the full stop and add “of suitable material (than less than G7 quality material).”*

<b>SECTION 5500:</b>	<b>FENCING</b>
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**B5501 SCOPE**

Add the following:

“This section also covers the repairing of existing fences that form part of the permanent work and/or routine maintenance”

**B5514 MEASUREMENT AND PAYMENT**

Add the following pay item:

<b>“Item</b>	<b>Unit</b>
<b>B55.10    Repairing existing fences .....</b>	kilometre (km)

The unit of measurement for repairing existing fences shall be the kilometre of existing fence repaired on the instruction of the engineer.

The tendered rate shall include full compensation for untying the existing fence (where necessary) and reinstating it, tying of droppers and repairing and re-aligning of standards to the satisfaction of the engineer as well as for coiling and stacking material unsuitable for re-use.

If the existing fence is damaged by the contractor’s construction activities, the contractor shall repair the fence at his own cost.”

<b>SECTION 5600:</b>	<b>ROAD SIGNS</b>
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**B5603 MANUFACTURING OF ROAD SIGN BOARDS AND SUPPORTS****(a) Road sign boards**

*Add the following:*

“The Contractor shall ensure that the signs and supports supplied by the manufacturers are correct in all respects.”

**(f) Road sign supports**

*Add the following:*

“All the ground-mounted signs shall be supported on creosote timber pole supports.”

*Add the following new sub clauses:*

**(h) Chromadek sections**

“Chromadek sections shall be assembled in accordance with the details of the standard plans.

Where joints are approved by the engineer, they shall be constructed in accordance with the details shown on the standard plans and shall be covered on the rear face after assembly with a 20mm wide PVC corrosion protection tape. The PVC tape shall be covered by a 60mm wide self adhesive aluminium backed strip such as “Bostik Dit-Sit” or approved equivalent, all as indicated on the standard plans.

Retro-reflective material shall be applied to the section as specified for Aluminium Sections in Clause 5603(d) of the Standard Specifications, with the following additional requirement:

Where the letters or legends cross the horizontal joints of the sign panels the lettering or legend shall be cut along the joint and trimmed just short of the 3mm radius bend on the section.

**(i) Fastening details**

All fastening details to join the sign sections, to edge the assembled sign panel and to fasten the completed panel on to the timber supports shall be constructed in accordance with the details shown on the standard plans.”

**(j) Date of erection and sign identity number**

The manufacturer's name, month and year of erection of the sign shall be placed in the bottom left-hand corner when facing the back of the sign. An eleven (11) digit identity number supplied by the engineer shall also be placed on the back of the sign above the date of erection. All lettering shall be 50mm high and shall be manufactured from 7 year cast enamel scotchcal or equivalent. All lettering will be located such that it is visible from the shoulder of the road. No reflective paint or reflective material will be permitted on the back of sign faces.

Single signs such as R and W series signs shall only have the manufacturer's name, date and month placed on the back.

**B5604 ROAD SIGN FACES AND PAINTING**

*Add the following new sub clauses*

**(a) Application of retro-reflective material**

All sign faces shall be faced with retro-reflective material. Painted front sign faces shall not be used. Colours, symbols, legends and borders shall comply with the regulations of the applicable Road Traffic Act, the South African Road Traffic Signs Manual, SABS 1519-1990, and the details shown on the Plans.

Where applied to Chromadek Sections retro-reflective material shall be applied as specified for aluminium sections in Clause 5603(d) of the Standard Specification, and of Clause B5603(h) of this Project Specification.



**(b) Silkscreening**

Silkscreening or inking over retro-reflective materials shall not be acceptable.

**B5605 STORAGE AND HANDLING**

*Add the following:*

“The following shall not be allowed on the sign face:

- (a) Drilling of holes
- (b) Application of any form of adhesive
- (c) Cleaning with any chemicals that are not specifically approved by the manufacturer of the retro-reflective material, and
- (d) Covering the sign face with an impermeable material that does not allow free circulation of air.

**B5606 ERECTING ROAD SIGNS**

**(a) Position**

*Add the following:*

“All signs are to be placed, where practically possible, at the “preferred” location as indicated in the table on drawing ECS/56/1/C1. Variations will only be allowed if the topography does not allow the sign to be placed in the preferred position.”

**(d) Field Welding**

*Replace the contents of this clause with the following:*

“No welding shall be allowed during the erection of any road signs.”

**(e) Time of Erection**

*Replace the contents of this clause with the following:*

“Road signs shall be erected during and without disrupting the normal free flow of traffic.”

*Add the following new sub clause:*

**(h) Fixing of signs to poles**

All sign faces will be affixed to the pole by means of clamps as indicated on drawing. An additional mild steel clamp (“ready-bar” ) will also be installed, together with one galvanised steel bolt fixed through the pole, as indicated on drawing CS/G/6/5.

W401 and W402 signs will only be affixed by means of two galvanised steel bolts through the face of the sign and pole.

<b>SECTION 5900 :</b>	<b>FINISHING THE ROAD AND ROAD RESERVE AND TREATING OLD ROADS</b>
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**B5901 SCOPE**

*In the first line of the second paragraph, insert the following after 'this section'*

"...distinguishes between new construction and renewal construction. When construction is new, as in the case of new alignments for example, then this section "

**B5902 FINISHING THE ROAD AND ROAD RESERVE**

*Retain the existing paragraphs as sub-clause:*

**"a) New construction"**

*Replace the sixth paragraph with:*

"All materials resulting from the finishing operations shall be disposed of at approved spoil sites."

*Add the following:*

**"b) Renewal construction**

After completing construction work within the site, the contractor shall ensure that all construction generated or related material that may have been swept, windrowed, stockpiled, stored or spread beyond the road surface is removed. This shall be done before any other rehabilitation work is undertaken, including shaping, topsoiling and grassing. Should, during the removal of construction generated or related material, existing vegetation or topsoil be disturbed or destroyed, the contractor shall, at his own cost, re-instate the road reserve to its original state. This shall include ripping, should the construction material have compacted the existing surface.

Culvert inlets and outlets, culvert barrels, and open drains shall be cleared of debris, soil, silt and other material generated from the construction activities.

The surfacing shall be cleared of all dirt, mud and foreign objects. Dragging, pushing or scraping material across the finished surfacing shall not be permitted.

<b>SECTION 6200: FALSEWORK, FORMWORK AND CONCRETE FINISH</b>
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**B6204 DESIGN**

## (a) General

Add the following:

“ Drawings and calculations for all temporary support works shall be signed by a registered Professional Engineer.”

**B6207 FORMED SURFACES : CLASSES OF FINISH**

## (b) Class F1 surface finish

Add the following :

"This will generally be termed Rough Finish"

## (c) Class F2 surface finish

Add the following :

"This will generally be termed Smooth Unrubbed Finish"

## (d) Class F3 surface finish

Add the following :

"This will generally be termed Smooth Rubbed Finish"

**B6208 REMEDIAL TREATMENT OF FORMED SURFACES**

## (b) Repairs to surface defects

Delete Clause 6208(b) and substitute the following :

“Small surface defects such as cavities produced from ties, large isolated blow holes, broken corners and edges and honeycombs due to joint leaching shall be repaired as follows:

All defective concrete shall be removed to a minimum depth of 30 mm and down to sound concrete such that no "feather edges" are formed. The area to be repaired shall be dampened with a cement slurry before patching.

The patching mortar shall consist of the same fine aggregate as used in the concrete in the ratio of 1 cement to 3 sand by volume. The water content shall be such that the mix is apparently dry - the moisture coming to the surface, only after ramming with the end of a 38 x 38 timber or similar.

After firmly compacting until moisture appears at the surface, the patch shall be smoothed off with a wooden trowel and left to cure for 48 hours.

White cement of PBFC may be substituted for up to 35% of Ordinary Portland Cement in order to obtain a colour match.

For repairs to medium to large areas of honeycomb, particularly on the earth faces to bridge abutments and box bridges the preparation shall be as for small patches but a proprietary patching mix shall be used in accordance with the manufacturer's specification.

Where this patching may be considered inadequate by the Engineer, other techniques such as pneumatically applied mortar, pressure grouting and epoxy bonding agents may be called for.”

<b>SECTION 6300: STEEL REINFORCEMENT FOR STRUCTURES</b>
---

**B6303      STORING THE MATERIALS**

Add the following at the end of the first paragraph of clause 6303:

“The Contractor shall set aside areas cleared of vegetation for storing reinforcing steel. The reinforcement shall be kept at least 300mm above ground level at all times.”

**B6305      SURFACE CONDITION**

Add the following new paragraph to the end of clause 6305:

“Within 24 hours after placing concrete, the Contractor shall have cleaned off all concrete splatter from the protruding starter bars and clips and any other affected reinforcement, and shall present the resulting product to the Engineer for approval before he will be permitted to commence fixing the shuttering and reinforcement to the next section.

**B6307      COVER AND SUPPORTS**

Replace the sixth paragraph of clause 6307 with the following:

“Prior to fixing the reinforcing steel, samples of the proposed cover and spacer blocks shall be submitted to the Engineer for approval. Only concrete cover and spacer blocks shall be used, and shall be made with 6,7mm maximum sized aggregate. They shall be of the same strength and material source as those of the surrounding concrete and shall have the same water : cement ratio to minimise differences in shrinkage, thermal movements and strain. The blocks shall be formed in specially manufactured moulds and the concrete compacted on a vibratory table and cured under water for a period of at least 14 days, all to the satisfaction of the Engineer.”

Concrete cover block support and spacers shall be provided at all corners and along all edge reinforcement of a structural element at even spacing intervals not exceeding those specified below. Between edges, concrete cover block support and spacers shall be provided to the sides and soffits of structural elements so as to form an evenly spaced orthogonal grid at spacing intervals not exceeding those specified below. Where smaller bars effectively support larger bars between support points, the maximum spacing interval between support points shall be determined by the diameter of the smaller bar.

Nominal diameter of bar supported (mm)	Maximum spacing interval (mm)	
	<u>High tensile steel</u>	<u>Mild steel</u>
8	500	400
10 and 12	600	500
16 and 20	1200	1000
25 and 32	1800	1500

Notwithstanding the maximum spacing intervals specified above, these spacing intervals shall be reduced where necessary to ensure that the tolerances specified in subclause 6803(f) are met, or where particular circumstances require a closer cover block spacing to be used.”

<b>SECTION 6400: CONCRETE STRUCTURES</b>
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**B6402 MATERIALS**

(a) Cement

Delete paragraph (vi) and substitute the following :

“Where concrete mixes of 30 MPa or greater are specified, other than for prestressed members, blast furnace cement and milled granulated blast furnace slag may be used in proportions not exceeding 50 % of the total cement content.

For lower strength concrete these pozzolanic cements may not be used unless authorised by the Engineer.

In prestressed members milled blast furnace slag may be used but the percentage of slag shall not exceed 35 % of the total cement content.

A 15 % slag content (as supplied by Durban Cement) is suitable for all works unless otherwise specified.

In all cases where blast furnace cement or slag are used the Engineer will have the authority to restrict the use of it if the batching plant is deemed to be inadequately controlled”.

(d) . *Water*

Add the following:-

“Water extracted from the natural stream sources for the manufacture of concrete will not be permitted unless each extraction is stored, tested and found to be suitable for concrete making.”

(f) Curing Agents

Add the following:

Approved curing agents are Curex and Curing W.E.

**B6415 DEMOLITION AND REMOVAL OF EXISTING STRUCTURAL CONCRETE**

Add the following sub-clause:

**B64.15 (c)** The existing concrete structure shall be demolished and removed to an approved spoil site. Rubble shall not be spoiled on site, the Tenderer shall be responsible for finding the appropriate approved spoil site.

**SECTION 6600: NO-FINES CONCRETE, JOINTS, BEARINGS, BOLT GROUPS FOR ELECTRIFICATION, PARAPETS AND DRAINAGE FOR STRUCTURES**

**B6604 BEARINGS FOR STRUCTURES**

(a) Materials

Replace subclause B6604(a)(vi) with the following:

“(vi) Mortar

Only a high strength epoxy resin grout proprietary mortar shall be used for the mortar bedding to the pedestrian bridge bearings. The compressive strength of the proprietary mortar shall meet the following minimum requirements:

7 day cube strength	40 Mpa
28 day cube strength	60 Mpa

Products such as Sikadur -42 ZA high strength fluid epoxy resin grout, Pro-Struct 501 five star epoxy grout, Pro-Struct 638 pourable epoxy grout, and ABE Epidermix 324 flowable epoxy grout, or similar and approved, may be used as mortar bedding.

**B6627 MEASUREMENT AND PAYMENT**

Add the following new pay item:

Item	Unit
<b>B66.27      Supply and place bridge deck walkway</b>	<b>metre (m)</b>

The unit of measurement shall be the linear metre of concrete sidewalk, constructed to the line and level indicated on the drawing or as instructed by the Engineer.

**The tendered rate shall include full compensation for furnishing all material and labour, including formwork as necessary, mixing, placing and compacting the concrete, and screeding to a required finish as instructed by the Engineer.**

<b>SECTION 12000</b>	<b>ENVIRONMENTAL MANAGEMENT SPECIFICATIONS &amp; IMPLEMENTATION</b>
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**B12001 SCOPE**

This Specification covers the generic requirements for the effective implementation of an Environmental Management Programme (EMPr) for controlling the Impact on the environment during the road construction and maintenance activities. The purpose of the Environmental Management Specification is to help control those construction activities that can have potentially adverse environmental implications on the site and surrounding areas and to ensure that Environmental Legislation requirements are met. In short, the Environmental Management Specification describes good environmental practice principles which must be applied for the duration of the construction activities. Some specific activities may not take place during the works.

The Environmental Management Specification needs to be read in conjunction with any Environmental Authorisations and approved Mining Authorisations (including EMP's and Mine Plans) for materials sources as well as the conditions of any environmental authorisation issued by the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT) and the Department of Mineral Resources (DMR) respectively. It should be noted that the authorisations and conditions of the DEDEAT and DMR are legally binding.

The Contractor is furthermore required to comply with other relevant legislation which may apply to the proposed activities. This may include, but not be limited to:

- (i) A water use license for water abstraction, issued in terms of the National Water Act (Act No 36 of 1998).
- (ii) A water use license for alterations to a river bank or permanent deviation of a stream flow, issued in terms of the National Water Act.
- (iii) A permit for atmospheric emissions produced by an asphalt plant, issued in terms of the National Environmental Management: Air Quality Act (Act No 39 of 2004).
- (iv) A permit for the removal or destruction of protected flora (plants and trees), issued in terms of the National Forestry Act (Act No 84 of 1998), National Environmental Management Biodiversity Act (Act 10 of 2004), the Provincial Nature and Environmental Conservation Ordinance (No 19 of 1974) and the National Environmental Management: Biodiversity Act Threatened or Protected Species Amendment Regulations (Act 10 of 2004).
- (v) An environmental authorization from the DMR for Borrow Pits, requiring approval of listed activities in terms of the NEMA EIA Regulations (2014)

## **B12002 INTERPRETATIONS**

### **B12002.1 Supporting Documents**

Where this specification is applicable, the following documents shall inter alia be read in conjunction with this document.

- (i) Statutory requirements of the National Environmental Management Act (Act No 107 of 1998) (NEMA) and regulations promulgated in terms of Section 24 of NEMA;
- (ii) Statutory requirements of the Regulation Notice 983 and 985 respectively, as per regulations 19 and 20 of the NEMA EIA Regulations (2014) and Regulation Notice 984 as per regulation 21, 22, 23 and 24 of the NEMA EIA Regulations 2014;
- (iii) Statutory requirements of the Minerals and Petroleum Resource Development Act (Act No 28 of 2002) (MPRDA);
- (iv) Statutory requirements of the National Water Act (Act No 36 of 1998) (NWA);
- (v) Statutory requirements of the National Forests Act (Act No 84 of 1998) (NFA);
- (vi) Statutory requirements of the National Heritage Resources Act (Act No 25 of 1999) (NHRA);  
and
- (vii) Statutory requirements of the National Environmental Management: Waste Act (Act No 59 of 2008) (NEMWA)

Note 1: In the Eastern Cape Province, the NEMA falls under the authority of the Department of Economic Development, Environment Affairs and Tourism (DEDEAT), whilst the licencing of Borrow Pits falls under the authority of the Department of Mineral Resources (DMR).

Note 2: Environmental Management Plans (EMP's) relating to the use of Borrow Pits used for road maintenance need to be authorised by the DMR in accordance with the requirements of the MPRDA and the NEMA EIA Regulations of 2014.

Note 3: The National Department of Environmental Affairs (DEA) is the relevant environmental authority for the temporary storage or treatment of hazardous substances, including sewage package plants and asphalt plants.

### **B12002.2 Applications**

The provision of this Specification shall apply in respect of all Contractors, Sub-contractors and to any of their site personnel, workforce or suppliers, who are engaged in the execution of the works.



**B12003 INTERPRETATIONS**

DEDEAT	Department of Economic Development, Environmental Affairs and Tourism
DMR	Department of Mineral Resources
DWA	Department of Water Affairs
ECO	Environmental Control Officer
EIA	Environmental Impact Assessment
EMP	Environmental Management Plan
Environment	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 of combination of the aforementioned 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 wellbeing
Environmental Impact	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
Invasive Alien Vegetation	An 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 (Act 43 of 1983).
MSDS	Material Safety Data Sheets
NO-GO Areas	Generally those areas outside the designated working areas, including but not limited to: existing services and infrastructure, occupied property; grave sites: cultivated lands, wetland areas, 'Special or Sensitive Environments' as defined in the EMP
RE	Resident Engineer
Topsoil	Natural soil covering, including all the vegetation and organic matter, with variable depth
Working Areas	Working areas are those areas required by the Contractor to construct the works, as approved by the Resident Engineer

**B12004 OBJECTIVES OF THE ENVIRONMENTAL MANAGEMENT PROGRAMME**

The Environmental Management Specification, which is in accordance with the Environmental Policy of the Client, is intended primarily as a management tool, for the guidance of the Consulting Engineers, the Contractor and his subcontractors.

The objective is to control the impacts firstly of materials, plant and facilities and secondly of construction activities on the surrounding environment. The effective implementation will ensure that the required works are conducted in an environmentally sound manner and that the negative impacts of the works are minimised or prevented. This Environmental Management Specification contains the necessary environmental requirements to the Contractor and his staff, including all sub-contractors and on-site workers are required to adhere to.

The Environmental Management Specification outlines structures and procedures to be implemented by the Contractor and his subcontractors to minimise and manage potential environmental impacts which the Contractor's construction related activities might have on the receiving environment.

An independent Environmental Control Officer (ECO) will be appointed by the Client to ensure that the Environmental Management Specification and approved EMP is being effectively implemented. The ECO shall undertake monthly site inspections, the results of which will be reported to the Client, the Consulting Engineer, the Contractor and the relevant government departments.

**B12005 ROLES AND RESPONSIBILITIES****B12005.1 Responsibilities of the Resident Engineer**

Specific to environmental management, the role of the Resident Engineer (RE) will be to ensure enforcement of the Environmental Management Specification, approved EMP and supplementary recommendations made by the ECO; review and approve the Method Statements submitted by the Contractor; and liaise with the Contractor, the ECO and DEDEAT on environmental matters as necessary.

*Responsibilities* of the RE will include, but not be limited to:

- communicating the advice of the ECO and/or contents of the ECO's reports;
- issuing site instructions where applicable;
- communicating to the ECO any new/amended construction activities;
- informing the ECO of any infringements/accidents or incidents that have occurred on/off site;
- implementing any Temporary Work Stoppages where serious environmental infringements and non-compliances have occurred;
- issuing penalties as and when necessary; and,
- maintaining a record of complaints and communicating these to the Contractor and ECO.

Should the RE be of the opinion that the environmental management measures are not being adhered to, and that the appropriate corrective action is not being implemented, the RE, advised by the ECO, will be at liberty to instruct the Contractor to cease the related operations until the Contractor complies with the relevant requirements. The Contractor will not be entitled to any extension of time for such stoppages.

#### **B12005.2 Responsibilities of the Environmental Control Officer (ECO)**

The role of the ECO will be to independently monitor, review and verify the implementation of the EMPr and liaise with the RE and/or Client, and DEDEAT to confirm the level of compliance achieved and make appropriate recommendations on improvements/actions required.

The responsibilities of the ECO will include, as a minimum:

- advising the RE on the interpretation and enforcement of the Environmental Specifications;
- assisting with the review of Method Statements;
- demarcating particularly sensitive areas;
- monitoring any basic physical changes to the environment as a consequence of the construction works- e.g. evidence of erosion, dust generation and littering;
- undertaking monthly site inspections on the level of compliance to the EMPr demonstrated by the Contractor and submitting reports to the Client, Consulting Engineer, Contractor and to the relevant government departments;
- undertaking any damage assessments with the RE where incidents, accidents and/or serious infringements have occurred on/off site, and advising on remedial actions required; and
- appropriate and communicating these changes to the Resident Engineer and Contractor.

#### **B12005.3 Responsibilities of the Contractor**

The Contractor will be contractually required to undertake his activities in an environmentally responsible manner. The role of the Contractor will include the following, at a minimum:

- to implement the Environmental Management Specification and approved EMPr (and any subsequent revisions) for the duration of the construction related activities;
- to appoint an Environmental Officer for the daily implementation and monitoring of activities;
- to provide reasonable resources for the effective control and management of environmental risks associated with the construction related activities, as per the EMPr;
- to assign tasks to personnel as necessary and ensure appropriate accountability and responsibility is assigned to enable the carrying out of these duties;
- to maintain incident, training and other relevant administrative records; and
- to ensure all personnel, sub-contractors and other workers appointed by the Contractor are aware of the environmental responsibilities on site.

These roles will, at a minimum, translate into the following environmental responsibilities:

- be familiar with the contents of the Environmental Management Specification, approved EMPr and to comply with the EMPr;
- submit the necessary Method Statements and plans to the RE for approval;
- review the ECO Reports and undertake corrective actions for non-compliance and take cognisance of the information/recommendations made;
- notify the RE immediately in the event of any accidental infringements of the Environmental Management Specifications and ensure appropriate remedial action is taken;
- notify the RE in advance of any amendments/changes to the proposed work activities to enable environmental impacts to be confirmed and mitigation measures identified; and
- maintain records – e.g. photographic records, complaints records, training records and incident records.

#### **B12005.4 Responsibilities of the Environmental Officer**

The Contractor shall on commencement of the Project appoint an Environmental Officer who, in addition to his normal duties, shall have direct responsibility for the implementation and monitoring of the Environmental Management Specifications and the approved EMPr. The Environmental Officer cannot be the Site Agent (Contract Manager).

The Environmental Officer shall liaise with the RE, the ECO and the Contractor, in order to ensure effective implementation of the Environmental Management Specification and EMPr at site level. The Environmental Officer will be responsible for the practical implementation and daily monitoring of the Environmental Management Specification and EMPr and shall report to the Contractor and RE in this regard. The Environmental Officer shall daily inspect and monitor operations on and off site and shall take the necessary action where required to ensure compliance with the environmental management requirements. The Environmental Officer shall attend all regular site works meetings for reporting, discussing and reviewing the performance of the Contractor (which shall be a standard item on the agenda).

#### **B12006 METHOD STATEMENTS**

The Contractor shall be required to submit Method Statements to the RE outlining proposed construction activities, phasing and procedures and methods to comply with the targets stipulated in the Environmental Management Specification and any EMP's. Method Statements shall, where applicable, include Site Establishment Drawings with sufficient detail to assess the potential impact of the site facilities or to assess the degree of safeguarding provided against pollution.

Sections 12007 to 12015 below need to be addressed in the Method Statements

Method Statements shall indicate how the procedures will be applied in order to meet the relevant targets and are central to the proper implementation of the Environmental Management Specification and EMPr. It is anticipated that in addition to assessing the systems and performance of the Contractor, the ECO will monitor the Contractor's adherence to Method Statements.

Method Statements must be submitted at least 10 days prior to the proposed commencement of related activities and must be approved by the RE, in consultation with the ECO. The Environmental Officer shall keep copies of these Method Statements and letters of approval (including conditions attached) in an Environmental file.

Any deviations from the approved Method Statements must be submitted to the RE for approval and in consultation with the ECO.

