PART: A: INVITATION TO BID: MBD1

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (*POLOKWANE*					
BID NUMBER:	**PM 26/2021**	CLOSING DATE:	**24 January 2022**	CLOSING TIME:	**10:00**
BID DESCRIPTION	**AGANANG RWS (CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE)**				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7) or SERVICE LEVEL AGREEMENT OF POLOKWANE MUNICIPALITY.					

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT *(*Polokwane Municipality, Civic Centre, corner, Bondenstein and Landros Mare Street) not later than **10H00** on **24 January 2022.**

An official and compulsory briefing session will not be applicable for this project.
The Bid box is generally open 24 hours, 7 days a week.
Completed Bid document, fully priced and signed must be sealed in an envelope marked: **"PM 26/2021: AGANANG RWS (CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE)**
Bidders should ensure that bids are delivered timeously to the correct address. If the bid is late, it will not be accepted for consideration.
Bids documents containing the Conditions of Bid and other requirements in terms of the Supply Chain Management Policy will be downloaded from e-tender Publication Portal at www.etenders.gov.za at no fee.

SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE			NUMBER	
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE			NUMBER	
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		**OR**	CSD No:	
B-BBEE STATUS LEVEL NUMBER	----------		**TOTAL BID PRICE**		**R**
EXPANDED PUBLIC WORKS PROGRAMME Creating opportunities towards human fulfilment			**WSIG**		

B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	☐ Yes ☐ No	B-BBEE STATUS LEVEL SWORN AFFIDAVIT	☐ Yes ☐ No
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]			
ARE YOU THE ACCREDITED REPRESENTATIVE **IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?**	☐Yes ☐No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR **THE GOODS /SERVICES /WORKS OFFERED?**	☐Yes ☐No [IF YES, ANSWER PART B:3]
MINIMUM WORK OPPORTUNITIES TO BE CREATED	**36**	**CIDB GRADING**	**6CE OR HIGHER**
SIGNATURE OF BIDDER	……	**DATE**	
CAPACITY UNDER WHICH THIS BID IS SIGNED			

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		**TECHNICAL INFORMATION MAY BE DIRECTED TO:**	
MUNICIPALITY	POLOKWANE	MUNICIPALITY	POLOKWANE
CONTACT PERSON	MR. K. MASHIANE	CONTACT PERSON	MAPULA MAMABOLO
TELEPHONE NUMBER	(015) 023 5148	TELEPHONE NUMBER	(015) 023 5335
FACSIMILE NUMBER	N/A	FACSIMILE NUMBER	N/A
E-MAIL ADDRESS	kwenaMa@polokwane.gov.za	E-MAIL ADDRESS:	mapula@polokwane.gov.za
		PRINCIPAL AGENT: TSHASHU CONSULTING AND PROJECT MANAGERS CONTACT PERSON: M.A RAMAAHLAMA TELEPHONE NUMBER: (015) 291 4365 E-MAIL ADDRESS: admin@tsconsulting.co.za	

PART B

TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:
1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED– (NOT TO BE RE-TYPED) OR ONLINE**
1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
2. TAX COMPLIANCE REQUIREMENTS
2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3 APPLICATION FOR THE TAX COMPLIANCE STATUS (TCS) CERTIFICATE OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.
2.4 FOREIGN SUPPLIERS MUST COMPLETE THE PRE-AWARD QUESTIONNAIRE IN PART B:3.
2.5 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS
3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? ☐ YES ☐ NO
3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA? ☐ YES ☐ NO
3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? ☐ YES ☐ NO
3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? ☐ YES ☐ NO
3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? ☐ YES ☐ NO
IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.

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

NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.

SIGNATURE OF BIDDER: …….…

CAPACITY UNDER WHICH THIS BID IS SIGNED: ……

DATE: ……..

POLOKWANE MUNICIPALITY

CONTENTS OF TENDER DOCUMENTATION

Volume 1: Tender requirements, Contract and Pricing Data		
Number	**Heading**	**Colour**
Part T1: Tendering procedures		
T1.1	Tender Notice and Invitation to Tender	White
T1.2	Tender Data	Pink
T1.3	Standard and Particular Conditions of Tender	Pink
Part T2: Returnable Documents		
T2.1	List of Returnable Documents	Yellow
T2.2	Returnable Schedules	Yellow
Part C1: Agreements and Contract Data		
C1.1	Form of Offer and Acceptance	White
C1.2	Contract Data	White
C1.3	Demand Guarantee and Retention Money Guarantee	White
C1.4	Occupational Health and Safety Agreement	White
C1.5	Agreement with adjudicators	White
Part C2: Pricing data		
C2.1	Pricing Instructions	Yellow
C2.2	Bill of Quantities	Yellow
Part C3: Scope of Work		
C3.1	Description of The Works	Blue
C3.2	Standard Specification	Blue
C3.3	Project Specification	Blue
Part C4: Site information		
C4.1	Locality Plan	Green
C4.2	Bid Drawings	White

BID NUMBER: PM26/2021: AGANANG RWS (CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE)

DIRECTORATE: WATER AND SANITATION

BUSINESS UNIT: INFRASTRUCTURE DEVELOPMENT

Bids are hereby invited for AGANANG RWS (CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE)

The Council also reserves the right to negotiate further conditions and requirements with the successful bidder.

THIS BID IS SUBJECT TO THE, PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATION, 2017, AND THE GENERAL CONDITIONS OF CONTRACT FOR CONSTRUCTION WORKS (THIRD EDITION) (2015) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.

The Municipality shall adjudicate and award bids in accordance with B-BBEE status level of contribution on 80/20-point system, 80 points for the price and 20 points for contribution. Prospective bidders must accept that the bid will be adjudicated, according to the said legislation. Bids will remain valid for 90 (ninety) days.

