

# THE MSUNDUZI MUNICIPALITY



HEAD: SUPPLY CHAIN MANAGEMENT  
MRS D. N. GAMBU

333 Church Street, Private Bag X 205, Pietermaritzburg, 3200  
Telephone No. 033 – 392 2597

## **CONTRACT No. SCM 40 OF 24/25**

### **CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 (SHENSTONE AMBLETON)**

CIDB GRADING 7CE

Tenderer's Name:
Postal Address:
Telephone No:
Fax No:
Cellular No:
E-Mail Address:
Contact Person:

Tenders contained in sealed envelopes and marked with "**CONTRACT No. SCM 40 OF 24/25**" and the **CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 (SHENSTONE AMBLETON)** must be placed in the Tender Box located at the Central Stores, 2 Abattoir Road, (Off Kershaw Road), Pietermaritzburg, 3201, not later than **12h00** on **Wednesday, 26 February 2025** when they will be opened in public. **Only Tenders placed in the Tender Box before the closing time above will be accepted.**

CRS/ CIDB Number	
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*The Tenderer shall satisfy himself that this document is complete in accordance with the above schedule and if any pages are found to be missing, or duplicated, shall immediately request the Employer's Agent to rectify the discrepancy. No liability will be admitted by the Employer in respect of errors in the Tenderer's tender due to the foregoing.*

**THE MSUNDUZI MUNICIPALITY**

**CONTRACT No. SCM 40 OF 24/25**

**APPOINTMENT OF A CONTRACTOR (7CE) FOR THE CONSTRUCTION OF SEWER  
RETICULATION PIPELINES IN WARD 13 (SHENSTONE AMBLETON)**

**TENDER NOTICE**

The Msunduzi Municipality hereby invites tenders from suitably qualified and experienced Tenderers for the above works. ***Only Tenderers who have a CIDB grading of 7 CE or higher will be considered for appointment.***

Tender documents will be made available to tenderers from **12h00 on Monday, 27 January 2025**. Tender documents can be downloaded and printed at the tenderer's cost from the National Treasury eTender Publication Portal on **[www.etenders.gov.za](http://www.etenders.gov.za)**.

Printed copies of the tender documents shall also be available from the Supply Chain Management Unit Offices, 5<sup>th</sup> Floor, A S Chetty Centre, 333 Church Street, Pietermaritzburg, as from the abovementioned date and time, at a non-refundable tender deposit fee of **R1 264.62 (including VAT)** for each document drawn. Only cash or EFT payments will be accepted.

**A compulsory tender briefing will be held at the Auditorium No. 1, 1st Floor, Bessie Head Library, 260 Church Street, Pietermaritzburg, 3201 on Wednesday, 5 February 2025, at 10h00**, from where all will travel to the site of works. Only one Tender Briefing Meeting will be held. An official will chair the meeting and answer queries raised by prospective Tenderers.

For any technical related enquiries regarding the Specifications, please contact Ms. Fathima Mota (Water Section) on either Contact No. 081 450 2060 or e-mail **[fathima.mota@msunduzi.gov.za](mailto:fathima.mota@msunduzi.gov.za)**.

For any procurement related enquiries, please contact Vuyani Msimang (Supply Chain Management Sub-Unit) on direct Telephone No. 033 – 392 2807 or e-mail address **[vuyani.msimang@msunduzi.gov.za](mailto:vuyani.msimang@msunduzi.gov.za)**.

Tenders must be submitted both in hard copy and on CD/USB Flash Drive contained in sealed envelopes and marked with “**SCM 40 OF 24/25**” and the **Contract Description** must be placed in the Tender Box located at the Msunduzi Municipality's Central Stores, 2 Abattoir Road (off Kershaw Street), Pietermaritzburg, 3201 (coordinates -29.6126297; 30.3610014), not later than **12h00 on Wednesday, 26 February 2025**, when they will be publicly opened. Only tenders placed in the Tender Box shall be accepted.

**Tender Validity Period:** Four (4) months commencing from the closing date of tender.

**Tender Adjudication/Evaluation Criteria:** Tenderers meeting the Mandatory Requirements of the tender shall be evaluated on a Two Stage Evaluation System – Stage One: Functionality and Stage Two: 80/20 Point System in accordance with the Msunduzi Municipality's Supply Chain Management Policy (incorporating Preferential Procurement) as prescribed in terms of the Preferential Procurement Regulations 2022, pertaining to the Preferential Procurement Policy Framework Act, Act No. 5 of 2000, including Chapter 4 of the Public Procurement Act No. 28 of 2024. The Functionality for Stage One shall be evaluated on the following criteria:

No	Stage One - Functionality	Maximum Points
1	Number of Sewer Pipeline Projects Completed ( <i>Experience of Bidder in Sewer Pipeline Construction</i> )	20
2	Contracts Manager ( <i>Experience in sewer pipeline Projects and Professional Registration with ECSA or SACPCMP (relevant qualification must be attached along with professional registration certificate)</i> )	35
3	Construction Manager ( <i>Experience in sewer pipeline Projects</i> )	15
<b>Total Functionality Points</b>		<b>70 Points</b>
<b>Minimum Threshold to Qualify for Stage 2</b>		<b>50 Points</b>

The allocation of Preference Points will be according to the following Specific Goals:

Specific Goals	Maximum Points Awarded
<b>Black Owned Enterprise</b>	
A "black-owned enterprise" with at least 51% South African black ownership and/or more than 51% management control by South African black people	10
<b>Locality Of The Business</b>	
This includes any structure or establishment used in conducting a business within the Msunduzi Municipality's Area of Jurisdiction	10
Within Umgungundlovu Area of Jurisdiction	5
<b>Total Points Awarded</b>	<b>20</b>

Tenderers The Msunduzi Municipality does not bind itself to accept the lowest or any tender and reserves the right to accept the whole or any part of a tender. Each tenderer will be informed of the tender result.

The Msunduzi Municipality expects businesses within the Pietermaritzburg and Midlands Region to support its contract and BEE/SMME initiatives.

**NM NGCOBO (ACTING MUNICIPAL MANAGER)**

**THE MSUNDUZI MUNICIPALITY**

**CONTRACT No. SCM 40 OF 24/25**

**CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 (SHENSTONE AMBLETON)**

**DATA SHEET 1: INVITATION TO BID DOCUMENT**

**PART A**

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE MSUNDUZI MUNICIPALITY					
BID NUMBER:	SCM 40 of 24/25	CLOSING DATE:	26 February 2025	CLOSING TIME:	12H00
DESCRIPTION	CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 (SHENSTONE AMBLETON)				

BID RESPONSE DOCUMENTS MUST BE DEPOSITED IN THE BID BOX AT:

Tender Box located at the Central Stores					
2 Abattoir Road, (Off Kershaw Road)					
Co-ordinates: -29.6126297,30.3610014					
PIETERMARITZBURG					
3201					
SUPPLIER INFORMATION					
NAME OF TENDERER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		<b>OR</b>	CSD No:	

ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [IF YES, ANSWER PART B:3 ]
TOTAL NUMBER OF ITEMS OFFERED		TOTAL BID PRICE	R
SIGNATURE OF TENDERER	.....	DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED			
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		TECHNICAL INFORMATION MAY BE DIRECTED TO:	
DEPARTMENT	SCM UNIT	CONTACT PERSON	FATHIMA MOTA
CONTACT PERSON	Vuyani Msimang	TELEPHONE NUMBER	N/A
TELEPHONE NUMBER	033 392 2807	CELLULAR NUMBER	081 450 2060
FACSIMILE NUMBER	N/A	E-MAIL ADDRESS	
E-MAIL ADDRESS	<a href="mailto:Vuyani.Msimang@msunduzi.gov.za">Vuyani.Msimang@msunduzi.gov.za</a>		<a href="mailto:Fathima.Mota@msunduzi.gov.za">Fathima.Mota@msunduzi.gov.za</a>

**PART B**

<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.	<b>ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED– (NOT TO BE RE-TYPED) OR ONLINE</b>
1.3.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
<b>2. TAX COMPLIANCE REQUIREMENTS</b>	
2.1	TENDERERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2	TENDERERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3	APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.
2.4	FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.
2.5	TENDERERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.6	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.7	WHERE NO TCS IS AVAILABLE BUT THE TENDERER 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 ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? <span style="float: right;"><input type="checkbox"/> YES</span> <input type="checkbox"/> NO
3.2.	DOES THE ENTITY HAVE A BRANCH IN THE RSA? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
3.3.	DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? <span style="float: right;"><input type="checkbox"/> YES</span> <input type="checkbox"/> NO
3.4.	DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? <span style="float: right;"><input type="checkbox"/> YES</span> <input type="checkbox"/> NO
3.5.	IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? <span style="float: right;"><input type="checkbox"/> YES <input type="checkbox"/> NO</span>
<p><b>IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.</b></p>	

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

SIGNATURE OF TENDERER: .....

CAPACITY UNDER WHICH THIS BID IS SIGNED: .....

DATE: .....

## **T 1.2 TENDER DATA**



SUB CLAUSE	DATA
	<p>The conditions of tender are The Standard Conditions of Tender as contained in annex F of SANS 294-2004.</p> <p>The standard conditions of tender for procurements make several references to the tender data. The tender data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of tender.</p> <p>Each item of data given below is cross-referenced to the sub clause in the standard conditions of tender to which it mainly applies.</p>
F.1.1	The employer is: MSUNDUZI MUNICIPALITY
F.1.2	<p>The tender documents issued by the employer comprise:</p> <p><b><u>TENDER</u></b></p> <p>T1.2 Tender data</p> <p>T2.1 List of returnable documents</p> <p>T2.2 Returnable schedules</p> <p><b><u>CONTRACT</u></b></p> <p><b>Part 1: Agreements and contract data</b></p> <p>C1.1 Form of offer and acceptance</p> <p>C1.2 Contract data</p> <p>C1.3 Form of Guarantee</p> <p>C1.4 Adjudicator's Agreement</p> <p>C1.5 Agreement in Terms of OHSA No 85 of 1993</p> <p><b>Part 2: Pricing data</b></p> <p>C2.1 Pricing instructions</p> <p>C2.2 Bill of Quantities</p> <p><b>Part 3: Scope of work</b></p> <p>A: The Works</p> <p>B: Variation &amp; Addition to Standard Specifications</p> <p>C: Particular Specifications</p> <p>D: Rules for the Contractor on Site</p> <p>E: Environmental Management Plan</p> <p>F: Environmental Management Check List</p> <p>G: List of Drawings.</p> <p><b>Part 4: Annexures</b></p> <p>C4.1 Annexures</p>

	<p><b>Tender documents may be</b> collected from the Msunduzi Municipality, 5<sup>th</sup> Floor, A S Chetty Centre, 333 Church Street, Pietermaritzburg, during working hours as from <b>Monday, 27 January 2025</b></p>
F.1.4	<p>The Employer's agent is:</p> <p>Name: <b>Impande Consulting Engineers</b></p> <p>Address: <b>12 Old Howick Road, Webley, Pietermaritzburg</b></p> <p>Tel: <b>033 342 1418</b></p> <p>Fax: <b>N/A</b></p> <p>E-mail: Sichelod@impande.co.za</p> <p>The contact person is Mr. Sicelo Dlamini</p>
F.2.1	<p>Only those bidders who are registered with the CIDB in a contractor grading designation equal to or higher than <b>7CE</b>; are appointed to '<i>The panel of contractors for construction of water and sanitation infrastructure projects</i>' and have adequate experience in the construction of water and/or sewer pipelines are eligible to tender.</p> <p>A Tenderer will not be eligible to submit a tender if:</p> <p>the Tenderer cannot demonstrate that he will have in his employ during the contract period the necessary personnel satisfying the requirements of the Scope of Work for labour-intensive competencies for management and supervisory personnel.</p>
F2.4	<p>Add the following clause:</p> <p>All work produced, including records, drawings, documents and photography pertaining to this tender shall remain the property of Msunduzi Municipality and no part thereof may be copied, reproduced in any manner without the written consent of Msunduzi Municipality.</p>
F.2.7	<p>The arrangements for the compulsory site inspection meeting are:</p> <p><b>Location: Auditorium No. 1, 1st Floor, Bessie Head Library, 260 Church Street, Pietermaritzburg, 3201</b></p> <p><b>Date: 05 February 2025</b></p> <p><b>Starting time: 10:00</b></p> <p>Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to, and tenders will be received only from, those tendering entities appearing on the attendance list.</p>
F.2.12	<p>If the tenderer wishes to submit an alternative offer, the only criteria permitted for such alternative tender offer is that it should demonstrably satisfy the Employer's standards and requirements, the details of which may be obtained from the Employer or Employer's Representative.</p> <p>Calculations, drawings, and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions in the development of the pricing proposal.</p> <p>Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the tenderer, in the event that the alternative is accepted, to accept the full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements</p>

	The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.
F.2.13.5	<p>The employers address for delivery of tender offers and identification details to be shown on each tender offer package are:</p> <p>Location of Tender Box: <b>Tender Box located at the Central Stores</b></p> <p>Physical address: , <b>2 Abattoir Road, (Off Kershaw Road), Pietermaritzburg, 3201, (Co-ordinates: -29.6126297,30.3610014)</b></p> <p>Identification details: Sealed tenders endorsed: "<b>Contract No. SCM 40 OF 24/25</b></p>
F2.13.6	A two-envelope procedure will <b>NOT</b> be followed.
F.2.15	<p>The closing time for submission of tenders is <b>12h00 on Wednesday, 26 February 2025.</b></p> <p>Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.</p> <p>Tender documents are not to be handed to staff of Msunduzi Municipality or Impande Consulting Engineers. The Tenderer is to personally deposit the Tender in the Tender Box.</p> <p>Electronic copies of the Bill of Quantities are not acceptable and only Tender documents that have been completed by hand in black non-erasable ink will be accepted.</p>
F.2.16	The tender offer validity period is 120 days.
F2.16.1	<p>Add the following to the clause:</p> <p>If the tender validity expires on a weekend or public holiday, the tender validity period shall remain open until the close of business on the next working day.</p>
<b>F.2.18</b>	The tenderer must submit to the Employer the names of all management and supervisory staff that will be employed to supervise the labour-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirement.
F.3.4	<p>The time and location for opening tenders are:</p> <p>Time: <b>12H00 on Wednesday, 26 February 2025</b></p> <p>Location: <b>Central Stores, 2 Abattoir Road, (Off Kershaw Road), Pietermaritzburg, 3201, (Co-ordinates: -29.6126297,30.3610014)</b></p>
F.3.7	<p>Add the following to the clause:</p> <p>Accept that failure to submit certificates stated in the Tender Data and failure to complete <b>in full the tender document shall result in tender being regarded as non-responsive.</b></p>
F.3.8	<p>Test for responsiveness</p> <p>F.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:</p> <ul style="list-style-type: none"> <li>(a) complies with the requirements of these Conditions of Tender,</li> <li>(b) has been properly and fully completed and signed, and</li> <li>(c) is responsive to the other requirements of the tender documents.</li> </ul> <p>F.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:</p>

	<p>(d) a) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,</p> <p>(e) b) significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or</p> <p>(f) c) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.</p> <p>Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.</p>								
<p>F.3.9</p>	<p>The procedure for evaluation of responsive submissions is;</p> <p>All respondents who submit responsive submissions and:</p> <p>a) submit an valid Tax Clearance Certificate or a PIN for Tax Status Compliance Verification issued by the South African Revenue Services or have made arrangements to meet outstanding tax obligations;</p> <p>b) are registered with the Construction Industry Development Board in an appropriate contractor grading designation;</p> <p>c) have completed the Compulsory Enterprise Questionnaire and who are considered by the Employer not to have any conflicts of interest which may impact on their ability to perform the proposed contract in the best interests of the Employer or potentially compromise the tender process and are free of persons in the state who are not permitted to submit tenders or to participate in the contract; and</p> <p>d) Are registered with Central Supplier Database</p> <p>e) <b>Mandatory Requirements</b></p> <table border="1" data-bbox="427 1142 1481 1473"> <thead> <tr> <th data-bbox="434 1142 593 1303">Description of Mandatory Requirement</th> <th data-bbox="593 1142 912 1303">Bidder Capacity Trait to be tested by the Mandatory Requirement</th> <th data-bbox="912 1142 1066 1303">Custodian /Principal of Mandatory Requirement</th> <th data-bbox="1066 1142 1474 1303">Documentary proof: NB: Commissioner of Oaths required by law or any other verification method possible</th> </tr> </thead> <tbody> <tr> <td data-bbox="434 1303 593 1473">LIC Certification</td> <td data-bbox="593 1303 912 1473">LIC training certification with a minimum of NQF L4 (Construction Manager) for CIDB Grade 7CE or higher</td> <td data-bbox="912 1303 1066 1473">Bidder</td> <td data-bbox="1066 1303 1474 1473">Copy of LIC certificate (certified by a commissioner of Oaths)</td> </tr> </tbody> </table> <p><b>Failure to submit the above will lead to disqualification of the tender.</b></p>	Description of Mandatory Requirement	Bidder Capacity Trait to be tested by the Mandatory Requirement	Custodian /Principal of Mandatory Requirement	Documentary proof: NB: Commissioner of Oaths required by law or any other verification method possible	LIC Certification	LIC training certification with a minimum of NQF L4 (Construction Manager) for CIDB Grade 7CE or higher	Bidder	Copy of LIC certificate (certified by a commissioner of Oaths)
Description of Mandatory Requirement	Bidder Capacity Trait to be tested by the Mandatory Requirement	Custodian /Principal of Mandatory Requirement	Documentary proof: NB: Commissioner of Oaths required by law or any other verification method possible						
LIC Certification	LIC training certification with a minimum of NQF L4 (Construction Manager) for CIDB Grade 7CE or higher	Bidder	Copy of LIC certificate (certified by a commissioner of Oaths)						
<p>F.3.11</p>	<p>Tender offers will be evaluated on F.3.11.2 Method 2: Financial offer and preference, using Formula 2, option 1a (Table F.1).</p> <p>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</p>								
<p>F.3.13</p>	<ol style="list-style-type: none"> <li>1) The tenderer has completed and submitted a signed Form of Offer,</li> <li>2) The tenderer has completed and submitted the Bill of Quantities, indicating his rate and line total.</li> <li>3) The tenderer has submitted a Certificate of Attendance for the Compulsory Tender Clarification Meeting.</li> <li>4) The tenderer has completed and returned all addenda issued against the tender</li> <li>5) Workmen's compensation</li> <li>6) The tenderer is registered with Central Supplier Database and has in his or her possession a PIN for Tax Status Compliance Verification issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations – <b>Ref. MBD2</b></li> </ol>								

	<ol style="list-style-type: none"><li>7) The tenderer has completed and signed the Contractor's Health and Safety Declaration</li><li>8) The tenderer has completed the Compulsory Enterprise Questionnaires and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interest of the employer or potentially compromise the tender process – <b>Ref. MDB4.</b></li><li>9) The tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector – <b>Ref. MBD8;</b></li><li>10) The tenderer is not in arrears for more than 3 months with the municipal rates and taxes and municipal services charges.</li><li>11) Complies with pre-qualification and functionality requirements</li></ol>
F.3.18	The number of paper copies of the signed contract to be provided by the employer is <b>1 (ONE)</b>
	The additional conditions of tender are:  All returnable schedules are to be completed and all relevant certificates attached where indicated

**THE MSUNDUZI MUNICIPALITY**

**SPECIAL CONDITIONS OF CONTRACT**

**1. 1. DOCUMENTS**

This document comprises of the Standard Conditions of Contracts (GCC 2010), Special Conditions of Contract, Specifications, Pricing Schedule (if applicable), Tender Form, Drawings (if any), Data Sheets and Annexures thereto.

**2. COMPULSORY SITE INSPECTION/TENDER BRIEFING MEETING**

Where in the tender document reference is made to a compulsory Site Inspection/Tender Briefing Meeting, the Service Provider shall be required to attend the meeting prompt on the date and time mentioned in the tender document. Service Providers arriving at the meeting after the stipulated time will be disqualified and the Council shall not be held liable for any loss or damage due to the above. Service Providers are to ensure that they sign the Attendance Register circulated at the meeting and to also ensure that the Site Inspection/Tender Briefing Certificate attached hereto is duly signed by the authorised official.

An official will Chair the meeting and answer queries raised by prospective Service Providers. Any amendment to the tender documentation arising from such answers will be circulated in terms of the meeting's attendance register.

Tenders will not be considered from Service Providers who do not attend the meeting and whose Site Inspection/Tender Briefing Certificate has not been commissioned by the authorised official.

Service Providers arriving at the Site Inspection/Tender Briefing Meeting after the stipulated starting time will be disqualified. Further, all Service Providers will be required to present their tender document at the Site Inspection/Tender Briefing Meeting for endorsement and failure to comply with this will result in disqualification.

**3. SUBMISSION OF TENDERS**

Tenders must be made out on the Tender Form annexed hereto. Tenderers are advised that this document must be completed in ink and submitted in its entirety. Failure to comply with this condition shall result in the tender being disqualified.

Only original hand written priced tender documents will be considered. Tenders submitted by electronic mail, telex, or facsimile shall not be considered. ***The use of correction fluid is strictly prohibited.*** All corrections are to be countersigned.

Tenderers using Courier Companies or any other mode of transport to deliver their tender documents must ensure that the tender documents are delivered to the City Hall, 169 Chief Albert Luthuli Street (Commercial Road), Pietermaritzburg, 3201, and placed in the Tender Box situated in the Foyer, Ground Floor by the close of tenders. The Council shall not be held liable for any tender document which is not timeously delivered, mislaid, or incorrectly delivered due to the negligence of the Courier Company or any other party involved in the delivery of the tender documents, including any employee of the Council.

Sealed tenders endorsed with the appropriate contract number, must reach the City Hall, Pietermaritzburg not later than the closing date and time stated in the public advertisement inviting tenders, when they will be opened in public. Under no circumstances will any extension of time be allowed for the submission of tenders. Tenders shall remain valid for 120 days from the date of opening, except for the initial five (5) working days grace period after the close of tenders within which period a tenderer may be permitted to withdraw its tender subject to an application with good and sufficient reasons being submitted in writing to obtain approval of such withdrawal, at the sole discretion of the Head: Supply Chain Management.

All literature submitted must be securely attached to the tender. The Council shall not be held liable for any loss or damages sustained due to the Tenderer's failure to comply with this condition.

In the case of a Tenderer withdrawing its tender after the expiry of the grace period, the Council may refuse to receive or consider, for such period as it may think fit, any further tenders from that Tenderer.

#### **4. COMMUNICATION WITH MEMBERS OF THE COUNCIL OR COUNCIL EMPLOYEES**

Without detracting from any prevailing law, no Tenderer shall offer, promise, or give any person or persons connected with the adjudication, or awarding of the tender, any gratuity, bonus, discount, or consideration of any kind in connection with the obtaining of a contract. Nor shall any Tenderer communicate with any member of the Council or a Council employee on a question affecting the awarding of a contract which is the subject of a tender, during the period between the closing date of tenders and the date of notification of the successful Tenderer; provided always that the Head: Supply Chain Management may, in exceptional circumstances, obtain additional information from a Tenderer to enable her to formulate her recommendation to Council.

Any attempt to contravene this condition which is brought to the notice of the Head: Supply Chain Management shall result in the disqualification of the Tenderer.

Prospective Tenderers are further advised that s118 of the Municipal Finance Management Act prohibits the interference, by any person, with the supply chain management system of the Municipality and the amendment of or tampering with any tender, quotation, contract, or bid after its submission.

#### **5. IMPORT PERMITS**

The Council will not undertake to secure any import permits or currency for the import of any goods or materials required for the execution of this contract. The Tenderer must apply directly for any import permits or currency needed. However, the Council will furnish the successful Tenderer with a supporting statement, if required.

#### **6. REGISTRATION WITH THE CENTRAL SUPPLIER DATABASE (CSD)**

The National Treasury's Central Supplier Database (CSD) has been open for registration from 01 September 2015. The CSD serves as one single source of supplier information to all spheres of government.

Within this system, suppliers are required to register once when they do business with the state. This will significantly reduce the administrative burden for businesses, especially small and medium sized enterprises. The database interfaces with the South African Revenue Service (SARS), the Companies and Intellectual Property Commission (CIPC), and the payroll system. It will electronically verify a supplier's tax and enable public sector officials doing business with the state to be identified. CSD does not automatically verify B-BBEE information. Tenderers are required to submit this information for allocation of B-BBEE points.

All prospective suppliers can register any time on the CSD website [www.csd.gov.za](http://www.csd.gov.za)  
Prospective suppliers may also visit the Provincial Treasury Database office situated at Treasury House, Ground Floor, 145 Chief Albert Luthuli Road, Pietermaritzburg from 08h00 to 15h00, Mondays to Fridays, for any assistance with on-line registration on CSD.  
For further information or enquiries, please contact 033 – 897 4516 / 033 – 897 4212 / 033 – 897 4624 / 033 – 897 4535 / 033 – 897 4676 / 033 – 897 4509 or Toll-Free at 0800 201 049 during office hours or via e-mail at [database@kzntreasury.gov.za](mailto:database@kzntreasury.gov.za).

**With effect from 01 July 2016, the Msunduzi Municipality will not award any tender to a supplier not registered as a prospective supplier on the CSD.** Negotiations for the tender award will only be concluded with the qualified tenderer(s) who is/are registered on the CSD on or after 01 April 2016.

In order for Council to verify your Company's registration with CSD, please provide the following information for verification purposes:-

<b>CSD Supplier Number</b>	
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**Failure to provide the above information shall render the tender to be disqualified.**

#### **7. TAX CLEARANCE CERTIFICATE REQUIREMENTS**

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

Tenderers shall be required to submit, together with the tender document, a **valid** Tax Clearance Certificate or a Tax Compliance Status Verification Pin issued by SARS. Failure to submit a valid Tax Clearance Certificate or a Tax Compliance Status Verification Pin will result in the invalidation and disqualification of the tender.

Further to the above, Tenderers are to note that the Tax Clearance Certificate must be valid for the full duration of the tender validity period i.e. 120 days commencing from the closing date of the tender.

Should the validity of the Tax Clearance Certificate expire prior to the final award of the contract being made, the Council reserves the right to request the Tenderer to submit a further valid Tax Clearance Certificate. In this instance, the Tenderer shall be given seven (7) working days written notice in which to comply. Should the Tenderer fail to comply with this request, the Council further reserves the right to make no award to the Tenderer and the Council shall not be held liable for any loss or damages sustained by the Tenderer.

#### **8. RATES**

The prices, rates, or percentages quoted in the proposal shall be deemed to include all costs, including but not limited to materials, plant, labour, patent rights and royalties, freight, insurance, customs, railage, delivery, etc., unless the Service Provider states otherwise in the proposal.

#### **9. INCOMPLETE TENDERING**

Tenders may be rejected if they show any additional, conditional, or incomplete offers or irregularities of any kind in either the Tender Form or the Pricing Schedule, or if the prices tendered in the Schedule are not market related i.e. the tendered rates does not conform to current day prices.

Partial awards **may** be made where this is perceived by the Head: Supply Chain Management or the Employer's Agent to be in the best interests of the Council. Council reserves the right to take into account the principle of the distribution of works in order to empower SMME's and BEE's.

Should there be any difference or discrepancy between the prices and particulars contained in the Tender Form and those contained in any covering letter submitted by the Tenderer, the prices and particulars contained in the Tender Form shall prevail.

#### **10. ACCEPTANCE OF ANY TENDER**

The Council does not bind itself to accept the lowest or any tender and reserves the right to accept the whole or any part of a tender. Council reserves the right to appoint more than one tenderer.

The Council reserves the right to purchase such items on the open market notwithstanding the acceptance of an offer.



#### **11. DOMICILIUM CITANDI ET EXECUTANDI**

For the purpose of the service of all documents and the giving of notice as may be required in terms of this contract, or as a result of any action arising in conjunction with it, the Council chooses City Hall, 169 Chief Albert Luthuli Street (Commercial Road), Pietermaritzburg as its *domicilium citandi et executandi*.

The Tenderer's *domicilium citandi et executandi* shall be whatever street address is given in the Tender Form attached hereto.

Either party may, at any time, give one (1) month notice, in writing, of a change of its *domicilium citandi et executandi* provided that such address shall be within the Republic of South Africa.

#### **12. DATA SHEETS**

Tenderers shall be required to complete all Data Sheets and the Tender Form attached hereto in their entirety for adjudication purposes. Where Data Sheets and/or any other documentation as contained herein are required to be commissioned, such Data Sheets and/or documentation must be stamped and signed by a Commissioner of Oaths. **Failure to comply with these provisions will render the offer unresponsive (invalid).**

#### **13. PROHIBITION ON AWARDS TO PERSONS IN THE SERVICE OF THE STATE**

The Supply Chain Management Regulations states that the Council may not make any award to a person:-

- (a) who is in the service of the state ;
- (b) if that person is not a natural person, of which and director, manager, principal shareholder or stakeholder is a person in the service of the state; or
- (c) who is an advisor or consultant contracted with the municipality or municipal entity.

#### **14. MUNICIPAL FEES**

All Tenderers are to sign the Declaration herein declaring that their Municipal Fees are in order, or that proper arrangements have been made with the Council. Tenderers must include the relevant account numbers in the declaration.

#### **15. APPEALS AND/OR OBJECTIONS**

Any Tenderer aggrieved by decisions or actions taken by the Municipality may lodge within fourteen (14) calendar days of the date of the decision or action, a written objection or complaint to the Municipal Manager / Head: Supply Chain Management. In the event that an appeal and/or objection is lodged, the following procedure shall apply:-

The Tenderer shall be required to pay an appeal/objection fee in the amount of **zero point five percent (0.5%) of the total contract sum, including VAT or R2 000.00, whichever is the greater to a maximum value of R20 000.00.**

The fee is to be paid in cash or by bank guarantee cheque on or before the expiration of the above period and proof of such payment is to be submitted together with the letter of appeal/objection to the Municipal Manager/ Head: Supply Chain Management. No appeal/objection will be entertained should the afore-mentioned condition not be adhered to and the Municipality shall not be held liable for any loss or damage sustained by the Tenderer due to the Tenderer's failure to adhere to the above condition.

**16. PREFERENCE POINTS CLAIMED IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022**

Tenderers claiming preference points shall be required complete Annexure “C” hereto in its entirety and to fully comply with the General Conditions, Definitions and Directives stated therein.

In line with PPPFA 2022 Regulations:

16.1. An organ of state must, in the tender documents, stipulate—

- (a) the applicable preference point system as envisaged in regulations 4, 5, 6 or 7;
- (b) The specific goal in the invitation to submit the tender for which a point may be awarded, and the number of points that will be awarded to each goal, and proof of the claim for such goal.

16.2. If it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

- (a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
- (b) Any other invitation for tender, that either the 80/20 or the 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system.

16.3. Evaluation

- The tender will be evaluated based on the 80/20 in terms of PPPFA 2022
- The evaluation of tender offers is Method 1: Price and Preference, using the 80/20 preference point system.

Specific Goals	Description	Maximum Points
Race	At least 51% South African Black ownership and/or more than 51% management controlled by South African black people (Black Owned Enterprise (BOE))  The tenderer is required to submit a copy of the Service Providers <b>FULL CSD</b> report to claim points above.	<b>10</b>
Locality	Within Msunduzi Jurisdiction	<b>10</b>
	Within Umgungundlovu Jurisdiction	<b>5</b>
	Bidders to submit a lease agreement or Municipal Account in the name of the company to claim points above.	
<b>Total Preference Points (Specific Goals)</b>		<b>20</b>

The tenderer is required to submit a copy of the Service Providers CIPC certificate, a **FULL CSD** report as well as **original certified copies** of all Members/ Directors/ Owners Identity Documents to be eligible to claim the above-prescribed Specific Goals Preference Points.

**Failure to submit the above will result in zero (0) points being awarded per goal.**

<b>Contract No.</b>	
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## **17. JOINT VENTURE AGREEMENTS AND CONSORTIUMS**

Tenderers intending to tender in the form of Joint Ventures / Consortiums **must submit** the following documentation together with the tender:-

- 1) Original valid Tax Clearance Certificates or a Tax Compliance Status Verification Pins issued by SARS of all parties of the Joint Venture/Consortium;
- 2) All parties of the Joint Venture/Consortium must submit signed copies of:-
  - a) The Declaration of Interest Form;
  - b) The Declaration of Bidder's Past Supply Chain Management Practices Form, and,
  - c) The Certificate of Independent Bid Determination Form.
- 3) An undertaking duly signed by all parties of the Joint Venture/Consortium indicating their intention to enter into an agreement for the purposes of this contract, and,

Further to the above, the name of the Joint Venture/Consortium must appear on the relevant pages of the document. Failure to comply with these requirements shall lead to disqualification.

## **18. ADJUDICATION CRITERIA**

The tender shall be evaluated on the 80/20 or 90/10 Preference Point System in accordance with the Preferential Procurement Regulations, 2022, issued in terms of section 5 of the Preferential Procurement Policy Framework Act, Act No. 5 of 2000.

## **19. COMBATIVE TENDERING**

The Supply Chain Management Regulations states that Combative tendering practices are unethical and illegal. These include but are not limited to:-

- (i) Suggestions to fictitious lower quotations;
- (ii) Reference to non-existent competition;
- (iii) Exploiting errors in bids;
- (iv) Soliciting bids from Tenderers whose names appear on the list of restricted bidders/suppliers/persons, and,
- (v) Submission of two bids by a Tenderer.

Any **attempt** by a Tenderer to contravene this condition which is brought to the notice of the Municipal Manager or the Head: Supply Chain Management shall result in the disqualification of the tender. The Council further reserves the right to take any other action as it may deem necessary.

## **20. COUNCIL'S LIABILITY AND INDEMNITY**

- 20.1 The Service Provider hereby indemnifies the Council and its employees and agents against all losses and claims for injuries or damages to any person or property whatsoever which may arise out of the execution of this contract.
- 20.2 The Council shall not be held liable to the Service Provider for any direct or indirect damages or losses and the Council shall be indemnified and held free against claims arising out of:-
  - 20.2.1 any negligent or innocent misrepresentations made by the Council, its employees or agents in respect of any data, information and statistics supplied to the Service Provider prior to or during the contract; provided that this condition shall not deprive the Contractor of any payments lawfully due to the Service Provider in terms of the contract, and

20.2.2 a change in a legislative provision applicable to the contract

**21. ASSIGNMENT AND SUBLETTING**

Neither the Service Provider nor the Council shall assign or cede the contract or any part thereof or any benefit or interest therein or thereunder without the written consent of the other. The Service Provider shall not sub-let the whole or any part of this contract without the written consent of the Employer's Agent and such consent, if given, shall not relieve the Service Provider from any liability or obligation under the contract.

**22. SEQUESTRATION OR SURRENDER OF SERVICE PROVIDER'S ESTATE**

In the event of an order being made for sequestration of the Service Provider's estate, whether provisional or final, or in the event of an application being made for such order, or in the event of the Service Provider making application for the surrender of the Service Provider's estate, or if the Service Provider shall enter into, make or execute any deed of assignment or other composition or arrangement with, or assignment for the benefit of the Service Provider's creditors, or purport to do so, or if the Service Provider, being a company, shall pass a resolution, or if the Court shall make an order for the liquidation of such company, the Council shall have the right, summarily and without recourse to law, to terminate the contract without payment of any compensation to the Service Provider, and without prejudice to the right of the Council to sue the Service Provider for any damages sustained by it in consequence of one or the other of the afore-mentioned events.

**23. SECRECY OF INFORMATION**

Subject to the provisions of the Promotion of Access to Information Act, the information revealed in this tender document is to be classified as confidential. Accordingly, the Employer's Agent reserves the right to request references and generally examine bona fides and available facilities of any Company of Firm wanting to participate in this contract.

**24. LAW TO APPLY**

The contract shall in all respects be construed in accordance with the law of the Republic of South Africa, and any difference that may arise between the Council and the Service Provider in regard to the contract shall be settled in the Republic of South Africa.

**25. PATENT RIGHTS**

The Service Provider shall pay all royalties and expenses and be liable for all claims in respect of the use of patent rights, trademarks or other protected rights, and shall hold the Council indemnified and harmless against any claims for loss or damage to (including legal expenses) arising therefrom.

**26. CONTRACT TO BE IN CONFORMITY WITH BY-LAWS AND ANY OTHER APPLICABLE LAWS**

The contract shall be carried out subject to and in conformity with any law, regulation or By-law which is of application thereto and shall be conditional upon any necessary consent required by law being obtained.

**27. OCCUPATIONAL HEALTH AND SAFETY ACT**

The attached Annexure "B" hereto must be completed thereby indemnifying the Msunduzi Municipality of any claims which may arise in terms of the Occupational Health and Safety Act (Act 85 of 1993), as amended.

**28. MANDATORY REQUIREMENTS**

Description of Mandatory Requirement	Bidder Capacity Trait to be tested by the Mandatory Requirement	Custodian/ Principal of Mandatory Requirement	Documentary proof: NB: Commissioner of Oaths required by law or any other verification method possible
Labour Intensive Construction (LIC) Certification	Labour Intensive Construction (LIC) training certification with a minimum of NQF L4 (Construction Manager) for CIDB Grade 7CE or higher	Bidder	Copy of LIC certificate (certified by a commissioner of Oaths)

*Failure to submit the above will lead to disqualification of the tender*

**29. AWARDING OF MORE THAN ONE TENDER**

*Service Providers shall not be awarded more than one contract. Should the Service Provider obtain the highest score in more than one contract, the Service Provider will be required to choose ONE only.*

**30. VERIFICATION OF INFORMATION**

*Msunduzi Municipality reserve the right to verify supporting documents submitted by the bidder.*

## **STANDARD CONDITIONS OF TENDER**

### **General Condition of the contract 2015 shall apply unless stated otherwise**

*(As published in Annex F of the CIDB Standard for Uniformity in Construction Procurement in Board Notice 86 of 2010 in Government Gazette No 33239 of 26 May 2010)*

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#### **F.1 General**

##### **F.1.1 Actions**

**F.1.1.1** The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in F.2 and F.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

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

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

##### **F.1.2 Tender Documents**

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

##### **F.1.3 Interpretation**

**F.1.3.1** The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

**F.1.3.2** These conditions of tender, the tender data and tender schedules which are only required for tender evaluation purposes, shall not form part of any contract arising from the invitation to tender.

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

- a) **Conflict of interest** means any situation in which:
  - i) Someone in a position of trust has competing professional or personal interests which make it difficult to fulfill his or her duties impartially;
  - ii) An individual or organization is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
  - iii) Incompatibility or contradictory interests exist between an employee and the organization which employs that employee.
- b) **Comparative offer** means the tenderer's financial offer after the factors of non-firm prices, all unconditional discounts and any other tendered parameters that will affect the value of the financial offer have been taken into consideration
- c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process; and

- d) **Fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels
- e) **Organization** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body
- f) **Quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs

#### **F.1.4 Communication and employer's agent**

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

#### **F.1.5 The employer's right to accept or reject any tender offer**

**F.1.5.1** 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.

**F.1.5.2** The employer may not subsequent to the cancellation or abandonment of a tender process or the rejection of all responsive tender offers re-issue a tender covering substantially the same scope of work within a period of six months unless only one tender was received and such tender was returned unopened to the tenderer.

#### **F.1.6 Procurement procedures**

##### **F.1.6.1 General**

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

##### **F.1.6.2 Competitive negotiation procedure**

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

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

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

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

**F.1.6.3 Proposal procedure using the two stage-system**

**F.1.6.3.1 Option 1**

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

**F.1.6.3.2 Option 2**

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

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

**F.2 Tenderer's obligations**

**F.2.1 Eligibility**

**F.2.1.1** Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.

**F.2.1.2** Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

**F.2.2 Cost of tendering**

Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

**F.2.3 Check documents**

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

**F.2.4 Confidentiality and copyright of documents**

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

**F.2.5 Reference documents**

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.



**F.2.6 Acknowledge addenda**

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

**F.2.7 Clarification meeting**

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

**F.2.8 Seek clarification**

Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data.

**F.2.9 Insurance**

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

**F.2.10 Pricing the tender offer**

**F.2.10.1** Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes (except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable 14 days before the closing time stated in the tender data.

**F.2.10.2** Show VAT payable by the employer separately as an addition to the tendered total of the prices.

**F.2.10.3** Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

**F.2.10.4** State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

**F.2.11 Alterations to documents**

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

**F.2.12 Alternative tender offers**

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

**F.2.12.2** Accept that an alternative tender offer may be based only on the criteria stated in the tender data or criteria otherwise acceptable to the employer.

**F.2.13 Submitting a tender offer**

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

- F.2.13.2** Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.
- F.2.13.3** Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.
- F.2.13.4** Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.
- F.2.13.5** Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- F.2.13.6** Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.
- F.2.13.7** Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.
- F.2.13.8** Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.
- F.2.13.9** Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.
- F.2.14** **Information and data to be completed in all respects**  
Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.
- F.2.15** **Closing time**
- F.2.15.1** Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.
- F.2.15.2** Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.
- F.2.16** **Tender offer validity**
- F.2.16.1** Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.
- F.2.16.2** If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period.
- F.2.16.3** Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.
- F.2.16.4** Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as "SUBSTITUTE".

**F.2.17 Clarification of tender offer after submission**

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

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

**F.2.18 Provide other material**

**F.2.18.1** Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

**F.2.18.2** Dispose of samples of materials provided for evaluation by the employer, where required.

**F.2.19 Inspections, tests, and analysis**

Provide access during working hours to premises for inspections, tests, and analysis as provided for in the tender data.

**F.2.20 Submit securities, bonds, policies, etc.**

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies, and certificates of insurance required in terms of the conditions of contract identified in the contract data.

**F.2.21 Check final draft**

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

**F.2.22 Return of other tender documents**

If so instructed by the employer, return all retained tender documents within 28 days after the expiry of the validity period stated in the tender data.

**F.2.23 Certificates**

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

**F.3 The employer's undertakings**

**F.3.1 Respond to requests from the tenderer**

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

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

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

**F.3.2 Issue Addenda**

If necessary, issue an addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until seven days before the tender closing time stated in the Tender Data. If, as a result, a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who drew documents.

**F.3.3 Return late tender offers**

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

**F.3.4 Opening of tender submissions**

**F.3.4.1** Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

**F.3.4.2** Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, preferences claimed, and time for completion for the main tender offer only.

**F.3.4.3** Make available the record outlined in F.3.4.2 to all interested persons upon request.

**F.3.5 Two-envelope system**

**F.3.5.1** Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

**F.3.5.2** Evaluate the quality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the quality evaluation more than the minimum number of points for quality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any preferences claimed. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for quality.

**F.3.6 Non-disclosure**

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price, and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

**F.3.7 Grounds for rejection and disqualification**

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

**F.3.8 Test for responsiveness**

**F.3.8.1** Determine, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.

**F.3.8.2** A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

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

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

**F.3.9 Arithmetical errors, omissions, and discrepancies**

**F.3.9.1** Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

**F.3.9.2** Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:

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

**F.3.9.3** Notify the tenderer of all errors or omissions that are identified in the tender offer and invite the tenderer to either confirm the tender offer as tendered or accept the corrected total of prices.

**F.3.9.4** Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

**F.3.10 Clarification of a tender offer**

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

**F.3.11 Evaluation of tender offers**

**F.3.11.1 General**

Appoint an evaluation panel of not less than three persons. Reduce each responsive tender offer to a comparative offer and evaluate them using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

**F.3.11.2 Method 1: Financial offer**

In the case of a financial offer:

- a) Rank tender offers from the most favourable to the least favourable comparative offer.
- b) Recommend the highest ranked tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- c) Re-rank all tenderers should there be compelling and justifiable reasons not to recommend the highest ranked tenderer and recommend the highest ranked tenderer, unless there are compelling and justifiable reasons not to do so and the process set out in this sub-clause is repeated.

**F.3.11.3 Method 2: Financial offer and preference**

In the case of a financial offer and preferences:

- a) Score each tender in respect of the financial offer made and preferences claimed, if any, in accordance with the provisions of F.3.11.7 and F.3.11.8.
- b) Calculate the total number of tender evaluation points (**TEV**) in accordance with the following formula:

$$\mathbf{TEV = NFO + NP}$$

Where: **NFO** is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

**NP** is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points, and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub-clause is repeated

**F.3.11.4 Method 3: Financial offer and quality**

In the case of a financial offer and quality:

- a) Score each tender in respect of the financial offer made and the quality offered in accordance with the provisions of F.3.11.7 and F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (**TEV**) in accordance with the following formula:

$$\mathbf{TEV = NFO + NQ}$$

Where: **NFO** is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

**NQ** is the number of tender evaluation points awarded for quality

offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest.
- d) Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub-clause is repeated.

**F.3.11.5 Method 4: Financial offer, quality and preferences**

In the case of a financial offer, quality and preferences:

- a) Score each tender in respect of the financial offer made, preference claimed, if any, and the quality offered in accordance with the provisions of F.3.11.7 to F.3.11.9, rejecting all tender offers that fail to score the minimum number of points for quality stated in the tender data, if any.
- b) Calculate the total number of tender evaluation points (**TEV**) in accordance with the following formula:

$$TEV = NFO + NP + NQ$$

Where: **NFO** is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;  
**NP** is the number of tender evaluation points awarded for preferences claimed in accordance with F.3.11.8.  
**NQ** is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

- c) Rank tender offers from the highest number of tender evaluation points to the lowest. d) Recommend the tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.
- e) Rescore and re-rank all tenderers should there be compelling and justifiable reasons not to recommend the tenderer with the highest number of tender evaluation points and recommend the tenderer with the highest number of tender evaluation points, unless there are compelling and justifiable reasons not to do so and the process set out in this sub-clause is repeated.

**F.3.11.6 Decimal places**

Score financial offers, preferences and quality, as relevant, to two decimal places.

### F.3.11.7 Scoring Financial Offers

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

$$NFO = W1 \times A$$

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

**Table F.1: Formula for calculating the value of A**

Formula	Comparison aimed at achieving	Option 1 <sub>a</sub>	Option 2 <sub>a</sub>
1	Highest price or discount	$A = (1 + \frac{P - P_m}{P_m})$	$A = P / P_m$
2	Lowest price or percentage commission / fee	$A = (1 - \frac{P - P_m}{P_m})$	$A = P_m / P$

<sup>A</sup> P<sub>m</sub> is the comparative offer of the most favourable comparative offer.  
P is the comparative offer of the tender offer under consideration.

### F.3.11.8 Scoring preferences

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

### F.3.11.9 Scoring quality

Score each of the criteria and sub criteria for quality in accordance with the provisions of the Tender Data. Calculate the total number of tender evaluation points for quality using the following formula:

$$NQ = W2 \times SO / MS$$

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

### F.3.12 Preferential Procurement

1. An organ of state must, in the tender documents, stipulate-
  - (a) the applicable preference point system as envisaged in regulations 4, 5, 6, or 7;
  - (b) the specific goal in the invitation to submit the tender for which a point may be awarded, the number of points that will be awarded to each goal, and proof of the claim for such goal.
2. If it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—
  - a. an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or
  - b. any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system



### F.3.12.2. CALCULATION OF THE PREFERENT POINTS SYSTEM

#### *Preference point system*

- (a) The 80/20 preference point system is applicable to bids with a rand value equal to, or above R30 000 and up to a rand value of R50 million (all applicable taxes included).
- (b) The 90/10 preference point system is applicable to bids with a Rand value above R50 million (all applicable taxes included)

#### **80/20 preference point system for acquisition of goods or services with Rand equal to R30,000 up to R50 million**

1. The following formula must be used to calculate the points out of 80 for price in respect of an invitation for a tender with a Rand value equal to R30,000 up to R50 million, inclusive of all applicable taxes:

The PPPFA prescribes that the lowest acceptable bid will score 80 or 90 points for price. Bidders that quoted higher prices will score lower points for price on a pro-rata basis.

The formulae to be utilized in calculating points scored for price are as follows: 80/20 Preference point system (for acquisition of services, works or goods up to a Rand value of R50 million) (all applicable taxes included)

$$Ps = 80[1 - ((Pt - Pmin)/Pmin)]$$

Where

Ps = Points scored for comparative price of bid or offer under consideration

Pt = Comparative price of bid or offer under consideration

Pmin = Comparative price of lowest acceptable bid or offer.

Preference point system (for acquisition of services, works, or goods with a Rand value above R50million) (all applicable taxes included)

$$Ps = 90[1 - ((Pt - Pmin)/Pmin)]$$

Where

Ps = Points scored for comparative price of bid or offer under consideration

Pt = Comparative price of bid or offer under consideration

Pmin = Comparative price of lowest acceptable bid or offer.

2. A maximum of 20 points may be awarded to a tenderer for the specific goal specified for the tender.
3. The points scored for the specific goal must be added to the points scored for price and the total must be rounded off to the nearest two decimal places.
4. Subject to section 2(1)(f) of the Act, the contract must be awarded to the tenderer scoring the highest points

#### **80/20 preference points system for tenders for income-generating contracts with Rand value equal to R30,000 up to R50 million**

1. The following formula must be used to calculate the points for price in respect of an invitation for tender for income-generating contracts, with a Rand value equal to R30,000 up to R50 million, inclusive of all applicable taxes:

The PPPFA prescribes that the lowest acceptable bid will score 80 or 90 points for price. Bidders that quoted higher prices will score lower points for price on a pro-rata basis.

The formulae to be utilized in calculating points scored for price are as follows: 80/20 Preference point system (for acquisition of services, works, or goods up to a Rand value of R50 million) (all applicable taxes included)

$$Ps = 80[1 + ((Pt-Pmax)/Pmax)]$$

Where

Ps = Points scored for comparative price of bid or offer under consideration

Pt = Comparative price of bid or offer under consideration

Pmin = Comparative price of lowest acceptable bid or offer.

Preference point system (for acquisition of services, works or goods with a Rand value above R50million) (all applicable taxes included)

$$Ps = 90[1 + ((Pt-Pmax)/Pmax)]$$

Where

Ps = Points scored for comparative price of bid or offer under consideration

Pt = Comparative price of bid or offer under consideration

Pmin = Comparative price of lowest acceptable bid or offer.

2. A maximum of 20 points for 80/20 preference system or 10 Points for 90/10 preference points system may be awarded to a tenderer for the specific goal specified for the tender.
3. The points scored for the specific goal must be added to the points scored for price and the total must be rounded off to the nearest two decimal places.
4. Subject to section 2(1)(f) of the Act, the contract must be awarded to the tenderer scoring the highest points.

Points scored must be rounded off to the nearest 2 decimal places.

**80/20 preference points system for tenders for income-generating contracts with Rand value equal to R30,000 up to R50 million**

1. The following formula must be used to calculate the points for price in respect of an invitation for tender for income-generating contracts, with a Rand value equal to R30,000 up to R50 million, inclusive of all applicable taxes:

The PPPFA prescribes that the lowest acceptable bid will score 80 or 90 points for price. Bidders that quoted higher prices will score lower points for price on a pro-rata basis.

The formulae to be utilized in calculating points scored for price are as follows: 80/20 Preference point system (for acquisition of services, works, or goods up to a Rand value of R50 million) (all applicable taxes included)

$$Ps = 80[1 + ((Pt-Pmax)/Pmax)]$$

Where

Ps = Points scored for comparative price of bid or offer under consideration

Pt = Comparative price of bid or offer under consideration

Pmin = Comparative price of lowest acceptable bid or offer.

Preference point system (for acquisition of services, works, or goods with a Rand value above R50million) (all applicable taxes included)

$$Ps = 90[1 + ((Pt-Pmax)/Pmax)]$$

Where

Ps = Points scored for comparative price of bid or offer under consideration

Pt = Comparative price of bid or offer under consideration

Pmin = Comparative price of lowest acceptable bid or offer.

2. A maximum of 20 points for 80/20 preference system or 10 Points for 90/10 preference points system may be awarded to a tenderer for the specific goal specified for the tender.

3. The points scored for the specific goal must be added to the points scored for price and the total must be rounded off to the nearest two decimal places.

4. Subject to section 2(1)(f) of the Act, the contract must be awarded to the tenderer scoring the highest points.

Points scored must be rounded off to the nearest 2 decimal places.

### **F.3.12.3. BASKET OF SPECIFIC GOALS AND OR TARGETED PROCUREMENT OBJECTIVES**

The municipality shall set appropriate specific goals and or Targeted Procurement objectives which must form part of the invitation to tender, set as performance criteria within contracts. The basket of preference goals as contained in the relevant legislation are listed hereunder and the Municipality is at liberty to apply specific goals in any combination format depending on their preference targets. Municipality may include in their policy specific goals as part of their tendering conditions.

#### **1. Preference Goal 1**

##### ***Ownership as specific goal***

(1) A maximum of 20 points (80/20 preference points system) or 10 (90/10 preference points system), may be allocated. Bidder may score preference points based on company ownership.

(2) If the Municipality applies ownership as specific goal, the Municipality must advertise the tender with a specific tendering preferential procurement requirement that in order for a tenderer to claim 10 / 20 points for specific goals, a tendering company must have the following ownership:

- race, (Historically Disadvantaged Persons) or
- gender (Historically Disadvantaged Persons) or;
- disability (Historically Disadvantaged Persons).

(3) Ownership verification may be conducted through the Companies and Intellectual Property Commission (CIPC).

#### **2. Preference Goal 2**

##### ***RDP Goals***

2.1. Over and above the awarding of preference points in favor of HDIs, the following activities may be regarded as a contribution towards achieving the goals of the RDP (published in Government Gazette No. 16085 dated 23 November 1994):

- a. The promotion of South African owned enterprises;
- b. The promotion of export orientated production to create jobs;
- c. The promotion of SMMEs;
- d. The creation of new jobs or the intensification of labor absorption;
- e. The promotion of enterprises located in a specific province for work to be done or services to

- be rendered in that province;
- f. The promotion of enterprises located in a specific region for work to be done or services to be rendered in that region;
- g. The promotion of enterprises located in a specific municipal area for work to be done or services to be rendered;
- h. The promotion of enterprises located in rural areas;
- i. The empowerment of the work force by standardising the level of skill and knowledge of workers;
- j. The development of human resources, including by assisting in tertiary and other advanced training programmes, in line with key indicators such as percentage of wage bill spent on education and training and improvement of management skills; and
- k. The upliftment of communities through, but not limited to, housing, transport, schools, infrastructure donations, and charity organizations

### **3. Preference Goal 3**

#### ***Combinations of any other Goals***

- 3.1. The Municipality may also combine any specific goals above in a manner that will help them evaluate and apply preference points to tenders.
- 3.2. The municipality shall set appropriate Local Economic Development Targets in the form of Contract Participation Goals and or Targeted Procurement objectives which must form part of the invitation to tender, set as performance criteria within contracts, where appropriate, for the following target groups:
  - 3.2.1. Priority population groups
  - 3.2.2. Women
  - 3.2.3. Youth
  - 3.2.4. Disabled
  - 3.2.5. Co-operatives
  - 3.2.6. Military Veterans
  - 3.2.7. Location of a Business Enterprise
- 3.3. Targeted Procurement Criteria will be applied, where feasible, on a tender-by-tender basis.
- 3.4. Address declared by the prospective bidder in the National Treasury Central Supplier Database (CSD) or in Msunduzi Municipality vendor database shall be used to determine the location of a business enterprise.
- 3.5. The preference points system is still to be used on the sale or letting of assets and in accordance with the disposals management section of this policy.

#### **F.3.13 Insurance provided by the employer**

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

#### **F.3.14 Acceptance of tender offer**

**F.3.14.1** Accept the tender offer if, in the opinion of the employer, it does not present any unacceptable commercial risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,

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

**F.3.15 Prepare contract documents**

F.3.15.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents, and
- c) other revisions agreed between the employer and the successful tenderer.

F.3.15.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

**F.3.16 Complete adjudicator's contract**

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

**F.3.17 Notice to unsuccessful tenderers**

F.3.17.1 Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the tender data, or agreed additional period.

F.3.17.2 After the successful tenderer has been notified of the employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

**F.3.18 Provide copies of the contracts**

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

**F.3.19 Provide written reasons for actions taken**

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

**MSUNDUZI MUNICIPALITY**  
**CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 (SHENSTONE AMBLETON)**

**CONTRACT NO: SCM 40 OF 24/25**

**SPECIFICATION**

**1.0 INVITATION TO BID ON AN OPEN TENDER PROCESS**

The Msunduzi Municipality hereby invites tenders from suitably qualified and experienced service providers with CIDB Contractor Grading designation of 7CE or higher on an open tender process as publicly advertised by the Municipality, for the Construction of sewer reticulation pipelines in Ward 13 (Shenstone Ambleton)

**2.0 PROJECT CHAMPION**

Fathima Mota  
Cell: 081 450 2060  
Fathima.Mota@msunduzi.gov.za

**8.0 SCOPE OF WORKS**

The Works to be carried out under this contract entails the following:

- Approximately 1765 m of 160 mm diameter PVC sewer pipeline, and
- Approximately 2857 m of 110 mm diameter PVC sewer pipeline in the Shenstone Ambleton area.
- Construction of approximately 178 750mm diameter manholes
- Construction of approximately 88 1000mm diameter manholes
- The proposed sewers will connect into existing outfall sewer line. The proposed sewers will connect into existing outfall sewer line.
- The construction of the erf connection pipelines and the terminal manhole.
- Location and protection of existing services and relocation where necessary;

**14.0 CONTRACT PERIOD**

The contract period shall be 48 weeks from the date of site handover.

**17.0 INSURANCES REQUIRED**

- The limit of indemnity for liability insurance is R5 000 000.00 per event, the number of events being unlimited.
- Contractor all risk insurance (SASRIA).

**18.0 RETENTION AND SURETIES**

- 10% shall be withheld from each interim payment certificate, as retention money, and shall be paid in accordance with clause 6.10.3 of the GCC 2015, 3<sup>rd</sup> Edition.
- The Contractor is required to provide a security for the due performance of the Contract in the form of a Performance Guarantee, equal to the value of 10% of the Contract value, issued by a registered financial services provider or by cash payment made out to the account of the Msunduzi Municipality.

**19.0 PENALTIES**

The Penalties for failing to complete the Works within contract duration shall be, 0.1% of the Construction Value per day.

**20.0 COMPLIANCE WITH ANY LEGISLATION, BYLAWS, ETC.**

- Contractors will be deemed by submitting a tender to have undertaken to comply fully for all purposes under this Contract with all current legislation and related regulations.
- The Contractor shall comply with the Occupational Health and Safety Specification prepared by the Employer in terms of the Construction Regulations, 2014 promulgated in terms of Section 43 of the Occupational Health and Safety Act (Act No. 85 of 1993).
- The Contractor shall comply with the Environmental Specification prepared by the Employer; and is deemed to have made himself conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the contract.
- The Contractor shall comply with the guidelines specified in GCC 2015- 3<sup>rd</sup> Edition.
- MFMA
- SCM Regulations
- Msunduzi SCM Policy
- PPFA 2022

**21.0 GUARANTEE/WARRANTY/DEFECTS LIABILITY PERIOD**

12 months from date of completion.

**22.0 DRAWINGS**

A set of Tender Drawings will be provided for the purposes of estimating and pricing of the Works. The Contract shall be executed in accordance with the Construction Drawings issued by the Engineer.

**23.0 INSPECTION OF CONTRACTOR'S PREMESIS**

An inspection of the Contractor's Site Camp will be done by the Engineer upon award of a Service Provider, to ensure compliance to the specifications in this regard.

**24.0 ESCALATION**

N/A

**25.0 MAINTENANCE PERIOD**

N/A

**26.0 MATERIALS**

All materials and equipment used in the execution of the Contract must comply with the SANS

**28.0 MANDATORY REQUIREMENTS**

Description of Mandatory Requirement	Bidder Capacity Trait to be tested by the Mandatory Requirement	Custodian/ Principal of Mandatory Requirement	Documentary proof: NB: Commissioner of Oaths required by law or any other verification method possible
Labour Intensive Construction (LIC) Certification	Labour Intensive Construction (LIC) training certification with a minimum of NQF L4 (Construction Manager) for CIDB Grade 7CE or higher	Bidder	Copy of LIC certificate (certified by a commissioner of Oaths)

## 29.0 EVALUATION CRITERIA

- The tender will be evaluated through two (2) stages:
  - Stage 1- Functionality
  - Stage 2- Price and Preference (80/20 in terms of PPPFA 2022)

### 29.1 Stage 1 - Functionality Test

- Bidders **MUST** also submit proof or supporting documents in order to claim points, failure to do so will result in no points being awarded, e.g. qualification certificates for project engineer and CV's clearly indicating the no. of years in water and sanitation projects.
- Certified copies of required certificates **MUST** be submitted, not copies of the certified copy. Failure to do so will also result in no points being allocated.

The table below lists the returnable schedules that set out the scoring criteria and sub-criteria, and the percentage weighting for the score achieved against the relevant schedule to be used for functionality.

STAGE 1: FUNCTIONALITY				Reference page
<b>1</b>	<b>No number of sewer pipeline projects completed</b>		<b>Points Earned = 20</b>	
	<p><b>Experience of Bidder in Sewer Pipeline Construction</b></p> <ul style="list-style-type: none"> <li>• <i>Submit a list of <b>all sewer pipeline</b> projects completed with contact details and completion certificates &amp; Award Letters</i></li> <li>• <i>Award letter and completion certificate must be in the name of the bidder</i></li> <li>• <i>A certified copy of the Completion Certificate per project to be attached</i></li> <li>• <i>Certification of requested documents must be by a Commissioner of Oaths</i></li> <li>• <i>Original copies of the Certified documents must be submitted NOT copies of the certified documents.</i></li> <li>• <b>Failure to submit the above will result in zero (0) points being allocated.</b></li> </ul>	<p>More than 5 projects</p> <p>3-5 projects</p> <p>1-2 projects.</p> <p>0 projects</p>	<p>20 points</p> <p>10 points</p> <p>5 points</p> <p>0 points</p>	
<b>2</b>	<b>Contracts Manager</b>		<b>Points Earned = 35 (a+b)</b>	
	<p><b>Experience in sewer pipeline Projects.</b></p> <ul style="list-style-type: none"> <li>• <i>Submit a CV listing <b>all sewer pipeline</b> projects completed, clearly indicating project durations (years &amp; months) and dates together with contact details.</i></li> <li>• <i>For projects that are running concurrently over the same time period, the no. of years of experience will be considered and NOT the no. of projects.</i></li> <li>• <b>Failure to submit the above will result in zero (0) points being allocated.</b></li> </ul>	<p>&gt; 5 years</p> <p>≥ 3 but ≤ 5 years</p> <p>≥ 1 but &lt; 3 years</p> <p>Less than 1</p>	<p>15 points</p> <p>10 points</p> <p>5 points</p> <p>0 points</p>	
	<ul style="list-style-type: none"> <li>• <b>Technical Qualifications</b></li> </ul>			



	<ul style="list-style-type: none"> <li>CV and <b>certified</b> copies of qualifications and ID to be submitted.</li> <li>Anything <b>below</b> National Diploma: Civil Engineering/ Construction Management or not Civil Engineering related will be allocated 0 points</li> <li>Certification of requested documents must be by a Commissioner of Oaths</li> <li>Original copies of the Certified documents must be submitted NOT copies of the certified documents.</li> <li><b>Failure to submit the above will result in zero (0) points being allocated.</b></li> </ul>	Professional Registration with ECSA or SACPCMP (relevant qualification must be attached along with professional registration certificate)  BSc or B-Tech  Diploma	20 points   10 points 5 points	
<b>3</b>	<b>Construction Manager</b>		<b>Points Earned = 15</b>	
	<p><b>(a) Experience in sewer pipeline Projects</b></p> <ul style="list-style-type: none"> <li>Submit a CV listing <b>all sewer pipeline</b> projects completed, clearly indicating project durations (years &amp; months) and dates together with contact details</li> <li><b>Failure to submit the above will result in zero (0) points being allocated.</b></li> </ul>	>10 years  >5 years but ≤ 10 years  ≥2 years but ≤ 5 years  Less than 2 years	15 points  10 points 5 points 0 points	
<b>4</b>	<b>TOTAL POINTS</b>		<b>70 points</b>	

**Tenderers to meet a minimum threshold of 50 points in order to move onto the next stage.  
NB: Experience in sewer pipeline projects will only be considered.**

### 29.2 Specific Goals- 80/20 in line with PPPFA 2022

Specific Goals	Description	Maximum Points
Race	At least 51% South African Black ownership and/or more than 51% management controlled by South African black people (Black Owned Enterprise (BOE))  The tenderer is required to submit a copy of the Service Providers <b>FULL CSD</b> report to claim points above.	<b>10</b>
Locality	Within Msunduzi Jurisdiction	<b>10</b>
	Within Umgungundlovu Jurisdiction	<b>5</b>
	Bidders to submit a lease agreement or Municipal Account in the name of the company to claim points above.	
<b>Total Preference Points (Specific Goals)</b>		<b>20</b>

**Failure to submit the above will result in zero (0) points being awarded per goal.**

It is proposed that the tender evaluation be done as follows:

#### 29.2 Tender Eligibility (F.2.1.1)

Only the Tenderers who comply with the following will have their tender evaluated:

- (a) Registered in the Central Supplier Database in terms of Circular 81 of the Municipal Finance Management Act (MFMA)
- (b) Minimum CIDB contractor grading designation 7CE or higher
- (c) Tenderers shall provide details of the Contracts Manager, Construction Manager, Construction Supervisor and Construction Health and Safety Officer's experience in work of a similar nature to that for which their tender is submitted.
- (d) Attach a detailed CV and Proof of Qualification and Proof of Professional Registration

**31.0 ANY OTHER IMPORTANT INFORMATION**

31.1. As per SCM policy 2022/2023:

**Subcontracting as condition of tender**

If feasible to subcontract for a **contract above R5 million**, Msunduzi Municipality will apply subcontracting to advance designated groups.