The following Method Statements shall be submitted by the Contractor 10 days prior to commencement:

- (i) Layout and preparation of the construction camp including facilities required for personnel and plant;
- (ii) Storage and Handling of Materials, including cement/concrete, asphalt, and hazardous substances;
- (iii) Waste management and pollution prevention, including solid waste, hazardous waste and contaminated water;

- (iv) Operational activities, including stockpiling, dust control, control of erosion during bulk earthwork operations, water abstraction and construction water;
- (v) Construction methods including vegetation clearing, road bed preparation and blading, drainage management, material sources, construction of bridges and culverts and site rehabilitation;
- (vi) Statutory Requirements including obtaining relevant permits
- (vii) Public and Worker Health and Safety
- (viii) Environmental Awareness and Training
- (ix) Emergency Procedures for spillage procedures, including hydrocarbons, and compounds to be used and fire prevention/management;

## **B12007 PLANT AND FACILITIES**

### **B12007.1 Site Camp**

All site establishment components (as well as equipment) shall be positioned to limit visual intrusion on neighbours and the size of area disturbed.

The Contractor shall provide the RE with a plan of the site camp showing the layout I positioning of all infrastructure including wash bays, fuel storage areas, materials storage areas, sewage infrastructure and buildings. The Contractor shall maintain a map of the site layout that indicates where the wash bays, fuel storage areas, topsoil sites etc are located. The RE must approve this in consultation with the ECO.

Where site camps are to be established the feasibility of removing topsoil from the site before site establishment, shall be investigated by the ECO. Removed topsoil should then be stockpiled for use in rehabilitation of the site camp.

The site camp shall not be located in an environmentally sensitive area. The site shall be located >100 m from a watercourse or wetland.

All water requiring discharge, including wastewater from kitchen and ablution facilities should be led to soak pits or discharged in a manner approved by the RE and in compliance with the National Water Act. No wastewater shall be discharged into rivers or streams.

Site camps and surrounds shall be maintained in a clean, tidy and orderly condition at all times.

The Contractor shall restore the site camp to its former condition upon completion of the works. This will include removal of all rubble and foundations, loosening of compacted soils and re-establishing groundcover. Where a homestead has been used as a site camp, the Contractor may be required to renovate the buildings to its former or better condition as agreed with the landowner once the works are complete.

### **B12007.2 Lights**

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

### **B12007.3 Workshop, Equipment Maintenance and Storage**

Where practical, all maintenance, including servicing and repairs, of equipment and vehicles on Site shall be performed in the workshop. If it is necessary to do maintenance outside of the workshop area, the Contractor shall obtain the approval of the R E prior to commencing activities.

The Contractor shall ensure that in his workshop and other plant maintenance facilities, including those areas where, after obtaining the RE's approval, the Contractor carries out emergency plant repairs there is no contamination of the soil or vegetation.

The workshop shall have a smooth impermeable concrete floor. The floor shall be bunded and sloped towards an oil trap or sump to contain any spillages of substances (e.g. oil).

When maintaining and servicing equipment, drip trays shall be used to collect the waste oil and other lubricants.

Drip trays shall also be provided in construction areas for stationary plant {such as compressors) and for "parked" plant (such as scrapers, loaders, vehicles).

All vehicles and equipment shall be kept in good working order and serviced regularly. Leaking equipment shall be repaired immediately or removed from the Site.

The washing of equipment shall be restricted to urgent or preventative maintenance requirements only. All washing shall be undertaken in a wash bay area which must be equipped with a suitable impermeable floor and sump/oil trap. The use of detergents for washing shall be restricted to low phosphate and nitrate containing, low sudsing-type detergents.

#### **B12007.4 Drinking Water**

Water for drinking purposes should be obtained from a designated municipal supply, or an approved source of treated water.

#### **B12007.5 Ablution Facilities**

A sufficient number of chemical toilets shall be provided by the Contractor in the construction camp area and at appropriate locations agreed by the RE. The ratio of toilets to site staff shall not exceed 1:20, and the closest toilet shall never be further than 50m away from the area where work is currently under way.

Toilets shall not be located in river courses or flood plains.

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

All temporary/portable toilets shall be secured to the ground to the satisfaction of the RE to prevent them toppling due to wind or any other cause.

All toilets are to be maintained in a clean, sanitary condition. The Contractor shall be responsible for cleaning, maintenance, servicing and emptying the toilets on a regular basis. The Contractor shall supply adequate toilet paper at all toilets.

The Contractor shall ensure that no spillage occurs when the toilets are cleaned or emptied and that the contents are properly stored and removed from Site.

Discharge of waste from toilets into the environment and burial of waste is strictly prohibited. Conservancy tanks may be used only once the soil conditions have been checked and found to be suitable. Septic tanks may not be used.

#### **B12007.6 Living Accommodation**

Living accommodation for workers on Site should comply with minimum standards.

All temporary structures shall be removed and the area rehabilitated on completion of the works.

The Contractor shall designate eating areas for his employees. The Contractor shall provide bins with secure lids in these areas.

The source of energy I fuel for use by the workers residing in the area must be clearly specified. There must be no collection of wood outside the designated area.

### **B12008 MATERIAL HANDLING AND STORAGE**

#### **B12008.1 Materials Handling, Use and Storage**

The Contractor shall ensure that any delivery drivers are informed of all procedures and restrictions required to comply with the Environmental Management Specifications of the EMPr.

The Contractor shall ensure that these delivery drivers are supervised during off-loading by the Contractor's Environmental Officer.

Materials shall be appropriately secured to ensure safe passage between destinations. Loads including, but not limited to sand, stone chip, fine vegetation, refuse, paper and cement, shall have appropriate cover to prevent them spilling from the vehicle during transit.

The Contractor shall be responsible for any clean-up resulting from the failure by his employees or suppliers to properly secure transported materials.

All lay down areas for manufactured/imported material shall be incorporated inside the construction camp as approved by the RE. In the event that additional areas outside of the construction camp be required, this shall be subject to the RE's approval (in consultation with the ECO), which shall not unreasonably be withheld.

Fuel lubricants, solvents, paints, and other chemicals must be stored within the Contractor's camp in a facility secured with lock and key. Storage should be on a bunded, impervious site (secondary containment).

#### **B12008.2 Storage and Handling of Hazardous Substances**

Hazardous chemical substances (as defined in the Hazardous Chemical Substances Regulations, Regulation 1179 of 1995 in terms of the Occupational Health and Safety Act) used during construction shall be stored in secondary containers and in an impermeable bunded area.

The relevant Material Safety Data Sheets (MSDS) shall be available on Site.

Procedures detailed in the Method Statement for Emergency Incidents shall be followed in the event of an emergency situation.

Potentially hazardous substances shall be stored, handled and disposed of in a suitable manner.

#### **B12008.3 Fuel (petrol and diesel), Oil and Hydraulic Fluids**

The Contractor shall ensure that all fuels and chemicals are handled and stored in a manner so to minimise the risk of spills, leaks or structural failures and in compliance with SANS 10089.

Fuel may be stored on Site and the fuel storage area shall be located at the workshop or a fuel storage depot located within the construction camp. The area is not to be within 100m from a water resource.

The Contractor shall ensure that all liquid fuels (petrol and diesel) are stored in tanks with lids, which are kept firmly shut or in bowzers.

The tanks/bowzers shall be situated on a smooth impermeable surface (sealed concrete) base with an impermeable bund (no plastic may be used). The impermeable lining shall extend to the crest of the bund and the volume inside the bund shall be 110% of the total capacity of all the storage tanks I bowzers.

The bunded area shall have a roof covering to prevent the ingress of rain water. The Contractor shall prevent unauthorised access into the fuel storage area.

The Contractor shall have on Site all the necessary materials and equipment (i.e. spill kits) to deal with spills of any of the substances stored on Site.

The Contractor shall set up a procedure to deal with a spillage or pollution event; this is to include immediate communication with the RE and ECO. A number of the Contractor's staff shall be appropriately trained to deal with any minor spills or pollution threat.

No smoking shall be allowed within the vicinity of the fuel storage area.

The Contractor shall ensure that there is adequate fire-fighting equipment at the fuel stores. Gas and fuels shall not be stored in the same storage area.

Where reasonably practical, plant shall be refuelled at the depot or at the workshop as applicable. If it is not reasonably practical then the surface under the refuelling area shall be protected against pollution to the reasonable satisfaction of the RE prior to any refuelling activities.

The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb/breakdown and where possible be designed to encapsulate minor hydrocarbon spillage. The quantity of such materials shall be able to handle a minimum of 200 litre of hydrocarbon liquid spill. This material must be approved by the RE prior to any refuelling or maintenance activities.

Drip trays shall be inspected and emptied daily into a hazardous waste container, and serviced when necessary. Drip trays shall be closely monitored during rain events to ensure that they do not overflow and a small spill absorbent sock should be placed within the drip tray for such occasion. The appropriate signage must be erected at the diesel bowser and workshops

**B12009 WASTE MANAGEMENT**

**B12009.1 Prevention of Pollution**

The Contractor should ensure that pollution of the soil or water {i.e. surface and ground} does not occur as a result of any activities on Site. Pollution could result from the release, accidental or otherwise, of chemicals, oils, fuels, sewage, wastewater containing kitchen waste, detergents, solid waste and litter, etc. Specific measures to be taken to prevent the pollution of the environment include:

- Immediately report and manage any leakage or spillage with appropriate spill contingency equipment and measures.
- All fuels, oils, lubricants and other petrochemical products must not be stored within 100 meters of any wetlands and rivers.
- Maintenance of vehicles must only take place in a designated workshop with a concrete base and drip trays for the collection of waste lubricants. Emergency maintenance vehicles must be equipped with drip trays and absorbent material, such as spillsorb, to collect and contain waste oils.
- No rock, silt, cement, grout, asphalt, petroleum product, timber, vegetation, domestic waste, or any deleterious substance should be placed or allowed to disperse into any stream, river, pond, storm or sanitary sewer, or other watercourse.
- Ensure all construction equipment is free of leaks from oil, fuel or hydraulic fuels and is cleaned in an area with a suitable controlled runoff.
- Refuelling activities should not be conducted where runoff could carry contaminants into drainage pathways (including stormwater drains/trenches and sewers).
- Washing of vehicles must be kept to a minimum and must only take place in a designated area on an impervious surface which drains into an oil sump.
- Cleaning out of concrete mixers and trucks must take place on a properly designated site where there is no opportunity for the pollution of water bodies.

**B12009.2 Solid Waste Management**

No on-site burying or dumping of any waste materials, vegetation, litter or refuse shall occur.

All recyclable rubble and waste, for example, scrap metal, bottles, cans and plastics are collected and disposed of through a registered recycling company.

Recyclable waste, including glass, paper and plastic must be separated at the construction camp, stored and recycled, where economically feasible.

All non-recyclable rubble and solid waste be collected and disposed of at a registered waste disposal facility.

The Contractor shall provide sufficient bins with secure lids on Site to store the solid waste produced on a daily basis. Bins shall not be allowed to become overfull and shall be emptied a minimum of once daily.

The waste may be temporarily stored on Site in a central waste area that is weatherproof and scavenger-proof, and which the RE has approved.

No burning of refuse is permitted.

All solid waste shall be disposed of off-site at least once weekly at a registered landfill site. The Contractor shall supply the RE with a certificate of disposal.

**B12009.3 Disposal of Hazardous Waste Material**

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The objectives of the Minimum Requirements for the disposal of a Hazardous Waste are to:

- ensure that any adverse impact on the environment is minimised;
- prevent hazardous substances leaching or moving into the environment, in particular the ground and surface waters;
- ensure that Hazardous Waste is disposed of in accordance with the class and the Hazard Rating;
- to act as a mechanism ensuring the disposal of Hazardous Waste in an orderly manner, thus avoiding detrimental effects both in the short- and long-term to man and to the environment.

Hazardous materials used on site may include Cement, Shutter Oil, Asphalt, Retro-reflective Road paint, Lime, Petrol/diesel/lubricants/hydraulic fluids, used oil, Creosote (pre-treated poles), Herbicides and ant poison, Epoxies and epoxy resins, Coatings and Grouts.

The Contractor shall have in place a hazardous waste management system, which shall include collection facilities to be used to prevent pollution, as well as suitable methods of disposal of hazardous waste.

No hazardous material shall be disposed of on site or left behind on completion of works.

Any waste hazardous material shall be disposed of in an appropriate manner as per the material safety data sheet specifications.

#### **B12009.4 Contaminated water**

The Contractor shall set up a contaminated water management system, which shall include collection facilities to be used to prevent pollution, as well as suitable methods of disposal of contaminated water.

The Contractor shall notify the RE immediately of any pollution incidents on Site.

The Contractor shall prevent discharge of any pollutants, such as cements, concrete, lime, chemicals and fuels into any watercourses or stormwater channels.

Water that has been contaminated with suspended solids, like soils and silt may be released into natural watercourses or stormwater channels provided that the minimum regulatory requirements in terms of the NWA are met. However, all suspended solids shall be removed from water before it is discharged by settling out these solids in settling ponds.

### **B12010 OPERATIONAL ACTIVITIES**

#### **B12010.1 Working Areas**

The road construction and associated activities may be conducted only in designated working areas. Limitation of these activities to specific working areas minimises the impact on the surrounding environment and facilitates control of the works. Sites should be divided into working areas and "no-go" areas:

- Working areas are those areas required by the Contractor to undertake the works and as approved by the RE. These areas include the area of works, borrow areas and haul roads between the working site and borrow areas. If necessary, the working areas may be demarcated during the period. The Contractor and his staff are not permitted to move around outside the designated working areas. The Contractor shall ensure that, insofar as he has the authority, no person, machinery, equipment or material enters the "no go areas at any time.
- "No-go" areas are those areas outside of working areas. The Contractor shall erect and maintain permanent and/or temporary fences of the type and in the locations directed by the RE. Such fences shall, if so specified, be erected before undertaking designated activities.
- Within the overall working area, the RE shall designate specific areas for the following:
  - Site Camp.
  - Stockpiling and storage of construction materials.
  - Stockpiling of topsoil for rehabilitation purposes.
  - Spoiling of cleared vegetation (alien I invasive species).
  - Sites for spoil materials.



### **B12010.2 Conservation and Stockpiling of Topsoil**

Topsoil shall be removed from the following areas no longer than 10 days before construction begins:

- All areas to be excavated;
- Areas to be occupied by roads, including the temporary haulage road;
- Areas for the storage of fuels;
- Areas to be used for batching/mixing of concrete:
- Areas for stockpiling of construction materials;
- Areas for stockpiling of crushed rock; and
- Areas for spoiling material.

Topsoil shall be excavated to a minimum depth of 150 mm or to a maximum depth of 300 mm. Compaction of these topsoil stockpiles is not permitted. Where topsoil has been stored for longer than 12 months the Contractor shall turn the soils to maintain viability of the seeds and the soil properties.

The topsoil stockpiles shall be clearly demarcated and vehicle access restricted. The topsoil shall not be contaminated with any fuels, oils or other construction waste or materials.

Topsoil shall not be mixed with any other material (construction rubble, subsoils etc) and wind erosion of the topsoil stockpiles must be prevented.

Topsoil stockpiles shall not be higher than 2m with slopes of 1m vertical to 2m horizontal and convex (rounded) at the top.

### **B12010.3 Erosion Control**

Soil erosion shall not be tolerated on the Site. Uncontrolled erosion will cause siltation and pollution of the stream and result in loss of valuable topsoil. The Contractor should take all reasonable measures to prevent soil erosion and protect areas susceptible to erosion. Erosion prevention measures must be implemented to the satisfaction of the RE.

Areas affected by construction related activities must be monitored regularly for evidence of erosion. Areas particularly susceptible to erosion include: areas stripped of topsoil, soil stockpiles and steep slopes (gradients >8%).

Soil erosion may result from a diversion, a restriction, or an increase in the flow of stormwater or river flow caused by the presence of temporary or permanent works, operations and activities. Where evidence of erosion appears, the construction of contour berms, cut-off drains or planting of indigenous grass species may be necessary.

The Contractor shall take reasonable measures to control the erosive effects of stormwater runoff. A cut-off drain(s) or low berm will be constructed where necessary to lead run-off rain water away from steep, exposed slopes, ensuring that the water does not flow over the slopes and cause erosion. Water from these drain(s) will be disposed of in such a way that the erosive force of the water in the drain(s) is dissipated and erosion does not occur at the drain discharge point(s).

Where erosion does occur the Contractor shall reinstate such areas and areas damaged by the erosion, at his own cost and to the satisfaction of the RE and ECO. Topsoil that has been washed away shall be replaced at the Contractor's expense.

The access or haul roads, after ripping, must be topsoiled and hydroseeded with an appropriate hydroseeding mix and the same specifications apply as in the other areas that require hydroseeding.

The order for the seeds must be placed timeously to ensure availability at the time required.

#### **B12010.4 Dust Control**

Dust is regarded as a nuisance when it reduces visibility, soils private property, reduces the palatability of grazing grasses and may retard plant growth. It is also aesthetically displeasing.

The Contractor shall be responsible for the control of dust arising from his operations and activities at all times. Control measures could include regular spraying of working I bare areas with water, at an application rate that will not result in soil erosion or runoff.

Dust control is to be undertaken in compliance with SANS 69 and SANS 1929.

#### **B12010.5 Noise Control**

The Contractor shall limit noise levels (e.g. install and maintain silencers on machinery). The Contractor's attention is drawn to the applicable regulations framed under the Machinery and Occupational Safety Act, 1983 (Act No. 6 of 1983), as well as the requirements of the Occupational Health and Safety Specification which forms part of these documents.

All activities with high noise level should be restricted to daylight hours in the residential areas and in the proximity of villages.

The Contractor must discuss the timing of noise generating activities with the staff of schools located close to the road. Appropriate times for construction should be agreed to by both parties.

The Contractor shall inform the residents of any high noise events such as blasting. Contractor's camps should be located away from tourist operations and quiet rural villages. Crushing plants should be located as far as practical from residences, schools and social facilities.

#### **B12010.6 Fire Prevention and Control**

The Contractor shall take all the necessary precautions to ensure that fires are not started as a consequence of his activities on Site. The Contractor, subcontractors and all employees are expected to be conscious of fire risks. The Contractor shall hold fire prevention training with his staff to create an awareness of the risks of fire. Regular reminders to his staff on this issue are required.

The Contractor shall ensure compliance with the National Veld and Forest Fire Act (Act 101 of 1998). Smoking shall not be permitted in those areas where it is a fire hazard. Such areas shall include the workshop and fuel storage areas and any areas where the vegetation or other material is such as to make liable the rapid spread of an initial flame. In terms of the National Environmental Management: Air Quality Act (Act No 39 of 2004), burning is not permitted as a disposal method.

No fires may be made other than for the purpose of cooking, and must be extinguished with water once they have served their purpose. Cooking fires shall be contained in a fire drum in an area approved by the RE. No fires, including cooking fires, are permitted on "Red" days as per the Fire Danger Index.

The Contractor shall appoint a Fire Officer who shall be responsible for ensuring immediate and appropriate actions in the event of a fire and shall ensure that employees are aware of the procedure to be followed. The Contractor shall forward the name of the Fire Officer to the RE for his approval.

The Contractor shall ensure that there is adequate fire-fighting equipment (i.e. fire extinguishers and fire beaters) on Site and in all major working areas.

The Contractor shall be liable for any expenses incurred by any organisations called to assist with fighting fires and for costs involved in rehabilitation of burnt areas I property I persons, should the fire be the result of the Contractor's activities on Site.

Removed plant material shall not be dumped across the fence-line or along the fence-line onto private property. If an abutting land owner requests this the Client must be indemnified.

#### **B12010.7 Blasting**

All blasting is to be done in terms of the Mine Health and Safety Act (Act 29 of 1996) and explosive regulations (Occupational Health and Safety Act).

The Contractor shall notify nearby residents and erect appropriate signage, warning of the event, 14 days in advance any blasting. The Contractor is responsible for any accidental injuries to persons or property as a result of blasting.

Prior to blasting, the Contractor shall notify the relevant occupants of surrounding land and address any concerns. The Contractor shall notify emergency services, in writing, a minimum of 24 hours prior to any blasting activities commencing on Site.

A crack survey, including photographs, shall be undertaken of all existing structures within a distance of the blasting site specified by the RE. The survey shall be undertaken prior to any blasting activities in order to establish the baseline conditions, and following blasting or on receiving any complaints from the community. Structural damage to houses which has resulted from blasting must be repaired at the expense of the Contractor.

The Contractor shall prevent damage to special features and the general environment, including the removal of fly-rock. Damage caused by blasting/drilling shall be repaired to the satisfaction of the RE.

#### **B12010.8 Water Abstraction and Construction Water**

Water for construction purpose may be abstracted from rivers or other small streams crossing the road. The required licences must be obtained from the DWA prior to abstraction. The Contractor shall abstract this water from a temporary sump constructed adjacent to the river.

During water abstraction the Contractor shall take all reasonable measures to limit sedimentation of downstream watercourses due to his activities and shall ensure that the flow in the river is never reduced below 50% of ambient. The temporary sump shall be removed from the river as soon as practically possible.

Water for construction purposes should be obtained from an approved source. Unless approved by the local authority, the DWA or the landowner, water should not be extracted from nearby dams and rivers, and construction activities should not be conducted in or directly adjacent to rivers and dams.

Water is a scarce resource throughout South Africa and certain parts of the Eastern Cape Province are prone to water shortages during periods of drought. Water, whether drinking or for operational purposes must be used responsibly

### **B12011 CONSTRUCTION ACTIVITIES**

#### **B12011.1 Earthworks**

All earthworks shall be undertaken in such a manner so as to minimise the extent of any impacts caused by such activities. No equipment associated with earthworks shall be allowed outside of the site and defined access routes unless expressly permitted by the RE.

#### **B12011.2 Clearing of vegetation on verges and within road reserves**

The Contractor shall minimise the extent of any vegetation removal other than necessary to complete the works. The contractor shall ensure that clearing of vegetation on verges and within road reserves is not done in a manner that will result in excessive environmental damage or result in erosion. The contractor shall ensure that unnecessary blanket clearing of vegetation is not undertaken.

Any blading on verges shall be undertaken in a manner that does not unnecessarily strip vegetation cover, which may increase erosion. Where possible, repeated blading of verges should not be undertaken, especially once vegetation regrowth has started.

Where areas become compacted during works they shall be lightly scarified to ensure that vegetation regrowth will occur and suitable cover will be obtained. Where protected species are present the relevant permits must be obtained for removal or relocation before any works are undertaken, in consultation with the RE and ECO.

When removing alien trees, the contractor shall ensure that any stumps are removed, as these may resprout. Alien tree control must be undertaken in consultation with the ECO. The contractor shall ensure that when alien trees and weeds are removed it is undertaken in a manner that does not result in excessive spreading of seed or material that will spread.

Where reshaping or earthworks is required, topsoil with vegetation matter should be reapplied and spread on completion to maximise stabilisation and rehabilitation.

Where steep slopes or embankments are present that may be susceptible to erosion, appropriate stabilising methods should be implemented, including gabions, benching, hydroseeding, planting of sods, contouring and scarifying.

### **B12011.3 Drainage Management**

The contractor shall ensure that appropriate measures are implemented when constructing drains, including side drains, mitre drains, pipes and culverts.

When constructing side drains the contractor shall ensure that the excess material in the road reserve next to the side drain is spread and levelled. The contractor shall ensure that the levelled material will not be washed back into the drain or into nearby watercourses. If it is not possible to spread the material, load and remove all excess material. The drain shall be finished off by hand and the ends of the mitre drains cleaned and all windrows levelled off.

The contractor shall ensure that the spacing of any mitre drains shall be done in consultation with the RE. These shall be at regular intervals to carry stormwater runoff away from the road, and disperse it in a manner as not to cause erosion or shall minimise erosion at the point of discharge. Mitre drains must be shaped to ensure that water is removed from the road surface and do not allow for the pooling of stormwater. Drain outfalls should discharge beyond the reserve boundary if possible and water discharged from mitre drains should not be able to return to the side drainage system further downstream.

Where erosion is problematic, suitable measures such as gabions and stone pitching and other appropriate measures shall be used to reduce erosion in consultation with the RE and ECO.

Where side drains are constructed along long steep inclines, erosion control measures shall be implemented to slow stormwater flow and also remove it from the side drain at appropriate and adequate intervals.

### **B12011.4 Bridges and Culverts**

The Contractor shall minimise the extent of any damage to the flood plain or river banks other than necessary to complete the works, and shall not pollute the river systems as result of construction activities. No construction materials shall be stockpiled on the flood plain.