MR NR SELEPE
ACTING MUNICIPAL MANAGER
CIVIC CENTRE
LANDDROS MARE STREET,
POLOKWANE

RESPONSIVENESS AND EVALUATION CRITERIA

1. **RESPONSIVENESS CRITERIA**

The Polokwane Municipality will consider no Bid unless it meets the following responsiveness criteria:

- The bid must be properly received in a sealed envelope clearly indicating the description of the service and the bid number for which the bid is submitted.
- The bid must be deposited in the relevant bid box as indicated on the notice of the bid on or before the closing date and time of the bid.
- A valid CSD number must be submitted with the bid on or before the closing time and date of the bid.
- Copy of the company registration certificate must be submitted with the bid on or before the closing time and date of the bid.
- Submission of a Joint Venture Agreement, where applicable, which has been properly signed by all parties.
- Proof of payment of Municipal Rates and Taxes or letter for Tribal Authority or lease agreement must be attached.
- Complies with the requirements of the bid and technical specifications.
- Registered in the relevant contractor category in the Construction Industry Development Board Register of Contractors (CIDB).
- Adheres to Pricing Instructions.
- Financial ability to execute the contract.
- Comply in full and observe the requirements of the Notice to Bidders.
- Experience with similar work – demonstrate a track record of a similar scope and size
- **The tenderer must subcontract a minimum of 30% for a contract above R30 million to-**

    i. an EME or QSE;
    ii. an EME or QSE which is at least 51% owned by black people;
    iii. an EME or QSE which is at least 51% owned by black people who are youth;
    iv. EME or QSE which is at least 51% owned by black people who are women;
    v. an EME or QSE which is at least 51% owned by black people with disabilities;
    vi. an EME or QSE which is 51% owned by black people living in rural or underdeveloped areas or townships;
    vii. a cooperative which is at least 51% owned by black people;
    viii. an EME or QSE which is at least 51% owned by black people who are military veterans; or
    ix. more than one of the categories referred to in paragraphs (a) to (h).

2. EVALUATION OF BIDS

a) All bids received shall be evaluated in terms of the Supply Chain Management Regulations, Polokwane Municipality Supply Chain Management Policy (on request from Municipality), the preferential procurement regulation 2017, and other applicable legislations.

b) The Council reserves the right to accept all, some, or none of the bids submitted – either wholly or in part – and it is not obliged to accept the lowest bid.

By submitting this bid, bidder authorizes the Council or its delegate(s) to carry out any investigation deemed necessary to verify the correctness of the statements and documents submitted and that such documents reasonably reflect the ability of the Bidder to provide the goods and services required by the Council.

PLEASE NOTE

1. **The Municipal Manager may cancel a contract awarded to a person if:**

   a) The person committed a corrupt or fraudulent act during the procurement process or in the execution of the contract, or

      i. An official or other role player committed any corrupt or fraudulent act during the procurement process or in the execution of the contract that benefited that person.

2. **The Municipal Manager may reject the bid or quote of any person if that person or any of its directors has:**

   a) Failed to pay municipal rates and taxes or municipal service charges and such rates, taxes and charges are in arrears for more than three months;
   b) Failed, during the last five years, to perform satisfactorily on a previous contract with the Polokwane Municipality or any other organ of State after written notice was given to that bidder that performance was unsatisfactory;

   c) Abused the supply chain management system of the Municipality or have committed any improper conduct in relation to this system;

   d) Been convicted of fraud or corruption during the past five years;

   e) Willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or

   f) 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) or has been listed on National Treasury's database as a person prohibited from doing business with public sector.

POLOKWANE MUNICIPALITY

T1.2 Tender Data

1. CONDITIONS OF TENDER

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (SFU) of May 2015, as published in Government Gazette No 33239, Board Notice 86 of 2010 of 28 May 2015. Those Standard Conditions of Tender remained the same as those published in the previous edition of the SFU as published in Government Gazette No 31823, Board Notice 12 of 2009 of 30 January 2009 - See www.cidb.org.za.

Each Tenderer shall obtain its own copy of the Standard Conditions of Tender.

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

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

Clause number	Tender Data
2. <u>EMPLOYER</u> **Cl. F1.1**	The "Employer" is "Polokwane Municipality" The Employer's domicilium citandi et executandi (permanent physical business address) is: Polokwane Municipality, Civic Centre, Landdros Mare Street, Polokwane The Employer's address for communication relating to this project is: **PO Box 111, Polokwane, 0700**
3. <u>TENDER DOCUMENTS</u> **Cl. F.1.2**	"The following documents form part of this tender: **VOLUME 1** **Part T1 Tendering procedures** T1.1 Tender notice and invitation to tender T1.2 Tender data T1.3 Standard and Particular conditions to tender **Part T2 Returnable Documents** T2.1 List of Returnable Documents T2.2 Returnable Schedules that will be incorporated into the Contract **Part C1 Agreements and Contract Data** C1.1 Form of offer and acceptance C1.2 Contract data C1.3 Demand Guarantee and Retention Money Guarantee C1.4 Agreement in terms of Occupational Health and Safety **Part C2 Pricing Data** C2.1 Pricing Instructions C2.2 Bill of Quantities **Part C3 Scope of Work** C3.1 Description of the Works C3.2 List of Drawings C3.3 Procurement C3.4 Construction C3.5 Variations and Additions to **<u>SABS 1200</u>** Standardized Specifications C3.6 Particular Specifications C3.7 Health and Safety Specifications C3.8 Environmental Management during Construction C3.9 Management of the Works **Part C4 Site information** **VOLUME 2** Tender Drawings incorporated into the tender document.
4. <u>EMPLOYER'S AGENT</u> **Cl. F.1.4**	The Employer's agent is: Principal Agent Tshashu Consulting and Project Managers <u>Physical Address</u>: Suite 11, 06 Hans van Rensburg Street Polokwane 0700 <u>Postal Address</u>: P O Box 5617 Polokwane-North 0750