If the Msunduzi Municipality applies subcontracting as contemplated in sub regulation (1), the Municipality must advertise the tender with a specific tendering condition that the successful tenderer must subcontract a minimum of 30% of the value of the contract to-

- (a) Msunduzi EME;
- (b) an EME or QSE which is at least 51% owned by black people;
- (c) an EME or QSE which is at least 51% owned by black people who are youth;
- (d) an EME or QSE which is at least 51% owned by black people who are women;
- (e) an EME or QSE which is at least 51% owned by black people with disabilities;
- (f) an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
- (g) a cooperative which is at least 51% owned by black people;
- (h) an EME or QSE which is at least 51% owned by black people who are military veterans;
- (i) Msunduzi Manufacturing Enterprise
- (j) Location of a Business Enterprise or
- (i) more than one of the categories referred to in paragraphs (a) to (j)

**31.2. Should a service provider be recommended for the appointment of either contract in Ward 13 or Ward 18, they will not be eligible for recommendation or appointment on the other.**

## **T 2.1    RETURNABLE DOCUMENTS**

1. Authority for signatory
2. Declaration of municipal fees
3. Declaration of interest
4. Declaration of bidder's past supply chain management practices
5. Certificate of independent bid determination
6. Declaration for procurement above R10 million (all applicable taxes included)
7. OHS act declaration and submission
8. Workmen's compensation registration certificate
9. UIF registration certificate
10. Compulsory enterprise questionnaire
11. Tax clearance requirements
12. Preference points claim form in terms of the preferential procurement regulations 2022
13. Registration with CIDB
14. Compulsory site inspection
15. Record of addenda to tender documents
16. Competency of key personnel
17. Schedule of proposed sub-contractors
18. Alterations by tenderer
19. Alternative tenders
20. Tender programme
21. Form of offer

## **T2.2 RETURNABLE SCHEDULES**

<b>FORM</b>	<b>CONTENTS</b>	<b>PAGE No.</b>	<b>RETURN ED Y/N</b>
A	AUTHORITY FOR SIGNATORY	T2.2/3	
B	DECLARATION OF MUNICIPAL FEES	T2.2/4	
C	DECLARATION OF INTEREST	T2.2/5	
D	DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES	T2.2/7	
E	CERTIFICATE OF INDEPENDENT BID DETERMINATION	T2.2/9	
F	DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (ALL APPLICABLE TAXES INCLUDED)	T2.2/11	
G	OHS ACT DECLARATION AND SUBMISSION	T2.2/13	
H	WORKMEN'S COMPENSATION REGISTRATION CERTIFICATE	T2.2/15	
I	UIF REGISTRATION CERTIFICATE	T2.2/16	
J	COMPULSORY ENTERPRISE QUESTIONNAIRE	T2.2/17	
K	TAX CLEARANCE REQUIREMENTS	T2.2/20	
L	PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022	T2.2/21	
M	REGISTRATION WITH CIDB	T2.2/26	
N	TENDER BRIEFING MEETING CERTIFICATE	T2.2/27	
O	RECORD OF ADDENDA TO TENDER DOCUMENTS	T2.2/28	
P	COMPETENCY OF KEY PERSONNEL	T2.2/29	
Q	SCHEDULE OF PROPOSED SUB-CONTRACTORS	T2.2/34	
R	ALTERATIONS BY TENDERER	T2.2/35	
S	ALTERNATIVE TENDERS	T2.2/36	
T	TENDER PROGRAMME	T2.2/37	
U	TENDERER'S PARTICIPATION IN JOB CREATION USING LOCAL LABOUR & SKILLS TRAINING	T2.2/38	

**A. AUTHORITY FOR SIGNATORY**

I/We\*, the undersigned, am/are\* duly authorised to sign the tender document on behalf of

.....

by virtue of the Articles of Association/Resolution of the Board of Directors\*, of which a certified copy is attached, or .....

Full Name of Signatory: .....

Capacity of Signatory: .....

Signature: .....

Date: .....

**Witnesses:-**

(1) Full Name: .....

Signature: .....Date.....

(2) Full Name: .....

Signature: .....Date.....

\* **Delete whichever is inapplicable or complete as indicated if none are applicable.**

\* **Signatories for companies must establish their authority by enclosing herewith a copy of the relevant resolution of the Board of Directors duly signed and dated**

**B. DECLARATION OF MUNICIPAL FEES**

I/We do hereby declare that the Municipal Fees of \_\_\_\_\_

\_\_\_\_\_ Is/are, as at the date of the tender closing, fully paid up, or arrangements have been concluded with the Municipality to pay the said Fees:-

<u>Description</u>	<u>Account No.</u>
Electricity	_____
Water	_____
Rates	_____

I/We acknowledge that should it be found that the Municipal Fees are not up to date, the Council may take such remedial action as required, including termination of contract, and any income due to the Contractor shall be utilised to offset any monies due to the Council.

Full Name of Signatory.....

Capacity of Signatory.....

I.D. Number.....

Duly Authorised to sign on behalf of.....

Physical Address.....

.....

.....

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



**C. DECLARATION OF INTEREST**

1. No bid will be accepted from persons in the service of the state<sup>1</sup>.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.
3. **In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.**

3.1 Full Name of bidder or his or her representative: .....

3.2 Identity Number: .....

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

.....

3.4 Company Registration Number: .....

3.5 Tax Reference Number: .....

3.6 VAT Registration Number: .....

3.7 The names of all directors / trustees / shareholders members, their individual identity numbers, and state employee numbers must be indicated in paragraph 4 below.

3.8 Are you presently in the service of the state? **YES / NO**

3.8.1 If yes, furnish particulars. ....

.....

<sup>1</sup>MSCM Regulations: "in the service of the state" means to be –

- (a) a member of –
  - (i) any municipal council;
  - (ii) any provincial legislature; or
  - (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of 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);
- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) an employee of Parliament or a provincial legislature.

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

3.9 Have you been in the service of the state for the past twelve months? **YES / NO**

3.9.1 If yes, furnish particulars .....

.....

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?

**YES / NO**

3.10.1 If yes, furnish particulars .....

.....  
 3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

3.11.1 If yes, furnish particulars .....

.....

3.12 Are any of the company's directors, trustees, managers, principal shareholders, or stakeholders in service of the state? **YES / NO**

3.12.1 If yes, furnish particulars .....

.....

3.13 Are any spouse, child, or parent of the company's directors trustees, managers, principal shareholders, or stakeholders in service of the state? **YES / NO**

3.13.1 If yes, furnish particulars .....

.....

3.14 Do you or any of the directors, trustees, managers, principal shareholders, or stakeholders of this company have any interest in any other related companies or businesses whether or not they are bidding for this contract? **YES / NO**

3.14.1 If yes, furnish particulars:

.....

.....

4. Full details of Directors / Trustees / Members / Shareholders.

Full Name	Identity Number	State Employee Number

\_\_\_\_\_  
**Name of Signatory**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Designation of the Deponent**

\_\_\_\_\_  
**Name of Bidder**

**D. DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES**

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

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?  (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alteram partem</i> rule was applied).  <b>The Database of Restricted Suppliers now resides on the National Treasury's website (<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>) and can be accessed by clicking on its link at the bottom of the home page.</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?  <b>The Register for Tender Defaulters can be accessed on the National Treasury's website (<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>) by clicking on its link at the bottom of the home page.</b>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.3.1	If so, furnish particulars:		

4.4	Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.7.1	If so, furnish particulars:		

**CERTIFICATION**

I, the undersigned (name) .....

.....

certify that the information furnished on this Declaration Form is correct.

I accept that the state may act against me should this declaration prove to be false.

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

**E. CERTIFICATE OF INDEPENDENT BID DETERMINATION**

1. This Municipal Bidding Document (MBD) 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 *per se* prohibited meaning that it cannot be justified under any grounds.
3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
  - a. take all reasonable steps to prevent such abuse;
  - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
  - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

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

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

**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying bid:

\_\_\_\_\_  
(Bid Number and Description)

in response to the invitation for the bid made by:

\_\_\_\_\_  
(Name of Municipality / Municipal Entity)

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

I certify, on behalf of: \_\_\_\_\_ that:

(Name of Bidder)

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

- (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities, or experience; and
  - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement, or arrangement with any competitor. However, communication between partners in a joint venture or 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

**F. DECLARATION FOR PROCUREMENT ABOVE R10 MILLION**

**(ALL APPLICABLE TAXES INCLUDED)**

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

\* Delete if not applicable

1. Are you by law required to prepare annual financial statements for auditing?

**\*YES / NO**

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

.....  
.....

2. Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days?

**\*YES / NO**

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

2.2 If yes, provide particulars.

.....  
.....

3. Has any contract been awarded to you by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract?

**\*YES / NO**

3.1 If yes, furnish particulars

..... .....
----------------

4. Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is

expected to be transferred out of the Republic?

**\*YES / NO**

4.1 If yes, furnish particulars

.....  
.....

**CERTIFICATION**

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

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

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

.....  
Signature

.....  
Date

.....  
Position

.....  
Name of Bidder



**G. OHS ACT DECLARATION AND SUBMISSION**

The Tenderer declares himself to be conversant with the following:

1. All the requirements, regulations and standards of the Occupational Health and Safety Act No. 85 of 1993, hereinafter referred to as the Act, together with its amendments and with special reference to the following Sections of the Act:
  - i) SECTION 8: General duties of employers to their employees
  - ii) SECTION 9: General duties of employers and self-employed persons to persons other than employees.
  - iii) SECTION 13: Duty to inform
  - iv) SECTION 37: Acts or omissions by employees or mandatories
  - v) SUB-SECTION 37(2) relating to the purpose and meaning of this Agreement
2. Construction Regulations, 2014 (Government Notice 37305. 7 February 2014) pertaining to the Contractor and to all his sub-contractors, or any amendments thereto.
3. Tender document Part 5: Specification for Occupational Health and Safety, including all the Annexures.

The Tenderer declares that he has or will obtain the necessary knowledge, competence, and resources to comply fully with all OHS Act requirements should he be awarded the contract.

**SECTION 37(1)**

*Whenever an employee does or omits to do any act which would be an offence in terms of this Act for the employer of such employee or a user to do or omit to do, then, it is proved that –*

- (a) *in doing or omitting to do the act the employee was acting without connivance or permission of the employer or any such user;*
- (b) *it was not under any condition or in any circumstance within the scope of the authority of the employee to do or omit to do an act, whether lawful or unlawful, of the character of the act or omission charged; and*
- (c) *all reasonable steps were taken by the employer or any such user to prevent any act or omission of the kind in question,*

*the employer or any such user himself shall be presumed to have done or omitted to do that act, and shall be liable to be convicted and sentenced in respect thereof; and the fact that he issued instructions forbidding any act or omission of the kind in question shall not, in itself, be accepted as sufficient proof that he took all reasonable steps to prevent the act or omission.*

**SECTION 37(2)**

*The provisions of subsection (1) shall “mutatis mutandi” apply in the case of a mandatory of any employer or user, except if the parties have agreed in writing to the arrangements and procedures between them to ensure compliance by the mandatory with the provisions of this Act.*

**ACCEPTANCE BY MANDATORY**

In terms of the provisions of Section 37(2) of the Occupational Health and Safety Act 85 of 1993,

I, \_\_\_\_\_

(Name of PRINCIPAL CONTRACTOR / Representative) acting for and on behalf of \_\_\_\_\_ (Name of

PRINCIPAL CONTRACTOR / Company) undertake to ensure that the requirements and provisions of the Health and Safety Specifications issued by the client at the following site:

\_\_\_\_\_ (Name of Site) are complied with in the following manner:

- To produce, review, monitor and enforce a Health and Safety Plan which has been approved by the Client, an Agent for the Client or a Principal Contractor;
- To include a risk assessment in the Health and Safety Plan which identifies all hazards pertaining to the project;
- To ensure that all relevant documentation required by the Occupational Health and Safety Act and Regulations, including the Construction Regulations, the Compensation for Occupational Injuries and Diseases Act as well as any other statutory laws as amended from time to time is available on site in the health and safety file;
- Enforce precautionary measures stipulated in the risk assessments.

The person signing this agreement confirms that he/she has the authority to so sign and to bind his/her employer, the said Contractor.

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

(on behalf of PRINCIPAL CONTRACTOR)

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

(CLIENT- Msunduzi Municipality)

Print Name: \_\_\_\_\_

(Name of CLIENT Representative)

**H. WORKMEN'S COMPENSATION REGISTRATION CERTIFICATE**

Attach original (or certified copy) of the Workmen's Compensation Letter of Good Standing to this page. When applicable the option to submit an original or certified copy of the letter from the Agent authorized by the Workmen's Compensation Commissioner will be accepted.

***NOTE: Failure to do so will lead to your tender being disqualified.***

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

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

*Tenderer* .....

**I. UIF REGISTRATION CERTIFICATE**

***[The Tenderer's Unemployment Insurance Fund (UIF) Registration Certificate to be inserted here]***

**J. 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 6 partners

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

Company registration number	
Close corporation number	
Tax reference number	

***Attach a certified copy of valid CIPRO Certificate to this page.***

**Section 6: Record of service of the state**

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

<input type="checkbox"/> a member of any municipal council	<input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
<input type="checkbox"/> a member of any provincial legislature	<input type="checkbox"/> a member of an accounting authority of any national or provincial public entity
<input type="checkbox"/> a member of the National Assembly or the National Council of Province	<input type="checkbox"/> an employee of Parliament or a provincial legislature

<input type="checkbox"/> a member of the board of directors of any municipal entity	
<input type="checkbox"/> an official of any municipality or municipal entity	

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

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

\*insert separate page if necessary

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

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

<input type="checkbox"/> a member of any municipal council	<input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)
<input type="checkbox"/> a member of any provincial legislature	<input type="checkbox"/> a member of an accounting authority of any national or provincial public entity
<input type="checkbox"/> a member of the National Assembly or the National Council of Province	<input type="checkbox"/> an employee of Parliament or a provincial legislature
<input type="checkbox"/> a member of the board of directors of any municipal entity	
<input type="checkbox"/> an official of any municipality or municipal entity	

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

\*insert separate page if necessary

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

- i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;

- ii) confirms that the 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 or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other Tendering entities submitting Tender offers and have no other relationship with any of the Tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

**K. TAX CLEARANCE REQUIREMENTS**

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

1. In order to meet this requirement bidders are required to complete in full the attached Form TCC-001 "Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The Tax Clearance Certificate Requirements are also applicable to foreign bidders / individuals who wish to submit bids.
2. SARS will then furnish the bidder with a PIN for Tax Status Compliance Verification.
3. The PIN for Tax Status Compliance Verification must be submitted together with the bid. Failure to submit the PIN will result in the invalidation of the bid.
4. In bids where Consortia / Joint Ventures / Sub-contractors are involved; each party must submit a separate PIN.
5. Copies of the TCC-001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website [www.sars.gov.za](http://www.sars.gov.za).
6. Applications for the Tax Clearance Certificates may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website [www.sars.gov.za](http://www.sars.gov.za)

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

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

*Tenderer* .....



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

**1. GENERAL CONDITIONS**

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

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

1.2 The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 Preference Point System shall be applicable.

1.3 Points for this bid shall be awarded for:

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

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

	<b>POINTS</b>
<b>PRICE</b>	<b>80</b>
<b>SPECIFIC GOALS</b>	<b>20</b>
<b>Total points for Price and Specific Goals must not exceed</b>	<b>100</b>

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

1.6 The organ of state reserves the right to require a tenderer, 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 organ of state.

**2. DEFINITIONS**

- (a) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (b) **“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;
- (c) **“Functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (d) **“highest acceptable tender”** means a tender that complies with all specifications and conditions of tender and that has the highest price compared to other tenders;
- (e) **“lowest acceptable tender”** means a tender that complies with all specifications and conditions of tender and that has lowest price compared to other tenders;
- (f) **“price”** means amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;
- (g) **“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;

- (h) **“Rand Value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation;
- (i) **“specific goals”** means specific goals as contemplated in section 2(1)(d) of the Act which may include contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, gender, and disability including the implementation of programmes of the Reconstruction and Development Programme as published in Government Gazette No. 16085 dated 23 November 1994;
- (j) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;
- (k) **“tender for income-generating contracts”** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions;

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

#### 3.1 POINTS AWARDED FOR PRICE

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

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

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

Where: -

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

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

**3.2.1 POINTS AWARDED FOR PRICE**

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

<b>80/20</b>	or	<b>90/10</b>
$P_s = 80 \left( 1 + \frac{P_t - P_{\max}}{P_{\max}} \right)$	or	$P_s = 90 \left( 1 + \frac{P_t - P_{\max}}{P_{\max}} \right)$

Where: -

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

**4. POINTS AWARDED FOR SPECIFIC GOALS**

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

**5. SUB-CONTRACTING**

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

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

- 5.1.1 If yes, indicate:
  - i) What percentage of the contract will be subcontracted.....%?
  - ii) The name of the sub-contractor.....  
 .....
  - iii) Whether the sub-contractor is an EME or QSE

*(Tick applicable box)*

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

iv) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations, 2022:

Designated Group: An EME or QSE which is at least 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		
Co-operative owned by black people		
Black people who are military veterans		
<b>OR</b>		
Msunduzi EME		
Msunduzi Manufacturing Enterprise		
Location of a Business Enterprise		

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

6.1 Name of company/firm.....

6.2 VAT registration number.....

6.3 Company registration number.....

**6.4 TYPE OF COMPANY/ FIRM**

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

**[TICK APPLICABLE BOX]**

**6.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES**

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

**6.6 COMPANY CLASSIFICATION**

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

**[TICK APPLICABLE BOX]**

6.7 **MUNICIPAL INFORMATION**

Municipality where business is situated.....  
Registered Account Number: .....  
Stand Number: .....

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

6.9 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 specific goals as advised in the tender, 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 5.2, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the 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 BIDDER(S)**

**DATE:** .....

**ADDRESS:** .....

.....  
.....

**M. REGISTRATION WITH CONSTRUCTION INDUSTRY DEVELOPMENT BOARD**

The Tenderer shall attach to this page either:

- Written proof of the tenderers registration with CIDB as a category 7CE or Higher
- Written proof of the tenderers application to CIDB for registration as a contractor in the category listed above.

In the case of a joint venture, each tenderer making up the joint venture shall attach their CIDB or CIDB registration certificates here.

**NOTE:**

Failure to affix such documentation as prescribed to this page shall result in this tender not being further considered for the award of the contract.

Tenderers submitted written proof of application to CIDB will be considered provided their registration can be confirmed with CIDB on the day of evaluation. ***Failure will lead to your tender being disqualified.***

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

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

*Tenderer* .....

**N. TENDER BREIFING MEETING**

TENDER BRIEFING MEETING CERTIFICATE

A compulsory site inspection will be held on Wednesday, 05 February 2025 @ 10:00

The meeting point for the site inspection will take place at the offices of the **Auditorium No. 1, 1st Floor, Bessie Head Library, 260 Church Street, Pietermaritzburg, 3201**

**Compulsory Site Inspection Certificate**

It is hereby certified that I have attended the Compulsory Site Inspection and have satisfied myself of the conditions and circumstances which may influence the Works and the cost thereof.

*(Print clearly)*

NAME OF REPRESENTATIVE : .....

ON BEHALF OF TENDERER : .....

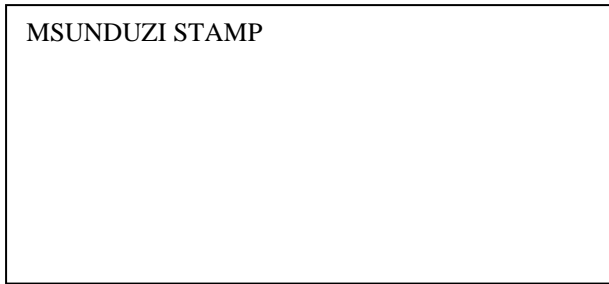
ADDRESS : .....

.....

TELEPHONE NUMBER : .....

SIGNATURE (FOR TENDERER) : .....

SIGNATURE (FOR EMPLOYER'S AGENT) : .....



**O. RECORD OF ADDENDA TO TENDER DOCUMENTS**

We confirm that the following communications received from the employer or his Agent before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer.		
	<b>Date</b>	<b>Title or Details</b>
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		

*Attach additional pages if more space is required.*

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

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

*Tenderer* .....



**P. COMPETENCY OF KEY PERSONNEL**

Contractors shall employ in labour-intensive works only those supervisory and management staff that have completed the required Skills Programme in terms of Appendix C of the “Guidelines for the implementation of labour-intensive infrastructure projects under the Expanded Public Works Programme (EPWP) Third Edition 2015”:

- Construction Manager at NQF level 4

Tenderers’ attention is drawn to the required minimum supervisor to worker ratio for this project stated in the Particular Specifications.

The Tenderer must insert in the spaces provided below the relevant details of the personnel to be employed in the construction of the Works possessing the required qualifications in the supervision or management of LIC projects. A copy of the relevant qualification certificate for each such person shall be attached to the next page.

***As this is a mandatory requirement, failure to submit the above will lead to disqualification of the tender.***

DESIGNATION	NAME	NAME OF TRAINING INSTITUTION	QUALIFICATION OBTAINED IN THE SUPERVISION OR MANAGEMENT OF LIC PROJECTS	YEAR QUALIFICATION OBTAINED

**(a) Contracts Manager**

<b>CONTRACTS MANAGER</b>	<b>NAME:</b> .....		
<b>NB:</b> <ul style="list-style-type: none"> <li>Attach a detailed CV and Proof of Qualification and Proof of Professional Registration</li> <li>All supporting documentation to be certified by a Commissioner of Oaths as per the functionality requirements.</li> </ul>			
CLIENT & NATURE OF WORK	POSITION HELD	VALUE OF WORK	PROJECT DURATION

**(b) Construction Manager – To be appointed in line with 8 (1) of the Construction Regulations, 2014**

<b>CONSTRUCTION MANAGER (LIC NQF LEVEL 4)</b>	<b>NAME:.....</b>		
<b>NB:</b> <ul style="list-style-type: none"> <li>Minimum Qualification shall be National Diploma in Civil Engineering</li> <li>Attach a detailed CV and Proof of Qualification</li> <li>All supporting documentation to be certified by a Commissioner of Oaths as per the functionality requirements.</li> </ul>			
CLIENT & NATURE OF WORK	POSITION HELD	VALUE OF WORK	PROJECT DURATION

**(c) Construction Supervisor – To be appointed in line with 8 (7) of the Construction Regulations, 2014**

<b>CONSTRUCTION SUPERVISOR (Foreman) (NQF LEVEL 4)</b>	<b>NAME:.....</b> ...		
<b>NB:</b> • Attach a detailed CV			
CLIENT & NATURE OF WORK	POSITION HELD	VALUE OF WORK	PROJECT DURATION

**(d) Construction Health & Safety Officer – To be appointed in line with 8 (5) of the Construction Regulations, 2014**

<b>CONSTRUCTION HEALTH &amp; SAFETY OFFICER</b>		NAME:.....	
<b>CLIENT &amp; NATURE OF WORK</b>	<b>POSITION HELD</b>	<b>VALUE OF WORK</b>	<b>PROJECT DURATION</b>

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

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

Tenderer .....

**Q. SCHEDULE OF PROPOSED SUB-CONTRACTORS**

The Tenderer shall list below any Sub-Contractors he wishes to employ to carry out part(s) of the Work.

The acceptance of his tender shall not be construed as approval of all or any of the listed Sub-Contractors. Should any or all of the Sub-Contractors not be approved subsequent to acceptance of the tender, this shall in no way invalidate this tender. Furthermore, the tendered unit rates for the various items of work shall remain final and binding.

NAMES AND ADDRESSES OF PROPOSED SUBCONTRACTORS	NATURE AND EXTENT OF WORK TO BE SUBCONTRACTED	PREVIOUS EXPERIENCE WITH SUBCONTRACTOR OR RECENT WORK EXECUTED BY THE SUB-CONTRACTOR

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

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

*Tenderer* \_\_\_\_\_

**R. ALTERATIONS BY TENDERER**

Should the Tenderer desire to make any departures from, or modifications to the General Conditions of Contract, Specifications, Bill of Quantities or Drawings, or to qualify his tender in any way; he shall set out his proposals clearly hereunder or alternatively state them in a covering letter attached to the tender, and referred to hereunder. Failing to comply with the aforesaid will deem the tender unqualified. If no departures or modifications are desired the Schedule hereunder is to be marked NIL and in any case signed by the Tenderer.

PAGE	CLAUSE OR ITEM	REMARKS

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

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

Tenderer .....

**S. ALTERNATIVE TENDERS**

On condition that the Tenderer submits an offer in accordance with the Tender Documents, any alternative offers which he may wish to submit as proposals, detailed hereunder or on separate sheets referred to hereunder and attached to this page, will be given consideration at the Employer's discretion, provided that they are described, measured and priced in sufficient detail to enable the Employer's Agent to draw reliable conclusions.

<p><b><u>PROPOSALS</u></b> (described, measured and priced)</p>

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

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

*Tenderer* \_\_\_\_\_



**T. TENDER PROGRAMME**

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

**PROGRAMME**

ACTIVITY	WEEKS													

***[Note: The programme must be based on the completion time as specified in the Contract Data. No other completion time that may be indicated on this programme will be regarded as an alternative offer, unless it is listed in Form C of Page T2.2/4 hereafter and supported by a detailed statement to that effect, all as specified in the Tender Data]***

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

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

Tenderer .....

## U. TENDERER'S PARTICIPATION IN JOB CREATION USING LOCAL LABOUR

The Contractor shall be required to participate in job creation (employment of local labour) by executing various portions of the Works using local labour (unskilled or semi-skilled), recruited from the local community, who are South African Citizens or foreigners in possession of a work visa issued by the Department of Home Affairs (only one such foreigner may be employed on any project). Proof of citizenship or work visa may be audited during the contract period.

The creation of one job shall mean the temporary employment, for any period of time, of one such unskilled or semi-skilled labourer from the local community.

The Tenderer shall note the requirements for Job Creation Reporting for EPWP as set out in the Requirements of the Expanded Public Works Programme (EPWP) of the project specifications.

The number of jobs to be created using such local labour is inclusive of the local labour employed to execute various portions of the Works by both the main Contractor and any subcontractors, including the small development subcontractors.

The number of jobs to be created using such local labour shall include for a minimum percentage allocation to the following individual targeted groups:

- 55% Women;
- 55% Youth; and
- 2% Disabled.

The minimum required content of such local labour for this project shall be calculated as follows:

$$\begin{aligned} & \text{Minimum required content of such local labour (\%)} \\ = & \frac{(100 \times \text{amount spent on wages for such local labour (excluding VAT)})}{(\text{total value of the project (excluding VAT)})} \end{aligned}$$

The minimum required content of such local labour for this project shall be **5 %**.

*(Compiler to insert the target minimum percentage based on detailed calculations of the local labour component anticipated for each scheduled pay item, including the pay items contributing to the provisional sum associated with the construction Works carried out by Targeted Enterprise subcontractors appointed).*

For purposes of completing the table on the next page containing the Tenderer's declaration with respect to participation in job creation using local labour, the total value of the project shall be the amount of the Tender Offer.

**TENDERER'S DECLARATION WITH RESPECT TO PARTICIPATION IN JOB CREATION USING LOCAL LABOUR:**

The Tenderer shall complete the table below reflecting the anticipated local labour force to be employed on this contract, including such local labour employed by subcontractors.

I/We hereby tender to participate in job creation through the employment of local labour by creating the following number of jobs using unskilled or semi-skilled labourers, recruited from the local community, who are South African Citizens or foreigners in possession of a work visa issued by the Department of Home Affairs (only one such foreigner may be employed on any project), including for a minimum allocation of 55% Women, 55% Youth and 2% Disabled:

Local labour comprising unskilled or semi-skilled labourers recruited from the local community	Anticipated number of jobs to be created	Total number of person-days anticipated	Wage rate per person-day (excluding VAT)  (Rand)	Total wage cost (excluding VAT)  (Rand)
Contractor's local labour content				
Subcontractors' local labour content				
Total anticipated wage cost of local labour content (excluding VAT)				R
Tender Offer (excluding VAT)				R
Hence anticipated local labour content expressed as a percentage of the Tender Offer (excluding VAT)				%
<b>Note:</b> <i>Should this percentage not equal or exceed the specified minimum percentage, the tender will be considered non-responsive in terms of subclause F.3.8 of the Conditions of Tender and such a tender shall be rejected.</i>				
Specified minimum local labour content <i>(Compiler to insert the specified minimum percentage)</i>				5 %

***A penalty shall be applied to any shortfall in the local labour content achieved, as set out in the Requirements of the Expanded Public Works Programme (EPWP) of the project specifications. The penalty shall not apply to shortfalls in the allocations to the individual target groups (i.e., Women/Youth/Disabled), only to shortfalls in the total local labour content achieved.***

The undersigned, who warrants that he/she is duly authorized to do so on behalf of the Tenderer, confirms that he/she understands the conditions for such participation and confirms that the tender satisfies the conditions for participation in job creation through the employment of local labour.

Name: .....

Duly authorized to sign on behalf of: .....

SIGNATURE: .....

DATE: .....

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

**Failure to complete, sign and date this form shall result in the tender being considered non-responsive in terms of subclause F.3.8 of the Conditions of Tender and such a tender shall be rejected.**

**Structured training programmes**

The Contractor, supported by the training provider, shall plan then implement structured training programmes for generic, entrepreneurial and construction skills training.

Training courses shall commence within four months of the Contractor taking possession of the Site, and shall be completed before the Due Completion Date. *(Compiler to note that training courses cannot commence until the Contractor has fully established his facilities on site, including the required training facilities, and until the labourers that will be the recipients of the intended training have been recruited. The recruitment of labour, in turn, will to a large extent commence only after the initial subcontractors have been procured. A reasonable amount of time must therefore be allowed before the training process can commence).*

All training shall take place within normal working hours, or as otherwise agreed with the learners.

The training provider shall design, compile and deliver the structured training programmes, based on the information obtained from the skills analysis.

The structured training programmes designed by the training provider for the generic skills training shall comprise relevant general courses such as basic hygiene and HIV/AIDS awareness, first aid, road safety, managing personal finance, and other courses that would be useful to workers in the road construction industry or as life skills generally.

The structured training programmes designed by the training provider for the entrepreneurial skills training shall comprise unit standards that contribute towards one or more of the following full learnership qualifications, as appropriate taking into consideration the skills analysis information for the selected candidates (details of the learnership qualifications and the applicable unit standards may be found on the website [www.saga.org.za](http://www.saga.org.za)):

<b>ENTREPRENEURIAL SKILLS TRAINING</b>				
<b>Qualification title</b>	<b>SAQA qualification ID</b>	<b>NQF level</b>	<b>Minimum credits</b>	<b>Purpose of qualification</b>
National Certificate: Supervision of Construction Processes	49053	Level 4	176	Learners found competent against this qualification will be able to execute the supervision of construction processes, with specialisation in a specific context

*(Compiler to liaise with the project manager regarding any further possible entrepreneurial skills training qualifications required for the contract).*

The structured training programmes designed by the training provider for the construction skills training shall comprise unit standards that contribute towards one or more of the following full learnership qualifications, as appropriate taking into consideration the skills analysis information for the selected candidates (details of the learnership qualifications and the applicable unit standards may be found on the website [www.saga.org.za](http://www.saga.org.za)):

<b>CONSTRUCTION SKILLS TRAINING</b>				
<b>Qualification title</b>	<b>SAQA qualification ID</b>	<b>NQF level</b>	<b>Minimum credits</b>	<b>Purpose of qualification</b>
National Certificate: Supervision of Construction Processes	49053	Level 4	176	Learners found competent against this qualification will be able to execute the supervision of construction processes, with specialisation in a specific context
National Certificate: Occupational Health, Safety and Environment	74269	Level 2	120	This qualification is to equip learners working in any type of workplace with a broad understanding and knowledge of Occupational Health, Safety and Environmental (HSE) concepts and practices with sufficient detail to enable them to function in a safe and healthy way and to deal with health and safety problems and issues.

The Contractor's proposed training programmes shall be subject to the approval of the Employer's Agent, and the Contractor shall if so, instructed by the Employer's Agent, alter or amend the programmes and the course content to meet any additional needs identified.

The Contractor shall be responsible for everything necessary for the delivery of the training programmes, including:

- (a) the provision of the trainers;
- (b) the provision of a suitable secure venue complete with adequate furniture, lighting, air conditioning, power and ablution facilities;
- (c) the provision of all necessary stationery, consumables and study materials;
- (d) the transportation of the learners to and from the training facility;
- (e) the payment of wages to all learners during the classroom training at a rate equal to the minimum wage rate as set on an annual basis in the Ministerial Determination for the Expanded Public Works Programme;
- (f) the provision of any relevant Personal Protective Equipment (PPE) required for the training; and
- (g) additional supervision of the learners during the practical learning stage of the training carried out by constructing relevant elements of the Works (wages for the learners during this stage of the training will be paid through the rates tendered for the relevant scheduled work items for those elements).

At the successful completion of each course, the Contractor's training provider shall, as proof of attendance and completion, issue each learner with a certificate indicating the course content.

The training provider shall also ensure that each unit standard contributing towards a full learnership qualification and successfully completed by the learner is entered onto the national database.

The Contractor shall keep comprehensive records of the training given to each learner and the certificates issued, and shall provide copies of such records to the Employer's Agent when required.

The Contractor shall also complete and submit to the Employer's Agent each month, in a format acceptable to the Employer (using the EPWP Data Collection Tool template), a return detailing the training provided, both for the month and cumulatively for the contract.

# **PART 1**

## **AGREEMENTS AND CONTRACT DATA**

## **C1.1 FORM OF OFFER AND ACCEPTANCE**

**A. OFFER**

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

**THE CONSTRUCTION OF SEWER RETICULATION INFRASTRUCTURE AT SHENSTON  
AMBLETON – WARD 13**

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

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

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

*Print clearly in words*.....  
.....

R.....(in figures)

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

**Signature(s)** .....

**Name(s)** .....

**Capacity** .....

**Organization Name** .....

*Address*.....  
.....

**Witness Signature** ..... **Date** .....



**B. ACCEPTANCE**

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the Tenderer's Offer. In consideration thereof, the Employer shall pay the Contractor the amount due in accordance with the Conditions of Contract identified in the Contract Data. Acceptance of the Tenderer's Offer shall form an agreement between the Employer and the Tenderer upon the terms and conditions contained in this Agreement and in the Contract that is the subject of this Agreement. The terms of the Contract are contained in:

- PART 1** Agreements and Contract Data (which includes this Agreement)
- PART 2** Pricing Data
- PART 3** Scope of Work
- PART 4** Annexures

Drawings and documents, or parts thereof, may be incorporated by reference into Parts 1 – 4 above.

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

The Tenderer shall, within TWO weeks after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data at, or just after, the date this Agreement comes into effect. Failure to fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now the Contractor) within FIVE days of the date of such receipt notifies the Employer **in writing** of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

**Signature(s)** .....

**Name(s)** .....

**Capacity** .....

**Organization Name** .....

*Address*.....

.....

**Witness Signature** ..... **Date** .....

**C. SCHEDULE OF DEVIATIONS**

**Notes:**

1. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
2. A Tenderer's covering letter shall not be included in the final contract document. Should any further matter in such letter, which constitutes a deviation as aforesaid become the subject to agreements reached during the process of the Offer and Acceptance, the outcome of such agreement shall be recorded here.
3. Any other matter arising from the process of Offer and Acceptance, either as a confirmation, clarification or change to the tender documents and which it is agreed by the parties, becomes an obligation of the contract and 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: .....
	.....
6.	SUBJECT: .....
	DETAILS: .....
	.....

By the duly authorized representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to

the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the Offer agreed by the Tenderer and the Employer during this process of Offer and Acceptance.

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

**FOR THE TENDERER**

*Print clearly*

**Signature(s)** .....

**Name(s)** .....

**Capacity** .....

**Organization Name** .....

*Address*.....

.....

**Witness Signature** ..... **Date** .....

**FOR THE EMPLOYER**

*Print clearly*

**Signature(s)** .....

**Name(s)** .....

**Capacity** .....

**Organization Name** .....

*Address*.....

.....

**Witness Signature** ..... **Date** .....

## **C1.2 CONTRACT DATA**

## A. CONDITIONS OF CONTRACT

The conditions of contract applicable to this project shall be the General Conditions of Contract for Construction Works, 3<sup>rd</sup> Edition 2015, published by the South African Institution of Civil Engineering.

## B. CONTRACT SPECIFIC DATA

(Clause numbers refer to Clauses in the General Conditions of Contract for Construction Works (3<sup>rd</sup> Edition 2015))

**\* To be completed by Tenderer**

DESCRIPTION	CLAUSE	DETAILS
Defects Liability Period	1.1.1.13	12 calendar months from the date of issue of the Certificate of Completion
Time for achieving Practical Completion (including non-working and special non-working days)	1.1.1.14	Employers Time for Completion is 48 weeks
Name of Employer	1.1.1.15	Msunduzi Municipality
Employers Agent	1.1.1.16	Impande Consulting Engineers
Contract Pricing Strategy	1.1.1.26	Re-measurable Contract
Address of Employer	1.2.1.2	AS Chetty Building, 333 Church Street, Pietermaritzburg, 3201
Address of Employers Agent	1.2.1.2	12 Old Howick Road, Wembley, Pietermaritzburg
Specific approval of the Employer Required	3.2.3	The Employer's Agent shall obtain the specific approval of the Employer before executing any of his functions or duties according to the following clauses of the GCC 2015 THIRD EDITION.  Clause 6.3: Variation  Clause 5.12: Extension of Time for Practical Completion
Contractor's General Obligations	4.1.1 and SCC 4.1.1:	The penalty for failing to achieve the monetary value of the target set by the Employer for local labour content in terms of Part F: Requirements of the Expanded Public Works Programme (EPWP) of section C3.3 Particular Specifications in Part C3: Scope of Works, is 5% of the monetary value by which the achieved monetary value falls short of the target monetary value.
Documentation Required Before Commencement with Works Execution	5.3.1	- Health and Safety File, approved by the Safety Agent (Refer to Clause 4.3) - Initial Programme (Refer to Clause 5.6) - Performance Guarantee (Refer to Clause 6.2) - Insurances (Refer to Clause 8.6)

		- Letter of Good Standing with Compensation Commissioner. - Construction Notice with the Department of Labour
Time to Submit Documentation Required Before Commencement with Works Execution	5.3.2	Within 14 days after the Commencement Date.
Non-working and special non-working days	1.1.1.12 & 5.8.1	Non-working days are Sundays. Special non-working days are the year-end break and statutory public holidays.
Year-end break	5.8.1	18/12/2024 to 06/01/2025 (both days included)
Amount of Penalty	5.13.1	The penalty for failing to meet the requirements of clause 5.5 shall be the value of 0.1% of the Contract Value per day.
Latent Defect Period	5.16.3	10 years.
Performance Guarantee	6.2.1	10% of the Accepted Offer
Duration of Guarantee	6.2.3	12 months from date of completion.
Contract Price Adjustment	6.8.2	Is not applicable.
Percentage advance on material not yet built into the Permanent Works	6.10.1.5	80 percent
Percentage Retention	6.10.3	10 percent
Limit of Retention Money	6.10.3	5 percent of the total Contract Price
Delivery of Contractor's Completion Statement	6.10.8	14 days after the date of issue of the Certificate of Completion
Delivery of Contractor's final statement	6.10.9	14 days after the date of issue of the Certificate of Final Approval
Insurance of the Works	8.6.1	Required
Special Risks Insurance	8.6.1.2	SASRIA all risk is required
Minimum Amount of Liability Insurance	8.6.1.3	The limit of indemnity for liability insurance is R5 000 000.00 per event, the number of events being unlimited.
Settlement of disputes to be by	10.5.2 & 10.7.1	Ad-hoc adjudication followed by Arbitration (following the Rules for Conduct of Arbitrations published by the Association of Arbitrators)
Penalties	F1.11	The penalty that is applicable to any shortfall in the local labour content achieved. The specified minimum percentage of local labour content is 5%

## C. SPECIAL CONDITIONS OF CONTRACT

### CLAUSE 4.1 EXTENT OF CONTRACTOR'S OBLIGATIONS

#### SCC 4.1.1      **Extent of Contractor's obligations**

*Add the following new paragraphs to the end of Clause 4.1.1:*

"If the Contractor fails to achieve the monetary value of the target set by the Employer for local labour content in terms of the Requirements of the Expanded Public Works Programme (EPWP) in the Particular Specifications, the Contractor shall be liable to the Employer for a sum calculated in accordance with the Contract Data and the aforementioned Scope of Works as a penalty for such underachievement.

Clause 4.1.3 – Add the following sub-clause:

"Where the Contractor elects to offer a design or of affecting the permanent works, the design shall be subject to the written approval of the Employer's Agent. The Contractor shall make any changes required by the Employer's Agent at no extra cost to the Employer."

### CLAUSE 4.3 LEGAL PROVISIONS

Clause 4.3.1 – Add the following sub-clause:

4.3.1.1 The Occupational Health and Safety Act (1993) (OHS Act) as amended shall apply. The Employers Agent Representative shall be co-opted as a member of the Contractor's Safety Committee for the Works in accordance with Section 19 of the OHS Act. The Explosives Regulations Act 26 of 1956 and as amended shall apply.

Clause 4.3.2 – Delete the words "If required"

### CLAUSE 4.4 SUBCONTRACTING

Msunduzi SCM Policy 2022/2023

52.3      Subcontracting as condition of tender

(1)      If feasible to subcontract for a contract above R5 million, Msunduzi Municipality will apply subcontracting to advance designated groups.

(2)      If the Msunduzi Municipality applies subcontracting as contemplated in sub regulation (1), the Municipality must advertise the tender with a specific tendering condition that the successful tenderer must subcontract a minimum of 30% of the value of the contract to-

- (a)      Msunduzi EME;
- (b)      an EME or QSE which is at least 51% owned by black people;
- (c)      an EME or QSE which is at least 51% owned by black people who are youth;
- (d)      an EME or QSE which is at least 51% owned by black people who are women;
- (e)      an EME or QSE which is at least 51% owned by black people with disabilities;
- (f)      an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
- (g)      a cooperative which is at least 51% owned by black people;
- (h)      an EME or QSE which is at least 51% owned by black people who are military veterans;
- (i)      Msunduzi Manufacturing Enterprise

- (j) Location of a Business Enterprise or
- (i) more than one of the categories referred to in paragraphs (a) to (j).
- (3) The Msunduzi Municipality will make available the list of all suppliers registered on database approved by the National Treasury to provide the required goods or services in respect of the applicable designated groups mentioned in subregulation (2) from which the tenderer must select a supplier.
- (4) A person awarded a contract may only enter into a subcontracting arrangement with the approval of the Municipality.

#### 52.4 Subcontracting after award of tender

- (1) A person awarded a contract may only enter into a subcontracting arrangement with the approval of the Municipality.

#### 52.5 80/20 preference point

- (1) A tenderer must submit proof to claim points for specific goals.
- (2) A tenderer failing to submit proof for specific goals may not be disqualified, but-
  - (a) may only score points out of 80 for price; and
  - (b) scores 0 points out of 20 for specific goals.
- (3) The points scored by a tenderer for specific goals in terms of sub regulation (2) must be added to the points scored for price under sub regulation (1).
- (4) The points scored for the price must be added to the points scored for the specific goal to obtain the bidder's total points scored out of 100.
- (5) The points scored must be rounded off to the nearest two decimal places.
- (6) the contract must be awarded to the tenderer scoring the highest points.
- (7)(a) If the price offered by a tenderer scoring the highest points is not market related, the organ of state may not award the contract to that tenderer.
  - (b) The Msunduzi Municipality may-
    - (i) negotiate a market-related price with the tenderer scoring the highest points or cancel the tender;
    - (ii) if the tenderer does not agree to a market-related price, negotiate a market-related price with the tenderer scoring the second highest points or cancel the tender;
    - (iii) if the tenderer scoring the second highest points does not agree to a market-related price, negotiate a market-related price with the tenderer scoring the third highest points or cancel the tender.
  - (c) If a market-related price is not agreed as envisaged in paragraph (b)(iii), the organ of state must cancel the tender.

#### 52.6 90/10 preference point system for acquisition of goods or services with Rand value above R50 million

- (1) A tenderer must submit proof to claim points for specific goals.
- (2) A tenderer failing to submit proof for specific goals may not be disqualified, but-
  - (a) may only score points out of 90 for price; and
  - (b) scores 0 points out of 10 for B-BBEE.
- (3) The points scored by a tenderer for specific goals in terms of sub regulation (2) must be added to the points scored for price under sub regulation (1).



- (4) The points scored for the price must be added to the points scored for the specific goal to obtain the bidder's total points scored out of 100.
- (5) The points scored must be rounded off to the nearest two decimal places.
- (6) the contract must be awarded to the tenderer scoring the highest points.
- (7)(a) If the price offered by a tenderer scoring the highest points is not market related, the organ of state may not award the contract to that tenderer.
- (b) The Municipality may-
- (i) negotiate a market-related price with the tenderer scoring the highest points or cancel the tender;
- (ii) if the tenderer does not agree to a market-related price, negotiate a market-related price with the tenderer scoring the second highest points or cancel the tender;
- (iii) if the tenderer scoring the second highest points does not agree to a market-related price, negotiate a market-related price with the tenderer scoring the third highest points or cancel the tender.
- (c) If a market-related price is not agreed as envisaged in paragraph (b)(iii), the Msunduzi Municipality must cancel the tender.

#### **CLAUSE 5.8 NON-WORKING HOURS AND SPECIAL NON-WORKING DAYS**

The first paragraph is to be amended to read:

"None of the Works shall be executed except between 07:00 and 17:00 on Monday to Friday inclusive and 13:00 on Saturday of any week or on any non-working and special non-working days stated in the Contract Data unless"

Delete sub-clauses 5.8.1.2 and 5.8.1.3.

#### **CLAUSE 5.12 EXTENSION OF TIME FOR PRACTICAL COMPLETION**

Add to sub-clause 5.12

"Extensions of time for practical completion due to abnormal climatic conditions shall be determined in accordance with Clause PS 4.3.6 "Critical Path" method.

#### **CLAUSE 6.6 PROVISIONAL SUMS**

Sub-Clause 6.6.1.2.2 - Delete the entire sub-clause.

#### **CLAUSE 6.10.1 MONTHLY PAYMENTS**

Add sub-clause 6.10.1.9:

"In order to meet payment submission deadlines stipulated by the Client, the Contractor must do **measurement** for inclusion into monthly valuations from the **26<sup>th</sup> day of the preceding month** to the **25<sup>th</sup> day of the current month.**"

Add sub-clause 6.10.1.10:

“In order to facilitate payment, the Contractor must ensure that all valuations and payment certificates, including labour returns, are submitted to the Employers Agent by the **27<sup>th</sup> day** of the current month.” Should the 27<sup>th</sup> fall on a non-working day or special non-working day, the certificate is to be submitted on or before the previous working day.

**CLAUSE 6.10.4  
DELIVERY, DISSATISFACTION WITH A PAYMENT OF PAYMENT CERTIFICATE**

Replace

“28 Days in the seventh line with 35 days.”

**CLAUSE 6.11  
VARIATIONS EXCEEDING 15 PERCENT**

Delete the entire clause.

**CLAUSE 8.5  
REPORTING ACCIDENTS**

Clause 8.5.1 – Delete, in the second paragraph, “If required by Employers Agent”

**TESTING AND COMMISSIONING**

Testing and commissioning of the works described in this contract shall be witnessed by the Employers Agent in the presence of a representative of the Employer.

**GUIDELINES FOR THE IMPLEMENTATION OF L.I.C. INFRASTRUCTURE PROJECTS UNDER THE  
EXPANDED PUBLIC WORKS PROGRAMME.**

In terms of Government Gazette Notice No. 23045 dated 25 January 2002 of the Basic Conditions of Employment Act of 1997, this project is classified as a Special Public Works Programme (SPWP).

The tenderers should take note of the relevant requirements in the Guidelines to the following:

1. Basic conditions of employment.
2. Sourcing of labour in accordance with SANS 1914-5

### **CIVIL ENGINEERING INDUSTRY MINIMUM WAGE RATE OF R30/ HOUR (8 Hour Day)**

Locally employed persons shall be remunerated at the Task Grade 1 Wage Rate per hour, whichever is the greater, which comes into effect during the currency of the Contract as reflected in:

1. the latest Sectorial Determination for the Civil Engineering Sector (Government Gazette No. 37749); or
2. a Civil Engineering Industry Wage & Task Grade COLLECTIVE AGREEMENT facilitated by the Bargaining Council for the Civil Engineering Industry (BCCEI); or as adopted following
3. a signed agreement between the South African Federation of Civil Engineering Contractors (SAFCEC) and labour unions.

All other terms of employment shall be structured in accordance with the 'Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)- Second Edition July 2005- Pages 7-12'. Refer Part 5- Annexures- Item 1.7.

#### **EPWP REPORTING**

Monthly reporting must be submitted by the 05<sup>th</sup> of each month for the previous month e.g. Jan 2025 reporting to be submitted by the 5<sup>th</sup> of Feb 2025 and so on, together with the following information:

1. EPWP Excel Reporting Template
2. Signed contracts between employer and employees
3. Certified ID copies
4. Proof of Payments to each labour

**NB:** Cash payments or payments into one bank account for multiple employees is not accepted. Each labour must have a bank account in their name and payment made into each bank account.

**D. DATA PROVIDED BY CONTRACTOR**

Clause	Data
1.1.1.9	The Contractor is .....
1.2.1.2	The Contractor's address for receipt of communications is: Physical address: Postal address: ..... ..... ..... .....  Telephone: .....  Fax: .....  E-mail: .....

# **PART 2**

# **PRICING DATA**

## **C2.1 PRICING INSTRUCTIONS**

1. The Tenderer is advised to check the number of pages and, should any be found to be missing or in duplicate or the figures or writing indistinct or the Bill of Quantities containing any obvious errors, the Tenderer must inform the Engineer at once and have it rectified. No liability whatsoever will be admitted in respect of errors due to the foregoing.

Should there be any doubt or obscurity as to the meaning of any particular item, the Tenderer must obtain an explanation of it, in writing, from the Engineer. No claims for extras arising from any such doubt or obscurity will be admitted after delivery of the tender.

2. The work is to be in accordance with the drawings, specifications and instructions and under the supervision and to the entire satisfaction of the Engineer.
3. The Bills of Quantities should be read in conjunction with the Conditions of Contract, the Specifications and Drawings for the full intent and meaning of each clause or item. The quantities are measured generally in accordance with SABS 1200.
4. The sum and unit prices to be inserted in the Bill of Quantities are to be the fully inclusive value of the work described under the several items, including all costs and expenses which may be required in and for the construction of the work described, together with all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based.
5. A sum or unit price is to be entered against each item in the Bill of Quantities, whether quantities are stated or not. Items against which no price is entered will be considered as covered by other prices or rates in the Bills.
6. All unit prices, extensions and totals must be filled in, in **BLACK INK**.
7. No claim whatsoever will be allowed in respect of errors in pricing due to brevity of description of items which are fully described when read in conjunction with the relevant instruction.
8. The Tenderer is advised that, where trade or patent names are used in description of items in the Bill of Quantities, except in the case of nominated suppliers or sub-Contractors, it does not necessarily follow that these specific materials will be used.

The trade or patent names are inserted in the description only as a guide to the Tenderer and to make clear the type of material required. All or any of these items may be replaced at the Engineer's discretion by other similar and approved materials without affecting the Billed Unit Prices.

Where such a change involves a difference in the basic price of the item, the Contractor will be requested to submit a revised unit price before the order is placed and this will be subject to the approval and acceptance of the Engineer.

Where, however, a trade or patent name is used in the description of an item and the Tenderer offers an alternative material, the onus will be on the Tenderer to produce proof that his material offered is equal in all respects to the material used in the description.

9. The Tenderer is hereby advised that, while every endeavor has been made to ensure the correctness of the quantities and descriptions of all labour and materials in the Bill of Quantities, any errors (whether in excess or short of the actual quantity, or insufficiently or incorrectly described) will be adjusted on completion of the Contract by the Engineer. For this purpose, the entire contents of the Bill of Quantities are to be considered as provisional and therefore subject to re-measurement and adjustment in part or as a whole. All such adjustment will be based on, or pro rata to, the Schedule unit prices submitted by the Contractor. The Bill of Quantities is not necessarily correct for ordering purposes.
10. It is deemed that provision for head office overheads, consumables, stores, profit, etc, as well as all labour, material and plant costs, is made in the priced items of the measured Bill following the Preliminary and General Bill and that any increases and decreases in the measured quantities will correspondingly adjust for these charges.
11. The column headed 'CLAUSE' in the Bill of Quantities, where used, indicates specifications and/or clauses in which further information in respect of billed items can be obtained. This is meant as an

aid to Tenderers but does not imply that the specifications or clauses referred to are the only sources of information in respect of these items and further information and explanations may be found elsewhere in the Contract Documents and on the Drawings.

12. It is deemed that all costs incurred by the Contractor to ensure conformity with the Environmental Management Specifications, is made in the priced items of the measured Bill following the Preliminary and General Bill and that any increases and decreases in the measured quantities will correspondingly adjust for these charges.
13. Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works) will not be made unless they are constructed using labour-intensive methods. Any unauthorized use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.

#### **ITEMS SCHEDULED FOR CONSTRUCTION USING LABOUR-INTENSIVE METHODS**

Those parts of the Works to be constructed using labour-intensive methods are marked in the Schedule of Quantities with the letters LI, either in a separate column or as a prefix or suffix against every item so designated. The Works or parts of the Works so designated are to be constructed using labour-intensive methods only, unless otherwise specified in the Scope of Work.

The items marked with the letters LI include:

- (a) Items in the SABS 1200 Standard Specifications that would normally be carried out using labour-intensive construction methods.
- (b) Items in the SABS Standard Specifications that would normally be carried out using plant but which have been modified specifically so as to require the use of labour-intensive construction methods instead of plant for some or all of the work components of the item.
- (c) New items that have been written for this contract specifically requiring the use of labour-intensive construction methods rather than plant for some or all of the work components of the item.

The items marked with the letters LI are not necessarily an exhaustive list of all the activities which could be carried out using labour-intensive methods. Where a minimum percentage for local labour content is specified, additional activities may need to be identified to be carried out using labour-intensive methods rather than plant in order to meet such target.

14. The Contractor will be required to prepare and submit monthly returns. (Refer Annexure 1.5)



## **C2.2 BILL OF QUANTITIES**

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Preliminary and General

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT		
							R	c	
1	SABS 1200 A		SECTION : PREMINARY AND GENERAL						
1.1	8.3		FIXED-CHARGE ITEMS						
1.1.1	8.3.1		Contractual Requirements	Sum	1.0				
1.1.2	8.3.2		Establishment of Facilities on the Site :						
	8.3.2.1		Facilities for Engineer						
1.1.2.1			a) Offices	Sum	1.0				
1.1.2.2			b) Telephone	Sum	1.0				
1.1.2.3			Percentage adjustment to item 1.1.2.2 for labour	%	20,000.0				
1.1.2.4			c) Two undercover carport	Sum	1.0				
1.1.2.5			d) Contract Signboard	No.	2.0				
1.1.2.6			e) Accommodation	Prov. Sum	1.0	135,000.00			
	8.3.2.2		Facilities for Contractor						
1.1.2.7			a) Offices and storage sheds	Sum	1.0				
1.1.2.8			b) Workshops	Sum	1.0				
1.1.2.9			c) Living accommodation	Sum	1.0				
1.1.2.10			d) Ablution and latrine facilities	Sum	1.0				
1.1.2.11			e) Tools and equipment	Sum	1.0				
1.1.2.12			f) Water supplies, electric power and communications	Sum	1.0				
1.1.2.13			g) Dealing with water (Subclause 5.5)	Sum	1.0				
1.1.2.14			h) Access (Subclause 5.8)	Sum	1.0				
1.1.2.15	PS 16.3		All work to ensure compliance with the provisions of the OSH Act 85 of 1993 and latest Regulations. The item shall include for all cost to provide a safety plan and file including the mentoring there of, auditing there of and reporting to the Engineer, on a regular basis.	Sum	1.0				
1.1.2.16			All work to ensure compliance with the provisions of the Environmental Management Plan.	Sum	1.0				
1.1.3	8.3.3		Other fixed-charge obligations	Sum	1.0				
1.1.4	8.3.4		Remove Engineer's and Contractor's Site establishment on completion	Sum	1.0				
1.2	8.4		TIME-RELATED ITEMS						
1.2.1	8.4.1		Contractual Requirements	Sum	1.0				
	8.4.2		Operate and maintain facilities on the Site:						
Total Carried Forward									

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Preliminary and General

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
							R	c
Brought Forward								
1.2.2	8.4.2.1 (a)		Facilities for Engineer for duration of construction (SABS 1200 AB)	Sum	1.0			
1.2.3			a) Offices	Sum	1.0			
1.2.4			b) Telephone	Sum	1.0			
1.2.5			Percentage adjustment to item 1.2.4 for labour	%	6,000.0			
1.2.6			c) Carport: 2 as for item 1.1.2.4	Sum	1.0			
1.2.7			d) Survey assistants and material	Sum	1.0			
1.2.8			e) Accommodation	Prov. Sum	1.0	10,000.00		
	8.4.2.2 (b)		Facilities for Contractor for duration of construction, except where otherwise stated					
1.2.9			a) Offices and storage sheds	Sum	1.0			
1.2.10			b) Workshops	Sum	1.0			
1.2.11			c) Living accommodation	Sum	1.0			
1.2.12			d) Ablution and latrine facilities	Sum	1.0			
1.2.13			e) Tools and equipment	Sum	1.0			
1.2.14			g) Water supplies, electric power and communications	Sum	1.0			
1.2.15			h) Dealing with water (Subclause 5.5)	Sum	1.0			
1.2.16			i) Access (Subclause 5.8)	Sum	1.0			
1.2.17	8.4.3		Supervision	Sum	1.0			
1.2.18	8.4.4		Company and head office overhead costs	Sum	1.0			
1.2.19	PS 16.3		All work to ensure compliance with the provisions of the OSH Act 85 of 1993 and latest Regulations. This item shall include all costs to provide a safety plan and file including the mentoring thereof, auditing there of and reporting to the Engineer, on a regular basis.	Sum	1.0			
1.2.20			All work to ensure compliance with the provisions of the Environmental Management Plan.	Sum	1.0			
1.2.21	8.4.5		Other Time-Related Obligations	Sum	1.0			
1.3	8.5		SUMS STATED PROVISIONALLY BY ENGINEER					
1.3.1			For quality control testing to be done by the engineer using third parties.	Prov. Sum	1.0	120,000.00		
	8.7		Daywork					
Total Carried Forward								

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Preliminary and General

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
							R	c
Brought Forward								
1.3.2			Labour	Prov. Sum	1.0	120,000.00		
1.3.3			Percentage adjustment to item 1.3.2 for labour	%	120,000.00			
1.3.4			Materials	Prov. Sum	1.0	60,000.00		
1.3.5			Percentage adjustment to item 1.3.4 for materials	%	60,000.00			
1.3.6			Plant	Prov. Sum	1.0	60,000.00		
1.3.7			Percentage adjustment to item 1.3.6 for plant	%	60,000.00			
1.4	8.8		TEMPORARY WORKS					
1.4.1	8.8.1		Main access road to works: construct and maintain	Sum	1.0			
1.4.2	8.8.2		Deal with traffic and maintain road (or accommodation of traffic)	Sum	1.0			
1.4.3	8.8.3		Protect structure until construction in vicinity complete	Sum	1.0			
	8.8.4		Existing services					
1.4.4			a) Supply (or hire) of specialist equipment for the detection of underground services (Prov)	Prov. Sum	1.0	36,000.00		
1.4.5			b) The use of equipment for detection	Prov. Sum	1.0	36,000.00		
1.4.6			c) Excavate by hand in soft material to expose underground services	m <sup>3</sup>	40.0			
1.4.7			d) Temporary protection of underground service	Sum	1.0			
1.4.8			d) Temporary protection of overhead services	Sum	1.0			
1.5			REQUIREMENT OF THE EXPANDED PUBLIC WORKS PROGRAMME (EPWP)					
			(a) Community Liason Officer (CLO)					
1.5.1			(i) Employment of a CLO	Prov. Sum	1.0	168,000.00		
1.5.2			(ii) Handling costs and profit in respect of sub item 1.5.1 (i) above	%	168,000.00			
1.5.3	PS 4.7	LI	Provision of the training venue facility including the cost of transporting the learners to and from the facility.	Sum	1.0			
1.5.4	PS 4.7		Training of the learners employed by the main contractor or by the Targeted Enterprise subcontractors					
			(a) Generic skills					
Total Carried Forward								

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Preliminary and General

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
							R	c
Brought Forward								
			(i) Training costs	Prov. Sum	1.0	350,000.00		
			(ii) Handling costs and profit in respect of sub item (i) above	%	350,000.00			
			(b) Enterpreneurial skills					
			i) Training costs	Prov. Sum	1.0	100,000.00		
			ii) Handling costs and profit in respect of sub item (i) above	%	100,000.00			
			(c) Accredited construction related skills:					
			(i) Training costs	Prov. Sum	1.0	100,000.00		
			(ii) Handling costs and profit in respect of sub item (i) above	%	100,000.00			
			(d) Transportation and accomodation costs of selected learners only, while receiving off-site training					
			(i) Transportation and accomodation costs	Prov. Sum	1.0	30,000.00		
			(ii) Handling costs and profit in respect of sub item (i) above	%	30,000.0			
1.6			National Youth Service					
1.6.1			Payments associated with the NYS programme only:					
			a) Employment of NYS workers	Prov. Sum	1.0	100,000.00		
			b) Provision of tools and apparel for the NYS workers	Prov. Sum	1.0	40,000.00		
			c) Handling costs and profit in respect of subitems 1.6.1 (a) and 1.6.1 (b) above	%	140,000.0			
			d) Training of NYS workers					
			i) Provision of training for the NYS workers	Prov. Sum	1.0	100,000.00		
			ii) Handling costs and profit in respect of sub item (i) above	%	100,000.0			
			iii) Liaison conducted by the Construction Manager	hr	50.0			
			iv) Liaison conducted by the Seniour Site Foreman	hr	50.0			
Total Carried Forward To Summary								

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Site Clearance

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT		
							R	c	
2	SABS 1200 C		SECTION : SITE CLEARANCE						
2.1			CLEAR SITE						
2.1.1	8.2.1	LI	Clear and grub Site	ha	0.4				
	8.2.2		Remove and grub large trees and tree stumps of girth Over and up to						
2.1.2			1 m - 2 m	No.	16.0				
2.1.3			2 m - 3 m	No.	5.0				
2.1.4			3 m and larger	No.	2.0				
2.1.5	8.2.4	LI	Reclear surfaces (provisional) (where ordered by Engineer)	ha	0.5				
2.1.6	8.2.5	LI	Take down existing fences	m	1,200.0				
2.1.7	8.2.6	LI	Clear hedge and, where not scheduled separately, fence	m	10.0				
2.1.8	8.2.7		Dismantle and remove pipelines (not encased in concrete), electricity transmission lines, cables, etc.	m	25.0				
2.1.9	8.2.7		Dismantle and remove pipelines encased in concrete	m	15.0				
2.1.10	8.2.8		Demolish and remove structures/buildings (Provisional)	Prov. Sum	1.0	60,000.00			
2.1.11	8.2.8		Demolish and Repair existing Kerbs and Road	Prov. Sum	1.0	18,000.00			
2.1.12	8.2.8		Dismantle steelwork, etc. (Provisional)	Prov. Sum	1.0	36,000.00			
2.1.13			Detection of existing services [provisional Sum]	Prov. Sum	1.0	550,000.00			
2.1.14			Percentage mark-up on the above items for Contractors overheads,administration charges and profit (item 2.1.10 to 2.1.13)	%	664,000.0				
2.1.15	8.2.9		Cart materials and debris to unspecified sites and dump (provisional)	m <sup>3</sup> .km	3,000.0				
2.1.16			Decommissioning of Septic tanks and honeysucker	Prov. Sum	1.0	950,000.00			
2.1.17			Percentage mark-up on the above items for Contractors	%	950,000.0				
2.1.18			Removal of shacks	Prov.	1.0				
Total Carried Forward To Summary									

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Earthworks(small works)