The Contractor shall not divert, dam or modify any watercourse or stream without the approval of the RE and ECO as well as approvals from Department of Water Affairs.

Care must be taken not to spill any fuel or hydraulic fluids in the vicinity of watercourses. Any spillages must be cleaned up immediately using standard Hazmat procedures.

The existing culvert bridge must be removed as soon as the new bridge has been completed and opened to traffic. Rehabilitation of the disturbed areas must be carried out in consultation with Working for Water.

Bridge construction and culvert installation should, where possible, be planned to take place during periods when stream flow is low.

Avoid operating machinery in water bodies. Excavation for a bridge or a large culvert should not be performed in flowing water. The water should be diverted around the work site during construction with a cofferdam or stream diversion. Any diversion of a stream requires a separate investigation and an environmental approval from DEDEAT and a water use licence from DWS.

Avoid channel changes and protect the embankments of streams and rivers.

### **B12011.5 Road Bed Preparation and Blading**

All road bed preparation and blading shall be undertaken in such a manner so as to minimise the extent of any impacts to the environment caused by such activities.

Stockpiled material shall be done in an appropriate manner in consultation with the RE and ECO and stockpiles along the road shall not be left for excessive periods of time, especially during rainy periods where fine material contained within the stockpile may wash into drains and watercourses.

Any excess material shall be spread evenly on completion of works or removed from the site. Fine material accumulating in drains should be removed in areas where it may wash into watercourses and wetlands. Windrows shall be appropriately sited and shaped on completion of works.

**B12011.6 Material Sources (Borrow Pits)**

The mitigatory measures in the Environmental Management Plans are to manage potential environmental impacts arising due to the construction activities as well as the activities of the construction staff. These mitigating measures are to be read in conjunction with the mitigating measures and recommendations contained in the approved EMP, including any additional recommendations contained in the Environmental Authorization (EA) from the DMR.

The Contractor shall ensure that the following measures are implemented when commencing works at a Borrow Pit:

- An Environmental Authorization or approved Environmental Management Plan from the DMR must be in place for the specific Borrow Pit;
- the DMR approved Mine Plan must be obtained to determine mine area and procedures to be followed;
- The works area to be used during contract to be determined and demarcated;
- Where fencing is required it shall be installed;
- any existing services (under/over-ground) to be identified and clearly demarcated. Any services requiring temporary realigning will be at the cost of the Contractor;
- any flora and fauna permits to be obtained and relocation carried out when necessary;
- determine mining procedure before commencing in consultation with RE and ECO;
- includes where topsoil and overburden to stockpiled;
- determine how face will be worked – benches or sloped so that closure objective will be reached;
- where necessary, berms must be created (using topsoil) where necessary – upslope for drainage or downslope where safety issues;
- locations of any nearby Heritage features (such as graves) to be determined and clearly demarcated and excluded from work area in consultation with the RE, ECO and any nearby communities;
- should it be necessary to store materials and equipment on site for short periods, only previously disturbed areas located >100 m from a watercourse/wetland should be used for this purpose;
- any construction camp set up should be clearly demarcated and secured against theft or vandalism and any hazardous materials (cement, oil, petrol, diesel, etc) should be very strictly controlled and secured. Such a construction camp should be located >100m from a watercourse/wetland and should be completely rehabilitated on completion of construction activities;
- no concrete shall be mixed on the soil surface, all concrete mixers to be placed on trays, and precautions to be taken against contamination of the soil through spillage of pre-mixed concrete;
- precautions are to be taken against oil spillage from heavy equipment such as compressors and generators, e.g. through the use of sawdust filled drip trays. All contaminated material (including soil) to be disposed of at a registered waste site;
- adequate toilet facilities (e.g. chemical toilet) shall be provided for workers on site, and all ablutions are to take place in these facilities;
- scavenger-proof litter containers shall be provided on site and strict control over littering enforced;
- all waste material, including excess construction material litter and sewerage, shall be regularly removed from site and disposed of at a registered waste facility;
- strict precautions shall be taken when making open fires;
- no wild animals shall be disturbed unnecessarily in any way;

- any damaged areas in riparian zones resulting from construction operations, should be rehabilitated to prevent erosion and undermining of the riverbank;
- on completion of works, all stockpiled material must be left in a safe state and topsoil replaced on areas where mining has been completed;
- All "surplus" soil and rock excavated during construction should be removed from any water courses.

#### **B12011.7 Stockpiling and Spoiling of Materials**

The RE and ECO shall approve all stockpiling and spoiling sites and confirm the end-use or rehabilitation for these sites.

The stockpiles should be located within demarcated construction sites. Material stockpiled should be done in such a way as to minimise the spread of materials and the impact on the natural vegetation. The Contractor should ensure that no materials 'creep' into 'no-go' areas.

No spoiling of material should take place below the 1:100 year floodline of any river, stream, wetland or water course.

The Contractor, upon completion of the project shall reinstate areas used for stockpiling to their former states.

#### **B12011.8 Asphalt, Bitumen and Paving**

Over spray of bitumen products outside of the road surface and onto roadside vegetation shall be prevented using a method approved by the RE.

The area used for the storage of bitumen drums/products shall comply with the following:

- The floor shall be smooth and impermeable {concrete}.
- The floor shall be bunded and sloped towards a sump to contain any spillages of substances.
- The bund shall be inspected and emptied daily, and serviced when necessary.
- The bund shall be closely monitored during rain events to ensure that they do not overflow.

When heating bitumen products, the Contractor shall take cognisance of appropriate fire risk controls. Heating of bitumen products shall only be undertaken using LPG or similar zero emission fuels and appropriate firefighting equipment shall be readily available.

Water quality from runoff from newly/fresh bitumen surfaces will be monitored by the RE and remedial actions taken where necessary.

Stone chip/gravel excess shall not be left on road/paved area verges. This shall be swept/raked into piles and removed to an area approved by the RE.

#### **B12011.9 Cement and Concrete Batching**

The permitted location of the batching plant (including the location of cement stores, sand and aggregate stockpiles) will be indicated by the RE. The concrete/cement batching plant shall be kept neat and clean at all times.

The batch plant should not be located closer than 100m from any water course or wetland and not below the 1:100 yr floodline of any water course or wetland.

The batching plant shall be located on a smooth impermeable surface (concrete). The area shall be bunded and sloped towards a sump to contain any spillages of substances.

No batching activities shall occur directly on the ground. All wastewater resulting from batching of concrete shall be disposed of via the wastewater management system and shall not be discharged into the environment.

Used cement bags shall be stored in weatherproof containers to prevent windblown cement dust and water contamination. Used cement bags shall be disposed of on a regular basis via the solid hazardous waste management system, and shall not be used for any other purpose.

Unused cement bags shall be stored so as not to be affected by rain or runoff events. In this regard, closed steel containers should be used for the storage of cement powder and any additives.

The Contractor shall ensure that sand, aggregate, cement or additives used during the mixing process are contained and covered to prevent contamination of watercourses, the surrounding vegetation and natural rock through wind or water dispersion.

All runoff from the batching plant shall be strictly controlled, and cement- contaminated water shall be collected, stored and disposed of off-site, at a location approved by the RE.

Contaminated water storage areas shall not be allowed to overflow and appropriate protection from rain and flooding shall be implemented.

All visible remains of excess concrete shall be physically removed on completion of the plaster or concrete pour section and disposed of. Washing the remains into the ground is not acceptable. All excess aggregate shall also be removed and disposed of in an approved landfill site.

#### **B12011.10 Site Rehabilitation**

The Contractor shall be responsible for complete rehabilitation of the site, including spoil sites, access roads, haul routes, site camp, stockpile, crusher area, ablution facilities and storage areas.

The Contractor shall undertake full rehabilitation under no extra cost to the Client, other than that allowed for in the Bill of Quantities.

The Contractor should implement progressive rehabilitation: once works are complete in a particular area, rehabilitation or re-vegetation should begin. This would provide the opportunity to assess whether or not the methods employed are suitable and successful and would help prevent erosion in impacted areas.

Where re-vegetation of an area is not successful the Contractor will replant these areas, at no additional cost to the Client.

The Contractor shall provide the ECO and RE with a comprehensive Method Statement for rehabilitation of the entire site. This Method Statement must meet the approval of the ECO and RE.

The following points must be taken into account when drawing up the Rehabilitation Method Statement:

- The Method Statement should be flexible- where measures are found to be inefficient, the plan shall be modified, at no additional cost to the Client.
- The Contractor shall be responsible for successful rehabilitation and re-vegetation of the site, for a minimum period of 12 months after construction is complete.
- The Method Statement shall include the eradication of alien invasive plant species that may become established during the construction and defects notification period, in impacted areas and in rehabilitated areas.
- The growth of alien invasive plant species shall be monitored and removed during the 12 month period following construction.
- The Method Statement shall include endemic grass seed mixes applicable to summer and winter.
- The Method Statement shall include suitable fertilisers and application rates.
- Successful re-vegetation means 80 % of the seeded area is covered with grass or groundcover.
- Where the initial stripping works of the site/borrow pits was conducted by the Contractor, he will be fully responsible for topsoiling the said disturbed areas to the specified depth, at no cost to the Client.
- Consideration should be given to using established seedlings of indigenous grasses such as *Digitaria eriantha* and *Cenchrus ciliaris* to at least augment re-vegetation of bare areas. On eroded soil chopped bush should be spread over bare surfaces, the soil should be re-seeded and the veld rested.

## **B12012 STATUTORY REQUIREMENTS**

### **B12012.1 Protection of Flora and Fauna**

Natural features, indigenous flora and fauna in the vicinity of the project works should be protected and damage or disturbance prevented or minimised, specifically:

- No plant species may be removed unless agreed by the ECO or unless they are listed as alien invasive species.
- The minimum amount of vegetation must be removed. Excessive clearing of a site must be avoided. Disturbance outside of the immediate construction area must be avoided.
- No construction staff may have access to indigenous vegetation outside of the working corridor.
- The use of indigenous plants as firewood is prohibited.
- Where protected or Red Data Species are encountered and require removal, the ECO should be consulted and the plant(s) then replanted in a nearby 'safe' area of similar habitat. Permits are to be obtained from the DEDEAT regarding protected plant species and the Department of Agriculture, Forestry and Fisheries (DAFF, Eastern Cape) regarding protected trees.
- All fauna (including domestic livestock) within and surrounding the site shall be protected; they shall not be caught, poisoned, trapped, snared or killed.
- No domestic animals shall be brought onto the site.

### **B12012.2 Sites of Archaeological and or Cultural Interest**

The Contractor shall take responsible precautions to prevent any person from removing or damaging any items and infrastructure of heritage importance, such as fossils, coins, articles of value or antiquity, structures (older than 60 years) and other remains of archaeological Interest discovered on the Site, immediately upon discovery thereof and before removal.

All archaeological sites identified in the environmental assessment must be demarcated with safety netting and placed out of bounds. Should disturbance of these sites be unavoidable, then an application must be made to the South African Heritage Resource Agency (SAHRA) via a qualified archaeologist.

Should an archaeological or cultural site be located during the upgrading of the route or any associated infrastructure, it should immediately be reported to the SAHRA. Failure to report a site of archaeological and/or cultural significance is a contravention of the National Heritage Act (Act No 25 of 1999).

All construction site staff must be briefed to immediately report any potential sites which are encountered during the construction of the road. In the event of finding what appears to be an archaeological site or a cultural and/or historic site or object, work should be temporarily suspended until a qualified archaeologist or historian can examine the item or find.

The Contractor must check the area carefully for any graves. The relocation of graves must be undertaken in consultation with the affected families and through the Project Steering Committee. The correct procedures for the exhumation and reburial of the remains must be strictly adhered to.

### **B12012.3 Protection of Natural Features**

The Contractor shall not deface, paint, damage or mark any natural features (e.g. rock formations) situated in or around the Site for survey or other purposes.

Any features affected by the Contractor in contravention of this clause shall be restored/rehabilitated to the satisfaction of the RE.

The Contractor shall not permit his employees to make use of any natural water sources (e.g. springs, streams and open water bodies) for the purposes of swimming, personal washing and the washing of machinery or clothes.



#### **B12012.4 AESTHETICS**

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

#### **B12012.5 Alien Invasive Vegetation**

Alien invasive vegetation shall be removed from any working areas and the site camp(s). These vegetation species shall also be eradicated when they begin to establish themselves in disturbed areas (disturbance of the natural vegetation will encourage the establishment of invasive species). In order to discourage the spread of alien species, soil should not be moved from one part of the site to another without the consent of the ECO.

The ECO shall assist in the identification of alien plant species. The Contractor is responsible for the removal and eradication of alien plant species. Methods of removal or eradication may involve hoeing by hand or the controlled application of herbicides.

#### **B12013 PUBLIC AND WORKER HEALTH AND SAFETY**

##### **B12013.1 Vehicles and Access Roads**

Site vehicles should be permitted access only within the demarcated construction sites or on existing roads, as would be required to complete their specific tasks. Vehicles are not permitted on re-vegetated areas.

Site vehicle traffic should be limited to specific access roads to prevent unnecessary damage to the natural environment.

On the Site the Contractor shall control the movement of all vehicles and plant including that of his suppliers so that they remain on designated routes, are distributed so as not to cause an undue concentration of traffic and that all relevant laws are complied with. In addition such vehicles and plant shall be so routed and operated as to minimise disruption to regular users of the routes not on the Site. On gravel or earth roads on Site and within 500m of the Site, the vehicles of the Contractor and his suppliers shall not exceed a speed of 60 km/hr.

##### **B12013.2 Traffic Control and Temporary Deviations**

Increased traffic, especially heavy vehicle traffic, has the potential to draw complaints from nearby residents. The Contractor is expected to address any complaints received.

The Contractor shall comply with all the applicable local, regional and national laws with regard to road safety and transport. The Contractor shall instruct his drivers and plant operators that vehicles will be expected to comply with all road ordinances, such as speed limits, roadworthiness, load securing or covering.

Where sections of the road are closed for construction, barricades shall be constructed to prevent unauthorised access at all times. Suitable signage should be erected informing drivers of the road closure and warning of the possible dangers involved in trespassing within the closed areas.

Where the road is to be closed for extended period of time for the purpose of blasting, communities and motorists must be given suitable prior warning through signposting media notices etc. The safety of motorists should remain paramount at all times.

The Contractor shall keep the local Traffic Department aware of road closures and other activities that will affect traffic flow.

Temporary vehicular deviations should be located so as to cause minimal disruption to surrounding communities, minimal disturbance to flora, fauna and the surrounding landscape and minimal risk of erosion. The deviations shall not impede normal pedestrian or vehicular access to adjoining villages and community lands.

Each deviation route should be rehabilitated as soon as practically possible, and preferably immediately once the construction on the adjoining section of road has been completed.

**B12013.3 Community Relations**

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

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

**B12013.4 Social Disruption**

Where construction activities require the removal of fences from around private land, the occupants shall be warned at least three days in advance and alternative fencing should be put in place. These fences I boundary markers shall be reinstated as soon as construction is complete.

Care should be taken not to damage private property. No access to homesteads I farms or other such areas is permitted without permission of the resident and on agreement with the RE.

The Contractor shall take measures to reduce disruption to users of the area abutting the Site.

**B12013.5 Existing Services and Infrastructure**

The Contractor shall ensure that existing services (road, rail, pipelines, power lines and telephone services) are not disrupted or damaged, unless required by the contract and with the permission of the RE.

**B12013.6 Protection of the Public**

The Contractor shall be responsible for the protection of the public, and public property, from any dangers associated with the road construction and associated activities, and for the safe and easy passage of pedestrians and traffic in areas affected by project activities.

Any excavation material, spoil sites and other obstructions or excavations shall be suitably barricaded and/or demarcated with hazard tape.

**B12013.7 Staff Safety and Education**

All staff shall be given an induction course before beginning work on the site. Part of the induction course will be to make the staff aware of the potential dangers of the road construction activities.

The Contractor must maintain a suitable First Aid Kit at the site office and will have a list of the emergency service contact numbers readily available.

Telephone numbers of emergency services, including the local firefighting service and HAZMAT service providers, shall be posted conspicuously in the Contractor's office near the telephone.

No authorised firearms are permitted on Site.

**B12014 ENVIRONMENTAL AWARENESS TRAINING**

Before any work is commenced on the Site, the Contractor's site management staff including foremen shall attend an environmental awareness training course of approximately one-hour duration presented by the ECO. The Contractor shall liaise with the RE prior to the Commencement Date to fix a date and venue for the course. The ECO will provide the course content. The Contractor shall provide a suitable venue and ensure that the specified employees attend the course.

The environmental awareness training course shall be held during normal working hours. The information presented at the course shall be communicated to the Contractors employees on the site, to any new employees coming onto site after the initial training course and to his suppliers as required by the Project Specification.

The Contractor shall ensure that all attendees sign an attendance register, and shall provide the RE with a copy of the attendance register the day after each course.

The Contractor shall erect and maintain information posters for the information of his employees depicting actions to be taken to ensure compliance with aspects of the Specifications. These information boards shall be erected at the locations, agreed by the RE and should contain the following symbols:

- At working areas: Use drip trays, use toilets, no eating, no littering, no swimming, no picking of Flowers, no dogs, no veld fires.
- At eating areas: Use toilets, no littering and no veld fires.

## **B12015 EMERGENCY PROCEDURES**

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

### **B12015.1 Fire**

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

### **B12015.2 Accidental Leaks and Spillages**

The Contractor shall ensure that his employees are aware of the procedure to be followed for dealing with spills and leaks, which shall include notifying the RE and the relevant authorities.

The Contractor shall ensure that the necessary materials and equipment for dealing with spills and leaks is available on Site at all times.

Treatment and remediation of the spill areas shall be undertaken to the reasonable satisfaction of the RE and ECO.

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

The quantity of such materials shall be able to handle a minimum of 200 litres of hydrocarbon liquid spill.

In the event of a fire or accidental leak/spillage, the Contractor shall notify the RE as soon as possible, but at least within 48 hours of the incident being noticed.

The telephone numbers for the closest Hazmat service provider's offices should be prominently displayed as bitumen and diesel spillage on construction and road building sites are fairly common. The clean-up procedure is critical to prevent contamination.

## **B12016 EXTERNAL AUDITING AND EVALUATION**

In order to ensure that the EMPr is effectively implemented, it is important that monthly external audits of the EMPr are conducted. An ECO will be appointed by the Client to undertake these audits. The RE shall arrange that these external audits do take place and that a system for addressing any problems identified during these audits, is formulated. The relevant documentation shall be kept and shall be available to the public.

## **B12017 ENVIRONMENTAL MANAGEMENT DURING CLOSURE/DECOMMISSIONING**

Environmental Management associated with the closure of this project will ensure that the following items are addressed at closure and during the defects liability period:

- All cleared sites are rehabilitated with indigenous grass material with a cover of at least 80%.

- All visible alien plants are removed from disturbed sites;
- all recyclable rubble and waste, for example, scrap metal, bottles, cans and plastics are collected and disposed of through a registered recycling company;
- All non-recyclable rubble and solid waste be collected and disposed of at a registered waste disposal facility;
- Provision has been made for stormwater control to prevent erosion from taking place post construction;
- All borrow pits and quarries shall conform to the designed closure specifications, including drainage, slope stability, top-soiling and grass planting;
- Certificates of final completion as required by the appropriate EMPr shall be obtained for all borrow pits and quarries.

**B12018 TOLERANCES**

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

It is thus required that the Contractor shall comply with the environmental requirements on an ongoing basis.

**B12019 MEASUREMENT AND PAYMENT**

The Contractor shall not be separately reimbursed or compensated in respect of his compliance with the provisions of this Section B12000 of the Scope of Works. All costs so incurred shall, save and except to the extent provided for in the Bill of Quantities under Section 1300: Contractor's Establishment on Site and General Obligations is deemed to be included in the rates tendered for the various items of work listed in the Bill of Quantities.

The financial guarantee for the rehabilitation of land disturbed by quarrying as per the approved EMPr will be returned upon the granting of a Closure Certificate by the DMR. This Closure Certificate will comply with the terms of the MPRDA.

**B12020 WORK STOPPAGE**

The RE shall have the right to order work to be stopped in the event of significant infringements of the Environmental Management Specifications, until the situation is rectified in compliance with the Specifications. In this event the Contractor shall not be entitled to claim for delays or incurred expenses.

Any failure on the part of the Contractor to comply with the EMPr will entitle the RE to certify work stoppage subject to the details set out.

The RE shall be the judge as to what constitutes a transgression subject to the provisions of the General Conditions of Contract. In the event that transgressions continue, the Contractor's attention is drawn to the provisions of the General Conditions of Contract, under which the Contract Supervisor and/or Client may cancel the Contract.

In addition to work stoppage, penalties may be issues where there is damage to the natural or human environment as a consequence of the transgression(s) and/or non-compliance(s). In such an event, the Contractor may be liable to pay a penalty at the instruction of the RE.

A list of incidents that may lead to work stoppage are indicated below- this list is not exhaustive:

- Failure to submit Method Statements timeously.

- Failure to stockpile topsoil properly or materials in designated areas.
- Inappropriate use of adjacent watercourses and waterbodies.
- Pollution of water bodies -including increased sediment loads.
- Failure to maintain basic safety measures on site.
- Animal poaching (wildlife or domestic).
- Failure to provide waste disposal facilities or services.
- Excess dust or excess noise levels emanating from the Contractor's Camp and construction areas.
- Any person, vehicle, plant or item related to the Contractor's activities causing a public nuisance.
- Failure to carry out liaison with adjacent landowners; causing damage to property without prior negotiation and/or compensation and/or causing other social infringements.
- Failure to control the pollution risks from dispensing fuel or the storage of vehicles and plant (drip trays).

The Contractor shall be responsible for the costs associated with repairing any damage to the natural or human environment that may result from the transgression and/or the result of the work stoppage.

## **B12021 PENALTIES**

The imposition of penalties will be at the discretion of the Client.

The value of any penalty imposed shall be determined in light of the consequential damage caused and the costs required to rehabilitate the damaged area.