	Tel.: (015) 291 4365 Fax: (015) 291 5392 E-mail: admin@tsconsulting.co.za
5. TENDERER'S OBLIGATIONS	
5.1. Eligibility Cl. F.2.1	Only those tenderers who can demonstrate that they will have in their employ management and supervisory staff satisfying the requirement of the scope of work for labour-intensive competencies for supervisory and management staff during the validity of the contract are eligible to submit tenders
5.2. F2.18	The tenderer must submit to the Employer, 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 requirements.
5.3. Site Visit and Clarification Meeting Cl. F.2.7	An official and compulsory briefing session will not be applicable for this project.
5.4. Insurance Cl. F.2.9	No insurance cover will be provided by the Employer.
5.5. Alternative Tender Offers Cl. F. 2.12	Unless anything to the contrary has been determined in the Contract Data, a Tenderer may, together with his tender for the original designs contained in the contract documents, submit alternative designs and tender offers for consideration. All designs, calculations, drawings and Operation and Maintenance manuals shall be fully endorsed by a third-party registered engineer, accomplished in such specific field of practice and the cost thereof shall be borne solely by the Contractor. Such alternative designs and offers shall be subject to the following conditions and requirements: 5.4.1. Tenders An alternative offer or design will be considered only if the tender for the original items has been fully priced and completed. The alternative tender offer is to be submitted in **the same envelope as the main tender offer**, together with a schedule that compares the requirements of the tender documents with the alternative requirements the Tenderer proposes. No alternative tender will be considered unless a tender free from qualifications is also submitted. Unless the alternative offer stipulates to the contrary, it shall be assumed that the period for completion of the Works shall be the same as for the original design. Designs, calculations, drawings and a modified schedule of quantities (as determined hereafter) in respect of each alternative offer or design shall accompany the alternative tender offer and shall be endorsed fully by a third-party registered engineer, accomplished in such specific field of practice. 5.4.2. Preliminary calculations Preliminary calculations for an alternative design shall be submitted with the tender. Such calculations shall give adequate details so as to enable an assessment to be made of the general efficacy of the design and of its principal elements, also of the degree to which the design prescriptions and codes of the Employer are being

	complied with. The calculations shall be clear and in a logical sequence and shall clearly reflect all the design assumptions. 5.4.3. Preliminary drawings Preliminary drawings of the alternative designs shall also be submitted with the tender. These drawings shall comprise adequate layout plans, elevations and sections and shall clearly illustrate the general efficacy of the design and its principal elements. 5.4.4. Quantities Each alternative offer shall be accompanied by a modified priced schedule of quantities compiled in accordance with the specifications, in so far as it is applicable, which clearly shows the manner in which the price for the alternative offer has been determined and the items in the original schedule of quantities which fall away or are being changed. In addition to the schedule of quantities, a set of calculations shall be supplied to show how the quantities have been determined. All assumptions in regard to factors which will determine quantities shall be clearly and conspicuously marked by underlining or colouring, and shall indicate whether or not the assumptions have been based on information furnished in the Contract Data (with the necessary references). 5.4.5. Further details Should the Employer's Agent find that the calculations and drawings submitted for alternative designs are not complete enough for proper adjudication of the alternative designs, the Employer reserves to itself the right to call on the Tenderer to submit such further calculations and drawings as may be required. If such further details are not submitted within ten days of having been requested, the alternative designs will not be given further consideration. 5.4.6. Preliminary adjudication of alternative designs The Employer's Agent will undertake a preliminary scrutiny of any alternative designs for compliance with the specified requirements of the Employer. Should he find any mistakes or unsatisfactory aspects, he may afford the Bidder the opportunity to rectify them within a period to be determined by the Employer's Agent. However, it is emphasized that the preliminary scrutiny of the design and tender by the Employer's Agent, by its very nature, cannot be comprehensive, and no guarantee can be given in this regard that all the mistakes made by the Bidder will in fact be detected. Any correction of such mistakes shall be made with the tender price of the bidder being retained, and, wherever necessary, the priced schedule of quantities for the alternative design shall be adjusted accordingly. 5.4.7. Acceptance of alternative design The Bidder shall note that the acceptance of a tender which includes alternative designs shall mean that the alternative designs have been approved in principle only. If the final calculations, drawings and details do not comply with the specified requirements, such alternative designs may be rejected, unless they are suitably amended by the Bidder so as to be acceptable to the Employer.

	5.4.8. Final drawings and calculations and the priced schedule of quantities Where a tender with an alternative design has been accepted, the Contractor shall, not less than two months before he intends starting with the construction of such design, submit to the Employer's Agent a complete set of working drawings, detailed calculations and a complete schedule of quantities, for approval. The schedule of quantities shall be based on the preliminary schedule of quantities, but with the necessary adjustments in quantities and prices and with the tendered price for the alternative design being retained. Within three weeks of having received the above, the Employer's Agent will indicate which drawings, calculations, quantities, prices and other particulars are acceptable to him and which not, with reasons furnished. The Contractor shall then submit to the Employer's Agent in good time any modified drawings and other particulars for approval, for which he will require two weeks. Any delay arising from the fact that the amended particulars do not meet the requirements shall be the responsibility of the Contractor. No work which will be affected by an alternative design may be commenced, unless the drawings, schedule of quantities and prices for such alternative design have been approved. Should the Contractor fail to modify any drawings, calculations, quantities, prices or any other particulars to the satisfaction of the Employer's Agent, the alternative design will be rejected and the original design shall be constructed for the same amount as has been tendered for the alternative design. 5.4.9. Responsibility for alternative design The approval of a design by the Employer's Agent shall not in any way relieve the Bidder of his responsibility to produce a design which conforms in all respects to all the specified requirements and which will be suitable for the purpose envisaged. Should it appear later during construction or during the maintenance period that the design does not conform to the specified requirements, the Contractor only, shall be liable for any damage arising there from and he shall, at his own expense, do all the necessary work to ensure that the Works conforms to all the specified requirements. 5.4.10. Indemnity Once the alternative design has been approved, the Contractor shall indemnify and hold harmless the Employer, its agents and assigns, against all claims howsoever arising out of the said design whether in contract or delict.
5.1. Submitting a Tender Offer Cl. F2.13	5.5.1. Whole of the Works (Cl. F.2.13.1) Tenderers shall offer to provide for the whole of the Works identified. 5.5.2. Original tender documents (Cl. F2.13.3) The original tender document, issued to the Bidder, shall be submitted in its entirety. No copies are required. 5.5.3. Marking of Tender Submissions (Cl. F2.13.5) The complete tender documents shall be enclosed and sealed in a single envelope, marked: **"BID NO. PM26/2021: AGANANG RWS (CONSTRUCTION OF WATER**