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT		
							R	c	
3	SABS 1200 DA		SECTION : EARTHWORKS (SMALL WORKS)						
3.2	8.3.1		EXCAVATION						
3.2.1	PSDA 8.3.1(a)	LI	(a) Remove topsoil to nominal depth 150mm, stockpile, and maintain	m <sup>2</sup>	240.0				
	8.3.1	LI	(b) Excavate in all materials and use for embankment or backfill or dispose, as ordered						
3.2.2			750mm diameter manholes as shown in Dwg No. P0011-07-SD-07	m <sup>3</sup>	80.0				
3.2.2.1	8.3.1		(c) Extra-over items 3.2.2 for excavation in:						
3.2.2.2			Intermediate material	m <sup>3</sup>	50.0				
3.2.2.3			Hard rock material	m <sup>3</sup>	40.0				
3.2.2.4			Boulder material, Class A	m <sup>3</sup>	70.0				
3.2.2.5			Boulder material, Class B	m <sup>3</sup>	10.0				
3.2.3			1000mm diameter manholes as shown in Dwg No. P0011-07-SD-07	m <sup>3</sup>	100.0				
3.2.3.1	8.3.1		(c) Extra-over items 3.2.3 for excavation in:						
3.2.3.2			Intermediate material	m <sup>3</sup>	55.0				
3.2.3.3			Hard rock material	m <sup>3</sup>	46.0				
3.2.3.4			Boulder material, Class A	m <sup>3</sup>	70.0				
3.2.3.5			Boulder material, Class B	m <sup>3</sup>	10.0				
3.3	8.3.3		Overhaul (provisional)(Refer PSDA 5.2.6.1)						
			(a) Limited overhaul	m <sup>3</sup>	13.0				
			(b) Long overhaul	m <sup>3</sup> .km	1,320.0				
3.4	PSDA 8.3.4		IMPORT MATERIAL						
3.4.1			To complete terraces : from commercial sources (Prov)	m <sup>3</sup>	200.0				
3.5	8.3.5		Existing services	m <sup>3</sup>	10.0				
			FINISHINGS						
3.6	8.3.6	LI	Topsoiling	m <sup>2</sup>	200.0				
3.7	8.3.7	LI	Grassing	m <sup>2</sup>	200.0				
3.8	8.3.8		ACCOMMODATION OF TRAFFIC						
		LI	(a) Flagmen	Days	90.0				
		LI	(b) Portable STOP and GO/RV signs	No.	5.0				
Total Carried Forward To Summary									

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Earthworks(pipe trenches)

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT		
							R	c	
4	SABS 1200 DB		SECTION : PIPE TRENCHES						
4.1	8.3.1		SITE CLEARANCE						
4.1.1	8.3.1		(b) Clear obstacles along the pipeline route	Sum	1.0				
4.1.2	8.3.1	LI	(c) Remove topsoil to depth of 150mm	m <sup>2</sup>	3,400.0				
4.2	8.3.2 (a)		EXCAVATION						
			a) Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for pipes: 110 mm diam. for total trench depth:						
4.2.1			Exceeding 0,0 m but not exceeding 1,0 m	m	853.0				
4.2.2			Exceeding 1,0 m but not exceeding 2,0 m	m	1,800.0				
4.2.3			Exceeding 2,0 m but not exceeding 3,0 m	m	10.0				
4.2.4			Exceeding 3,0 m but not exceeding 4,0 m	m	10.0				
4.2.5			Exceeding 4,0 m but not exceeding 5,0 m	m	10.0				
4.2.6			Exceeding 5,0 m but not exceeding 6,0 m	m	10.0				
	PSDB 8.3.2 (b)		b) Extra-over items 4.2.1 to 4.2.6 incl. for (prov):						
4.2.7			Intermediate excavation	m <sup>3</sup>	260.0				
4.2.8			Hard rock excavation	m <sup>3</sup>	260.0				
	8.3.2 (a)		a) Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for pipes: 160 mm diam. for total trench depth:						
4.2.9			Exceeding 0,0 m but not exceeding 1,0 m	m	11.0				
4.2.10			Exceeding 1,0 m but not exceeding 2,0 m	m	1,400.0				
4.2.11			Exceeding 2,0 m but not exceeding 3,0 m	m	70.0				
4.2.12			Exceeding 3,0 m but not exceeding 4,0 m	m	10.0				
4.2.13			Exceeding 4,0 m but not exceeding 5,0 m	m	10.0				
4.2.14			Exceeding 5,0 m but not exceeding 6,0 m	m	10.0				
	PSDB 8.3.2(b)		b) Extra-over items 4.2.9 to 4.2.14 incl. for (prov):						
4.2.15			Intermediate excavation	m <sup>3</sup>	260.0				
4.2.16			Hard rock excavation	m <sup>3</sup>	260.0				
			c) Excavate and dispose of unsuitable material from trench bottom (Provisional)	m <sup>3</sup>	200.0				
4.3			Excavation Ancillaries						
Total Carried Forward									



MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Earthworks(pipe trenches)

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
							R	c
Brought Forward								
4.3.1	PSDB 8.3.3.1		Make up deficiency in backfill material (Provisional)					
			a) from other necessary excavations on site	m <sup>3</sup>	10.0			
			c) by importation from commercial or off-site sources selected by the Contractor	m <sup>3</sup>	200.0			
4.3.2	8.3.3.3	LI	Compaction in road reserves	m <sup>3</sup>	3,000.0			
4.3.3	PSDB 8.3.3.4		Overhaul (Refer PSDB 8.1)					
			Limited overhaul (provisional)	m <sup>3</sup>	300.0			
			Long overhaul (provisional)	m <sup>3</sup> .km	22,400.0			
4.3.4	8.3.4		Particular Items					
4.3.4.1			a) Shore trench opposite Structure or Service deeper than 1,8m	m	70.0			
			opposite a building	m	10.0			
			opposite a service	m	10.0			
4.3.4.2	8.3.4		b) Temporary works : Control water inflow from stormwater / Groundwater into the trench (See PSDB)					
			Provide equipment	Sum	1.0			
			Operate and maintain	Days	30.0			
			Remove equipment	Sum	1.0			
4.4	8.3.5		EXISTING SERVICES					
4.4.1	PSDB 8.3.5		a) Services across and in trenches	No.	20.0			
4.4.2			Excavate by hand in soft material to expose services	m <sup>3</sup> /daywk	10.0			
4.4.3	PSDB 8.3.5	LI	a) Services that intersect a trench					
4.4.3.1		LI	Cables	No.	10.0			
4.4.3.2		LI	House water connections	No.	10.0			
4.4.3.3		LI	Water mains up to 300 mm diam.	No.	10.0			
4.4.3.4		LI	Water mains over 300 mm diam.	No.	10.0			
4.4.3.5		LI	Stormwater pipes up to 600 mm	No.	10.0			
4.4.4	PSDB 8.3.5		b) Services that adjoin a trench					
4.4.4.1			Cables	m	10.0			
Total Carried Forward								

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Earthworks(pipe trenches)

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
							R	c
Brought Forward								
4.4.4.2			Water mains up to 300 mm diam.	No.	10.0			
4.5	8.3.6		FINISHINGS					
4.5.1	8.3.6.1		Remove and Reinstate surfaces complete with all courses except for:					
4.5.1.1			Gravel surfaced Driveway	m <sup>2</sup>	10.0			
4.5.1.2			Block Paved Driveway	m <sup>2</sup>	5.0			
4.5.1.3			Concrete Surfaced driveway	m <sup>2</sup>	40.0			
4.5.1.4			Bituminous Surfaced Driveway	m <sup>2</sup>	7.0			
4.6			CONCRETE ROADS					
4.6.1			Provisional sum for rehabilitation of concrete road crossing	Prov. Sum	1.0	150,000.00		
4.7	DB 5.1.2.2		Dewatering of groundwater in pipe trenches					
4.7.1			(i) Provision and establishment of dewatering equipment on site, and removal on completion of operation	Prov. Sum	1.0	350,000.00		
4.8			Allow provisional sum for relocating existing Eskom Power Lines	Prov. Sum	1.0	250,000.00		
4.9			Riots [Provisional Sum]	Prov. Sum	1.0	100,000.00		
4.10			Provision for armed security personnel for protection of material, plant, equipment and personnel [Provisional Sum]	Prov. Sum	1.0	200,000.00		
4.11			Training					
4.11.1			Appointment of accredited training professional service provider for training of unskilled labour	Prov. Sum	1.0	300,000.00		
4.11.2			Percentage mark-up on item above (4.6.1 to 4.11.1)	%	1,350,000.0			
Total Carried Forward To Summary								

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Gabions and Pitching

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT		
							R	c	
5	SABS 1200 DK		SECTION : GABIONS AND PITCHING						
			EXCAVATION See Section D, DA, DE as applicable						
5.1			GABIONS						
5.1.1	8.2.1	LI	Surface preparation for bedding of gabions	m <sup>2</sup>	4.0				
	8.2.2	LI	Construct gabions using galvanized wire mesh						
5.1.2			a) Toe mattresses of depth 0,17 m with diaphragms providing 2 m x 1 m cells	m <sup>3</sup>	5.0				
5.1.3			b) Foundation mattresses of depth 0,3 m with diaphragms providing 2 m x 1 m cells	m <sup>3</sup>	6.0				
5.1.4		LI	c) Gabions of section 1,5 m x 1,0 m for walls	m <sup>3</sup>	6.0				
5.1.5	PSDK 8.2.3	LI	Extra-over item 5.1.4 for selected stone on face between X and Y	m <sup>2</sup>	7.0				
	8.2.4	LI	Geotextile (type, etc, stated) placed where ground water seepage occurs						
5.1.6		LI	a) below foundation mattresses	m <sup>2</sup>	13.0				
5.1.7		LI	b) on slope behind wall	m <sup>2</sup>	11.0				
5.2			PITCHING						
5.2.1	8.2.5	LI	Ordinary pitching, of thickness at least 300 mm on slope of bank where shown on drawings	m <sup>2</sup>	7.0				
5.2.2	8.2.6	LI	Backing of thickness 200 mm near bridge wings and as ordered	m <sup>2</sup>	5.0				
5.2.3	8.2.7	LI	Weepholes.	No.	5.0				
Total Carried Forward To Summary									

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Concrete(small works)

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
							R	c
6	SABS 1200 GA		SECTION : CONCRETE (Small Works)					
6.1	8.2		FORMWORK					
6.1.1	8.2.1	LI	Rough	m <sup>2</sup>	720.0			
6.1.2	8.2.2	LI	Smooth	m <sup>2</sup>	40.0			
	8.2.4		Box out holes/form voids:					
			a) Small, circular, up to 0,35 m diameter, depth over and up to					
6.1.3		LI	0 m 0,5 m	No.	230.0			
6.1.4			0,5 m 1,0 m	No.	230.0			
6.2	8.4		CONCRETE					
6.2.1	8.4.2	LI	50mm Blinding layer in 15/19 concrete	m <sup>2</sup>	230.0			
6.2.2	8.4.3		Strength concrete, Grade 25/19	m <sup>3</sup>	50.0			
	8.4.4		Unformed surface finishes					
6.2.3		LI	Wood-floated	m <sup>2</sup>	95.0			
6.2.4		LI	Steel-floated	m <sup>2</sup>	95.0			
Total Carried Forward To Summary								

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Bedding(pipes)

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT		
							R	c	
7	SABS 1200 LB		SECTION : BEDDING						
7.1	8.2.1		PROVISION OF BEDDING						
	PSLB 8.2.1		Available from trench within 0,5 km (Subclause 3.4.1)						
7.1.1			a) Selected granular material	m <sup>3</sup>	20.0				
7.1.2			b) Selected fill material	m <sup>3</sup>	60.0				
	PSLB 8.2.2		Imported from						
	8.2.2.1		a) Other necessary excavations within 0.5 km (Provisional)						
7.1.3		LI	a) Selected granular material	m <sup>3</sup>	80.0				
7.1.4		LI	b) Selected fill blanket	m <sup>3</sup>	40.0				
	8.2.2.3		Commercial sources (Provisional)						
7.1.5		LI	a) Selected granular material	m <sup>3</sup>	150.0				
7.1.6		LI	b) Selected fill material	m <sup>3</sup>	400.0				
7.1.7	PSLB 8.2.3		Concrete bedding (Provisional)	m <sup>3</sup>	15.0				
	8.2.5		Overhaul of material for bedding (Provisional) where ordered Extra-over items 7.1.1 - 7.1.6						
7.1.8			a) Selected granular material	m <sup>3</sup> .km	3,700.0				
7.1.9			b) Selected fill material	m <sup>3</sup> .km	11,000.0				
Total Carried Forward To Summary									

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Sewers

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT		
							R	c	
8	SABS 1200 LD		SECTION : SEWERS						
8.1	1200 LD		PIPEWORK						
	8.2.1		Supply, lay, joint, bed Class 34, and test sewer pipes with joints						
8.1.1		LI	110 mm diam	m	2,610.0				
8.1.2		LI	160 mm diam	m	1,540.0				
	8.2.2		Extra-over item 8.1.1 - 8.1.2 for supply, lay, joint, bed Class 34 and test specials						
8.1.3		LI	110 mm 45 deg. access bends	No.	157.0				
8.1.4		LI	160 mm x 110 mm Sewer Junction Tee	No.	157.0				
	8.2.3		750 mm dia. Manholes as shown in Dwg No. P0011-07-SD-07 complete with Type 1 cover and frame, for depths shown below						
8.1.5		LI	0,0 m 1,0 m	No.	159.0				
	8.2.4		Extra-over item 8.1.5 for Type 2 (DN750) cover and frame in road areas	No.					
	8.2.3		1000 mm dia. Manholes as shown in Dwg No. P0011-07-SD-07 complete with Type 1 cover and frame, for depths shown below						
8.1.6		LI	1,0 - 1,5 m	No.	48.0				
8.1.7		LI	1,5 - 2,0 m	No.	20.0				
	8.2.4		Extra-over item 8.1.6 - 8.1.7 for Type 2 (DN1000) cover and frame in road areas	No.					
8.2			SUNDRIES						
	8.2.7		Casing to pipes, concrete mix of 25MPa	m <sup>3</sup>	10.0				
	8.2.8		Anchor blocks, concrete mix of 25MPa	m <sup>3</sup>	15.0				
8.2.1	8.2.9	LI	Marker posts, complete, installed	No.	10.0				
8.2.2	PSLD 8.2.11	LI	Break into and connect to existing manhole including flexible joints and make good all benching	Sum	3.0				
8.2.3	8.2.12	LI	Raising or lowering of existing manholes	No.	4.0				
Total Carried Forward To Summary									

MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Stormwater Drainage

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT		
							R	c	
9	SABS 1200 LE		SECTION : STORMWATER DRAINAGE						
9.1			PIPES						
	8.2.1		Supply, handle, lay, bed Class... concrete pipe Type ... and Class ...						
9.1.1		LI	a) 300 mm diameter	m	10.0				
9.1.2			b) 450 mm diameter	m	50.0				
9.1.3			c) 600 mm diameter	m	10.0				
9.1.4	8.2.3		e) Extra-over item 9.1.2 for precast inlet and outlet for 450 mm pipe	No.	3.0				
9.1.5	8.2.3		f) Extra-over item 9.1.3 for approx. 30 deg. skew ends on 600 mm pipeline	No.	3.0				
9.2			BRICKWORK						
9.2.1	8.2.9	LI	115 mm thick	m <sup>2</sup>	20.0				
9.2.2		LI	230 mm thick	m <sup>2</sup>	20.0				
9.2.3		LI	345 mm thick	m <sup>2</sup>	10.0				
9.2.4	8.2.9		Plaster (not less than 10 mm and not more than 15 mm thick)	m <sup>2</sup>	50.0				
9.2.5	8.2.9	LI	Benching in prescribed mix 20 concrete with granolithic rendering	m <sup>2</sup>	10.0				
9.3	8.2.10		ACCESSORIES						
9.3.1			a) Heavy duty manhole covers including frames	No.	3.0				
9.3.2			b) Curb inlets including frames	No.	2.0				
Total Carried Forward To Summary									

MSUNDUZI MUNICIPALITY  
 CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
 CONTRACT NO: SCM 40 OF 24/25

Asphalt base and surfacing

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
							R	c
10	SABS 1200 MH		SECTION : ASPHALT BASE AND SURFACING					
10.1			PRIME COAT					
	8.5.1		Prime coat using:					
10.1.1		LI	MC 30 Bitumen	m <sup>2</sup>	10.0			
10.2			TACK COAT					
	8.5.3		Spray surface using emulsion					
10.2.1		LI	30% Cationic emulsion	m <sup>2</sup>	15.0			
10.3			ASPHALT SURFACING					
	8.5.4		Continuously graded surfacing using:					
10.3.1		LI	60/70 Penetration grade bitumen 25mm thick	m <sup>2</sup>	10.0			
Total Carried Forward To Summary								



MSUNDUZI MUNICIPALITY  
CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
CONTRACT NO: SCM 40 OF 24/25

Kerbing and channelling

ITEM NO	PAY MENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT		
							R	c	
11	SABS 1200 MK		SECTION : KERBING AND CHANNELLING						
11.1			CONCRETE KERBING AND CHANNELLING						
11.1.1	8.2.2		Break existing kerbs or channel and cast in situ using grade 25/19 concrete	m	300.0				
	8.2.5		Cast in situ chutes using 25/19 grade of concrete						
11.1.2		LI	a) Cuts	m	30.0				
11.1.3		LI	b) Fills	m	30.0				
11.2			INLETS AND OUTLETS						
11.2.1	8.2.6.2		a) Inlets	No.	2.0				
11.2.2			b) Outlets	No.	2.0				
	8.2.9	LI	Formwork						
11.2.3		LI	a) Internal face only	m <sup>2</sup>	15.0				
11.2.4		LI	b) External face only	m <sup>2</sup>	30.0				
11.2.5		LI	c) ends of kerb or chute	m <sup>2</sup>	5.0				
	8.2.10	LI	Sealed joints	m	5.0				
Total Carried Forward To Summary									

MSUNDUZI MUNICIPALITY  
 CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 ( SHENSTONE AMBLETON)  
 CONTRACT NO: SCM 40 OF 24/25

Contract Participation Goal

ITEM NO	PAYMENT	LIC	DESCRIPTION	UNIT	QTY	RATE	AMOUNT	
							R	c
12			CONTRACT PARTICIPATION GOALS					
12.1			Construction of Sewer Pipelines in Ward 13, to be identified by the main contractor during construction.	Prov. Sum	1.0	2,811,633.00		
12.2			Percentage adjustment to item 12.1 for mentorship of the CPG partner. The rate will cover the sourcing of CPG partner, the mentorship, payment and all related cost to having the CPG partner in this contract. The contractor will be provided with the drawings and the BOQ for the potential emerging local subcontractors to price. The contractor will evaluate and recommend the sub contractor that will be appointed as his CPG partner.	%	2,811,633.00			
Total Carried Forward To Summary								

**SUMMARY OF SECTIONS**

SECTION	DESCRIPTION	AMOUNT IN RANDS
1	PRELIMINARY AND GENERAL	
2	SITE CLEARANCE	
3	EARTHWORKS (Small Works)	
4	EARTHWORKS (Pipe Trenches)	
5	GABIONS AND PITCHING	
6	CONCRETE (Small Works)	
7	BEDDING (Pipes)	
8	SEWERS	
9	STORMWATER DRAINAGE	
10	ASPHALT BASE AND SURFACING	
11	KERBING AND CHANNELLING	
12	CONTRACT PARTICIPATION GOALS	
13	SUBTOTAL	
14	Add 10% Contingencies	
15	SUBTOTAL	
16	Add 15% VAT	
TOTAL CARRIED FORWARD TO SUMMARY OF SCHEDULES		

# **PART 3**

# **SCOPE OF WORKS**

## CONTENTS

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C3.1	STANDARD SPECIFICATIONS	C3.1/3 – C3.1/4
C3.2	PROJECT SPECIFICATIONS	C3.1/5 – C3.1/95
C3.3	PARTICULAR SPECIFICATIONS	C3.1/96 – C3.1/158

### C3.1 STANDARD SPECIFICATIONS

The standard specifications on which this contract is based are Standards South Africa's Standardized Specifications for Civil Engineering Construction SABS 1200.

Although not bound in nor issued with this Document, the following Sections of the Standardized Specifications of SABS 1200 shall form part of this Contract:

SABS 1200 A	-	1986	:	General
SABS 1200 AA	-	1986	:	General (Small works)
SABS 1200 C	-	1980	:	Site Clearance
SABS 1200 DA	-	1988	:	Earthworks (Small works)
SABS 1200 DB	-	1989	:	Earthworks (Pipe trenches)
SABS 1200 DK	-	1996	:	Gabions and Pitching
SABS 1200 G	-	1982	:	Concrete (Small works)
SABS 1200 LB	-	1983	:	Bedding (pipes)
SABS 1200 LD	-	1982	:	Sewers
SABS 1200 LE	-	1982	:	Stormwater Drainage
SABS 1200 MH	-	1996	:	Asphalt Base and Surfacing
SABS 1200 MK	-	1983	:	Kerbing and Channelling

The variations and additions to the standardised specifications and the following particular specifications are included in Section 3.2 Project Specifications. The variations are prefixed PS and take precedence over the SABS Standardised Specifications.

Where the particular specifications are in conflict with either the variations and additions to the standardised or with the SABS Standardised Specifications, the particular specifications shall take precedence.

PE	The Client's Pre-Construction Health and Safety Specification
PSAA	Dayworks Schedule
PPG	Contract participation Goal
PZ	Employer Environmental Management Specification

The following SANS specifications are also referred to in this document and the Contractor is advised to obtain them from Standards South Africa (a division of SABS) in Pretoria.

SANS 1921 (2004): Construction and Management Requirements for Works Contracts

Part 1: General Engineering and Construction Works;

Part 2: Accommodation of Traffic on Public Roads Occupied by

## C3.2: PROJECT SPECIFICATIONS

### Contents

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## **C3.2: PROJECT SPECIFICATIONS**

### **STATUS**

The Project Specification, consisting of two parts, forms an integral part of the contract and supplements the Standard Specifications.

Part A contains a general description of the works, the site and the requirements to be met.

Part B contains variations, amendments and additions to the Standardized Specifications.

The Particular Specifications are presented in Part C3.3.

In the event of any discrepancy between a part or parts of the Standardized or Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) the drawings, the drawings take precedence thereafter the Bill of Quantities. In all events, the discrepancy shall be brought to the attention of the Engineer before the execution of the work under the relevant item.



## **A GENERAL**

### **PS1 GENERAL DESCRIPTION**

Msunduzi Local Municipality intends laying in Ward 13 approximately:

- 1800 m of 160 mm diameter PVC sewer pipeline, and
- 2800 m of 110 mm diameter PVC sewer pipeline in the Shenstone Ambleton area.

The proposed sewers will connect into existing outfall sewer line. The project layout is shown on the Project Plan, Drawing N° P0011 - 07 - LP - 01

Under this Contract 40 of 24/25, Msunduzi Local Municipality is inviting tenders for the construction of approximately 4600 m of 110/160 mm diameter PVC sewer reticulation within the project area.

### **PS2 EMPLOYER'S OBJECTIVES**

The objective of the employer is to eradicate the septic tank system in the community of Shenstone Ambleton and replace it with waterborne sanitation. This will improve health and hygiene and prevent groundwater contamination.

The Employer's objectives in delivering public infrastructure and services for this project include the provision of temporary work opportunities to the local community through the application of labour-intensive methods to the maximum extent feasible, in accordance with the Expanded Public Works Programme (EPWP) Guidelines. The requirements of the Expanded Public Works Programme (EPWP) are contained in the Particular Specifications. These EPWP requirements also include provisions for the National Youth Service programme where applicable.

### **PS3 OVERVIEW OF THE CONTRACT**

This contract comprises the following:

- (a) Site Clearance where it will be a green fields excavation and breaking, clearing and removing of built obstacles along the proposed pipeline route;
- (b) Excavation of trenches for the construction of the sewer pipelines and manholes;
- (c) Construction of bedding and backfilling of trenches;
- (d) Pipelaying;
- (e) Carting away excess material for disposing at the nearest landfill site
- (f) Reinstating of surfaces to original state;
- (g) Testing of sewer pipelines;
- (h) Construction of erf connection pipelines;
- (i) Mentoring and supervision of the CPG partner (subcontractor)
- (j) Processing of Payments for the CPG Partner

The quantities entered in the Schedule of Quantities for the construction of the Works are only provisional and the Works are to be carried out at scheduled rates wherever applicable, whether or not provisional quantities have been allowed under the relevant items. In the event of any work being required which is not covered by specific price rates, it shall be carried out at agreed rates in keeping with the generally scheduled rates or on a Daywork basis, as may be ordered by the Engineer.

### **PS4 EXTENT OF THE WORKS**

The works that will be constructed by the contractor comprises of the construction of:

- (a) Approximately 4600m of sewer pipeline and the associated manholes.
- (b) The construction of the erf connection pipelines and the terminal manhole.
- (c) Location and protection of existing services and relocation where necessary;

- (d) Correction of defects in the Works in accordance with the requirements specified in the Contract Documents.

**PS5 DESCRIPTION OF SITE AND ACCESS**

The location of the site is shown in the Locality Plan in Section C4. A project plan is shown in Drawing N<sup>o</sup> P0011 - 07 - KP - 01. The project area falls within the Msunduzi Local Municipality area of jurisdiction and it is located approximately 10km south of the Pietermaritzburg CBD. The coordinates are 29° 40' 23.03" S and 30° 22' 11.60" E. The site is unrestricted and be gained from Richmond Road (R56) or from Imbali unit 15 side.

The proposed sewer routes and details are shown on the various tender drawings accompanying this document.

The proposed sewers are to be laid in road verges, public open spaces and through private properties. A large portion of the sewers will be laid on private property. The proposed sewer crosses the roads through a sleeve to be laid by the contractor who shall comply with all conditions and specifications that the Msunduzi Local Municipality will require when working in the road reserve.

The Contractor will not be allowed to close off any public roads. Where required and agreed with the Engineer only half of the roadway is to be excavated at any one time. Suitable STOP/GO controllers are to direct traffic whilst construction work in roadways is in progress. All trenches across roadways are to be completely backfilled after every day's work.

The Contractor will be responsible for maintaining all roads and driveways used by him during construction. Vehicular access to properties shall be made available at all times during construction and roads and driveways will be reinstated upon completion of the works to at least their original condition prior to the construction of the sewers.

**PS6 NATURE OF GROUND AND SUBSOIL CONDITIONS**

For details on the nature of ground and subsoil conditions refer to Part C.4: Site Information.

**PS7 MATERIAL SOURCES, SPOIL AND STOCKPILE AREAS**

Where possible, the contractor shall source material from within 1 km of the site utilizing local labour. The material which may be sourced from the site includes:

- Rocks for stone pitching;
- Rocks for Gabions; and
- Selected fill material.

The activities will include the loading, hauling, offloading and spreading of such material.

**PS8 LABOUR**

A Project Liaison Committee (PLC) has been established and is a vital means of communication between all parties involved with the project. The composition of the PLC comprises representatives of the Employer, the Employer's Agent and formal structures within the community.

The Contractor shall make use of these communication channels and shall appoint from amongst his site personnel a responsible person to participate in the affairs of the PLC, and this representative will be also required to attend the monthly PLC meetings.

It is mandatory that the Contractor shall interact with the community via proactive project liaison and project participation by its leaders and constituted organisations and forums, as well as through the employment of its people, and these activities shall constitute essential facets of the project.

Local labour is to be used and the employment of such labour is to be done in conjunction with the PLC. The PLC has formed a Labour Committee who shall assist the Contractor with the recruitment of local labourers to ensure an equal distribution of people employed between the various Amakosi in the area.

## **PS9      LABOUR INTENSIVE CONSTRUCTION WORKS**

Labour-intensive construction shall mean the economically efficient employment of as great a portion of local labour as is technically feasible to produce a standard of construction as demanded by the specifications with completion by the Due Completion Date, where local labour is the primary resource, supported by plant for activities that cannot be carried out feasibly by labour only.

Labour-intensive construction activities are to be planned as task-based work as a general rule. A task means a fixed quantity of work, to be performed to a clearly defined quality. Task-based work means work in which a worker is paid a fixed rate for performing a task, which is clearly defined in terms of quantity and quality. Typically a particular task can be completed within a working day.

Appropriate portions of the Works included in the Contract shall be carried out using labour-intensive construction methods.

Except where the use of plant is essential in order, in the opinion of the Employer's Agent, to meet the specified requirements by the Due Completion Date, or where the use of plant is essential as a result of occupational health and safety considerations, the Contractor shall use only hand tools and equipment in the construction of those portions of the Works that are required in terms of these Project Specifications to be constructed using labour-intensive construction methods.

Such portions of the Works shall be constructed utilizing only the local labour of the Contractor and/or the local labour of subcontractors, supplemented by the Contractor's key personnel to the extent necessary and unavoidable unless otherwise instructed by the Employer's Agent and in accordance with the further provisions of the relevant sections of Part B of the Project Specifications.

Subject to considerations of occupational health and safety, and subject to the nature of the in-situ materials being such that they can be excavated efficiently by hand, the portions of the Works to be carried out under supervision using labour-intensive construction methods, designated as LI items in the bill of quantities, include, but are not limited to, the following:

- ✓ Erection of the contractor's and engineer's site establishment facilities;
- ✓ Provision of domestic services at the site establishment facilities;
- ✓ Provision of flagmen and labour for erecting traffic accommodation facilities;
- ✓ Clearing of the Site;
- ✓ Excavation for structures and open drains up to 1,5 m deep where the depth of the water table permits such excavation to be carried out safely, and the subsequent backfilling thereof;
- ✓ Bedding, selected fill, backfilling and compaction of all trenches for prefabricated culverts irrespective of depth, but assisted by mechanical compaction equipment in order to achieve the specified densities;
- ✓ Transportation and spoiling of all trench materials, where the disposal site is located within 20 metres of the source;
- ✓ Mixing and placing of concrete for the channel and backing to the prefabricated kerbs;
- ✓ Mixing and placing of concrete for concrete lined drains and sidewalks;

- ✓ Mixing and placing of concrete for minor drainage structures and road furniture structures;
- ✓ Mixing and placing of concrete for concrete edge beams at gravel road access points;
- ✓ Installation of prefabricated kerbs;
- ✓ Construction of all brickwork required for drainage structures and manholes;
- ✓ Erection of falsework and formwork;
- ✓ Fixing of reinforcement;
- ✓ Spreading of offloaded earthworks materials to the extent scheduled;
- ✓ Spreading of offloaded layerworks materials to the extent scheduled;
- ✓ Spreading of stabilising agent;
- ✓ Maintenance patching of surfacing;
- ✓ Excavation for and construction of stone pitching, and subsequent backfilling;
- ✓ Excavation for and construction of gabion boxes and mattresses, and subsequent backfilling;
- ✓ Dismantling/erection of fences;
- ✓ Excavation and subsequent backfilling for guardrail;
- ✓ Dismantling / erection of guardrail;
- ✓ Excavation and subsequent backfilling for road signs;
- ✓ Dismantling/erection of road signs;
- ✓ Spreading of topsoil;
- ✓ Planting of grass cuttings, grass sodding and hand sowing of grass seeds; and
- ✓ Cleaning and tidying up of the Site.

In respect of those portions of the Works which are not listed above, the construction methods adopted and the plant utilized shall be at the discretion of the Contractor, provided always that the construction methods adopted and the plant utilized by the Contractor are appropriate in respect of the nature of the Works to be executed and the standards to be achieved in terms of the Contract.

**PS10 DRAWINGS**

PS10.1 Drawings Prepared by Employer

The drawings issued to tenders as part of the tender documents must be regarded as provisional and preliminary for the Tenderer's benefit to generally assess the scope of work. The drawings are issued separately to this document.

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

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

Drawings issued separately and that form part of the tender documentation are listed hereafter.

Drawing Number	Title	Size for Construction Drawing
P0011-07-LP-01	LAYOUT PLAN	A1
P0011-07-LS-01	LONGITUDINAL SECTION	A1
P0011-07-LS-02	LONGITUDINAL SECTION	A1

P0011-07-LS-03	LONGITUDINAL SECTION	A1
P0011-07-LS-04	LONGITUDINAL SECTION	A1
P0011-07-LS-05	LONGITUDINAL SECTION	A1
P0011-07-SD-01	DETAIL DESIGN	A1
P0011-07-SD-02	DETAIL DESIGN	A1
P0011-07-SD-03	DETAIL DESIGN	A1
P0011-07-SD-04	DETAIL DESIGN	A1
P0011-07-SD-05	DETAIL DESIGN	A1
P0011-07-SD-07	DETAIL DESIGN	A1
P0011-07-SD-08	DETAIL DESIGN	A1

**PS11 CONSTRUCTION AND MANAGEMENT REQUIREMENTS**

PS11.1 General

The Contractor is referred to SANS 1921: 2004: Construction and Management Requirements for Works Contracts, Part 1: General Engineering and Construction Works and Part 2: Accommodation of Traffic on Public Roads. These specifications shall be applicable to the contract under consideration and the Contractor shall comply with all requirements relevant to the project.

Certain aspects however require further attention as described hereafter.

PS11.2 Quality assurance (QA) - (Read with SANS 1921 – 1: 2004 clause 4.4)

*The Contractor will be solely responsible for the production of work that complies with the Specifications to the satisfaction of the Engineer. To this end, it will be the full responsibility of the Contractor to institute an appropriate Quality Assurance (QA) system on site. The Engineer will audit the Contractor's quality assurance (QA) system on a regular basis to verify that adequate independent checks and tests are being carried out and to ensure that the Contractor's own control is sufficient to identify any possible quality problems which could cause a delay or failure.*

The Contractor shall ensure that efficient supervisory staff, the required transport, instruments, equipment and tools are available to control the quality of his own workmanship in accordance with his QA-system. His attention is drawn to the fact that it is not the duty of the Engineer or the Engineer's representative to act as foreman or surveyor.

PS11.3 Management and disposal of water – Read with SANS 1921 – 1:2004 clause 4.6

The Contractor shall pay special attention to the management and disposal of all water on site from whatever source. It is essential that all completed works or parts thereof are kept dry and properly drained. Claims for delay and for repair of damage caused to the works as a result of

the Contractor's failure to properly manage rain and surface water, will not be considered.

PS11.4 Disposal of surplus material - (Read with SANS 1921 - 1: 2004 clause 4.10)

The Contractor shall dispose of all surplus and unsuitable material in legal spoil areas of his own choice. He shall be responsible for all arrangements necessary to obtain access to such spoil sites.

PS11.5 Testing (Read with SANS 1921 – 1: 2004 clause 4.11)

PS11.5.1 Process control

The Contractor shall arrange for all tests required for process control to be done by a laboratory acceptable to and approved by the Engineer.

The Contractor may establish his own laboratory on site or he may employ the services of an independent commercial laboratory. Whatever method is used, the Contractor must submit the results of tests carried out on materials and workmanship when submitting work for acceptance by the Engineer. The costs for these tests shall be deemed to be included in the relevant rates and no additional payment will be made for testing as required.

PS11.5.2 Acceptance control

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Engineer for acceptance control. However, before accepting any work, the Engineer may have further control tests carried out by a laboratory of his choice. The cost of such additional tests will be paid for in the contract, but tests that failed to confirm compliance with the specifications will be for the account of the Contractor.

PS11.6 Survey Beacons - (Read with SANS 1921 - 1: 2004 clause 4.15)

The Contractor shall take special precautions to protect all permanent survey beacons or pegs such as bench-marks, stand boundary pegs and trigonometrical beacons, regardless of whether such beacons or pegs were placed before or during the execution of the Contract. If any such beacons or pegs have been disturbed by the Contractor or his employees, the Contractor shall have them replaced by a registered land surveyor at his own cost.

PS11.7 Existing Services - (Read with SANS 1921 - 1: 2004 clause 4.17)

The approximate positions of some of the known underground services, which may be affected by the Works, have been shown on the drawings. The Contractor will be required to contact all service owners and ascertain the location and status of all services irrespective of whether they are shown on the drawing or not.

The Contractor will be held responsible for any damage to known existing services caused by or arising out of his operations and any damage shall be made good at his own expense. Damage to unknown services shall be repaired as soon as possible and liability shall be determined on site when such damage should occur.

PS11.8 Overhaul

No payment will be made for overhaul on this contract unless provision is made therefor in specific items.

PS11.9 Security

The Contractor shall provide security watchmen to safeguard the works, plant, personnel and materials for the contract as he deems fit at no extra cost to the Employer. The Contractor must ensure that all his employees as well as the employees of his subcontractors are able to identify themselves as members of the construction team.

**PS12 CONSTRUCTION PROGRAMME**

PS12.1 Preliminary Programme

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

It shall be the responsibility of the Contractor to give prior written notice timeously (min 2 working days) to the Engineer in every case in which the Contractor may require connection to existing manholes.

It shall be the responsibility of the Contractor to do and provide everything necessary for the timeous, efficient and safe disposal of all sewage arising from the interruption of the sewer system.

The Contractor shall be deemed to have allowed fully in his tendered rates and prices as well as in his programme for all possible delays due to normal adverse weather conditions and special non-working days as specified in the Special Conditions of Contract, in the Project Specifications and in the Contract Data.

**PS13 SITE FACILITIES AVAILABLE**

PS13.1 Contractor's campsite and depot (Read with SANS 1921 - 1: 2004 clause 4.14)

The Contractor will be permitted to locate his offices, storage facilities, workshops, latrines, etc, on a site indicated by the Engineer. Temporary buildings and fencing are to be neat and presentable and the surrounding areas must at all times be kept in a neat, clean and orderly condition. The Contractor must not cut down or damage any trees nor make any excavation without the written permission of the Engineer and will be required to restore the site to its original condition on completion of the Works.

All buildings and latrines shall be in accordance with the Local Authority and State Health regulations and shall be kept in a clean, sanitary condition to the satisfaction of the Engineer.

PS13.2 Accommodation of Employees

No employees except for security guards will be allowed to sleep or be accommodated on the site in urban areas.

No housing is available for the Contractor's employees and the Contractor shall make his own arrangements to house his employees and to transport them to site.

No informal housing or squatting will be allowed.

The Contractor shall provide the necessary ablution facilities at his campsite and the site of the works for the use of his employees. Chemical toilets only will be allowed where temporary facilities have to be provided.

PS13..3 Power supply, water, and other services

The Contractor shall make his own arrangements concerning the supply of electrical power, water, and all other services. No direct payment will be made for the provision of electricity, water, and other services. The cost thereof shall be deemed to be included in the rates and amounts tendered for the various items of work for which these services are required, or in the Contractor's preliminary and general items as the case may be.

PS13.4 Source of water for water tightness testing

The Contractor shall make his own arrangements for the supply of water for construction purposes and for the testing and scouring of all the pipelines. The cost of water for two fillings of the pipelines for testing, scouring, and disinfecting has been allowed for in the Schedule of Quantities. The Contractor will be required to transport the water for testing purposes to the pipeline. The costs of transporting the water to the various work points and water for additional testing of pipelines in excess of the two fillings allowed for, will be borne by the Contractor.

PS13.5 Finishing and Tidying and Defects Liability Period

Progressive and systematic finishing and tidying will form an essential part of this Contract. On no account will spoil, rubble, materials, equipment, or unfinished operations be allowed to accumulate in such a manner as to unnecessarily impede the activities of others or impact on the environment. 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 areas concerned without prejudicing the rights of others to institute claims against the Contractor on the grounds of unnecessary obstruction.

Finishing and tidying must not be deferred to the end of the Contract. All finishing and tidying shall be carried out to the best advantage of the project as a whole, and in close co-operation with other parties and residents.

All surplus material shall be disposed of at the municipal dump or at a site approved by the Engineer.

**PS14 SITE FACILITIES REQUIRED**

PS14.1 Laboratory facilities

No testing laboratory is required on site for use by the Engineer.

PS14.2 Sanitary facilities

The toilet facilities shall be available for the use of the Engineer or his representative(s). All latrines shall conform to the requirements of the Local Authority and shall be placed where directed by the Engineer. All sanitary fees and charges due under the Local Authority or State Health Regulations or bylaws shall be paid by the Contractor. Throughout the progress of the Contract, all latrines shall be maintained by the Contractor in a clean, sanitary condition to the satisfaction of the Engineer.

PS14.3 Housing for the Engineer and his staff

The Contractor will be required to provide housing facilities for the Engineer's staff. The facility should be within 10 Km of the Pietermaritzburg CBD. The facility shall have at least two bedrooms, a kitchen, Lounge, bathroom, toilet, and shall be fully furnished. It should meet the requirements of a self-catering unit.



PS14.4 Temporary/Permanent Office

The Contractor is to provide one temporary office for use by the Engineer.

PS14.5 Parking Facilities

The Contractor will be required to provide parking for the Engineer.

**PS15 REQUIREMENTS FOR ACCOMMODATION OF TRAFFIC**

PS15.1 General (Read with SANS 1921 - 2: 2004 clause 4.1)

The Contractor will be responsible for the safe and easy passage of public traffic past and on sections of roads of which he has occupation or where work has to be done near traffic.

PS 15.2 Basic Requirements

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

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

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

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

The Contractor shall construct and maintain all temporary drainage works necessary for temporary deviations.

The Contractor shall provide and grant access to persons whose properties fall within or adjoin the area in which he is working.

PS15.3 Traffic Safety Officer (Read with SANS 1921 - 2: 2004 clause 4.9)

Where warranted by traffic conditions on or near the site, the Contractor shall nominate a suitable member of his staff as traffic safety officer to be responsible for the arrangement and maintenance of all the measures for the accommodation of traffic for the duration of the project. Duties of the traffic safety officer shall be as set out in SANS 1921 Part 2 and shall also be in compliance with the Occupational Health and Safety Act No 85 of 1993 and the Construction Regulations 2003, including the Particular Safety Specification.

PS15.4 Payment

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

Items that may be considered for payment are specified in SABS 1200 Standardized Specifications and the related project specification

**PS16 OCCUPATIONAL HEALTH AND SAFETY**

- (Read with SANS 1921 - 1: 2004 clause 4.14 and the Particular Safety Specification)

**PS16.1 General statement**

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end, the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the OHS Act 1993 Construction Regulations 2003 issued on 18 July 2003 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of the Occupational Health and Safety Act by executing the Agreement form C1.5 included in Section C1: Agreements and Contract Data.

**PS16.2 Health and Safety Specifications and Plans to be submitted at tender stage**

(a) Employer's Health and Safety Specification

The Employer's Health and Safety Specification is included in this document as part of the Particular Specifications.

Contractors are to take note of the aspects identified in the specification requiring attention in the pricing of the tender and in the preparation of the H&S Plan:

(b) Tenderer's Health and Safety Plan

The successful Tenderer shall, on receipt of notification that he has been awarded the contract, submit without delay his own documented Health and Safety Plan for the execution of the work under the contract. His Health and Safety Plan must at least cover the following:

- (i) a proper risk assessment of the works, risk items, work methods, and procedures in terms of Regulations 7 to 28;
- (ii) pro-active identification of potential hazards and unsafe working conditions;
- (iii) provision of a safe working environment and equipment;
- (iv) statements of methods to ensure the health and safety of subcontractors, employees, and visitors to the site, including safety training in hazards and risk areas (Regulation 5);
- (v) monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (vi) details of the Construction Supervisor, the Construction Safety Officers, and other competent persons he intends to appoint for the construction works in terms of Regulation 6 and other applicable regulations; and
- (vii) details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2003.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment, if necessary, before commencement of construction work. The Contractor will not

be allowed to commence work, or his work will be suspended if he had already commenced work before he has obtained the Employer's written approval of his Health and Safety Plan.

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

PS16.3 Cost of compliance with the OHS Act Construction Regulations

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

Items that may qualify for remuneration will be specified in the Safety Specifications included or in the Project specifications.

## **AMENDMENTS TO THE STANDARD SPECIFICATIONS**

### **INTRODUCTION**

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

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

**PSAA: GENERAL (Small Works)**

(Applicable to SABS 1200 AA - 1986)

PSAA 3 MATERIALS

PSAA 3.1 Quality and Samples

Add to the Sub-Clause:

No used or recycled material may be used in the Works unless expressly authorised by the Engineer.

Materials specified as being to the approval of a Standard Bureau shall bear the official mark of the appropriate standard.

Samples of concrete aggregates are to be delivered to an approved laboratory.

PSAA 4 PLANT

PSAA 4.1 Contractor's Office and Stores

Add to the Sub-Clause:

Neither housing nor shelters are available for the Contractor's employees, and the Contractor shall make his own arrangements to house his employees and transport them to site.

On completion of the Works or as soon as the Contractor's facilities are no longer required the Contractor shall remove such facilities and clear away all surface indications of their presence.

PSAA 5 CONSTRUCTION

PSAA5.1 Preservation and Replacement of Pegs Subject to Land Survey Act

Add to the Sub-Clause:

Before the commencement of construction work in the vicinity of boundaries, the Contractor, under the direction of the Engineer, shall search for and mark with fencing droppers which shall be painted, all plot pegs where boundaries have not been established by the erection of walls or fences (e.g. between two adjacent undeveloped erven, or on an undeveloped corner erf) and the Contractor shall compile a list of such pegs that are apparently in their correct positions.

At the completion of the Contract, the Contractor shall expose the pegs that were listed at the commencement of the construction and the Engineer will arrange for any such pegs that are missing to be replaced at the Contractor's expense except that the Contractor will not be held responsible for:

pegs that must be removed or buried in accordance with the finished dimensions of any part of the Works or of any essential temporary work, and

pegs removed by others, not under the direct control of the Contractor.

All survey reference marks shall be clearly marked and protected by the erection of three

fencing standards.

All plot boundary pegs shall be marked with fencing droppers and shall be painted.

PSAA 5.2 Protection of Underground Services

*Delete title and substitute the following:*

Protection of Visible and Underground Services (Sub-Clause 5.2)

PSAA 5.3 Dealing with Water on Works

Add to the Sub-Clause:

For this purpose, he shall provide, operate, and maintain in sufficient quantity such pumping equipment, well points, pipes, and other equipment as may be necessary and he shall also provide any sumps, furrows, cross-embankments, coffer-dams, and other temporary works as may be necessary to minimise damage, inconvenience, or interference.

PSAA 5.4 Safety

Add to the Sub-Clause:

All work and particularly work carried out in the proximity of buildings, bridges, tanks or other structures shall be carried out in conformance with the regulations framed under the Occupational Health and Safety Act, 1993 and related Construction Regulations as promulgated in July 2003, and the Minerals Act, Act 50 of 1991, including shoring where necessary, to ensure the safety of structures that are at risk. This clause shall be read in conjunction with the particular specification for health and safety.

The Contractor shall enter into an agreement on Occupational Health and Safety as per the pro forma bound into this document.

The Contractor shall make available for the duration of the contract safety helmets, gumboots, and any other necessary safety equipment for sole use by the Engineer and his representative(s).

Protection of Structures (new sub-clause)

Where work is carried out in the proximity of buildings, bridges, buried services, tanks, walls, or other structures, the Contractor shall take all necessary precautions required in terms of the regulations framed under the Occupational Health and Safety Act, (Act N° 85 of 1993) to ensure the safety of structures and services that are at risk.

PSAA 5.5 Pollution

Add new Sub-Clause:

The Contractor shall take all reasonable measures to minimise any dust nuisance, noise, pollution of streams, and inconvenience to or interference with the public or others arising out of the execution of the Works.

PSAA5.6 Accommodation of Traffic

Add new Sub-Clause:

Where construction work has to be carried out on or near public roads, the Contractor shall deal with traffic as specified in SANS 1921-2 (2004): Construction and Management Requirements for Works Contracts, Part 2: Accommodation of Traffic on Public Roads occupied by the Contractor. The Contractor is also referred to Project Specification PS-10.

PSAA 6 TOLERANCES

PSAA 6.2 Degrees of Accuracy

Add to the Sub-Clause:

Degree of Accuracy II shall be applicable to the whole of the Works (refer also to PSDA 6 and PSG 6).

PSAA 8 MEASUREMENT AND PAYMENT

PSAA 8.2.1 Fixed Charge and Value Related Items

Add the following:

The amount, if any, by which the sum of the fixed-charge and value-related items exceeds three percent of the net total tendered amount (excluding allowances for contingencies and price escalation) shall be regarded for payment purposes as time-related items and will be paid in accordance with Clause 8.2.2.

PSAA 8.2.2 Time-related Items

Delete the third and fourth lines and substitute the following:

".... incremental amounts (calculated by the division of the remainder of the tendered sum by the number of the remaining months of the duration of construction as assessed by the Engineer) will be....."

Add the Sub-Clause:

Notwithstanding the provisions of Sub-Clause 8.2.2, an approved extension of time will not entitle the Contractor to receive any payment for that portion of fixed-charge and value-related items which have become regarded as "time-related" items in terms of PSAA 8.2.1.

**PSAB: ENGINEER'S OFFICE**

(Applicable to SABS 1200 AB - 1986)

PSAB 1 SCOPE

PSAB 1.1 Sub-Clause

Delete the second sentence and substitute the following:

*It covers a scheduled number of identical offices and allows for mobile, semi-mobile, and prefabricated accommodation.*

PSAB 2 INTERPRETATIONS

PSAB 2.1(b) Supporting Specifications

Delete the Sub-Clause and substitute the following:

SABS 1200 AA or SABS 1200 AD as applicable.

PSAB 2.3 Definitions

Delete the first two lines and substitute the following:

For the purposes of this specification the definitions given in SABS 1200 A or SABS 1200 AA or SABS 1200 AD as applicable, and the following definitions shall apply:

PSAB 3 MATERIALS

PSAB 3.1 Nameboards

In the third line *delete* "South African Institution of Civil Engineers" and substitute with "South African Association of Consulting Engineers".

PSAB 3.2 Office Building(s)

Delete the first sentence and substitute the following:

Where required, the Contractor shall supply and furnish one temporary office for the sole use of the Engineer and his staff. The office is to be erected at the Contractor's offices.

Add to the Sub-Clause:

In addition to the furnishings listed under sub-items (a) to (i), the following shall be provided and properly maintained:

(j) If power is to be used by the Contractor on site:

electrical installation is to include a light and one 15A plug point plus an adequately sized air conditioning unit (for heating and cooling) or, alternatively, one 2000 W electric heater and one 375 mm diameter electric fan.



or

If power is unlikely to be available on site:

one gas operated light and one gas operated heater plus an adequate supply of gas.

(k) uncovered parking space for one vehicle

(i) two "Barhold" or similar wall mounted racks each with 6 clamps suitable for hanging AO-sized drawings

(m) two additional chairs

PSAB 4 PLANT

PSAB 4.1 Telephone

Delete the Sub-Clause and substitute the following:

The Contractor is not required to provide a telephone for use by the Engineer or his representative.

PSAB 4.2 Survey Equipment

Add new Sub-Clause:

The Contractor shall provide the following survey equipment on the Site from the commencement to the completion of the Works:

- (i) One theodolite capable of reading to six seconds of arc and tripod
- (ii) One automatic level and tripod
- (iii) One levelling staff (4 m long, 1 cm gradations)
- (iv) One staff angle bubble
- (v) One metal change-point for levelling
- (vi) One spirit level (one metre long)
- (vii) Two steel-tipped ranging rods each 2,5 m long
- (viii) One 25 m stilon tape
- (ix) One 5 m steel tape
- (x) One hammer (2 kg)
- (xi) Steel pegs in sufficient quantities as required.

The above equipment may be shared by arrangement between the Contractor and the Engineer or his representative on Site. The Contractor shall maintain the equipment in good working order and keep it clean until the completion of the Works. The Contractor shall keep the equipment continuously insured against any loss, damage, or breakage and he shall indemnify the Engineer and the Employer against any claims in this regard. Upon completion of the Works, the survey equipment as listed above shall revert to the Contractor.

PSAB 5 CONSTRUCTION

PSAB 5.2 Engineer's Office

Add to the Sub-Clause:

Where required, the toilet facilities provided for the sole use of the Engineer or his representative(s) shall be maintained in a hygienic and sanitary condition and shall be removed on completion of the Works. The facilities provided shall conform to the local health authority's requirements as applicable and the Contractor shall pay all sanitary fees and charges.

PSAB 5.4 Telephone

A telephone is not required to be provided for use by the Engineer.

PSAB 5.5 Survey Assistants

Delete the first sentence and substitute the following:

The Contractor shall make available to the Engineer one suitably experienced labourer for use on and about the site on survey and other work directed by the Engineer at all reasonable times.

PSAB 8 MEASUREMENT AND PAYMENT

PSAB 8.1 Scheduled Items

Delete the first sentence and substitute the following:

Items will be re-scheduled in Sub-Clauses 8.3.2 and 8.4.2 of SABS 1200 AA.

PSAB 8.2.1 Fixed and Time-related Charges

Add to the Sub-Clause:

The Tenderer is to include, under the Time Related Charges, a Prime Cost Sum of R125.00 per week, for a period of time equal to the Time for Completion of the Contract (see Appendix) to cover the cost of the Engineer's telephone calls and the related telephone rental.

**PSC: SITE CLEARANCE**

(Applicable SABS 1200 C - 1980 As Amended 1982)

PSC 5 CONSTRUCTION

PSC 5.2.3.2 Individual Trees

Delete the second sentence of the Sub-Clause and substitute the following:

The amount of the penalty payable by the Contractor for the removal or damage by him of a tree designated for preservation shall be R1000 for each tree having a girth of less than 1000 mm and R2000 for each tree having a girth of 1000 mm or more.

PSC 5.4 Grubbing

In the fourth line delete "200 mm" and substitute "300 mm".

PSC 5.6 Conservation of Topsoil

Add to the Sub-Clause:

The topsoil, where approved by the Engineer, shall be conserved for later use by stockpiling in stockpiles clear of the *working area*.

PSC 5.7 Landscape, Preservation, and Conservation of Flora

Add to the Sub-Clause:

Where pipelines are to be laid in sensitive areas, the cleared width is not to exceed 2 m. After completion of the pipelaying, the natural bush is to be re-instated.

PSC 5.9 Remove, Temporarily Store, and Replace Road Ancillaries

New Sub-Clause

Where the line of the trench crosses existing road ancillaries such as precast concrete kerbs and road signs, the Contractor will be required to dismantle, lift, store, and replace the ancillary as directed by the Engineer. In-situ kerbs shall be broken out between neat cuts and after the pipeline has been installed, reinstated to the satisfaction of the Engineer.  
Unit: N<sup>o</sup> or m

PSC 5.11.1 Existing Fences

Where the pipeline route crosses an existing fence, a section of fencing not exceeding 10,0 m in length may be removed temporarily during construction and thereafter reinstated to a condition not worse than the original as soon as the pipeline has been installed and backfilled in the immediate vicinity of the *crossing*. For the period while the existing fence is dismantled, the Contractor shall erect, at the *end* of each days operations, a temporary fence to close the gap in the existing fence. No payment will be made for this work.

PSC 5.11.2 Temporary Gates

Extra over Sub-Clause 5.3.1, where ordered by the Engineer, a temporary gate of width not less than 3,0 m between posts shall be provided at a crossing point. The gates shall remain the property of the *Contractor* who shall be responsible for keeping them closed at all times except when working in the vicinity, and for their removal towards the end of the Contract. Payment shall be made per number of gates ordered. Unit: N<sup>o</sup>

PSC 5.11.3 Permanent Gates

At existing fence crossings, where so ordered by the Engineer, the Contractor shall supply and install a gate as specified hereunder within the limits of the pipeline servitude which gates will become the property of the Employer or other parties. Unit: N<sup>o</sup>

The gates shall comprise a 4,2 m wide 1200 mm high Government Pattern Farm Gate - Heavy to CKS 146 (supports and lock up chain included) and make the necessary connections to the existing fence.

PSC 5.11.4 Fences Parallel to Pipeline Route

Fences that are parallel or running alongside the pipeline route will not be dismantled unless where it prevents the construction of the sewer pipeline. In such cases where the fence is required to be dismantled, the contractor will take at least 3 photographs, front view, left-side view, and right-side view before any construction starts. The photos will be clearly numbered to reflect the property number and will be used to measure the reinstatement of the fence.

PSC 8 MEASUREMENT AND PAYMENT

PSC 8.2 Scheduled Items

The cost of dealing with fences in the manner specified in PSC 5.11.1 above shall be included in the rates quoted for excavation and pipelaying. If PSC 5.11.2 and PSC 5.11.3 is not required then delete.

Separate payment will be made for work specified in PSC 5.9 as scheduled.

**PSDA: EARTHWORKS (SMALL WORKS)**

(Applicable to SABS 1200 DA - 1988 as amended 1990)

PSDA 2 INTERPRETATIONS

PSDA 2.3 Definitions

Delete the sentence headed "Restricted excavation" and substitute:

Restricted excavation - An excavation so restricted in area or width as to preclude removal of material by excavating machinery used for bulk excavation measured in terms of Sub-Clause 8.3.1(b). Restricted excavation may be carried out by smaller machinery or by hand, as selected by the Contractor. The extent of restricted excavation shall be as scheduled and/or shown on the drawings; all other excavations shall be regarded as bulk excavation.

PSDA 3 MATERIALS

PSDA 3.2.1 Embankments & Backfill

In the third line delete "150 mm" and substitute "100 mm".

Embankment material shall be compacted to 90% modified AASHTO density.

PSDA 3.3 Material Suitable for Replacing Overbreak in Excavations for Foundations

Add new Sub-Clauses:

(i) Where, in excavations for foundations, the replacement of overbreak is required, Grade 10/40 concrete is to be used to fill all voids and to bring the excavated surface up to the correct level. No additional payment will be made for the cost of the additional excavation or the cost of the mass concrete filling.

PSDA 3.4 Backfilling and Embankments

Add new Sub-Clause:

Sufficient material arising from excavations for structures, foundations, footings, and the like and which is suitable for forming embankments and backfilling against finished structures shall be temporarily stockpiled in the vicinity of the structures. All other material from the excavations shall be disposed of as directed by the Engineer.

PSDA 4 PLANT

PSDA 4.3 Compaction Plant

Add new Sub-Clause:

The plant used for applying the dynamic load, controlling the moisture content, and grading or mixing shall be capable of achieving the compaction specified using the materials available for the construction of the Works.

PSDA 5            CONSTRUCTION

PSDA 5.1.1.1    Barricading and Lighting

Delete the Sub-Clause and substitute:

Without limiting any obligation which the Contractor may have in terms of any Act, Ordinance, or other legislation, the Contractor shall ensure that all excavations which are accessible to the public or which is adjacent to a public road or thoroughfare, or by which the safety of persons may be endangered are protected as set out in clause 13 of the General Safety Regulations of the Occupational Health and Safety Act, 1993 and that watchmen are employed to ensure that barricades, barriers and lights are effective at all times.

Trench excavations shall be protected by means of at least two horizontal double sided 'red/white' chevron tapes approved by the Engineer. The tapes shall be stretched tightly between supports along both sides and ends of the excavation at levels approximately 0,45 m and 1,25 m above the ground. The supports shall consist of poles or iron standards securely planted in solid ground at not more than 10 m centres so as to enclose the spoil and the excavations.

Bridges for vehicles and/or pedestrians shall be provided along the route of the work as and where may be considered necessary by the Engineer. They shall consist of a number of suitably sized steel plates laid across open excavated trenches. They shall be protected on each side by a stout two rail timber fence, at least 1 m high, consisting of 150 mm x 75 mm timber verticals set firmly into the ground, with 75 mm x 50 mm rails securely fastened to them. At least 4 lamps or reflective markers must be provided at each crossing.

Where construction is in, or across, public roads the barricades or barriers and temporary road signs shall be erected. All such signs and positioning thereof shall comply with the requirements set out in Road Note 13 read in conjunction with the SA Road Traffic Signs Manual.

PSDA 5.1.1.2    Safeguarding of Excavations

In subclause a) delete the words "Machinery and Occupational Safety Act" in the third and fourth lines and substitute "regulations to the Occupational Health and Safety Act, 1993."

PSDA 5.1.1.3    Explosives

Delete the last sentence and substitute:

The Contractor shall make good at his own expense any additional excavation necessitated by the shattering of rock in excess of an overbreak allowance of 200 mm as measured beyond the required outline of the structure and at right angles to it.

PSDA 5.1.3       Existing Services

Add to the Sub-Clause:

All existing services on the Site may not be shown on the Drawings or be visible on the Site. The Engineer may order excavation by hand in order to search for and expose services.

Where a service is damaged because of the Contractor's negligence, he shall be liable for the costs involved in the repair of the service and any other costs consequent upon the interruption of the damaged service.

PSDA 5.1. Stormwater and Groundwater

Delete the third sentence and substitute:

Except where the use of tremies has been approved, foundation excavations for structures shall be kept free of water at all times until they have been inspected and approved and the concrete substructures, together with their related superstructures, have been completed.

PSDA 5.1. Excessive Pollution

Add the words "noise and", before the word "dust" in the first line.

PSDA 5.2.1 Site Preparation

Delete the last sentence and substitute:

"Material so removed shall be disposed of by the Contractor to Sites designated by the Engineer".

PSDA 5.2.2 Excavation

Delete paragraph (f) of the Sub-Clause and substitute:

(f) Borrow pits where and when ordered shall be so maintained that they do not become a danger to persons and livestock. Topsoil and overburden shall be stockpiled temporarily and, on completion of the work, returned to and spread over the area of the borrow pit in such a manner that the sides are graded 1:2 and the floor is self-draining, or otherwise as directed. Any access constructed by the Contractor shall be scarified and the area reinstated.

Add to the Sub-Clause:

(h) Where outside shuttering is ordered by the Engineer, the excavations shall be carried out for an extra width of not more than 600 mm all around the structure, measured from the base of the face to be shuttered, to allow for the shuttering to be fixed, this extra excavation and refilling where necessary is to be measured and paid for under quantities allowed for this purpose in the Schedule. Outside shuttering shall be used for the construction of all major structures unless ordered otherwise by the Engineer.

(i) Where permanent concrete is to be placed against an excavated face, the excavation shall be trimmed to ensure that there is no projection greater than 20 mm protruding into the excavation profile.

(j) The Contractor shall not spoil, waste, or stockpile excavated material without approval.

PSDA 5.2.3.1 Embankments

In the thirteenth line delete "600 mm" and substitute "300 mm".

In the sixteenth line delete "300 mm" and substitute "150 mm".

Delete the nineteenth line and substitute the following:

Each layer shall be compacted to achieve 90% modified AASHTO density except where indicated otherwise on the Drawings.

PSDA 5.2.3.2 Restricted Backfill and Compaction at Structures

Delete the eighth and ninth lines and substitute:

not exceeding 250 mm and compacted by means of mechanical tampers to achieve a 90% modified AASHTO density except where indicated otherwise on the Drawings.

PSDA 5.2.5.2 Topsoiling

Delete the wording of Sub-Clause 5.2.5.2 and replace with the following:

Where scheduled, topsoil shall be placed on all surfaces and on embankments and shall be lightly compacted by wheeled vehicles or by tamping, and trimmed neatly to the required lines, grades and levels. The final thickness of topsoil after compaction shall be at least 100 mm. Prior to topsoiling, the surfaces to be topsoiled shall be prepared by pulling horizontal ruts into the soil with the tines of a front-end loader or other suitable methods to retard erosion of the topsoil.

PSDA 5.2.5.3 Grass and other vegetation

Add to the Sub-Clause:

The surface of topsoiled embankments, terraces, and other designated areas are to be planted with fine sturdy approved grass, other than Kikuyu, the tufts being spaced at 150 mm centres maximum. The grassed areas are to be fertilised and watered until the area is fully covered with grass in accordance with the Particular Specification for Grassing.

PSDA 5.2.6.1 Freehaul

Delete the wording of Sub-Clause 5.2.6.1 and replace with the following:

All haul will be regarded as freehaul. No overhaul will be paid under this Contract.

PSDA 5.2.6.2 Overhaul

Delete the Sub-Clause.

PSDA 6 TOLERANCES

PSDA 6.1 Degree of Accuracy

Delete the Sub-clause and substitute:

The work shall, subject to Sub-Clause 6.2, be finished off within the limits of Degree of Accuracy II as set out in Sub-Clause 6.1 of SABS 1200 D.

PSDA 6.2 Permissible Deviations

PSDA 6.3 Excavation by Mechanical Means

Add new Sub-Clause:

Where bulk excavation is carried out by earthmoving equipment, such excavation will only be



allowed to within a level of 300 mm, or less as ordered by the Engineer, above the general level to which the ground has to be reduced, the balance of the bulk excavation being carried out by hand or by other means approved by the Engineer.

PSDA 7 TESTING

PSDA 7.2 Determination of Compaction

Add to the Sub-Clause:

Determination of the standard of compaction achieved shall be carried out in accordance with Standard methods of testing road construction materials published by the Department of Transport Division of National Roads, Publication TMH.1.

PSDA 8 MEASUREMENT AND PAYMENT

PSDA 8.1.1 Basic Principles

Delete the third line of the first sentence and substitute:

"Material in backfilling, forming embankments, etc., including any necessary additional offloading, stock-piling and reloading and the cost of disposal of any"

In the seventh line delete "Drawing DA-2" and substitute "Fig DA-2".

Add to the Sub-Clause:

Unavoidable over-excavation for structures located in boulder formation will be measured and paid for up to a maximum of 600 mm in Class A boulder formation and 300 mm in the case of Class B boulder formation, as applicable, as measured beyond the required outline of the structure and at right angles to it.

PSDA 8.1.2 Basic Principles

Delete the first line and substitute:

"Excavations which are required to be backfilled, or partially backfilled, will be measured as if taken out"

Delete the fifth and sixth lines and substitute:

"In other such structures, the volume will be measured from the finished outline of the concrete, or the blinding to the concrete (as the case may be), as shown on the Drawings".

PSDA 8.1.3 Basic Principles

Delete the third line and substitute:

"Will be measured as part of the bulk excavation or restricted excavation, as applicable.

PSDA 8.3.1(a) Excavation

Add to the Sub-Clause:

Where removal to greater depths is ordered, the area measured for payment will, unless otherwise scheduled, be increased pro rata to the average increase in depth

PSDA 8.3.2(b) Restricted Excavation

Add to the Sub-Clause:

(3) boulder excavation Class A Unit: m3

(4) boulder excavation Class B Unit: m3

Delete the last two lines and substitute:

(a) above for any portion of the excavated material that is classified as intermediate, hard rock, boulder Class A, or boulder Class B as applicable.

PSDA 8.3.4 Importation of Materials

Delete the last five lines and substitute:

PSDA 8.3.4.2 For backfilling around structures

The rate shall cover the cost of royalties (if any) and acquiring suitable material, loading, transporting within freehaul distance, unloading, spreading in layers not exceeding 150 mm thick, watering, compacting to 90% Mod AASHTO density, and trimming upper surfaces to the required outline all in accordance with the Specifications.