Payment of any penalty in terms of the Contract shall not absolve the Contractor from being liable from prosecution in terms of the any appropriate law. Fines may also be imposed by the relevant authority (DEDEAT or DMR) in terms of NEMA if the Contractor is found to have unlawfully and intentionally or negligently committed any act or omission which causes significant pollution or degradation of the environment. The following list of fines should be used as a guideline for non-compliances:

<b>RECOMMENDED FINES FOR TRANSGRESSION OR RESULTANT ENVIRONMENTAL DAMAGE</b>	<b>MIN. FEE</b>	<b>MAX. FEE</b>
Failure to report environmental damage or transgressions to the ECO or RE.	R1000	R2000
Failure to carry out instructions of the ECO or RE regarding the environment	R2000	R4000
Failure to comply with prescriptions for the storage of imported materials within a designated contractors yard	R500	R1000
Failure to comply with prescribed administration, storage or handling of hazardous substances	R500	R1000
Failure to comply with fuel storage, refuelling, or clean-up prescriptions	R500	R1000
Failure to comply with prescriptions for the use of ablution facilities	R500	R1000
Failure to comply with prescriptions for the use of designated eating areas, heating sources for cooking or presence of fire extinguishers	R500	R1000
Failure to comply with prescriptions regarding water provision	R500	R1000
Failure to comply with prescriptions regarding fire control	R500	R1000
Failure to comply with prescriptions for solid waste management (incl. paint chips, cement and concrete)	R500	R1000

<b>RECOMMENDED FINES FOR TRANSGRESSION OR RESULTANT ENVIRONMENTAL DAMAGE</b>	<b>MIN. FEE</b>	<b>MAX. FEE</b>
Failure to comply with prescriptions to prevent water pollution	R500	R1000
Failure to comply with prescriptions regarding workshop equipment maintenance and storage	R500	R1000
Failure to comply with prescriptions regarding lighting and aesthetics	R500	R1000
Failure to comply with prescriptions regarding silt, debris and other obstruction removal	R500	R1000
Failure to comply with prescriptions regarding water diversion and drainage	R500	R1000
Failure to comply with prescriptions regarding erosion and scour protection	R500	R1000
Failure to comply with prescriptions regarding tree and vegetation removal/damage and permit application	R5000	R20000
Failure to comply with prescriptions regarding method statements	R500	R5000
Failure to comply with prescriptions regarding environmental awareness training	R500	R5000
Failure to comply with prescriptions regarding appointment of an Environmental Officer and monitoring of compliance	R500	R1000
Failure to comply with prescriptions regarding site demarcation and erection of fences	R500	R5000
Failure to comply with prescriptions regarding information posters	R500	R1000
Failure to comply with prescriptions regarding procedures for emergencies and spills	R1000	R5000
Failure to comply with prescriptions regarding protection of natural features	R500	R5000
Failure to comply with prescriptions regarding erosion and sedimentation control	R500	R5000
<p>Note: The maximum fine for any environmental damage will never be less than the cost of applicable environmental rehabilitation.</p> <p>For each subsequent similar offence committed by the same individual, the fine shall be doubled in value to a maximum value of R50 000.</p>		

<b>SECTION 13000: OCCUPATIONAL HEALTH &amp; SAFETY</b>
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**PART C3 : SCOPE OF WORKS****PROJECT SPECIFIC OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS FOR ROAD CONSTRUCTION WORKS****TABLE of CONTENTS**

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## PROVINCE OF THE EASTERN CAPE

## DEPARTMENT OF TRANSPORT

## CONTRACT No. SCMU10-21/22-0008

**C3-6 : PROJECT SPECIFIC OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS****1. INTRODUCTION****1.1 LIST OF ABBREVIATIONS**

AIA	Approved Inspection Authority
BoQ	Bill of Quantities
CC	Compensation Commissioner
CR	Construction Regulations
DRPW	Department of Transport, Eastern Cape Provincial Government DME Department of Mineral and Energy
DMR	Driven Machinery Regulations
DoL	Department of Labour
FEMA	Federated Employers Mutual Association
GAR	General Administration Regulations
GSR	General Safety Regulations
HIRA	Hazard Identification Risk Assessment
H&S	Health and Safety
LI	Labour Intensive
MH&SA	Mine Health and Safety Act No. 29 of 1996 (as amended)
OH	Occupational Health
OHSA	Occupational Health and Safety Act No. 85 of 1993 (as amended)
OHSS	Occupational Health and Safety Specification
PSHSS	Project Specific Health and Safety Specification
PC	Principal Contractor
PPE	Personal Protective Equipment
ER	Engineer's Representative
RHCS	Regulations for Hazardous Chemical Substances
SANS	South African National Standards (Authority)
SMME	Small, Micro, Medium Enterprise
SWP	Safe Work Procedure

**1.2 DEFINITIONS**

The definitions used will be those set out in the Regulation Gazette No 10113 of 7 February 2014 with the following additions:

**Client:** The Head of Department, Department of Roads and Public Works of the Province of the Eastern Cape.

**DRPW:** The Department of Roads and Public Works for the Province of the Eastern Cape.

**Designer** Means a competent person appointed by the Client as Agent to design (if required), supervise and monitor construction on their behalf

**Engineer:** Means a competent person appointed by the Client to design, supervise and monitor construction on their behalf.

**Hazard:** Source of exposure to danger

**Hazard Identification and Risk Assessment (HIRA) and Risk Control:**

Means a documented plan, which identifies hazards, assesses the risks and details the control measures and safe working procedures which are to be used to mitigate and control the occurrence of hazards and risks during construction or operation phases.

**Health and Safety Agent:**

Means any person who acts as a representative for the Client in managing the overall health and safety work as their responsible person.

**Health and Safety Plan:**

Means a documented plan which answers to the Project Specific Health and Safety Specification; including all the supporting documentation that indicate how the Principal Contractor or Contractor plans to manage H&S for the duration of the Contract.

**Induction Training:**

Means once off introductory training on general health and safety issues given to all employees and visitors to the site before commencement of work on site.

**Mine:** Any excavation from which material (soil, gravel, stone etc) is taken for use in the construction site.

**Risk:** Means the probability or likelihood that a hazard can result in injury or damage.

**Regulation/s:** Shall mean the relevant regulation/s promulgated in terms of the Occupational Health and Safety Act, No. 85 of 1993.

**Site:** Means the area in the possession of the Principal Contractor for the construction of the works. Where there is no demarcated boundary it will include all adjacent areas and haul roads which are reasonably required for the activities for the Principal Contractor, and approved for such use by the Engineer.

**The Act:** Means, unless the context indicates otherwise, the Occupational Health and Safety Act, No. 85 of 1993 and Regulations promulgated thereunder, as amended.

### 1.3 KEY ROLE-PLAYERS

**Client Representatives:**

**Engineer:**

**Engineers Representative**

**H&S Agent:**

### 1.4 KEY REFERENCES

- Occupational Health and Safety Act No. 85 of 1993 and Regulations (as amended)
- Compensation for Injury and Occupational Diseases Act No. 100 of 1993 (as amended)
- Committee of Land Transport Officials (COLTO) South African Roads Specifications for Road and bridge Construction
- Traffic Safety Manual (SARTSM) Chapter 2, Volume 13 of 1999
- Road Traffic Safety Act No. 93 of 1996 (as amended)
- Routine maintenance procedures manual of the Department of Roads and Public Works Eastern Cape.
- Re Graveling procedures manual of the Department of Roads and Public Works Eastern Cape.

## 2. PREAMBLE

The Department of Roads and Public Works (DRPW) is tasked to provide infrastructure within the Eastern Cape including the construction of roads and civil structures.

Each year fatalities and serious injuries mar the reputation of the Construction Industry. The DRPW has a responsibility to limit such injuries by ensuring a zero tolerance approach to Contractors and those affiliated to a particular project. Thus a high premium is placed on the H&S of DRPW stakeholders, which include its employees, professional service providers, public and its physical assets. The responsibilities that the Department and relevant stakeholders have toward its employees are captured in this document. The responsibilities stem from both moral, civil and a variety of legal obligations. The Principal Contractor is to take due cognisance of the above statement.

The DRPW, as the Client and its Health and Safety (H&S) Agent acting on its behalf, shall provide a project specific Health & Safety Specification (PSHSS) for the project and provide it to the Principal Contractor/s making a bid or appointed to perform construction work for the project, or parts thereof.

## **2.1 PURPOSE OF THE OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION (OHSS)**

The OHSS is a performance specification to ensure that the Client (DRPW) and any bodies that enter into formal agreements with the Client, i.e. Engineers, Principal Contractors (PC) and Contractors, achieve an acceptable level of OHS performance. The Client has a zero tolerance to non-compliance and the endangering of the lives of workers, and the public, thereby being placed at risk.

No advice, approval of any document required by the OHSS (i.e. hazard identification and risk assessment, action plans) or any other form of communication from the Client shall be construed as an acceptance by the Client. Nor shall such communication relieve or absolve the PC from any obligation or from achieving compliance with legal requirements. The PC remains responsible for achieving the required performance levels and must sign an OHS S.37.2 Mandatary Agreement with the Client.

The H&S Specification highlights the aspects to be implemented over and above the minimum requirements of current legislation. Requirements may be changed should new risks or issues are identified that could not have been foreseen during the design phase of the project.

## **3. IMPLEMENTATION OF THE OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION (OHSS)**

The project specific H&S specification (PSHSS) forms an integral part of the Contract, and PCs are required to make it an integral part of their Contracts with Contractors and Suppliers. A PSHSS will be available for each level of Contract and Contractor, and must be complied with. Failure to do so will be noted as a serious offense, and will result in a penalty, stoppage of part of, or the whole works, with no extension of time or allowable claims; this includes the submission of an approved health and safety plan

This specification must be read in conjunction with the OHS S.37.2 Mandatary Agreement, its Regulations (as amended) and any other standards relating to work being done, and ensure compliance thereto. The information relative to the scope of the project, the works etc. is detailed in the tender document, is to be taken into account when developing the H&S plan and associated documentation. The detailed design risk assessment is included, as is a summary of risks identified as attached.

The OHS S.37.2 Mandatary Agreement found in the Tender Document must be fully completed by the PC. These documents shall be deemed to form part of the returnable Contact Documents.

No work may commence without written approval of the H&S plan by the H&S Agent. Failure to comply with this requirement will result in a penalty, stoppage of part of, or the whole works, with no extension of time or allowable claims.

Should there be design changes, or change in the scope of works, an amended PSHSS may be issued. Where amended PSHSSs are issued, the PC will be required to ensure a resubmission of an amended H&S plan for approval. Further to this, the PC must ensure that a similar system must be implemented between all their Contractors.

The H&S Agent will visit the project at least monthly, or more frequently if deemed necessary to ensure compliance. All activities on the site and all appropriate documentation will be monitored and reported on

to the Client, Engineer and Contractor. Non-conformances will be issued and penalties or work stoppage instructions will be issued where appropriate. Communication between the H&S Agent and the PC will be through the Engineer or Engineer's Representative (ER) as determined at the commencement of the project.

#### **4. REQUIREMENTS AT TENDER STAGE**

Adequate pricing for H&S is required, and the appropriate section in the BOQ is to be completed. Failure to do so could result in the Tender being regarded as non-responsive.

The PC shall ensure the following information is submitted as part of the H&S plan with his completed Tender:

- A declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Construction Regulations 2014;
- Claims ratio receipt from FEM or the Compensation Commissioner for the previous review period;
  - An organogram of the site relationships showing at least the minimum qualifications of the proposed Construction Manager and Health and safety Officer.

Further method statements are to be submitted prior to, and during the project which will require the approval of the ER before work on that aspect or activity can commence.

##### **4.1 PRE-START UP ACTIVITIES:**

Once the H&S plan has been approved there may well be additional documentation that includes appointments, emergency arrangements or further method statements and risk assessments. The inclusion of such aspects for personnel or Contractors commencing work at this time is required to be approved and verified by the Engineer and H&S Agent.

#### **5 SPECIFIC PROJECT RISKS AND REQUIREMENTS**

The aspects covered in Sections 6.4 to 6.7 have been noted as risk areas in the design hazard identification and risk assessment (HIRA), and are to be noted when developing the H&S plan and associated documentation. The COLTO Standard Specification (among other) document was used to develop the HIRA, and the same reference format is used. Where particular risks are noted, further requirements may be specified. Identification of low or medium risks does not mean there is no risk involved. In depth HIRAs and management systems are required to limit as much risk as possible as required in OHS. Requirements for H&S systems, standards, PPE etc. are noted (but are not limited to), and the management thereof should be included in the documentation.

Technical method statements which do not conform to those outlines in the departmental procedures manual, are to be developed for all key activities as they relate to the programme and approved by the ER. HIRA are to be developed using the approved method statements. Method statements are to incorporate the following information: plant, equipment, labour requirements, method of working and the duration of each activity.

H&S method statements and safe work procedures (SWPs) (or safe operating procedures (SOPs) are to be used by key site staff for daily activities and supervisors need to ensure the site, workers and the public are kept safe. The environmental issues may be included, but will need to be approved by the Environmental Consulting Officer (ECO).

#### **6 GENERAL REQUIREMENTS**

##### **6.1 SUMMARY OF RISKS IDENTIFIED DURING DESIGN**

The scope of work is specified the Department's Procedures manual and graveling manual. The P.C. is advised to use this as a Base Method Statement from which to conduct the HIRA.

There a generic risk associated with work on or near an operational road way- the members of the public who use that roadway may be put at risk by the activities of the contractor (section 9 OHS act and the employees of the contractor may be put at risk by the road user (section 8 OHS act) Due to this being a maintenance contract without a fixed scope of works but rather a fixed scope of possible activities:

- 6.1.1 General Requirements and Provisions (Series 1000)  
Information in this series cover the start-up aspects of the project, with a number of the activities (excluding establishment) lasting the duration of the contract.
- 6.1.2 Drainage (Series 2000)  
Excavations, traffic management and possible contact with vermin
- 6.1.3 Earthworks and Pavement Layers of Gravel or Crushed Stone (Series 3000)  
Heavy plant tipping of material
- 6.1.4 Asphalt Pavements and Seals (Series 4000)  
Traffic management for base and surface repairs. Cold premix
- 6.1.5 Ancillary Roadworks (Series 5000)
- 6.1.6 Specified Hazardous Chemical Substances  
Contact with humans (employed or not), vegetation and animals. Possible spills which will affect the environment.

The following lists of products or type of substance are those that have been identified as likely to be used on the project. Where the PC is likely to supply a product that has not been specified, the onus is on the PC to provide proof that most environmentally friendly alternative has been used, based on the material safety data sheets. Medical surveillance may be required for those.

PRODUCT	POTENTIAL HEALTH OR OTHER RISKS
Cement	Hand mixing may occur, will be used for structures, stabilizing. 50kg bags delivered on pallets, ergonomic risk from handling, dust exposure, chromates. Eye, skin and respiratory irritant
Shutter Oil	Usually hand application prior to placing formwork in position. Volatiles present. Skin and respiratory irritant.
Asphalt	Inhalation will cause headaches, nausea, respiratory, eye and skin irritation. Carcinogen. Burns from hot mix. Hydrogen sulphide and carbon monoxide emitted as by-product. Breaking or cutting will release silica (crystalline)
Retro-reflective Road paint	High levels of volatiles, Products have narcotic effect
Lime	Dust, eye and respiratory irritation
Petrol/diesel/lubricants	Storage tanks/ bowsers on site. Fire, spillage, fumes
Creosote (pre-treated poles)	Eye and skin irritation and minor burns, carcinogen
Herbicides and ant poison	Type not specified, but will be used. Principal Contractor to ensure use of SDSs and appropriate protection measures
Epoxies and epoxy resins	Type not specified, but will be used. Principal Contractor to ensure use of SDSs and appropriate protection measures
Coatings	Type not specified, but will be used. Principal Contractor to ensure use of MSDSs and appropriate protection measures
Grouts	Will be determined by the Principal Contractor; various grouts will be required, cementitious or other, may contain silica (crystalline - quartz), hexavalent chromium, respiratory, skin and eye irritant

## **7. NOTIFICATION OF COMMENCEMENT OF CONSTRUCTION WORK/ APPLICATION FOR CONSTRUCTION WORK PERMIT (DEPENDING ON AWARD AMOUNT)**

For contracts awarded above Forty million rand the Clients agent will apply for a construction works permit one the contractors Health and Safety plan has been approved by the Agent for implementation.

For contracts awarded for less the Forty million rand. The PC shall notify the Provincial Director of the Department of Labour (DoL) in writing, in the form of the Annexure A in the CRs. This shall occur after award of the contract, but before commencement of construction work. Proof of submission and/or receipt must be provided. Work will not commence without the Notification being correctly completed and signed by the Client. The Notification shall only be signed by the Client following the approval in writing by the H&S Agent.

Work will not commence without the Notification being correctly completed and signed by the Client and proof of receipt by the Department of labour received. The Notification shall only be signed by the Client following the approval in writing by the H&S Agent, or the Client.

Where changes to the conditions given in the submission are required (i.e. other Contractors, completion dates, increase in workers), a revised Annexure A must be submitted to the Department of Labour. It is preferable that the completion date includes the defect liability period. A copy of the notification form and any further submissions must be kept in the H&S file.

## **8. HEALTH AND SAFETY PLAN FRAMEWORK**

The aspects related to the project outlined in the previous sections are to be taken into account when drawing up the H&S Plan. The PC is required to demonstrate competence by providing a H&S system that will address the requirements of the project.

The current legislative requirements, SANS codes and any other standards that may guide practice are to be taken into consideration. The following aspects must be addressed in the H&S Plan, as they have been identified in the design HIRA, as playing a role in reducing the overall risk of a particular activity, or section of the project. The H&S Agent may from time to time request additions or systems as they relate to the works at the time.

The PC must include in his Health and Safety file an organogram showing all appointments and responsibilities on site. This must include names of personnel where possible.

The PC is to prepare one or more site office area layout drawings to indicate at least the following:

- positions of emergency personnel and equipment at the site camp, or each fixed working area;
- traffic routes for plant and pedestrians, parking;
- storage areas (flammable stores, materials etc.)

Such drawings could be the same as those required by the ECO. Such layouts are to be updated regularly throughout the project.

### **8.1 APPOINTMENT OF COMPETENT SITE PERSONNEL**

The CEO (OHSA S16.1) of the PC will take overall responsibility for the appointment of competent site staff for the duration of the project. Should the CEO not be personally involved in the project, the H&S responsibilities are to be delegated to the Site Agent (OHSA 16.2). Knowledge and training in H&S is required, and certificates indicating H&S training as well as experience to be included in CVs.

All other legal appointments are to be made with relevance to the type of work required and kept current with the project programme. The construction team is to ensure the H&S Officer is kept up to date with all planned activities, to ensure all H&S requirements are met.

All construction/technical method statements are to be generated by senior site personnel, and the appropriate risk assessments developed therefrom in conjunction with the H&S Officer. The Occupational Health and Safety Plan shall include the following, but not be limited to the following key appointments:

#### 8.1.1 Construction Supervision

Competent supervisors who are appointed to manage part or all of the works must have had training and/or experience in the area of responsibility. All site supervisors must show evidence of basic training in H&S, and an understanding or training in areas of responsibility (i.e. risk assessments, method statements etc.). Proof of this must be presented in the Health and Safety file.

Competent assistant supervisors may be appointed where justified by the scope and complexity of the works. Curriculum Vitae (CVs) are to be submitted for approval by the Engineer, Agent, and/or Client. Each supervisor will be held responsible for the safety of working teams and subordinates, housekeeping and stacking, storage of materials and the setting up of signage to details supplied by the Construction supervisor.

#### 8.1.2 Construction Health and Safety Officer

The PC will employ at least one competent, full-time H&S Officer for the duration of the contract.

The H&S Officer's CV is to be submitted for approval by the Engineer as well as the H&S Agent. The PC is to ensure adequate resources are provided in order to undertake all responsibilities (i.e. mobile phone, computer and internet access, availability of a vehicle solely for H&S use during working hours etc.)

The Officer shall be in the possession of a certificate from SACPCMP. The possible risks that could be found due to possible tasks make the possession of a "happy letter from SACPCMP not acceptable. ( as per guidance from Mr. S.H. Gwavu {D.D. (OHS) D.o.L. East Cape} (3/17/2017))

The H&S officer must have the competence to create task specific Health and Safety specifications, assist emerging contractors with compiling Health and Safety plans. Note they may note compile them but rather transferee knowledge.

Evaluate the Contractors Health and Safety plans.

The CHSO must hold a valid driver's license.

This person may not hold any other position on the site staff.

The Construction Manager, assisted by the H&S Officer will be held responsible for all H&S on the project. Senior site staff and supervision, Contractors are to follow systems, instructions etc. given by the H&S Officer at all times. No new Contractors may commence work without approval of the H&S plan as submitted. The submission must be done seven days prior to expected start date to allow for comprehensive review.

Failure to do so will be considered a serious offence.

The H&S Officer/s will be held responsible for all H&S on the project.

- Senior site staff and supervision, Contractors are to follow systems, instructions etc. given by the H&S Officer at all times;
- No new workers or Contractors may commence work without approval or following the H&S plan as submitted, and
- No inductions of Contractor staff until the H&S documentation is approved by the H&S Officer.
- The H&S Officer/s may not be removed or replaced without the approval of the H&S Agent, nor may the site be left unattended for more than 1 day without adequate, competent cover.

A close out meeting will be held at the end of each formal audit by the H&S Agent and findings will be issued in the form of site instructions. Senior site staff will be obliged to attend the close out meeting.

A monthly report of all H&S activities and incidents is required at each site meeting. It is to be given verbally by the Health and Safety officer and a hard copy must be handed to the chairman for inclusion in the minutes.

The H&S Officer will be responsible for collating the H&S documentation (electronically) at the close out of the project. A list of the typical aspects that should be provided is available as an Annexure to this document.

#### 8.1.3 Traffic Safety Officer (TSO)

The Construction Manager will assume the role of the TSO this must be noted in his appointment. The CV of the construction supervisor is to be submitted to the Engineer and H&S Agent for approval as a TSO. Attention is drawn to the provisions of Section 1500 of the COLTO specifications as given in the Contract Data and Scope of Work.

Traffic accommodation drawings will be provided by the Engineer, and any changes suggested or required are to be discussed and approved by the Engineer. Speed controls must be clearly stipulated and managed. Speed limits must be strictly adhered to by all construction traffic. Unreasonable limits may be revised by the Engineer and/or H&S agent. Additional care must be taken where workers and construction traffic interface. This should be in the form of flagmen to direct trucks and adequate signage as directed by the Engineer.

The construction supervisors will be issued with layouts for traffic control by the Construction Manager and be responsible for completing daily check lists before work starts and monitoring during works. The construction Manager will be responsible for checking layouts on site. This must be done at least once a week and must be recorded.

A system of recording daily traffic accommodation is to be provided. Photographs are to be taken following the placement of the accommodation to prove compliance. All daily records must be signed by the ER. All photos are to be date and timed stamped and are to form part of the consolidated H&S file.

It must be noted that further penalties are specified for non-compliances in this PSHSS.

## 8.2 HEALTH AND SAFETY REPRESENTATIVES AND COMMITTEE

Due to the need for EME and SMME involvement the contractor must set up a health and Safety committee. The H&S role player in these organizations are to form part of the committee. H&S information is to be passed between party's at meetings.

## 8.3 APPOINTMENT OF COMPETENT CONTRACTORS

The Principal Contractor is to ensure compliance with the Clients minimum standards and all legislative requirements. The same H&S standards required of the PC are to be applied to all Contractors. An index of all Contractors and Suppliers is to be on file and kept updated at all times. The PC is to ensure there is sufficient funding for H&S compliance by each Contractor.

The following minimum aspects are applicable to any Contractor appointed:

- The H&S Officer is to ensure a Contractors appointment and approval of H&S documentation at least seven (7) working days prior to commencing work.
- No Contractor may work under the PCs Compensation registration number. If required the PC may assist SMMEs with their registration with the Compensation Commissioner. However, such Contractors will not be able to commence work until proof of registration or Letter of Good Standing has been received.
- No work may commence without a Contract Specific Mandatary (37.2) agreements between parties in place.

The following aspects are applicable to Suppliers or short-term works (surveying, repairs, servicing, deliveries etc). Cognisance is to be taken of the level of risk involved and the H&S Officer is to ensure the level of H&S documentation is appropriate:



- Mandatory Agreements in place
- Letter of Good Standing
- Method statements and risk assessments
- Available information relative to:
  - Load testing and registers for cranes or lifting devices
  - Medical certificates of fitness
  - Safety data sheets (SDSs)

Failure to provide written approval of H&S documentation will be considered a serious offense, and could result in aspects of, or all of, the activities being stopped and/or penalties implemented.

## 9. GENERAL RISK MANAGEMENT

### 9.1 HEALTH RISKS AND MEDICAL SURVEILLANCE

The specified products have been listed above. As some products have not been identified, the PC is to ensure the H&S Officer and all supervision is responsible for ensuring the safe use of such products, and their inclusion into method statements and risk assessments. The appropriate SDSs are to be obtained for all products and used to develop the H&S documentation as they relate to the works.

Ergonomic risks are to be noted, especially where there are LI components, and all workers (including those of Contractors) are to be included in the medical surveillance programme.

Workers will be exposed to noise, dust, volatiles and vibration (whole body and upper body) due to the type of plant, materials specified and the general nature of the works. Silica and general environmental monitoring for the general construction, as well as works at borrow pit and the quarry have been allowed for in the BoQ, as well as the allowance for medical surveillance.

Environmental monitoring results and risk assessments are to be made available to the occupational health professionals doing the medical surveillance. The use of occupational risk exposure profiling (OREPS) and job descriptions are to be used to determine specific exposures for management.

All permanent workers (including those of Contractors) are required to be in possession of a medical certificate of fitness prior to commencing work.

Medical surveillance will commence at pre-employment. All workers (including Contractors) are required to be in possession of a medical certificate of fitness prior to commencing work. Annual medical surveillance is required (unless identified as being required more frequently), as well as an exit medical. Arrangements for keeping medical records for the required time are to be noted. It is preferable that the PC has a medical surveillance plan. Full medical records are not to be placed in the H&S file. A procedure for managing the medical records which require safekeeping for prescribed periods are to be addressed.

Given the potential health risks the following aspects are to be included in each medical surveillance intervention:

- Full medical, surgical and occupational history;
- Full physical examination of all systems, and
- Referral if required for the management of identified health issues that may affect the worker.

Specific testing for existing conditions and limitations relative to exposure could include, but are not limited to:

- Audiometry (hearing tests);
- Spirometry (lung function testing);
- Chest X-rays;
- Liver function testing (volatiles), and
- Any other tests identified as relevant

Failure to do so will be considered a serious offence.