	INFRASTRUCTURE IN GA-RAMALAPA VILLAGE) The Employer's address for delivery of tender offers to be shown on each tender submission package is the Tender Box located at: Polokwane Municipality Civic Centre Landdros Mare Street Polokwane 5.5.4. Two envelope system (Cl. F.2.13.6) A two-envelope procedure will not be followed. 5.5.5. Closing time (Cl. F.2.15) The closing time for submission of tender offers is: **10H00** Telegraphic, telephonic, telex, facsimile, e-mail, electronic and late tender offers will not be accepted. 5.5.6. Tender offer validity (Cl. F.2.16) The tender offer validity period is **90 days** after tender closing date. 5.5.7. Clarification of tender offer after submission (Cl. F.2.17) Delete the last part of the second sentence, commencing with the word "and". Furthermore, delete the last two sentences of Cl. F2.17. Add the following sentence: "The rates stated by the Bidder shall be binding". 5.5.8. Provide other Material (Cl. F.2.18.1) Upon request by the Employer, the Bidder shall promptly supply any other material that has a bearing on the tender offer, the bidder's commercial position (including, where applicable, notarized joint venture agreements), Referencing arrangements, or samples of materials, considered necessary by the Employer for the purpose of a full and fair assessment. Should the Bidder not provide the information or material called for, by the time for submission stated in the Employer's request, the Employer will regard the tender offer as being non-responsive. 5.5.9. Certificates (Cl. F.2.23) The following certificates are to be provided with this tender: a) CSD Report, b) Compensation Fund registration certificate, c) Certificate of Contractor Registration issued by the Construction Industry. Development Board or a copy of the application Form for registration in terms of the Construction Industry Development Board Act (Form F006). A minimum grading of **6 CE** is required.

	<u>Important Note:</u> Failure to provide the required particulars as per the above-listed certificates implies a non-responsive tender and warrants rejection of the tender on account of non-compliance with the requirements of the Tender Data.
6. <u>EMPLOYER'S UNDERTAKING</u>	
6.1. <u>Opening of Tender Submissions</u> **Cl. F3.4**	The time and location for opening of the tender offers are: **10H00 on 24 January 2022.** **Location: Tender Box, Polokwane Municipality,** **Civic Centre, Landdros Mare Street, Polokwane**
6.2. <u>Arithmetical Errors</u> **Cl. F.3.9.1**	Delete paragraphs (b) and (c) of Cl. F.3.9.1 and replace with: a) If a bill of quantities (or schedule of quantities or schedule of rates) applies and there is an error in the line item resulting from the product of the unit rate and the quantity, the rate shall be binding and the error of extension as entered in the tender offer will be corrected by the Employer in determining the Contract Price. b) Where there is an error in addition, either as a result of other corrections required by this checking process or in the Bidder's addition of prices, such error will be corrected by the Employer in determining the Contract Price. c) The Contract Price for the completed Contract shall be computed from the actual quantities of authorised work done and compliant with the Contract Data, valued at rates contracted against the respective items in the bill of quantities, schedule of Quantities or schedule of rates and shall include such authorised Provisional Sums and items of extra work as have become payable in terms of the Contract Data.

7. <u>ACCEPTANCE OF TENDER OFFER</u> **Cl. F3.13**	Tender offers will only be accepted if: a) CSD summary report; b) The bidder is registered with the Construction Industry Development Board in an appropriate contractor grading designation. A minimum grading of **6 CE** is required for the main contractor; c) The bidder has demonstrated previous experience with the type of work required under this contract having successfully completed a project of similar scope and size. d) The bidder or any of its principals 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; and e) The bidder has not abused the Employer's Supply Chain Management System. f) The bidder has not failed to perform on any previous contract. g) Has complete the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the bidder's ability to perform the contract in the best interests of the employer or potentially compromise the tender process
8. <u>PROVIDE COPIES OF THE CONTRACT DOCUMENT</u> **Cl. F.3.18**	The number of paper copies of the signed Contract to be provided by the Employer to the successful bidder is **one**

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

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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 not to exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable; or

1.3 Points for this bid shall be awarded for:

(a) Price; and

(b) B-BBEE Status Level of Contributor.