PSDA 8.3.9 Additional Compaction

Add the following new Sub-Clause:

Where so scheduled additional compaction over that required to achieve 90% Mod AASHTO density in order to achieve the scheduled higher density shall be paid for by the volume so compacted ...Unit: m3

**PSDB: EARTHWORKS (PIPE TRENCHES)**

(Applicable to SABS 1200 DB - 1989)

PSDB 3 MATERIALS

PSDB 3.3 Selected Granular Material

(for bedding material (padding) for steel pipes see PSLB 3.3)

Delete the Sub-Clause and substitute the following:

Selected granular material shall be material of a granular, non-cohesive nature that is singularly graded between 0,6 mm and 10 mm, is free-draining, and has a compactibility factor (as determined by the test given in Section LB of Part 3 of SABS 0120) not exceeding 0,4.

PSDB 3.4 Selected Fill Material

(for bedding material (padding) for steel pipes see PSLB 3.3)

Delete the Sub-Clause and substitute the following:

Selected fill material shall be a sandy clay material having a PI not exceeding 6 and that is free from vegetation and from non-crushable lumps and stones of diameter exceeding 20 mm.

PSDB 3.5(a) Backfill Material

In the third line delete "150 mm" and substitute "100 mm".

PSDB 3.5(b) Backfill Material

In the second line delete "PI not exceeding 12" and substitute "PI not exceeding 6".

PSDB 3.5(c) Cement Stabilised Backfill

Add the following new Sub-Clause:

Where scheduled, or directed by the Engineer, backfill shall be stabilized with 5% cement by mass. The backfill material shall have a plasticity index not exceeding 10 and all material must pass through a sieve of aperture size not exceeding that specified in SABS 1200 LB, Sub-Clause 3.2, as amended.

The dry materials shall first be mixed in a concrete mixer whereafter sufficient water is to be added to produce the stiffest consistency available for placing with vibrators.

PSDB 3.6 Materials for Reinstatement of Roads and Paved Areas

Delete the Sub-Clause and substitute:

Material used in the reinstatement of roadways shall fall into the following relevant categories:

(a) Foundation material recovered from the excavation of trenches across existing roadways which, if so instructed by the Engineer, shall be set aside and re-used as sub-base material.

(b) New material which shall conform to the requirements of:

(i) Clause 3.2.1 of SABS 1200 ME for the Subbase

(ii) Clauses 3.2 and 3.3 of SABS 1200 MF for the Basecourse

(iii) Clause 3.2.2 of SABS 1200 ME for the Gravel Wearing Course

PSDB 3.7 Selection

Delete the second sentence and substitute the following:

The Contractor is not required to use selective methods of excavating but shall, if so instructed by the Engineer, screen or otherwise treat excavated material in order to produce material suitable for the bedding cradle or the bedding blanket.

PSDB 4 PLANT

PSDB 4.1 Excavation Equipment

In the first line delete "The Contractor" and substitute: "In sections deemed to be excavated by mechanical means, the Contractor"

Add to the Sub-Clause:

Should any portion of a pipe trench exceed the specified depth, the Contractor will be held responsible for any additional costs which may arise as a result of such over-excavation. Concrete filling or imported compacted fill may be ordered by the Engineer to be placed below the bottom of the trench.

PSDB 5 CONSTRUCTION

PSDB 5.1.2.3 Sloping Ground

Delete the Sub-Clause and substitute:

The Contractor shall be responsible throughout the duration of the Contract, inclusive of the Defects Liability Period, for the provision of all soil erosion preventative measures necessary to protect the trenches, pipeline(s), and land utilised by the Contractor during the Contract from any adverse effects of soil erosion, settlement, scour, etc., resulting from the construction of the Works.

Cross embankments, generally extending across the full width of the working strip, consisting of low earth mounds shaped to rounded form and so oriented as to have a fall of 1% along their length, shall be constructed with compacted material having a minimum density of 90% modified AASHTO density and minimum dimensions and maximum spacings dependent on the slope of the ground along the length of the pipeline, as indicated in the following table:

Slope of Ground	Minimum Height	Minimum Base Width	Maximum Spacing
-----------------	----------------	--------------------	-----------------

0% - 2%	No cross-embankments required		
2% - 5%	300 mm	1,2 m	55 m
5% - 10%	300 mm	1,2 m	40 m
10% - 15%	375 mm	1,5 m	30 m
Greater than 15%	450 mm	1,7 m	20 m

The height of the cross-embankments for a distance of 1 meter on either side of the trench centerline shall be raised 150 mm above the remainder of the cross-embankment to allow for settlement. In order to form a satisfactory drainage channel upstream of each cross-embankment (at a slope of 1%) the crown over the backfilled trench shall be removed for a distance of 0,5 m upstream of the cross-embankment.

Cross-embankments shall be constructed to the same minimum standards and dimensions indicated above wherever artificial slopes have been formed on the working strip or other areas used during construction and, with the approval of the Engineer, are permitted to be so left.

Payment will be made for the construction of cross-embankments in accordance with Sub-Clause 8.3.4(c), provided construction thereof has been either ordered or approved by the Engineer prior to the commencement of such construction.

PSDB 5.1.2.4 Cross-Walls in Trenches (New Sub-Clause)

Where ordered by the Engineer, the Contractor shall place sacks of earth as sack breakers or cross walls around and above the pipe up to ground level, prior to backfilling, as a soil erosion measure. Such sacks shall be filled with selected material free of stones in excess of 50 mm maximum dimension. One sack breaker shall consist of these sacks packed tightly against the trench bottom, pipe, and actual trench sides, and against each other to form a solid cross wall at least 0,5 m thick from the bottom of the trench to the surface.

An Item may be included in the Bill of Quantities to cover the cost of the supply, installation maintenance of sack breakers, if required.

PSDB-5.1. Trench Excavations

Add new Sub-Clause:

The precautions for excavations as specified in Clause 5.1.1 of Section 1200 D, 1200 DA, and the relevant clauses in PSD and PSDA, shall also apply to all trench excavations.

PSDB 5.2 Minimum Base Widths

Add to the Sub-Clause:

Trench sides shall be as near vertical as possible in order to minimise the quantity of backfill material required and to avoid possible difficulties where pipelines have to be installed parallel to existing services, fences, hedges, etc., and to minimise the loading on the pipe.

The base width for trenches for cables, ducts, and unbedded flexible continuous piping, of external diameter less than 125 mm laid at a depth not exceeding 1,5 m, shall be equal to the

external diameter of the cable, duct, or pipe, plus a side allowance of 200 mm on either side.

PSDB 5.4      Excavation

Add to the Sub-Clause:

Where the pipe trench crosses surfaced roads, the Contractor shall neatly cut two parallel grooves into and through the "blacktop" before excavating between the grooves. The grooves are to be set back at least 200 mm from the edge of the excavation face to prevent raveling of the cut edge. The cost of this operation, where not scheduled separately, will be held to be covered in the general rates for excavation.

PSDB 5.5      Trench Bottom

Add to the Sub-Clause:

In waterlogged conditions and/or where so instructed by the Engineer a 150 mm thick layer (See PSLB 5.2.5) of imported single-sized stone (19 mm size unless otherwise instructed by the Engineer) with a geofabric filter surround (Kaymat Grade U24 or similar approved) shall be constructed under the bedding layer specified for the pipes.

PSDB 5.5.1    Jointing Holes (New Sub-Clause)

Jointing holes shall be cut of sufficient length and depth to allow for the proper making or bolting of pipe joints and to ensure that joint collars or sleeves do not rest on the trench bottoms. After the pipework has been inspected, tested, and approved by the Engineer, the jointing holes shall be refilled with selected soft material free from stone (padding materials as specified under PSLB in the case of coated steel pipes) and then rammed to provide continuous uniform support for the pipework. No specific payment will be made for forming and refilling holes, the cost of which is deemed to be included in the tendered rates.

PSDB 5.6.1    Backfilling - General

Add to the Sub-Clause:

Notwithstanding the requirements of Sub-Clauses 5.6.1 and 5.6.6, no pipe joint or pipe fitting shall be covered by either blanket or backfill material prior to the successful completion of the visual inspection and pressure testing of the relevant section of the pipeline.

All backfilling shall be carried out by hand and the Contractor must price his tender accordingly. No mechanical plant shall be used in backfilling without prior written consent of the Engineer.

PSDB 5.6.2    Material for Backfilling

Delete fourth, fifth, and sixth lines and substitute the following:

Hard rock material shall not be used for, or incorporated into, the backfill above the bedding layers without the Engineer's approval.

PSDB 5.6.3    Disposal of Soft Excavation Material

Add to the Sub-Clause:

Surplus material or unsuitable material shall be disposed of off-site by the Contractor.

PSDB 5.6.4 Disposal of Intermediate and Hard Rock Material

Add to the Sub-Clause:

Surplus intermediate and hard rock material from trench excavations shall be disposed of off-site by the Contractor.

PSDB 5.6.8 Transport for Earthworks for Trenches

Delete the Sub-Clause and substitute:

The requirements of Sub-Clause 5.2.6 of SABS 1200 DA as amended and as applicable shall apply.

PSDB 5.7. Areas subject to Traffic Loads

Add to the Sub-Clause:

for an extent of 2 m on either side of the carriage-way at each crossing.

PSDB 5.9.4 Bitumen Roads, Sub-Base and Base

Each Tenderer shall include in his tender allowances to cover the costs of reinstating all surfaces and inclusive of all layers to their conditions pertaining before the commencement of construction.

Items may have been included in the Bill of Quantities to cover the reinstatement of certain surfaces (grassed lawns, concrete and/or asphalted/gravel driveways and/or roads) and for payment purposes, the area of those specific surfaces shall be calculated from the product of the length of the trench and the specified trench width plus 400 mm (refer PSDB 5.4).

PSDB 8 MEASUREMENT AND PAYMENT

PSDB 8.1. Basic Principles

Delete Sub-Clause and substitute:

Except that the volume will be computed as specified in 8.2.3, the requirements of Sub-Clause 5.2.6.1 (Freehaul) of SABS 1200 DA as amended and as relevant, shall apply to freehaul.

PSDB 8.3.2 Excavation

Add the following sub-items to Sub-Clause 8.3.2.b):

"(3) Hand excavation and backfill where ordered

by the Engineer Unit: m<sup>3</sup>

(4) Backfill stabilised with 5% cement where directed by the Engineer Unit: m<sup>3</sup>

(5) Boulder excavation Class A Unit: m<sup>3</sup>

(6) Boulder excavation Class B Unit: m<sup>3</sup>

The tendered rates for (4) above shall include full compensation for selecting, mixing, backfilling, and compacting of the stabilised material to 90% of modified AASHTO density.

Measurement of Extra Over for (5) and (6) above will not apply to any length of trench in soft material more than 2 m long. Surplus boulder material from trench excavation shall where applicable, be disposed of to the designated spoil areas situated within the freehaul distance from the source of such material except where shown otherwise on the drawings.

PSDB 8.3.3.1 Deficiency in Backfill Materials

Payment for imported, graded stone laid under pipelines in accordance with PSDB 5.5 shall be paid for under either Sub-Clause 8.3.3.1(a) or (b), or (c) as scheduled.

PSDB 8.3.3.4 Overhaul

Delete the Sub-clause and substitute:

All haul will be regarded as free haul.

PSDB 8.3.4(c) Cross Embankments

Add new Sub-Clause

Payment for cross embankments will be paid for by volume of embankment constructed in accordance with the specification. Unit: m<sup>3</sup>

PSDB 8.3.5 Existing Services that Intersect or Adjoin a Pipe Trench

Add to the end of the Sub-Clause:

(v) all work involved in locating the service by hand excavation

(vi) notifying and attending upon the proprietor of the service

(vii) supporting and protecting the service while the pipeline is installed, inspected, tested, and backfilled.

PSDB 8.3.6.2 Grassing (new sub-clause)

Grassing Unit: m<sup>2</sup>

Approved grass shall be planted after topsoiling has been completed, with tufts being spread at not more than 150 mm centres. The planted area shall be neatly trimmed, fertilised, and watered. The Contractor shall ensure that the planted areas are not permitted to dry out. Any grass that fails to grow shall be replaced by the Contractor, at his expense, with fresh grass, until satisfactory cover is obtained. The rate shall cover the supplying, planting, and maintenance of grass, all in accordance with this specification.

PSDB 8.3.8 Hand Excavations to Prove Existing Services (new clause)

The Contractor will be required to prove existing services in the vicinity of the Works by careful hand excavation. These services include Telkom and electricity cables, sewers, stormwater drains, and existing water mains, some of which are shown on the drawings, and others of which no reliable record exists.



Services must be successfully proved prior to work commencing in an area.

An item is provided in the Bill of Quantities for hand excavation to prove services and measurement will be based on the volume of material excavated. The contractor must allow in his rate for draining any underground water that may fill up the excavations during this exercise.

PSDB 8.3.9 Sack Breakers (new sub-clause)

Sack breakers shall be installed from the bottom of the bedding to 300 mm below finished ground level. Unit: No

**PSDK: GABIONS AND PITCHING**

(Applicable to SABS 1200 DK - 1984)

PSDK 3 MATERIALS

PSDK 3.1.1.1 Quality

*Add to the Sub-Clause:*

The stone shall be subjected to the weathering test.

The stone shall be subjected to the durability test.

PSDK 3.1.2.2 PVC Coating

Add to the Sub-Clause: The wire used for the fabrication of wire mesh cages and for lacing and bracing operations shall be plain zinc-coated mild steel wire as specified in Sub-Clause 3.1.2.1. No PVC coating will be required.

PSDK 3.1.3 Wire Mesh, Lacing, and Bracing Wire

*Add to the Sub-Clause:*

Wire netting for gabion and mattress cages shall be hexagonal steel wire mesh strengthened by selvages of heavier wire and by mesh diaphragms which divide the cages into 1 m compartments.

Nominal 80 mm mesh shall be used for gabion cages, with 2,4 mm dia. steel wires, galvanised and PVC-coated.

Nominal 60 mm mesh shall be used for mattress cages, with 2,0 mm dia. steel wires, galvanised and PVC-coated.

Selvedge wire shall be galvanised and PVC-coated and the diameter shall be in accordance with Table 3 of SABS 1200 DK.

PSDK 3.1.4 Geotextile

*Add to the Sub-Clause:*

Geotextile filter blanket shall consist of "non-woven" spun-bound polyester fabric having a mass of 210 g/m<sup>2</sup>, permeability of 0,003 m/s, and multi-direction tensile strength of 16 000 N/m.

PSDK 3.2.1.2 Size

*Add to the Sub-Clause:*

The type of pitching shall be +Extra Heavy/+Heavy /+Medium/+Light

PSDK 3.2.3 Wire netting

Wire netting for gabion and mattress cages shall be hexagonal steel wire mesh strengthened

by selvages of heavier wire and by mesh diaphragms which divide the cases into 1 m compartments.

Nominal 80 mm mesh shall be used for gabion cages with 2,4 mm diameter galvanised steel wires.

Nominal 60 mm mesh shall be used for mattress cages with 2,0 mm diameter galvanised steel wires.

Selvedge wire shall be galvanised and the diameter shall be in accordance with Table 3 of SABS 1200 DK.

PSDK 5 CONSTRUCTION

PSDK 5.1.3 Type of cage

Add to the Sub-Clause:

The size of cages for gabions shall be a maximum of 3000 x 1000 x 1000 mm and shall be divided into cells having a volume not greater than one cubic metre. The size of cages for mattresses shall be a maximum of 2000 x 1000 x 300 mm and shall be divided into cells having a volume not greater than 0,3 m<sup>3</sup>.

PSDK 5.1.6 Diaphragms

Add to the Sub-Clause:

Each diaphragm shall be connected in the same manner to the sides and top panels in addition to the bottom panel.

PSDK 5.2.3 Assembly

Add to the Sub-Clause:

All gabion and mattress cages shall be connected to adjacent gabion and/or mattress cages by lacing the adjacent selvages together with 2,0 mm dia. galvanised and PVC coated steel wire. The lacing shall be in accordance with Sub-Clause 5.1.7.

PSDK 5.2.4 Rockfilling

Particular care shall be taken in the filling gabions and mattresses so as to ensure that the voids in the rockfill are reduced to the minimum which can be reasonably achieved. In order to minimise the voids in the rockfilling, the filling shall proceed in layers not exceeding 300 mm deep and each layer shall be rodded and barred so as to compact the rockfill before filling of the next layer commences. Where appropriate, hand packing of selected rock particles shall be carried out.

PSDK 5.2.4.2 Mattresses used in revetments and aprons

Add to the Sub-Clause:

Where gabions and mattresses are placed in exposed positions the rock particles forming the exposed faces shall be specially selected so as to present a fair and even surface.

PSDK 5.3.4 Wired Pitching

Add to the Sub-Clause:

The areas in which wired or grouted wire pitching is to be used will be indicated on site by the Engineer.

PSDK 8 MEASUREMENT AND PAYMENT

PSDK 8.2.3 Extra Over 8.2.2 for Packing Selected Stone for Exposed Face

Add to the Sub-Clause:

The method of selecting and packing stone for exposed faces as scheduled shall be as specified in Sub-clause 5.2.7 - Special Finish.

**PSGA: CONCRETE (SMALL WORKS)**

(As applicable to SABS 1200 GA - 1982)

PSGA 2        DEFINITIONS

PSGA 2.3(a)    General

Add to the Sub-Clause:

**Adverse weather:** Cold weather or weather in which:

- (a)     the ambient temperature is above 25°C, or
- (b)     the relative humidity is low, or
- (c)     the wind velocity is high

or weather in which any combination of these three conditions occurs, and which tend to impair the quality of fresh or hardened concrete or otherwise causes the concrete to have abnormal properties.

PSGA 2.3(b)    Quality

Add to the Sub-Clause:

**Consistency:** The extent, as measured by the slump test, to which fresh concrete resists flow or deformation.

PSGA 2.3(d)    Exposure Conditions

Add new Sub-Clause:

**Mild Conditions:** Conditions under which the concrete is protected from the weather and exposed only to air.

**Moderate Conditions:** Conditions under which the concrete is:

- (a)     sheltered from severe rain and is not subject to freezing when wet, or
- (b)     buried in non-aggressive soil, or
- (c)     continuously under fresh water.

**Severe Conditions:** Conditions under which the concrete is exposed or subjected to any of the following:

- (a)     driving rain
- (b)     alternate wetting and drying out
- (c)     freezing when wet
- (d)     fresh water (at the water-line)

- (e) splashing or spraying with fresh water
- (f) corrosive fumes or heavy condensation of water
- (g) aggressive soil
- (h) salt-laden air

PSGA 3 MATERIALS

PSGA 3.2.1 Cement

Add to the Sub-Clause:

Unless agreed to otherwise by the Engineer, the cement used in the works shall be Ordinary Portland Cement.

PSGA 3.4.5 Sand

Add new Sub-Clause:

Sand from a source selected by the Contractor and approved by the Engineer after testing will be used under this Contract.

PSGA 5 CONSTRUCTION

PSGA 5.1.2 Fixing

Add to the Sub-Clause:

Welding reinforcement as a means of securing it against displacement will not be permitted.

PSGA 5.1.3 Cover

Add "(with a tolerance of +10 mm -0)", between "30 mm", and "unless" in the second line of the Sub-Clause.

In second line read "40 mm" for "30 mm"

PSGA 5.2.1 Classification of Finishes

Delete the eighth and ninth lines of the Sub-Clause.

PSGA 5.2.1(a) Classification of Finishes

Add to the Sub-Clause:

The finish of the concrete is to be within the tolerances of Degree of Accuracy III as set out in Sub-Clause 6.4.

PSGA 5.2.1(b) Classification of Finishes

Add to the Sub-Clause:

The finish of the concrete is to be within the tolerances of Degree of Accuracy II as set out in Sub-Clause 6.4.

PSGA 5.2.5 Fixing Blocks for Reinforcing and Fixtures in Concrete

Fixing blocks for the attachment of fixtures may be embedded in concrete provided that the strength and other desirable features such as appearance of the member are not, in the opinion of the Engineer, impaired thereby.

PSGA 5.4.1.2 Consistency

Delete the third line and substitute the following:

Engineer in respect of prescribed mix and/or strength concrete.

PSGA 5.4.1.4 Prescribed Mix Concrete

Delete the Sub-Clause and substitute the following:

The grades of prescribed mix concrete are designated Grades 20, 15, and 10 and are composed of cement, sand, and stone, as specified hereinbefore, proportioned as follows:

Grade	Size of Stone (mm)	Cement (kg)	Sand (m <sup>3</sup> )	Stone (m <sup>3</sup> )
20/19	19	50	0,110	0,140
15/19	19	50	0,130	0,140
10/38	37,5	50	0,160	0,200

While the proportion of cement to the combined quantity of sand and stone must remain constant for each grade of concrete, as set out above, the relative proportions of sand and stone are to be adjusted, if required by the Engineer, so as to obtain the most suitable consistency of concrete, due allowance being made for the bulking of sand due to moisture.

The addition of water shall be regulated by the use of properly calibrated containers, only sufficient water being added as will, in the opinion of the Engineer, afford a workable mix.

The fine and coarse aggregates approved for use in strength concrete in Grades 30 and 25 are to be used for prescribed concrete mixes in Grades 20 and 15.

PSGA 5.4.1.5 Strength Concrete

Delete the Sub-Clause and substitute the following:

The grade of strength concrete is designated Grade 25 and is composed of cement, sand, and stone, as specified hereinbefore proportioned as follows:

Grade	Size of Stone	Cement	Sand	Stone
(mm)	(kg)	(m <sup>3</sup> )	(m <sup>3</sup> )	
25/19	19	50	0,095	0,125

The concrete mix for the abovementioned grade of strength concrete is to be designed by an approved laboratory. At least four weeks before placing any concrete on the Works, the Contractor shall supply and deliver to the approved laboratory, at his own cost, samples of the aggregates he proposes to use in the concrete mix. While the proportion of cement to the combined quantity of sand and stone will remain constant for each grade of concrete, as set out above, the relative proportions of sand and stone may be adjusted to achieve the required strength. The laboratory will be bound by the requirements of this Specification which are to guide the Tenderers in pricing the grade of strength concrete. The Contractor is to allow in his rate for strength concrete an amount to cover the fees and charges levied by the approved laboratory in designing the strength concrete mix.

PSGA 5.4.1.6 Ready-mixed concrete

Delete the Sub-Clause and substitute the following:

Concrete produced at a central concrete production facility other than at the site of the Works shall only be accepted for use in the Works with the prior and express approval of the Engineer. When such approval has been given the Engineer shall then decide whether or not to accept the test results obtained by the facility concerned.

PSGA 5.4.5.5 Adverse weather conditions (See PSGA 2.3.d)

Add New Sub-Clause:

Under adverse cold weather conditions, effective measures shall be taken to ensure that the temperature of the concrete, from the time of placing until it has hardened (i.e. about 24 h), is maintained at not less than 5°C. If the atmospheric temperature in the vicinity of the concrete is below 2°C or is expected to fall below 2°C during the curing period (see Sub-Clause 5.4.7), water shall not be used for curing. All surfaces shall be protected from ice or frost damage.

When the ambient temperature is above 32°C, the temperature of the concrete when deposited shall not be allowed to exceed 32°C. Under adverse hot weather conditions, the Contractor shall take all reasonable steps to reduce to a minimum the placing temperature of the concrete. Stockpiles of aggregates and all metal surfaces in contact with aggregates and concrete shall be shielded from the direct rays of the sun or cooled by being sprayed with water, and windbreaks shall be erected, if necessary, to prevent the initial rapid drying-out of concrete which would otherwise occur before normal curing procedures can be undertaken.

Concrete shall not be placed during periods of heavy or prolonged rainfall.

PSGA 5.4.8.2 Concrete Surfaces

Concrete surfaces shall be finished as indicated in the Schedule.

PSGA 6 TOLERANCES

PSGA 6.1.1 General

Read "Degree of Accuracy II" for "Degree of Accuracy III" in the third line.

Add to the Sub-Clause:

The Permissible Deviations for the following elements of the Works shall be to Degree of Accuracy III:



Concrete work which is not exposed after completion of the Works.

PSGA 8 MEASUREMENT AND PAYMENT

PSGA 8.1.1.4 Formwork

Add to the first line between the words "concrete" and "and" the following:

"Including forming fillets or splays up to 20 x 20 mm"

PSGA 8.4.1 Prescribed Mix Concrete

Delete from the Sub-Clause all but the first sentence.

**PSLB: BEDDING (PIPES)**

(Applicable to SABS 1200 LB - 1983)

PSLB 2.3      DEFINITIONS

Main fill:

Delete "150 mm" in second line and substitute "300 mm".

PSLB 3        MATERIALS

PSLB 3.1      Selected Granular Material

(for bedding material (padding) for steel pipes see PSLB 3.3)

In the second line delete "19 mm" and substitute "10 mm".

Add to the Sub-Clause:

The maximum compactibility factor shall be 0,4.

PSLB 3.2      Selected Fill Material

(for selected fill material (padding) for steel pipes see PSLB 3.3)

In the second line delete "30 mm" and substitute " 20 mm".

PSLB 3.3      Bedding

Add to the Sub-Clause:

All steel and uPVC pipes and fittings laid under this Contract will be considered as being flexible pipes. Bedding (selected granular and selected fill material) for steel pipes shall be fine sand or fine non-cohesive soil, carefully selected, with maximum particle size of 3 mm and which shall not cake nor form lumps when drying. It shall have a pH value of not less than 5,5 nor contain any acid forming or other material which can harm the protective coating or wrapping. Material complying with the above requirements will also be referred to in this Document as "padding". The bedding will be constructed to the dimensions shown on the drawings. Samples of bedding sand (padding) shall be submitted by the Contractor for approval by the Engineer well in advance of construction. An item has been provided in the Bill of Quantities for the provision of approved bedding sand from approved Commercial or other approved off-site sources. No sharp-edged stones shall be allowed to come into contact with the pipes or fittings. Joint holes (pockets) shall be provided in the trench bottom and bedding, at each pipe joint to facilitate welding and tape wrapping, and no extra payment will be made for forming or filling joint holes (pockets).

All other pipes under this Contract will be considered as being rigid pipes and the bedding shall be of Class A, C (Drawing LB-1), or CE (concrete encased) as applicable and scheduled except that joint holes (pockets) shall be provided in the bedding, as per Drawing LB-2, at each pipe joint or coupling. No sharp-edged stones shall be allowed to come into contact with either the pipes or the couplings (joints). No extra payment will be made for forming joint holes (pockets).

PSLB 3.4 Selection

PSLB 3.4.1 Suitable Material available from Trench Excavation

Delete the Sub-Clause and substitute the following:

The excavation of a pipe trench shall comply with the requirements of Sub-Clause 5.4 of SABS 1200 DB and the provisions of Sub-Clause 3.7 of SABS 1200 DB (in terms of which, for the purposes of providing bedding materials, the Contractor is not required to use selective methods of excavating) shall apply. Nevertheless, the Contractor shall take every reasonable precaution to avoid burying or contaminating material that is suitable and is required for bedding or covering the pipeline. If, in the opinion of the Engineer, bedding material can be produced from the excavated material, the Contractor, if so ordered by the Engineer, shall screen or otherwise treat (as Scheduled) the excavated material in order to produce material suitable for bedding (see also Sub-Clause 8.1.2).

PSLB 5 CONSTRUCTION

PSLB 5.1 General

Add to the Sub-Clause:

All the steel pipelines are to be bedded and protected in accordance with the details described in PSLB 3.3 except in certain sections where Class A bedding or stone bedding (as a drainage layer) or concrete encasing is to be provided as shown on the drawings or where ordered by the Engineer.

PSLB 5.1.2 Details of Bedding

Add to the Sub-Clause:

The pipeline is to be laid on the class of bedding indicated in the Bill of Quantities and/or on the drawings.

PSLB 5.1.4 Compacting

Delete the second line and substitute:

top of the pipeline) shall be 100% of Proctor maximum density.

Add to Sub-Clause 5.1.4:

Steps will have to be taken by the Contractor to ensure that flexible pipes do not deform excessively in cross-section during and after construction and backfilling operations. The maximum deflection which will be acceptable at any stage during or after construction is 2% of the pipe diameter horizontally or vertically. The Contractor will be required to provide the necessary apparatus and to monitor deflection during construction.

Pipe deformations will only be maintained within the specified tolerances by correct backfilling practice. No heavy compaction equipment will be permitted for compaction of any pipe bedding, only pneumatic or hand rammers being acceptable. To this end, and to achieve the 100% compaction specified it is recommended that bedding be brought up evenly on either side of the pipe. The use of complete saturation of the material as a method of achieving the specified compaction may, subject to the Engineer's approval, be used. However, in this

regard, contractors are advised that the presence of excessive quantities of water in the pipe trench could lead to flotation of the pipe.

Prior to the commencement of pipelaying the Contractor will be required to submit, to the Engineer, for his approval, his proposed methods of placing, and compacting methods which he proposes to implement in order to ensure compliance with the specification.

PSLB 5.1.5      Testing (New Sub-Clause)

Flexible joints shall be left exposed with a minimum of 100 mm clearance around the bottom of the pipe during hydraulic pressure testing of the pipe.

PSLB 5.2        Placing and Compacting Rigid Pipes

PSLB 5.2.2     Class 'C' Bedding

Delete the third, fourth, and portion of the fifth lines and substitute the following:

The pipes shall be bedded on a layer of compacted granular bedding material on which a 25 mm thick layer of uncompacted granular bedding material has been placed and spread. Loose granular bedding material lying next to the pipe shall be placed into the haunch area and compacted with suitable hand tools, and additional selected granular material shall be added and compacted in layers until levels for the bedding cradle as shown on Dwg LB - 1 (c) are reached. The remainder of the bedding i.e. the selected fill blanket, shall be placed in layers up the sides of the pipe, each layer being compacted until levels are reached as shown on Dwg LB-1 (c).

PSLB 5.2.5     Stone Bedding (New Sub-Clause)

In areas where waterlogged conditions exist or where ordered by the Engineer, special drains consisting of a 150 mm thickness (See PSDB 5.5) of single sized stone with a geofabric filter surround (KAYTECH Bidim Grade A4 or similar approved) extending the full width of the trench shall be provided below the bedding to the pipes. The excavation for these drains will be measured in cubic metres at the contract rate applying to unsuitable excavation below the bottom of the trench. The stone filling will be paid for per cubic metre and the geofabric filter will be paid for per square metre. All measurements in this connection will be to a width equal to the base widths and depths ordered.

PSLB 5.3(b)    Selected Fill Blanket

Delete "200 mm" from title.

PSLB 6         TOLERANCES

PSLB 6.1       Moisture Content and Density

Add to the Sub-Clause:

The permissible deviations applicable are to be those for Degree of Accuracy II class of work.

PSLB 8         MEASUREMENT AND PAYMENT

PSLB 8.1.3     Volume of Bedding Materials

Add to the Sub-Clause:

(c) The volume of bedding material shall be measured net i.e. the volume of the pipe is to be deducted.

PSLB 8.1.6 Freehaul

Delete the Sub-Clause and substitute the following:

All haul will be regarded as free haul. No overhaul will be paid for under this Contract.

PSLB 8.2.1 Provision of Bedding from Trench Excavation

Delete the Sub-Clause and substitute the following:

Without the need for screening:

(a) Selected granular material Unit: m<sup>3</sup>

(b) Selected fill material Unit: m<sup>3</sup>

(c) Padding sand to specified bedding dimensions Unit: m<sup>3</sup>

The rates shall cover the cost of acquiring, from any point along the trench excavation as may be selected by the Engineer, bedding that complies with the relevant requirements of the specification, of delivering it to points alongside the trench spaced to suit the Contractor's methods of working, of making good any backfill deficiency from points where backfill has been acquired, and of disposing of displaced material.

Including for screening:

(a) Selected granular material Unit: m<sup>3</sup>

(b) Selected fill material Unit: m<sup>3</sup>

(c) Padding sand to specified bedding dimensions Unit: m<sup>3</sup>

The rates shall cover the cost of screening or otherwise treating excavated material, at any point along the trench excavation as may be selected by the Engineer, in order to produce bedding that complies with the relevant specification, delivering it to points alongside the trench, spaced to suit the Contractor's methods of working, of making good any backfill deficiency there may be from points where screened backfill material has been acquired, and of disposing of displaced material.

**NOTE:** The rate for the supply and laying of pipelines covers the cost of handling the bedding material from alongside the trench, placing it under the pipeline, forming joint holes, and completing the bedding around and over the pipeline.

PSLB 8.2.2 Provision of Bedding by Importation

Including for screening and/or other treatment:

(a) Selected granular material Unit: m<sup>3</sup>

(b) Selected fill material Unit: m<sup>3</sup>

(c) Padding sand to specified bedding dimensions                      Unit: m<sup>3</sup>

The rates shall cover the cost of acquiring, loading, transporting, offloading, screening, or otherwise treating excavated material in order to produce bedding that complies with the relevant specification, delivering it to points alongside the trench spaced to suit the Contractor's methods of working and of disposing of displaced material.

PSLB 8.2.3      Concrete Bedding Cradle

Add the following paragraph to the Sub-Clause:

All concrete bedding to pipes will require formwork. The rate for concrete bedding shall include for the supply, installation, and stripping of all formwork.

PSLB 8.2.4      Encasing of Pipes in Concrete

Delete the fifth and sixth lines and substitute the following:

encasing the pipe in concrete 150 mm thick each side of the pipe and to 150 mm above the crown of the pipe including the cost of formwork, (if any), etc., and the cost of formwork to form stopends on either side of collars, couplings, joints, etc if instructed by the Engineer.

The rate for concrete encasing shall include for the supply, installation, and stripping of all formwork.

**PSLD: SEWERS**

(Applicable to SABS 1200 LD - 1982)

PSLD 2.3 DEFINITIONS

Add to the Sub-Clause:

Normal Blasting

The method which an experienced blaster employs when carrying out general blasting of hard rock material in trenches.

Close Proximity Blasting

The method which an experienced blaster employs when carrying out blasting of hard rock close to adjacent services or structures requiring additional but smaller charges in order to break up the hard rock without damaging the adjacent services or structures. Each situation to be considered separately but generally within 3 m of the adjacent services or structures.

PSLD 3 MATERIALS

PSLD 3.1.1 Vitrified Clay Pipes

Delete Sub-Clause 3.1.1.2 and substitute:

Vitrified clay sewer pipes shall be plain ended "Vitro" (or equal) pipes having a crushing strength of at least 45 kN/m. The joints of pipes of 100 mm and 150 mm diameter shall comprise natural rubber rings within polypropylene couplings.

PSLD 3.1.3 FC Pipes

The FC pipes and fittings comply with the applicable requirements for Series 4 pipes as set out in SABS 819.

The FC pipes **and couplings** shall be bitumen dipped.

PSLD 3.4 Bedding

Bedding of sewers shall be for flexible pipes (SABS 1200 LB) or concrete encased.

PSLD 3.5.2 Precast Concrete Manhole Sections

Add the following end of the Sub-Clause:

Joints between all wall sections and under roof slab shall be primed and sealed with a plasticised butyl rubber compound ("Bitujoint Putty" by ABE or similar approved) complete with one layer of 200 mm wide compatible PVC tape and primer (similar or equal to the "Corro Clad" system supplied by Denso South Africa (Pty) Ltd) to be supplied and applied circumferentially to the outside of each wall section joint.

PSLD 3.5.6 Mortar

Delete the sub-clause and substitute the following:

Mortar for brickwork and, where so ordered by the Engineer, for external plasterwork to manholes shall be composed of one part of cement to three parts of clean pit sand. Mortar for the internal plasterwork to manholes where ordered and to the benching within manholes shall be composed of one part of cement to three parts of sand.

PSLD 3.5.8 Manhole Covers and Frames

Add to the first paragraph of the Sub-Clause:

After installation, all exposed portions of the CI cover and frame shall be thoroughly cleaned and painted with two coats of approved epoxy tar, particular attention being paid to the painting of the underside of the covers and frames.

Precast concrete manhole cover slabs, adaptor slabs and lids shall comply with the applicable requirements of SABS 1294 and to the details shown on the drawings. The precast concrete cover slab shall be so designed as to withstand a point load in the centre, as specified in Clause 8.7 of SABS 1294, of 50 kN for light duty covers and 100 kN for heavy duty covers. The lifting lugs shall be made of 6 mm dia grade 316 stainless steel rod. The openings and undersides of all covers and slabs shall be coated with two coats of "Proofex 3".

PSLD 4 PLANT

PSLD 4.1 Pipe Handling and Rigging Equipment

Add to the Sub-Clause:

The Contractor will be responsible for clearing the areas required for pipe storage which shall include the removal of rock, stones and all combustible material. He shall also be responsible for maintaining the area in a clean and tidy condition for the duration of the Contract.

Upon delivery of the pipes, fittings, specials and valves, these will be inspected jointly by the Engineer's Representative and the Contractor. Any pipes, etc. found to be damaged shall be returned to the factory for repair or replacement; in which case the costs of additional transport, repair or replacement shall be borne by the Contractor.

The Contractor will be held fully responsible for the care and safety of all pipes and fittings, etc. on site, and shall bear the cost of all renewals which may be necessary to make good losses, damages or breakages. Furthermore, he shall be fully responsible for handling and re-loading material at the storage areas and for transporting and offloading of all such materials to their correct places along the pipeline route.



PSLD 5            CONSTRUCTION

PSLD 5.4        Connections to Manholes

Add the following paragraph to the sub-clause:

The rates tendered for the construction of manholes are to include for whatever additional costs there may be over and above the tendered rates for the supply, lay, joint, bed and test pipelines, for the supplying and fixing the short lengths of pipes entering and leaving manholes.

PSLD 5.6.1      General

The underside of all manhole roofs and edges of the access opening therein and precast concrete covers and lids shall be painted with two coats of "Proofex 3", as supplied by Fosroc (Pty) Ltd, P O Box 477, New Germany, 3620, or similar approved rubberized bitumen coating so as to protect the concrete from the effects of sewage gases.

The tendered rates for manholes shall include for this work.

PSLD 5.6.5      Precast Concrete Manholes

In the first sentence, delete "Drawing LD-5" and substitute with "the drawings"

PSLD 5.7        Concrete Casing to Pipes

Add to the sub-clause:

Concrete casing is to be of 20/19 grade concrete with a minimum thickness of 100 mm below, above top and on each side of the pipe as and where ordered by the Engineer.

PSLD 5.9.3      Recording Location

Delete the last sentence and substitute:

The records shall be handed to the Engineer, in a form acceptable to the Engineer, at the time when the Contractor claims payment for the relevant work.

PSLD 6            TOLERANCES

PSLD 6.2        Overall Centre-line Control and Manhole Locations

In second line delete " $\pm 300$  mm" and substitute " $\pm 150$  mm".

PSLD 6.3        Manhole Invert-levels

In second line read " $\pm 25$  mm" for " $\pm 50$  mm"

PSLD 7            TESTING

PSLD 7.1.4      Sub Clause

Delete the Sub-Clause and substitute the following:

The sewer, and the house connections along its length, shall be tested simultaneously between manholes or chambers, as applicable. The house connections and the section of the sewer under test shall be suitably "plugged" at the open ends using plugs or stoppers which have been braced adequately.

PSLD 7.2.2 Water Test

The Water Test will not be acceptable under this Contract.

PSLD 7.2.6 Watertightness Testing of Manholes

Wherever ordered in writing by the Engineer that a manhole is to be tested, it is to be tested in his presence or in the presence of his authorised representative, in the following manner:

All sewer inlets and outlets to and from the manhole shall be closed with expanding plugs or other apparatus. Water is then to be introduced into the manhole up to a level 25 mm below the underside of the roof slab. The water level is to be maintained for not less than one hour or such longer period as may be necessary to accurately record the rate of leakage, if any. Careful and accurate records shall be kept at frequent and regular intervals of the variation in the level of the water in the manhole and of the quantity of water added so that the rate of leakage may be properly determined. In the event of the rate of leakage, if any, exceeding 1,25 l/h/m of depth of manhole, or in the event of any weakness, defect or fracture or visible signs of leakage occurring in the manhole under test, the Engineer shall have the right to order the test to be discontinued and the Contractor shall thereupon, at his own expense, search for and rectify any weakness or defect in the manhole under test, such work or rectification to consist of repair or replacement or both. The manhole shall thereafter be refilled with water and retested in the manner specified. This process shall be repeated until a satisfactory test is obtained.

The Contractor will be paid once only for the hydraulic testing of any given manhole at the rate per manhole to be quoted by him in the Schedule of Quantities. The Contractor's prices for the hydraulic testing of manholes shall include for all arrangements for the supply of water for testing, the cost of water used in testing where the water is not obtained free of cost from the Employer, for all work of rectification, for retesting and for all labour required to carry out the specified tests.

PSLD 8 MEASUREMENT AND PAYMENT

PSLD 8.2.5 Inspection Chambers

Delete the first and second lines and substitute the following:

Separate items will be scheduled for manholes, backdrops and inspection chambers, etc of each type and of each depth (measured from top of cover to invert) in increments of 1,0 m for the first one metre, thereafter in increments of 0,5 m. The rate shall cover the cost of dealing with any excavation (in all materials, including backfilling and the disposal of surplus materials).

PSLD 8.2.6 Erf Connections

Add at end of Sub-Clause:

"or servitude boundary".

PSLD 8.2.11 Connection to Existing Sewers

The tendered sum is to include for breaking into the existing sewer manholes, dealing with the flow, caulking in the new pipe and for breaking out and reforming benching as required, making the manholes watertight.

PSLD 8.2.13 Intermediate and Hard Rock Excavation (New Sub-Clause)

Insert new Sub-Clause as follows:

"8.2.13	Extra over Item 'Manholes' above for:	
	(a) Intermediate excavation	Unit: m <sup>3</sup>
	(b) Hard rock excavation by <b>normal blasting</b> or other methods as selected by the contractor (see PSLD 2.3)	Unit: m <sup>3</sup>
	(c) Hard rock excavation by <b>close proximity blasting</b> (see PSLD 2.3)	Unit: m <sup>3</sup>
	(d) Boulder excavation Class A	Unit: m <sup>3</sup>

Separate items will not be provided for depth increments. Volumes will be computed from the plan area of either the intermediate or hard rock material, excluding the plan area of the specified pipe trench, which is within the area occupied by the manhole plus a side allowance of 600 mm, and the depth from the top of either the intermediate or hard rock material to the bottom of the same material or to the underside of the Manhole base slab, whichever is the lesser.

The rates shall cover the additional cost of the excavation and handling of the more difficult material and the disposal of material".

### C3.3 PARTICULAR SPECIFICATIONS

In addition to the Standardized and Project Specifications, the following Particular Specifications shall apply to this contract and are bound in hereafter.

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## PARTICULAR SPECIFICATION: PE

### REQUIREMENTS OF THE EXPANDED PUBLIC WORKS PROGRAMME (EPWP)

This section provides specifications with regard to the following:

- (a) The Expanded Public Works Programme (EPWP); and
- (b) The National Youth Service (NYS) programme, which is a government programme implemented by the National Department of Public Works forming part of the Expanded Public Works Programme (EPWP).

The Contractor shall be required to participate in job creation (employment of local labour) by executing various portions of the Works using local labour (unskilled or semi-skilled), recruited from the local community, who are South African Citizens or foreigners in possession of a work visa issued by the Department of Home Affairs (only one such foreigner may be employed on any project). Such local labour shall be the targeted participants in the EPWP and NYS programmes.

Furthermore, in order to avoid duplication of training programmes and training facilities, all structured training, including the training for Small Contractor Development (SCD), (in those instances where SCD is included in the contract), shall be measured and paid for in terms of the pay items provided in this section.

#### PW 1 Expanded Public Works Programme (EPWP)

PW 1.1 Labour-Intensive Construction (LIC), supervision and management for the Expanded Public Works Programme (EPWP)

The Expanded Public Works Programme (EPWP) is a multi-sectoral government initiative to create jobs. In the case of the infrastructure sector, existing government expenditure is realigned using labour-intensive technologies to create job opportunities. This involves the use of both labour and plant, where labour is preferred and plant is used appropriately.

All work undertaken in terms of the Expanded Public Works Programme (EPWP) shall be implemented using labour-intensive construction methods to the extent economically feasible, in accordance with the "Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP) Third Edition 2015".

The aforementioned guidelines can be downloaded from the EPWP website of the Department of Public Works (<http://www.epwp.gov.za/>).

Items scheduled for labour-intensive construction are marked with the letters "LI" in the schedule of quantities in the manner described in the Pricing Instructions.

Contractors shall note that they shall employ in labour-intensive works only those supervisory and management staff that have completed the required Skills Programme in terms of Appendix C of the aforementioned guidelines:

- ✓ Foremen / Supervisors at NQF level 4 "National Certificate: Supervision of Civil Engineering Construction Processes";
- ✓ Site Agent / Construction Manager at NQF level 5 "Manage Labour-Intensive Construction Processes" or equivalent Quality Council for Trades and Occupations (QCTO) qualifications at NQF level 5 or 7.

In addition to their normal supervisory and management functions, the aforementioned

supervisory and management staff shall also be responsible for setting the workers' daily tasks in accordance with labour-intensive construction principles, and for ensuring that the EPWP job creation reporting data is accurately recorded on a daily basis and compiled and submitted to the Employer each month in accordance with clause 3 of this section.

PW 1.2 Labour laws applicable to the Expanded Public Works Programme (EPWP)

The work to be undertaken on this contract by unskilled or semi-skilled workers under the Expanded Public Works Programme (EPWP) shall be implemented in accordance with:

- ✓ the Code of Good Practice for Employment and Conditions of Work for Expanded Public Works Programmes (EPWP), issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice No. 129 of 18 February 2011 (Government Gazette No. 34032 of 18 February 2011); and
- ✓ Ministerial Determination 4: Expanded Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice No. R347 of 4 May 2012.

The aforementioned Government Notice No. R347 contains the standard terms and conditions for workers employed in elementary occupations on an Expanded Public Works Programme (EPWP). These terms and conditions do not apply to persons employed in the supervision and management of an Expanded Public Works Programme (EPWP).

The above documents can be downloaded from the EPWP website of the Department of Public Works (<http://www.epwp.gov.za/>).

PW 1.3 Persons to be employed under the Expanded Public Works Programme (EPWP)

All local labour required for the execution of labour-intensive works shall be engaged strictly in accordance with prevailing legislation.

The Contractor shall, through the Project Liaison Committee (PLC) and with the assistance of the Community Liaison Officer (CLO), inform the local community of the labour-intensive works proposed and the employment opportunities thereby presented.

The Contractor shall determine the minimum education level/skills required to undertake the works specified. In consultation with the PLC and the War Room convener for each relevant ward, selection of the local labour shall be made from households on the Operation Sukuma Sakhe (OSS) database profiled through the War Room for each ward. The list obtained from the OSS database must be accompanied by a letter from the War Room convener confirming that all the information provided was sourced from the War Room and that all listed incumbents reside within the relevant ward. The Contractor must maintain records of household profiles as part of the portfolio of evidence for selection. Selection shall be based on the minimum education level/skills required and the most needy households, as determined by the household profiling. Preference shall be given for at least one person from each household in the community to be employed before further persons are considered for selection.

The Contractor shall endeavour to ensure that the number of temporary jobs using local labour (unskilled or semi-skilled), recruited from the local community, who are South African Citizens or foreigners in possession of a work visa issued by the Department of Home Affairs (only one such foreigner may be employed on any project), shall include for a minimum allocation of:

- ✓ 55% women;
- ✓ 55% youth who are between the ages of 16 and 35; and
- ✓ 2% persons with disabilities.

All labour recruitment, employment and associated risks shall remain the sole responsibility of the contractor.

The contractor shall comply with the minimum supervisor to worker ratio stated below, required to ensure the effective supervision of the labour-intensive works for all LI activities undertaken on this project:

Minimum supervisor to worker ratio = 1: 15

PW 1.4 Contract of employment with persons employed under the Expanded Public Works Programme (EPWP)

The Contractor shall enter into a formal contract of employment with each person employed under the Expanded Public Works Programme (EPWP), using the pro forma contract of employment attached at the end of this section: Particular Specifications.

The Contractor shall note that all such formal contracts of employment entered into with persons employed under the Expanded Public Works Programme (EPWP) shall expire on 31 March each year, and the Contractor shall therefore be required to enter into new contracts with such persons as of 1 April each year.

PW 1.5 Employment of targeted labour under the Expanded Public Works Programme (EPWP)

The Contractor shall be contractually obliged to:

- a) brief EPWP workers on the conditions of employment;
- b) enter into a formal contract of employment with each EPWP worker, which contract will form part of the Employment Agreement;
- c) keep personnel files for all EPWP workers and make copies available to the Employer if and when requested; and
- d) ensure that payments to EPWP workers are made in accordance with Government Notice No. R347.

The rate of pay for persons employed under the Expanded Public Works Programme (EPWP) shall be:

R 170 per task (for task-rated workers); *(Compiler to insert the rate of pay as agreed with the local community, based on negotiations carried out with the local community in the presence of the Employer during the design phase of the project prior to the invitation of tenders).*

or

R \_\_\_\_\_ per day (for time-rated workers). *(Compiler to insert the rate of pay as agreed with the local community, based on negotiations carried out with the local community in the presence of the Employer during the design phase of the project prior to the invitation of tenders).*

During those periods when an EPWP worker is engaged in formal classroom training (other than in-service training), the rate of pay shall be equal to the minimum wage rate as set on an annual basis in the Ministerial Determination for the Expanded Public Works Programme. *(Compiler to note that this minimum wage rate applies when an EPWP worker is engaged in formal classroom training).*

Tasks set by the Contractor shall be such that:

- (a) the average EPWP worker completes 5 tasks per week in 40 hours or less; and

- (b) the weakest EPWP worker completes 5 tasks per week in 55 hours or less.

The Contractor shall revise the time taken to complete a task whenever it is established that the time taken per week to complete the tasks set does not fall within the limits indicated in (a) and (b) above.

PW 1.6 Training of persons employed under the Expanded Public Works Programme (EPWP)

The training of persons employed under the Expanded Public Works Programme (EPWP) is described in clause 4 below.

PW 1.7 Contractor's obligations towards persons employed under the Expanded Public Works Programme (EPWP)

Over and above implementing in accordance with Government Notice Nos. 129 and R347 the EPWP work to be undertaken on this contract, it shall be the responsibility of the Contractor to carry out the following functions with respect to the EPWP workers:

- (a) ensure that all participants are covered by the Compensation for Occupational Injuries and Diseases Act, 1993, for as long as they are contracted to the Contractor, and pay in full to the Compensation Commissioner such amounts as are due in terms of the Act;
- (b) pay in full to the Unemployment Insurance Fund for all participants such UIF contribution amounts as are due in terms of the Unemployment Insurance Act, 2001, as amended, and the Unemployment Insurance Contributions Act, 2002, as amended, and provide proof of such UIF payments upon request;
- (c) ensure that all participants are paid their wages on time through the pre-agreed payment method as stipulated in the participant contract of employment;
- (d) implement health and safety procedures with respect to the participants, ensuring that the health and safety regulations are adhered to;
- (e) ensure that all participants receive induction on site safety prior to commencing with work on site;
- (f) provide all participants with the necessary protective clothing and equipment as required by law for the specific tasks in which the participants are involved, in addition to the branded overalls stipulated for EPWP workers;
- (g) provide safe on-site storage facilities for apparel and tools issued to the participants;
- (h) assist in the assessment of participants with regard to their competencies;
- (i) provide overall supervision and day-to-day management of participants; and
- (j) implement strict quality control to ensure that the work carried out by the participants is of the required standard, and, where necessary, to train and mentor the participants to assist them in achieving the standards required.

PW 1.8 Apparel and tools for persons employed under the Expanded Public Works Programme (EPWP)

The Contractor shall provide Personal Protective Equipment (PPE) to all EPWP workers in accordance with the requirements arising from Part E: OHS 1993 Health and Safety Specification and the Contractor's site-specific health and safety plan and accompanying risk assessments.

Where indicated below, certain items of the PPE issued by the Contractor to the EPWP workers shall include branded EPWP markings in accordance with the attached branding requirements.



PPE shall comprise the following:

- (a) Compulsory PPE issued to all EPWP workers for use during general work activities:
- Protective overalls (two sets), green in colour, with EPWP branding;
  - Lime green reflective safety vest with EPWP branding;
  - Protective footwear; and
  - Protective gloves.
- (b) PPE issued to EPWP workers for specific activities where required in terms of the Contractor's site-specific health and safety plan and accompanying risk assessments, such as:
- Protective headwear, green in colour, with EPWP branding;
  - Protective eyewear such as spectacles and goggles;
  - Protective face shields;
  - Protective earplugs and earmuffs;
  - Respiratory masks;
  - Disposable safety apparel;
  - Kidney belts;
  - Safety harnesses; and
  - Any other protective equipment identified.

The Contractor shall replace any item of issued PPE that becomes unserviceable.

The Contractor shall not charge any fee to the EPWP workers for the prescribed PPE issued except under the following circumstances:

- where the employee requests the issue of additional PPE in excess of what is prescribed;
- where the employee has patently abused or neglected the issued PPE leading to early failure; or
- where the employee has lost the issued PPE.

The Contractor shall instruct and train the EPWP workers in the use of all PPE issued, and shall ensure that they use the prescribed equipment.

EPWP workers shall not have the right to refuse to use or wear the equipment prescribed by the Contractor. If it is not possible for an EPWP worker, through health or any other reason, to use or wear the prescribed PPE issued, such employee shall not be allowed to continue working under the hazardous conditions for which the equipment was prescribed. Under such circumstances an alternative solution shall be found, and this may include relocating or discharging the employee.

The Contractor shall provide each EPWP worker with hand tools of adequate quality and of the type required to carry out the assigned tasks safely and efficiently.

The Contractor shall instruct and train the EPWP workers in the safe and efficient use of all hand tools issued.

The Contractor shall maintain the issued tools in a serviceable and safe working condition.

The EPWP workers shall be responsible for the safe on-site storage of all PPE and tools issued to them, using the storage facilities provided on-site by the Contractor.

No separate payment shall be made for providing the EPWP workers with PPE, or for providing relevant items of PPE in the specified colours with branded EPWP markings. Furthermore, no separate payment shall be made for providing the EPWP workers with hand tools or for providing them with safe storage facilities on-site for PPE and tools. The Contractor shall therefore make provision for all costs related to providing the PPE, tools and safe storage facilities in the tendered rates and prices for the various items of work scheduled

throughout the schedule of quantities.

PW 1.9 EPWP contract signboard

The Contractor will be required to erect a contract signboard displaying the EPWP logo, indicating that this project is part of the Expanded Public Works Programme (EPWP). All costs related to the provision, erection and subsequent removal of the contract signboard shall be refunded to the Contractor through the pay item provided in section A of the schedule of quantities for this purpose.

PW 1.10 Payment matters relating to the EPWP work

PW 1.10.1 General

No separate pay items shall be provided in terms of the schedule of quantities for the construction work activities carried out by EPWP participants. Payment for such work activities shall be made only indirectly, in terms of the pay items scheduled for the work activities in which such persons are engaged.

Furthermore, no direct payment will be made to cover the Contractor's costs associated with implementing the on-site work programme for the EPWP participants, for planning, organising, directing, controlling and administrating their day to day activities, including the setting of daily tasks, record keeping and any on-site liaison, training and mentoring required, and for the associated job creation reporting, and such costs shall therefore be built into the rates tendered for the various items of work scheduled throughout the schedule of quantities.

PW 1.10.2 Payment for labour-intensive components of the work

Payment will be made for items which are designated for labour-intensive construction in the schedule of quantities only in those instances where such items are constructed using labour-intensive methods.

Any unauthorised use of plant to carry out work which was scheduled to be carried out using labour-intensive methods will not be condoned and any Works so constructed will not be certified for payment. Any non-payment for such Works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

During the course of construction, as a result of unforeseen site conditions or operating conditions encountered, it may happen that an item designated for labour-intensive construction can no longer be carried out in a safe and economically feasible manner, either in full or in part, using labour-intensive methods. In such instances, the Employer's Agent shall, where necessary, order a variation in terms of clause 6.3 of the of the General Conditions of Contract 2015 with respect to that portion of the item quantity that cannot be carried out using labour-intensive methods.

PW 1.11 Penalty applicable to any shortfall in the local labour content achieved

The amount spent on wages for local labour (excluding VAT) for this project, as certified by the Employer's Agent, shall equal or exceed the specified minimum percentage of the contract amount which is the Contract Price (adjusted to exclude penalties and value added tax).

The Contractor is obliged to commit to or exceed the specified minimum percentage of local labour content stated by the Employer.

In the event that the Contractor fails to substantiate that any failure to achieve the minimum required local labour content for this project is due to quantitative underruns, the elimination of items contracted to local labour, or any other reason beyond the Contractor's control which may be acceptable to the Employer, the Contractor shall be liable for a financial penalty as prescribed in clause SCC 4.1.1 of the Special Conditions of Contract. The financial penalty shall be calculated as follows:

$$P = 0,05 \times [(E - E_0)/100] \times C_A$$

where:

E is the specified minimum percentage for local labour content

E<sub>0</sub> is the local labour content percentage which the Employer's Agent certifies as being achieved upon completion of the contract

C<sub>A</sub> is the contract amount which is the Contract Price (adjusted to exclude penalties and value added tax)

P is the monetary value of penalty payable

The penalty shall not apply to shortfalls in the allocations to the individual target groups (i.e., Women/Youth/Disabled as per clause 1.3 above), only to shortfalls in the total local labour content achieved.

The evaluation of the Contractor's achievement of the local labour content percentage shall be undertaken monthly by the Employer's Agent, based on the accumulative achievements in comparison to the programmed utilisation of local labour. Failure by the Contractor to achieve the interim target shall result in the Contractor being liable for a financial penalty as prescribed in this clause.

## **PW 2. NATIONAL YOUTH SERVICE (NYS)**

The Employer requires the implementation of National Youth Service (NYS) programmes on this project.

PW 2.1 The National Youth Service (NYS) programme

The National Youth Service (NYS) programme aims to train young people and provide them with practical work experience. The young people will be allocated tasks by the Contractor that will assist the Contractor with the execution of the contract.

PW 2.2 Applicable labour laws

The work to be undertaken on this contract by unskilled or semi-skilled workers under the National Youth Service (NYS) programme shall be implemented in accordance with the same Code of Good Practice and Ministerial Determination as described in clause 1.2 above for work to be undertaken under the Expanded Public Works Programme (EPWP).

PW 2.3 Employer's project manager

The Contractor shall be required to liaise closely with the Employer's project manager who is responsible for the recruitment and training of the NYS workers.

PW 2.4 Persons to be employed under the NYS programme

For purposes of this contract, the Contractor shall be required to employ 6 youths aged between 18 and 35 for a period of 6 months each under the NYS programme.

The Employer's project manager shall provide the Contractor with a list of the 6 youths to be employed and the training that each of these 6 youths have received to date, and only these 6 youths shall be employed by the Contractor under the NYS programme.

The Contractor shall effect the employment in two separate 6-month cycles, with the employment of 3 youths for the first 6-month cycle only, followed by the employment of 3 different youths for the second 6-month cycle only.

PW 2.5 Contract of employment with persons employed under the NYS programme

The Contractor shall enter into a formal contract of employment with each youth employed under the NYS programme, using the pro forma contract of employment attached at the end of this section: Particular Specifications.

PW 2.6 Employment of NYS workers

The Contractor will be contractually obliged to:

- (a) employ all participants on the list provided by the Employer's project manager;
- (b) brief NYS workers on the conditions of employment;
- (c) enter into a formal contract of employment with each NYS worker, which contract will form part of the Employment Agreement;
- (d) keep personnel files for all NYS workers and make copies available to the Employer's project manager if and when requested; and
- (e) ensure that payments to NYS workers are made in accordance with Government Notice No. R347.

During the period when they are engaged in formal classroom training (other than in-service training), the youths employed under the NYS programme shall be paid the minimum wage rate as set by the Department of Labour on an annual basis in the Ministerial Determination for the Expanded Public Works Programme, and should there be an upward adjustment in the rate the Contractor will be compensated accordingly. During the period when they are engaged in productive work activities required for elements of the Works, they shall be paid in terms of the wage rates stated in clause 1.5 above.

PW 2.7 Training of youth workers

All NYS workers will be placed on an extensive training programme that will include:

- (a) an induction into NYS and EPWP;
- (b) life skills training;
- (c) technical training focusing on a vocational skill to be used on the project (e.g. painting or carpentry); and
- (d) entrepreneurship and business skills training.

All training will be arranged by the Employer's project manager, with whom the Contractor will be required to work closely to schedule the training sessions so that the timing of the training is aligned with the Contractor's work schedule and his demand for workers with specific skills. The Employer's project manager will make full details of the training programme available to the Contractor.

The Contractor shall maintain comprehensive records of the training received by each NYS worker throughout the course of the contract and shall submit to the Employer at each monthly site meeting a summary of the accumulated training received by each NYS worker.

The training of the NYS workers shall take place using the same training facility provided for the training of all other EPWP participants (refer to clause 4 below).

**PW 2.8 Contractor's obligations towards persons employed under the NYS programme**

Over and above implementing in accordance with Government Notice Nos. 129 and R347 the NYS programme work to be undertaken on this contract, it shall be the responsibility of the Contractor to carry out the following functions with respect to the NYS programme workers:

- (a) ensure that all participants are covered by the Compensation for Occupational Injuries and Diseases Act (COIDA), 1993, for as long as they are contracted to the Contractor, and pay in full to the Compensation Commissioner such amounts as are due in terms of the Act;
- (b) pay in full to the Unemployment Insurance Fund for all participants such UIF contribution amounts as are due in terms of the Unemployment Insurance Act, 2001, as amended, and the Unemployment Insurance Contributions Act, 2002, as amended, and provide proof of such UIF payments upon request;
- (c) ensure that all participants are paid their wages on time through the pre-agreed payment method as stipulated in the participant contract;
- (d) implement health and safety procedures with respect to the participants, ensuring that the health and safety regulations are adhered to;
- (e) ensure that all participants receive induction on site safety prior to commencing with work on site;
- (f) provide all participants with the necessary protective clothing and equipment as required by law for the specific trades in which the participants are involved, in addition to the branded overalls stipulated for NYS workers;
- (g) provide safe on-site storage facilities for apparel and tools issued to the participants;
- (h) assist in the assessment of participants with regard to their competencies in their respective trades;
- (i) provide overall supervision and day-to-day management of participants; and
- (j) implement strict quality control to ensure that the work carried out by the participants is of the required standard, and, where necessary, to train and mentor the participants to assist them in achieving the standards required.

**PW 2.9 Apparel and tools for NYS workers**

The content of clause 1.8 above with regard to apparel and tools for EPWP workers shall apply equally to NYS workers, except that:

- (a) apparel and tools to be issued to NYS workers shall be determined in conjunction with the Employer's project manager;
- (b) the required branding of apparel to be issued to NYS workers shall be determined in conjunction with the Employer's project manager, and shall also include the NYS logo;
- (c) additional PPE may be required depending on the NYS worker's specific trade;
- (d) certain specified apparel and tools issued to the NYS workers will become the property of the NYS workers after the completion of their cycle of work on the project, in order to enable them to continue to practise their trade on future projects. Such apparel and tools shall be specified and authorised by the

- (e) Employer's Agent; and  
separate payment items have been provided in the schedule of quantities to cover all costs associated with the provision of the necessary tools and apparel, including safety apparel, for the NYS workers, and the facilities for the safe storage thereof, all as authorised by the Employer's Agent.

PW 2.10 EPWP-NYS contract signboard

Where work takes place under the National Youth Service (NYS) programme, the NYS logo shall also be displayed on the EPWP contract signboard referred to in clause 1.9 above, indicating that this project is part of both the Expanded Public Works Programme (EPWP) and the NYS programme. All costs related to the provision, erection and subsequent removal of the contract signboard shall be refunded to the Contractor through the pay item provided in section 1300 of the Schedule of Quantities for this purpose.

PW 2.11 Payment matters relating to the NYS work

No direct payment will be made to cover the Contractor's costs associated with implementing the on-site work programme for the NYS workers, for planning, organising, directing, controlling and administering their day to day activities, including the setting of daily tasks, record keeping and any on-site liaison, training and mentoring required, and for the associated job creation reporting, and such costs shall therefore be built into the rates tendered for the various items of work scheduled throughout the schedule of quantities.

### **PW 3. JOB CREATION REPORTING FOR EPWP**

In order to assist the Employer in complying with the goal of creating EPWP job opportunities, the Contractor must provide the information specified in clause 3.1 below for reporting purposes.

In addition, the Contractor's payment certificates shall be accompanied by the information specified in clause 3.2 below.

PW 3.1 Type of project data required per project

Every EPWP project shall collect and keep specific project data for the purpose of EPWP progress reporting on a monthly basis, using the EPWP Data Collection Tool template (this will be made available to the Contractor in Microsoft Excel format - refer to the pro forma spreadsheets at the end of this section of the Particular Specifications).

The data that is required to be kept, maintained and reported on a monthly basis for each project includes:

PW 3.1.1 Participant (local labour) data

A participant list of the local labour employed must be maintained for every EPWP project. The data required in this participant list is indicated below. This data shall be recorded, checked and signed off by the Contractor, and shall be submitted to the Employer at each monthly site meeting. The participant list shall contain the following data and shall be kept and maintained on site for audit purposes:

- (a) Participant identity – name, surname, initials, date of birth and identity number (or other unique identifier) plus certified copy of ID book.