#### 9.1.1 Noise Risks

All plant and equipment is to be measured for noise levels as soon as the majority of plant is on site (including Contractors). Findings are to be discussed at the H&S Committee and H&S Representatives and Supervisors are to ensure that noise zones are identified and wearing of PPE in them is enforced. All plant brought in by plant hire companies is to be compliant with the Noise Induced Hearing Loss Regulations.

Audiometric testing of all workers is to be included in the medical surveillance programme. Double audiometric testing at pre-employment and single tests thereafter is required. These should be repeated annually and as part of the exit medical. Audiometry records are to be available in the H&S file.

Suitable SANS approved hearing protective equipment shall be issued and worn. Where several items of construction plant are in operation at or near to each other, the noise zone for the combined plant should be established and suitable hearing protective equipment used within this zone.

Failure to do so will be considered a serious offence.

### 9.1.2 General Environmental Conditions

Compliance with the Environmental Regulations (as amended), among others is required. Environmental monitoring of ventilation, lighting and dust may be deemed to be required by the Approved Inspection Authority used to measure the environment. Copies of the relevant reports and actions taken in respect of these are to be placed in the H&S file.

Any spillages of substances which could be toxic to persons must be dealt with adequately. The Contractor must include his spillage removal system in the OHS Plan.

## 9.2 EMERGENCY PROCEDURES

Attention to emergency planning and procedures is very important. The full emergency plan must form part of the supporting documentation with the H&S Plan. The H&S Agents approval of all emergency plans and procedures is required prior to commencement on site. It is advised that the system should be simple and easy for any worker to follow. The plan may be adapted should new information or risks are identified.

First aiders shall be available in each working team, and be able to work as a team when responding to any emergency on the project.

The procedure shall detail the response plan in relation to the works, and include at least (but are not limited to) the following key elements:

- Appointment of a competent emergency response co-ordinator and wardens;
- Lists of first aiders, and
- Requirement in terms of identified risks:
  - Fire;
  - Explosions;
  - Falls from heights, and
  - Public Injury motor vehicle accidents.
  - Serious injury to workers (Medical or work related)
  - Any other major risks identified during risk assessments.

The emergency plan is to ensure the inclusion of local service providers where possible. Such arrangements should be made with these persons prior to the commencement of the project. Local emergency telephone numbers must be displayed and made part of the emergency procedure.

### 9.2.1 First Aiders and First Aid Equipment

Competent, trained First Aiders are to be formally appointed for the project. If the area of works is in a remote area, at least 2 workers are to be trained to level 3. In urban areas and close to medical assistance 1 level 3 first aider is required. First aiders are to be available at all times and be able to cover each working team. **At least on level 3 first aider is needed for file approval.** Further first aiders from the community or SMMEs, if not already accredited, are to be sent for accredited first aid training. Contractors are expected to ensure compliance and manage their own first aiders and equipment.

The PC shall provide an on-site First Aid Station with first aid facilities, including first aid boxes containing, at least the requirements of manage the type of emergencies identified. It is suggested that all supervisors carry a appropriately stocked first aid kit in their vehicles at all times.

### 9.2.2 Fires and Emergency Management

Attention to emergency planning and procedures is very important. The full emergency plan must form part of the supporting documentation with the H&S Plan. The H&S Agents approval of all emergency plans and

procedures is required prior to commencement on site. It is advised that the system should be simple and easy for any worker to follow. The plan may be adapted should new information or risks are identified.

First aiders shall be available in each working team, and be able to work as a team when responding to any emergency on the project.

The procedure shall detail the response plan in relation to the works, and include at least (but are not limited to the following key elements:

- Appointment of a competent emergency response co-ordinator and wardens;
- Lists of first aiders, and
- Requirement in terms of identified risks:
- Fire;
- Explosions;
- Falls from heights,
- Motor vehicle accidents.
- Any other possible emergency identified in the P.C.'s HIRA

The emergency plan is to ensure the inclusion of local service providers where possible. Such arrangements should be made with these persons prior to the commencement of the project. The emergency plan is to include the risk of fire on site and related to any specific activities where gas, welding, cutting etc. occur.

Fire extinguishers and fire extinguishing equipment will be appropriate for the risk and in sufficient numbers to deal with the type of fires that could occur. All mobile plant is to have fire extinguishers. Hot work permits are required for any such activities. The positions of equipment at the site camp must to be shown on the sketch plan of the site.

### **9.2.3 Incident Management and Compensation Claims**

The PC will ensure there is a management system to investigate all incidents. All serious incidents involving any form of disabling injury or fatality are to be reported to the Engineer and H&S Agent telephonically immediately. This shall be confirmed in writing as soon as possible after the incident. Full details are to be included in the H&S meetings, and each site meeting. The details are also to be included in the monthly report.

Failure to comply with emergency provisions will be considered a serious offence, and the operation or project may be stopped if deemed inadequate for the work at the time of assessment or site inspection.

## **9.3 PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING**

The PC is to provide a procedure as an addendum to indicate how PPE is managed within the Company.

The wearing of the identified SANS approved PPE at all times is non-negotiable. The PC shall ensure that all workers (Including Contractors) are issued with and shall wear as required; the first 3 items are mandatory for all workers: All PPE defined is SARTSM must conform to SANS and SARTSM specifications.

- Hi Visibility broad rimed hats ;
- Protective footwear;
- Reflective jackets (no bibs)
- Overalls that ensure worker visibility
- Eye protection;
- Hearing protection;
- Respiratory protection (minimum of FF2),
- Any employees required to work in rain or missed are to be provided with reflective rain suits.
- Any other necessary PPE identified from MSDSs and/or risk assessments.

Adequate quantities of PPE shall be kept on site at all times. This shall include necessary PPE for visitors. The procedures for managing PPE are to be in a formal procedure submitted with the H&S plan for approval; this must include the company policy on the issue and replacement of PPE

Any person (including Client, Designers etc.) found on site without the necessary PPE will be removed from site until the PPE is supplied and worn.

The Contractor shall carry adequate stocks of Hi-visibility Jackets and hard hats for visitors  
Failure to comply will result in penalties being applied.

#### **9.4 OCCUPATIONAL HEALTH AND SAFETY SIGNAGE**

On-site H&S signage is required. Signage shall be posted up at the appropriate fixed or temporary working areas, on scaffolding, and other potential risk areas/operations including vehicles. These signs shall be in accordance with the requirements of the General Safety Regulations or SANS requirements as amended. Signage is to be noted on the site drawings indicating where fixed signage is required.

Signage at site camp is to include (but not be limited to) the following:

- 'no unauthorised entry'
- ;"Warning, Construction site – Keep out" or similar
- 'report to site office';
- 'site office';
- 'hard hat area' or other PPE requirements noted;
- First aid box positions (including vehicles), and
- Fire extinguishers

Signs shall be posted permanently or temporarily at areas of work onsite indicating that a construction site is being entered and that persons should take note of safety requirements.

The Contractor shall establish a system for controlling and recording entrance to the Site office and camp area.

Areas of work are to be signed in accordance to layouts agreed by the engineer's representative and construction supervisor.

Records are to be kept and signed by both parties.

These records, daily check lists and photographic evidence will need to be kept on file and form part of the consolidated file at the end of the project.

#### **9.5 INDUCTION OF EMPLOYEES AND VISITORS, GENERAL H&S TRAINING**

A formal induction programme is to be submitted as an addendum for approval with the H&S plan. Inductions must be carried out for all workers and visitors to the site. Pre-task training is required to ensure workers are familiar with the risks and H&S measures of the work or tasks to be done. Such training is to be done at least daily. Records of inductions and pre-task training are to be kept in the H&S file.

Any person found on site without proof of induction will be removed from site until the proof is supplied and, and penalties may be issued for non-compliance.

#### **9.6 USE OF SUPPORT WORK, SCAFFOLDING AND OTHER TEMPORARY WORKS**

Where temporary works are envisaged on the project, these must be properly designed and signed off by a competent person. In these instances a competent person is defined as a Professional Engineer (registered with ECSA) who has sufficient experience in the design of the type of temporary work in question to be able to assess the design. The appropriate competent persons are to be appointed to manage and monitor such works to the satisfaction of the Engineer. Where the scaffolding, and /or support work is to be supplied and designed by a specialist company, care must be taken to comply with all the requirements of the supplier. Records and registers are to be properly completed and kept in the H&S file.

A fall protection plan is to be available and supplied as an addendum to the H&S plan. The fall protection plan must be appropriate for the project. Method statements, appropriate risk assessments, safe work procedures and training are to be available prior to work commencing.

Construction drawings shall be required for all temporary structures as they relate to the project. The drawings shall be accompanied by full calculations, design loads and any relevant test results as required by the SANS code, and ensure adequate allowance for the development of appropriate documentation and training. All drawings are to be checked and signed by a competent structural engineer (registered with ECSA).

The focus for working at height shall include fall restraint systems where possible except during assembling or dismantling top components or where it is not deemed safe. The relevant SANS codes are to be applied as they apply to the works and the project, such as:

- SANS 10085
- SANS 10333 (parts 1-3)

Should part of the works be contracted out, competent Contractors are to be appointed and submit documentation according to the project requirements. The PC is to note if such work is to be contracted to specialists in the H&S Plan. The plan is to be developed and work managed by a competent person for the duration of the project. The following aspects must be included:

- The public or users of structures are to be protected at all times by way of hoarding, barricading or fencing
- Notices to be posted
- Restrictions or stoppage when weather conditions are deemed hazardous
- Permit system for working at heights
- Prevention of falling tools, equipment or people
- Link to emergency plan regarding rescue

All workers are to be in possession of valid certificates of fitness that extend for the duration of the works. Note the requirements in the section relating to medical surveillance.

Registers and all relevant documentation are to be placed in the H&S file. Work will be stopped and penalties applied to any work at heights that is not compliant.

Failure to do so will be considered a serious offence.

## **9.7 TESTING LABORATORY AND THE USE OF RADIOACTIVE EQUIPMENT**

When the P.C. makes use of a service provider, the service provider will be seen as a Contractor and all the H&S rules and requirements are to be met by the Service Provider. Mandatory agreements, Inductions and emergency requirements among other are to be addressed and managed to ensure limitation of H&S risks.

The use of radioactive equipment for the measuring of compaction parameters shall conform to the requirements of the “Code of Practice for the safe use of soil moisture and density gauges containing radioactive sources” as published by the Department of Health: Directorate: Radiation Control Soil revised September 2001. Method statements, risk assessments and the appropriate training will be required.

Failure to do so will be considered a serious offence.

## **9.8 TRANSPORTATION OF WORKERS ON SITE**

Transportation of workers shall comply with the relevant legislative requirements. Vehicles used to transport workers to, from, or on site, shall comply with the National traffic act. The licence disc of the vehicle shall prescribe the number of persons transported.. No equipment or materials shall be transported in the same compartment at the same time as workers.

Failure to transport workers in a safe manner will be regarded as a serious offence.

Failure to do so will be considered a serious offence.

## **9.9 QUARRIES, BORROW PITS, CRUSHERS, BLASTING AND BATCH PLANTS**

It must be noted that the use of quarries and borrow pits falls under the Mine Health and Safety Act ((290f1966 and its Regulations. Work in these areas must comply with these requirements and separate appointments and CoPs will be required.

Where single or multistage crushers are established on site, for quarries or borrow pits, the requirements of the MH&SA as well as the OH&SA and Regulations shall apply. Dust suppression systems (water or closed systems) and regular monitoring are required. The added requirement of Chest X rays for workers is to be added to pre-employment medicals and repeated 2 yearly thereafter.

The Department of Mineral Resources (DMR), as well as the H&S Agent will carry out audits on this aspect of the project. Non-conformances raised by either party will require closeout within specified time periods negotiated at the time.

Whichever form of batch plant is used, for mixing concrete or slurries for surfacing, guards and protection of nip points, emergency stops etc. are to be appropriately managed by competent supervision. Edge protection, movement of plant and dust management are required.

All blasting must comply with the Explosives Act No. 15 of 2003 and the OHSA and MH&SA or other legislation as they apply. Method statements and risk assessments will be required before blasting will be permitted. The Engineer and H&S Agent will be required to approve the arrangements. Should a blasting Contractor be used, the requirements relating to the management of Contractors shall apply.

Failure to do so will be considered a serious offence.

## **9.10 MANAGEMENT OF PLANT AND EQUIPMENT**

A substantial amount of large plant and equipment is likely to be used. Close control of the PCs plant and equipment is required, including that of Contractors.

Daily monitoring of all plant and equipment is required prior to commencing work. Full lists of hired and own plant are to be available at the H&S Agent's audit. All daily inspection records are to be kept in the H&S file. Registers are not to be more than 1 week behind. Plant hire or haulage Contractors are to comply with the requirements, and comply with all H&S standards for the project.

Only competent, fit plant operators are to be used. Medical certificates of fitness are required for all operators. Noise levels are to be displayed on plant.

Should any form of lifting device or crane (fixed or mobile) be used during the project for deliveries, moving of supplies or equipment, the appropriate documentation must be made available. Method statements, risk assessments, safe work procedures and training are to be available prior to work commencing. A procedure for managing loads and lifting must be made available as an addendum to the H&S Plan

Any plant or slings used to lift plant or material require annual load testing by an AIA. Operators are to be adequately trained and certified to operate cranes. Certificates and registers are to be placed in the H&S file.

Movement of plant in closures and in confined working areas is to be closely monitored and managed by the TSO and supervisors. The blind spots of plant are to be taken into account and workers and Contractors protected accordingly.

Failure to do so will be considered a serious offence.

## **9.11 EXCAVATIONS**

Steep slopes require careful management. The Geotechnical report is available and is to be utilised to assess ground conditions. Shoring may be required, where indicated in the Geotechnical report or by the Engineer. The PC is to ensure that the Community Liaison Officer (CLO) and the local community, schools and general public are aware of the dangers of open excavations.

The H&S Officer is to ensure that all Contractors follow the same requirements as they relate to excavations. The Engineer may stop work at any time should the working area be deemed unstable. Method statements are to be approved by the Engineer and risk assessments are required. Workers are to be trained in the risks and protection measures, and the appropriate PPE is to be issued as highlighted in the risk assessments.

A competent person is to be appointed to manage excavations. All equipment and conditions are to be checked daily prior to work commencing. Communal registers for excavations on site are not permitted. Excavations should preferably not be open beyond what can be worked daily. Where excavations need to remain open, all excavations are to be properly protected, candy striped tape is not acceptable. Plastic mesh

supported on adequate droppers 1m high should be used (approved by the Engineer). Berms are required to be a safe distance from the edge of the excavation. Stepped excavations are encouraged.

Adequate numbers of ladders are to be available to ensure safe access and egress from excavations. Ladders are required for excavations of greater than 900mm, and the ladder is to extend at least 1m above the edge of the excavation. No wooden ladders are allowed on site. Registers are to be kept current and placed in the H&S file.

Failure to do so will be considered a serious offence.

## 9.12 INCLEMENT WEATHER

Information regarding climates for the specific regions must be accessed from <http://www.saexplorer.co.za>

Should the discomfort index rise above 105, work may be partially or totally stopped. Workers must be supplied with adequate protective clothing and shelters provided as necessary. A wind speed should be set at which work may be stopped or the workers in an affected area moved. Note must be taken of the environmental regulations particularly section 2.1 *“Provided that, where outdoor work is performed, the employer shall take such measures and such precautions in an environment in which the actual dry-bulb temperature is less than 6°C at any time”*

The emergency plan is to include how these and other weather extremes identified are to be managed. All decisions regarding work stoppage will be decided between the PC, the H&S Officer and the Engineer.

Failure to manage specific conditions or address issues timeously will be considered a serious offence.

## 9.13 AUDITING

External auditing by the H&S Agent will be done at least monthly or more frequently if deemed required by the H&S Agent, Client or Engineer. The site will be inspected and the documentation audited relative to the activities and H&S plan. The H&S Officer of the PC must accompany the Client, or the H&S Agent, on all audits and inspections.

The PC will ensure that all their Contractors are audited at least monthly prior to the H&S Agents monthly audits. Audits may be done more frequently where short term contracts are in place, or deemed high risk. Audit results will be acted upon and non-conformances and penalties issued. The Client, Engineer or H&S Agent may act or require further outcomes if non-compliances are noted or unsafe acts are noted on site. Internal audits are to include site conditions as well as ensuring H&S files are appropriate, and compliant.

Failure to address findings or non-conformances will be considered a serious offence.

## 9.14 COMMUNICATION ON SITE

All communication on site will be done through the Engineer to the PC and be in writing, including the issue and responses to non-conformances and H&S audit results.

Failure to address issues timeously will be considered a serious offence.

## 9.15 CARE OF WORKERS ON SITE (WELFARE)

Adequate toilets, clean, safe drinking water and decent shelter will be afforded workers at all times.

Toilets will be within reasonable distance of workers, or placed with each working team in safe, with reasonable privacy. Only bacterial or enzyme based products may be used in portable toilets; the use of products containing formaldehyde is not allowed. The ratio of portable toilets on site will be a minimum of 1:10. Daily cleaning and increased removal of waste may be required if deemed necessary. Proof of safe disposal of waste will be required. Waste removal Contractors, or the PC are to ensure the appropriate H&S systems are available to limit exposure to sewage.



Hand washing facilities will be provided. The Environmental and Facilities Regulations will be adhered to at all times.

Failure to address issues timeously will be considered a serious offence.

## 9.16 DISCIPLINE, ALCOHOL AND SUBSTANCE ABUSE

All employees (management included) are to follow instructions given in the interest of H&S. Disciplinary action is to be imposed on those who do not follow such instructions or company rules or policies.

No person is allowed to work or access site if under the influence of alcohol or other substances that could impact on their own or others safety. The PC is to have a drug and alcohol policy available to manage such instances.

These requirements are applicable to any employee of any organization providing services on site. Penalties may also be applied by the Client, OHS Agent or Engineer.

## 9.17 ELECTRICAL EQUIPMENT

In addition to the requirements of the Electrical Machinery Regulations and the General Machinery Regulations any electrical distribution board used for construction work shall be fitted with suitable earth leakage protection. Leads must be properly and firmly connected. Plugs and sockets shall be in good and safe condition.

All electrical apparatus, other than electrical hand tools, shall have a physical "lock out" system which will prevent any operation other than that authorized by a supervisor. A "lock out" sign shall be displayed when the apparatus is not in use.

Method statements and safe work procedures will be required for all work involving electrical apparatus.

## 10. HEALTH AND SAFETY FILE

The documentation submitted and approved following the awarding of the contract will be used to form the H&S file. The H&S file is required to be laid out in a logical manner, and documentation filed within the file is to be easily accessible. The following completed information shall be included (but not be limited to):

- The PSHSS;
- The H&S Plan;
- Appointment by Client;
- Mandatary Agreement with Client;
- Notification of construction work;
- A record of all working drawings, calculations and design where applicable;
- Detailed list of Contractors with contact details, appointments, Mandataries etc.;
- Record of Competencies;
- Training Records.
- Permits;
- Method statements;
- Risk assessments;
- Safe work procedures;
- Emergency and injury management;
- Safety data Sheets..Medical surveillance records;
- Registers, and
- Records of audits, minutes etc.
- Plant lists
- Temporary electrical installations
- Employee records (who is on site)

## 10.1 SUPPORTING DOCUMENTATION

The following list is not absolute, and the PC is expected to assess if further any further information should be submitted as supporting documentation, as it relates to the H&S plan. The inclusion of other, relevant documents is encouraged.

All documents as required by the Act and Regulations, including (but not limited to):

- Proof of registration with the Compensation Commissioner or FEMA;
- Proposed Organogram;
- Appointments under the Regulations;
- Examples of internal audits;
- Inspection registers of plant and equipment;
- Non-conformance system;
- Information relating to hazardous materials used and stored on site with SDSs;
- All Method Statements, Hazard Identification and Risk Assessments for the project;
- All Health and Safety Plans for the project;
- Examples of minutes of all relevant meetings related to H&S;
- Registers for all plant and equipment
- Incident records, including investigations and results, and
- Medical certificates of fitness and medical surveillance programme.

The H&S File shall closed out following the hand-over of the project. A list will be made available and the contents will be agreed to between the H&S Agent and the PC towards the end of the project.

## 11 NON-CONFORMANCES

Should, at any time, the works, or part of the works, be stopped due to unsafe acts or non-compliance with the Clients or PCs H&S Plan; neither the PC nor any other Contractor shall have a claim for extension of time or any other compensation.

The following constitute examples of the types of non-conformances that will attract penalties:

<b>Minor: Penalty: R50/count</b>	<b>Medium: Penalty: R500/count and a non-conformance</b>	<b>Severe Penalty: R5000/count, a non- conformance and/or activity stoppage</b>
Non-use of PPE supplied	Toilets not supplied or regularly serviced; lack of drinking water	Contractors working without Health and Safety Plan approval
Non completion of registers for plant and equipment on site	Contractors not audited	Workers transported in contravention of the OHS plan or legal requirements
Lack of H&S signage at work areas	Working without training or the appropriate H&S method statements	Invalid Letters of Good Standing
Tools and equipment identified in poor condition during inspections	Legal non-conformances identified during the previous audit and not addressed within the agreed time frame	Non-compliance with traffic accommodation requirements: layout or physical conditions
	No monthly OHS report at site meeting to report on	Fall protection harness not tied off / not worn
	No certificates of fitness for workers as required	Employees performing work without a medical certificate of fitness allowing them to perform such activities.
	Working without approved method statements	Any breach of legal requirements

## 11.1 FAILURE TO COMPLY WITH PROVISIONS

Failure or refusal on the part of the contractor to take the necessary steps to ensure the safety of workers and the general public in accordance with these specifications or as required by statutory authorities or ordered by the engineer or the Client's H&S Agent, shall be sufficient cause for the engineer to apply penalties as follows:

- (i) A penalty as shown in the Table above shall be deducted for each and every occurrence of non-compliance with any of the requirements of the PSHSS.
- (ii) In addition a time-related penalty of R500,00 per hour over and above the fixed penalty shall be deducted for non-compliance to rectify any non-conformance within the allowable time after a site instruction to this effect has been given by the RE or Engineer. The site instruction shall state the agreed time, which shall be the time in hours for reinstatement of the defects. Should the Contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

## 12: MEASUREMENT AND PAYMENT

The payment items for Occupational Health & Safety are contained in Schedule C of the Bill of Quantities. The same rules are applicable in respect of the pricing of these items as for every other payment item. Attention is drawn to the Pricing Instructions in Part C2.1 of this document.

		<b>Item and Unit</b>
<b>B13001</b>	<b>Preparation of Contractor's Project Specific Health and Safety Plan.</b>	<b>(Lump Sum (L.S))</b>
<p>The rate for this item must cover all expenses incurred in preparing the Contractor's project specific Health and Safety Plan as required by the Client's project specific Health and Safety Specification in this document</p>		
<b>B13002</b>	<b>Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations.</b>	<b>(Lump Sum (L.S))</b>
<p>The full amount will be paid in one instalment only when the Client's Agent has verified and approved the following</p> <ul style="list-style-type: none"> <li>(a) The Principal Contractor has notified the Provincial Director of the Department of Labour in writing of the project, Annexure A to the Regulations.</li> <li>(b) The Principal Contractor has made the required initial Appointments of Employees and Contractors.</li> <li>(c) The Client has approved the Principal Contractor's project Health and Safety Plan.</li> <li>(d) The Principal Contractor has set up his Health and Safety File.</li> </ul>		
<b>B13003</b>	<b>Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations.</b>	<b>(Month (Mth))</b>
<p>The amount shall represent full compensation for that part of the Principal Contractor's general obligations in terms of the Occupational Health and Safety Act and Regulations which are mainly a function of time. Payment will be made when the Client's Agent has verified the Principle Contractor's compliance as part of the audit. This will include the updating and administration of the Health and Safety file</p>		
<b>B13004</b>	<b>Provision of Personal Protective Equipment (PPE) as listed in the Bill of Quantities. (Number (No))</b>	
<p>The rates for these items shall include for the procurement, delivery, storage, distribution and all other actions required for the supply of PPE to the employees of the Principle Contractor, full or part time, requiring them. Contractors are responsible for their on costs in this regard. Any items of PPE not included on the list will be paid for only after the Engineer has agreed to their acquisition.</p>		

Items listed will include, among others which may be noted, are: hard hats, reflective vests, reflective bibs, high visibility overalls, protective foot wear, fall arrestor harness and tethers, gloves, ear muffs, earplugs and dust masks of appropriate type. Normal items such as standard overalls, waterproof clothing, gum boots and standard workshop safety equipment such as welding masks and goggles will not be paid for.