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

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

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

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

2. DEFINITIONS

a) "B-BBEE" means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;

b) "B-BBEE status level of contributor" means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;

c) "bid" means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of goods or services, through price quotations, advertised competitive bidding processes or proposals;

d) "Broad-Based Black Economic Empowerment Act" means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);

e) "EME" means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;

f) "Functionality" means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.

g) "prices" includes all applicable taxes less all unconditional discounts;

h) "proof of B-BBEE status level of contributor" means:

1) B-BBEE Status level certificate issued by an authorized body or person;

2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;

3) Any other requirement prescribed in terms of the B-BBEE Act;

i) "QSE" means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;

j) "rand value" means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

3. POINTS AWARDED FOR PRICE

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

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

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

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

Where

Ps = Points scored for price of bid under consideration

Pt = Price of bid under consideration

Pmin = Price of lowest acceptable bid

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

4.1 In terms of Regulation 5 (2) and 6 (2) of the Preferential Procurement Regulations, preference in terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

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

5. BID DECLARATION

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

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

6.1 B-BBEE Status Level of Contributor: = ……(maximum of 10 or 20 points)

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

7. SUB-CONTRACTING

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

(***Tick applicable box***)

YES		NO	

7.1.1 If yes, indicate:

i) What percentage of the contract will be subcontracted.....…….……%
ii) The name of the sub-contractor……..
iii) The B-BBEE status level of the sub-contractor.....……..
iv) Whether the sub-contractor is an EME or QSE
(Tick applicable box)

YES		NO	

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

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

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm :……

8.2 VAT registration number :……

8.3 Company registration number :……

8.4 TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

……..
……..
…….. .....

8.6 COMPANY CLASSIFICATION

- ☐ Manufacturer
- ☐ Supplier

☐ Professional service provider

☐ Other service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

8.7 MUNICIPAL INFORMATION

Municipality where business is situated……

Registered Account Number…….

Stand Number …….

8.8 TOTAL NUMBER OF YEARS THE COMPANY/FIRM HAS BEEN IN BUSINESS? ……

8.9 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 the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

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

WITNESSES	
1. ……..	…….
2. …….	SIGNATURE(S) OF BIDDERS(S)
	DATE: …….
	ADDRESS ……..

ATTACH B-BBEE VERIFICATION CERTIFICATE

ANNEXURE A

SUPPLY CHAIN MANAGEMENT

EVALUATION PROCESS AND CRITERIA

The following evaluation process and criteria will be used to evaluate all bids submitted:

1. Administrative Compliance – Phase One

1.1 All bids duly lodged will be examined to determine compliance with bidding requirements and conditions. Bids with obvious deviations from the requirements/conditions, will be eliminated from further evaluation.

1.2 **Critical Criteria**:
The following critical criteria have been identified for this bid and any non-compliance thereto will lead to the bid being regarded as non-responsive and disqualified from further evaluation:

- Provide a valid CSD number. (Attach CSD Registration Summary Report)
- All Pages of the Bid document must be initialed.
- Completed and signed declaration on past SCM practices form.
- Compulsory enterprise questionnaire completed.
- Signed J/V agreement must be attached (Where applicable).
- Proof of registration with CIDB attached.
- Proof of Municipal Rates and Taxes statement of account for the company and all the directors which are not older than three (3) months or Signed Valid lease agreement for service providers who are renting or leasing offices or Letter from tribal authority not older than 3 Months.
- Complete **MBD5** and submit Audited or Reviewed Financial Statements (**AFS**) for the last three (3) years. – (Only where the tender amount **exceeds R10mil** - including VAT).
- Complete and signing of the declaration of interest form **(MBD4).**
- All corrections made in the document, including bills of quantities, must be initialled.
- Bid document must be printed in colour coding as per page 5.

2. Functionality – Phase Two (50 points allocation)

The bidders who complied administratively are considered for further evaluation on ability to execute the project.
The assessment of functionality will be done in terms of the evaluation criteria and minimum threshold as specified. A bid will be disqualified if it fails to meet the minimum threshold for functionality as per the bid invitation.

1.1. Relevant Experience of Company (30 points)

This will take into consideration similar contracts successfully completed by the bidder.

NB. **Proof of largest similar project must be attached (Completion certificate). Failure to provide proof will result in disqualification of points.**

The score will be calculated as follows:

$$Rt = \frac{Lc}{Tavg} \times R\ max$$

Where:

Rt = Points for relevant experience of company

Lc = Largest similar contract over the last **three (3) years. (Determined on project size).**

Tavg = Average value of tendered amounts of eligible tenders.

Rmax = Maximum points allocated for relevant experience of company.

(R max = 30)

2.2 Plant and Equipment (10 points)

This will be assessed against a minimum number of different types of plant and equipment required to successfully complete the project within the stipulated construction period as determined by the engineer.
Access to plant may be in a form of ownership, hire or leasing arrangements, orders etc. A letter of intent from hiring or leasing companies stating the number and type of plant and equipment on which arrangement has been made must be submitted. Any changes to the lease/hire agreement must be approved by the Municipality prior commencement.

NB. 50% of points will be allocated to equipment leased/hired.

Consultants Estimation				
(A) Plant and equipment required	**points allocation**	**(B) Minimum Plant required**	**(C) Bidder Plant own**	**(D) Bidder Plant hire**
Tipper Truck (6 – 10m^3)	3	1		
Excavator (30 TON)	4	1		
TLB (4X4)	3	1		

NB. Proof of ownership on equipment indicated above must be submitted with the bid document. Failing to submit will result in disqualification of points.

2.3 Financial Status (10 points)

This will be assessed against Bank ratings as follows: (**Bank letter must be submitted, and not older than 30 days**)

Bank Rating	Score
A	10
B	10
C	7
D	5
E	2
F,G,H	0

NB: A bid will be disqualified if it fails to meet the minimum threshold of 60% on functionality and a minimum of 15 points on relevant experience.

2.4 Commercial Risk Analysis

Prior to being recommended for further evaluation, a bid will be subjected to risk analysis to ensure that it would, if accepted, not place the Municipality or the bidder, at undue risk.

A risk analysis will be performed to ascertain if any of the following might present an unacceptable commercial risk to the Municipality:

- Unduly low tendered sums
- Unduly high individual rates
- Unduly low rates
- Imbalances in pricing

It is in the best interests of the Municipality to amend an error which will cause the bid to be rejected on the basis of it presenting an unacceptable commercial risk.