- (b) Participant profiles – nationality, gender, age, education level and disability status.
- (c) Work data for participants – daily wage to be received, number of calendar days training attended and number of calendar days worked.
- (d) Records of training – as required in terms of the EPWP Data Collection Tool template.

In addition, the signed contracts of employment between the Contractor and each EPWP participant shall be kept and maintained on site for audit purposes.

PW 3.1.2 Project work data

The project work data generally seeks to confirm the number of people at work daily on the project. This data shall be recorded, checked and signed off by the Contractor, and shall be submitted to the Employer at each monthly site meeting. The data shall be maintained on site by the Contractor, in order that it can be provided by the Employer to the National Department of Public Works upon request when the latter is undertaking sample auditing. The data shall include:

- (a) Daily attendance register – register for each day showing all the workers that were registered as being at work on that day. Attendance registers shall be completed on site on a daily basis and signed off by the Contractor on a weekly basis.
- (b) Summary of monthly attendance.

PW 3.1.3 Project payment data

The project payment data generally seeks to confirm what was paid, for how much work and to whom. This data shall be recorded, checked and signed off by the Contractor, and shall be submitted to the Employer at each monthly site meeting.

It is required that the Contractor adopt one of the following methods as standard procedure for recording and maintaining this information:

- (a) Payment register – this is a list of the workers showing the wages paid to each worker, and signed off by each worker as proof of receipt and acceptance of payment. Information on this register must include the name of the worker, either an identity number or other unique identifier, the number of calendar days that the pay period covers, the wage rate and the total wages paid; or
- (b) Bank records showing the transfers to each worker account, signed off by the Contractor as proof of payment – these bank records must specifically show the name of the worker, either an identity number or other unique identifier, the period which the pay covers and the total wages paid.

The project payment data, as recorded and maintained by the Contractor in terms of either (a) or (b) above, must be available and applicable for the entire period for which the Employer claims an incentive reward for person-days of work created in terms of the project.

PW 3.1.4 Employment output data

The Contractor shall submit to the Employer at each monthly site meeting a progress report detailing production output compared to the programme of works, together with the data necessary to enable the Employer to calculate the following employment output data in

accordance with the EPWP Data Collection Tool template:

- (a) Number of work opportunities created (where one work opportunity = paid work created for one individual on an EPWP project, for any period of time).
- (b) Number of person-days of work created (where one person-day = one day of work carried out by one individual). The total number of person-days of work created on a particular EPWP project shall be obtained by summing the total number of person-days worked by each individual employed during the course of that EPWP project.
- (c) Number of Full Time Equivalent (FTE) created (= total number of person-days of work created on the EPWP project divided by 230 working days). In terms of EPWP policy, one year of work created for one individual is assumed to comprise a total of 230 days of paid work carried out by that individual.
- (d) Average duration of work opportunities created (= total number of person-days of work created on the EPWP project divided by the number of work opportunities created on that EPWP project).
- (e) Average daily wage rates paid (= accumulated total of the wages paid to all individuals employed on an EPWP project divided by the total number of person-days of work created on that EPWP project).
- (f) Training information.

PW 3.2 Project data to be submitted with the Contractor's payment certificates

The Contractor's payment certificates shall be accompanied by labour returns providing the labour information for the corresponding period in a format specified by the Employer.

Should the Contractor choose to delay submitting payment certificates, the labour returns shall nevertheless still be submitted as per the frequency and timeframes stipulated by the Employer. The Contractor's payment certificates shall not be paid by the Employer until all pending labour information has been submitted.

The following information shall be maintained on site and submitted with each payment certificate in the format specified by the Employer:

- Copies of the signed contracts between the Contractor and any new EPWP participants (the Contractor shall note that all such formal contracts of employment entered into with persons employed under the Expanded Public Works Programme (EPWP) shall expire on 31 March each year, and the Contractor shall therefore be required to enter into new contracts with such persons as of 01 April each year, and shall be required to submit copies of all such new contracts with the first payment certificate thereafter);
  - i. Certified ID copies of all local labour employed as EPWP participants;
  - ii. Attendance registers for the EPWP participants;
  - iii. Proof of payment of EPWP participants; and
  - iv. Information as required in terms of the EPWP Data Collection Tool template.

#### **PW 4. PROVISION OF STRUCTURED TRAINING**

PW 4.1 Scope of structured training

In order to avoid duplication of training programmes and training facilities, all structured



training, shall be implemented, measured and paid for in accordance with the requirements of this section: Requirements of the Expanded Public Works Programme (EPWP).

The Employer's objectives include the training of local labour and Targeted Enterprises within a structured programme, in order to equip them with skills that will assist them in gaining future employment, and to facilitate targeted EPWP participants in gaining competencies and unit standard credits towards future full learnership qualifications.

Such training shall contain both theoretical and practical components and shall be conducted in accordance with the various laws and regulations contained in the South African Qualifications Authority (SAQA) statutes.

The following aspects of the structured training to be provided are noted:

- The Employer has no service agreement or memorandum of understanding with any Education and Training Quality Assurance (ETQA) body, and therefore does not function as the employer as defined under any three-party learnership agreement between the learner, the training provider and the employer.
- The structured training programmes implemented on this contract, although comprising several unit standards, are unlikely to total to sufficient credits for a full learnership qualification. Nevertheless, the competencies and credits achieved should contribute to a full learnership through the later acquisition by the learner of the remaining unit standards required for the full learnership.

The Contractor shall be required to provide a training facility on the Site, or in close proximity thereto, and to provide over the duration of the contract the following structured training for EPWP participants:

- (a) Generic skills training;
- (b) Entrepreneurial skills training;
- (c) Construction skills training; and
- (d) In-service training.

Generic skills training and in-service training shall be provided to all EPWP participants.

Entrepreneurial and construction skills training shall be provided to targeted EPWP participants only.

Entrepreneurial skills training comprises both management skills training and business development skills training.

Construction skills training comprises specific on-task skills training.

#### PW 4.2 Training provider and trainers

The Contractor shall be required to procure the services of a training provider accredited by the Construction Education and Training Authority (CETA).

The training provider shall have in its employ trainers who are registered as assessors with the Construction Education and Training Authority (CETA), and who shall deliver the training.

Proof of the accreditation of the service provider and the registration of the trainers by the CETA shall be submitted to the Employer's Agent. Such accreditation and registration shall be current and valid, and the proof submitted shall include the NQF levels and unit standards

for which each trainer is accredited.

**PW 4.3 Skills analysis and selection of targeted EPWP participants**

Studying for any learnership requires minimum literacy and numeracy competencies as defined by SAQA. The actual literacy and numeracy levels of the persons employed on the Site shall provide a basis to guide the Contractor and the training provider on how to conduct the selection process.

The Contractor shall therefore conduct a skills analysis of the local labour and Targeted Enterprises employed, in order to determine the formal education qualifications of each employee.

The Contractor, in conjunction with the training provider, shall then identify those persons that display the potential to benefit from such structured entrepreneurial and construction skills training as may be provided for in the contract and shall make recommendations in this regard to the Employer's Agent.

The final candidates selected for such training shall be decided between the Contractor and the Employer's Agent (or by the Project Management Team (PMT) in the case of training for Targeted Enterprises in terms of Part G: Small Contractor Development, where applicable).

**PW 4.4 Structured training programmes**

The Contractor, supported by the training provider, shall plan then implement structured training programmes for generic, entrepreneurial, and construction skills training.

Training courses shall commence within four months of the Contractor taking possession of the Site, and shall be completed before the Due Completion Date.

All training shall take place within normal working hours, or as otherwise agreed with the learners.

The training provider shall design, compile and deliver the structured training programmes, based on the information obtained from the skills analysis.

The structured training programmes designed by the training provider for the generic skills training shall comprise relevant general courses such as basic hygiene and HIV/AIDS awareness, first aid, road safety, managing personal finance, and other courses that would be useful to workers in the road construction industry or as life skills generally.

The structured training programmes designed by the training provider for the entrepreneurial skills training shall comprise unit standards that contribute towards one or more of the following full learnership qualifications, as appropriate taking into consideration the skills analysis information for the selected candidates (details of the learnership qualifications and the applicable unit standards may be found on the website [www.saga.org.za](http://www.saga.org.za)):

<b>ENTREPRENEURIAL SKILLS TRAINING</b>				
<b>Qualification title</b>	<b>SAQA qualification ID</b>	<b>NQF level</b>	<b>Minimum credits</b>	<b>Purpose of qualification</b>
National Certificate: Supervision of Construction Processes	49053	Level 4	176	Learners found competent against this qualification will be able to execute the supervision of construction processes, with specialisation in a specific context

The structured training programmes designed by the training provider for the construction skills training shall comprise unit standards that contribute towards one or more of the following full learnership qualifications, as appropriate taking into consideration the skills analysis information for the selected candidates (details of the learnership qualifications and the applicable unit standards may be found on the website [www.saga.org.za](http://www.saga.org.za)):

<b>CONSTRUCTION SKILLS TRAINING</b>				
<b>Qualification title</b>	<b>SAQA qualification ID</b>	<b>NQF level</b>	<b>Minimum credits</b>	<b>Purpose of qualification</b>
National Certificate: Supervision of Construction Processes	49053	Level 4	176	Learners found competent against this qualification will be able to execute the supervision of construction processes, with specialisation in a specific context
National Certificate: Construction: Roadworks	24173	Level 3	155	This qualification is for persons who work or intend to work within a construction context on a site, and who seek recognition for essential skills in construction operations in roadworks.
National Certificate: Construction: Roadworks	24133	Level 2	120	This qualification is for persons who work or intend to work within a construction context on a site, and who seek recognition for essential skills in construction operations in roadworks.
National Certificate: Occupational Health, Safety and Environment	74269	Level 2	120	This qualification is to equip learners working in any type of workplace with a broad understanding and knowledge of Occupational Health, Safety, and Environmental (HSE) concepts and practices with sufficient detail to enable them to function in a safe and healthy way and to deal with health and safety problems and issues.

The Contractor's proposed training programmes shall be subject to the approval of the Employer's Agent, and the Contractor shall if so instructed by the Employer's Agent, alter or amend the programmes and the course content to meet any additional needs identified.

The Contractor shall be responsible for everything necessary for the delivery of the training programmes, including:

- (a) the provision of the trainers;
- (b) the provision of a suitable secure venue complete with adequate furniture, lighting, air conditioning, power, and ablution facilities;
- (c) the provision of all necessary stationery, consumables, and study materials;
- (d) the transportation of the learners to and from the training facility;
- (e) the payment of wages to all learners during the classroom training at a rate equal to the minimum wage rate as set on an annual basis in the Ministerial Determination for the Expanded Public Works Programme;
- (f) the provision of any relevant Personal Protective Equipment (PPE) required for the training; and
- (g) additional supervision of the learners during the practical learning stage of the training carried out by constructing relevant elements of the Works (wages for the learners during this stage of the training will be paid through the rates tendered for the relevant scheduled work items for those elements).

At the successful completion of each course, the Contractor's training provider shall, as proof of attendance and completion, issue each learner with a certificate indicating the course content.

The training provider shall also ensure that each unit standard contributing towards a full learnership qualification and successfully completed by the learner is entered into the national database.

The Contractor shall keep comprehensive records of the training given to each learner and the certificates issued and shall provide copies of such records to the Employer's Agent when required.

The Contractor shall also complete and submit to the Employer's Agent each month, in a format acceptable to the Employer (using the EPWP Data Collection Tool template), a return detailing the training provided, both for the month and cumulatively for the contract.

#### PW 4.5 In-service training

The Contractor shall, from the commencement of the contract, implement an in-service training programme in which the various skills required for the execution and completion of the Works are imparted to the EPWP participants engaged thereon.

Throughout the duration of the contract, the EPWP participants shall be trained progressively through the various stages of each particular type of work in which they are engaged, and their work shall be supervised and monitored and their methods corrected where necessary.

The in-service training programme shall be submitted with the initial Works programme. The Contractor shall record the progress in relation to this programme on a monthly basis, and this progress report shall be incorporated in the monthly site meeting minutes and the payment certificate.

The Contractor shall provide sufficient skilled and competent trainers to train all EPWP participants engaged in the contract in the various skills required to enable them to carry out the required construction activities.

The in-service training of EPWP participants shall take place before commencement of the relevant construction activity, and the Contractor shall take into account in his programme the lead time required for such training. All in-service training shall be deemed to be an element of the relevant construction activity.

All formal in-service training shall be documented in terms of the EPWP Data Collection Tool template, and shall be accompanied by an attendance register of the EPWP participants on the applicable days.

All EPWP participants shall be remunerated at their agreed wage rate in respect of the time spent undergoing in-service training. The cost of the Contractor's in-service training obligations shall be deemed to be covered by the sums and rates tendered for items B13.01(a), (b), and (c) in the schedule of quantities.

On termination of their employment, the Contractor shall provide each EPWP participant engaged in the contract with a certificate of service on which the following information shall be recorded:

- the name of the Contractor;
- the name of the project/contract;
- the name of the employee;
- the nature of the work satisfactorily executed by the EPWP participant and the time spent thereon;
- the nature and extent of training provided to the EPWP participant; and
- the dates of service.

PW 4.6 Training venue facility

The training venue facility to be provided by the Contractor shall be constructed, furnished, and fully serviced for the duration of the contract in accordance with section 1400 of the COLTO standard specifications.

In order to minimise the cost of transporting the learners for training, the facility shall be located in secure premises on the Site, or in close proximity thereto.

This facility shall be used to deliver all training.

The facility shall accommodate a class of up to 25 learners and shall comprise the following:

(a)	Lecture room (interior area)	=	48 m <sup>2</sup>
(b)	Ablutions (male)	=	6 m <sup>2</sup>
(c)	Ablutions (female)	=	6 m <sup>2</sup>
(d)	Chairs for learners (individual chairs, with backs)	=	25 off

(e)	Desk area for 25 learners (500 mm width)	=	12,5 m <sup>2</sup>
(f)	Chairs for trainers and management (individual chairs, with backs)	=	5 off
(g)	Table area for trainers and management	=	3 m <sup>2</sup>
(h)	220/250 volt power points	=	6 off
(i)	Double 80 watt fluorescent light fittings complete with ballast and tubes	=	6 off
(j)	Single incandescent light fittings complete with 100 watt globes	=	4 off
(k)	Wash hand basins complete with taps and drains	=	4 off
(L)	Fire extinguishers, 9,0 kg, all-purpose dry powder type, complete, mounted on wall with brackets	=	2 off
(m)	Air conditioning units with 2,2 kW minimum capacity, mounted and with own power connection	=	4 off
(n)	Voltage stabilizers	=	2 off
(o)	Floodlights complete with poles and 500 Watt minimum globes and controlled by photocells	=	2 off
(p)	Whiteboards (3 m x 1,5 m)	=	1 off
(q)	Venetian blinds	=	12 m <sup>2</sup>

PS 4.7 MEASUREMENT AND PAYMENT

Item	Description	Unit
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1.5.3	<b>Provision of the training venue facility, including the cost of transporting the learners to and from this facility</b>	lump sum (Sum)
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The tendered lump sum for subitem 1.5.3 shall include full compensation for the provision of the training venue facility complete and serviced as specified, including for the provision of power, water, sewerage, and cleaning services for the duration of the contract, for lighting, power points and voltage stabilizers, for air conditioning, blinds, fire extinguishers, floodlights, furniture and whiteboards, for the provision of security at the facility, for all other costs necessary to maintain the facility for the duration of the contract, and for the removal of the facility on completion of the contract.

The tendered lump sum shall also include full compensation for transporting the learners on each day of training from their place of work to this training venue facility, and back again after the training for the day has been delivered by the accredited trainers.

Payment of the lump sum shall be made in three instalments as follows:

The first instalment, 50% of the lump sum, shall be paid after the Contractor has met all his obligations regarding the provision of the training venue facility, complete and serviced as specified, and the facility has been successfully commissioned for use.

The second instalment, 35% of the lump sum, shall be paid when 75% of the training courses proposed in accordance with the Contractor's approved structured training programme have been delivered to the learners by the accredited trainers.

The third and final instalment, 15% of the lump sum, shall be paid when all training has been concluded and the facility has been dismantled and removed from the site.

1.5.4	<b>Training of learners employed by the main contractor or by the Targeted Enterprise subcontractors:</b>	
(a)	Generic skills:	
(i)	Training costs	(Prov sum)
(ii)	Handling costs and profit in respect of subitem 1.5.4(a)(i) above	percentage (%)
(b)	Entrepreneurial skills:	
(i)	Training costs	(Prov sum)
(ii)	Handling costs and profit in respect of subitem 1.5.4(b)(i) above	percentage (%)
(c)	Construction skills: Accredited Construction Skills	
(i)	Training costs	(Prov sum)

(ii)	Handling costs and profit in respect of subitem 1.5.4(c)(i) above	percentage (%)
(d)	Transportation and accommodation costs of selected learners only, while receiving off-site training:	
(i)	Transportation and accommodation costs	(Prov sum)
(ii)	Handling costs and profit in respect of subitem 1.5.4(d)(i) above	percentage (%)

Expenditure under subitems 1.5.4(a)(i), (b)(i), (c)(i), and (d)(i) shall be in accordance with clause 6.6 of the General Conditions of Contract 2015.

The provisional sum for each of subitems 1.5.4(a)(i), (b)(i) and (c)(i) is provided to cover the total costs of the required training in generic, entrepreneurial, and construction skills respectively, including for the procurement of the services of the accredited trainers and their delivery of the training courses to the learners, the provision of all training materials including all stationery and study materials, the wages of the learners for the duration of the courses including the associated COIDA and UIF payments, and the provision of any tools and PPE that may be required during those courses incorporating practical training modules. The payment of wages to learners in terms of subitems 1.5.4(a)(i), (b)(i), and (c)(i) will only be made to those learners who attend and successfully complete each course of the approved training programme. Payment shall not be made to learners who, once selected, do not attend or only partially complete structured training courses.

The tendered percentage for each of subitems 1.5.4(a)(ii), (b)(ii) and (c)(ii) is the percentage of the amount actually spent under each of subitems 1.5.4(a)(i), (b)(i) and (c)(i) respectively, and shall include full compensation for the handling costs of the Contractor and the profit in connection with the provision of the training in generic, entrepreneurial and construction skills respectively, including for the costs of record keeping and reporting with respect to the training received by each learner.

The provisional sum for subitem 1.5.4(d)(i) is provided to cover all costs related to the transportation and accommodation costs of selected learners only, while receiving off-site training, where such learners have been specifically selected to receive such off-site training and where such training cannot be delivered using the training venue facility provided by the Contractor in terms of subitem 1.5.3.

The tendered percentage for subitem 1.5.4(d)(ii) is the percentage of the amount actually spent under subitem 1.5.4(d)(i), and shall include full compensation for the handling costs of the Contractor and the profit in connection with the transportation and accommodation costs of selected learners only, while receiving off-site training.



Item	Description	Unit
1.6.1	Payments associated with the NYS programme only:	
(a)	Employment of NYS workers	(Prov sum)
(b)	Provision of tools and apparel for the NYS workers	(Prov sum)
(c)	Handling costs and profit in respect of subitems 1.6.1(a) and (b) above	Percentage (%)
(d)	Training of NYS workers:	
(i)	Provision of training for the NYS workers	(Prov sum)
(ii)	Handling costs and profit in respect of subitem 1.6.1(d)(i) above	percentage (%)
(iii)	Liaison conducted by the Construction Manager	hour (h)
(iv)	Liaison conducted by the senior site foreman	hour (h)

The provisional sums provided under subitems 1.6.1(a) and (b) shall be expended in accordance with clause 6.6 of the General Conditions of Contract 2015.

The provisional sum under subitem 1.6.1(a) shall be used to cover the cost of employment payments made by the Contractor to the NYS workers, including the associated COIDA and UIF payments, all as authorised by the Employer's Agent.

The provisional sum under subitem 1.6.1(b) shall be used to cover all costs associated with the provision of the necessary tools and apparel, including safety apparel, for the NYS workers, and the facilities for the safe storage thereof, all as authorised by the Employer's Agent.

The tendered percentage under subitem 1.6.1(c) is a percentage of the total amount of expenditure approved by the Employer's Agent under the provisional sum subitems 1.6.1a) and (b), and shall include full compensation for attendance by the Contractor, for the handling costs of the Contractor, and for the profit in connection with payments made by the Contractor with respect to the NYS programme implementation.

The provisional sum provided under subitem 1.6.1(d)(i) shall be expended in accordance with clause 6.6 of the General Conditions of Contract 2015.

The provisional sum under subitem 1.6.1(d)(i) shall be used to cover all costs associated with the provision of training for the NYS workers, including the cost of procuring the services of the accredited trainers and their delivery of the training courses to the NYS workers, and the provision of all training materials including all stationery and study materials.

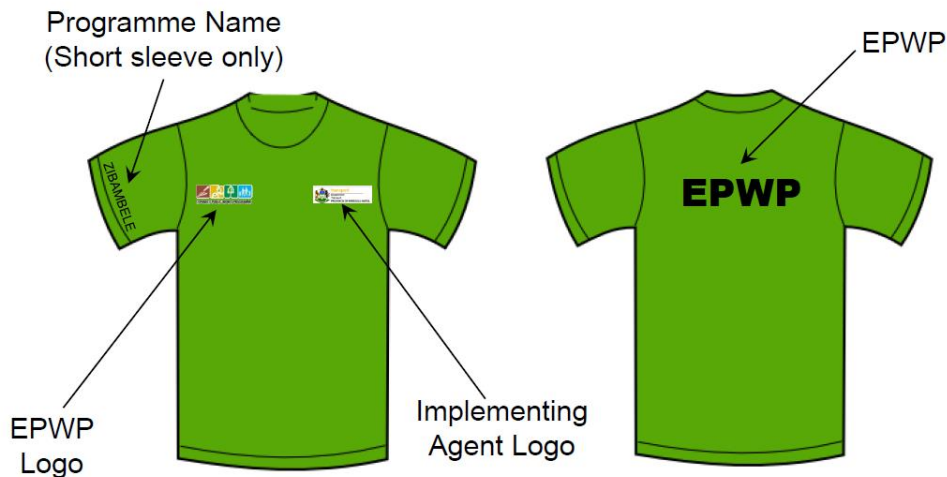
The tendered percentage under subitem 1.6.1(d)(ii) is a percentage of the total amount of expenditure approved by the Employer's Agent under the provisional sum subitem 1.6.1(d)(i), and shall include full compensation for attendance by the Contractor, for the handling costs of the Contractor, and for the profit in connection with payments made by the Contractor with respect to the provision of training for the NYS workers, including for the costs of record keeping and reporting with respect to the training received by each NYS worker.

The unit of measurement for subitems 1.6.1 (iii) and (iv) shall be the hour. The tendered rates shall include full compensation for all costs related to the Construction Manager and the senior site foreman respectively for time spent at formal liaison meetings authorised and convened by the Employer's Agent for the specific purpose of liaising with the Employer's project manager and / or the training service provider. The payment shall be made only for the time spent in the formal meeting itself. No payment shall be made for time spent during any other on-site liaison, telephonic liaison, e-mail, or written correspondence liaison between these parties, or for liaison conducted with the Employer's project manager and / or the training service provider by any other member of the Contractor's site staff or head office personnel, the cost of all of which shall be deemed to be included in the Contractor's time-related obligations under subitem B13.01(c).

## Expanded Public Works Programme: PPE BRANDING For EPWP Projects




## T-Shirt/Overall/Safety Vest Branding





# Logo Options

## Implementing Agent Examples

**National Projects**


 **public works**  
Department:  
Public Works  
REPUBLIC OF SOUTH AFRICA


 **transport**  
Department:  
Transport  
REPUBLIC OF SOUTH AFRICA


 **environmental affairs**  
Department:  
Environmental Affairs  
REPUBLIC OF SOUTH AFRICA

**Contains National Coat Of Arms and name**

**Provincial Department Projects**


 **agriculture & environmental affairs**  
Department:  
Agriculture & Environmental Affairs  
PROVINCE OF KWAZULU-NATAL


 **transport**  
Department:  
Transport  
Province of KwaZulu-Natal

 **education**  
Department:  
Education  
PROVINCE OF KWAZULU-NATAL

**Contains Provincial Coat Of Arms and name**

**Municipal Projects**

 **Ugu District Municipality**

 **ETHERWINI MUNICIPALITY**

**PLEASE VERIFY WHICH LOGO NEEDS TO USED**

## EPWP LOGO

  
**EXPANDED PUBLIC WORKS PROGRAMME**

**The Logo shall not be disproportionately stretched. A monochrome black logo may be used on approval only.**

**The above logo is the current logo. Logos with green text below the words EXPANDED PUBLIC WORKS PROGRAMME are old logos and should not be utilised.**

  
EXPANDED PUBLIC WORKS PROGRAMME

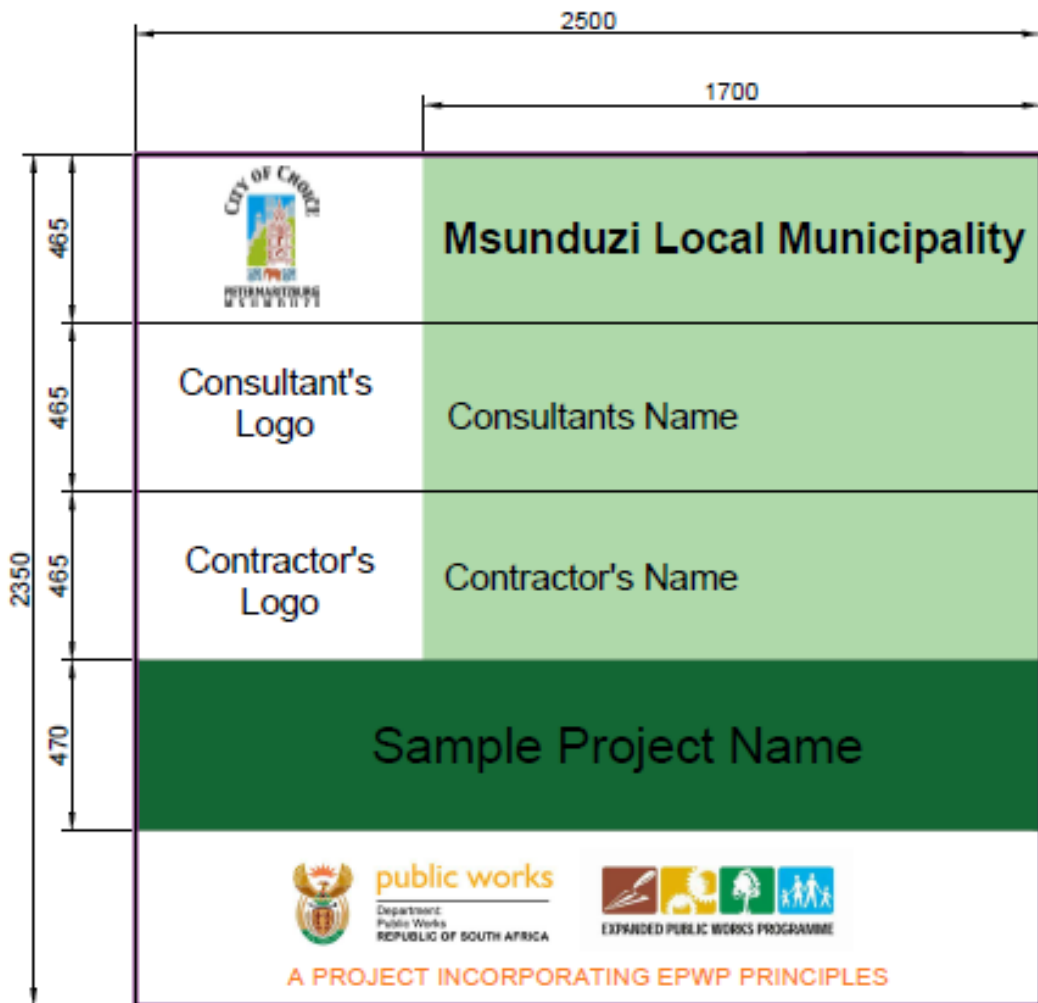
# Printing on PPE

PPE (Overalls) shall be Pantone Green with/without reflective tape and shall be branded as follows:

- Implementer's Logo (printed or embroidered) on the left front pocket location ie over the heart position. (full colour)
- EPWP logo on the right front pocket (printed or embroidered) location (full colour)
- The letters EPWP on the back of the PPE in BLACK
- The program name eg Vuk'uphile is to be printed on the right sleeve of short sleeved apparel and need not be placed on long sleeved apparel.
- Where required, lime green safety vests are to be branded with similar specification above. In this instance the Overalls may not necessarily be branded provided that the use of high visibility vests is mandatory.
- All artwork and PPE samples shall be approved and signed off by the consultant prior to printing/embroidering.



# Project Signboard Sample



**PRO FORMA EPWP CONTRACT OF EMPLOYMENT**

Contractor's  
Logo



*This contract must be read in conjunction with the standard terms and conditions of employment on EPWP attached herein.*

**EPWP CONTRACT OF EMPLOYMENT between**

**Employer Details**

<b>Name</b>	Click or tap here to enter text.	<b>Address</b>	Click or tap here to enter text.
<b>Telephone</b>	Click or tap here to enter text.		
<b>Email</b>	Click or tap here to enter text.		
<b>Contact</b>	Click or tap here to enter text.		

**And**

**Employee Details**

Name	Click or tap here to enter text.	Surname	Click or tap here to enter text.
ID:	Click or tap here to enter text.	Cell	Click or tap here to enter text.
Sex (M/F)	Male <input type="checkbox"/> Female <input type="checkbox"/>	Disability	Yes <input type="checkbox"/> No <input type="checkbox"/>
Primary Language	Click or tap here to enter text.	Physical Address	Click or tap here to enter text.
Other Languages	Click or tap here to enter text.		
Highest Education Level Achieved	Click or tap here to enter text.	Local Municipality	Click or tap here to enter text.
Other qualifications	Click or tap here to enter text.	Ward	Click or tap here to enter text.
Grant Received (Y/N)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Grant type:	

**Employment Details**

Name of project:	Click or tap here to enter text.		
Job Title:	Click or tap here to enter text.		
Duties:	Click or tap here to enter text.		
Contract Start Date	Click or tap here to enter text.	Contract Finish Date	Click or tap here to enter text.
The wage per task/day is:	R Click or tap here to enter text. / Hour/Day/task <span style="background-color: yellow;">(Specifier to select correct rate)</span>		

**Special Conditions**

<p>You must be aware that this employment contract is a limited term contract and not a permanent job. This employment contract may be terminated for any one of the following reasons:</p> <ol style="list-style-type: none"> <li>a) The contractor does not get additional contracts from the EPWP.</li> <li>b) Funding for the programme in your area comes to an end.</li> <li>c) Underperformance: first offence – final written warning. Second offence – dismissal.</li> </ol>	<p><b>Payment</b></p> <ol style="list-style-type: none"> <li>a) You will be paid a fixed amount stipulated above for completing a fixed amount of work.</li> <li>b) The amount of work required for the agreed rate of pay will vary from task to task. You will be informed at the beginning of each task or group of tasks how much work you are expected to complete per day.</li> <li>c) You will only be paid for work completed.</li> <li>d) Payment during classroom training shall be R /day</li> </ol>
<p>Personal Protective Clothing will be supplied to the employee by the employer depending on the work to be performed, and will remain the property of the employee provided that the employee has worked for at least 3 months.</p>	

**Acceptance**

Employer Name:	Employer Signature:	Employee Name:	Employee Signature:
Witness 1 Name:	Witness 1 Signature:	Witness 2 Name:	Witness 2 Signature:

**APPENDIX E – Conditions of Service**

**1. Introduction**

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

1.2. In this document –

- a) “department” means any department of the State, implementing agent or contractor;
- b) “employer” means any department, implementing agency or contractor that hires workers to work in elementary occupations on an EPWP;
- c) “worker” means any person working in an elementary occupation on an EPWP;
- d) “elementary occupation” means any occupation involving unskilled or semi-skilled work;
- e) “management” means any person employed by a department or implementing agency to administer or execute an EPWP;
- f) “task” means a fixed quantity of work;
- g) “task-based work” means work in which a worker is paid a fixed rate for performing a task;
- h) “task-rated worker” means a worker paid on the basis of the number of tasks completed;
- i) “time-rated worker” means a worker paid on the basis of the length of time worked.

**2. Terms of Work**

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

**3. Normal Hours of Work**

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

**4. Meal Breaks**

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

**5. Special Conditions for Security Guards**

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

**6. Daily Rest Period**

Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

**7. Weekly Rest Period**

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

**8. Work on Sundays and Public Holidays**

- 8.1. A worker may only work on a Sunday or public holiday to perform emergency or security work.
- 8.2. Work on Sundays is paid at the ordinary rate of pay.
- 8.3. A task-rated worker who works on a public holiday must be paid –
  - a) the worker’s daily task rate, if the worker works for less than four hours;
  - b) double the worker’s daily task rate, if the worker works for more than four hours.
- 8.4. A time-rated worker who works on a public holiday must be paid –
  - a) the worker’s daily rate of pay, if the worker works for less than four hours on the public holiday;
  - b) double the worker’s daily rate of pay, if the worker works for more than four hours on the public holiday.

**9. Sick Leave**

- 9.1. Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.
- 9.2. A worker who is unable to work on account of illness or injury is entitled to claim one day’s paid sick leave for every full month that the worker has worked in terms of a contract.
- 9.3. A worker may accumulate a maximum of twelve days’ sick leave in a year.
- 9.4. Accumulated sick-leave may not be transferred from one contract to another contract.
- 9.5. An employer must pay a task-rated worker the worker’s daily task rate for a day’s sick leave.
- 9.6. An employer must pay a time-rated worker the worker’s daily rate of pay for a day’s sick leave.
- 9.7. An employer must pay a worker sick pay on the worker’s usual payday.
- 9.8. Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is –
  - a) absent from work for more than two consecutive days; or
  - b) absent from work on more than two occasions in any eight-week period.
- 9.9. A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.
- 9.10. A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act.

Employer	Employee
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**10. Maternity Leave**

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

**11. Family responsibility leave**

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

**12. Statement of Conditions**

- 12.1. An employer must give a worker a statement containing the following details at the start of employment –
  - a) the employer's name and address and the name of the EPWP;
  - b) the tasks or job that the worker is to perform; and
  - c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
  - d) the worker's rate of pay and how this is to be calculated;
  - e) the training that the worker will receive during the EPWP.
- 12.2. An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.
- 12.3. An employer must supply each worker with a copy of these conditions of employment.

**13. Keeping Records**

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

**14. Payment**

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

**15. Deductions**

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

**16. Health and Safety**

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

**17. Compensation for Injuries and Diseases**

Employer      Employee



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

**18. Termination**

- 18.1. The employer may terminate the employment of a worker for good cause after following a fair procedure.
- 18.2. A worker will not receive severance pay on termination.
- 18.3. A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.
- 18.4. A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.
- 18.5. A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available for the balance of the 24-month period.

**19. Certificate of Service**

- 19.1. On termination of employment, a worker is entitled to a certificate stating –
  - a) the worker's full name;
  - b) the name and address of the employer;
  - c) the EPWP on which the worker worked;
  - d) the work performed by the worker;
  - e) any training received by the worker as part of the EPWP;
  - f) the period for which the worker worked on the EPWP;
  - g) any other information agreed on by the employer and worker.Either party can terminate this agreement with four weeks written notice. In the case where an employee is illiterate notice may be given by that employee verbally.

Employer	Employee
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**EPWP DATA COLLECTION TOOL TEMPLATE**  
**(PRO FORMAS OF MICROSOFT EXCEL SPREADSHEETS)**

<b>EPWP REGISTRATION FORM</b>		
<b>Field requested</b>	<b>Description if needed</b>	<b>Please complete the sections in white</b>
<b>Project Details</b>		
Profile ID	<i>Generated by the system</i>	
Project Name	<i>The name of the project</i>	
Project Reference Number	<i>Contract number</i>	
Project description	<i>Full description of what is happening in the project (as per the appointment letter) and the <b>community benefiting from the project</b></i>	
<b>Duration</b>		
Project Start Date	<i>Planned Start date of the particular contract</i>	
Project End Date	<i>Planned End date of the particular contract</i>	
Estimated Budget	<i>Overall Contract budget (excluding professional fees) for Current Financial Year</i>	
<b>Project Location</b>		
Province	<i>In which province is the project implemented?</i>	<b>KZN</b>
District Municipality	<i>Under which District Municipality does this project falls?</i>	
Local Municipality	<i>Under which Local Municipality does this project falls?</i>	
Latitude (in decimal format)	<i>Is generated by the system</i>	
Longitude (in decimal format)	<i>Is generated by the system</i>	
<b>Project Location per site</b>		
Locality name	<i>Where exactly is the project implemented? (Ward name)</i>	
Subplace	<i>Town / Village</i>	
Ward	<i>The project site is located in which ward?</i>	
Government facility	<i>Landmark near the project (Post office/school/clinic/library)</i>	
Spatial Data Type	<i>Geopoint (structure)/ Line (road)/ Polygon(area)</i>	

Site physical address	<i>Physical address of the site office</i>	
<b>Public Body Details</b>		
Public body sphere	<i>In which sphere is the project implemented? (National, Provincial or Municipal)</i>	<b>Municipal</b>
Reporting public body that is the project owner (and will report on the project)	<i>Which Institution or Department that owns / approved this project (Education, Health, City of Tshwane Metro etc.)</i>	<b>Msunduzi</b>
Department in the Public body that is responsible for the project	<i>Which department /unit is responsible for this project? (e.g. Roads &amp; storm water, Education, Community safety, etc.)</i>	<b>Msunduzi</b>
Implementing public body type	<i>In which sphere is this project implemented? (Metro, Distr, Mun, National or Provincial Dept.)</i>	<b>Municipal</b>
Public body that will implement the project	<i>Which institution that implements the project?</i>	<b>Msunduzi</b>
<b>Project Implementation</b>		
Is this the project on the municipal IDP	Yes / No	<b>N/A</b>
IDP reference number allocated to the project	<i>The number reflected in your Municipal IDP document</i>	<b>N/A</b>
<b>EPWP Details</b>		
EPWP Sector	<i>The project is implemented in which sector? (Infrastructure, Environment &amp; Culture, Non-state or Social)</i>	<b>Infrastructure</b>
EPWP Programme	<i>The project is implemented under which programme?</i>	
EPWP Sub Programme	<i>The project is implemented under which sub-programme?</i>	
<b>EPWP BUSINESS FORM</b>		
<b>Field requested</b>	<i>Description if needed</i>	<b>Please complete the sections in white</b>
<b>Project Details</b>		
Profile ID	<i>Generated by the system</i>	
Project Name	<i>The name of the project</i>	
Project Reference Number	<i>Contract number</i>	
Project description	<i>Full description of what is happening in the project (as per the appointment letter) and the community benefiting from the project</i>	

<b>Duration</b>		
Project Start Date		
Project End Date		
Estimated Budget	<i>Project Budget</i>	
<b>Project Location</b>		
Province		KZN
District Municipality	<i>Under which District Municipality does this projects falls</i>	
Local Municipality	<i>Under which Local Municipality does this projects falls</i>	
Latitude (in decimal format)	<i>GPS coordinates</i>	
Longitude (in decimal format)		
<b>Public Body Details</b>		
Public body sphere	<i>Such as Municipal or Provincial</i>	Municipal
Reporting public body that is the project owner (and will report on the project)	<i>Which Department approved the project in (education, Health, etc.)</i>	Msunduzi
Department / Unit in the Public body that is responsible for the project	<i>Which Department budgeted for the project e.g. Education, Health Directorate</i>	Msunduzi
Implementing public body type	<i>Example (Local Municipality, Distr. Mun or Provincial Dept.</i>	Municipal
Public body that will implement the project	<i>Infrastructure, Environment, or Social</i>	Msunduzi
Is this project on the Municipal IDP	<i>Municipal projects</i>	N/A
IDP reference number allocated to the project		N/A
<b>EPWP Details</b>		
EPWP Sector	<i>The project is implemented in which sector? (Infrastructure, Environment &amp; Culture, Non-state or Social)</i>	Infrastructure
EPWP programme	<i>The project is implemented under which programme?</i>	
EPWP Sub Programme	<i>The project is implemented under which sub-programme?</i>	
<b>Budget Amount-(Allocations for the project duration)</b>		

Funding Body	<i>Which Dept. is funding the project</i>	Msunduzi LM
Funding Year	<i>Financial year/s for the project</i>	
Total Budget Amount	<i>(Exclude Professional Fees)</i>	
Incentive Grant (e.g. Landcare / EPWP grant)	<i>Grant funding received</i>	
Total wages paid for the duration of the projects	<i>What amount will be spent on wages during the duration of the project</i>	
Wage Rate	<i>Daily Wage rate to be paid during productive work</i>	
Stipend Rate	<i>Daily wage rate to be paid during training</i>	
UIF	<i>The amount being paid to UIF (if applicable)</i>	
COIDA	<i>The amount being paid to COIDA(if applicable)</i>	
Training	<i>What amount will be spent on training</i>	
Administration	<i>The Administration costs</i>	
Equipment and materials	<i>Budget for Materials and Equipment</i>	
Other	<i>If other where chosen describe the other Such as Professional fees)</i>	
Describe other		
<b>Project Outputs and Training</b>		
Planned Primary Output	<i>e.g. walkways, gabions, kerb * channel, km of road constructed</i>	
Description of Planned Primary Output	<i>Describe the project output (end product and not the milestone) (e.g. kms of tar road constructed) Start with the unit of measure such as number of, kms, ha, sqms, etc</i>	
Unit of measure of primary output	<i>E.g. m, m<sup>2</sup>, m<sup>3</sup>, km, no, ha etc</i>	
Planned primary output quantity	<i>Specify the quantity of output planned</i>	
Number of persons to be trained	<i>How many persons are targeted for on job training</i>	

<b>Contact person</b>		
Title	<i>The person responsible for the Project in the Public Body (Project Manager)</i>	
Initials		
First Name		
Surname		
Email		
Tel (Office)		
Fax Number		
Cell Number		
Physical Address 1		
Physical Address 2		
Physical Address 3		
Physical Address 4		
Postal Address 1		
Postal Address 2		
Postal Address 3		
Postal Address 4		
Position of person		



Participation Training Data													
Course ID	Course Name	Code	Training category  (Accredited/non-accredited)	Type of training courses (Unit standard, Trade Titles, Short courses, Public body specific)	Start	End  (for the entire training duration)	Number of Trainees	Number of Days	Cost (for the entire training course)	Status of training  (Not started, In progress, Completed)	Training Provider Name	Training Provider Contact Number	Training Provider Address



<b>EPWP Monthly Progress Form</b>		
Field requested	Description if needed	Please complete the sections in white
<b>Project Details</b>		
Profile ID	<i>full description of what is happening in the project (as per the appointment letter) and the community benefiting from the project</i>	
Project Name	<i>The name of the project</i>	
Project Reference Number	<i>Contract number</i>	
Project description	<i>Full description of what is happening in the project (as per the appointment letter) and the community benefiting from the project</i>	
<b>Month</b>		
Reporting Month		April
<b>Budget Expenditure</b>		
Cumulative Expenditure Amount	<i>What is the Overall amount spend on this project?</i>	
Current Expenditure Amount	<i>What is the amount spend including all grants for this month?</i>	
Wages	<i>How much paid on wages for this month only?</i>	
UIF	<i>How much paid on UIF for this month only?</i>	
COIDA	<i>How much paid on COIDA for this month only?</i>	
Stipends for training	<i>Amount paid to participants whilst on training (this month only)</i>	
Amount spent on service providers for training	<i>How much paid to service providers for training for this month only?</i>	
Training	<i>Total Cost of training for this month? (number captured on ERS)</i>	
Administration	<i>How much paid on administration for this month only?</i>	
Equipment and materials	<i>How much paid on equipment and materials for this month only?</i>	
Other	<i>How much paid on other?</i>	
Describe other	<i>Be specific e.g. Consulting fees, Transport etc.</i>	
Project output description	<i>Describe the project output (end product and not the milestone) (e.g. kms of tar road constructed) Start with the unit of measure such as number of, kms, ha, sqms, etc</i>	
Unit of measure of primary output	<i>E.g. m, m<sup>2</sup>, m<sup>3</sup>, km, no, ha etc</i>	
Cumulative primary output achieved	<i>Since the onset of the project</i>	
Quantity Achieved	<i>enter numeric output for this month only</i>	
Percentage achieved	<i>How much work done/achieved in percentages?</i>	
<b>EPWP Branding</b>		
Branding compliant	<i>Yes / No</i>	
Date that the branding was provided	<i>When was the project branded?</i>	
Has a photo of project branding been provided?	<i>Yes / No</i>	
First name of Official Who Branded Project	<i>Official Name</i>	
Surname of Official Who Branded Project	<i>Official Surname</i>	
Phone number of official who erected branding for the project	<i>Official contact number</i>	
Give the public body reference and name, and organisational details of the person that provided branding.	<i>Public body details ( reference &amp; name)</i>	



**C3.3 PARTICULAR SPECIFICATIONS**

## THE CLIENT'S PRE-CONSTRUCTION HEALTH AND SAFETY SPECIFICATION

### PE 1 INTRODUCTION

#### PE 1.1 Purpose and Scope

This document describes the procedure upon which the COMPANY shall comply with the requirements set out in the client's Health and Safety Specification. This document defines the Management System that is implemented by the COMPANY for the management of Health and Safety on the project, which includes ensuring subcontractor compliance with the same standards.

The aim of this document is to present the safety aspects that will be controlled and managed on the project.

### PE 2 REFERENCE DOCUMENTS

- Occupational Health and Safety Act, (Act No. 85 of 1993)
- Compensation for Occupational Injury and Diseases Act.
- Client Health and Safety Specification.
- Construction Regulations 2003.
- The Construction Kit. (CD)

### PE 3 DEFINITIONS

**The following definitions will apply to the Safety Management Plan, acronyms given hereunder shall apply:**

**Construction/Building Work** (as defined by the Occupational Health and Safety Act: Construction Regulations 2003):

This means any work in connection with –

- a) The erection, maintenance, alteration, renovation, repair, demolition, or dismantling of or an addition to a building or any similar structure;
- b) The installation, erection, dismantling, or maintenance of a fixed plant where such work includes the risk of a person falling;
- c) The construction, maintenance, demolition, or dismantling of any bridge, dam, canal, road, railway, runway, sewer, or water reticulation system or any similar civil engineering structure; or
- d) The moving of earth, clearing of land, or making of an excavation or work on any similar type of work.

#### **Hazard Identification and Risk Assessment and Risk Control (HRA)**

Means a documented plan, which identifies hazards, assesses the risks, and detailing 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.

**Site**

Means the area in the possession of the Contractor for the construction of the works. Where there is no demarcated boundary it will include all adjacent areas, which are reasonably required for the activities for the Contractor, and approved for such use by the Engineer and/or client.

**The Act**

Means, unless the context indicates otherwise, the Occupational Health and Safety Act, 1993 (ACT NO. 85 of 1993) and Regulations promulgated there under. (OHSA)

**Hazard**

Means a source of or exposure to danger (source which may cause injury or damage to persons, or property).

**Risk**

Means the probability or likelihood that a hazard can result in injury or damage.

**Contractor's Responsible Person / s**

Means any person appointed in writing by the Contractor to supervise construction or building work. The appointment shall be as required by the OHSA which shall stipulate health and safety responsibilities, area of responsibility, and the proposed duration of the project.

**Hazardous Chemical Substance (HCS)**

Means any toxic, harmful, corrosive, irritant, or asphyxiant substance, or a mixture or substances for which an occupational exposure limit is prescribed, or an occupational exposure limit is not prescribed, but which creates a hazard to health.

**Construction Plant (TEM)**

Encompasses all types of plant including but not limiting to, cranes, piling frames, boring machines, excavators, dewatering equipment, and road vehicles with or without lifting equipment.

**Contractor**

Means "subcontractor".

**Health and Safety Program**

Encompasses the COMPANY safety planning spreadsheet.

**Health and Safety Plan (HSP)**

The content of this document which will be made available on-site for inspection by an inspector, Technical Officer, Agent, subcontractor, employee, registered employee organisation, health and safety representative, or member of the health and safety committee.

**Health and Safety File**

Describes the safety file holding all records on health and safety for the project, which shall be available at all, times for evaluation, and a copy of which will be forwarded to the client upon completion of the project.

PE 4.1 Notification of Intention to Commence Construction Work

The Provincial Director of the Department of Labour shall be notified by the appointed safety consultant to the COMPANY, immediately upon receipt of the Letter of Acceptance of project commencement in accordance with the following requirements:

- The demolition of a structure exceeding a height of 3 meters; or
- The use of explosives to perform construction work; or
- The dismantling of fixed plant at a height greater than 3 meters; or
- The work exceeds 30 days or will involve more than 300 person days of construction work; and
- Includes excavation work deeper than 1 meter; or
- Includes working at a height greater than 3 meters above ground or a landing.

A copy of the notification letter to the Provincial Director shall be forwarded to client for their records and shall be made available to an Inspector, Project Engineer or employee.

PE 4.2 Assignment of Contractor's Responsible Persons to Supervise Health and Safety on Site

The Contracts Manager and Site Agent shall ensure copies of all the appointment letters of the responsible persons appointed on site will be made available to the client and that all legal appointments shall be conducted in accordance with the requirements set out in the OHS Act and Client specifications.

The above shall also be imposed upon all subcontractors.

PE 4.3 Safety Officer Appointment

A part-time Health and Safety consultant shall be appointed upon commencement of the project.

The safety officers shall be tasked with monthly inspections of the site, the results of which shall be forwarded to the client or his appointed representative.

PE 4.4 Risk Assessment Competent Person

The Project Manager shall appoint a competent person in writing at commencement of the project to control the risk assessment process on site. A copy of the risk assessment appointment is attached with duties and responsibilities defined. **(Annexure E)**

PE 4.5 Competency for Contractor's Responsible Persons

The Project Manager acknowledges that all management personnel (responsible for health and safety) shall undergo a half-day Health and Safety Management Course, which is to be arranged and conducted by the appointed safety consultant prior to commencement of activities on site.

PE 4.6 Health and Safety Representatives

At least one (1) Health and Safety Representative shall be nominated, elected, and trained to carry out his / her functions in his / her area of responsibility. This will include areas where less than fifty (50) employees are engaged in activity. Employees elected shall be designated in

writing for a specific area and period of time.

The designated persons shall conduct monthly inspections within their area of responsibility, the records shall be kept for auditing and that deviations recorded are reported to the responsible supervisor within the designated persons area so that appropriate action can be taken.

The designated person/s shall be permitted to participate in the Health and Safety Committee Meetings.

#### PE 5 OBJECTIVES AND TARGETS

- Compliance with the COMPANY Health and Safety Policy.
- Everyone is responsible for organising accident prevention at his or her own level on site.
- Safety training is important.
- Prevention.
- Working safely ensures your job.
- The COMPANY management commits itself to the objectives and targets.
- Disabling Injury Frequency Rate (DIFR) of 2.0 or less.
- 90% compliance on monthly Health and Safety Audits.
- Compliance with the legal requirements set out in the Occupational Health and Safety Act, Act 85 of 1993, (OHSA), and Regulations.
- Compliance with the Client's Safety Specification for Construction.

#### PE 6 PLANNING AND PROCEDURES

The procedures to be used for the project are to be in accordance with the Safety Manual in use in the COMPANY under the guidance of the appointed safety consultant.

The sub-headings covered under the Safety Manual are as follows:

- Administration
- Appointments
- Safety Committees
- Registers, checklists, and permits
- Incident Management
- Emergency Planning
- Contractors
- Risk Assessments

- Audits
- Hazardous substance control
- Training
- Mining Requirements
- Roads Requirements
- Planning

PE 7 IMPLEMENTATION OF THE OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION

The COMPANY is committed to implementing client specific safety specification on the project and is committed see that this forms an integral part of the project. It is our intention to make this specification part of other Contractors and Suppliers operating procedures.

PE 8 APPLICATION OF THE HEALTH AND SAFETY SPECIFICATION

PE 8.1 Compensation of Occupational Injuries and Diseases Act, Act No. 130 of 1993 (COIDA)

The letter of good standing will be available on site for reference purposes as proof of good standing.

The COMPANY shall ensure all Contractors also comply with the above requirements defined in the COIDA.

PE 8.2 Occupational Health and Safety Policy

The COMPANY Health and Safety Policy is attached for reference purposes. **(Annexure A)**.

PE 8.3 Hazard Identification Risk Assessment

The Contract Manager shall ensure the Site Agent shall prior to the commencement of any construction work perform Hazard Identification, and the assessed risks shall form part of the health and safety plan applied on site.

A copy of the HRA shall be made available for viewing to the client.

The Site Agent shall ensure that all HRA's conducted will be conveyed to all personnel and contractors through the site training program and that these training sessions will be presented by the competent person regarding the hazard and related work procedures before any work commences.

The HRA Team that will be established will comprise members as follows:

- Health and Safety Representative(s),
- Health and Safety Committee Member(s)
- Management Representative / Site Agent

Attached in the form of **Annexures B and C**, the Hazardous Task Identification and (HTI) and format of the Risk Assessment (RA) are included.



Method statements form part of the Risk Process and will conduct in accordance with the Risk Process described above.

Based on the activities carried out on all projects Hazard Investigation and Risk Assessments (HRA's) will be done. Examples of which are:

- Site Establishment
- Demolition works
- Excavation
- Concrete works
- Lifting operations
- Hand-held tools
- Motorised Equipment

#### PE 8.4 Health and Safety Committee

The Project shall convene a health and safety committee meeting monthly. All members required to be in attendance shall be notified of such meeting by means of a formal agenda.

The Site Agent shall ensure an attendance register and minutes are kept for auditing purposes, and that a copy of the minutes be circulated to all members in attendance well before convening the next meeting and within 7 days, a copy of the minutes will be forwarded to the project engineer.

Members of the committee shall include the following and are not limited to:

- Safety Consultant. (When available)
- Contractor's site representative. (Supervisory level)
- Contractor's site representatives. (Operating level)
- Project Engineer nominated representative. (Co-opted status)

#### PE 8.5 Health and Safety Training

Training of personnel is a legal requirement and a necessity and is acknowledged as such. The Training Planning Matrix shall be provided upon request.

##### PE 8.5.1 Induction Training

Induction training shall be attended with the Client as well as the COMPANY Induction program requirements and records of attendance kept to prove the same.

The COMPANY Induction format is attached for reference purposes. **(Annexure D).**

##### PE 8.5.2 Awareness Training

Weekly awareness training shall be conducted using The COMPANY Toolbox Talk documents,

which shall be conducted by the site supervisors. **(Annexure E)**

PE 8.5.3 Competency

Training identified through the Risk Assessment Process and conducted through this process shall be kept on file as proof of competency and training. (This may include operators).

PE 8.5.4 First Aid and Health & Safety Representative Training

All safety representatives elected and designated, including first aiders, shall be trained should they not already be in possession of a valid certificate of training proving competence.

PE 8.6 GENERAL RECORD KEEPING

The Site Agent shall ensure that all the Health and Safety records, required by both the Occupational Health and Safety Act, 85 of 1993 and Regulations are kept for reference purposes and auditing.

Further to the requirements set out above, the Site Agent will also maintain records that may be defined through the risk assessment process, for auditing purposes.

In accordance with the requirements set out in the Construction Regulations 2003 and the requirement set out in Client Specification the Site Agent shall ensure that a copy of all Health and Safety records generated during the course of construction, be handed over to the Project Engineer upon completion of construction.

PE 8.6.1 Statistics

The Site Agent shall ensure injury and incident records (Near Hits, First Aid, Medical cases, Disabling Lost Time Incidents), training, etc. referred to above are kept on site. All documents shall be made available to the client for inspection including the Department of Labour's Inspectors as required by the Occupational Health and Safety Act, 85 of 1993.

The statistics formula as listed below shall be adhered to.

DIFR (Disabling Injury Frequency Rate) DI's x 1 000 000

Man-hours

DISR (Disabling Injury Severity Rate) Days Lost x 1 000

Manhours

PE 8.6.2 General Inspection, Monitoring and Reporting

The COMPANY shall comply with the requirements set out by the client. An agreed safety management plan must be prepared upon which the dates of inspections and training and awareness will be entered, conducted, and monitored.

The COMPANY shall keep all records of inspections and investigations undertaken during the contract for the specified legal period as defined in the OHSA and Regulations.

PE 8.6.3 Internal Audits

Internal audits shall be conducted a minimum once per month by the project engineer, as well as

the appointed safety consultant.

The Results shall be tabled and discussed at the Health and Safety Committee meetings.

The Audits to be conducted by the appointed safety consultant shall be conducted on the audit schedule attached as per **Annexure F**.

Records of the audits shall be forwarded to the Project Engineer and shall be filed on-site for reference purposes.

PE 8.7 Incentives

No incentive scheme is being identified unless required by the client.

PE 8.8 Penalties

Non-compliance with the client safety specifications can result in work stoppages and possible expulsion from the site until the problem has been remedied including costs.

PE 8.9 Emergency Procedures

The Site Agent shall make available to the Project Engineer a detailed Emergency Plan to tie into the evacuation plan already in place on the client's premises.

PE 8.9.1 First Aid Box and Contents

The Site Agent shall ensure that all working areas area adequately provided with first aid attendants whether there are fifty (50) employees or less engaged on the contract. The First Aid attendant shall be trained in accordance with the requirements set out in the OHSWA with recognised and accredited service providers as defined above.

Proof of training attended (certificate) shall be attached to the written acceptance of appointment. It will be the first aid attendant's responsibility to ensure the contents of the first aid boxes are monitored and inspections recorded on the contents of the first aid box register.

The first aid box shall be adequately stocked by The COMPANY at all times and will be accessible to all.

PE 8.9.2 Accident and Incident Reporting and Investigation

Should accident investigation need to be conducted, the Project Manager shall appoint a competent person in writing to conduct the said investigation. The procedure to be followed will be in accordance with the OHSWA requirement on the Annexure 1 – Recording and Investigation of Incident form.

The Site Agent shall ensure that the results of all investigations are communicated to the employees engaged through incident recall and prescribed meetings. The Site Agent shall ensure that the investigations are kept for record purposes in accordance with the prescribed requirements set out in the OHSWA and the company specific procedures.

Should there be an incident, the Project Engineer shall be notified within 48-hours if required by the client, of the occurrence. It is acknowledged that the client reserves the right to participate in all investigations into accidents or incidents.

PE 8.10 Hazards and Potentially Hazardous Situations

The Site Agent shall ensure that all other contractors or contractors are warned of hazardous or potentially hazardous situations, which may prevent them from effectively performing their duties, which includes the placement of adequate warning signs.

PE 8.11 Personal Protective Equipment and Clothing

The COMPANY shall comply with OHSWA requirements to provide PPE.

The Site Agent shall through the Risk Assessment process identify the specific PPE needs per activity and then issue the PPE accordingly. (Reference to the OHSWA General Safety Regulation 2 – Employer to provide Personal Protective Equipment).

Should PPE be lost or stolen, then the employee will be issued with a new set of PPE.

Should PPE be worn out or damaged, the user shall return the worn or damaged PPE and will be issued with a replacement set. Training in the use of this shall be provided.

Overalls and hardhats shall be identifiable. (Principal Contractor different from the contractors)

PPE shall be provided to visitors as well.

PE 8.12 Safety Signage

The Site Agent in conjunction with the appointed safety consultant shall assess the Health and Safety Signage requirement in conjunction with the Risk Assessments conducted and will place the signage at strategic positions on the site works.

The COMPANY shall also maintain the signage to ensure its effectiveness at all times and under all conditions. Signage, which cannot be repaired, shall be replaced.

PE 8.13 Permits

- The COMPANY shall ensure that access to site works is restricted to construction personnel.
- All attempts will be made to restrict spectator access.
- Access to the site shall be by the Project Engineers (Clients) authorisation on the prescribed form. (Permits and ID cards shall be issued by the client)
- Special permits for hot work and isolation permits shall be applied for to the Project Engineer prior to commencing with the activity.

PE 8.14 Contractors and Suppliers

The Site Agent shall enter into an Agreement with Mandatary in terms of Section 37(2) of the Occupational Health and Safety Act, 85 of 1993, with all contractors appointed by The COMPANY is entered into.

The Contracts Manager will ensure the contractors are issued with the Client Safety Specification where reasonably practicable including any the COMPANY contractor pack for the project, should they not be contained in the Client Safety Specification.

The COMPANY shall assist and ensure the contractors engaged comply with all of these requirements and adhere to the requirements set out in the OHSWA.

Contractors will be stopped from working in the event of unsafe conditions and activities being

observed.

All contractors shall be covered by the COMPANY Safety Plan and will be issued the same.

PE 9 HEALTH AND SAFETY IN PRACTICE

PE 9.1 Excavations

The Site Agent shall ensure that in all activities involving excavations, shoring, dewatering, or drainage, a safe working procedure is submitted to the project engineer for approval prior to work commencing. Excavation work exceeding the specified depth as stipulated in the OHSWA regulations, shall comply with the following requirements:

- a) The excavations are inspected before the shift starts, after heavy rain (inclement weather), and after any major condition which may effect the excavations stability, and the findings are to be recorded and kept;
- b) All excavations regardless of the depth shall be adequately barricaded to prevent persons falling into the excavation;
- c) The safe working procedure shall be communicated to all employees who may be effected by the work; and
- d) The safe working procedures shall be enforced and maintained by the appointed excavation supervisor at all times.
- e) For high-risk activities, all personnel working in the excavation shall be attached by means of a lifeline.
- f) Material excavated shall be removed from the point of excavation.
- g) Ensure stability of adjoining structures.

PE 9.2 Demolition

There is going to be a considerable amount of demolishing of small structures that are along the route of the pipelines. These may include small retaining walls, paved driveways, etc. The contractor is required to take at least three photographs which must be correctly numbered to reflect the property number/address of where that structure is situated. The photos must ideally be a front view, left side view and right-side view. These photos must be taken prior to any work starting in that area and also after the work has been completed.

PE 9.3 Explosives and Blasting

No blasting activities are envisaged on this project.

PE 9.4 Stacking of Materials and Housekeeping

The Site Agent shall ensure that all stacking will be supervised by a person competent to supervise over the activities, and that clearly defined and allocated storage areas are provided for and identified, and that materials being stored within this area are stacked in accordance with sound stacking principles of sort-by-sort, access to be maintained, level surface, and the height will not exceed three times the base width.

Housekeeping shall be maintained in accordance with the client requirements at all times.

PE 9.5 Hazardous Chemical Substances

The Site Agent shall ensure the necessary training and information regarding the use and storage of HCS is provided, and that the use and storage of HCS is carried out as prescribed by the HCS

Regulations.

Furthermore, the Site Agent shall ensure that all chemicals brought to site have a Material Safety Data Sheet (MSDS) and the users are made aware of the Occupational hazards and precautions that need to be taken when using the chemical.

The First Aider shall be made aware of the MSDS and how to treat HCS incidents appropriately.

Access to all HCS records shall be afforded to the project engineer at all times.

PE 9.5.1

Fuel / Diesel

- Bulk storage areas shall be demarcated, secured, and sign posted with the relevant warning pictograms.
- Bulk storage areas shall be bunded.
- Re-fuelling shall be conducted in designated re-fuelling areas only.
- Spill-kits shall be available at all times in these designated areas.
- The surface of the bunded areas and walls shall be of impermeable material.
- The bunded area shall be sloped towards a collection pit.

PE 9.6

Asbestos

No asbestos is to be used on this Project.

PE 9.7

Plant and Machinery

PE 9.7.1

Construction Plant

- All plant shall comply with the OHS Act requirements in relation to operation and maintenance thereof.
- Service and maintenance of the vehicles shall be of a high standard at all times.
- All plant shall subject to design be fitted with back-up alarms and audible indicating devices.
- The COMPANY shall ensure that all construction plants moving parts are adequately protected.
- Pre-start inspections shall be conducted on all motorised equipment daily, deviations of such inspections shall be recorded.
- Construction plant identified for use shall be operated by a trained and authorised operator.
- All construction plant shall be operated under the direct supervision of a person competent to identify potential hazards in the work he is conducting.
- Work involving the use of construction plant shall be conducted in accordance with an approved Risk Assessment.
- The Site Agent shall ensure all operators are equipped with the necessary PPE namely; safety shoes, overall, safety glasses, and gloves.
- Plant shall be fitted with an extinguisher where practicable.
- Washing shall be conducted in the designated washing areas.

The COMPANY shall ensure that all equipment moving to and from site is adequately secured, and that all contractors abide by this requirement.

PE 9.7.2 Transport of Personnel

- Safe vehicular transport shall be provided for personnel working on the project to the workplace, which shall include proper seating, side restraints, and cover.
- No personnel shall be permitted to travel on any plant or equipment on the site works.
- Road safety principles shall be adhered to on and off-site.

PE 9.7.3 Vessels under Pressure (VuP) or Gas Bottles

The COMPANY shall ensure they comply at all times with the requirements of Vessels under Pressure Regulations, with specific reference to the following:

- Ensuring all Equipment owned and hired-in Vessels under pressure, comply with the 36-month pressure vessel inspection, and a certificate of testing is available on site.
- Ensuring that all personnel who shall use this equipment are competent and trained.
- Ensuring the users of this equipment are issued with the required PPE.
- Ensuring the area is adequately identified as a noise area and warnings are posted.
- Ensuring daily pre-start inspections are carried out on all the equipment and the findings recorded.
- Ensuring the correct fire prevention and fighting equipment is available at all times.
- Noise levels where possible shall be kept within reasonable operating norms.