Payment will be based on the issues register for PPE as kept by the Construction Health and Safety Officer, backed up by paid invoices if requested.

**B13005 Provision of full time Construction Health and Safety Officer as per 8.1.2 (Month)**

The Tender sum shall include for the cost of a Construction Health and Safety Officer on a full time basis, his overheads, transport and all others items necessary for the proper carrying out of his duties, which include the induction and training of all persons on site. The Health and Safety Officer will attend site meetings.

**B13006 Costs of Medical Surveillance (Unit (No))**

This item shall covers all costs in involved in the obtaining of baseline, periodic (at least annually) and exit medical certification and conducting medical surveillance for all workers and especially operators of Construction vehicles and mobile plant as contemplated in CR 21(d) (ii); Workers at Heights, Regulation 10 (2) of the Construction Regulations and Workers exposed to hazardous chemicals including bituminous fumes under Regulation 7 of the HCSR; for temporary workers and workers exposed to noises at or above the limits given in the Noise-induced Hearing Loss regulations, as stipulated above. Workers in the permanent employ of the Contractor will only be paid for if their certificates require updating. Chest x-rays will be required in the case of workers who may be exposed to high concentrations of dust (silica).

- (i) Initial (baseline) medical examinations, including audiometric and lung function testing.
- ii) Periodic examinations
- iii) Exit examinations.

**B13007 Induction Training (Unit (No))**

This item shall cover all costs incurred for the health and safety inductions as set out on Regulation 7 of the Construction regulations and the proof of induction required. Payment will be made on the figures contained in the induction section of the Health and Safety File.

**B13008 Environmental Monitoring. (Unit (No) of tests)**

- i) Air quality monitoring

Payment for this item shall cover all costs incurred in testing and monitoring the environment in respect of general health hazards including the presence of hazardous chemicals, as required by the Construction Regulations and the Mine Health and Safety Act.

- ii). Compliance with Amendment of the Occupational Exposure Control Limit for Silica in Table 1 of the Hazardous Chemical Substances Regulations (February 2010) (Unit (No))
- iii) Air sampling in situ (Unit (No))
- iv) Analysing samples (Unit (No))
- v) Tests on Workers (Unit (No))

The rates for these items shall include for all air monitoring, air sample testing and tests in workers for silica exposure as required by the above amendment. It should be noted that these items must be under the control of an authorised inspection authority which would normally be a registered H&S hygienist or occupational health practitioner familiar with the Hazardous Chemical Regulations and include for all necessary costs in this regard including travelling to and from site and all required reporting.

**B13009 Establishment of noise levels (Unit (No))**

This item shall cover all costs involved in the establishment of noise zones, including any workshops, in terms of Regulation 9 of the Noise-induced Hearing Loss Regulations. Where a zone has previously been established for a particular item of plant within the last two years, the test need not be repeated but must be kept valid for the duration of the Contract.

**B13010 Payment for Health and Safety Representatives at H&S committee meetings. (Unit Hr)**

The rate for this item shall cover the cost to the Contractor of the attendance of Health and Safety representatives at monthly meetings and shall compensate the Contractor for loss of productive time at these meetings

**B13011 Provision of First Aid Boxes. (Unit (No))**

The rate for this item shall cover all costs incurred in the provision and maintaining of first aid boxes as outlined in Paragraph 7 above.

**B13012 Transportation of Workers. (Lump Sum)**

The Lump sum tendered under this Item shall cover all costs involved in the safe transportation of workers as outlined above. Payment will be made in equal amounts for the duration of the contract.

**B13013 Submission of the Consolidated Health and Safety File. (Lump Sum)**

Expenditure under this item shall be made in accordance with the General Conditions of Contract.

This amount will be paid only once the Principal 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. This must be done prior to the issue of a Certificate of Completion

Notwithstanding any statements in section 1300 of the COLTO Specifications, should the Certificate of Practical Completion be issued after the Contractual Completion date no payment will be made under items C.02 and C.03 for the period between the Contractual Completion date and the date of issue of the Certificate of Practical Completion. This, however does not relieve the Principal Contractor of any of his legal responsibilities for Occupational Health and Safety in terms of the Act and Regulations

## ANNEXURE A

## RECORDS TO BE KEPT ON SITE

ITEM	RECORD TO BE KEPT	RESPONSIBLE PERSON
1.	Notification to Provincial Director – Annexure A Available on site	Principal Contractor
2.	Copy of Principal Contractor's Health & Safety Plan Available on request	Client (Consultant)
3.	A Valid Letter on Good Standing in respect of Workman's Compensation.	
4.	Copy of Principal Contractor's Health & Safety Plan As well as each Contractor's Health & Safety Plan Available on request	Principal Contractor
5.	Health & Safety File opened and kept on site (including all documentation-required in respect of the OHS & Regulations. Available on request	Principal Contractor
6.	Consolidated Health & Safety File handed to Client on completion of Construction work. To include all documentation required by the OHS & Regulations.	Principal Contractor
7.	Comprehensive and Updated List of all Contractors on site, the agreements between the parties and the work being done.	Principal Contractor
8.	Keep record on the Health & Safety File of the input by Construction Health and Safety Officer [CR 6 (6)]	Principal Contractor
9.	Risk Assessments, kept up to date and available on site for inspection	Principal Contractor
10.	Proof of Health & Safety Induction Training	Every Employee on site
11.	Construction Supervisor [CR 6 (1)] has latest updated version of Fall Protection Plan [CR 8 (1)]	Principal Contractor
12.	Inform Principal Contractor in writing of dangers and hazards relating to construction work	Designer of Structure
C.	All drawings pertaining to the design of structure On site available for inspection	Principal Contractor
14.	Record of inspection of the structure [First 2 years – once every 6 months, thereafter yearly]	Owner of Structure
15.	Maintenance records – safety of structure Available on request	Owner of Structure
16.	Drawings pertaining to the design of formwork/support work structure. Kept on site, available on request	Principal Contractor
17.	Record of excavation inspection On site available on request	Principal Contractor
18.	Suspended Platform inspection and performance test records. Kept on site available on request	Principal Contractor
19.	Material Hoist daily inspection entered and signed in record book kept on the premises	Principal Contractor
20.	Maintenance records for Material Hoist Available on site	Principal Contractor
21.	Records of Batch Plant maintenance and repairs On site available for inspection	Principal Contractor
22.	Issuing and collection of cartridges and nails or studs (Explosive Powered Tools) recorded in register – recipient signed for receipt as well as return	Principal Contractor
23.	Findings of daily inspections (prior to use) of Construction Vehicles and Mobile Plant	Principal Contractor
24.	Record of temporary electrical installation inspections [once a week] and electrical machinery [daily before use] in a register and kept on site	Principal Contractor
25.	Copies of all appointments made in regard to safety supervisors and inspectors	Principal Contractor
26.	Record of safety inspections on equipment using radioactive materials.	Principal Contractor
27.	Any other records as required by the Client or his OHS Agent	

## ANNEXURE B

### CLOSE OUT REQUIREMENTS

The H&S files for the Principal Contractors and all Contractors require closure and handover to the Client at the completion of the project. The following list is an example of what should be included, but is not exhaustive. The OHS Agent or the Client may require further information at the time of completion and the Principal Contractor is to ensure that all instructions are met. Documentation would include all records from the start of the project. Daily or monthly plant inspection records are not required unless they are related to an accident. All records to be in electronic format and submitted to the OHS agent for approval in adequately formatted lists and folders. Layout should be logical and in the same order as in the site files.

**Health and Safety close out file requirements include:**

- a) Client H&S Specification
- b) Principal Contractor's OHS Plan(s)
- c) Organograms
- d) Legal Appointments
- e) Notification to Department of Labour of commencement of work
- f) Letters of Good Standing for the Project
- g) Full files for all Contractors as well as their close out reports
  - List of Contractors
  - Letters of Approval of Contractors
  - Mandatary Agreements
  - Letters of Good Standing
  - Appointments
- h) Incident Records
- i) Non- Conformance records
- j) Agent's Audits
- k) Method Statements
- l) Risk assessments
- m) Safe work procedures
- n) Medical surveillance certificates of fitness. Medical records are to be kept according to the OH&S Act as amended.
- o) All drawings for temporary structures{if required during contract} (suspended beams/scaffolds etc)
- p) Copies of test results, policies and procedures for environmental monitoring (silica, noise, dusts etc.)
- q) Traffic management records and photographs,

#### **Defect and Liability Period**

The H&S files are to be kept 'live' for the defect and liability period by the Principal Contractor, including those of their Contractors. Any work required during the defect and liability period will require an assessment of the H&S file by the OH&S Agent prior to any work commencing.

A copy of the as-built Drawings is to be placed on file by the Designers once complete.

## ANNEXURE C

### NON CONFORMANCES

HEALTH AND SAFETY SITE INSPECTION NON CONFORMANCE NO		
<b>AGENT:</b>	<b>PROJECT:</b>	
<b>Consultant:</b>	<b>Date and time:</b>	
<b>Client</b>	<b>Area:</b>	
<b>Contractor:</b>		
<b>ASPECTS NOTED:</b>	<b>COMMENTS:</b>	<b>COMPLETION REQUIRED BY (DATE):</b>
	•	
	•	
	•	
	•	
	•	
<b>PHOTOGRAPHIC EVIDENCE (if available):</b>		
1	2	
3	4	
<b>OTHER:</b>		
The following penalties are to be applied:		
<b>Signature of RE</b>		
<b>Signature of H&amp;S Officer/Site Agent</b>		
<b>Signature: of H&amp;S Agent</b>		



CLOSE OUT OF CONFORMANCE			
VERIFIED BY AGENT	COMMENTS ON WHAT WAS DONE (ATTACH PROOF IF AVAILABLE)	DATE COMPLETED	
PHOTOGRAPHIC EVIDENCE, OR LIST OF ANNEXURE TO PROVE CLOSURE			
SIGNATURE OF H&S OFFICER OR SITE AGENT			
SIGNATURE OF RE			

**SECTION 14000: HEALTH AWARENESS IN THE CONSTRUCTION INDUSTRY****CONTENTS**

- B14001 SCOPE
- B14002 DEFINITIONS AND ABBREVIATIONS
- B14003 BASIC METHOD REQUIREMENT
- B14004 HIV / AIDS AWARENESS EDUCATION AND TRAINING
- B14005 PROVIDING WORKERS WITH ACCESS TO CONDOMS
- B14006 ENSURING ACCESS TO HIV / AIDS TESTING
- B14007 APPOINTMENT OF AN HIV / AIDS AWARENESS CHAMPION
- B14008 MONITORING
- B14009 MEASUREMENT AND PAYMENT

**B14001 SCOPE**

This specification contains all requirements applicable to the Contractor for creating HIV/AIDS awareness amongst all of the Workers involved in this project for the duration of the construction period, through the following strategies:

- Raising awareness about HIV/AIDS through education and information on the nature of the disease, how it is transmitted, safe sexual behaviour, attitudes towards people affected and people living with HIV/AIDS, how to live a healthy lifestyle with HIV/AIDS, the importance of voluntary testing and counselling, the diagnosis and treatment of Sexually Transmitted Infections and the closest health Service Providers
- Informing Workers of their rights with regard to HIV/AIDS in the workplace
- Providing Workers with access to condoms and other awareness material that will enable them to make informed decisions about sexual practices

**B14002 DEFINITIONS AND ABBREVIATIONS****B14002.1 Definitions**

**Service Provider:** The natural or juristic person recognised and approved by the Department of Public Works as a specialist in conducting HIV/AIDS awareness programmes

**Service Provider Workshop Plan:** A plan outlining the content, process and schedule of the training and education workshops, presented by a Service Provider which has been approved by the Representative/Agent

**Worker:** Person in the employ of the Contractor or under the direction or supervision of the Contractor or any of his Sub-contractors, who is on site for a minimum period of 30 days in all.

**B14002.2 Abbreviations**

- HIV: .....Human Immunodeficiency Virus  
 AIDS: ..... Acquired Immune Deficiency Syndrome  
 STI: ..... Sexually Transmitted Infection

### B14003 BASIC METHOD REQUIREMENT

The Contractor shall, through a Service Provider, conduct onsite workshops with the Workers

The Service Provider shall develop and compile a Service Provider Workshop Plan to be presented at the workshops and which will be best suited for this project to achieve the specified objectives with regard to HIV/AIDS awareness.

The Service Provider Workshop Plan shall be based on the following information provided by the Contractor:

- Number of Workers and Sub-contractors on site
- When new Workers or Sub-contractors will join the construction project
- Duration of Workers and Sub-contractors on site
- How the maximum number of Workers can be targeted with workshops
- How the Contractor prefers workshops to be scheduled, e.g. three hourly sessions per Worker, or one 2.5-hour workshop per Worker
- Profile of Workers, including educational level, age and gender (if available)
- Preferred time of day or month to conduct workshops
- A Gantt chart reflecting the construction programme, for scheduling of workshops
- Suitable venues for workshops

The Contractor shall submit the Service Provider Workshop Plan for approval within 21 days after the site handover. After approval by the Representative/Agent, the Contractor shall make available a suitable venue that will be conducive to education and training

The Service Provider Workshop Plan shall address, but will not be limited to the following:

- 3.1 The nature of the disease;
- 3.2 How it is transmitted;
- 3.3 Safe sexual behaviour;
- 3.4 Post exposure services such as voluntary counselling and testing (VCT) and nutritional plans for people living with HIV/AIDS;
- 3.5 Attitudes towards other people with HIV/AIDS;
- 3.6 Rights of the Worker in the workplace;
- 3.7 How the Awareness Champion will be equipped prior to commencement of the HIV/AIDS awareness programme with basic HIV/AIDS information and the necessary skills to handle questions regarding the HIV/AIDS awareness programme on site sensitively and confidentially;
- 3.8 How the Service Provider will support the Awareness Champion;
- 3.9 Location and contact numbers of the closest clinics, VCT facilities, counselling services and referral systems;
- 3.10 How the workshops will be presented, including frequency and duration;
- 3.11 How the workshops will fit in with the construction programme;
- 3.12 How the Service Provider will assess the knowledge and attitude levels of attendees to structure workshops accordingly;
- 3.13 How the video will be used;
- 3.14 How the Service Provider will elicit maximum participation from the Workers;
- 3.15 A questions and answers slot (interactive session)

The Service Provider Workshop Plan shall encompass the Specific Learning Outcomes (SLO) as stipulated

**B14004 HIV/ AIDS AWARENESS EDUCATION AND TRAINING**

**4.1 Workshops**

The Contractor shall ensure that all Workers attend the workshops

The workshops shall adequately deal with all the aspects contained in the Service Provider Workshop Plan. A video of HIV/AIDS in the construction industry, which can be obtained from all Regional Offices of the Department of Public Works, is to be screened to Workers at workshops. In order to enhance the learning experience, groups of not exceeding 25 people shall attend the interactive sessions of the workshops.

**4.2 Recommended practice**

**4.2.1 Workshop Schedule**

Presenting information contained in the Service Provider Workshop Plan can be divided in as many workshop sessions as deemed practicable by the Contractor, provided that all Workers are exposed to all aspects of the workshops as outlined in the Service Provider Workshop Plan

Breaking down the content of information to be presented to Workers into more than one workshop session however, has the added advantage that messages are reinforced over time while providing opportunity between workshop sessions for Workers to reflect and test information. Workers will also have an opportunity to ask questions at a following session

**4.2.2 Service Providers**

A database of recommended Service Providers is available from all Regional Offices of the Department of Public Works

**4.2.3 HIV/AIDS Specific Learning Outcomes and Assessment Criteria**

Workers shall be exposed to workshops for a minimum duration of two-and-a-half hours. In order to set a minimum standard requirement, the following specific learning outcomes and assessment criteria shall be met

**4.2.3.1 UNIT 1: The nature of HIV/AIDS**

After studying and understanding this unit, the Worker will be able to differentiate between HIV and AIDS and comprehend whether or not it is curable. The Worker will also be able to explain how the HI virus operates once a person is infected and identify the symptoms associated with the progression of HIV/AIDS

Assessment Criteria:

1. Define and describe HIV and AIDS
2. List and describe the progression of HIV/AIDS

**4.2.3.2 UNIT 2: Transmission of the HI virus**

After studying and understanding this unit, the Worker will be able to identify bodily fluids that carry the HI virus. The Worker will be able to recognise how HIV/AIDS is transmitted and how it is not transmitted

Assessment Criteria:

1. Record in what bodily fluids the HI virus can be found
2. Describe how HIV/AIDS can be transmitted
3. Demonstrate the ability to distinguish between how HIV/AIDS is transmitted and misconceptions around transmittance of HIV/AIDS

4.2.3.3 UNIT 3: HIV/AIDS preventative measures

After studying and understanding this unit, the Worker will comprehend how to act in a way that would minimise the risk of HIV/AIDS infection and to use measures to prevent the HI virus from entering the bloodstream

Assessment Criteria:

1. Report on how to minimise the risk of HIV/AIDS infection
2. Report on precautions that can be taken to prevent HIV/AIDS infection
3. Explain or demonstrate how to use a male and female condom
4. List the factors that could jeopardize the safety of condoms provided against HIV/AIDS transmission

4.2.3.4 UNIT 4: Voluntary HIV/AIDS counselling and testing

After studying and understanding this unit, the Worker will be able to recognise methods of testing for HIV/AIDS infection. The Worker will be able to understand the purpose of voluntary HIV/AIDS testing and pre- and post-test counselling

Assessment Criteria:

1. Describe methods of testing for HIV/AIDS infection
2. Report on why voluntary testing is important
3. Report on why pre- and post-test counselling is important

4.2.3.5 UNIT 5: Living with HIV/AIDS

After studying and understanding this unit, the Worker will be able to recognise the importance of caring for people living with HIV/AIDS and be able to manage HIV/AIDS

Assessment Criteria:

1. List and describe ways to manage HIV/AIDS
2. Describe nutritional needs of people living with HIV/AIDS
3. Describe ways to embrace a healthy lifestyle as a person living with HIV/AIDS
4. Explain the need for counselling and support to people living with HIV/AIDS

4.2.3.6 UNIT 6: Treatment options for people with HIV/AIDS

After studying and understanding this unit, the Worker will be familiar with the various treatments available to HIV/AIDS infected or potentially HIV/AIDS infected people

Assessment Criteria:

1. Discuss anti-retroviral therapy
2. List methods of treatment to prevent HIV/AIDS transmission from mother-to-child
3. Describe the need for treatment of opportunistic diseases for people living with HIV/AIDS
4. Describe post exposure prophylactics

4.2.3.7 UNIT 7: The rights and responsibilities of Workers in the workplace with regard to HIV/AIDS

After studying and understanding this unit, the Worker will be able to identify the rights and responsibilities of the Worker living with HIV/AIDS in the workplace. The Worker will recognise the importance of accepting colleagues living with HIV/AIDS and treating them in a non-discriminative way

Assessment Criteria:

1. Discuss the rights of a person living with HIV/AIDS in the workplace
2. Discuss the responsibilities of a person living with HIV/AIDS in the workplace
3. Report on why acceptance and non-discrimination of colleagues living with HIV/AIDS is important

**4.3 Displaying of plastic laminated posters and distribution of information booklets**

The Contractor shall obtain a set of four laminated posters conveying different key messages and information booklets, which are available from all Regional Offices of the Department of Public Works

The above-mentioned posters and information booklets have been prepared to raise awareness and to share information about HIV/AIDS and STI's

Posters or display stands shall be displayed on site as soon as possible, but not later than 14 days after the date of site handover

Posters shall be displayed in areas highly trafficked by Workers, including toilets, rest areas, the site office and compounds

The posters on display must always be intact, clear and readable

Information booklets must be distributed to all Workers as soon as possible, but not later than 14 days after site handover, or as soon as the Worker joins the site

**B14005 PROVIDING WORKERS WITH ACCESS TO CONDOMS**

The Contractor shall provide and maintain condom dispensers and make both male and female condoms, complying with the requirements of SABS ISO 4074, available at all times to all Workers at readily accessible points on site, for the duration of the contract. The Contractor may obtain condom dispensers from the Department of Health and condoms may be obtained from the Local Clinic or the Department of Health.

At least one male and one female condom dispenser and a sufficient supply of condoms, all to the approval of the Representative/Agent, shall be made available on site within 14 days of site handover. Contractors should note that arrangements to obtain condoms from the Department of Health Clinics prior to site handover may be necessary, to ensure that condoms are available within 14 days of site handover.

Condoms shall be made available in areas highly trafficked by Workers, including toilets, the site office and compounds.

**B14006 ENSURING ACCESS TO HIV/AIDS TESTING AND COUNSELLING FACILITIES AND TREATMENT OF SEXUALLY TRANSMITTED INFECTIONS (STI)**

The Contractor shall provide Workers with the names of the closest Service Providers that provide HIV/AIDS testing and counselling and Clinics providing Sexually Transmitted Infection (STI) diagnosis and treatment. Information on these Service Providers and Clinics must be displayed on a poster of a size not smaller than A1 in an area highly trafficked by Workers.

**B14007 APPOINTMENT OF AN HIV/AIDS AWARENESS CHAMPION**

Within 14 days of site handover the Contractor shall appoint an Awareness Champion from amongst the Workers, who speaks, reads and writes English, who speaks and understands all the local languages spoken by the Workers and who shall be on site during all stages of the construction period. The Contractor shall ensure that the Awareness Champion has been trained by the Service Provider on basic HIV/AIDS information, the support services available and the necessary skills to handle questions regarding the HIV/AIDS programme in a sensitive and confidential manner

The Awareness Champion shall be responsible for:

- 7.1 Liasing with the Service Provider on organising awareness workshops;
- 7.2 Filling condom dispensers and monitoring condom distribution;
- 7.3 Handing out information booklets;
- 7.4 Placing and maintaining posters

**B14008 MONITORING**

The Contractor shall grant to the Representative/Agent reasonable access to the construction site, in order to establish that the Contractor complies with his obligations regarding HIV/AIDS awareness under this contract

The Contractor must report problems experienced in implementing the HIV/AIDS requirements to the Representative/Agent

The attached SITE CHECKLIST (SCHEDULE A) shall be completed and submitted at every construction progress inspection to the Representative/Agent

The attached SERVICE PROVIDER REPORT (SCHEDULE B) shall be completed and submitted on a monthly basis to the Department’s Project Manager, through the Representative/Agent

The attached CONTRACTOR HIV/AIDS PROGRAMME REPORT (SCHEDULE C), a close out programme report, shall be completed by the Contractor at the end of the contract

**B14009 MEASUREMENT AND PAYMENT**

It is required of the Contractor to thoroughly study the HIV/AIDS Specification of the Department that must be read together with and is deemed to be incorporated in the Bills of Quantities. Provision for pricing of HIV/AIDS awareness is made under items B130.1, B130.2, B130.3, B130.4 and B130.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regard shall be entertained

The Contractor must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the Representative/Agent, notwithstanding the provisions of any other clauses to the contrary, reserves the right to delay issuing any progress payment certificate until the Contractor provides satisfactory proof of compliance. The Contractor shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.

<b>Item</b>	<b>Unit</b>
<b>B1400.1 AWARENESS CAMPAIGN</b>	
<b>(i) Fixed</b> .....	Lump Sum
<b>(ii) Value Related</b> .....	Sum
<b>(iii) Time Related</b> .....	Month
Selection, appointment, briefing and making available of an Awareness Campaign including provision of all relevant services, all in accordance with the HIV/AIDS Specification	

Item	Unit
<b>B1400.2 AWARENESS WORKSHOPS</b>	
(i) Fixed .....	Lump Sum
(ii) Value Related .....	Sum
(iii) Time Related.....	Month

Selection and appointment of a competent Service Provider approved by the Representative/Agent, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification

Item	Unit
<b>B1400.3 POSTERS, BOOKLETS, VIDEOS, ETC.</b>	
(i) Fixed .....	Lump Sum
(ii) Value Related .....	Sum
(iii) Time Related.....	Month

Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the construction period, all in accordance with the HIV/AIDS Specification.