- **EVALUATION OF BIDS**

a) All bids received shall be evaluated in terms of the Supply Chain Management Regulations, Polokwane Municipality Supply Chain Management Policy (on request from Municipality), the preferential procurement regulation 2017, and other applicable legislations.

b) The Council reserves the right to accept all, some, or none of the bids submitted – either wholly or in part – and it is not obliged **to accept the lowest bid.**

- **By submitting this bid, bidder authorizes the Council or its delegate(s) to carry out any investigation deemed necessary to verify the correctness of the statements and documents submitted and that such documents reasonably reflect the ability of the Bidder to provide the goods and services required by the Council.**

PLEASE NOTE

- **The Municipal Manager may cancel a contract awarded to a person if:**

  a) The person committed a corrupt or fraudulent act during the procurement process or in the execution of the contract, or

  b) An official or other role player committed any corrupt or fraudulent act during the procurement process or in the execution of the contract that benefited that person.

- **The Municipal Manager may reject the bid or quote of any person if that person or any of its directors has:**

  a) Failed to pay municipal rates and taxes or municipal service charges and such rates, taxes and charges are in arrears for more than three months;
  b) Failed, during the last five years, to perform satisfactorily on a previous contract with the Polokwane Municipality or any other organ of State after written notice was given to that bidder that performance was unsatisfactory;

  c) Abused the supply chain management system of the Municipality or have committed any improper conduct in relation to this system;

  d) Been convicted of fraud or corruption during the past five years;

  e) Wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or

  f) 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) or has been listed on National Treasury's database as a person prohibited from doing business with public sector.

2.5 Tendered rates

Rates for all the bids which have complied with the bid conditions will be assessed for the following:

- Comparison of rates and amounts with the average tendered amount.
- Sensitivity Analysis of Rates (i.e. whether the rates are balanced, acceptable, etc).
- Expected cash flows requirements.

NB: Bids with unbalanced rates will be disqualified for further evaluation on price and preference points system

3 Business Registration

Prospective bidders shall be registered:

(a) With the South African Revenue Services for all categories of taxes applicable to it.
(b) With the Compensation Commissioner
(c) With the Construction Industry Development Board. ( ).

4 Acceptance of Tender Offer (Cl. F3.13)

Tender offers will only be accepted if:

a) The bidder has in his or her possession a Central Suppliers Database Registration Number (CSD Number);

b) The bidder is registered with the Construction Industry Development Board in an appropriate contractor grading designation. (Minimum grading of **6 CE** is required);

c) The bidder or any of its principals 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; and

d) The bidder has not abused the Employer's Supply Chain Management System.

e) The bidder has not failed to perform on any previous contract.

f) has complete the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the bidder's ability to perform the contract in the best interests of the employer or potentially compromise the tender process.

5. Provide copies of the Contract Document (Cl. F3.18)

The number of paper copies of the signed Contract to be provided by the Employer to the successful bidder is **one**

Annexure A: Standard Conditions of Tender

F.1 General

F.1.1 Actions

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.

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 for the calling for expressions of interest, the following definitions apply:

a) **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

b) **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

c) **Fraudulent pra**ctice 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

d) **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 read, copied and recorded. Writing 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.2 Tenderer's obligations

F.2.1 Eligibility

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.2.2 Cost of Tendering

Accept that 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 satisfy 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.

F2.10.2 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

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 Submit alternative tender offer only if a main tender offer, strictly in accordance with all the requirements of the tender document, is also submitted. The alternative tender offer is to be submitted with the main tender offer together with a schedule that compares the requirements of the tender document with the alternative requirements the tenderer proposes.

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 a Tender offer 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 in black 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 copy of the Tender offer In One package marking the packages as "ORIGINAL". 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.2.14 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. Proof of posting shall not be accepted as proof of delivery. The employer shall not accept Tender offers submitted by telegraph, telex, facsimile or e-mail, unless stated otherwise in the Tender data.

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.2.17 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 total of the prices or substance of the Tender offer is sought, offered, or permitted. The total of the prices stated by the Tenderer shall be binding upon the Tenderer.

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 clarification

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.3.2 Issue Addenda

If necessary, issue 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, the total of his prices, preferences claimed and time for completion, if any, 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 advice 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, on 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) 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

F.3.9.1 Check responsive Tender offers for arithmetical errors, correcting them in the following manner:

a) Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.

b) If bills of quantities (or schedule of quantities or schedule of rates) 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.

c) 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.3.9.2 Consider the rejection of a Tender offer if the Tenderer does not correct or accept the correction of his arithmetical errors in the manner described in F.3.9.1.

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 it using the Tender evaluation method that is indicated in the Tender Data and described below:

Method 1: Financial offer	1) Rank Tender offers from the most favourable to the least favourable comparative offer.
	2) Recommend highest ranked Tenderer for the award of the contract, unless there are compelling and justifiable reasons not to do so.
Method 2: Financial offer and preferences	1) Score Tender evaluation points for financial offer.
	2) Confirm that Tenderers are eligible for the preferences claimed and if so, score Tender evaluation points for Preferencing.
	3) Calculate total Tender evaluation points.
	4) Rank Tender offers from the highest number of Tender evaluation points to the lowest.
	5) 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.
Method 3: Financial offer and quality	1) Score quality, rejecting all Tender offers that fail to score the minimum number of points for quality stated in the Tender data.
	2) Score Tender evaluation points for financial offer.
	3) Calculate total Tender evaluation points.
	4) Rank Tender offers from the highest number of Tender evaluation points to the lowest.

	5) 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.
Method 4: Financial offer, quality and preferences	1) Score quality, rejecting all Tender offers that fail to score the minimum number of points for quality stated in the Tender data.
	2) Score Tender evaluation points for financial offer.
	3) Confirm that Tenderers are eligible for the preferences claimed, and if so, score Tender evaluation points for Preferencing.
	4) Calculate total Tender evaluation points.
	5) Rank Tender offers from the highest number of Tender evaluation points to the lowest.
	6) 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.