PE 9.7.4 Fire Equipment

The Site Agent shall ensure the following all fire equipment to be used on site comply with the following:

- Extinguishers shall be placed in positions to ensure fast and easy access is maintained at all times.
- Placement of all extinguishers shall be depicted with the required pictograms.
- Extinguishers shall be serviced once annually and after discharge or visible signs of depressurisation.
- The Site Agent shall ensure all employees are adequately trained in the safe use of the extinguishers.
- The Site Agent shall ensure a person is appointed to inspect the extinguishers on a monthly basis and the results of which are to be entered into a register designed for that purpose.

PE 9.7.5 Hired Plant and Machinery

The Site Agent shall ensure the following criteria are adhered to when considering hired plant and machinery:

- Only approved hire companies shall supply equipment to the site.
- Hired plant shall be checked for safety compliance prior to being accepted for use on site.
- Should hired equipment be accompanied by an operator, The COMPANY shall ensure that the operators competency is verified and the operator undergo an induction training session.
- The Site Agent shall ensure the operators of the hired plant attend weekly toolbox talks



in conjunction with The COMPANY site personnel.

- The Site Agent shall ensure that all operators are equipped with the required PPE before commencing work on site.

PE 9.7.6 Scaffolding / Working at Heights / Fall Protection

Work involving scaffolding and work at heights shall comply with the requirements set out in the Construction Regulations 2003 pertaining to these activities with reference to the SABS 085 code of practice.

Fall protection planning shall be done in conjunction with the risk assessment process.

All scaffolds shall be erected under the control of a person trained and appointed to conduct such scaffold erection.

PE 9.7.7 Falsework / Formwork for Structures

Work involving scaffolding and work at heights shall comply with the requirements set out in the Construction Regulations 2003 pertaining to these activities with reference to the SABS 085 code of practice.

PE 9.7.8 Lifting Machinery and Tackle

The Site Agent shall ensure that the use of Lifting Machinery and Tackle is done in accordance with the requirements of the Regulations, which include but are not limited to the following:

- Lifting machinery and tackle to be used on site shall be marked with the Maximum Mass Load (MML), which is the safe limit in which the equipment may be used.
- Inspections on Lifting Machines and Lifting Tackle shall be inspected once per month on the register provided and the findings recorded.
- Daily pre-start checks shall also be conducted on all Lifting Machinery and Tackle.
- Records shall be kept of all lifting machinery and tackle inspections and Load Tests.
- Load tests shall be conducted a minimum of once per annum and a certificate of compliance shall be kept on record.
- A valid logbook shall be maintained for all lifting machinery, which will comply with a minimum six-monthly service and maintenance.
- Lifting machinery shall be operated under supervision at all times with a trained banksman who shall inspect all tackle before each lift.
- All lifting equipment operators shall be trained once every two years and a copy of such training shall be attached to the appointment, which is to be made on site.
- The Operators shall be tested for medical fitness.

PE 9.7.9 Ladders and Ladder Work

The following requirements shall be complied with regarding Ladders and Ladder work:

- Ladders shall be clearly numbered, and inspected on the register provided.
- A competent person shall be identified and appointed as the ladder inspector.
- Where aluminium ladders cannot be used, then wooden ladders shall be straight grained, unpainted to allow for proper inspection of the grain for cracking.
- Ladders shall be secured at the top and chocked at the base to prevent slipping.
- Where chocking of the base is not possible, then the user shall ensure that the ladder is

held in position by another employee when ascending the ladder.

- Ladders shall be inspected a minimum once per month by the person appointed as the ladder inspector.
- Proper storage shall be provided for all ladders when not in use.

PE 9.7.10      General Machinery

In accordance with General Machinery Regulation 2(1), The COMPANY shall:

- Ensure a competent person be appointed as defined in the above clause from the Occupational Health and Safety Act, 85 of 1993 and Regulations, to service and maintain all machinery in use on site.
- The COMPANY shall appoint additional competent persons to assist the competent person mentioned above in accordance with General Machinery Regulation 2(7)(a), as and when required.
- The COMPANY shall ensure that records are maintained of all services conducted.

PE 9.7.11      Lighting and Power

The Site Agent shall ensure lighting circuits and power circuits are fitted with suitable earth leakage systems in accordance with the client, which will include the following activities:

- Earth leakage system will be tested monthly.
- Malfunctions shall be repaired immediately or replaced.
- Lighting shall be so positioned as not to interfere with construction activities.

PE 9.7.12      Portable Electrical Tools / Explosive Power Tools

The Site Agent shall ensure the following procedure is adhered to regarding Portable Electrical Tools and Explosive Powered tools:

- Minimum compliance with legislation.
- Only competent persons shall be permitted to conduct routine and monthly inspections on the equipment.
- Persons competent to inspect the equipment shall be appointed in writing.
- Persons who are trained to operate such equipment shall be appointed and shall be the only authorised person to operate the equipment.
- The Site Agent shall ensure operation of the equipment is in accordance with the approved Risk Assessment and Safe Working Procedure set out.
- All users shall undergo regular awareness training to ensure compliance.
- The Site Agent shall ensure the required PPE and clothing is provided and maintained.

PE 9.7.13      Public Health and Safety

In the interests of public safety, The COMPANY shall ensure that all persons who may be affected by the work being conducted on site are informed and kept aware of the dangers, which may arise from the work being conducted on site.

This awareness shall be in the form of posters and inductions for visitors to site and warning signs.

PE 9.7.14 Night Work

Night work shall only be conducted upon approval of the project engineer, with the same safety standard being applied for these activities as with day work activities.

PE 9.7.15 Facilities for Safe Keeping/Eating Areas

The COMPANY shall ensure that adequate facility is provided for the personnel on site. The area shall provide the following:

- Sufficient seating;
- Seating under cover;
- Protected change room;
- Toilets.
- Hand wash facility.
- Potable water.

No food preparation shall be conducted on site and designated eating areas will be made to allow adequate seating.

Waste bins shall be strategically placed and cleared regularly.

ANNEXURE A (Safety Policy)

**CONTRACTOR TO PRODUCE AS SPECIFIED**

ANNEXURE B (HTI)

<b>HAZARDOUS TASK IDENTIFICATION (HTI)</b>													
Ser no:	INFORMATION REQUIRED	DETAILS								SIGNATURE		Key Table	
1	Name of contract:											0=	NONE
2	Date prepared:									1=	LOW		
3	Prepared by:									2=	MEDIUM		
4	Name of person approving:									3=	HIGH		
Risk Assessment (RA) Code	<b>LIST OF ALL STANDARD TASKS</b>	What is the future potential that this task can cause further....								Total Score Yes = 3 / No = 0	Rating	Doc Required	
		Is it a new or unusual task?	Is it a dangerous task?	Personal injury	Health risk	Impact on the environment	Property damage	Fire	Has the task caused previous injury / loss?				
RA-1	Site clearing - manual labour & small tools	1	1	1	1	1	1	1	0	7	LOW RISK	MST	
RA-2	Site clearing - using mechanical means									0	LOW RISK	MST	
RA-3	Site establishment - FSM erection / dismantling									0	LOW RISK	MST	
RA-4	Site establishment - Container store / office offload									0	LOW RISK	MST	
RA-5	Excavations - using manual labour									0	LOW RISK	MST	
RA-6	Excavations using motorised plan									0	LOW RISK	MST	
RA-7	Excavations - working inside < 1.5 metres									0	LOW RISK	MST	
RA-8	Excavations - working inside > 1.5 metres									0	LOW RISK	MST	
RA-9	Batching plants - erection / dismantle									0	LOW RISK	MST	
RA-10	Batching plants - general working and operation									0	LOW RISK	MST	
RA-11	Concrete mixing - using manual labour									0	LOW RISK	MST	
RA-12	Concrete mixing - using mechanical means									0	LOW RISK	MST	
RA-13	Concrete pours - using lifting machinery (Cranes etc)									0	LOW RISK	MST	
RA-14	Concrete pours - using motorised plant (dumpers etc)									0	LOW RISK	MST	
RA-15	Concrete pours - using mechanical pump									0	LOW RISK	MST	
RA-16	Lifting Equipment - Tower crane erection / dismantle									0	LOW RISK	MST	
RA-17	Lifting Equipment - Tower crane operation									0	LOW RISK	MST	
RA-18	Lifting Equipment - Mobile crane operation									0	LOW RISK	MST	
RA-19	Lifting Equipment - Telescopic handler operation									0	LOW RISK	MST	
RA-20	Lifting Equipment - Forklift operation									0	LOW RISK	MST	
RA-21	Lifting Equipment - using lifting tackle									0	LOW RISK	MST	
RA-22	Formwork - general erection / dismantling									0	LOW RISK	MST	
RA-23	Formwork - lifting and placing large panels									0	LOW RISK	MST	
RA-24	Formwork - work on support decks									0	LOW RISK	MST	
RA-25	Scaffolding - erect / dismantle small scaffolds < 2 m									0	LOW RISK	MST	
RA-26	Scaffolding - erect / dismantle large scaffolds > 2 m									0	LOW RISK	MST	
RA-27	Scaffolding - use of mobile scaffolds									0	LOW RISK	MST	
RA-28	Scaffolding - dismantling of scaffolding									0	LOW RISK	MST	
RA-29	Demolition - using small electric breakers									0	LOW RISK	MST	
RA-30	Demolition - using compressed air breakers									0	LOW RISK	MST	
RA-31	Demolition - using motorised mechanical means									0	LOW RISK	MST	
RA-31	Demolition - using explosives / blasting operations									0	LOW RISK	MST	
RA-33	Trades - Brickwork operations									0	LOW RISK	MST	
RA-34	Trades - Plastering operations									0	LOW RISK	MST	
RA-35	Trades - Painting operations									0	LOW RISK	MST	
RA-36	Trades - Ceiling operations									0	LOW RISK	MST	
RA-37	Trades - Roofing installations									0	LOW RISK	MST	
RA-38	Trades - glazing installations									0	LOW RISK	MST	
RA-39	Trades - Tiling operations									0	LOW RISK	MST	
RA-40	Trades - carpentry (Doors / windows)									0	LOW RISK	MST	
RA-41	Trades - Metal work (Doors / windows)									0	LOW RISK	MST	
RA-42	Trades - Steel erection									0	LOW RISK	MST	
RA-43	Trades - plumbing									0	LOW RISK	MST	

ANNEXURE C (Risk Assessment)

RISK ASSESSMENT													
TASK / ACTIVITY NAME:		Risks identified						AREA:		Immediate Action Required		Safe Working Procedure	
No	Task Steps	Probability	Severity	Frequency	Risk Score	Rating	SWP Required	Control Methods				RA Committee	
								Most Critical Hazards		Control Methods		Name:	Sign:
		Methods Used to Minimise Risk											
1	Engineering Risk Out	<input type="checkbox"/>	Fatigue	<input type="checkbox"/>	PPE Selection	<input type="checkbox"/>	Codes of Practice	<input type="checkbox"/>					
2	Use of Specialized PPE	<input type="checkbox"/>	Speed	<input type="checkbox"/>	PPE Issue Records	<input type="checkbox"/>	Supervisory Controls	<input type="checkbox"/>					
3	Introduce Specialized Controls	<input type="checkbox"/>	Engine Failure	<input type="checkbox"/>	Signs at Area of Use	<input type="checkbox"/>	Training of Personnel	<input type="checkbox"/>					
4	Training	<input type="checkbox"/>		<input type="checkbox"/>	Safety Talks	<input type="checkbox"/>	Training Records	<input type="checkbox"/>					
5		<input type="checkbox"/>		<input type="checkbox"/>	Safe Work Procedures	<input type="checkbox"/>		<input type="checkbox"/>					
6		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
7		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
8		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
9		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
10		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
11		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
12		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
13		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
14		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
15		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
16		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
17		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
18		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
19		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					

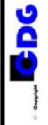
A		B		C		D	
Probability an accident may occur		Severity		Hazard Frequency		Risk Score / Criticality	
6	Inevitable	6	Fatal and Permanent Dis	6	Arises every shift	14 to 18	High Risk
4	Probable	4	DLTI (50 000 - 499 999)	4	Arises every week	8 to 13	Medium Risk
2	Highly improbable	2	Medical Case (10 000 - 49	2	Arises every month	0 to 7	Low risk
0	No injury / loss	0	First Aid Case	0	Arises every year		


Probability		Severity			
6	18	6	4	2	0
4	16	16	14	12	12
2	10	10	8	6	4
0	6	4	2	0	0

RA Committee	
Name:	
Sign:	
Approved:	
Sign:	



ANNEXURE D (Safety Induction)

<b>SAFETY INDUCTION</b>		
<b>OHS Act 85 of 1993 Sections 8 &amp; 14</b>		
<b>Requirements:</b>		
<p>Every employer is required to take all reasonable measures to ensure that the requirements of the OHS Act, and regulations are observed. The general duties of employees are to carry out lawful instructions and to obey the Company's safety rules and procedures prepared in accordance with the provisions of the Act and Regulations. For this process to begin and to be formalized it is necessary for all employees to be formally inducted into the safety procedures and the completion thereof, formally acknowledged by both employer and employee.</p>		
ITEM COVERED	DONE YES/NO	REMARKS
Explain Company Policy / Site Safety Rules Provide copies of same		
Explain Section 14 of the Act		
Explain the use of Personal protective Equipment and procedures. Re: Issuing and maintenance		
Explain the meaning of symbolic signs		
Explain the procedure in the event of injury		
Explain the use of facilities and toilets		
Explain the danger of moving machinery. (DUMPER, MIXER, SKILLSAW, GRINDER Etc.)		
Explain the danger of hazardous substances (PETROL, DIESEL, OIL, GAS, PAINT Etc.)		
Explain specific Job Duties and Requirements		
Introduce : Supervisor, safety Representatives, First Aider		
<p><i>This confirms that the above named acknowledges that he/she has been instructed in the safety items listed above and has received the necessary protective clothing / equipment to use in the performance of his/her work.</i></p>		
<b><u>INDUCTION OFFICER / TRAINER</u></b>		
<b>Signature</b>	<b>Designation</b>	<b>Date</b>
<b><u>ACCEPTANCE</u></b>		
<p>I, _____ hereby acknowledge receipt of and accept and understand the requirements of this induction.</p>		
<b>Signature</b>	<b>Designation</b>	<b>Date</b>
		





ANNEXURE F (Audit Schedule)

**CONTRACTOR TO PRODUCE AS SPECIFIED**

**PARTICULAR SPECIFICATION: PSAA**

**DAYWORKS SCHEDULE**

PSAA 1 GENERAL

In cases where the Engineer orders any variation in the form, quality or quantity of the work or any extra work to such an extent that the tendered rates for specific items are no longer applicable, or where a combination of tendered rates cannot be applied to compensate for such work, the Engineer may, in terms of the General Conditions of Contract, order that the amended or extra work be carried out as daywork at the cost of labour, plant and materials. For that purpose, provision is made for the Contractor to tender his rates for labour and plant in the Daywork Schedule which forms part of this contract.

No work will be measured as daywork unless:

- (a) the Engineer agrees that the varied work is not in accordance with the specification or scope of a measured item in the contract;
- (b) the Engineer has issued an order in writing for the execution of such varied work; and
- (c) statements of plant and labour are submitted daily to the Engineer for his consideration and approval.

All work valued at the tendered rates in the Daywork Schedule will be subject to contract price adjustment as applicable to the Contract.

PSAA 2 SALARIES AND WAGES OF WORKMEN

The amount to be paid for labour will be based on the rates tendered in the Daywork Schedule for the workers executing the work. The tendered rates shall be all-inclusive and shall be held to cover all charges for the Contractor's profits, timekeeping, clerical work, insurance, establishment, superintendence, the use of hand tools, etc, and no additional surcharge over and above the tendered rates will be applicable.

PSAA 3 CONSTRUCTIONAL PLANT

The rates for constructional plant as tendered in the Daywork Schedule shall cover all costs, overheads and profit for the contractor and no further surcharge will be payable on the tendered rates. The cost of operators shall be included in the tendered rates except where otherwise specified in Clause PSAA 5 (Measurement and Payment) hereafter.

Where plant or equipment for which no rates exist in the Daywork Schedule are employed, the cost thereof shall be determined as agreed with the Engineer in terms of the General Conditions of Contract. In such cases, contract price adjustment will only be applicable if the agreed cost is based on rental rates at the time of the base month before closing of tenders, or if the ruling rates current at the time of the execution of the work are de-escalated to the base month.

The Contractor will be paid for the transport to and from the site of constructional plant not on site and specially ordered by the Engineer to be brought on site. No payment will be made for transport of equipment listed in the Contractor's Schedule of Constructional Plant in the tender document, or for equipment which has been removed from the site on request of the Contractor, or for equipment already on site, regardless of whether it appears on the Schedule of Constructional plant or not.

PSAA 4 MATERIALS

Materials required for daywork items which cannot be compensated under existing rates and have to be purchased will be paid for at cost, excluding VAT, plus a surcharge of 15%. The cost of materials provided for daywork at current rates at the time when the work is executed, will not be subject to contract price adjustment unless the prices of the materials are de-escalated to the base month for escalation.

PSAA 5: MEASUREMENT AND PAYMENT

<b>Item</b>	<b>Unit</b>
-------------	-------------

PSAA 5.1

Labour

- |   |          |
|---|----------|
| (a) Unskilled workers                                 | hour (h) |
| (b) Skilled workers (Artisans)                        | hour (h) |
| (c) Operators and drivers (where measured separately) | hour (h) |
| (d) Foremen   | hour (h) |
| (e) Others (specify)                                  | hour (h) |

The unit of measurement is the hour or part thereof during which workers were engaged in day work.

The tendered rate shall include full compensation for all salaries, wages, bonuses, pension, insurance, medical aid and other benefits as well as overheads arising from administrative personnel, site agents, supervisors, tools and profit. No surcharge will be paid on the tendered rates

The cost of operators included in the rates for constructional plant, will not be measured again under Labour.

PSAA 5.2

Constructional Plant

- |   |                      |
|---|----------------------|
| (a) Lowbed transport of plant to and from the site                                      | ton-kilometre (t.km) |
| (b) Bulldozer and Ripper  |                      |
| (i) ... (Specify power and mass)  | hour (h)             |
| (ii) ... etc. (for other bulldozers)  | hour (h)             |
| (c) Grader  |                      |
| (i) ... (Specify power and mass)  | hour (h)             |
| (ii) ... etc. (for other graders)   | hour (h)             |
| (d) Front-end loaders   |                      |
| (i) ... (Specify type, power and mass)  | hour (h)             |
| (ii) ... etc. (for other front-end loaders)   | hour (h)             |
| (e) Back-acting excavators  |                      |
| (i) ... (Specify type, power and mass)  | hour (h)             |
| (ii) ... etc. (for other back-acting excavators)  | hour (h)             |
| (f) Tractors and drawn rollers and trailers   |                      |
| (i) Tractor ..... (Specify type, power and mass)  | hour (h)             |
| (ii) Roller ..... (Specify types, masses)   | hour (h)             |
| (iii) Tractor with trailer, complete (Specify tractor and type and capacity of trailer) | hour (h)             |
| (g) Compactors  |                      |
| (i) ... (Specify type and mass)   | hour (h)             |
| (ii) ... etc. (for other types and masses)  | hour (h)             |
| (h) Compressors   |                      |
| (i) (Specify capacity and number of tools)  | hour (h)             |
| (ii) ... etc. (for other compressors and tools)   | hour (h)             |
| (i) Trucks  |                      |
| (i) (Specify type, and capacity)  | hour (h)             |
| (ii) ... etc. (for other trucks)  | hour (h)             |
| (j) Light delivery vehicles   |                      |

- |      |                         |                |
|------|-------------------------|----------------|
| (i)  | (Specify load capacity) | kilometre (km) |
| (ii) | ...etc. (for other)     | kilometre (km) |

PSAA 5.3      Cost of materials delivered to site (specify)      Provisional sum or as scheduled

The unit of measurement for sub-item 5.2(a) is the ton constructional equipment multiplied by the kilometre distance over which the plant has been transported with a lowbed transporter as ordered by the Engineer.

The unit of measurement for sub-items 5.2(b) to (i) is the hour or part thereof during which the item of plant had been in active use for the daywork operation, including stopping time of less than five minutes.

Where applicable travel time to and from the normal parking position on site, or the position of the most recent non-daywork activity, as well as stopping time exceeding five minutes shall be multiplied by a factor of 0,6. Time shall be measured by means of a vibrating clock card.

The unit of measurement for sub-item 5.2(j) is the kilometre travelled to collect or transport small quantities of materials. Kilometres travelled in light delivery vehicles by supervisors in the execution of normal supervision duties, shall not be measured for payment.

The tendered rates shall include full compensation for the supply, maintenance, service, repairs, depreciation as well as fuel, lubricants, licensing, insurance, overheads and profit. It shall also include the cost of drivers and operators except in the case of sub-item PSAA 5.2(h) where the operators of tools are paid for under labour

**PARTICULAR SPECIFICATION: PZ**

**EMPLOYER'S ENVIRONMENTAL MANAGEMENT SPECIFICATION**

for Environmental Management of Construction Projects

PSZ INTRODUCTION

**PSZ 1 SCOPE**

This specification is additional to the South African Bureau of Standards Standardised Specification for Civil Engineering Contracts and must be read in conjunction with the said specification.

This specification covers the principles, responsibilities and requirements generally applicable to implement effective environmental management during the execution of any construction contract. The aim of this specification is to ensure that construction activities are conducted in an environmentally and socially responsible manner.

**PSZ 2 PSZ 2 INTERPRETATIONS**

This specification contains clauses that are generally applicable to the implementation of effective environmental management on construction contracts. Interpretations of, and variations to, this specification are set out in the project specification.

PSZ2.1 Supporting specifications:

Reference is made to the SABS 1200 standards which are to be read in conjunction with this specification. All aspects of these SABS requirements which are relevant to environmental management during construction contracts will apply.

PSZ2.2 Principles

The following principles should be considered at all times during construction phase activities:

- The Environment is considered to be composed of both biophysical and social components.
- Construction is a disruptive activity and all due consideration must be given to the environment, particularly the social environment, during the execution of a project to minimise the impact on affected parties.
- Minimisation of areas disturbed by construction activities will minimise many of the construction related environmental impacts of the project and reduce rehabilitation requirements and costs.
- As minimum requirements, all relevant standards relating to international, national, provincial and local legislation, as applicable, shall be adhered to. This includes requirements relating to waste emissions (e.g. hazardous, airborne, liquid and solid), waste disposal practices, noise regulations, road traffic ordinances etc.
- All effort should be made to minimise, reclaim or recycle 'waste' material.

**PSZ 3 PSZ 3 DEFINITIONS**

For the purpose of this specification, the definitions given in SABS 1200 shall apply.

Additional definitions which shall apply to this specification are as follows:

Environmental Control Officer: Either an Msunduzi Local Municipality staff member or an Environmental Consultant assigned to the project on a part or full-time basis. The Environmental Control Officer will be part of the Project staff and will advise the Engineer on all environmental

matters relating to the works, in terms of this specification and the project specification, if applicable.

Environmental Officer: Either an Msunduzi Local Municipality employee (e.g. Quality Assurance Inspector) or Consultant designated to monitor the implementation and compliance with the environmental specifications and environmental management plan on a daily basis.

Cleared surface: "surface vegetation" as referred to in SABS 1200 C 2.3 will be deemed to be any woody or herbaceous vegetation but exclude grasses, sedges, rushes and reeds. Clearing and grubbing shall for the purpose of this specification mean the removal of all woody and herbaceous vegetation including stumps, but excluding grass and groundcover vegetation.

Engineer: Is to read Engineer or Supervisor (in the case of the NEC contract), whichever is applicable to the Contract.

Interested and Affected Parties (IAP): All persons who may be affected by the project either directly or indirectly, or who have an interest or stake in the area to be affected by the project. IAPs include landowners, tribal or local authorities, public interest groups etc.

Liquid Waste Stream: Any reagent solutions, fuels, oils, greases, contaminated run-off, sewerage and wash water, etc.

Open Trench: Open trench will, for the purpose of this specification, be deemed to include: clearing and grubbing; stripping of topsoil; trenching; placing of bedding; pipe-laying; placing of selected fill; backfilling to ground level; removing excess material; construction of cross berms to channel water (if required); and replacement of topsoil to final finished level (refer to Figure 1: Appendix A).

Progressive Reinstatement: Reinstatement of disturbed areas to topsoil profile on an ongoing basis, immediately after selected construction activities (e.g. backfilling of a trench) are completed. This allows for passive rehabilitation (i.e. natural recolonisation by vegetation) to commence. See also 'Open Trench' and 'Rehabilitation'.

Project Manager: The person responsible for coordinating and integrating activities across multiple, functional lines.

Rehabilitation: Rehabilitation is defined as the return of a disturbed area to a state which approximates the state (where possible) which it was before disruption. Rehabilitation for the purposes of this specification is aimed at post-reinstatement revegetation of a disturbed area and the ensurance of a stable land surface. Revegetation should aim to accelerate the natural succession processes so that the plant community develops in the desired way, i.e. promote rapid vegetation establishment.

Riparian vegetation: Vegetation occurring on the banks of a river or stream (i.e. vegetation fringing a water body). In this specification, riparian vegetation in terms of removal, storage and replacement (see PSZB 17.1 and PSZB 17.2), is only applied to sedge, grass, ground-cover, reed, bulrush, or herbaceous component of riparian vegetation and excludes the woody component.

Sedges: Grass-like plants growing in wetland/ marshy areas or adjacent to water.

Subsoil: Subsoil is the soil horizons between the topsoil horizon and the underlying parent rock. Subsoil often has more clay-like material than the topsoil. Subsoil is of less value to plants, in terms of nutrient (food) and oxygen supply than topsoil. When subsoil is exposed it tends to erode fairly easily.

Timeous: At least 5 working days prior to an activity.

Topsoil: This is defined as the A horizon of the soil profile. Topsoil is the upper layer of soil from

which plants obtain their nutrients for growth. It is often darker in colour, due to the organic (humic) fraction. Topsoil is deemed for the purposes of this specification as the layer of soil from the surface to the specified depth required for excavation (see PSZB 5.3, relevant SABS 1200 clause and project specification). Where topsoil is referred to, it is deemed to be both the soil and grass/ground cover fraction. (see 'Cleared Surface')

Veld: This is defined for the purpose of this specification as unimproved natural vegetation areas (e.g. grasslands).

Water body: Any open body of water including streams, dams, rivers, lakes, and the sea.

Wetland: A seasonally, temporally, or permanently wet area which also may exhibit a specific vegetation community. It is often marshy in character.

Wetland Vegetation: Vegetation which is indicative of a wetland environment - for example, sedges, rushes, reeds, hydrophilic grasses and ground-covers, but for the purposes of this specification excludes woody species.

Xeriscaping: Landscaping with vegetation which has a low water usage. The objective is to conserve as much water as possible, whilst still beautifying an area (i.e. conservation and aesthetics). Concept embraces utilising indigenous as opposed to exotic plants.

#### **PSZ 4 PSZ 4 ABBREVIATIONS**

DWAF	:	Department of Water Affairs and Forestry
ECO	:	Environmental Control Officer
EMP	:	Environmental Management Plan
EMPR	:	Environmental Management Programme Report
EO	:	Environmental Officer
IAPs	:	Interested and Affected Parties
IEM	:	Integrated Environmental Management
MSDS	:	Material Safety Data Sheet
NEC	:	New Engineer Contract or The Engineering and Construction Contract
⌘	:	Indicates the project specification must be referred to, to clarify the clause.

#### **PSZ 5 PSZ 5 DRAWINGS**

Drawings referred to in this specification are included in PS5 of the Project Specifications.

#### **PSZ 6 PSZ 6 FORMS**

Forms referred to in this specification are included in Part T2 or attached to this environmental specification.

#### **PSZ 7 PSZ 7 CONDITIONS OF CONTRACT**

##### **PSZ 7.1 Duties and Powers of the Project Manager**

The Project Manager is ultimately responsible for ensuring compliance with the environmental



specification and upholding Msunduzi Local Municipality's Environmental Policy on a project.

The Project Manager:

- arranges information meetings for or consults with IAPs about the impending construction activities;
- may on the recommendation of the Engineer and /or Environmental Officer order the Contractor to suspend any or all works on site if the Contractor or his Subcontractor/ supplier fails to comply with the said specifications;
- maintains a register of complaints and queries by members of the public at the site office as per attached pro-forma. This register is forwarded to the Environmental Control Officer on a monthly basis.

PSZ 7.2 Duties and Powers of the Engineer / Supervisor (NEC)

The Engineer or Supervisor is responsible for:

- enforcing the environmental specification on site;
- monitoring compliance with the requirements of the specification;
- assessing the Contractor's environmental performance in consultation with the Environmental Officer from which a brief monthly statement of environmental performance is drawn up for record purposes;
- documenting, in conjunction with the Contractor, the state of the site prior to construction activities commencing. This documentation will be in the form of photographs or video records.

PSZ 7.3 Duties and Powers of the Environmental Control Officer

The Environmental Control Officer:

- briefs the Contractor about the requirements of the Environmental Specification and/ or Environmental Management Plan, as applicable;
- advises the Project Manager and Engineer/ Supervisor about the interpretation, implementation and enforcement of the Environmental Specification and other related environmental matters;
- attends site meetings, as necessary;
- monitors the Constructor's compliance with this specification and the project environmental specification as applicable;
- undertakes periodic audits of the effectiveness of the environmental specifications on the site;
- communicates environmental policy issues to the Project Manager;
- provides technical advice relating to environmental issues to the Engineer/ Supervisor and Project Manager;
- reports on the performance of the project, in terms of environmental compliance.

PSZ 7.4 Duties and Powers of the Environmental Officer

The Environmental Officer:

- attends site meetings;
- monitors the site for compliance with the Environmental Specification and EMP;
- reports on the performance of the project in terms of environmental compliance to the ECO and Project Manager as per the pro-forma attached;
- liaises with the ECO on matters of policy and those requiring clarity and advice.

PSZ 7.5 Extent of the Contractor's Obligations

The Contractor is required to:

- provide information on previous environmental management experience and company environmental policy;
- supply method statements for all activities requiring special attention as specified and/or requested by the Project Manager, Environmental (Control) Officer and/or Engineer during the duration of the Contract;
- be conversant with the requirements of this environmental specification and the project specification as applicable;
- brief his staff about the requirements of the environmental specification;
- comply with requirements of the Environmental (Control) Officer in terms of this specification and the project specification, as applicable, within the time period specified;
- ensure any sub-contractors/ suppliers who are utilised within the context of the contract comply with the environmental requirements of the Employer, in terms of the specifications. The Contractor will be held responsible for non-compliance on their behalf;
- bear the cost of any delays, with no extension of time granted, should he or his Sub-Contractors/ Suppliers contravene the said specifications such that the Engineer orders a suspension of work. The suspension will be enforced until such time as the offending party(ies), procedure, or equipment is corrected;
- bear the costs of any damages/ compensation resulting from non-adherence to the said specifications or written site instructions;
- comply with all applicable legislation in terms of 7.6 below;
- ensure that he informs the engineer timeously of any foreseeable activities which will require input from the Environmental (Control) Officer.

The Contractor will conduct all activities in a manner that minimises disturbance to directly affected residents and the public in general, and foreseeable impacts on the environment.

PSZ 7.6 Compliance with Applicable Laws

The supreme law of the land is "The Constitution of the Republic of South Africa", which states:

“Every person shall have the right to an environment which is not detrimental to his or her health or well being”

Laws applicable to the protection of the environment in terms of Environmental Management (and relating to construction activities) include but are not restricted to:

Animals Protection Act, Act No 71 of 1962

Atmospheric Pollution Prevention Act, No. 45 of 1965

Conservation of Agricultural Resources Act, No 43 of 1983

Environmental Conservation Act, No 73 of 1989

Environmental Planning Act, Act No 88 of 1967

Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, No 36 of 1947

Forest Act, No 122 of 1984

Forest and Veld Conservation Act, Act No 13 of 1941

Hazardous Substances Act, No. 15 of 1973

Lake Areas Development Act No. 34 of 1975

Land Survey Act, No. 9 of 1921

Minerals Act, No. 50 of 1991

Mountain Catchment Act, No. 63 of 1970

National Monuments Act, No. 28 of 1969

National Parks Act, No. 57 of 1976

National Resources Development Act, Act No. 51 of 1947

Occupational Health and Safety Act, No. 85 of 1993

Provincial and Local Government Ordinances and Bylaws

Soil Conservation Act, Act No. 76 of 1969

Water Act, No. 54 of 1956

Water Services Act No. 108 of 1997

and all regulations framed thereunder and amendments thereto.

#### PSZ 7.7 Compliance with the Environmental Specification

The Contractor is deemed not to have complied with the Environmental Specification if:

- within the boundaries of the site, site extensions and haul/ access roads there is evidence of contravention of clauses;

- if environmental damage ensues due to negligence;
- the Contractor fails to comply with corrective or other instructions issued by the Project Manager or Engineer within a specified time,
- The contractor fails to respond adequately to complaints from the public.

Application of a penalty clause will apply for incidents of non-compliance. The penalty imposed will be per incident. Unless stated otherwise in the project specification, the penalties imposed per incident or violation will be:

Failure to demarcate working servitudes	R1000
Working outside of the demarcated servitude	R2000
Failure to strip topsoil with intact vegetation	R1000
Failure to stockpile topsoil correctly	R500
Failure to stockpile materials in designated areas	R500
Pollution of water bodies (including increased suspended solid loads)	R1000
Failure to control stormwater runoff	R1000
Failure to provide adequate sanitation	R500
Unauthorised removal of woody vegetation	R2000
Failure to erect temporary fences	R500
Failure to provide adequate waste disposal facilities and services	R500
Failure to reinstate disturbed areas within the specified time-frame	R3000
Failure to rehabilitate disturbed areas within the specified time-frame	R3000
Any other contravention of the project specific specification	R400
Any other contravention of the particular (general) environmental specification	R300

PSZA            SITE ESTABLISHMENT AND HOUSEKEEPING

PSZA 1        LAYOUT

The Contractor will take into account any of the limitations identified in the project specification with regard to establishment of site, in particular the location of access routes, and establishment layout.

Notwithstanding the provision of a project specification, the Contractor will provide the Project Manager and Environmental Control Officer with a layout design of the site indicating the position of all of the following, as applicable: offices, ablution facilities, storage areas, workshops, laboratories, batching plant, particulate matter stockpile area (i.e. soil/ granular chemicals/ cement fines, etc), waste disposal facilities, hazardous substances storage area, access routes, etc. This layout plan is to be submitted prior to site establishment for acceptance. Any changes to this plan require review by the Project Manager in conjunction with the ECO.

The Contractor will take into account prevailing wind directions when designing the site layout to minimise impacts due to dust, unpleasant odours, etc.

The Contractor will take into account the positions of residences when designing the site layout in order to minimise noise impacts on the residents.

Site security lighting is to be positioned such that the direct beam is focused away from residential properties and does not pose a nuisance or danger to road users.

No site establishment will be allowed within 100 m of a water body or drainage channel or on a flood plain unless approved by the Environmental (Control) Officer or specified in the project specification.

PSZA 2        SITE CLEARANCE

No trees or shrubs may be removed without the prior permission of the Environmental Officer, unless in keeping with the final site reinstatement and rehabilitation plan.

Topsoil is to be stripped from all areas where permanent or temporary structures and access roads are to be constructed. Topsoil conservation is to be in terms of clause PSZB 5.3 of this document.

PSZA 3        SERVICES

PSZA 3.1     Sanitation

Portable chemical toilets are to be utilised at site unless a connection to sewer is possible or a proper septic tank system is installed. In the case of the septic tank, the installation will require the relevant approvals from the local authority and will require removal upon completion of the contract, unless otherwise directed.

Sanitation facilities will be located within 100 m from any point of work, but not closer than 50 m to a water body.

PSZA 3.2     Solid Waste Facilities

Facilities for solid waste collection are to be provided. These are to be at least a 200 l drum and clearly identified as the point for waste disposal.

Waste is to be separated into paper, glass, and metal with separate collection points for each. The Contractor will ensure that the appropriate recycling contractors receive this waste.

The Contractor is to institute a daily litter collection programme. The collected waste is to be disposed of regularly and proportionately to its generation at a site designated for waste disposal.

No burning will be permitted on any site unless by approved incineration methods and in a low-risk fire area. In the case of incineration, ash is to be co-disposed with spoil in a designated spoil dump.

No burying of waste will be allowed on any site.

PSZA 3.3      Cooking and Heating Facilities

No open fires will be allowed anywhere on site.

Contained fires (i.e. in a fire drum) will be allowed for heating and cooking only in designated areas, in other cases, cooking is restricted to gas or electrical equipment.

PSZA 4      FUELS, HAZARDOUS SUBSTANCES, AND OTHER LIQUID POLLUTANTS

PSZA 4.1      Storage and handling

All potentially hazardous raw and waste materials are to be handled by trained staff and stored on site in accordance with the manufacturer's instructions and relevant legal requirements. The product MSDS is to be lodged with the Engineer.

Storage and handling areas for fuels, lubricants, chemicals, and other hazardous substances are to be paved with concrete to prevent accidental contamination of the soil. Alternatively, an impermeable liner may be placed beneath above-ground storage tanks. The integrity of the liner is to remain intact for the duration of the contract, until removal.

Open storage vessels, for example, shutter lubricant drums, are to be stored under cover to prevent 'splash' contamination.

All storage areas are to be bunded (with at least sandbags) and have a peripheral collection drain, with oil interceptors (if required).

The bunded area is to be sufficiently large to contain a spillage equivalent to the volume of one container of the substances stored.

All products to be dispensed from 200-litre drums will be done so with appropriate equipment, and not dispensed by tipping of the drum.

Daily checks are to be conducted on the dispensing mechanism of above-ground storage tanks to ensure the timely identification of faults.

Collection containers (e.g. drip trays) are to be placed under all dispensing mechanisms of hydrocarbon or hazardous liquid substances to ensure contamination from leaks and dispensing is contained.

The dispensing mechanism of diesel and petrol storage tanks is to be stored in a container when not in use.

PSZA 4.2      Control of pollutants

A drainage diversion system is to be installed to divert runoff from areas of potential pollution, e.g. batching areas, vehicle maintenance areas, workshops, chemical and fuel stores, etc if applicable.

Contaminated runoff and wastewater is to be directed into a collection system (e.g. sump, attenuation dam, PVC porta-ponds etc.) for treatment or collection and disposal. The final collection point (e.g. sump) is to be PVC lined.

Collected contaminated runoff/ wastewater is to be pumped out of the final collection point and disposed of at an appropriate landfill site. Sump liners are to be treated in the same manner.

The treated wastewater, effluent and contaminated runoff may require analysis prior to discharge as detailed in the project specification or instructed by the Environmental Officer.

Details regarding proposed methods for treatment of pollutants are to be submitted to the Environmental (Control) Officer for acceptance upon award of the Contract.

Any spillages, irrespective of their size, are to be contained and cleaned up immediately. The Pollution Control section may provide technical assistance for clean-up if required. No spills may be hosed down into a stormwater drain or sewer.

Use of specialised cleanup techniques and/ or products may be required depending on the spill. This will be instructed by the Environmental Control Officer. These will be to the Contractor's cost.

PSZA 5      GENERAL

Site staff are not permitted to use any open water body or other natural water source (e.g. springs) for purposes of bathing, or the washing of clothes, machinery or vehicles. Nor draw water from a spring without the permission of the community utilising that spring.

PSZA 6      MEASUREMENT AND PAYMENT

Measurement and payment for compliance with clauses PSZA1 to 5 of the specification are deemed to be fully included in the Contractor's rates for fixed and time-related Preliminary and General Items scheduled under SABS 1200 A or AA.

PSZB CONSTRUCTION

PSZB 1 CONSTRUCTION METHODS AND PROGRAMME

PSZB 1.1 Construction Method

The Contractor will provide method statements for construction activities (14 working days prior to the activity commencing) relating to the following environments and those listed in the project environmental specification unless methods have been prescribed in this or the project environmental specification:

- rivers, streams, or any other open water body;
- wetlands;
- access roads (see PSZB 13 below);
- steep slopes (i.e. steeper than 1:4) or less if friable material is present;
- Indigenous bush/ forest;
- close proximity (i.e. 50 m or less) to a residential dwelling;
- drilling and/or blasting of rock.

If a construction method employed by the Contractor is not environmentally acceptable to the Employer, the Contractor may be instructed to cease the utilisation of that method in favour of a more environmentally acceptable one, proposed either by himself or the Employer.

PSZB 1.2 Construction Programme

The Contractor will programme construction so as to minimise the impact on the environment and provide this programme to the Environmental Control Officer for perusal and acceptance at the onset of the contract period. The Environmental Control Officer is to be made aware of any amendments to the construction programme or alterations to the scope of work in order that their impacts on the environment can be assessed.

The Contractor (through the Project Manager) will ensure that all affected landowners/ authorities are advised of the proposed programme at the beginning of the contract period.

PSZB 2 AREAS OCCUPIED / DEMARCATION OF SITE

Routes for temporary access and haul roads are to be located within the approved demarcated areas and vehicle movement is to be confined to these roads. Movement of vehicles outside the designated working areas is not permitted without authorisation from the Engineer.

All construction activities are restricted to working areas designated on the drawings and/or demarcated and approved by the Engineer. Materials including spoil are stockpiled at designated areas.

Any areas disturbed outside of the demarcated areas or without permission of the Environmental (Control) Officer or Engineer will be subject to reinstatement and rehabilitation (as per PSZC below) at the Contractor's cost.

In terms of pipeline projects, a general maximum working servitude width of 15 m will apply for



machine excavation unless otherwise indicated in the project specification. A maximum width of 6 m will apply for manual excavation. These maximum working servitude widths may vary depending on the sensitivity of the environment, as detailed in the project specification.

In sensitive biophysical environments, for example, wetlands, indigenous forest/bush, pristine natural grasslands, and sensitive social environments, as defined in the project specification or by the Environmental Control Officer, the working servitude is reduced as indicated in the project specification.

The working servitude shall contain all construction related activities, including, stockpiling of materials, placing of toilets, vehicle movement areas, etc.

Demarcation of linear projects (executed with machine excavation) and features (e.g. pipelines, access roads, etc.) will be by means of wooden stakes. These stakes will be at least 1 m high, painted white, and placed at least every 15 m, on either side of the linear feature, in all areas where works are occurring. Progressive movement of stakes is required as linear projects progress.

In the case of a fenced site, the boundary fences will be denoted as the outermost limit of the site, but internal areas may be demarcated with stakes as above. The site boundaries of non-fenced, but 'contained' projects are to be delineated using stakes or temporary fencing, depending on the hazard which the site poses.

PSZB 3      SUPPLY OF WORKS FACILITIES

No water may be abstracted from water bodies for the purposes of construction, without approval of the Engineer in consultation with the Environmental Control Officer.

PSZB 4      CLEANLINESS

SABS 1200 AD, clause 5.2.4, second sentence, is to read: "No rubbish or debris shall be deposited below the full supply level (FSL)."

PSZB 5      SITE CLEARANCE

PSZB 5.1    Clearance

Spoil sites will require clearing and grubbing in addition to those areas in terms of SABS 1200 C 5.1.

The site shall only be cleared immediately prior to construction activities commencing i.e. at the last practicable stage.

No trees or indigenous shrubs may be removed without the prior permission of the Environmental (Control) Officer, unless in keeping with the final site reinstatement and rehabilitation plan.

PSZB 5.2    Disposal of materials

Material obtained from clearing and grubbing operations shall be disposed of at appropriate municipal disposal facilities. They are not to be disposed of as per Paragraph 1 of Sub-clause 3.1 of SABS 1200 C.

Wood obtained from clearing and grubbing operation remains the property of the landowner/ community and must be stacked at sites designated by the relevant person. The Contractor will be required to remove and dispose of any wood from site at a designated site for vegetation

disposal, should the landowner/ community not require it.

All tree trunks and branches of diameter greater than 50 mm are to be cut into lengths not exceeding 2400 mm.

Brushwood (i.e. < 50 mm diameter) is to be disposed of, or utilised as specified in the project specification or upon instruction of the Engineer.

#### PSZB 5.3 Conservation of topsoil

The Contractor is required to strip topsoil (as defined in this specification) together with grass, groundcover and sedges from all areas where permanent or temporary structures are located, construction related activities occur, and access roads are to be constructed, etc. The depth to which topsoil will be stripped shall be 200 mm unless stated otherwise in the project specification.

Topsoil is to be handled twice only - once to strip and stockpile, and secondly to replace, level, shape, and scarify.

Topsoil is to be replaced along the contour.

Topsoil is to be replaced by direct return (i.e. replaced immediately in the area where construction is complete), rather than stockpiling it for extended periods. This is feasible for progressive construction (e.g. pipelines), but not necessarily so for reservoirs, site establishments, dams, etc.

Topsoil stockpiles are not to exceed 2 m in height.

Topsoil stockpiles are to be maintained in a weed-free condition (i.e. no 'broad-leafed' plants regarded as weeds in terms of the Conservation of Agricultural Resources Act No 43 of 1989, or those plants regarded as a 'general nuisance in the area' are to be growing on the stockpiles). The Environmental Control Officer will provide guidance as to which plants are weeds and require removal.

The stockpiles are not to be contaminated with sub-soil or any other waste material.

Topsoil may not be compacted in any way, nor may any object be placed or stockpiled on it.

Topsoil may not be compacted in any way, nor may any object be placed or stockpiled on it.

Topsoil which is to be stockpiled for periods exceeding 4 months is to be vegetated. In summer a mixture of *Eragrostis tef* (Teff) and *Eragrostis curvula* (Weeping Lovegrass) (ratio 1:2) is to be applied at an application rate of 6 kg/ha, unless otherwise instructed in the project specification.

In winter, a mixture of *Lolium multiflorum* (Annual/Italian Ryegrass) and *Eragrostis curvula* (Weeping Lovegrass) (ratio 1:1) is to be applied at an application rate of 6kg/ha (see PSZC 5.3 for sowing times), unless otherwise instructed in the project specification. Fertiliser is to be applied as per PSZC 5.2.

#### PSZB 5.4 Cutting of trees

Any tree branches which require removal are to be properly pruned and sealant applied to the cut surface, if required.

The Contractor's attention is drawn to Sub-clause 5.2.3.3 of SABS 1200 C with respect to work in indigenous forests.

Any indigenous trees or bush which require removal in terms of the project, and which have not been identified in the project specification or EMP, are to be timeously indicated to the

Environmental Officer prior to work affecting them.

PSZB 5.5 Landscape Preservation and Conservation of Flora

Notwithstanding Clause 5.7 of SABS 1200 C, the Contractor will be required to transplant designated plants to alternative locations as specified in the project specification or identified by the Environmental Control Officer, upon the instruction of the Engineer.

Transplanting shall be undertaken by employing the following method:

Removal

- Mark the orientation of the tree/shrub (for example, the north-facing side of the trunk indicated by a small arrow made with indelible ink) trunk. Do not scratch a mark on the surface of the trunk;
- Delineate a circle from the trunk with a radius equivalent to the drip-line of the tree, or as indicated by the Environmental Control Officer on site;
- Excavate the tree with an intact rootball.

Replanting

- A hole 500 mm larger in diameter than the anticipated rootball must be prepared in advance of the tree removal in order that the tree can be replanted immediately;
- The tree must be positioned as per its original orientation;
- A planting method known as 'puddling' must be employed. This method involves the addition of soil and water simultaneously to expel air from the planting hole. Place the tree in its new hole, making sure the top surface of the rootball is level with the ground level. Place a hose pipe in the hole and leave it running whilst extra soil is added around the rootball;
- 'Compact' the tree in the hole and attach tree stays for stabilisation.

Compensatory planting of species may be required should transplantation not be feasible, as indicated in the project specification or upon instruction of the Engineer.

PSZB 6 EARTHWORKS

PSZB 6.1 Backfill material

With reference to SABS 1200 DB sub-clause 3.5, no material stripped or excavated which is classed, in terms of this specification, as topsoil, may be used as backfill in any excavation.

PSZB 6.2 Excavation and backfilling

During excavation 'conservation of topsoil', as specified in PSZB 5.3 above will apply.

Excavated material is to be stockpiled along a pipeline trench within the working servitude, unless otherwise authorised.

Surplus excavated soft, intermediate, and hard rock material shall not be disposed of along the pipeline trench as indicated in SABS 1200 DB sub-clause 5.6.3 and 5.6.4 but shall be removed to a spoil site (see PSZB 15 below) designated during the project if applicable, or agreed by the Engineer in conjunction with the Environmental Control Officer and Project Manager.

In certain cases, for example, to help stabilise the disturbed area or to reinstate the natural aesthetics of an area, excess excavated intermediate and hard material may be disposed of in a designated manner along a pipeline trench, as indicated by the Environmental Control Officer and Project Manager, or in the project specification. In this case, rock material shall not exceed 250 mm in maximum dimension (see PSZC 2.1).

In terms of SABS 1200 DB 5.6.5 and SABS 1200 LB 3.4.2, deficiency of backfill material shall not be made up by excavation within the free haul distance of 0.5 km of site, without the prior approval of the Engineer of the source of the material. Where backfill material is deficient, it should ideally be made up by importation from an approved borrow pit (i.e. one which operates within the ambient of an EMPR.) (See also PSZB 14 below).

The Contractor will backfill in accordance with the requirements of progressive reinstatement.

The maximum length of the open trench shall be specified in the project specification.

PSZB 7 SAFETY

All works which may pose a hazard to humans and animals are to be adequately protected and appropriate warning signs erected. The Contractor's attention is drawn to SABS 1200 D section 5.1 in this regard.

With reference to SABS 1200 D 5.1.1.3, where blasting is required in terms of the project, the Contractor will ensure that all structures in the vicinity that could be affected by the activity will be inspected and their condition photographically recorded (as necessary), prior to blasting.

Notice of intent to blast is to be provided to landowners timeously.

Speed limits, appropriate to the vehicle driven, are to be observed at all times on access roads. Operators and drivers are to ensure that they limit their potential to endanger humans and animals at all times, by observing strict safety precautions.

PSZB 8 PLANT

PSZB 8.1 Silencing of plant

With reference to SABS 1200 A amend: "built-up areas": to read as "all areas within audible distance of residents (albeit urban, peri-urban or rural areas)."

Appropriate directional and intensity settings are to be maintained on all hooters and sirens.

Silencer units on equipment and vehicles are to be maintained in good working order.

Construction activities are to be confined to normal working hours (07h30 - 17h00) Mondays to Saturdays, except for the activities designated to be carried out at night.

PSZB 8.2      Appropriate use of plant

The Contractor will at all times use plant which is appropriate to the task in order to minimise the extent of damage to the environment.

PSZB 9        DEALING WITH WATER ON WORKS

PSZB 9.1      Disinfection of Potable Water Infrastructure

Disinfection water is to be neutralised before release of this water to the environment.

PSZB 9.2      Discharge of water from site

Any water which is discharged from site is to comply with the relevant Water Quality Guidelines implemented by DWAF.

Water discharged to the stormwater/sewer system may only be done so with the permission of the relevant local authority.

PSZB 10      CONTROL OF EROSION

Surface erosion protection measures will be required to prevent erosion where slopes are steeper than 1:8 on all soil types.

Erosion protection measures required may include all or some of the below, as specified in the project specification or upon instruction of the Engineer in conjunction with the Environmental (Control) Officer:

- use of groundcover or grass
- construction of cut-off berms (earth and/or rockpack) - these are to be angled across the contour and normally would approximate an angle of 30° from the bisector of the contour.
- placing of brushwood on bare surface;
- pegging of wattle trunks or branches along the contour;
- hard landscaping, e.g. use of Loffelstein walls, ground anchors, gabions, etc.

Scour chambers are to be fitted with energy dissipaters, or the jet of water directed onto a protected (i.e. grouted stone pitching/ rock pack/ reno mattress) area to dissipate water velocity and to control and prevent erosion.

Stormwater drainage measures might be required on-site to control runoff and prevent erosion.

SZB 11 CONTROL OF POLLUTION

No waste in a solid, liquid, or gaseous state shall be emitted from or spilled on the site without the approval of the Engineer.

No mixed concrete shall be deposited directly onto the ground prior to placing. A board or other suitable platform is to be provided onto which the mixed concrete can be deposited whilst it awaits placing.

Excess concrete from mixing shall be deposited in a designated area awaiting removal to an approved landfill site.

The Contractor will contain wash water from cement mixing operations, by directing the water into a sump for collection. The material contained in the sump will be removed to an appropriate landfill site.

No concrete rubble shall be present at the site.

Liquid wastes will not be disposed of in stormwater drains. They may be disposed of to sewer only if permitted by (local council) legislation.

In the event of pollution of a water body (including sediment loading), the Contractor will provide alternative water supply to users of that water body until the quality of the water body is restored to its previous unpolluted state. For the sake of this clause, pollution is deemed to be a state which is substandard to the normal quality of the water body but is not necessarily in contravention of the South African Water Quality guideline standards for a prescribed activity.

Any ancillary damages resulting from pollution of a water body will be repaired/remediated at the Contractor's cost.

Where, due to construction requirements, pollution of a water body may potentially occur, the Contractor is to ensure adequate measures (e.g. attenuation/ settlement dams/oil absorbent products) are in place to prevent pollution. A method statement is to be provided to this effect (see PSZB 1).

PSZB 12 CONTROL OF FIRE

The Contractor will ensure he has the necessary firefighting equipment on site in terms of SABS 1200. This will include at least rubber beaters when working in 'veld' areas, and at least one fire extinguisher of the appropriate type when welding activities are undertaken, irrespective of the site.

PSZB 13 USE AND MAINTENANCE OF ACCESS FACILITIES

PSZB 13. Responsibility

The Project Manager [not the Contractor (SABS 1200 AD 5.3.1)] will be responsible for obtaining permission for temporary and permanent rights of way over all private property affected by project activities.

The Project Manager will ensure that the Contractor has kept a photographic record of all access facilities and that these are reinstated to a state not worse than upon commencement of the project and to the satisfaction of the landowner (notwithstanding that the project's objective is not to upgrade landowners' access roads).

PSZB 13.2 Fencing

Temporary fencing is to consist of 1.2 m bonnox fencing, or similar, suitably tensioned and supported on 1.8 m fencing standards at 3 m intervals, with all necessary straining posts and stays.

All temporary fencing as indicated by the Engineer is removed on completion of the contract.

PSZB 13.3 New Access Roads

Any construction roads created for execution of the project are to be designed to incorporate adequate drainage and water attenuation structures.

Any access roads which incorporate 'cut and fill' aspects and/or which are to be surfaced during construction are to be authorised by the Environmental Control Officer and Project Manager. Prior to the construction of the road, the Contractor will be required to provide a sketch plan of the road layout (referenced to local topographic, natural, and man-made structures). Slope steepness, road width, drainage structures and their frequency will need to be documented and accompany the sketch layout.

Construction access roads may not be wider than that necessary (maximum width 4 m) for movement of vehicles in one direction only. Should two-way traffic be required, points people are to control vehicle movement on the 'single lane' road or passing bays are to be used where specified in the project specification or as identified by the Engineer in conjunction with the Environmental Control Officer, unless otherwise stated in the project specification.

The cut and fill slopes of permanent roads will require grassing, as specified in the project specification or by the Environmental Control Officer, to increase stability and reduce aesthetic impacts. Hard landscaping may be required as per the project specification.

Temporary construction roads will require rehabilitation on completion of construction activities for which they were required. These roads will require rehabilitation as per PSZC 4 or as specified in the project specification. In the case of access 'tracks', only ripping to loosen compaction will be required unless otherwise stated by the Environmental Control Officer or project specification.

Access roads created by the project may only remain unrehabilitated on the written request of the landowner, with his acceptance of the state of the road and a clause that the landowner accepts all responsibility for the road and its state.

PSZB 13. Maintenance of Existing Access Roads

The Contractor will record, photographically, the state of existing roads which are to be used for access, prior to plant utilising these roads.

During the contract period, the Contractor will ensure that all existing water attenuation and drainage structures are maintained in a state in which they can optimally perform their function.

Upon completion of the construction period, the Contractor will ensure that the access roads are returned to a state not worse than prior to construction commencing.

PSZB 14 BORROW PITS

Where the Contractor is required to import material this shall be from commercial sources or borrow areas specified in the project specification.

The Contractor may source material from alternative borrow pits provided: the site location; method of winning material and reinstatement and rehabilitation are environmentally acceptable and approved by the Environmental Control Officer.

In this regard, the Contractor shall give the Environmental Control Officer in writing, 30 days prior to opening up alternative borrow pits the following information for acceptance:

- quantities of borrow material required;
- method statement for excavation of material including depth and extent of excavation;
- anticipated 'active life' of the borrow area;
- proposal for reinstatement and rehabilitation of borrow area, including final profile;
- written approval from the landowner/ relevant authority that material may be removed from their land subject to their stated conditions, requirements, and royalties, and if the proposal is acceptable to the Environmental Control Officer.

Development and rehabilitation of borrow pit areas are likely to include the following activities (but these must not be regarded as exhaustive):

- Stripping and stockpiling of topsoil as per PSZB 5.3 of this specification;
- Removal (to a nominal depth of 500 mm) and stockpiling of sub-soil;
- Infill of borrow pit with spoil material;
- Contouring of borrow pit to approximate natural topography and/ or reduce erosion impacts on the site;
- Placement of excavated subsoil over spoil material;
- Placement of stripped topsoil on subsoil;
- Grassing of topsoil in terms of clause PSZC 4 of this specification.

The Contractor is to familiarise himself with the requirements of the Minerals Act No 50 of 1991 in terms of borrow pit development, and the requirements of the EMPR, as applicable.

#### PSZB 15 SPOIL SITES

Where the Contractor is required to spoil material, spoil sites must be identified which are environmentally acceptable and approved by the ECO, unless spoil site areas have been identified in the project specification, in which case these will be the designated spoil sites.

If no spoil sites have been previously identified together with reinstatement and rehabilitation criteria, the Contractor is to provide the following information to the E(C)O at least 30 days prior to requiring sites to spoil material:

- the location, description of, and access to alternative sites identified in order that they may be assessed;
- the quantity of material to be spoiled;
- the type of material to be spoiled (i.e. blast rock/ excavated rock/ soft shale/ subsoil etc.);
- the proposed method of spoiling;



- the proposed reinstatement and rehabilitation plan including final profile;
- written approval from the landowner/ relevant authority that material may be spoilt on land subject to their stated conditions and requirements and if the proposal is acceptable to the ECO.

Development and rehabilitation of spoil areas are likely to include the following activities (but these must not be regarded as exhaustive):

- Stripping and stockpiling of topsoil as per PSZB 5.3 of this specification;
- Removal (to a nominal depth of 500 mm) and stockpiling of sub-soil;
- Placement of spoil material;
- Contouring of spoil site to approximate natural topography and/ or reduce erosion impacts on the site;
- Placement of excavated subsoil over spoil material;
- Placement of stripped topsoil on subsoil;
- Grassing of topsoil in terms of clause PSZC 4 of this specification.

## PSZB 16 NUISANCE

### PSZB 16.1 Dust

At all times the Contractor shall control dust on the site, access roads, borrow pits and spoil dumps with water, chemical soil stabilisers, or temporary surfacing as specified in the project specification or upon instruction of the Engineer.

Dust control shall be sufficient so as not to have significant impacts in terms of the biophysical and social environments. These impacts include visual pollution, decreased safety due to reduced visibility, health aspects, and ecological impacts due to dust particle accumulation.

On gravel or earth roads, vehicle speeds may not exceed 30 km per hour.

### PSZB 16.2 Noise

The operational layout of the construction site is to be designed to control and reduce noise from source (see clause PSZA 1).

Machinery and vehicle silencer units are to be maintained in good working order. Offending machinery and /or vehicles will be banned from use on-site until they have been repaired.

Construction activities generating output levels of 85 dB(A) or more (excessively noisy), in residential areas, are to be confined to working hours (08h00 - 17h00) Mondays to Fridays only.

'Normal' or 'noisy' working hours may only be extended with the prior written approval of the Project Manager, who has been notified, at least 7 days in advance, of the impending work requiring extension.

The Project Manager will ensure that the neighbours are timeously forewarned of imminent noisy activities.

Should community complaints be received with regard to noise generation, the Contractor will, at the discretion of the Project Manager and Environmental Control Officer, provide an independent and registered noise monitor to undertake a survey of noise output levels from site, and implement measures to reduce noise to legislated levels.

#### PSZB 16.3 Visual

All site establishment components, as well as equipment, will be positioned to limit visual intrusion to neighbours (see clause PSZA 1 above).

The type and colour of roofing and cladding materials are to be selected to reduce reflection.

Security lighting (both temporary and permanent) and lighting required for specific works activities must be placed such that it is not a nuisance to residents and the general public.

#### PSZB 16.4 Interference with neighbours and public

No construction staff may approach site neighbours, for whatever reason, without the knowledge and permission of the Project Manager.

Complaints from neighbours and public with regard to interference from contract staff will be regarded in a serious light, and the offender(s) may be subject to disciplinary action.

#### PSZB 16.5 Disruption of Services

Disruption of services, e.g. road access, water, and electricity, must be kept to a minimum at all times.

Where service disruption is unavoidable, the Contractor is to advise the Project Manager (at least 7 days in advance), who in turn will timeously warn the affected parties.

#### PSZB 17 SPECIAL ENVIRONMENTS

##### PSZB17.1 Wetlands

Pipeline trenches that traverse wetlands shall be constructed as specified in the project specification. The Contractor will submit a method statement for work in wetland areas as per PSZB 1.1

Construction may not permanently alter the surface or subsurface flow of water through the wetland.

The Contractor shall submit a method statement for review at least 14 days prior to commencing construction in a wetland.

The Contractor will remove all wetland vegetation with their root ball intact. This vegetation is to be kept moist at all times. It is to be placed in the shade and covered with a moistened hessian cloth until replanting, which is to be undertaken immediately surface reinstatement is complete.

No construction materials may be stockpiled in any wetland areas.

The pre-construction profile of the wetland shall be returned to one similar to before construction, with no created "ridge or channel" features present.

##### PSZB 17.2 River/ stream courses

The Contractor shall submit a method statement for review 14 days prior to commencing construction. The method statement should highlight (but not be confined to) the following issues:

- detailed plan of crossing including pipe protection works;
- how water flow will be diverted during construction (if applicable);
- containment of contaminated runoff and wastewater;
- width of working servitude (if not already detailed in project specification);
- final expected profile of river/ stream banks;
- reinstatement and rehabilitation of river/ stream banks.

The Contractor will remove herbaceous riparian vegetation as indicated in the project specification or by the Environmental Control Officer, with their root ball intact. This vegetation is to be kept moist by means of placing it in the shade, covered with moistened hessian cloth until it is replanted.

The Contractor shall not modify the banks or beds of a watercourse unless as specified in the project specification.

Rocks for use in gabion baskets/reno mattresses may not be obtained from a water course.

The Contractor will not pollute any water body as a result of construction activities (see also PSZB 11).

The Contractor shall not cause any physical damage to any aspects of a water course, other than those necessary to complete the works as specified and in accordance with the accepted method statement

Where a stream or river crossing requires the diversion of water, a method statement is to be provided to the Environmental Control Officer in this regard for review.

PSZB 18      MEASUREMENT AND PAYMENT

Measurement and payment for compliance with clauses of the specification will be made as follows. All other costs of compliance are deemed to be included in the Contractor's rates.

<u>Item</u>	<u>Unit</u>
a) Areas occupied/ Demarcation of Site	
Wooden Stakes	
Supply installation and removal on completion per linear meter of boundary staked	m
b) Site Clearance	
Site Clearance as specified shall be scheduled in SABS 1200 and shall include the costs of complying with this specification	
c) Conservation of Topsoil	
Measurement for this item will be per m <sup>3</sup> and will be inclusive of clearing and grubbing all in one	

operation.

Removal and replacement of topsoil as specified shall be as scheduled in the relevant SABS 1200 specification (SABS 1200 D)

Grassing of temporary topsoil stockpiles

- (i) Supply of materials and planting as specified m<sup>2</sup>
- (ii) Maintenance by watering, weeding, and fertilising m<sup>2</sup>
- d) Landscape preservation and Conservation of flora

Transplanting of trees/ shrubs of main stem girth:

- a) up to 400 mm Sum
- b) over 400 mm Sum

The rate shall include removal, replanting, and watering of plants as specified.

e) Control of Fire

Provision of firefighting equipment as specified shall be scheduled in SABS 1200 A, AA, AD, and AH.

f) Temporary Fencing

Supply, installation, maintenance, and removal of temporary fencing as per specification m

g) Nuisance

(i) Dust

Control of dust, as specified, shall be scheduled in the applicable SABS 1200 specification

h) Special Environments

(i) Wetlands

Removal of vegetation with intact root zone (minimum depth 150 mm) m<sup>2</sup>

PSZC REINSTATEMENT AND REHABILITATION

**Scope:** The intention of this section is to ensure that the condition of the areas disturbed by the project is returned to a state that approximates what they were before the project or better, within reason. The concept of progressive reinstatement is fundamental to cost-effective (both financial and environmental) rehabilitation of a site. This concept must be followed at all times. Where landscaping is utilised, the concept is to utilise and restore indigenous plants to the site, in terms of the concept of xeriscaping.

Reinstatement will be required for all areas disturbed by the project. For pipeline projects, this will include the full working servitude, not just the top of actual excavation as per SABS 1200 DB (subclause 5.9.1.1)

Reinstatement and rehabilitation will ensure that all areas disturbed by the project are returned, within reason, to a state not worse than before the project commenced.

The Contractor will reinstate and rehabilitate all disturbed areas outside of the demarcated working area (as defined in terms of clause PSZB 2 or the project specification) at his own cost and to the satisfaction of the Environmental Control Officer and Project Manager.