Item	Unit
<b>B1400.4 ACCESS TO CONDOMS</b>	
(i) Fixed .....	Lump Sum
(ii) Value Related .....	Sum
(iii) Time Related.....	Month

Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period, all in accordance with the HIV/AIDS Specification

Item	Unit
<b>B1400.5 MONITORING</b>	
(i) Fixed .....	Lump Sum
(ii) Value Related .....	Sum
(iii) Time Related.....	Month

Monitoring HIV/AIDS awareness of workers, providing the Representative/Agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification.



**SECTION 15000: UTILISATION OF ME's AND LOCAL LABOUR****CONTENTS**

B15001 SCOPE : ME MANAGEMENT

B15002 BASIC METHOD REQUIREMENT : ME MANAGEMENT

B15003 SCOPE : UTILISATION OF LOCAL LABOUR AND LIMITED TECHNICAL TRAINING

B15004 BASIC METHOD REQUIREMENT : TRAINING OF LOCAL LABOUR

B15005 MEASUREMENT AND PAYMENT

**15000 OBJECTIVE**

A major objective of the targeted procurement procedure is to extend economic opportunities and entrepreneurial capacity to all localities by the optimum utilisation of the resources existing in the vicinity of projects, the development of these resources in the execution of the project, and by maximising the amount of project funds retained within the project locality.

It is the Employers objective that a minimum of 30% of the contract value be subcontracted to Micro Enterprises in the relevant 1 to 3 CIBD grading. **They are to be procured from ME Contractors based in the LMA (Local Municipal Area).**

A further objective is to ensure that the S'hamba Sonke, Integrated Contractor Development Programme (ICDP) and Provincial Roads Maintenance Grant (PRMG) requirements and principles, which are applicable, are to be adhered to in the implementation of the project.

**B15001 SCOPE:**

This section provides the specifications that relate to the contractor's implementation of the policies and initiatives of the Government, community participation, and employment of Micro Enterprises (ME), training and mentoring of Micro Enterprises, and engagement and training of labour recruited from local communities. These specifications should be read in conjunction with the various statutes and legislation that relate to small businesses and Broad-Based Black Economic Empowerment.

In this regard all tenders will be considered with specific reference to applicable legislation in force from time to time and which are specifically applicable to organs of state for example the following:-

- (i) The Constitution of the Republic of South Africa, 1993;
- (ii) Public Finance Management Act, 1999 (Act No 1 of 1999);
- (iii) Preferential Procurement Policy Framework Act, 2000 (Act No 5 of 2000);
- (iv) Broad-Based Black Economic Empowerment Act, 2003 (Act No 53 of 2003);
- (v) Construction Industry Development Board Act, 2000 (Act No 38 of 2000) and Regulations; and
- (vi) National Small Business Amendment Act, 2003 (Act No 26 of 2003).

**15001.1 DEFINITIONS**

The following words and expressions shall have the meanings stated.

**Project Management Team (PMT):** three persons comprising the Employer, Engineer and Contractor.

**Micro Enterprise (ME):** a separate and distinct business entity, including cooperative enterprises and non-governmental organisations, managed by one owner or more, including its branches or subsidiaries, if any, and is registered with the South African Revenue Service, and which can be classified as a micro enterprise by satisfying the size variation criteria according to the type of enterprise in table 15001a below:

TABLE 15001a: SMME SUPPLIERS AND OTHER SERVICE PROVIDERS *				
Size	Total Full-time Equivalent of Paid Employees	Total Annual Turnover	Total Gross Asset Value (fixed property excluded)	CIDB Grading
	<i>less than</i>	<i>less than</i>	<i>less than</i>	
Medium	200	R26 m	R5 m	7
Small	50	R6 m	R1 m	5 & 6
Micro	5	R0.2 m	R0.1 m	1 to 4

\* In terms of the National Small Business Amendment Act, 2003 (Act No 26 of 2003)

It is the Employers objective that a minimum of **30%** of the contract value be subcontracted to Micro Enterprises in the relevant 1 to 4 CIDB grading to be procured from the local municipal area.

## 15002 BASIC METHOD REQUIREMENT : ME MANAGEMENT

### 15002.1 Project Management Team (PMT)

(a) Appointment

A Project Management Team is to be set up comprising a representative from each of the Employer, Engineer and Contractor.

(b) The duties and functions of the PMT are as follows:

- (i) determine the scope and extent of the works to be included in any particular subcontract;
- (ii) make decisions regarding the tender pre-qualification process;
- (iii) compile subcontract tenders
- (iv) adjudicate and approve subcontract tenders;
- (v) approve the extension of subcontracts, which shall be subject to satisfactory performance by the subcontractor and;
- (vi) Decide when a ME requires dedicated and structured mentoring from the Departmentally appointed Professional Service Provider in this regard. This will be provided on an ad hoc basis as and when required.

Once the appointment of the ME's has been made, the relationship between the Main Contractor and the ME will be strictly as set out in sub-clause 4.4 of the General Conditions of Contract for Construction Works, 2015.

### 15002.2 General responsibilities of the Contractor

(a) Obligations

The Contractor shall ensure that he complies with the following obligations:

- (i) identify work to be executed from his inspections, and submit these to the Engineer who will determine which work must be carried out;
- (ii) institute a quality assurance system;

- (iii) provide training (limited to technical matters), general on site mentoring (not dedicated or structured mentoring), general guidance and assistance to ME's;
  - (iv) ensure that the contract goals and objectives are achieved, and
  - (v) compile subcontract agreements with the ME's
  - (vi) submit a monthly report to the Engineer on items (iii) and (iv) above
- (b) Subcontracts involving ME's

In the subcontracts arranged by the contractor involving ME's, the following shall apply:

- (i) no provision or requirements set out in the specifications shall be deemed to relieve the Contractor of any liability or obligation under the contract and in accordance with the provisions of clause 4 of the General Conditions of Contract for Construction Works, 2015, the Contractor shall be fully liable for the acts, defaults and neglects of any ME, their agent or employees, as fully as if they were the acts, defaults and neglects of the Contractor, his agents or employees;
- (ii) the appointment of the ME subcontractor by the Contractor, shall be made according to sub-clause 4.4 of the General Conditions of Contract for Construction Works, 2015; and
- (iii) any failure or neglect by the Contractor to comply with the provisions of the specifications, or any omission or neglect by the Contractor in adhering to or applying the principles as are described and inherent in the specifications, shall be deemed to constitute a warrant for the Engineer to act in terms of clause 9 of the General Conditions of Contract for Construction Works, 2015.

### 15002.3 Selection of ME's for tender purposes

The Contractor is to subcontract a minimum of 30% of the Contract Value to ME Contractors. selected from local ME Contractors.

Request for Quotations will be done for the 30% ME's procured locally and will be done via an application from the Local Municipality in which the Contractor indicates the work package and required CIDB grading. A list of prospective Tenderers will then be forwarded from the Municipality, to the Contractor to be invited to tender on the said package.

#### 15002.3.1 Compilation of tenders

In compiling the tenders the Contractor shall take note of the following.

- (a) The PMT shall compile the tenders in such a manner that it will facilitate the achievement of all objectives and principles pertaining to the use and development of the ME's, as are stated in or as may reasonably be inferred from the conditions of this contract.  
The Contractor shall be responsible for the compilation of each subcontract agreement and for ensuring that the terms and conditions are consistent with all requirements therefore, as are specified in or reasonably to be inferred from the provisions of this contract. The Contractor shall bear all costs associated with the compilation of the documentation for the subcontracts and the conclusion of the agreement.
- (c) Nothing contained in the specification shall be deemed to constitute or imply any warranty given by the Contractor to any party that any ME to whom a subcontract is awarded in accordance with the provisions of the specification:
  - (i) can or will actually achieve the successful execution and completion of the subcontractor, nor;
  - (ii) will not suffer losses or damages as a result of the acceptance of his tender.

- (d) Scope of work for subcontracts ;

In determining the scope of work to be included in any particular subcontract, the PMT shall be responsible for the identification of the:

- (i) total number of subcontracts to be let;
- (ii) scheduling of the time when subcontracts will be let;
- (iii) limitation, if any, of how many subcontracts may be awarded to the same Bidders on the same contract.

- (d) Types of subcontracts

The following types of subcontracts may be let to ME's:

- (i) full or part service for a specific activity on the whole road;
- (ii) full or part of service on a section of road;
- (iii) labour only;

- (e) Target tender amount

- (i) The target tender amount of all the subcontracts shall be a minimum of 15% of the contract value.

#### **15002.3.2 Tender process for ME's**

- (a) Tender invitation

The ME's who are selected from the Municipal data base, will be invited to tender for the scope of work as specified.

- (b) Issue of tender documents

The tender documents shall be issued by the Contractor at his site office.

- (c) Tender closure

Tenders shall close at the stipulated date and time, and be deposited in a proper tender box at the Contractor's site office. Tenders shall be opened in public in the presence of the Engineer and Contractor.

- (d) Adjudication of Tender

Tenders are to be adjudicated by the PMT together with a representative of the ICDP unit. Should the preferred ME tendered amount for a specific package vary by more than 10% to that of the work priced using the Main Contractors rates, specific approval will be required from the Department.

#### **15002.3.3 Management of Subcontracts**

The Contractor shall compile the subcontract agreements, and provide the necessary management support to the ME's as set out in this section. Failure by the subcontractor to comply with the terms and conditions of the subcontract agreement shall result in penalties being applied or the subcontract terminated.

#### **15002.3.4 Compilation**

The Contractor in liaison with the Engineer shall be responsible for the compilation of each subcontract agreement. The agreement shall be in accordance with the provisions of sub-clause 4.4 of the General Conditions of Contract for Construction Works, 2015, and shall be consistent with the terms and conditions in this contract. The agreement shall be subject to approval by the Project Management Team.

### 15002.3.5 Quality of work and performance of the subcontractor

- (a) The Contractor shall closely monitor and supervise all ME's and shall guide and assist each ME in all aspects of management, execution and completion of his subcontract. This shall typically include assistance with planning of the works, sourcing and ordering of materials, labour relations, monthly measurements and invoicing procedures. The extent and level of such guidance and assistance, to be provided by the Contractor shall be commensurate with the basic level of subcontract applicable and shall be directed at enabling the ME to achieve the successful execution and completion of his subcontract.
- (c) The Contractor shall give reasonable warning to the ME when any contravention of the terms and conditions of the subcontract has occurred or appears likely to occur. The Contractor shall, whenever feasible, give the ME reasonable opportunity to make good any such contravention or to avoid such contravention and shall render all reasonable assistance to the ME in this regard.

## B15003 UTILISATION OF LOCAL LABOUR AND LIMITED TECHNICAL TRAINING

### B15003.1 EMPLOYMENT OF LOCAL LABOUR

The Contractor is to create a minimum of 6 (six) job opportunities on site for the duration of the contract period. These employment opportunities are over and above of those created by the ME's.

The ratio of all local labour employed on the project must conform to the following:

- At least 20% women (Preference must be given to single heads of household)
- At least 40% youth (Persons above school going age of 18 to 35 years old)
- 40% men (Over the age of 35 years)

### B15003.2 LABOUR INTENSIVE WORK

The guiding principles upon which the labour intensive work to be provided is based, include:-

- creating sustainable job opportunities,
- poverty alleviation,
- local authority empowerment, and
- ensuring financial accountability

In line with the above, the following targets have been set in order to reach objectives and this Contract will be subject to these targets:

- **Labour intensive methods of construction** are to be used where possible.
- **Women** are to make up at least **20%** of the **Total Local Labour** employed on this project with an emphasis on "*Women who are the single head of households and have dependants*".
- **Youth** are required to make up at least **40%** of the **Total Local Labour** employed.
- **Men** are required to make the **40%** balance of the **Total Local Labour** employed.

The Contractor shall therefore be required to plan his activities to maximise the use of local labour. A "local labourer" is defined as a person whose domicilium citandi ex executandi shall be in the Local Municipal Area in which the project is being implemented. The rates tendered shall cover the full cost of the all labour intensive work.

### **B15003.3 LIMITED TECHNICAL TRAINING – LOCAL LABOUR**

The Contractor shall be responsible for providing limited technical accredited training to local labour employed on the project (eg. 2 day on site SARF courses – patching potholes). The Contractor shall facilitate initial training sessions as approved by the Engineer, as well as training sessions at specified intervals to revive and supplement the initial training. An accredited trainer shall present all training sessions.

Training for ME Contractors will be provided by the Departments Professional Services Providers as and when required on an ad hoc basis.

This specification includes all requirements and methods to be employed, for the training of the Local personnel, as well as the measurement and payment.

### **B15003.4 LIMITED TECHNICAL TRAINING – GOVERNMENT TECHNICAL EMPLOYEES**

The Contractor shall be responsible for providing limited technical accredited training for government officials.

### **B15004 BASIC METHOD REQUIREMENT : TRAINING OF LOCAL LABOUR**

The Contractor shall be responsible for conducting a complete investigation of the groups that need to be trained in order to compile an approved **training plan**.

The investigation shall cover at least the following aspects:

- (a) Assess likelihood of conformance to task-specific requirements (*status quo*) of capabilities in terms of a formal skills audit.
- (b) Identify minimum pre-qualification criteria in terms of existing knowledge and skill levels in relation to reaching target requirements.
- (c) Evaluate personnel in terms of pre-qualification criteria and tasks to be performed (skills profile).
- (d) Identify training needs.
- (e) Identify the appropriate accredited training courses in terms of task-specific activities and identified training needs. The Contractor is to ensure that the identified course content is as per the activities listed in the Routine Road Maintenance Procedures Manual of the Department.

The Contractor shall identify an accredited training service provider to assist in the above skills audit and to help finalise the compilation of a training plan setting out the proposed courses. Once the training plan and proposed courses have been approved by the Engineer, the Contractor shall liaise with the accredited service provider to establish a date and appropriate training venue that would be conducive to learning and to perform training. On-site training is preferred.

The training shall be reviewed within one month after initial training to determine its effectiveness. Further regular training sessions shall be scheduled according to the effectiveness of initial training.

The Contractor will be responsible for recording all training sessions and shall keep an attendance register.

### **B15005 PAYMENT OF ME CONTRACTORS**

It is an express condition of the project that the Main Contractor pay all his ME Contractors within 14 days of the ME submitting their invoice of work done. Should there be a discrepancy between the value of the certificate submitted by the ME and the value calculated by the Main Contractor, the ME will be paid the amount determined by the Main Contractor, all still within 14 days.

A PMT meeting may then be called to discuss and resolve the differences.

**B15006 PROVISION OF BRIDGING FINANCE TO CIDB REGISTERED 1 & 3 ME CONTRACTORS**

The Main Contractor will make “bridging finance” available to the ME’s (only CIDB grade 1 & 3), to a minimum of 30% of the package value, to act as start-up capital or to assist in purchasing

materials and small items of plant, eg. weed eaters.

The amount of bridging finance provided to an ME will be paid in instalments as agreed to and set out in the Sub Contract agreement between the two parties.

**B15007 MEASUREMENT AND PAYMENT**

<b>Item</b>	<b>Unit</b>
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<b>B15007.1 Conducting of skills audit and the development of a training plan .....</b>	<b>Provisional Sum</b>
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A provisional sum is allowed for the conducting of a skills audit of the Local Labour, as well as the compilation of a training plan.

The provisional sum shall include full compensation for identification of pre-qualification criteria and training needs, staff assessment and evaluation prior to training, all technical research, identification of accredited training courses, and all other actions necessary for commencement of official training sessions in accordance with the specification.

Any expenditure under this item requires the written prior approval of the Engineer and Employer.

<b>Item</b>	<b>Unit</b>
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<b>B15007.2 Presenting accredited training course for Local Labour/MEs .....</b>	<b>Provisional Sum</b>
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The provisional sum shall include full compensation for presenting the courses, including lectures, demonstrations, on-site training and hands-on development, and improvement of maintenance personnel’s skills to enable them to maintain and repair installations safely and efficiently at the satisfactory functional condition specified.

The provisional sum shall also include full compensation for the Contractor’s time, appointment of the accredited trainer for the course, and for all material expenses such as paper hand-outs and slides for the whole group of trainees, the number of which shall be determined during development of the training course.

Any expenditure under this item requires the written prior approval of the Engineer and Employer.

<b>Item</b>	<b>Unit</b>
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<b>B15007.3 Mark Up for Management of MEs .....</b>	<b>%</b>
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The percentage Mark Up tendered on the value of the ME’s work shall include full compensation **for all** guidance, supervision, setting out and monitoring activities that may be deemed necessary to ensure the Works carried out by MEs are in accordance with the technical and OHS specifications and within the agreed timeframes.

The payment will be made on a monthly basis, based on the actual certificate value of the ME, for the said month.

<b>Item</b>	<b>Unit</b>
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<b>B15007.4 Provision of bridging finance to MEs (only CIDB 1 &amp; 4).....</b>	<b>%</b>
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The percentage tendered on the value of the bridging finance will cover all costs incurred such as interest, bank charges and any other costs.

Payment will be made on a monthly basis on actual bridging funds made available to the ME’s for the particular month. Proof of funds made available for the month will be required before payment is made for this item.

**Item**

**Unit**

**B15007.4 Provisional Sum to cater for ME Rate Variance** ..... Prov Sum

The Provisional Sum shall cater for the difference in price between the value of works conducted at the Main Contractors tendered rates, versus that of the ME Contractors to a maximum of 10%. The Main Contractor will get paid, in his certificate, the **actual value of the ME's work** under a new item "B15007.5 - Payment to ME Contractors" to be created in the payment certificates. The rate variance is merely to make an allowance for any anticipated financial difference in price between the two parties works, at Tender Stage and will not be used, as a payment item once the Contract is awarded. (Any savings will remain in the Contract to be used for additional work).



## PROVINCE OF THE EASTERN CAPE

## DEPARTMENT OF TRANSPORT

## TENDER NO. SCMU10-21/22-0008

## UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS

**C3.5 : MANAGEMENT**
**C3.5.1 MANAGEMENT OF THE WORKS**
**C3.5.1.1 Applicable standards**

The following documents and COLTO standards and associated specification data are applicable and form part of the Contract :

- i) **Volume 1** : The General Conditions of Contract (2015, Third Edition), issued by SAICE, which the Bidders must purchase himself.
- ii) **Volume 2** :The COLTO Standard Specifications for Road and Bridge Works for State Road Authorities (1998 Edition), issued by the Committee of Land Transport Officials which the Bidders must purchase himself.
- iii) **Volume 3** : This document
- iv) **Volume 4** : Set of Drawings issued with Volume 3
- v) **Volume 5** : The Routine Road Maintenance Procedures Manual as issued by the Department Roads and Public Works of the Eastern Cape (Version 1, February 2002)
- vi) **Volume 6** :Re-gravelling and Road Betterment Procedures Manual ( Version : 3–Feb 2005 )
- vii) Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP).
- viii) Health and Safety Specification (may be bound in at the back of Volume 3 or issued as a separate volume)
- ix) South African Road Traffic Signs Manual
- x) Occupational Health and Safety Act
- xi) Environmental Management Programme

**C3.5.1.2 Particular or Generic specifications**

- a) The Standard Specifications for Road and Bridge Works for State Road Authorities 1998, prepared by the Committee of Land Transport Officials, (COLTO), as amended, shall apply to this Contract.
- b) In addition the following Particular Specifications that are bound into this document will also apply:
  - Section 1800 : Collection & Removal of Debris & Litter
  - Section 1900 : Dayworks (provisional)
  - Section 9100 : Controlling Vegetation Growth –Cutting
  - Section 11000 : Polymerised Bitumen Rejuvenator with a Mastic Filler
  - Section 12000 : Environmental Management Programme implementation
  - Section 13000 : Occupation Health & Safety specifications
  - Section 14000 : Health Training for the Construction Industry
  - Section 15000 : ME Management & Training of Local Labour

### C3.5.1.3 Planning and programming

The extent of the works contained in the Bill of Quantities is aimed at upgrading certain of the district road network over the contract period. However, should the tender amount exceed the Employer's budget, or should the Employer's annual budget be reduced during the course of the contract, the Employer reserves the right to reduce the scope of the works to suit the available budget.

The time for completion of this Contract is Error! Not a valid link. .

The Engineer will determine the extent of the work to be executed in terms of the contract. A preliminary overall maintenance plan indicating the anticipated maintenance activities over the 36 month period, based upon an initial needs analysis and current budgets.

The Contractor should also note that, during the contract period, other contracts may be running on the section of road requiring maintenance.

The Contractor should take cognisance of this for his programme and will be required to fully accommodate these contractors. No additional payment will be made for any inconvenience in this regard.

The Contractor shall submit his programme within the time stated in the Contract Data to the Engineer in bar chart form showing clearly, in addition to the requirements of Clause 5.6 of the General Conditions of Contract, the following:

- The various stages of work planned to be completed per month to suite the overall programme.
- Critical path activities.
- Anticipated value of work to be done during each month.
- His labour resources schedule which must distinguish between the Contractor's permanent labour and his temporary local labour employment.
- The lead time for training local labour if required.

When drawing up his programme, the Contractor shall also, *inter alia*, take into consideration and make allowance for:

- Expected weather conditions and their effects.
- The requirements and effects of employing labour-intensive construction methods.
- The accommodation and safeguarding of public access and traffic.
- Presence of other contractors on site.
- All other actions required in terms of this document.

The Engineer will agree on a general programme of work per route section with the Contractor and any changes to this programme will be finalised with the Contractor at least one month in advance. Once the programmes have been finalised a detailed monthly programme will be drawn up which will be used to monitor performance. When drawing up his construction programme, the Contractor shall take into account the time for completion for the activity as indicated in the Preliminary Programme. The Contractor will be required to pay special attention to the preceding table and project drawings, which represent a guideline programme for the execution of the maintenance works.

Once the monthly programme has been approved by the Engineer, the Contractor will be notified of the work that he is to undertake for the month by means of a Works Instruction from the Engineer.

Failure on the part of the Contractor to submit or to work according to the programme or revised programmes shall be sufficient reason for the Engineer to take steps as set out in Clause 5.13 of the General Conditions of Contract.

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Certain maintenance activities may be restricted on certain roads on days with increased traffic

flows.

The Contractor must allow for these restrictions in his monthly programme and no extension of time or claims in this regard will be considered. For this contract, the days with restrictions are indicated in the table overleaf:

DATE	ACTIVITY TO BE RESTRICTED	PERIOD OF RESTRICTION
Weekends	All routine road maintenance activities which may disrupt the normal flow of traffic.	From 16h00 on Friday till 07h00 on Monday
School closure		For 2 days before closing
School opening		For 2 days before opening
Long weekends		From 12h00 on day preceding, for duration
December holidays		Duration of holidays (taken as 15/12 – 08/01 )

The Contractor will only be allowed to undertake work on the affected roads during these periods with the approval of the Engineer.

Should the Contractor fall behind his monthly programme he shall produce a revised programme showing the modifications to the original programme necessary to ensure completion of the Works, or any part thereof, within the time for completion as defined or any extended time granted.

Failure to produce a revised programme may prejudice the Contractor in any claim for an extension of time.

#### **C3.5.1.4 Sequence of the works**

The Engineer will agree on a general programme of work per route section with the Contractor and any changes to this programme will be finalised with the Contractor at least one month in advance. Once the annual programmes have been finalised a detailed monthly programme will be drawn up which will be used to monitor performance. When drawing up his construction programme, the Contractor shall take into account the time for completion for the activity as indicated in the Preliminary Programme. The Contractor will be required to pay special attention to the preceding table and project drawings, which represent a guideline programme for the execution of the maintenance works.

Once the monthly programme has been approved by the Engineer, the Contractor will be notified of the work that he is to undertake for the month (or emergency works, as they occur) by means of a Works Instruction from the Engineer.

Failure on the part of the Contractor to submit or to work according to the programme or revised programmes shall be sufficient reason for the Engineer to take steps as set out in Clause 5.13 of the General Conditions of Contract.

#### **C3.5.1.5 Methods and procedures**

All work to be carried out will be in compliance with the following minimum requirements

- The Routine Road Maintenance Procedures Manual as issued by the Department Roads and Public Works of the Eastern Cape (Version 1, February 2002)
- Re-gravelling and Road Betterment Procedures Manual (Version: 3 – Feb 2005)
- The OHS Act
- Environmental Management Programme
- Departmental Details drawings
- COLTO Standard Specifications for Road and Bridge Works for State Road Authorities (1998 edition)

### **C3.5.1.6 Materials and Road Condition Reports**

Preliminary road condition surveys and road logs indicating the existing condition of the proposed roads to be maintained are available at the Engineer's offices for perusal during working hours.