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

F.3.11.2 Scoring Financial Offers

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

NFO = W1 x A

where:

NFO = the number of Tender evaluation points awarded for the financial offer.

W1 = the maximum possible number of Tender evaluation points awarded for the financial offer as stated in the Tender Data.

A = a number calculated using either formulas 1 or 2 below as stated in the Tender Data.

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

where:

Pm = the comparative offer of the most favourable Tender offer.

P = the comparative offer of Tender offer under consideration.

F.3.11.3 Scoring quality (functionality)

Score quality in each of the categories in accordance with the Tender Data and calculate total score for quality.

F.3.12 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.3.13 Acceptance of Tender offer

F.3.13.1 Accept Tender offer only if the Tenderer complies with the legal requirements stated in the Tender Data.

F.3.13.2 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. Providing the form of offer and acceptance does not contain any qualifying statements, it will constitute the formation of a contract between the employer and the successful Tenderer as described in the form of offer and acceptance.

F.3.14 Notice to unsuccessful Tenderers

After the successful Tenderer, has acknowledged the employer's notice of acceptance, notify other Tenderers that their Tender offers have not been accepted.

F.3.15. Prepare contract documents

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,
c) other revisions agreed between the employer and the successful Tenderer, and
d) the schedule of deviations attached to the form of offer and acceptance, if any.

F.3.16 Issue final contract

Prepare and issue the final draft of contract documents to the successful Tenderer for acceptance as soon as possible after the date of the employer's signing of the form of offer and acceptance (including the schedule of deviations, if any). Only those documents that the conditions of Tender require the Tenderer to submit, after acceptance by the employer, shall be included.

F.3.17 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.3.18 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.

A: SCHEDULE OF LABOUR CONTENT

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

The specified target value is **6%** of the contract value

Type of Labour	Man-hours	Minimum Wage Rate per Unit	Total Wage Cost (Excl VAT)
Permanent Labour			
Temporary Labour			
SMME/HDI's Labour			
		TOTAL	
		PERCENTAGE	

Notes to Tenderer:

(1) Labour is defined as hourly paid personnel.

(2) The penalty will be applied for non-compliance during the contract or for fraudulent disclosure

(3) The minimum wage rate to be R191.60 per day

SIGNED ON BEHALF OF THE TENDERER: …….

B: EMPLOYMENT OF AFFIRMATIVE BUSINESS ENTERPRISE (ABE)

Target values of work to be executed by and goods & services to be procured from ABEs shall be **10%**.

Schedule Item No	Name of ABE	Item Description/ Goods & Services to be provided	Value	
			Rands (Excl. VAT)	% of Tender Sum (Excl. VAT)
TOTAL				

Notes to tenderer:

1. **Regardless whether the tenderer fits the classification of an SMME/PDI, as defined in Section 3.3 of this specification, the tenderer nevertheless retains the obligation to commit to the target values prescribed**
2. **Tenderers shall insert "unknown" if an SMME/PDI has not been selected prior to tender closing date.**
3. **The penalty will be applied for non-compliance during the contract or for fraudulent disclosure**

SIGNED ON BEHALF OF THE TENDERER ……

B.1 EMPLOYMENT OF AFFIRMATIVE BUSINESS ENTERPRISE DECLARATION AFFIDAVIT (ABE).

It is understood and agreed that should this contract be awarded to me, an ABE Declaration Affidavit will be completed by each and every ABE employed by me on this contract and will be submitted to the Employer immediately upon demand by the Employer.

SIGNED ON BEHALF OF THE TENDERER ……

1. TRAINING

Name of Training Institution:……

Name of Programme:……

Trainer's Name	Qualification	Subject

Notes to tenderer:
Provide details here, or attach hereto, the subjects to be covered and the manner in which the training is to be delivered.

SIGNED ON BEHALF OF THE TENDERER……

2. ENGINEERING STUDENT TRAINING

Name of Training Institution:……

Name of Programme:……

Trainer's Name	Qualification	Subject

Notes to tenderer:

1. **Provide details here, or attach hereto, the subjects to be covered and the manner in which the training is to be delivered.**
2. **Provision should also include on-job student / (in-service) training for the duration of the contract at a monthly stipend of R 4 500.00**

SIGNED ON BEHALF OF THE TENDERER ……

POLOKWANE MUNICIPALITY

T2.1 List of Returnable Documents

The Tenderer must complete the following returnable documents:

1. Returnable Schedules required only for Tender evaluation purposes

A. Certificate of Authority of Signatory
B. Certificate of Registration with the Construction Industry Development Board
C. Certificate of authority for joint ventures (where applicable)
D. Compulsory Enterprise Questionnaire
E. Record of Addenda to Tender Documents
F. Proposed Amendments and Qualifications
G. Form of Intent to Provide a Demand Guarantee
H. Schedule of Subcontractors
I. Schedule of Available Infrastructure, Resources and Experience
J. Financial Information of the Tenderer
K. Certificate for Municipal Services and Payments: Annexure B
L. Authorisation for deduction of outstanding amounts owed to Council: Annexure C
M. Declaration of Tenderer's Past Supply Chain Management Practices: MBD 8
N. Declaration of interest: MBD 4
O. National industrial participation programme: MBD 5
P. Declaration for procurement above R10 Million: MBD 5
Q. Declaration certificate for local production and content: MBD 6.2
R. Certificate of the Independent Tender Determination: MBD 9
S. Compliance with OHSA (Act 85 of 1993)
T. Original Bank rating letter
U. Day Works
V. Names of management and supervisory staff for the LIC works
W. Preference points claim form in terms of the preferential procurement regulations 2011