PSZC 1 HOUSEKEEPING

All areas are to be cleared of rubble associated with construction. This includes the removal of surplus materials, excavation, and disposal of consolidated waste concrete and concrete wash water, litter, etc.

All soil contaminated by hydrocarbons, for example from leaking machines, refuelling spills, etc., is to be excavated to the depth of contaminant penetration, placed in 200 litre drums, and removed to an appropriate landfill site.

PSZC 2 FINISHING

PSZC 2.1 Final Grading

Final levels of all disturbed areas are, where feasible in terms of the project requirement, to be consistent with the natural topography of the area.

In certain instances, it will be acceptable to reinstate rock onto a works area (e.g. pipeline servitude), provided that that rock does not exceed 250 mm in maximum dimension and is placed in a manner consistent with the natural surroundings as indicated by the Environmental Control Officer and Project Manager.

All drainage lines affected by construction are to be reinstated to approximate their original profile. Where this is not feasible due to technical constraints, the profile is to be agreed upon by the Environmental Control Officer and Project Manager.

All compacted (disturbed) areas (including stockpile areas) are to be ripped (along the contour) to a depth of 150 mm prior to the replacement of topsoil.

PSZC 2.2 Topsoiling

Topsoil is to be replaced to a minimum depth of 100 mm.

Topsoil is not to be compacted, but once replaced is to be scarified (to a depth of 50mm) consistent with the natural contour.

If insufficient topsoil is available, subsoil or similar material may be used that may be a suitable substrate after addition of soil improving substances e.g. compost, pH rectifiers (lime or gypsum), etc. Soil testing may be required at an approved facility.

### PSZC 3 REINSTATEMENT OF WATER COURSES AND WETLAND AREAS

The Contractor will ensure that water course banks are returned to their original profile unless the project specification states otherwise.

The surface reinstatement of wetland areas is to ensure that no depressions remain which could act as channels for preferential water flow thereby affecting the hydrological regime of the wetland.

The Contractor will preserve all riparian and wetland vegetation for use in rehabilitation of those environments. This vegetation is to be kept moist at all times. It is to be placed in the shade and covered with a moistened hessian cloth until replanting, which is to be undertaken immediately surface reinstatement is complete.

Plants are to be, as nearly as possible, replanted in areas from which they were removed.

### PSZC 4 VEGETATION RE-ESTABLISHMENT

The Contractor will ensure that all areas disturbed by contract activities are revegetated to the specified standard.

This standard is deemed to be an 85 % cover with no areas in excess of 0.04 m<sup>2</sup> / m<sup>2</sup> remaining unvegetated.

Revegetation shall match the vegetation type which previously existed (e.g. kikuyu pastures are to be returned to kikuyu pasture; 'veld' grass to 'veld' grass, etc.), unless stated otherwise in the project specification.

Prior to re-grassing, and if required:

- the area is to be scarified or ripped (along the contour) to a depth of 50 mm to loosen compaction.
- weeds present on site are to be removed.

e-grassing, where required, will be either by means of seeding, instant turf (sods), sprigs or plugs as specified in the project specification or as specified by the ECO.

Where sprigs or plugs are utilised, they are to be planted at 200 mm centres. The fertiliser shall be applied as per PSZC 5.2. During summer, 25mm of irrigation shall be applied each week until reasonable (60%) ground cover has been obtained. During winter 15mm of irrigation shall be applied each week until reasonable (60%) ground cover has been obtained. The amount of irrigation to be applied will make up the difference between rainfall recorded on site and minimum requirement.

Where instant turf is utilised, it shall be laid as specified in the project specification. The fertiliser shall be applied as per PSZC 5.2. During summer, 25mm of irrigation shall be applied each week until all the turf is visibly growing. During winter 15mm of irrigation shall be applied each week until all the turf is visibly growing. The amount of irrigation to be applied will make up the difference between rainfall recorded on site and minimum requirement.

Grassing shall be undertaken by a specialist grassing Sub-contractor unless permission is granted otherwise by the Engineer upon receipt of a written motivation from the Contractor.

The Contractor shall state in writing when the regassing operation will commence and its expected duration (dates).

Grassing in 'veld' areas is to be undertaken as per PSZC 5 below. *Cynodon dactylon* species may be excluded or substituted from this mixture at the discretion of the Environmental Control Officer, or as specified in the project specification. The seed bulk may be made up with the *Eragrostis tef*.

PSZC 5 "VELD GRASS" GRASSING SPECIFICATION

The area to be grassed should be estimated and converted to hectares,

e.g. 100m X 100m = 10 000m<sup>2</sup> = 1ha. All fertilizer and seeding rates used in this specification are with respect to hectares.

PSZC 5.1 Regional areas

For re-grassing three distinctive areas within Ugu's Water's operational area exist. These are defined as:

- The coastal area (a narrow band running from the coast to ≈15km inland of the coast)
- The coastal hinterland (a broadband (≈50km wide), generally defined as westwards of the coastal belt, and below 800m a.s.l.)
- the area above ≈ 800m a.s.l. (also called the Midlands area).

PSZC 5.2 Fertiliser

Standard 2:3:2 (N:P: K) fertiliser shall be used on all sites.

The rate of application will be:

- (i) 200 kg/ha in the Coastal Hinterland areas, and
- (ii) 300 kg/ha in the Midlands and Coastal areas.

PSZC 5.3 Planting times

Summer (including Spring) is considered to be between the 1 September and 28 (29) February.

Winter (including Autumn) is considered to be between 1 March and 31 August.

Re-grassing will be undertaken (as far as possible) in summer as germination and establishment of grasses are most effective, assuming reasonable spring rains.

Vegetation re-establishment is likely in many cases to be held off until this suitable growing season.

Hydroseeding with a winter mix will only be specified where re-grassing is urgently required and cannot wait until the summer season. In this case irrigation will be required as per PSZC 5.4 below.

PSZC 5.4 Establishment and Maintenance

During summer, 25mm of irrigation shall be applied each week until reasonable (60%) ground cover has been obtained.

During winter (where annual ryegrass is specified) 15mm of irrigation shall be applied each week until reasonable (60%) ground cover has been obtained.

If rapid establishment is required, additional watering may be necessary as specified in the project specification

The amount of irrigation to be applied will make up the difference between rainfall recorded on site and the minimum requirement.

PSZC 5.5 Grass Seed Selection and Application Rates

The specific seed selection and application rates for each of the defined areas are covered separately, as follows.

PSZC 5.5.1 Coastal area

Summer mix (1 September - 28 February)

Grass species	Common name	General application rate (kg/ha)
Eragrostis tef	Teff	5
Eragrostis curvula	Weeping lovegrass	10
Chloris gayana	Rhodes grass	10
Digitaria eriantha	Smuts' fingergrass	5
Total		30

Winter mix (1 March - 31 August)

Grass species	Common name	General application rate (kg/ha)
Lolium multiflorum cultivar - Midmar	Annual/Italian rye grass	10
Eragrostis curvula	Weeping lovegrass	10
Chloris gayana	Rhodes grass	5
Total		25

PSZC 5.5.2 Coastal hinterland.

Summer mix (1 September - 28 February)



Grass species	Common name	General application rate (kg/ha)
Eragrostis tef	Teff	5
Eragrostis curvula	Weeping lovegrass	10
Chloris gayana	Rhodes grass	10
Cenchrus ciliaris	Blue buffalo grass	2
Cynodon dactylon	Couch/Kweek/Star grass	10
Total		37

Winter mix (1 March - 31 August)

Grass species	Common name	General application rate (kg/ha)
Lolium multiflorum cultivar - Midmar	Annual/Italian rye grass	10
Eragrostis curvula	Weeping lovegrass	10
Chloris gayana	Rhodes grass	5
Cenchrus ciliaris	Blue buffalo grass	2
Cynodon dactylon	Couch/Kweek/Star grass	3
Total		30

PSZC 5.5.3 Midlands area

Summer mix (1 September - 28 February)

Grass species	Common name	General application rate (kg/ha)
Eragrostis tef	Teff	4
Eragrostis curvula	Weeping lovegrass	10
Chloris gayana	Rhodes grass	10
Digitaria eriantha	Smuts' fingergrass	2
Cynodon dactylon	Couch/Kweek/Star grass	2
Paspalum notatum	Lawn paspalum	2

Total		30
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Winter mix (1 March - 31 August)

Grass species	Common name	General application rate (kg/ha)
Lolium multiflorum cultivar - Midmar	Annual/Italian rye grass	10
Eragrostis curvula	Weeping lovegrass	10
Chloris gayana	Rhodes grass	5
Paspalum notatum	Lawn paspalum	2.5
<b>Total</b>		<b>27.5</b>

PSZC 5.6 Seeding Methods

Two methods are recommended, namely hydroseeding and hand-broadcasting. The required method shall be as specified in the project specification.

All seed supplied should be labelled in accordance with the Government Seed Act No. 20 of 1961 and the Contractor shall be required to produce such certification if requested by the Engineer.

PSZC 5.6.1 Hydroseeding

The Grassing Contractor shall be conversant with this method.

Cellulose pulp (consisting of either wood shavings, shredded straw, shredded paper or cotton waste) shall be added to the mix to be applied at a rate of 250 kg/ha.

In addition to the cellulose pulp, compost (consisting of either chicken litter, kraal manure, sugar cane filter cake or mushroom compost) shall be incorporated at a rate of 5m<sup>3</sup>/ha (≈100 X 50kg fertiliser bags/ha).

PSZC 5.6.2 Hand-broadcasting

Fertiliser, at the appropriate rate, is to be distributed by hand in a manner to ensure that there is an even spread of fertiliser over the site. This is to be done prior to seeding.

The seed mix is to be weighed and made up in an appropriately large container which shall be stirred to ensure no settling out of the grass seed and a uniform distribution of the different types of seed.

The seed is to be distributed by hand in a regular grid broadcasting manner to ensure that there is an even spread of grass over the entire site.

The area seeded is to be raked over once the seed and fertiliser have been applied to incorporate these elements into the topsoil.

PSZC 5.7 General

Where there is a possibility of neighbourhood livestock grazing at a rehabilitated site these should, as far as is practicable, be excluded for the first 3 months of re-grassing.

#### PSZC 6 LANDSCAPING

Landscaping of the site may be required as indicated in the project specification.

Compensatory planting of trees or shrubs may be required should the transplantation of such not be successful in terms of PSZB 5.5 or due to plants removed in terms of PSZB 5.4

Planting of trees will be in accordance with the following method:

- All tree holes shall be square in plan;
- Tree holes shall be a minimum of 600 mm by 600 mm square by 700 mm deep;
- Holes are to be backfilled with excavated soil in a ratio of 3:1 with compost. The compost is to be weed-free and has been composted at temperatures in the order of 65oC. Where possible, any available topsoil should be placed in the hole at the level where the tree root ball will rest. A handful (half a cup) of each Superphosphate and 2.3.2 should be mixed into the soil-compost mix;
- The tree holes are to be backfilled to the point where the tree and its root ball are in the desired position. The tree is to be removed temporarily and the hole is filled with water and allowed to drain away. This operation of watering and draining should be repeated at least four times in order that the surrounding ground and hole are thoroughly moist. The tree is then to be replaced and the remaining soil replaced;
- All trees shall be tied (using a tree tie) to a suitable timber stake planted in the ground to a depth of at least 500 mm. The stake shall have a minimum diameter of 35 mm and shall be at least 300 mm higher than the planted tree;
- Water retaining basins of at least 500 mm diameters are to be formed around each tree;
- The Contractor is to apply at least 10 litres of water per tree per fortnight for a period of at least 3 months.

The planting of shrubs will be in accordance with the tree planting method with the exception that the holes are to be a minimum of 400 mm by 400 mm square by 500 mm deep and that the tree stakes and ties are not required.

#### PSZC 7 ALIEN PLANT CONTROL

All sites disturbed by construction activities will be monitored for colonisation by invasive alien plant species.

The Environmental Control Officer will identify those plants which require removal during both the construction and maintenance period, for the Contractor's action.

The Environmental Control Officer will provide advice as to effective methods of removal and control of alien plant species.

#### PSZC 8 MEASUREMENT AND PAYMENT

Measurement and payment for compliance with clauses of the specification will be made as follows. All other costs of compliance are deemed to be included in the Contractor's rates.

Item	Unit
(a) Finishing	
(i) Final Grading	
Ripping of compacted and disturbed areas to 150 mm depth	m <sup>2</sup>
Hand trimming	m <sup>2</sup>
(ii) Topsoiling	
Replacement of topsoil to a minimum depth of 100 mm or such other depth as specified in the project specification	m <sup>2</sup>
Scarification of replaced topsoil to a depth of 50 mm and final hand trimming using spades and rakes	m <sup>2</sup>
Soil testing at an approved facility	sum per sample
Soil Improvements required prior to vegetation re-establishment:	
Compost (supplied, placed and mixed into the soil)	ton
pH Rectifiers (supplied, placed and mixed into the soil)	kg or ton
Fertiliser (2:3:2) (supplied, placed and mixed into the soil)	ton
(iii) Vegetation Re-establishment	
Hand-broadcasting with appropriate grass seed mix	m <sup>2</sup> or ha
Deemed to be inclusive of soil preparation and improvements, materials and labour as specified in PSZC 5.	
Hydroseeding with appropriate grass seed mix	m <sup>2</sup> or ha
Deemed to be inclusive of soil preparation and improvements, materials and labour as specified in PSZC 5.	
Sprig planting	m <sup>2</sup> or ha
Deemed to be inclusive of soil preparation and improvements, materials and labour	
Plug planting	m <sup>2</sup> or ha
Deemed to be inclusive of soil preparation and improvements, materials and labour	
Instant Turf	m <sup>2</sup> or ha
Deemed to be inclusive of soil preparation and improvements, materials and labour	
Maintenance	m <sup>2</sup> or ha

Deemed to be inclusive of watering, weeding, etc.

(c) Landscaping

(i) Planting of trees in bag sizes:

a) up to and including 10 litre      Sum

b) over 10 litre up to and including 20 litre      Sum

c) over 20 litre      Sum

(ii) Planting of shrubs in bag sizes:

a) up to and including 10 litre      Sum

b) over 10 litre up to and including 20 litre      Sum

The rate shall include a supply of plants and materials, preparation of plant holes, planting and maintenance until established.

PUBLIC COMPLAINTS REGISTER

DATE	COMPLAINANT'S NAME	DESIGNATION / AFFILIATION	REASON FOR COMPLAINT	ACTION TAKEN	ACTION BY	ACTION DATE	BY	ACHIEVED BY DATE	DATE REFERRED TO NW environmental control officer

MONITORING OF COMPLIANCE WITH ENVIRONMENTAL SPECIFICATIONS

PROJECT NAME :

CONTRACT NUMBER :

PROJECT MANAGER :

ENGINEER'S REPRESENTATIVE /  
SUPERVISOR :

CONTRACTOR :

CONTRACT PERIOD  
(including start and completion dates) :

PERIOD COVERED :

REPORT PREPARED BY :

-----

Signature

Environmental Control Officer REPORT

PROJECT NAME:

CONTRACT NO.

DATE OF SITE INSPECTIONS DURING REPORTING PERIOD:

---

Specification Breach	Spec. No.	Remedial Action Recommended	Due Date	Authority Responsible	Action Taken





# **PART 4**

# **ANNEXURES**

## CONTENTS

ITEM	ITEM TITLE	PAGE No.
1	PRO FORMA FORMS TO BE COMPLETED BY SUCCESSFUL TENDERER:	
1.1	PERFORMANCE GUARANTEE.	C4.1/3
1.2	AGREEMENT IN TERMS OF OCCUPATIONAL HEALTH AND SAFETY ACT No. 85 OF 1993	C4.1/6
1.3	CERTIFICATE OF AUTHORITY	C4.1/8
1.4	DISCLOSURE STATEMENT (APPOINTMENT OF AD-HOC ADJUDICATION BOARD MEMBER)	C4.1/9
1.5	MONTHLY DATA SHEET	C4.1/10
1.6	NOTIFICATION OF CONSTRUCTION WORK	C4.1/11
2	LIST OF TENDER DRAWINGS	C4.1/13
3	OHS SPECIFICATION	-
4	BASELINE RISK ASSESSMENT	-
5	ENVIRONMENTAL MANAGEMENT PROGRAMME	-

**1.1 PRO FORMA  
PERFORMANCE GUARANTEE**

**GUARANTOR DETAILS AND DEFINITIONS**

“Guarantor” means: .....

Physical address: .....

“Employer” means: .....

“Contractor” means: .....

“Employer’s Agent” means: .....

“Works” means: .....

“Site” means: .....

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

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

Amount in words: .....

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

Amount in words: .....

“Expiry Date” means: .....

**CONTRACT DETAILS**

Employer’s Agent issues: Interim Payment Certificates, Final Payment Certificate and the Certificate for 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 Employer’s Agent of the Certificate of Completion of the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. The Employer’s Agent and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.
3. 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 Employer’s Agent in an Interim or Final Payment Certificate has not

been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;

- 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 .....

Witness signatory (1) .....

Witness signatory (2) .....

**1.2 PRO FORMA  
AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH  
AND SAFETY ACT No. 85 OF 1993**

*(Print clearly)*

THIS AGREEMENT is made between .....

(hereinafter called the EMPLOYER of the one part, herein represented by .....

.....

in his capacity as .....

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

.....

in his capacity as .....

duly authorised to sign on behalf of the Contractor.

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

CONTRACT No. ....

CONTRACT TITLE: .....

.....

for the construction, completion and maintenance of the works;

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

**NOW THEREFORE** the parties agree as follows:

1. The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
2. The CONTRACTOR undertakes to fully comply with all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations, provided that should the EMPLOYER have prescribed certain arrangements and procedures, that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
3. The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures, if any, imposed by the ACT and Regulations, and the CONTRACTOR expressly absolves the EMPLOYER and the Employer's CONSULTING ENGINEERS from being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedures in respect of the work included in the contract.
4. The CONTRACTOR agrees that any duly authorized officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the

CONTRACTOR has complied with his undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.

5. The CONTRACTOR shall be obliged to report forthwith to the EMPLOYER any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this agreement, and shall on written demand, provide full details in writing of such investigation, complaint or criminal charge.

**THUS SIGNED** at .....for and on behalf of the  
CONTRACTOR on this the ..... day of ..... 20 .....

SIGNATURE .....

NAME AND SURNAME: .....

CAPACITY: .....

WITNESSES: 1. .... 2. ....

**THUS SIGNED** at .....for and on behalf of the  
EMPLOYER on this the ..... day of ..... 20 .....

SIGNATURE .....

NAME AND SURNAME: .....

CAPACITY: .....

WITNESSES: 1. .... 2. ....



**1.3 PRO FORMA  
CERTIFICATE OF AUTHORITY FOR SIGNATORY TO SIGN AGREEMENT IN  
TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT No. 85 OF 1993,  
AND CONSTRUCTIONS REGULATIONS (GOVERNMENT NOTICE 37305 07  
FEBRUARY 2014) OR ANY AMENDMENT THERETO.**

The signatory for the company that the CONTRACTOR in terms of the above-mentioned Contract and the Mandatary in terms of the above-mentioned ACT shall confirm his or 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:

*(Print clearly)*

“By resolution of the board of directors passed at a meeting held on ..... 20.....

Mr/Mrs/Ms .....

whose signature appears below, has been duly authorized to sign the AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT No. 85 OF 1993, AND CONSTRUCTIONS REGULATIONS (GOVERNMENT NOTICE 37305 07 FEBRUARY 2014) OR ANY AMENDMENT THERETO on behalf of

*(Name of Company)* .....

SIGNED ON BEHALF OF THE COMPANY

SIGNATURE .....

NAME OF SIGNATORY *(Capitals print)*: .....

CAPACITY OF SIGNATORY .....

WITNESSES 1. Signature .....

Name .....

Date .....

2. Signature .....

Name .....

Date .....

**1.4 PRO FORMA  
DISCLOSURE STATEMENT**

*(Please note that words in italics within brackets are items which should be stated)*

*(Date)*

Contract: *(Name)*

Contractor: *(Name)*

Employer: *(Name)*

Employer's Agent: *(Name)*

Dear Sirs

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

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

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

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

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

Name in full: .....

Signature: .....

**1.5 PRO FORMA  
MONTHLY DATA SHEET: LABOUR DAYS, BENEFICIARY INFORMATION &  
DAILY SITE ATTENDANCE REGISTER**

*(To be completed by the CONTRACTOR and submitted to the EMPLOYER'S AGENT with his monthly payment statement)*

**1.6 PRO FORMA  
NOTIFICATION OF CONSTRUCTION WORK**

**OCCUPATIONAL HEALTH AND SAFETY ACT, 1993  
REGULATION 3 OF THE CONSTRUCTION REGULATIONS, 1993**

***NOTE:*** THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENT OF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.

***ALL PRINCIPAL CONTRACTORS THAT QUALIFY TO NOTIFY MUST DO SO EVEN IF ANOTHER PRINCIPAL CONTRACTOR OF THE SAME SITE HAD DONE SO PRIOR TO THE COMMENCEMENT OF WORK.***

1(a) Name and postal address of principal Contractor:

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

1(b) Name and telephone number of principal Contractor's contact person:

..... Tel: .....

2. Principal Contractor's compensation registration number: .....

3(a) Name and postal address of Client:

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

3(b) Name and telephone number of Client's contact person or agent:

..... Tel: .....

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

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

4(b) Name and telephone number of designer(s) contact person:

..... Tel: .....

5. Name and telephone number of principal Contractor's construction supervisor on site appointed in terms of Regulation 6(1):

..... Tel: .....

6. Name(s) of principal Contractor's sub-ordinate supervisors on site appointed in terms of Regulation 6(2):

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

7. Exact physical address of the construction site or site office:

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

8. Nature of the construction work:

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

9. Expected commencement date: .....

10. Expected completion date: .....

11. Estimated maximum number of persons on the construction site: .....

12. Planned number of contractors on the construction site accountable to principal Contractor:

.....

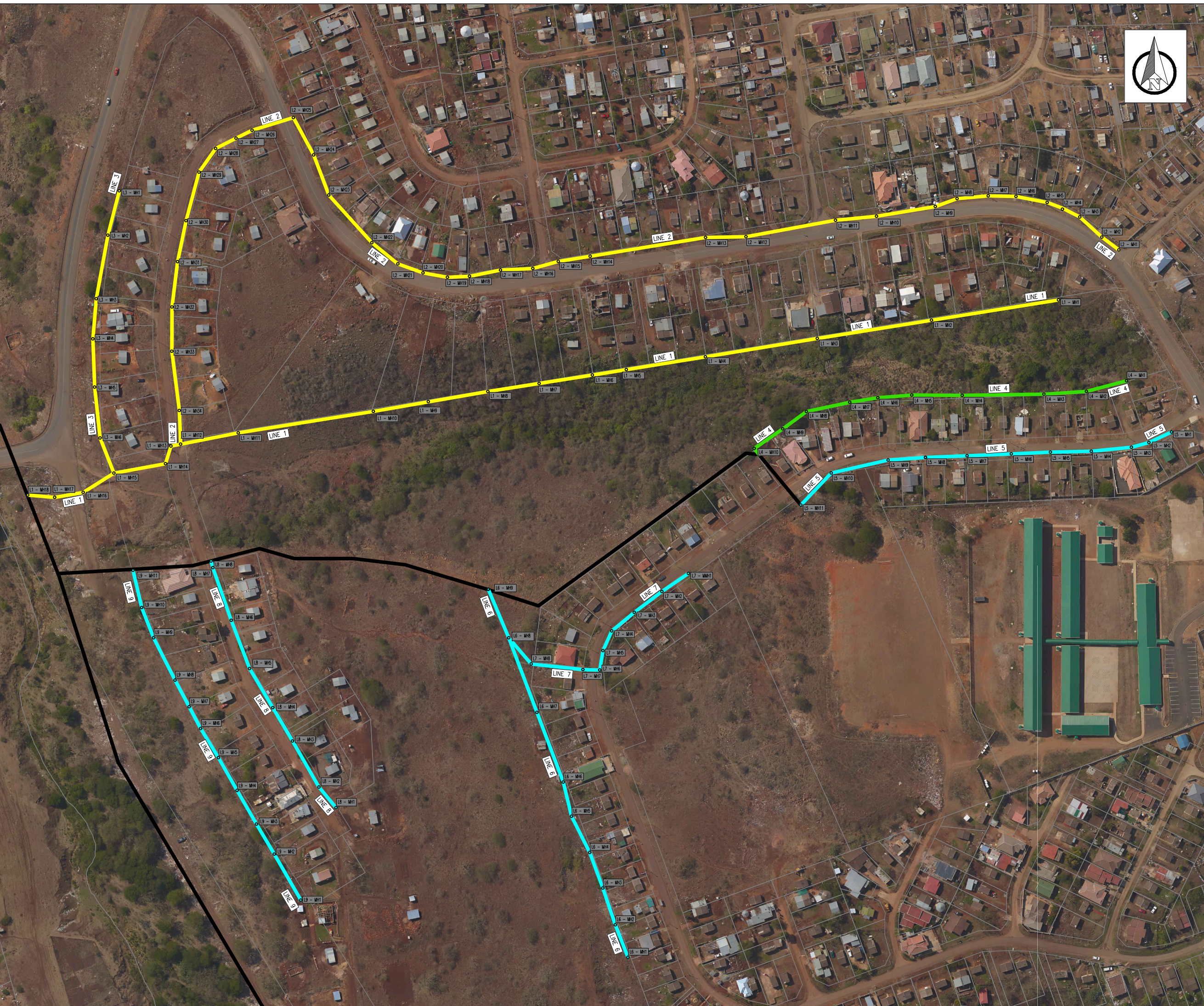
13. Name(s) of contractors already chosen:

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

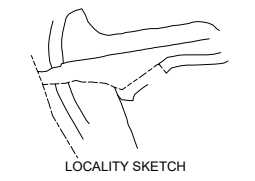
SIGUATURES: ..... Date .....  
Principal Contractor

..... Date .....  
Client





DRG. NO.	TITLE/DESCRIPTION	APPLICABLE DRAWINGS
P0011-07-LP-01	LAYOUT PLAN	
P0011-07-LS-01	LONGITUDINAL SECTION	•
P0011-07-LS-02	LONGITUDINAL SECTION	•
P0011-07-LS-03	LONGITUDINAL SECTION	•
P0011-07-LS-04	LONGITUDINAL SECTION	•
P0011-07-LS-05	LONGITUDINAL SECTION	•
P0011-07-LS-06	LONGITUDINAL SECTION	•
P0011-07-LS-07	LONGITUDINAL SECTION	•
P0011-07-LS-08	LONGITUDINAL SECTION	•



SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

LEGEND	
•	MAN-HOLE
— (Yellow)	PROPOSED SEWER DESIGN
— (Green)	SCOPE FOR SUB CONTRACTOR
— (Black)	EXISTING SEWER
— (Cyan)	FUTURE SEWER

REV	DESCRIPTION	MADE BY	DATE

CONSULTANT



Consulting • Project Management

IMPANDE HOUSE  
12 OLD HOWICK ROAD  
PIETERMARITZBURG

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MSUNDUZI MUNICIPALITY  
INFRASTRUCTURE SERVICES AND FACILITIES  
WATER AND SANITATION DIVISION

B. SIVPARSAD  
PROCESS MANAGER : WATER AND SANITATION




PIETERMARITZBURG  
MSUNDUZI

PROJECT TITLE / DRAWING TITLE

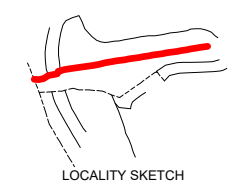
**CONSTRUCTION OF SEWER  
RETICULATION PIPELINE IN  
WARD 13 (SHENSTONE AMBLETON)**  
LAYOUT PLAN

SCALES ON A1 1 : 1000

DESIGN	NL	PROCESS MANAGER	BS
DRAWN	BM	TEAM MANAGER	RM
CHECKED	TN	AS BUILT	
DESIGN		DATE	04-2024
DRAWING NO.	P0011-07-LP-01	REVISION	

REFERENCE DRAWINGS		
DRG. NO.	TITLE/ DESCRIPTION	APPLICABLE DRAWINGS
P0011-07 - LP - 01	LAYOUT PLAN	•
P0011-07 - LS - 01	LONGITUDINAL SECTION	
P0011-07 - LS - 02	LONGITUDINAL SECTION	•
P0011-07 - LS - 03	LONGITUDINAL SECTION	
P0011-07 - LS - 04	LONGITUDINAL SECTION	
P0011-07 - LS - 05	LONGITUDINAL SECTION	
P0011-07 - LS - 06	LONGITUDINAL SECTION	
P0011-07 - LS - 07	LONGITUDINAL SECTION	
P0011-07 - LS - 08	LONGITUDINAL SECTION	

- GENERAL NOTES**
- THIS DRAWING PROVIDES INFORMATION RELATED TO THE FORM OF THE WORK WHEN COMPLETED TOGETHER WITH GUIDANCE, WHERE FUNDAMENTAL TO THE DESIGN, FOR THE SEQUENCE OF CONSTRUCTION. THIS DRAWING DOES NOT PURPORT TO INCLUDE ANY NECESSARY PRECAUTIONS, ITEMS OR COMPONENTS REQUIRED FOR CONSTRUCTION SAFETY. ALL SUCH PRECAUTIONS MUST BE TAKEN AND ITEMS OR COMPONENTS SUPPLIED BY THE CONTRACTOR.
  - ANY DISCREPANCIES ARE TO BE CONFIRMED WITH THE ENGINEER ON SITE PRIOR TO WORK PROCEEDING.
  - ONLY WRITTEN DIMENSIONS SHALL BE USED.
  - ALL DIMENSIONS ARE IN METERS.



SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

**LEGEND**

-----	NATURAL GROUND LEVEL
=====	PIPELINE

REV	DESCRIPTION	MADE BY	DATE

CONSULTANT



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**MSUNDUZI MUNICIPALITY**  
INFRASTRUCTURE SERVICES AND FACILITIES  
WATER AND SANITATION DIVISION

**B. SIVPARSAD**  
PROCESS MANAGER : WATER AND SANITATION



**CITY OF CHOICE**  
PIETERMARITZBURG  
MSUNDUZI

PROJECT TITLE / DRAWING TITLE

**CONSTRUCTION OF SEWER  
RETICULATION PIPELINE IN  
WARD 13 (SHENSTONE AMBLETON)**  
LONG - SECTIONS

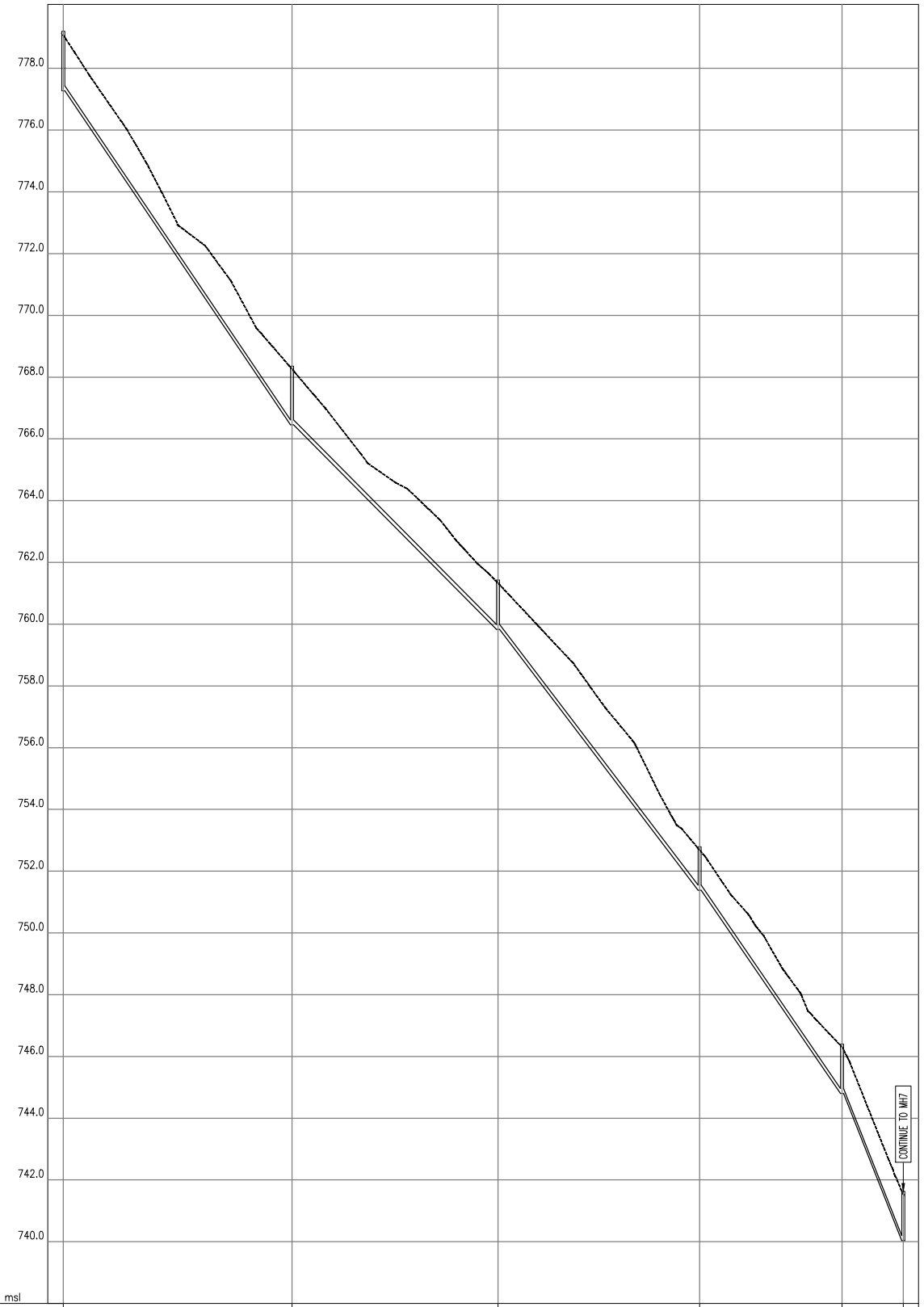
SCALES ON A1  
HORIZONTAL 1 : 1000  
VERTICAL 1 : 100

DESIGN	NL	PROCESS MANAGER	BS
DRAWN	BM	TEAM MANAGER	RM
CHECKED	TN	AS BUILT	

DESIGN	DATE	04-2024
DRAWING NO.	P0011-07-LS-01	REVISION

**SETTING OUT DETAILS LINE 1.**

REFERENCE	Y	X
L1 - MH1	60986.755	3283845.747
L1 - MH2	61059.973	3283857.456
L1 - MH3	61125.846	3283868.002
L1 - MH4	61190.299	3283878.548
L1 - MH5	61235.879	3283885.930
L1 - MH6	61255.418	3283889.094



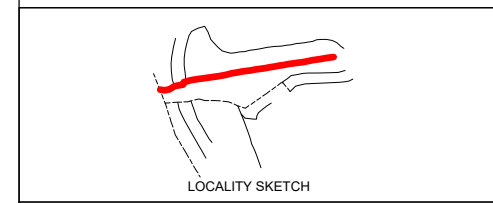
MANHOLE REFERENCE	L1 - MH1	L1 - MH2	L1 - MH3	L1 - MH4	L1 - MH5	L1 - MH6
PEG DISTANCE (m)	0.00	741.15	140.86	206.17	252.34	272.14
GROUND LEVEL (msl)	779.08	768.26	761.33	752.69	746.30	741.53
INVERT LEVEL (msl)	777.28	766.46	759.83	751.39	744.80	740.03
DEPTH (m)	1.80	1.80	1.50	1.30	1.50	1.50
GRADE (1:_)	6.85	10.07	7.73	7.01	4.16	
PIPE DESCRIPTION	160mm dia./Class 34 - SEWER PIPE					

**LINE 1 MH1 - MH6**



REFERENCE DRAWINGS		
DRG. NO.	TITLE / DESCRIPTION	APPLICABLE DRAWINGS
P0011-07 - LP - 01	LAYOUT PLAN	•
P0011-07 - LS - 01	LONGITUDINAL SECTION	•
P0011-07 - LS - 02	LONGITUDINAL SECTION	•
P0011-07 - LS - 03	LONGITUDINAL SECTION	•
P0011-07 - LS - 04	LONGITUDINAL SECTION	•
P0011-07 - LS - 05	LONGITUDINAL SECTION	•
P0011-07 - LS - 06	LONGITUDINAL SECTION	•
P0011-07 - LS - 07	LONGITUDINAL SECTION	•
P0011-07 - LS - 08	LONGITUDINAL SECTION	•

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  - ONLY WRITTEN DIMENSIONS SHALL BE USED.
  - ALL DIMENSIONS ARE IN METERS.



SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

**LEGEND**

-----	NATURAL GROUND LEVEL
=====	PIPELINE

REV	DESCRIPTION	MADE BY	DATE

CONSULTANT



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PROCESS MANAGER : WATER AND SANITATION



PROJECT TITLE / DRAWING TITLE

**CONSTRUCTION OF SEWER  
RETICULATION PIPELINE IN  
WARD 13 (SHENSTONE AMBLETON)**  
LONG - SECTIONS

SCALES ON A1

HORIZONTAL	1 : 1000
VERTICAL	1 : 100

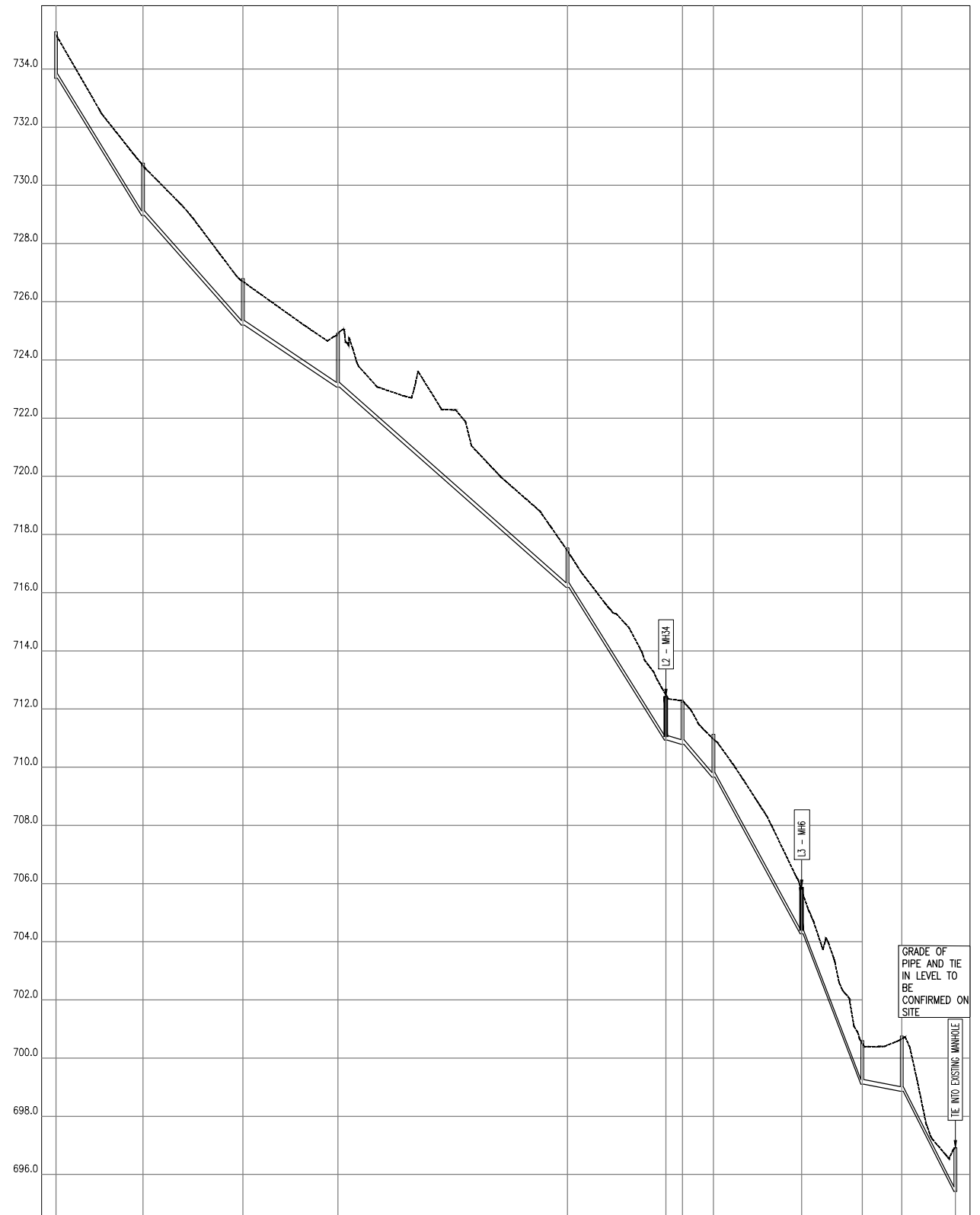
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DRAWN	BM	TEAM MANAGER	RM
CHECKED	TN	AS BUILT	

DESIGN	DATE	04-2024
DRAWING NO.	REVISION	

P0011-07-LS-02

**SETTING OUT DETAILS LINE 1.**

REFERENCE	Y	X
L1 - MH7	61286.124	3283893.937
L1 - MH8	61315.653	3283898.594
L1 - MH9	61349.451	3283904.448
L1 - MH10	61381.670	3283910.027
L1 - MH11	61459.534	3283922.413
L1 - MH12	61492.756	3283928.886
L1 - MH13	61498.356	3283929.977
L1 - MH14	61501.483	3283940.184
L1 - MH15	61531.263	3283945.566
L1 - MH16	61548.971	3283956.708
L1 - MH17	61562.458	3283957.353
L1 - MH18	61580.898	3283958.234



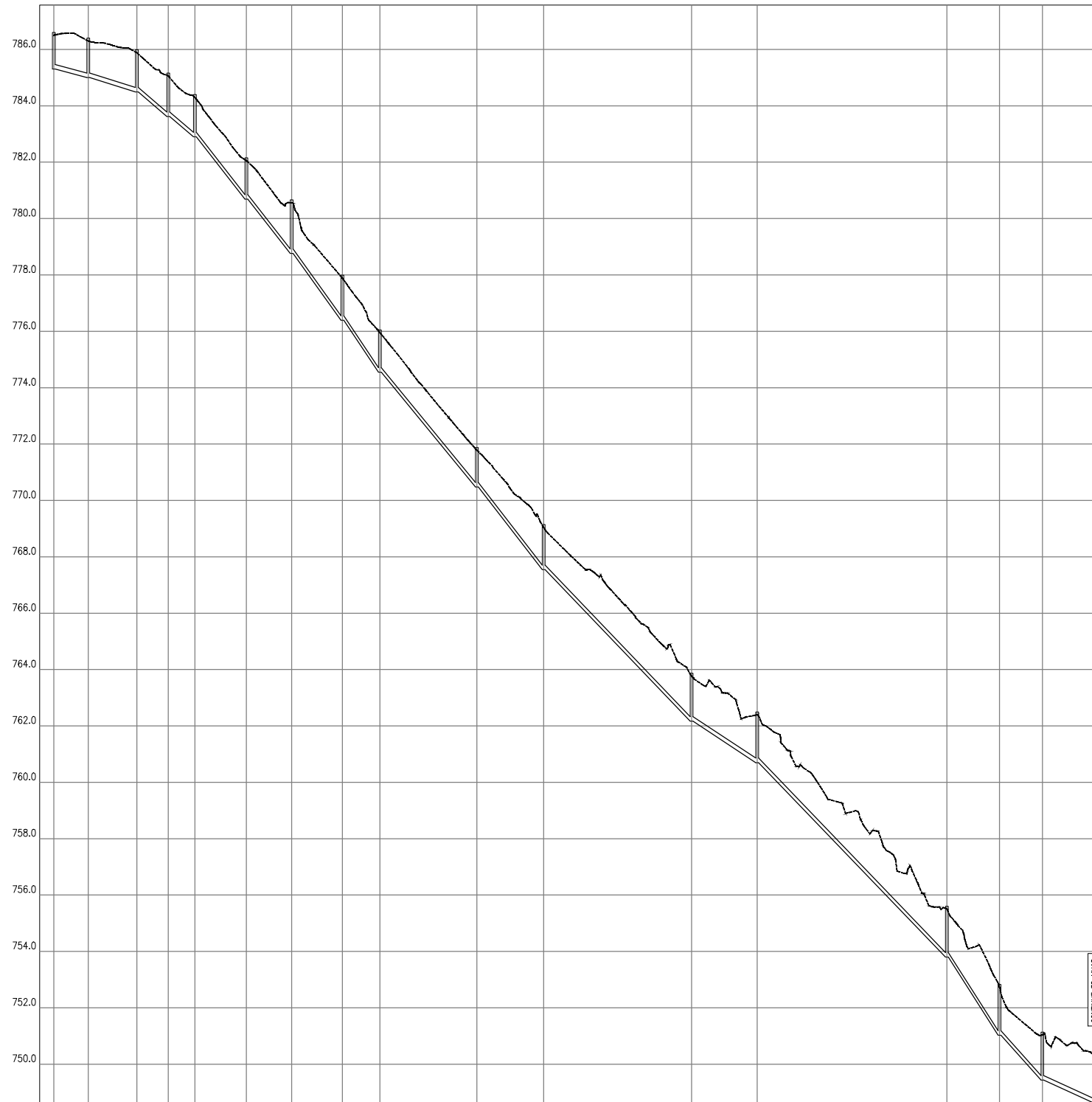
DATUM : 694.00 msl

MANHOLE REFERENCE	PEG DISTANCE (m)	GROUND LEVEL (msl)	INVERT LEVEL (msl)	DEPTH (m)	GRADE (1:_)
L1 - MH7	303.22	735.18	733.68	1.50	6.34
L1 - MH8	333.12	730.67	728.97	1.70	9.09
L1 - MH9	367.42	726.69	725.19	1.50	15.39
L1 - MH10	400.12	724.92	723.07	1.85	11.45
L1 - MH11	478.96	717.44	716.19	1.26	6.44
L1 - MH12	512.81	712.49	710.93	1.56	40.4
L1 - MH13	518.51	712.29	710.79	1.50	9.44
L1 - MH14	529.19	710.96	709.66	1.30	5.62
L1 - MH15	559.45	705.77	704.28	1.50	4.04
L1 - MH16	580.37	700.50	699.10	1.40	55.79
L1 - MH17	593.87	700.66	698.86	1.80	5.36
L1 - MH18	612.33	696.92	695.42	1.50	

160mm dia./Class 34 - SEWER PIPE

**LINE 1 MH7 - MH18**

SETTING OUT DETAILS LINE 2.		
REFERENCE	Y	X
L2 - MH1	60951.978	3283816.946
L2 - MH2	60961.784	3283809.604
L2 - MH3	60974.513	3283798.014
L2 - MH4	60984.439	3283792.888
L2 - MH5	60993.295	3283789.621
L2 - MH6	61011.244	3283786.115
L2 - MH7	61027.301	3283785.765
L2 - MH8	61045.226	3283787.367
L2 - MH9	61057.777	3283791.945
L2 - MH10	61091.708	3283797.576
L2 - MH11	61115.313	3283799.825
L2 - MH12	61166.917	3283809.366
L2 - MH13	61190.226	3283809.793
L2 - MH14	61256.692	3283820.610
L2 - MH15	61275.111	3283823.608
L2 - MH16	61289.764	3283827.670
L2 - MH17	61308.427	3283828.549



DATUM : 748.00 msl

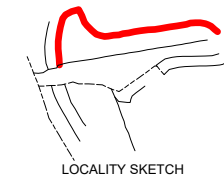
MANHOLE REFERENCE	PEG DISTANCE (m)	GROUND LEVEL (msl)	INVERT LEVEL (msl)	DEPTH (m)	GRADE (1:_)	PIPE DESCRIPTION
L2 - MH1	0.00	786.50	785.30	1.20	40.57	160mm dia./Class 34 - SEWER PIPE
L2 - MH2	12.25	786.30	785.00	1.30	33.62	
L2 - MH3	29.47	785.89	784.49	1.40	12.86	
L2 - MH4	40.64	785.06	783.62	1.44	13.11	
L2 - MH5	50.08	784.30	782.90	1.40	8.27	
L2 - MH6	68.36	782.06	780.69	1.37	8.33	
L2 - MH7	84.42	780.56	778.76	1.80	7.59	
L2 - MH8	102.42	777.89	776.39	1.50	7.27	
L2 - MH9	115.78	775.95	774.55	1.40	8.45	
L2 - MH10	150.18	771.78	770.48	1.30	8.07	
L2 - MH11	173.89	769.04	767.54	1.50	9.76	
L2 - MH12	226.37	763.77	762.17	1.60	15.86	
L2 - MH13	249.68	762.40	760.70	1.70	9.76	
L2 - MH14	317.02	755.50	753.80	1.70	6.73	
L2 - MH15	335.68	752.73	751.03	1.70	9.56	
L2 - MH16	350.89	751.04	749.44	1.60	22.84	
L2 - MH17	369.57	750.32	748.62	1.70		

LINE 2 MH1 - MH17

REFERENCE DRAWINGS		
DRG. NO.	TITLE/ DESCRIPTION	APPLICABLE DRAWINGS
P0011-07 - LP - 01	LAYOUT PLAN	•
P0011-07 - LS - 01	LONGITUDINAL SECTION	
P0011-07 - LS - 02	LONGITUDINAL SECTION	
P0011-07 - LS - 03	LONGITUDINAL SECTION	
P0011-07 - LS - 04	LONGITUDINAL SECTION	
P0011-07 - LS - 05	LONGITUDINAL SECTION	•
P0011-07 - LS - 06	LONGITUDINAL SECTION	
P0011-07 - LS - 07	LONGITUDINAL SECTION	
P0011-07 - LS - 08	LONGITUDINAL SECTION	

GENERAL NOTES

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LOCALITY SKETCH

SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

LEGEND

- NATURAL GROUND LEVEL
- ===== PIPELINE

REV	DESCRIPTION	MADE BY	DATE

CONSULTANT



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WATER AND SANITATION DIVISION

**B. SIVPARSAD**  
PROCESS MANAGER : WATER AND SANITATION



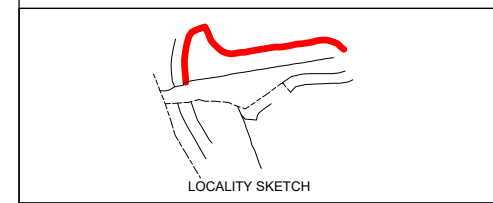
PROJECT TITLE / DRAWING TITLE

**CONSTRUCTION OF SEWER  
RETICULATION PIPELINE IN  
WARD 13 (SHENSTONE AMBLETON)**  
LONG - SECTIONS

SCALES ON A1		HORIZONTAL 1 : 1000		VERTICAL 1 : 100	
DESIGN	NL	PROCESS MANAGER	BS		
DRAWN	BM	TEAM MANAGER	RM		
CHECKED	TN	AS BUILT			
DESIGN		DATE	04-2024		
DRAWING NO.	P0011-07-LS-03	REVISION			

REFERENCE DRAWINGS		
DRG. NO.	TITLE/ DESCRIPTION	APPLICABLE DRAWINGS
P0011-07 - LP - 01	LAYOUT PLAN	•
P0011-07 - LS - 01	LONGITUDINAL SECTION	•
P0011-07 - LS - 02	LONGITUDINAL SECTION	•
P0011-07 - LS - 03	LONGITUDINAL SECTION	•
P0011-07 - LS - 04	LONGITUDINAL SECTION	•
P0011-07 - LS - 05	LONGITUDINAL SECTION	•
P0011-07 - LS - 06	LONGITUDINAL SECTION	•
P0011-07 - LS - 07	LONGITUDINAL SECTION	•
P0011-07 - LS - 08	LONGITUDINAL SECTION	•

- GENERAL NOTES**
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  - ALL DIMENSIONS ARE IN METERS.



SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

LEGEND

-----	NATURAL GROUND LEVEL
=====	PIPELINE

REV	DESCRIPTION	MADE BY	DATE

CONSULTANT

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WATER AND SANITATION DIVISION

**B. SIVPARSAD**  
PROCESS MANAGER : WATER AND SANITATION



PROJECT TITLE / DRAWING TITLE

**CONSTRUCTION OF SEWER  
RETICULATION PIPELINE IN  
WARD 13 (SHENSTONE AMBLETON)**  
LONG - SECTIONS

SCALES ON A1

HORIZONTAL 1 : 1000  
VERTICAL 1 : 100

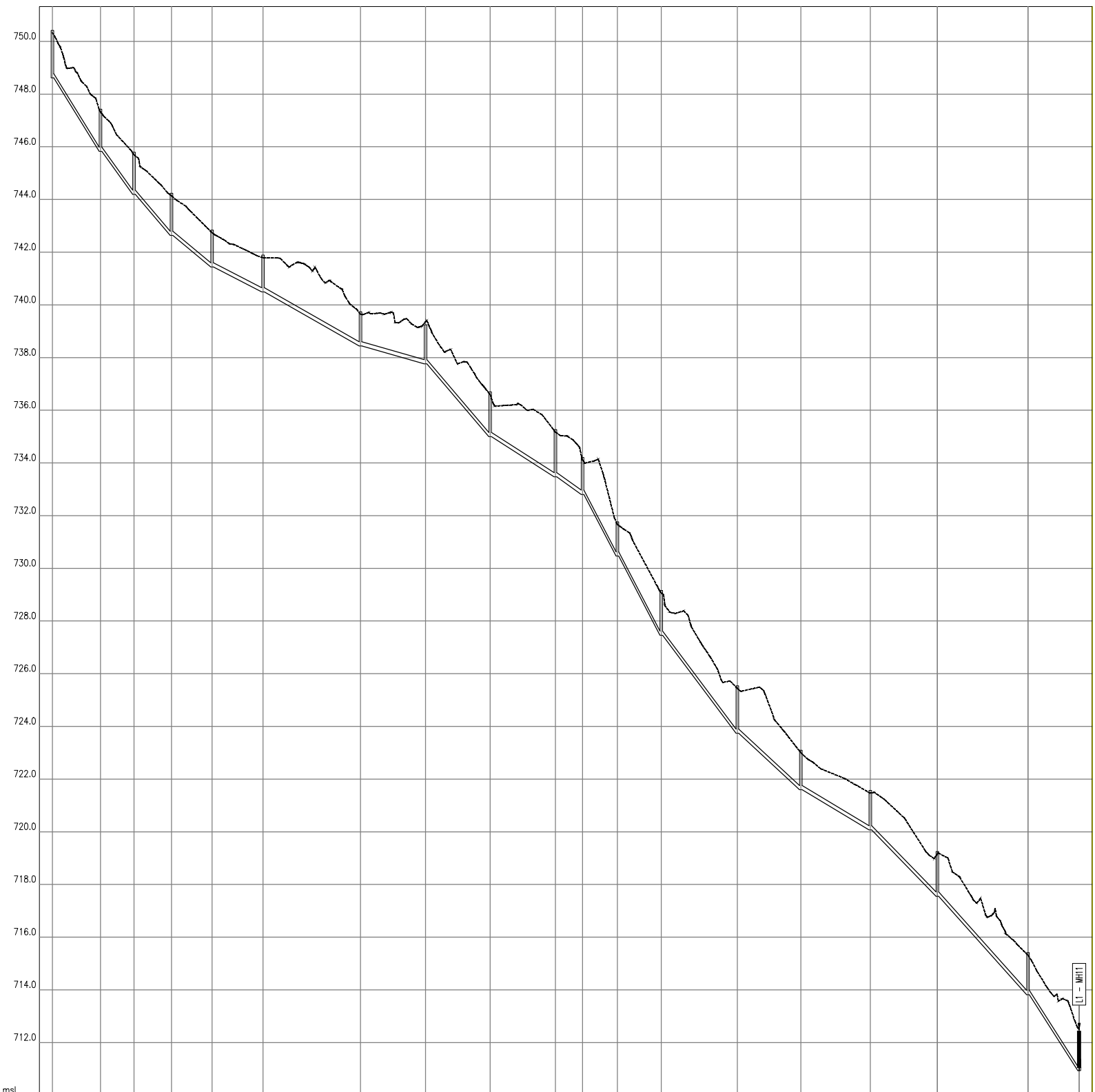
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DRAWN	BM	TEAM MANAGER	RM
CHECKED	TN	AS BUILT	

DESIGN DATE 04-2024

DRAWING NO. P0011-07-LS-04 REVISION

SETTING OUT DETAILS LINE 2.

REFERENCE	Y	X
L2 - MH17	61308.427	3283828.549
L2 - MH18	61326.304	3283832.160
L2 - MH19	61338.988	3283832.717
L2 - MH20	61353.056	3283830.190
L2 - MH21	61367.514	3283825.026
L2 - MH22	61382.583	3283812.781
L2 - MH23	61407.389	3283785.374
L2 - MH24	61416.092	3283762.253
L2 - MH25	61427.832	3283740.698
L2 - MH26	61451.560	3283748.009
L2 - MH27	61460.819	3283752.600
L2 - MH28	61472.622	3283758.452
L2 - MH29	61482.187	3283772.174
L2 - MH30	61489.640	3283800.093
L2 - MH31	61494.561	3283823.712
L2 - MH32	61497.752	3283849.843
L2 - MH33	61497.853	3283875.363
L2 - MH34	61493.558	3283909.467
L1 - MH12	61492.756	3283928.886

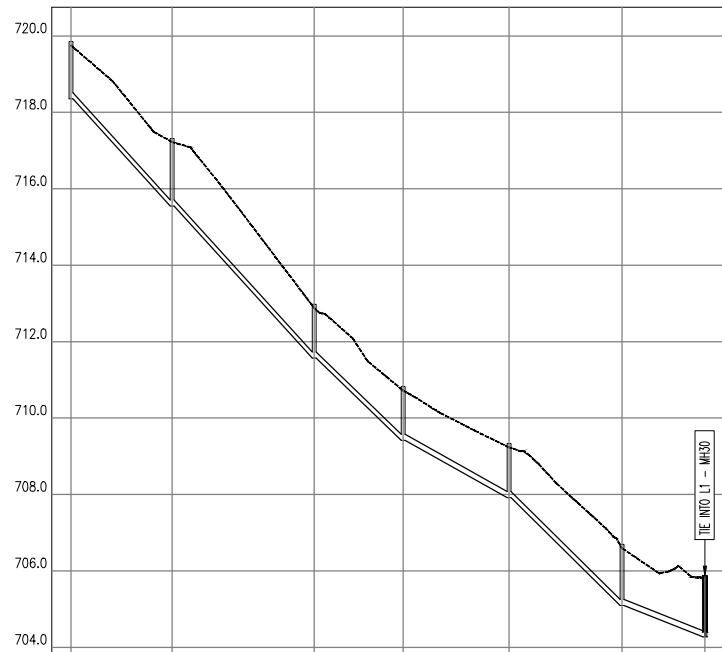


DATUM : 710.00 msl

MANHOLE REFERENCE	PEG DISTANCE (m)	GROUND LEVEL (msl)	INVERT LEVEL (msl)	DEPTH (m)	GRADE (1:..)	PIPE DESCRIPTION
L2 - MH17	389.57	750.32	748.62	1.70	6.53	160mm dia./Class 34 - SEWER PIPE
L2 - MH18	397.81	747.33	745.83	1.50	7.79	
L2 - MH19	400.51	745.70	744.20	1.50	9.16	
L2 - MH20	414.80	744.14	742.84	1.50	12.84	
L2 - MH21	430.15	742.74	741.44	1.30	20.40	
L2 - MH22	449.57	741.79	740.49	1.30	18.06	
L2 - MH23	486.53	739.64	738.44	1.20	36.22	
L2 - MH24	511.24	739.36	737.76	1.60	8.89	
L2 - MH25	535.78	736.60	735.00	1.60	16.23	
L2 - MH26	560.61	735.17	733.47	1.70	15.59	
L2 - MH27	570.95	734.11	732.81	1.30	5.63	
L2 - MH28	584.12	731.67	730.47	1.20	5.56	
L2 - MH29	600.85	729.06	727.46	1.60	7.77	
L2 - MH30	629.74	725.44	723.74	1.70	11.25	
L2 - MH31	653.87	723.00	721.60	1.40	17.24	
L2 - MH32	680.20	721.47	720.07	1.40	10.15	
L2 - MH33	705.72	719.16	717.56	1.60	9.20	
L2 - MH34	740.09	715.32	713.82	1.50	6.73	
L1 - MH12	759.53	712.49	710.93	1.56		

LINE 2 L2 - MH18 TO L1 - MH12

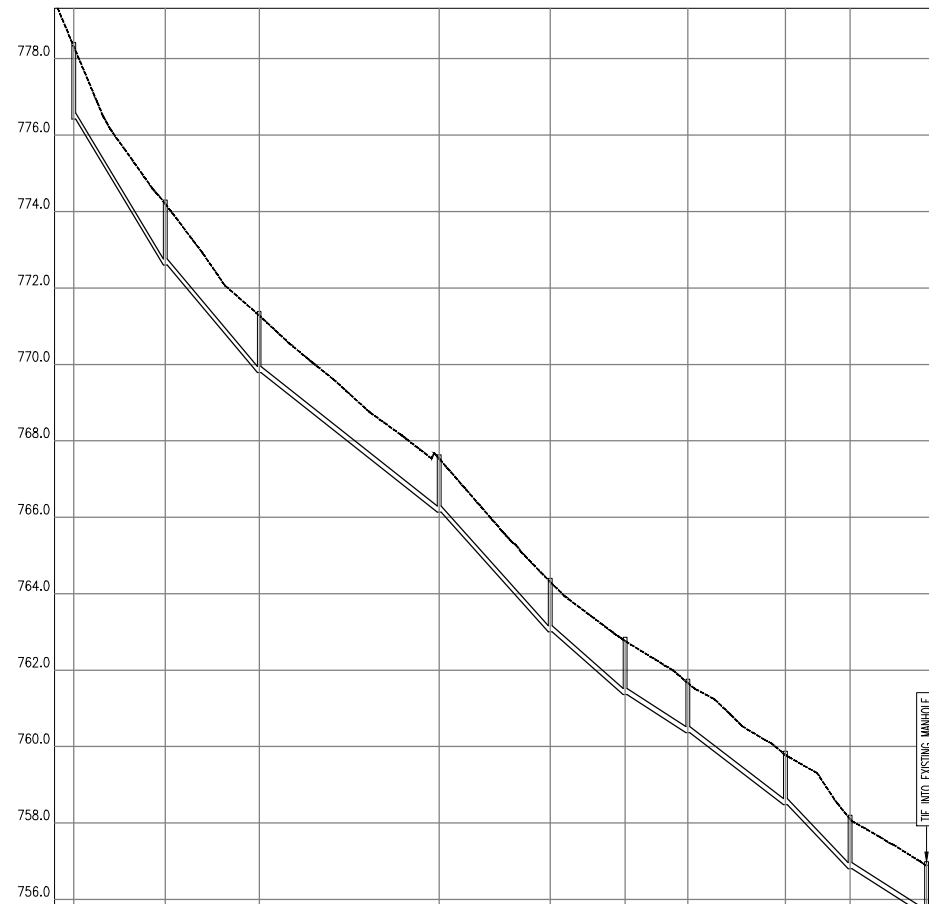
SETTING OUT DETAILS LINE 3.		
REFERENCE	Y	X
L3 - MH1	61528.120	3283782.871
L3 - MH2	61534.721	3283808.521
L3 - MH3	61541.411	3283845.105
L3 - MH4	61543.391	3283868.245
L3 - MH5	61542.310	3283895.988
L3 - MH6	61539.255	3283925.368
L1 - MH30	61531.263	3283945.566



MANHOLE REFERENCE	L3 - MH1	L3 - MH2	L3 - MH3	L3 - MH4	L3 - MH5	L3 - MH6	L1 - MH30
PEG DISTANCE (m)	0.00	26.49	63.68	86.90	114.67	144.20	165.93
GROUND LEVEL (msl)	719.75	717.22	712.88	710.72	709.23	706.60	705.77
INVERT LEVEL (msl)	718.35	715.55	711.57	709.41	707.92	705.10	704.28
DEPTH (m)	1.40	1.67	1.31	1.31	1.31	1.50	1.50
GRADE (1:_)		9.45	9.34	10.78	18.58	10.46	26.46
PIPE DESCRIPTION	160mm dia./Class 34 - SEWER PIPE						

LINE 3

SETTING OUT DETAILS LINE 4.		
REFERENCE	Y	X
L4 - MH1	60947.498	3283892.360
L4 - MH2	60970.669	3283898.445
L4 - MH3	60995.171	3283900.126
L4 - MH4	61042.282	3283900.761
L4 - MH5	61071.354	3283900.563
L4 - MH6	61090.896	3283902.155
L4 - MH7	61107.046	3283904.772
L4 - MH8	61132.043	3283910.076
L4 - MH9	61145.736	3283920.080
L4 - MH10	61162.175	3283931.372



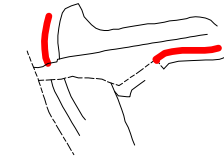
MANHOLE REFERENCE	L4 - MH1	L4 - MH2	L4 - MH3	L4 - MH4	L4 - MH5	L4 - MH6	L4 - MH7	L4 - MH8	L4 - MH9	L4 - MH10
PEG DISTANCE (m)	0.00	23.96	48.52	95.63	124.70	144.31	160.67	186.23	203.18	223.13
GROUND LEVEL (msl)	778.32	774.20	771.28	767.53	764.30	762.76	761.66	759.78	758.10	756.89
INVERT LEVEL (msl)	776.42	772.60	769.78	766.13	763.00	761.36	760.36	758.48	756.80	755.59
DEPTH (m)	1.90	1.60	1.50	1.40	1.30	1.40	1.30	1.30	1.30	1.30
GRADE (1:_)		6.28	8.71	12.91	9.29	11.92	16.41	13.57	10.11	16.50
PIPE DESCRIPTION	160mm dia./Class 34 - SEWER PIPE									

LINE 4

REFERENCE DRAWINGS		
DRG. NO.	TITLE/ DESCRIPTION	APPLICABLE DRAWINGS
P0011-07 - LP - 01	LAYOUT PLAN	•
P0011-07 - LS - 01	LONGITUDINAL SECTION	
P0011-07 - LS - 02	LONGITUDINAL SECTION	•
P0011-07 - LS - 03	LONGITUDINAL SECTION	
P0011-07 - LS - 04	LONGITUDINAL SECTION	
P0011-07 - LS - 05	LONGITUDINAL SECTION	
P0011-07 - LS - 06	LONGITUDINAL SECTION	
P0011-07 - LS - 07	LONGITUDINAL SECTION	
P0011-07 - LS - 08	LONGITUDINAL SECTION	

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SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

LEGEND	
-----	NATURAL GROUND LEVEL
=====	PIPELINE

REV	DESCRIPTION	MADE BY	DATE

CONSULTANT

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PROCESS MANAGER : WATER AND SANITATION

PIETERMARITZBURG  
MSUNDUZI

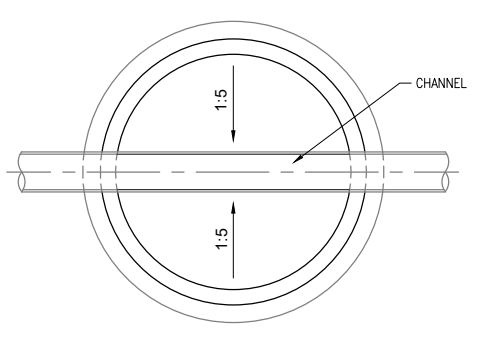
PROJECT TITLE / DRAWING TITLE

**CONSTRUCTION OF SEWER  
RETICULATION PIPELINE IN  
WARD 13 (SHENSTONE AMBLETON)**  
LONG - SECTIONS

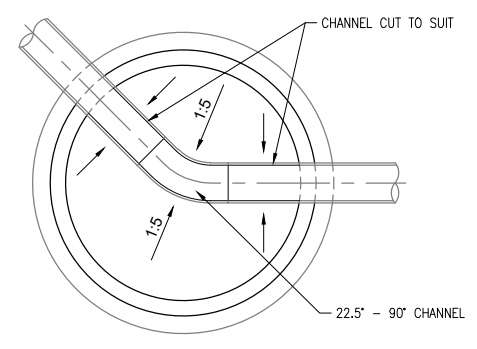
SCALES ON A1		HORIZONTAL 1 : 1000		VERTICAL 1 : 100	
DESIGN	NL	PROCESS MANAGER	BS		
DRAWN	BM	TEAM MANAGER	RM		
CHECKED	TN	AS BUILT			
DESIGN		DATE	04-2024		
DRAWING NO.	P0011-07-LS-05	REVISION			

REFERENCE DRAWINGS		
DRG. NO.	TITLE/ DESCRIPTION	APPLICABLE DRAWINGS
P0011-07 - LP - 01	LAYOUT PLAN	•
P0011-07 - LS - 01	LONGITUDINAL SECTION	•
P0011-07 - LS - 02	LONGITUDINAL SECTION	•
P0011-07 - LS - 03	LONGITUDINAL SECTION	•
P0011-07 - LS - 04	LONGITUDINAL SECTION	•
P0011-07 - LS - 05	LONGITUDINAL SECTION	•
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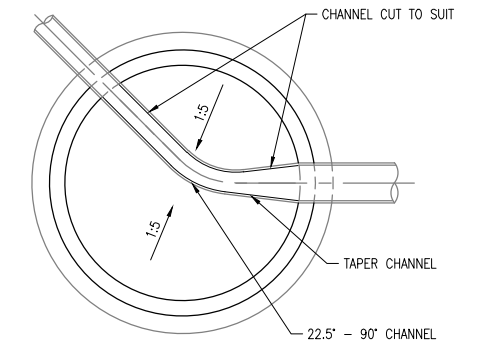
- NOTES**
- THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING P0011-07-SD-02.
  - WHERE APPROACH GRADES INTO THE MANHOLE ARE 1: 15 OR STEEPER AND ASSOCIATED WITH A CHANGE IN DIRECTION IN THE MANHOLE OF 30° OR MORE, THE BENCHING IS TO BE BROUGHT UP TO TWO PIPE DIAMETERS ABOVE THE PIPE INVERT (TYPE B BENCHING SEWERS)
  - RENDERING FOR MANHOLE BENCHING SHALL CONSIST OF ONE PART H.A.C. TO TWO PARTS SAND THOROUGHLY MIXED AND APPLIED TO CONCRETE SURFACES WHILE THE LATTER ARE STILL GREEN. RENDERING SHALL BE AT LEAST 20mm THICK.
  - PLASTIC STEPS ARE NOT REQUIRED IN MANHOLES LESS THAN 1400 DEEP MEASURED FROM THE INVERT OF THE OUTLET PIPE TO THE TOP OF THE CAST IRON COVER
  - CONCRETE BASE SLAB TO BE 25MPa WITH 19mm STONE SIZE
  - MANHOLES TOP OF FRAME MUST BE 50mm TO 250mm PROUD OF NATURAL GROUND LEVEL. RODDING EYES TOP OF THE FRAME MUST BE 50mm TO 250mm PROUD OF FINISHED GROUND LEVEL
  - CONCRETE SECTION TO BE SEALED WITH BITUMEN PUTTY JOINT FROM ABE OR SIMILAR APPROVED
  - FACTORY FABRICATED MANHOLE RINGS MUST COMPLY WITH SANS 1294-1981.
  - OVER EXCAVATION TO BE BACKFILLED WITH A BEDDING MATERIAL ACCORDING TO SPECIFICATION FOR BEDDING MATERIAL.