#### Control Testing of Earthworks and Road Layers

The Contractor is required to carry out his own control testing, but if he so wishes, and agrees to abide by the results of the Engineer's check test, he may dispense with his own tests. However, should the Contractor wish to use the Engineer's testing facilities, he will be charged for the various tests at the rates ruling at the time.

Any additional tests requested by the Contractor or any retests required, due to failure of the initial tests, will be charged to the Contractor at the rates ruling at the time.

#### Process Control Testing

The Contractor is required to carry out his own control testing. The results of these control tests together with the location of the tests shall be submitted to the Engineer for approval. No payments will be made without this information, unless partial payment is allowed for special items in terms of the project specification.

#### Acceptance Control Testing

The Engineer may order that additional tests be carried out from time to time. A provisional sum is allowed for these additional tests. The cost of any additional tests that might fail, together with the remedial work ordered by the Engineer, will be for the account of the Contractor.

### **C3.5.1.7 Environment**

The Contractor will prior to the commencement of any construction or repair work prepare and submit an Environmental Management Programme (EMPR), for approval by the Engineer.

The EMPR shall clearly demonstrate how the Contractor intends mitigating damage to the environment, as a result of their construction activities.

The Contractor shall further appoint an Environmental Control Officer (ECO), who shall inspect all construction related activities and who shall report on non-compliance items.

Further, the ECO will submit his/her Environmental Audits at monthly site meetings, for discussion by all role players.

#### a) Sand and dust control

The Contractor shall, for the duration of the contract, take appropriate measures to control the dust and soil movement which may arise due to his operations.

#### b) Environmental Management

The Contractor will be required to compile a comprehensive Environmental Management Programme (EMPR), which should address the management and monitoring of environmental impacts related to this repair contract.

The EMPR should therefore identify potential environmental impacts and should further demonstrate how there would be mitigated and controlled.

The Contractor shall be responsible for implementing and managing an Environmental Management Programme in terms of the particular specifications for the borrow pits. The Contractor's authorised agent shall report to the Engineer regarding compliance with the conditions as stipulated in the Environmental Management Programme.

The Contractor shall take the utmost care to minimise the impact of his establishment and other construction activities on the environment and shall adhere to the requirements as set

out in Section 12000 of the Project Specifications. Where, in the opinion of the Engineer, the Contractor has not adhered to these requirements, the Contractor shall rectify the damage at his expense and to the satisfaction of the Engineer.

Trees and shrubs established in the landscaped areas of the road reserve may under no circumstances be disturbed without specific instruction from the Engineer for their removal. Trees and shrubs inadvertently destroyed by the Contractor shall be replaced with the equivalent at the Contractor's expense.

Disposal of any bituminous-based material shall only be at an approved location and by means of an approved method, arranged beforehand with the Engineer.

Storage sites for all bituminous products in the road reserve, or on private property, are to be approved by the Engineer prior to use. The containers used for storage shall be free of leaks and placed on a firm surface. No spoiling of any bituminous products shall be allowed in these areas. Unused or rejected products shall be removed from site and returned to the supplier. Solvents used for flushing spray tankers shall be treated likewise.

No separate payment items will be scheduled for the compliance by the Contractor with the EMPR. These costs will be deemed to be inclusive of the rates tender for the works.

### **C3.5.1.8 Accommodation of traffic on public roads occupied by the contractor**

The Works will be undertaken in a manner that will minimise the interference with public traffic, consistent with established routine road maintenance practices. Although inconvenience to road users will be inevitable, the Contractor must ensure that road users have continuous access on and to, a public road.

Temporary road traffic signs shall at all times be displayed at the works as specified on the drawings and in accordance with the requirements of this document, as well as the South African Road Traffic Signs Manual, in conjunction with Manual K56 "Safety at Roadworks in Rural Areas", and the Routine Road Maintenance Procedures Manual of the Department of Transport and Roads of the Eastern Cape. The Contractor may not commence constructional activities before adequate provision has been made to accommodate traffic in accordance with the above requirements.

The traffic signs shall be covered or removed when not required at night and over weekends. No diversions are generally required and the Contractor shall regulate the traffic with flagmen and take all precautions necessary to promote the safe and easy flow of traffic on or next to the roadway under repair.

The Contractor, if so instructed in writing, shall nevertheless provide a diversion at places with a high traffic safety risk. Except where otherwise specified, additional payment over and above payment under the payment items included in the Contract, will be made for the construction of the diversion and the additional measures required to control traffic as specified by the Engineer.

Should the Contractor neglect to apply the road traffic safety measures specified without due diligence, the Engineer may temporarily stop the works until the Contractor has rectified the situation or impose a penalty for each contravention of the requirements of the Specifications as detailed in Section 1500.

The Contractor will be responsible for the accommodation of traffic on, and maintenance of the existing roadways used by the public as instructed by the Engineer, from the date of site handover, to the issuing of the Certificate of Completion for the works as a whole.

No separate payment items have been scheduled for the accommodation of traffic or traffic signage and all these costs will be deemed to have been included in the relevant payment items of the appropriate works.

The Contractor must ensure that a competent person, that can act as a Traffic Safety Officer, is present on site at all times to deal with all issues relating to traffic accommodation. This person will, at all times, be responsible for the construction, spacing, placement and maintenance of traffic control devices.

### **C3.5.1.9 Other Contractors on site**

When drawing up his programme, the Contractor shall also, inter alia, take into consideration and make allowance for the presence of other contractors on site

### **C3.5.1.10 Testing, completion, commissioning, and correction of defects**

The Routine Road Maintenance Procedures Manual (RRMPM) of the Department of Roads and Public Works of the Eastern Cape describes the causes and type of defects, as well as providing a guide on how to conduct the works. This is covered in the Scope of Works.

### **C3.5.1.11 Recording of weather**

The Contractor will be responsible for recording and maintaining a daily log of weather conditions throughout the duration of the contract. During the execution of the Works, The Engineer's Representative will certify a day lost due to abnormal rainfall and adverse weather conditions only if less than 30% of the work force and plant on site could work during that specific working day.

### **C3.5.1.12 Format of communications**

The Contractor will keep on site at all times a Site Instruction Book in which the Engineer's Representative will issue any Site Instructions for variations of the Work. All correspondence will be written, signed, copied to the Employer and Contractor. The Engineer will maintain a file of all original correspondence.

The Contractor shall furnish the Engineer daily with records, as per the Employers Web Based Reporting System of work executed by him for each activity. The records shall include information such as description, location, measurement, plant and labour hours, where applicable, and all other information the Engineer may require for the record and measurement purposes.

### **C3.5.1.13 Key personnel**

A Schedule of Key Personnel is included in Volume 3 of the Contract document.

### **C3.5.1.18 Use of borrow pits**

The Contractor is to obtain all gravel wearing course material from the existing or new borrow pits in the vicinity of the project, as instructed by the Engineer. The Contractor is to adhere to the specific requirements contained in the EMPR pertaining to work methods in borrow pits.

### **C3.5.1.19 Construction Regulations, 2014**

The Contractor shall be required to comply with the Occupational Health and Safety Act, 1993: Construction Regulations, 2014 (the regulations) as promulgated in Government Gazette No 37305 and Regulation Gazette No 84 of 7 February 2014. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

The proposed type of work, materials to be used and potential hazards likely to be encountered on this Contract are detailed in the Scope of Works, the Bill of Quantities, the Drawings, and in the Employers' Health and Safety specification (regulation 5(1) of the Construction Regulations 2014), which is bound into the Contract document.

The Contractor shall, in terms of regulation 7(1), provide a comprehensive Health and Safety Plan detailing his proposed compliance with the regulations, for approval by the Employer.

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

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

### **C3.5.1.20 HANDING OVER SITE, SETTING OUT AND CONFIRMING THE SCOPE OF WORKS WITH THE CONTRACTOR**

The entire road reserve within the Local Municipal Area (and indicating any “soft boundaries” if applicable) will be handed over to the Contractor at the commencement of the Contract.

The Contractor will be responsible for executing the routine maintenance and construction activities as specified in the maintenance plan. He will work on all the roads for the duration of the Contract but will only occupy certain specific roads as agreed to and indicated in the approved monthly programme. The Contractor will be responsible for all gravel provincial roads within the LMA from the Commencement Date until the issuing of the Certificate of Completion.

The Engineer, the Contractor and supervisory staff shall together carry out a joint inspection at the time of the handing over of the site. During such an inspection the scope of the works will be set out for each of the roads / road sections indicating the various activities to be conducted, as well as making notes of all damaged fences, guardrails, signs and any other notable problems or features that exist.

The following matters are to be confirmed at the time of handing over and before the commencement of any work:

- (i) Confirming position of the site camp and/or any additional temporary site camps that may be required.
- (ii) The construction limits, lengths, widths and areas of routine maintenance or construction to be conducted for the various sections of road.
- (iii) The determination of the trial section for each type of maintenance / construction activity to be performed.
- (iv) The location of kilometre markers and reference beacons to be used for setting out purposes.
- (v) The scope of remedial / repair / general maintenance and preparatory work to be carried out.
- (vi) The location of the proposed stockpile areas and the responsibilities of the Contractor with regard to the road reserve area in terms of the clearing and grubbing if required, fencing, motor gates, stock grids, road markings, road signage, mowing of grass and the like.
- (vii) The proposed method of accommodation of public traffic with regard to safety, sight distance, interference with existing road signs and road markings within the work section and providing advance warning before the work section.
- (viii) The method of construction / treatment envisaged for each of the sections (sections to be receive edge break repair, crack sealing, light blading, pothole patching etc.) and the like, are to be confirmed and set out with the Contractor.
- (ix) Supervisory, test control measures and procedures are to be confirmed.
- (x) The position of all the existing pipe culverts (all hydraulic control structures), concrete lined cause ways and the like, is to be confirmed.
- (xi) Confirm the position of all existing services.

### **C3.5.1.21 TRIAL SECTION**

Before the Contractor commences with the construction/maintenance works, he shall demonstrate on a test section (for each type of maintenance activity) that the equipment and processes he intends to use, will enable him to execute the Works in accordance with the specified requirements. The trial sections for the various maintenance activities shall also serve as a basis to agree the interpretation of the Specifications for application during the Contract Period and the criteria and methods to be used by the Engineer for acceptance control.

Only when the trial sections have been satisfactorily completed in conformity with the specified requirements, will the Contractor be allowed to commence the maintenance/repair works. The Engineer shall, as far as is practical, select the location of the trial section at a position with characteristics which are representative of the general conditions to be found with the balance of the proposed works. The Engineer may require the construction of additional trial sections should the materials available or methods of construction significantly change during the course of the Contract.

No additional payment will be made for the demonstration at the trial section, other than for the work completed and accepted as part of the Works, at tender rates.

**C3.5.1.22 COMPLETION TIME OF SPECIFIED ACTIVITIES AND PENALTIES**

Due to the nature of maintenance work, certain items of work shall be carried out as a matter of routine, and others as emergency cases. The Contractor will be called upon to do remedial work at very short notice in some instances, in which case the Contractor shall proceed to carry out the work without delay and report to the Engineer in writing as soon as practically possible the extent of the work carried out.

It is a condition of the contract that certain specified activities must either be completed within a specified period or responded to within a specified time if they have been classified as emergency repairs by the Engineer. All other construction or maintenance activities will be classified as routine, and conducted as per the programme and works instructions.

Completion time for an activity:

Completion time is defined as that period from the date on which an instruction is received by the Contractor from the Engineer, to the date of full completion of the specific activity. The completion times are as indicated in the attached programme.

Responding time:

Responding time is defined as that period of time on which an instruction is received by the Contractor from the Engineer, to the time of reporting at an indicated place, by the designated team.

Emergency response and completion times :

<b>Emergency Activity</b>	<b>Completion Time</b>	<b>Responding Time</b>	<b>Penalty for late responding</b>	<b>Penalty for late completion</b>	<b>Penalty for not meeting specification</b>
<b>Road Repairs</b>	As specified by Engineer	1 day	R500/day	R300/day	R1000/occur



## **C3.5.2 EMPOWERMENT PRINCIPLES**

### **C3.5.2.1 Labour Intensive Construction Methods**

Labour intensive construction methods based on the Expanded Public Works Programme (EPWP) will be utilised where practically possible and feasible. Construction activities that are undertaken using labour intensive methods shall be based on the prevailing statutory minimum wage as determined by the Department of Labour.

### **C3.5.2.2 Training**

The Contractor shall be responsible for providing diverse accredited training to various groups, as well as to provide normal in-service training for all staff that he will be employing on the Contract. The Contractor shall develop and facilitate initial training sessions for all parties, as well as training sessions at specified intervals to supplement the initial training. An accredited trainer shall be present at all training sessions. All training courses must be approved by the Engineer and the Employer before they are implemented by the Contractor. All training modules or courses must be accredited.

Provision is made in the Bill of Quantities for the training of the Employer's personnel, and local labour. The Contractor will be responsible for normal in-service training of his own permanent employees and he shall allow for this in his tender rates and prices.

### **C3.5.2.3 Communication with Local Communities**

A Project Steering Committee / Roads Forums will be formed by the Engineer through the appropriate Local Ward Councillors or existing official structures if required, to act as the communication channel between the Contractor and the residents. This Project Steering Committee / Roads Forums will identify a Community Liaison Officer to be appointed by the Contractor. A provisional sum is allowed in the schedule of quantities to cover the cost of the Community Liaison Officer.

The Contractor shall use the Community Liaison Officer as indicated in Section B1232, and the Project Steering Committee / Roads Forums to timeously reach mutually acceptable employment agreements with the affected communities and to deal with any labour-related issues.

The Contractor must include in his rates for the cost of attending an average of one Project Steering Committee / Roads Forum meeting each month. The meetings will not necessarily be during normal working hours and it is accepted that the Contractor tendering for the works is familiar with dealing with communities and understands the implications of keeping the community informed. Minutes of such meetings must be recorded and distributed by the Contractor and the cost is deemed to be included in the rates.

### **C3.5.2.4 Local Labour**

Should personnel and labour, in addition to that provided by the Contractor, be required, the Contractor must endeavour to employ labourers, artisans and subcontractors from the community within the Local Municipal Area for the execution and completion of the work. The Contractor will fill in and submit to the Engineer all the required forms as enclosed in **Appendix B**. It will be deemed that the cost of this will be in the applicable rates.

The Contractor and his sub-contractors shall ensure that they enter into a Contract of Employment with each employee engaged on the labour intensive aspects of this Contract.

SCMU10-21/22-0008

PROVINCE OF THE EASTERN CAPE

DEPARTMENT OF TRANSPORT

TENDER NO. SCMU10-21/22-0008

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED  
DRAINS**

**CONTRACT**  
**PART 4 (OF 4): SITE INFORMATION**

PROVINCE OF THE EASTERN CAPE

DEPARTMENT OF TRANSPORT

TENDER NO. SCMU10-21/22-0008

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED  
DRAINS**

**C4: SITE INFORMATION**

**C 4.1 Scope**

The documentation included in this section describes the site as at the time of tendering to enable the tenderer to price his tender and to decide upon his method of working and programming.

Only actual information about physical conditions on the site and its surroundings have been included in this section and interpretation is a matter for the tenderers.

**C 4.2 Borrow pit Investigations**

Nil

**C 4.3 Subsoil Investigations, Borehole Records and Test Results**

Nil

**C 4.4 Reports obtained by the Employer concerning the physical conditions within the site or its surroundings, including mapping, hydro-graphic data and hydrological information**

Nil

**C 4.5 References to publicly available information about the site and its surroundings such as published papers and interpretations of the geotechnical investigation**

Nil

**C 4.6 Information about piped and other services below the surface of the site for contracts involving ground works and about hook-up and boundary details for contracts with plant interfaces, in addition to anything about the physical site which impacts upon the contract**

Nil

**C 4.7 Information about adjacent buildings and structures and about existing buildings and structures on the site (Restrictions for heavy loads etc)**

Nil

**C 4.8 Atmospheric and Environmental Criteria**

Nil

# **APPENDIX A**

**FORMS TO BE COMPLETED BY THE CONTRACTOR**

**AGREEMENT FORMS TO BE COMPLETED AFTER AWARD OF THE TENDER**

**DESCRIPTION**

1. AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993
2. CERTIFICATE OF AUTHORITY FOR AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993
3. AGREEMENT IN TERMS OF CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA, ENVIRONMENTAL CONSERVATION ACT & ENVIRONMENTAL MANAGEMENT ACT AND MPRDA
4. CERTIFICATE OF AUTHORITY FOR AGREEMENT IN TERMS OF CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA, ENVIRONMENTAL CONSERVATION ACT & ENVIRONMENTAL MANAGEMENT ACT AND MPRDA

**THESE FORMS ARE FOR INFORMATION ONLY AND WILL ONLY BE COMPLETED BY THE SUCCESSFUL BIDDERS ONCE THE CONTRACT IS AWARDED.**

**AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT (ACT NO 85 OF 1993)**

**CONTRACT NO. SCMU10-21/22-0008**

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THIS AGREEMENT made at .....on this the ..... day

of.....in the year..... between the PROVINCE OF THE EASTERN CAPE DEPARTMENT OF TRANSPORT (hereinafter called "the Employer") of the one part, herein represented by

.....in his capacity as .....

and delegate of the Employer in terms of the Employer's standard powers of delegation pursuant to the provisions of Act No 7 of 1998.

and ..... (hereinafter called "the Mandatory") of the other part, herein represented by

..... in his capacity as.....

and being duly authorised by virtue of a resolution appended hereto;

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

**CONTRACT NO. SCMU10-21/22-0008**

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**

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

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

1. The Mandatory shall execute the work in accordance with the contract documents pertaining to this contract.
2. This Agreement shall hold good from its commencement date, which shall be the date of a written notice from the Employer or Engineer requiring him to commence the execution of the Works, to either:
  - a) the date of the final certificate issued in terms of clause 5.14 of the General Conditions of Contract 2010 (hereinafter referred to as "the General Conditions of Contract"), as contained in Volume 3 of the contract documents pertaining to this Contract, or
  - b) the date of termination of the Contract in terms of clauses 9.1, 9.2 or 9.3 of the General Conditions of Contract.
3. The Mandatory declares himself to be conversant with the following: -
  - a) All relevant 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.
  - b) The procedures and safety rules of the Employer as contained in the project Health & Safety specifications pertaining to the Mandatory and to all his sub-contractors.

4. The Mandatory is responsible for the compliance with the Act by all his sub-contractors, whether or not selected and/or approved by the Employer.
5. The Mandatory warrants that all his and his sub-contractors' workmen are covered in terms of the Compensation for Occupational Injuries and Diseases Act 1993 which cover shall remain in force whilst any such workmen are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement and be attached hereto.
6. The Mandatory undertakes to ensure that he and/or subcontractors and/or their respective employers will at all times comply with the following conditions:
  - a) The Mandatory shall not delegate any duty in terms of Section 16.2 of this Act without the prior written approval of the Employer. If the Mandatory obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Employer.
  - b) All incidents referred to in the Occupational Health and Safety Act shall be reported by the Mandatory to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
  - c) The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of section 32 of the Occupational Health and Safety Act into any incident involving the Mandatory and/or his employees and/or his sub-contractors.

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

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

WITNESS:	1..... (Signature)	..... (Name)
	2..... (Signature)	..... (Name)

**SIGNED FOR AND ON BEHALF OF THE MANDATARY: .....**

WITNESS:	1..... (Signature)	..... (Name)
	2..... (Signature)	..... (Name)

**CERTIFICATE OF AUTHORITY FOR SIGNATORY TO AGREEMENT IN TERMS OF THE  
OCCUPATIONAL HEALTH AND SAFETY ACT 1993 (ACT NO 85 OF 1993)**

**CONTRACT NO. SCMU10-21/22-0008**

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**

The signatory for the Contractor in terms of the above-mentioned Contract and the Mandatory in terms of the above-mentioned Act shall confirm his / her authority thereto by attaching to this page a duly signed and dated copy of the relevant resolution of the Board of Directors.

*An example is given below:*

“By resolution of the Board of Directors passed at a meeting held on ..... ,

Mr/Ms ..... whose signature appears below, has been duly authorised to sign the AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT 1993 (ACT 85 OF 1993) on behalf of

.....

**SIGNED ON BEHALF OF:**.....

IN HIS/HER CAPACITY AS:.....

DATE: .....

SIGNATURE OF SIGNATORY: .....

WITNESS:	1..... (Signature)	..... (Name)
	2..... (Signature)	..... (Name)



**AGREEMENT IN TERMS OF CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA, ENVIRONMENT  
CONSERVATION ACT, NATIONAL ENVIRONMENTAL MANAGEMENT ACT AND MPRDA**

**CONTRACT NO. SCMU10-21/22-0008**

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**

THIS AGREEMENT made at ..... on this the ..... day

of.....in the year..... between the PROVINCE OF THE EASTERN CAPE DEPARTMENT OF  
TRANSPORT (hereinafter called "the Employer") of the one part, herein represented by

.....in his capacity as .....

and delegate of the Employer in terms of the Employer's standard powers of delegation pursuant to the provisions of Act  
No 7 of 1998.

and ..... (hereinafter called "the  
Mandatory") of the other part, herein represented by

..... in his capacity as.....

and being duly authorised by virtue of a resolution appended hereto;

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

**CONTRACT NO. SCMU10-21/22-0008**

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**

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

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

1. The Mandatory shall execute the work in accordance with the contract documents pertaining to this contract.
2. This Agreement shall hold good from its commencement date, which shall be the date of a written notice from the  
Employer or Engineer requiring him to commence the execution of the Works, to either:
  - a) the date of the final certificate issued in terms of clause 5.14 of the General Conditions of Contract 2010  
(hereinafter referred to as "the General Conditions of Contract"), as contained in Volume 3 of the contract  
documents pertaining to this Contract, or
  - b) the date of termination of the Contract in terms of clauses 9.1, 9.2 or 9.3 of the General Conditions of  
Contract.

3. The Mandatory declares himself to be conversant with all relevant requirements, regulations and standards of Section 24 of the Constitution of the Republic of South Africa (Act No 108 of 1996)\* the Environment Conservation Act (Act No 73 of 1989), the National Environmental Management Act (Act No 107 of 1998), the MPRDA, hereinafter referred to as "The Act", together with its amendments of The Act.
4. The Mandatory 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 Environmental specifications as contained in Volume 3 of the Tender Document.
5. The Mandatory is responsible for compliance with the Act by all his sub-contractors, whether or not selected and/or approved by the Employer.

Note \*: Environment

24. Everyone has the right –
  - (a) to an environment that is not harmful to their health or well-being; and
  - (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that –
    - (i) prevent pollution and ecological degradation;
    - (ii) promote conservation; and
    - (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

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

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

WITNESS: 1.....  
(Signature) (Name)

2.....  
(Signature) (Name)

**SIGNED FOR AND ON BEHALF OF THE MANDATARY:** .....

WITNESS: 1.....  
(Signature) (Name)

2.....  
(Signature) (Name)

**CERTIFICATE OF AUTHORITY FOR SIGNATORY TO AGREEMENT IN TERMS OF THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA, ENVIRONMENT CONSERVATION ACT AND NATIONAL ENVIRONMENTAL MANAGEMENT ACT AND MPRDA**

**CONTRACT NO. SCMU10-21/22-0008**

**UPGRADING OF R72 TO HAMBURG CONSTRUCTION OF CONCRETE LINED DRAINS**

The signatory for the Contractor in terms of the above-mentioned Contract and the Mandatory in terms of the above-mentioned Act shall confirm his / her authority thereto by attaching to this page a duly signed and dated copy of the relevant resolution of the Board of Directors.

An example is given below:

“By resolution of the Board of Directors passed at a meeting held on .....,

Mr/Ms ..... whose signature appears below, has been duly authorised to sign the AGREEMENT IN TERMS OF THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA, ENVIRONMENT CONSERVATION ACT AND NATIONAL ENVIRONMENTAL MANAGEMENT ACT and MPRDA on behalf of

.....

**SIGNED ON BEHALF OF:**.....

IN HIS/HER CAPACITY AS: .....

DATE: .....

SIGNATURE OF SIGNATORY: .....

WITNESS:	1.....	.....
	(Name)	(Signature)
	2.....	.....
	(Name)	(Signature)