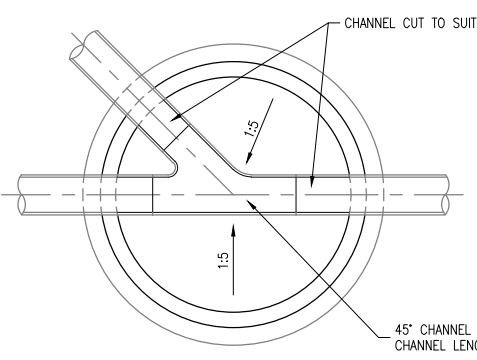
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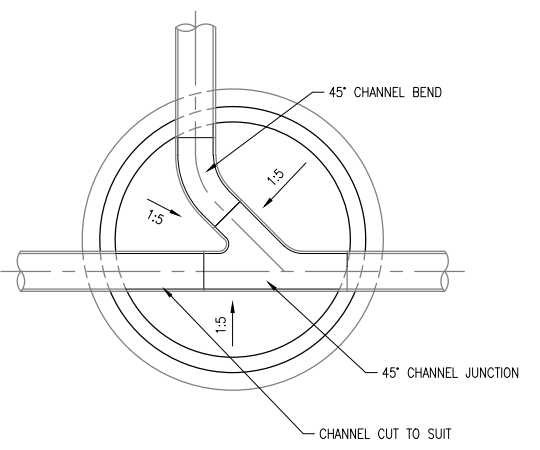
**TYPE 2:**  
**22.5° TO 90° BEND.**



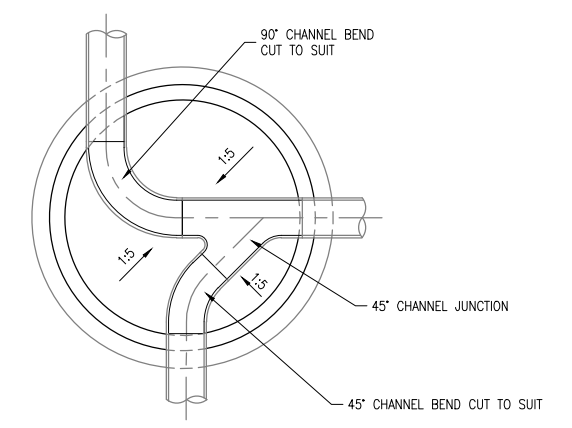
**TYPE 3:**  
**22.5° TO 90° TERMINAL BEND.**



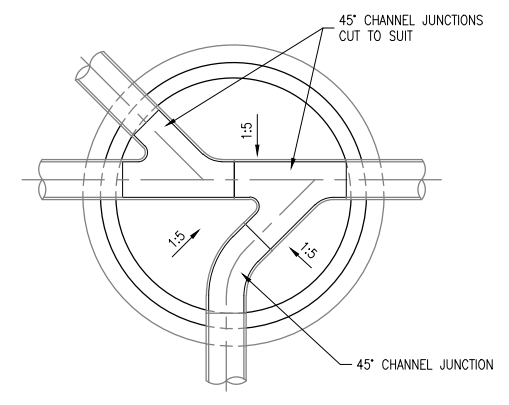
**TYPE 4:**  
**SINGLE JUNCTION**



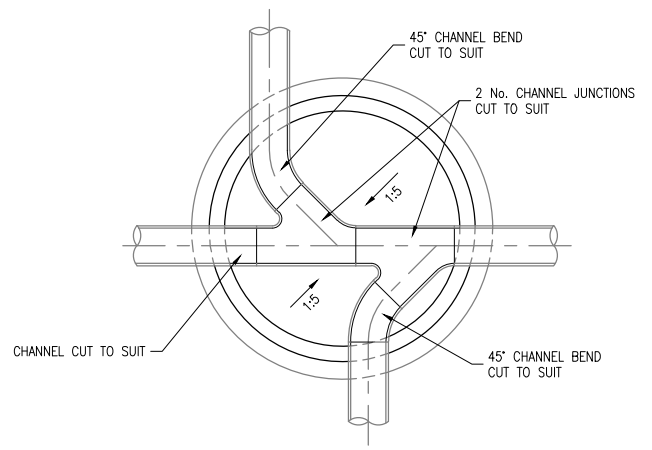
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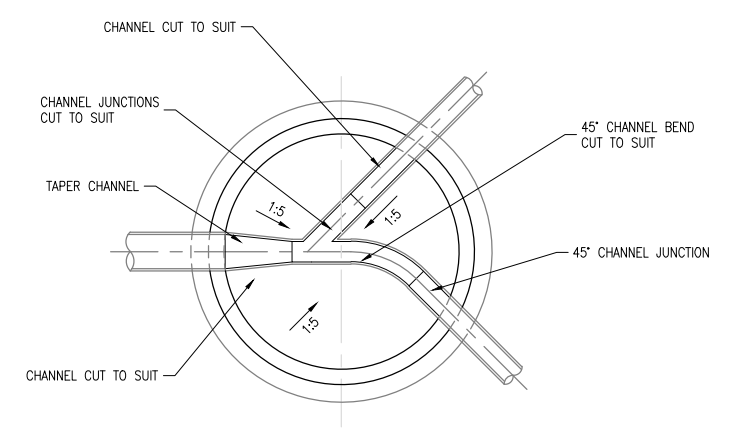
**TYPE 4:**  
**SINGLE JUNCTION.**



**TYPE 5:**  
**DOUBLE JUNCTION.**



**TYPE 5:**  
**DOUBLE JUNCTION.**



**TYPE 6:**  
**TERMINAL JUNCTION.**

DESIGN DEVELOPMENT

SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

LEGEND

REV	DESCRIPTION	MADE BY	DATE

CONSULTANT

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**B. SIVPARSAD**  
PROCESS MANAGER : WATER AND SANITATION

**CITY OF CHOICE**

**PIETERMARITZBURG**  
**MSUNDUZI**

PROJECT TITLE / DRAWING TITLE

**CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 (SHENSTONE AMBLETON)**

TYPICAL SEWER DETAILS:  
MANHOLE BENCHING

SCALES ON A1

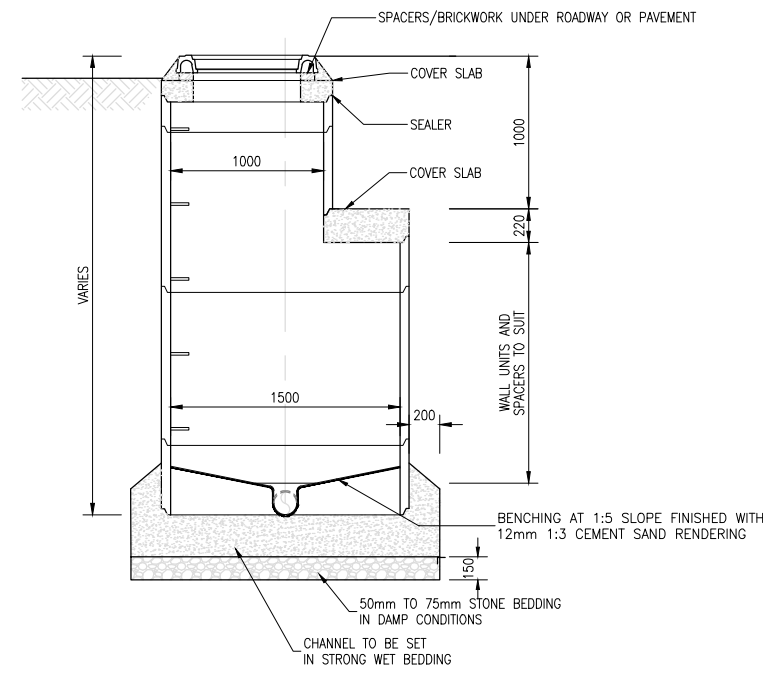
N.T.S

DESIGN	NL	PROCESS MANAGER	BS
DRAWN	BM	TEAM MANAGER	RM
CHECKED	TN	AS BUILT	

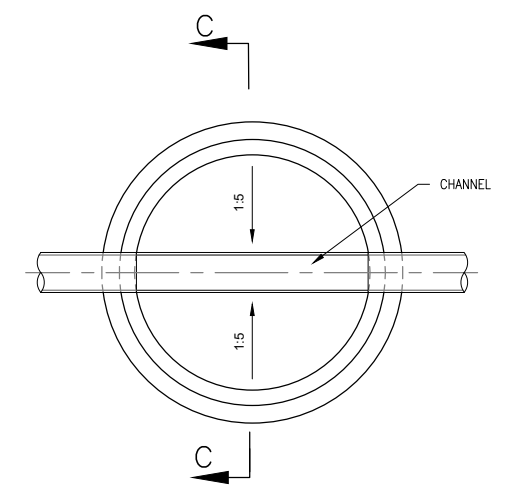
DESIGN	DATE	05-2024
DRAWING NO.	P0011-07-SD-01	
REVISION		

REFERENCE DRAWINGS		
DRG. NO.	TITLE/ DESCRIPTION	APPLICABLE DRAWINGS
P0011-07 - LP - 01	LAYOUT PLAN	•
P0011-07 - LS - 01	LONGITUDINAL SECTION	•
P0011-07 - LS - 02	LONGITUDINAL SECTION	•
P0011-07 - LS - 03	LONGITUDINAL SECTION	•
P0011-07 - LS - 04	LONGITUDINAL SECTION	•
P0011-07 - LS - 05	LONGITUDINAL SECTION	•
P0011-07 - LS - 06	LONGITUDINAL SECTION	•
P0011-07 - LS - 07	LONGITUDINAL SECTION	•
P0011-07 - LS - 08	LONGITUDINAL SECTION	•

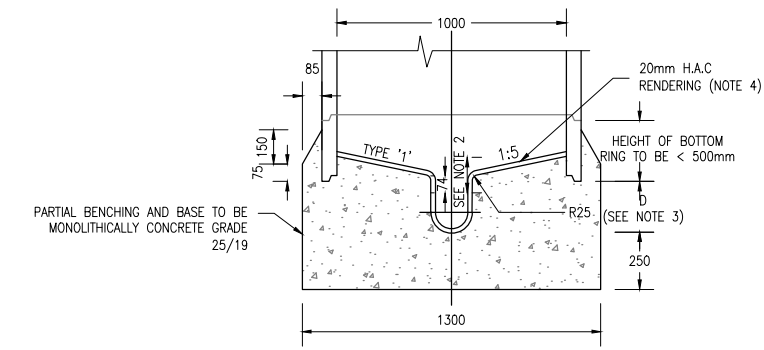
- NOTES**
- THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING P0011-07-SD-01.
  - WHERE APPROACH GRADES INTO THE MANHOLE ARE 1:15 OR STEEPER AND ASSOCIATED WITH A CHANGE IN DIRECTION IN THE MANHOLE OF 30° OR MORE, THE BENCHING IS TO BE BROUGHT UP TO TWO PIPE DIAMETERS ABOVE THE PIPE INVERT (TYPE B BENCHING SEWERS)
  - DIMENSION D VARIES WITH THE DIAMETER OF THE SEWER PIPES AND SHALL BE THE SUM OF 50mm AND THE PIPE DIAMETER
  - RENDERING FOR MANHOLE BENCHING SHALL CONSIST OF ONE PART H.A.C. TO TWO PARTS SAND THOROUGHLY MIXED AND APPLIED TO CONCRETE SURFACES WHILE THE LATTER ARE STILL GREEN. RENDERING SHALL BE AT LEAST 20mm THICK.
  - PLASTIC STEPS ARE NOT REQUIRED IN MANHOLE LESS THAN 1400 DEEP MEASURED FROM THE INVERT OF THE OUTLET PIPE TO THE TOP OF THE CAST CONCRETE COVER
  - CONCRETE COVER TO BE 25MPa WITH 19mm STONE SIZE
  - MANHOLES TOP OF THE FRAME MUST 50mm TO 250mm PROUD OF NATURAL GROUND LEVEL. RODDING EYES TOP OF THE FRAME MUST BE 50mm TO 250mm PROUD OF FINISHED GROUND LEVEL
  - CONCRETE SECTIONS TO BE SEALED WITH BITUMEN PUTTY JOINT FROM ABE OR SIMILAR APPROVED.
  - FACTORY FABRICATED MANHOLE RINGS MUST COMPLY WITH SANS 1294-1981.
  - OVER EXCAVATION TO BE BACKFILLED WITH A BEDDING MATERIAL ACCORDING TO SPECIFICATION FOR BEDDING MATERIAL



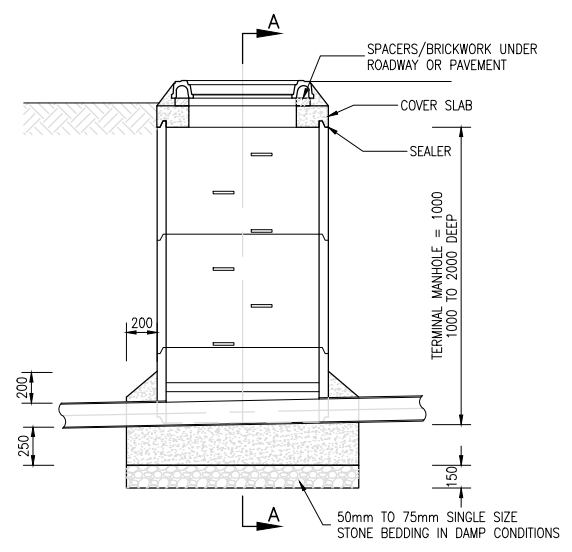
**SECTION FOR MANHOLE DEEPER THAN 2000mm**  
SCALE 1:25



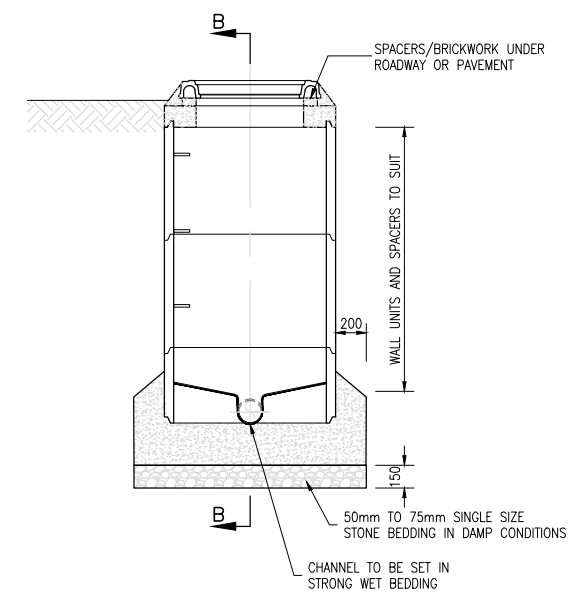
**TYPE 1: STRAIGHT**  
SCALE N.T.S



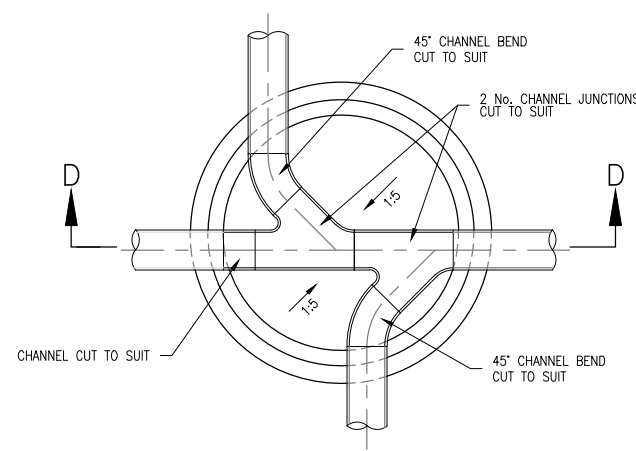
**MANHOLE BENCHING SECTION C-C**  
SCALE N.T.S



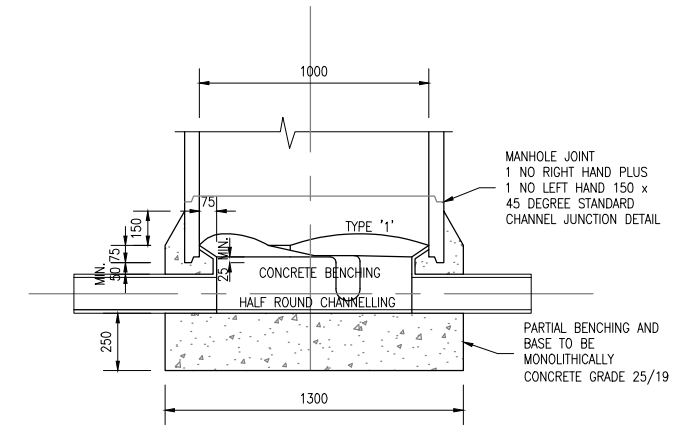
**SECTION B-B FOR MANHOLE SHALLOW THAN 2000mm**  
SCALE 1:20



**SECTION A-A FOR MANHOLE SHALLOW THAN 2000mm**  
SCALE 1:20



**TYPE 5: DOUBLE JUNCTION.**  
SCALE N.T.S



**MANHOLE BENCHING SECTION D-D**  
SCALE N.T.S

DESIGN DEVELOPMENT	
SIGNED	DATE
LEGEND	

REV	DESCRIPTION	MADE BY	DATE

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**B. SIVPARSAD**  
PROCESS MANAGER : WATER AND SANITATION

**CITY OF CHOICE**

**PIETERMARITZBURG MSUNDUZI**

PROJECT TITLE / DRAWING TITLE

**CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 (SHENSTONE AMBLETON)**

TYPICAL SEWER DETAILS:  
MANHOLE & BENCHING DETAILS

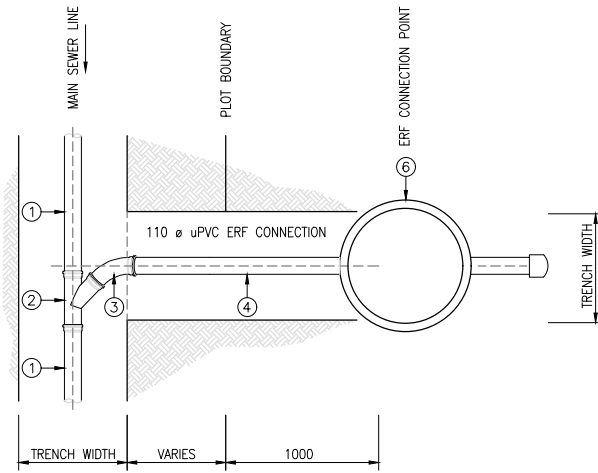
SCALES ON A1 AS SHOWN

DESIGN	NL	PROCESS MANAGER	BS
DRAWN	BM	TEAM MANAGER	RM
CHECKED	TN	AS BUILT	

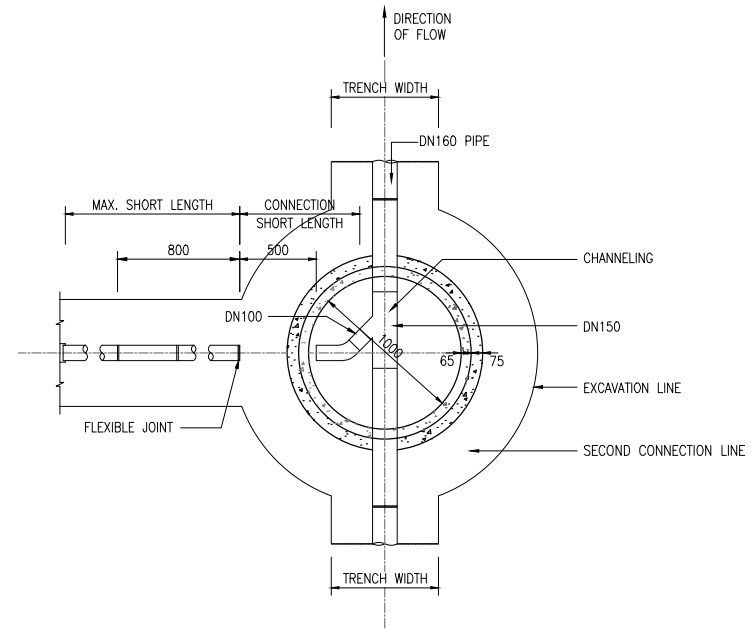
DESIGN DATE 05-2024

DRAWING NO. P0011-07-SD-02 REVISION

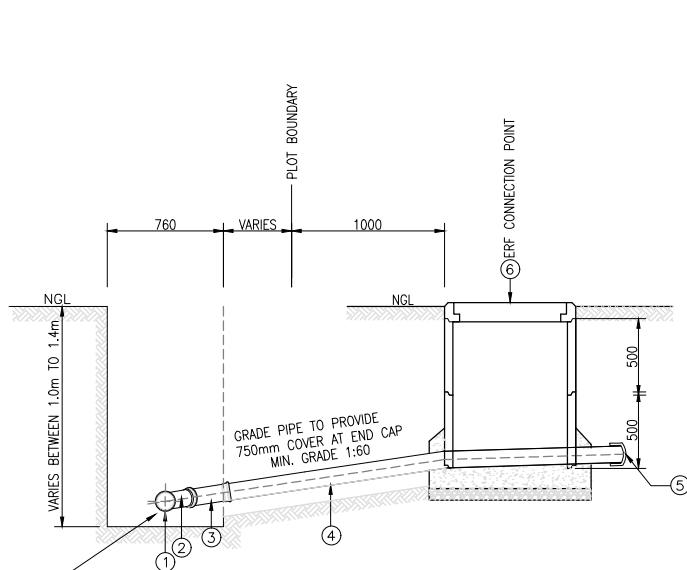
160 ø MAIN SEWER LINE	
ITEM	DESCRIPTION
1	160 ø uPVC SEWER MAIN LINE
2	160 x 110 SEWER JUNCTION TEE
3	110 ø 45° SEWER ELBOW
4	110 ø uPVC SEWER PIPE
5	END CAP
6	TERMINAL MANHOLE



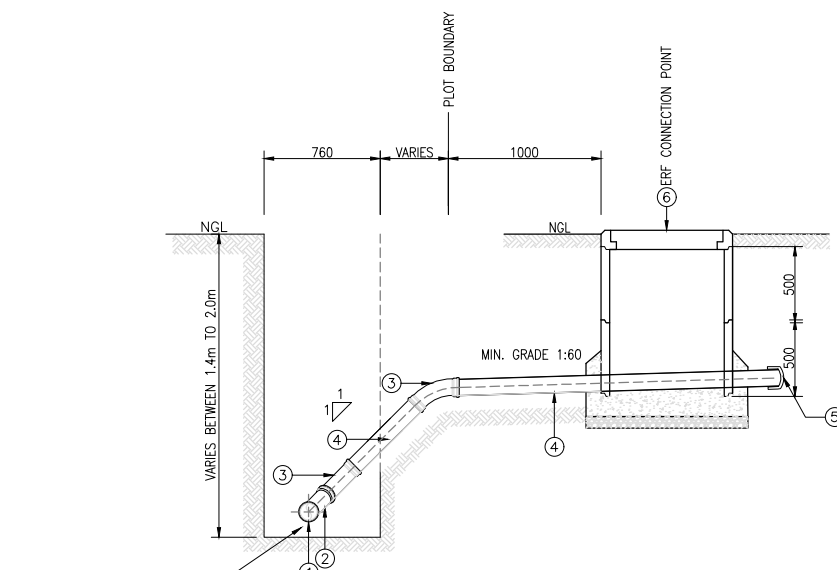
PLAN



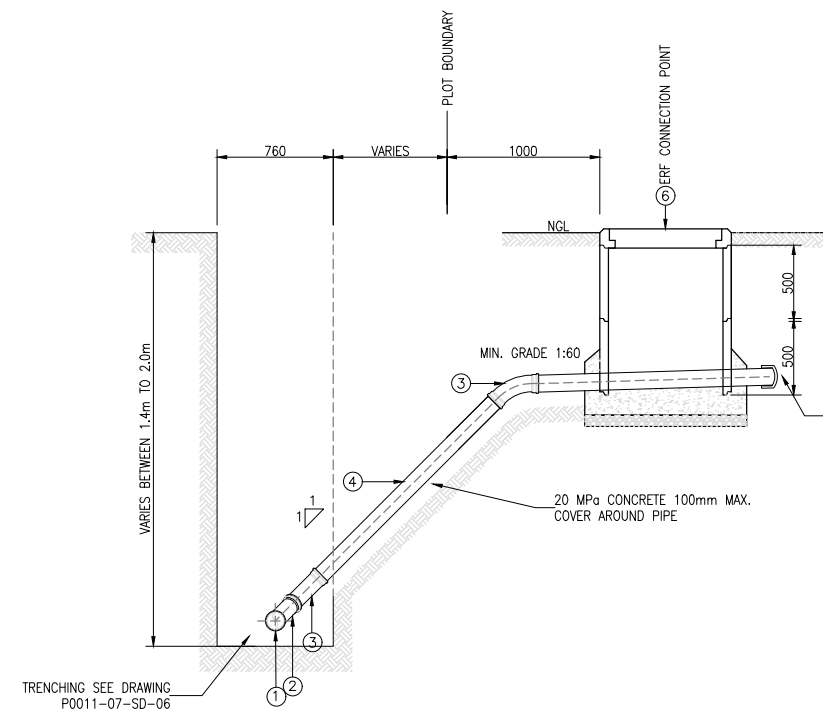
TYPICAL PLAN OF MANHOLE WITH ERF/HOUSE CONNECTION



ERF CONNECTION TYPE A  
MAIN SEWER DEPTH 1.0m TO 1.4m



ERF CONNECTION TYPE B  
MAIN SEWER DEPTH 1.4m TO 2.0m



ERF CONNECTION TYPE C  
MAIN SEWER DEPTH 2.0m AND GREATER

REFERENCE DRAWINGS		
DRG. NO.	TITLE/ DESCRIPTION	APPLICABLE DRAWINGS
P0011-07-LP-01	LAYOUT PLAN	•
P0011-07-LS-01	LONGITUDINAL SECTION	•
P0011-07-LS-02	LONGITUDINAL SECTION	•
P0011-07-LS-03	LONGITUDINAL SECTION	•
P0011-07-LS-04	LONGITUDINAL SECTION	•
P0011-07-LS-05	LONGITUDINAL SECTION	•
P0011-07-LS-06	LONGITUDINAL SECTION	•
P0011-07-LS-07	LONGITUDINAL SECTION	•
P0011-07-LS-08	LONGITUDINAL SECTION	•

NOTES

DESIGN DEVELOPMENT

SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

LEGEND

REV	DESCRIPTION	MADE BY	DATE

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PROJECT TITLE / DRAWING TITLE

**CONSTRUCTION OF SEWER  
RETICULATION PIPELINE IN  
WARD 13 (SHENSTONE AMBLETON)**

TYPICAL SEWER DETAILS:  
ERF CONNECTIONS

SCALES ON A1 N.T.S

DESIGN	NL	PROCESS MANAGER	BS
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CHECKED	TN	AS BUILT	

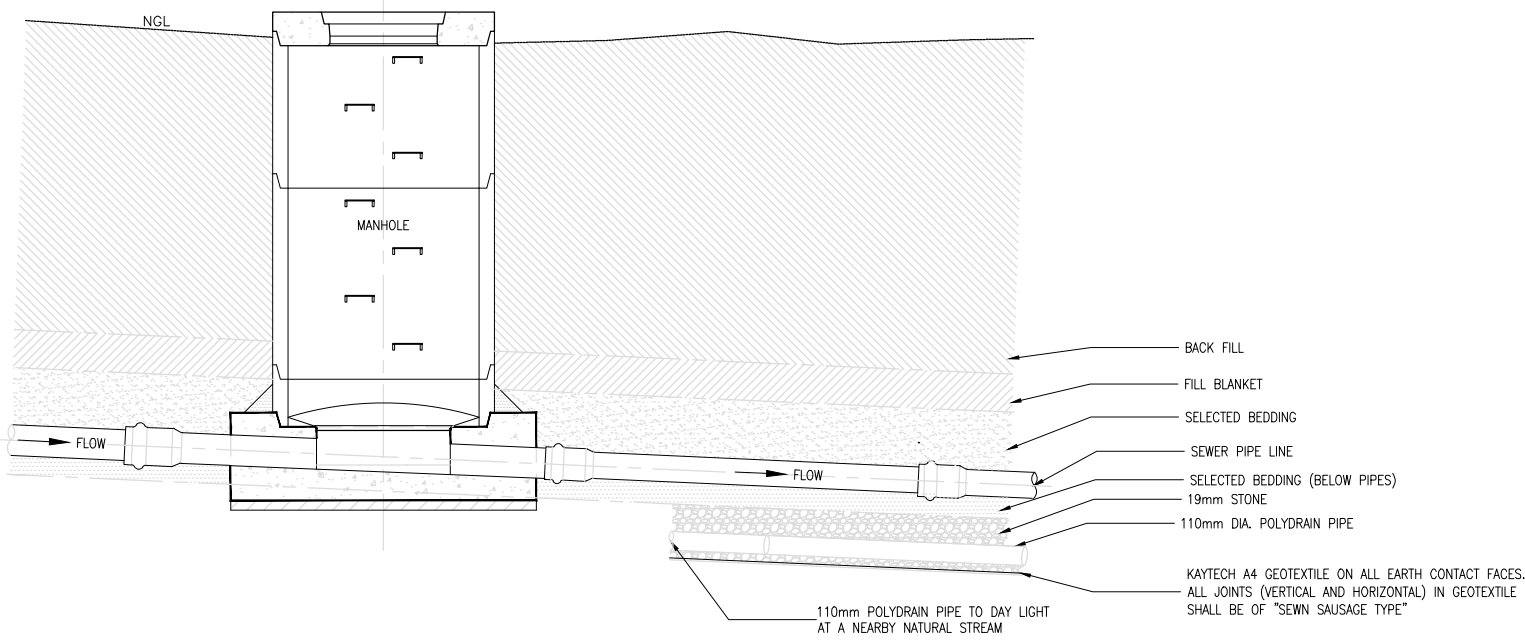
DESIGN DATE 05-2024

DRAWING NO. P0011-07-SD-03 REVISION

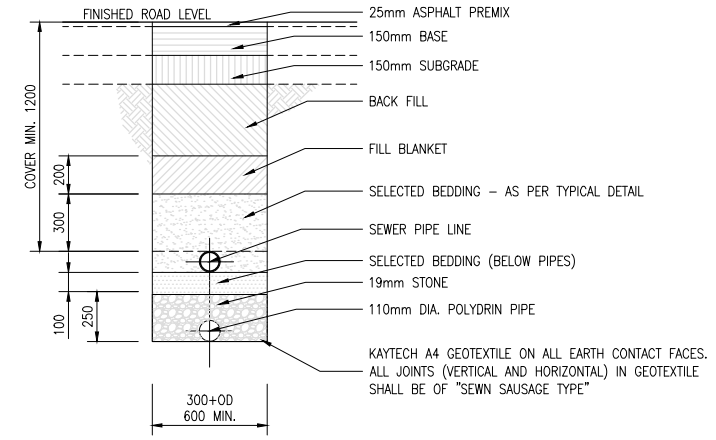
REFERENCE DRAWINGS		
DRG. NO.	TITLE/ DESCRIPTION	APPLICABLE DRAWINGS
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P0011-07-LS-01	LONGITUDINAL SECTION	•
P0011-07-LS-02	LONGITUDINAL SECTION	•
P0011-07-LS-03	LONGITUDINAL SECTION	•
P0011-07-LS-04	LONGITUDINAL SECTION	•
P0011-07-LS-05	LONGITUDINAL SECTION	•
P0011-07-LS-06	LONGITUDINAL SECTION	•
P0011-07-LS-07	LONGITUDINAL SECTION	•
P0011-07-LS-08	LONGITUDINAL SECTION	•

**NOTES**

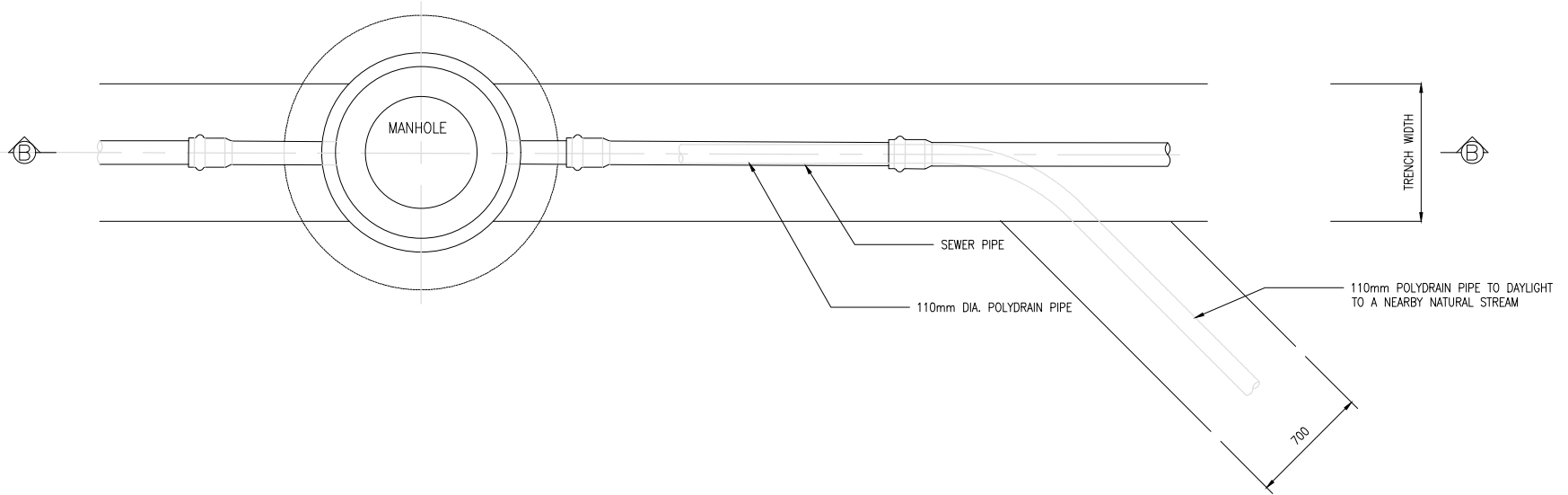
1. THE TRENCHING IN WET AREAS SHOWN ON THIS DRAWING WILL BE DONE ONLY AFTER IT HAS BEEN APPROVED BY THE ENGINEER OR HIS REPRESENTATIVE. THE CONTRACTOR WILL BE EXPECTED TO CONTINUOUSLY PUMP OUT THE GROUND WATER DURING THE PIPE LAYING ACTIVITY.



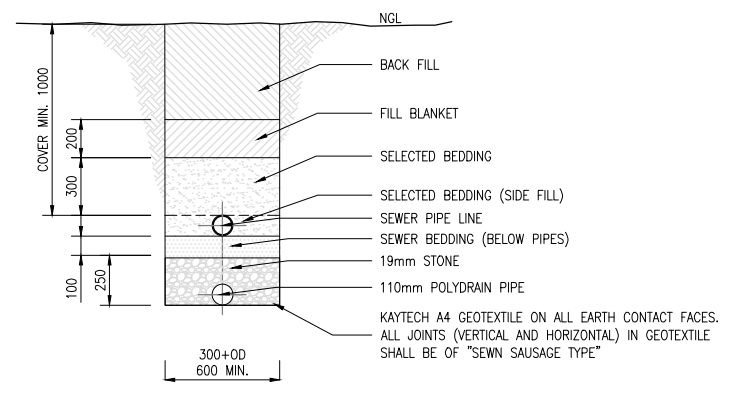
TYPICAL TRENCHING PLAN AGRICULTURAL DRAIN TO DAYLIGHT  
SECTION B-B



TYPICAL TRENCHING SECTION IN WET AREAS  
UNDER ROADS (URBAN)



TYPICAL TRENCHING PLAN AGRICULTURAL DRAIN TO  
DAYLIGHT



TYPICAL TRENCHING SECTION IN  
NON-TRAFFICKED AREAS

DESIGN DEVELOPMENT			
SIGNED _____		DATE _____	
LEGEND			
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PROJECT TITLE / DRAWING TITLE

**CONSTRUCTION OF SEWER  
RETICULATION PIPELINE IN  
WARD 13 (SHENSTONE AMBLETON)**

TYPICAL SEWER DETAILS:  
TRENCHING IN WET AREAS

SCALES ON A1

1:20

DESIGN	NL	PROCESS MANAGER	BS
DRAWN	BM	TEAM MANAGER	RM
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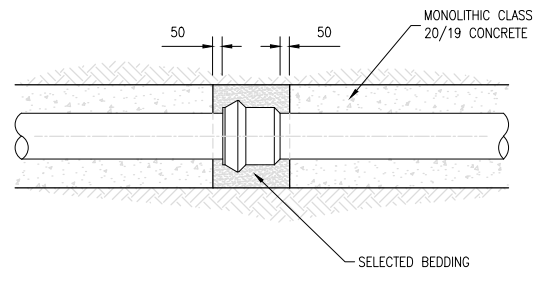
DESIGN DATE 05-2024

DRAWING NO. P0011-07-SD-04 REVISION



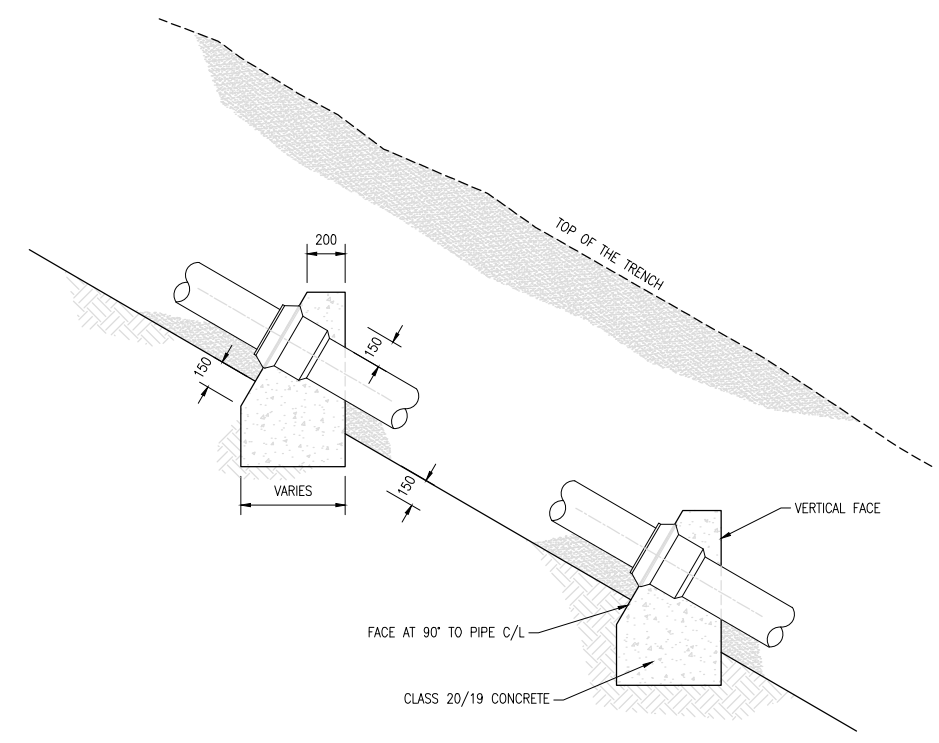
REFERENCE DRAWINGS		
DRG. NO.	TITLE/ DESCRIPTION	APPLICABLE DRAWINGS
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P0011-07-LS-01	LONGITUDINAL SECTION	•
P0011-07-LS-02	LONGITUDINAL SECTION	•
P0011-07-LS-03	LONGITUDINAL SECTION	•
P0011-07-LS-04	LONGITUDINAL SECTION	•
P0011-07-LS-05	LONGITUDINAL SECTION	•
P0011-07-LS-06	LONGITUDINAL SECTION	•
P0011-07-LS-07	LONGITUDINAL SECTION	•
P0011-07-LS-08	LONGITUDINAL SECTION	•

**NOTES**

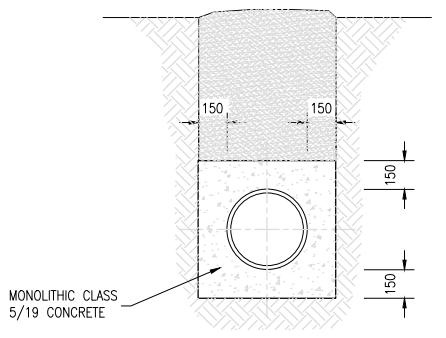


DETAIL AT JOINT - CONCRETE SURROUND

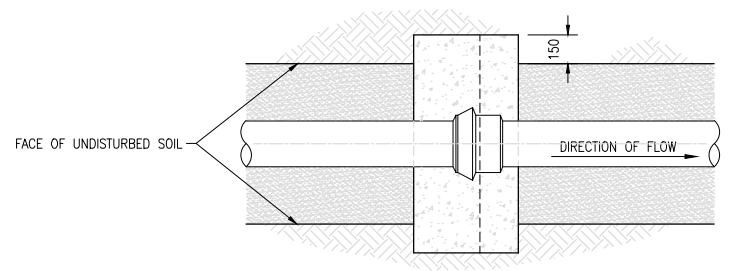
ANCHOR BLOCK SPACING FOR 4m LONG PIPES	
GRADIENTS 1:x	NUMBER OF PIPES BETWEEN ANCHORS
5	ALTERNATE JOINT
6	EVERY 3rd JOINT
7	EVERY 3rd JOINT
8	EVERY 4th JOINT
9	EVERY 4th JOINT
10	EVERY 5th JOINT



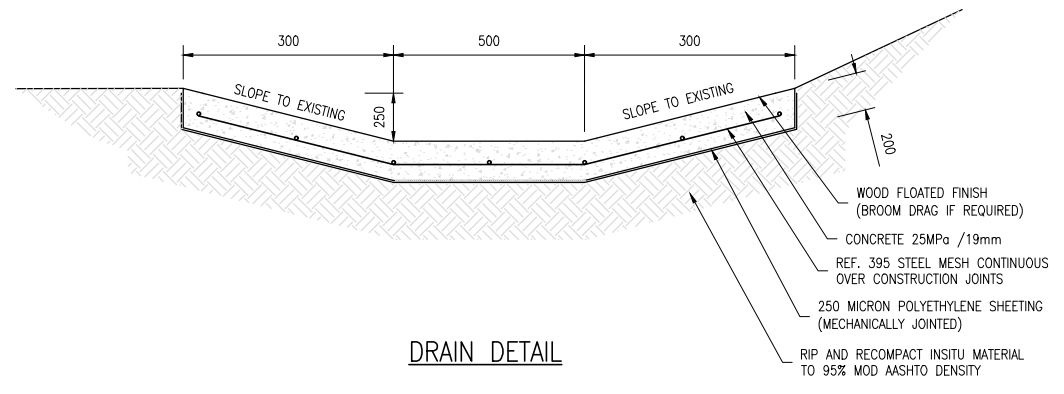
TYPICAL SECTION SHOWING ANCHOR BLOCKS FOR PIPES IN TRENCHES AT GRADIENTS STEEPER THAN 1:10



CONCRETE SURROUND TO PIPE



TYPICAL PLAN SHOWING PIPE ANCHOR BLOCKS



DRAIN DETAIL

DESIGN DEVELOPMENT

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PROJECT TITLE / DRAWING TITLE

**CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 (SHENSTONE AMBLETON)**

TYPICAL SEWER DETAILS:  
ANCHOR BLOCK AND V-DRAINS

SCALES ON A1

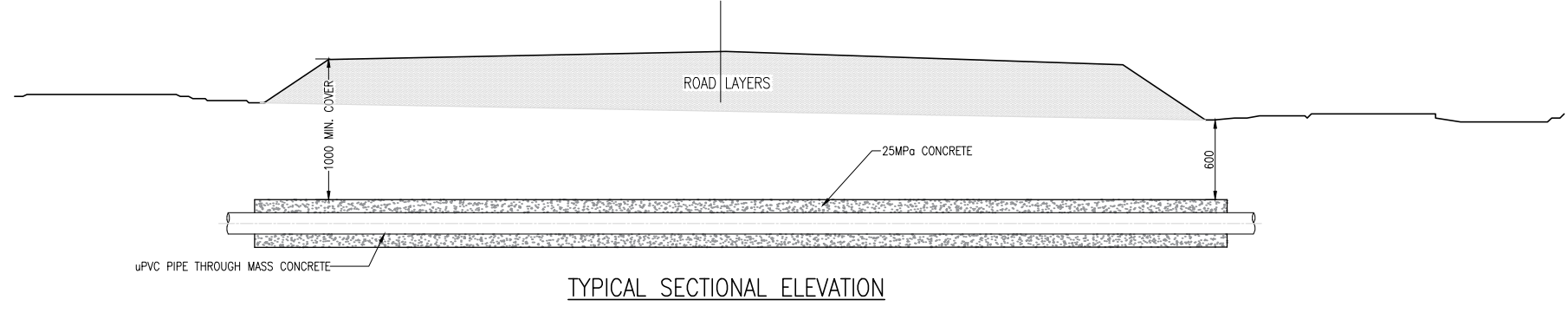
N.T.S

DESIGN	NL	PROCESS MANAGER	BS
DRAWN	BM	TEAM MANAGER	RM
CHECKED	TN	AS BUILT	

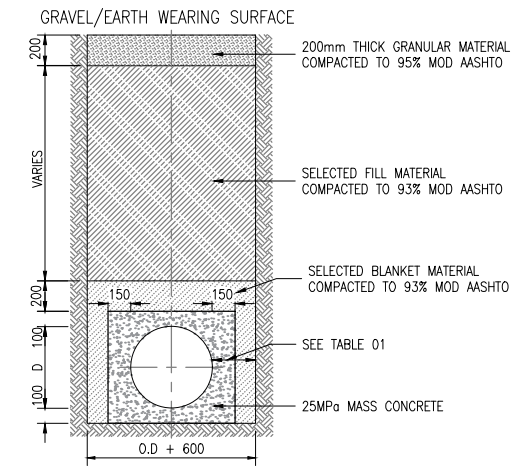
DESIGN DATE 05-2024

DRAWING NO. P0011-07-SD-05 REVISION

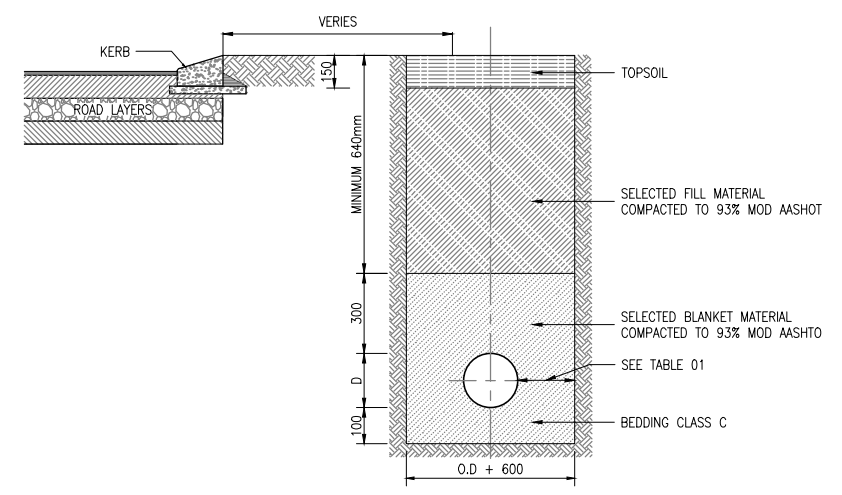
REFERENCE DRAWINGS		
DRG. NO.	TITLE/ DESCRIPTION	APPLICABLE DRAWINGS
P0011-07-LP-01	LAYOUT PLAN	•
P0011-07-LS-01	LONGITUDINAL SECTION	•
P0011-07-LS-02	LONGITUDINAL SECTION	•
P0011-07-LS-03	LONGITUDINAL SECTION	•
P0011-07-LS-04	LONGITUDINAL SECTION	•
P0011-07-LS-05	LONGITUDINAL SECTION	•
P0011-07-LS-06	LONGITUDINAL SECTION	•
P0011-07-LS-07	LONGITUDINAL SECTION	•
P0011-07-LS-08	LONGITUDINAL SECTION	•



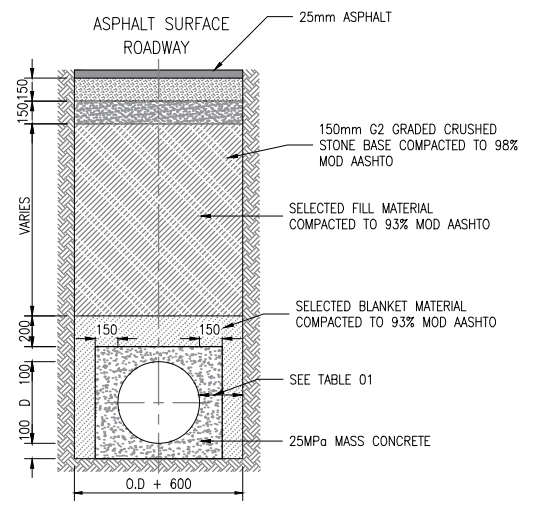
TYPICAL SECTIONAL ELEVATION



TYPICAL SECTION THROUGH PIPE EXCAVATION UNDER EARTH ROADWAY



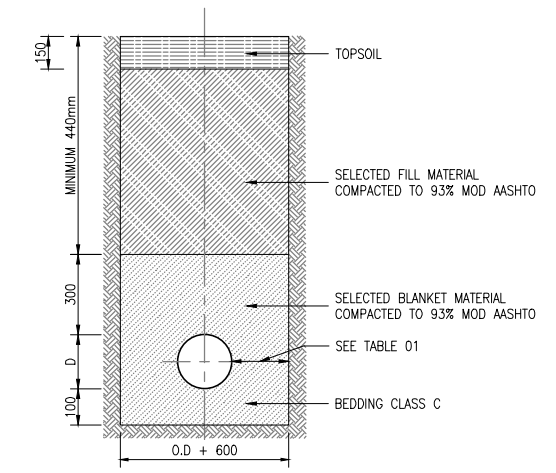
TYPICAL SECTION OF PIPE EXCAVATION IN ROAD RESERVES



TYPICAL SECTION THROUGH PIPE EXCAVATION UNDER SURFACE ROADWAY

TABLE 01

NORMAL DIAMETER OF PIPE "D"	SIDE ALLOWANCE ON EACH SIDE
110 mm	300 mm
160 mm	300 mm



uPVC SEWER PIPES IN MID-BLOCKS

NOTES

DESIGN DEVELOPMENT

SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

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PROJECT TITLE / DRAWING TITLE

**CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 (SHENSTONE AMBLETON)**

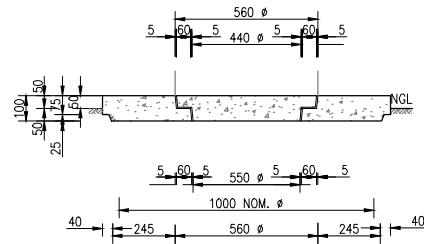
TYPICAL SEWER DETAILS: PIPE CROSSING THE ROAD AND TYPICAL PIPE TRENCH

SCALES ON A1 N.T.S

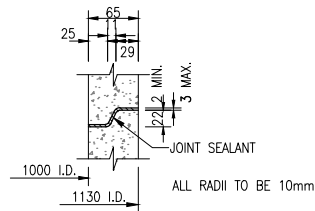
DESIGN	NL	PROCESS MANAGER	BS
DRAWN	BM	TEAM MANAGER	RM
CHECKED	TN	AS BUILT	

DESIGN DATE 05-2024

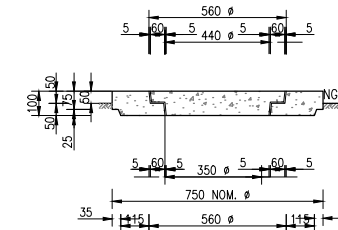
DRAWING NO. P0011-07-SD-06 REVISION



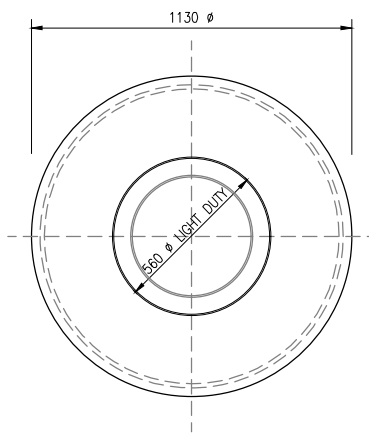
SECTION OF CIRCULAR LIGHT DUTY MANHOLE COVER AND FRAME TYPE 1  
SCALE 1 : 15



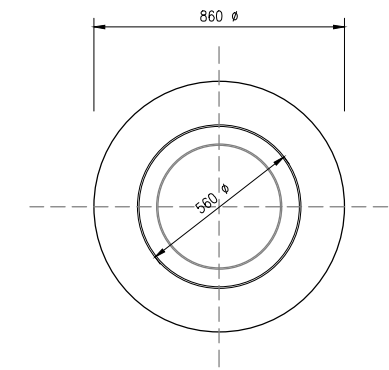
JOINT DETAIL OF 1000mm MANHOLE  
Scale 1 : 5



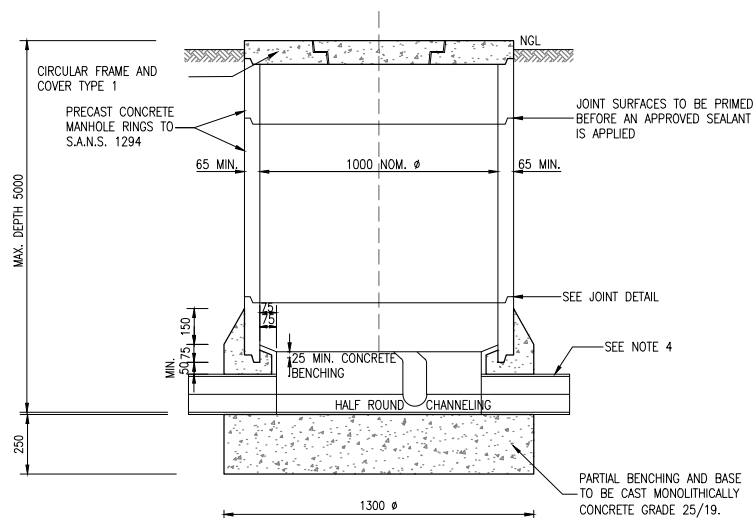
SECTION OF CIRCULAR LIGHT DUTY MANHOLE COVER AND FRAME TYPE 1  
SCALE 1 : 15



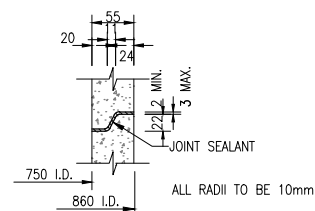
PLAN OF CIRCULAR LIGHT FRAME FOR 1000mm NOM DIA. MANHOLE TYPE 1  
SCALE 1 : 15



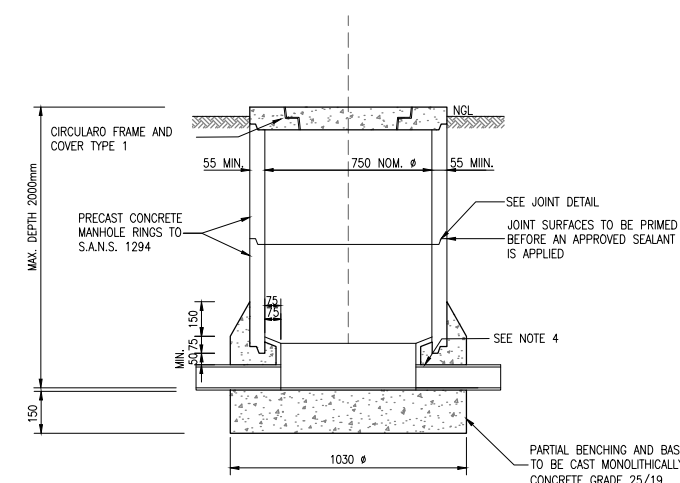
PLAN OF CIRCULAR LIGHT FRAME FOR 750mm NOM DIA. MANHOLE TYPE 1  
SCALE 1 : 15



SECTION OF DN1000 MANHOLE  
Scale 1 : 15  
PRECAST CONCRETE SEWER MANHOLES



JOINT DETAIL OF 750mm MANHOLE  
Scale 1 : 5



SECTION OF DN750 MANHOLE  
Scale 1 : 15  
PRECAST CONCRETE SEWER MANHOLES

REFERENCE DRAWINGS		
DRG. NO.	TITLE/ DESCRIPTION	APPLICABLE DRAWINGS
P0011-07-LP-01	LAYOUT PLAN	•
P0011-07-LS-01	LONGITUDINAL SECTION	•
P0011-07-LS-02	LONGITUDINAL SECTION	•
P0011-07-LS-03	LONGITUDINAL SECTION	•
P0011-07-LS-04	LONGITUDINAL SECTION	•
P0011-07-LS-05	LONGITUDINAL SECTION	•
P0011-07-LS-06	LONGITUDINAL SECTION	•
P0011-07-LS-07	LONGITUDINAL SECTION	•
P0011-07-LS-08	LONGITUDINAL SECTION	•

NOTES

- DIMENSION D VARIES WITH THE DIAMETER OF THE SEWER PIPES AND SHALL BE THE SUM OF 50mm AND THE PIPE DIAMETER.
- RENDERING FOR MANHOLE BENCHING SHALL CONSIST OF ONE PART H.A.C TO TWO PARTS SAND THOROUGHLY MIXED AND APPLIED TO CONCRETE SURFACES WHILE THE LATTER ARE STILL GREEN. RENDERING SHALL BE AT LEAST 20mm THICK.
- EVERY UPVC PIPE BUILT INTO A MANHOLE, SHALL HAVE CLEAN DRY SAND (TO S.A.N.S. 083 TABLE 1) GLUED TO ITS OUTSIDE AS RECOMMENDED BY THE PIPE MANUFACTURE USING APPROVED SPECIAL PVC CEMENT TO ENSURE GOOD ADHESION TO THE BASE CONCRETE.
- IN LOCATIONS DEFINED BY THE ENGINEER AS SUBJECT TO FLOODING, C.I. MANHOLES COVERS, AN APPROVED SEALANT AND TAPE SHALL BE USED.
- PLASTIC STEP TO BE PROVIDED FOR MANHOLES DEEPER THAN 1.4m.
- MINIMUM ONE, MAXIMUM THREE SPACER RINGS FOR THE TOP OF MANHOLES ARE REQUIRED. THE RINGS ARE TO BE JOINED WITH 1:6 CEMENT MORTAR.
- TOP OF MANHOLES AND EYES SHOULD STAND 50mm TO 250mm PROUD OF ADJACENT FINISHED GROUND LEVEL IN MID-BLOCK SERVITUDE.

DESIGN DEVELOPMENT

SIGNED \_\_\_\_\_ DATE \_\_\_\_\_

LEGEND

REV	DESCRIPTION	MADE BY	DATE

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PROJECT TITLE / DRAWING TITLE

**CONSTRUCTION OF SEWER RETICULATION PIPELINE IN WARD 13 (SHENSTONE AMBLETON)**  
TYPICAL SEWER DETAILS:  
PRE-CAST MANHOLE DETAIL (TYPE 1)

SCALES ON A1 AS SHOWN

DESIGN	NL	PROCESS MANAGER	BS
DRAWN	BM	TEAM MANAGER	RM
CHECKED	TN	AS BUILT	

DESIGN DATE 05-2024  
DRAWING NO. P0011-07-SD-07 REVISION