2. Other documents required only for Tender evaluation purposes

- Compensation Fund Registration Certificate
- Curricula Vitae of Personnel
- Rates of Labour and Materials (Day work Rates)
- CSD Registration
- Valid CSD Number.
- Schedule of Labour Content
- Employment of ABE'S
- ABE Declaration Affidavit
- Generic Training
- Complete MBD 5 where the Tender amount inclusive of VAT exceeds R 10 million:

3. Other documents that will be incorporated into the contract

3.1 The offer portion of the C1.1 Offer and Acceptance
3.2 C1.2 Contract Data (Part 2)
3.3 C2.2 Bills of Quantities

A. CERTIFICATE OF AUTHORITY OF SIGNATORY

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

1	Company	

2	Partnership	

3	Joint Venture	

4	Sole Proprietor	

5	Close Corporation	

1. Certificate for company

I, …….., chairperson of the board of directors of

……, hereby confirm that by resolution

of the board (copy attached) taken on …… 20……, Mr/Ms

……., acting in the capacity

of……, was authorised to sign all documents in

connection with this Tender and any contract resulting from it on behalf of the

company.

As witnesses:

1..... .....
Chairman

....
Print Name Print Name

2. ....
Date

.....
Print Name

2. Certificate of partnership

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

……....., hereby

authorise Mr/Ms ……, acting

in the capacity of ……..., to sign all documents in

connection with the Tender for Contract …….., and

any contract resulting from it on our behalf.

Name	Address	Signature	Date

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

3. Certificate for Joint Venture

We, the undersigned, are submitting this Tender offer in Joint Venture and hereby

authorize Mr/Ms …….., authorised signatory of the

firm ....., acting in the capacity of lead partner, to

sign all documents in connection with the Tender offer for Contract

…… and any contract resulting from it on our behalf.

This authorisation is evidenced by the attached power of attorney signed by legally

authorised signatories of all the partners to the Joint Venture.

Name of Firm	Address	Authorising	
		Signature	Name
Lead Partner			

4. Certificate for sole proprietor

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

as ……...

As witnesses:-

1. ……. ……
Signature: Sole Owner

……. ……
Print Name **Print Name**

2. ……. ……

..... **.....**
Print Name **Date**

5. Certificate for Close Corporation

We, the undersigned, being the key members in the business trading as …… hereby

authorise Mr/Ms…….……..,

acting in the capacity of ……, to sign all documents in

connection with the Tender for Contract …….…… and

any contract resulting from it on our behalf.

Name	Address	Signature	Date

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

B. CERTIFICATE OF REGISTRATION WITH THE CONSTRUCTION INDUSTRY DEVELOPMENT BOARD

1. General

The Register of Contractors is established by the Construction Industry Development Board in terms of the CIDB Act 38 of 2000 and Construction Industry Development Regulations as published in Government Gazette number 26427 of 2004.

The Act makes it mandatory for public sector clients to apply this register when considering Tenders. Any enterprise that submits a Tender or enters into contract for construction works with the public sector, must be registered.

Once-off joint ventures do not have to register, provided that each partner of the joint venture is separately registered.

2. Status

Tenderers shall fill in the following sections of this form, depending on their status:

2.1 Section A

Tenderers who have accomplished registration and can provide proof of their grading designation.

2.2 Section B

Tenderers who are in the process of registration of an update to an existing registration or a renewal.

2.3 Section C

Tenderers who have submitted the first application.

2.4 Section D

Tenderers submitting this Tender offer in Joint Venture and can provide proof that each partner of the Joint Venture is separately registered.

Note: Only complete <u>one</u> of Sections A, B, C or D.

SECTION A							
I, ……. Acting in capacity of ……							
was authorised to sign all documents in connection with this Tender an any contract resulting from it on							
behalf of the following entity: …….							
hereby declare that the above mentioned entity has achieved registration with the Construction In-							
dustry Development Board on date …… and declare that the grading							
designation is reflected in the following **symbols** on the registration certificate.							
		Contract Value					
		Type of Work					
……..					……..		
Signature of Tenderer					Signature of Witness		
……..					……..		
Print Name					Print Name		

SECTION B

I, …… acting in capacity of …… was authorised to sign all documents in connection with this tender an any contract resulting from it on

behalf of the following entity: …… hereby declare that the above mentioned entity has achieved registration with the Construction Industry Development Board on date ……., furthermore declare that the existing grading designation is:

Contract Value		

Type of Work		

and the following update has been applied for:

Amendment of category status		mark with "❄"
Change of Particulars		
Annual confirmation of Particulars		
Renewal of Registration		

…….. ……..
Signature of Tenderer Signature of Witness

…….. ……..
Print Name Print Name

SECTION C

I, …… acting in capacity of ……
was authorised to sign all documents in connection with this tender an any contract resulting from it on

behalf of the following entity: ……
hereby declare that the above mentioned entity has submitted its FIRST APPLICATION FOR REGISTRATION with the Contraction Industry Development board on date ……..

I furthermore accept that failure to achieve registration with the Construction Industry Development Board in a category stipulated in the Tender Data within 10 days from the date of closing this tender, implies a non-responsive tender and warrants rejection of the Tender on account of non-compliance with the requirements of the Tender Data.

……..	……..
Signature of Tenderer	Signature of Witness
……..	……..
Print Name	Print Name

SECTION D

I, ……. acting in capacity of the LEAD PARTNER in the Joint Venture

……..

was authorised to sign all documents in connection with this tender and any contract resulting from it, hereby declare that each partner of the Joint Venture is separately registered with the Construction Industry Development Board and declare that the grading designation is reflected in the following **symbols** on the registration certificates:

Name of Lead Partner:		
	Contract Value	
	Type of Work	

Name of 2nd Partner:		
	Contract Value	
	Type of Work	

Name of 3rd Partner:		
	Contract Value	
	Type of Work	

……..
Signature of Tenderer

……..
Signature of Witness

……..
Print Name

……..
Print Name

C. CERTIFICATE OF AUTHORITY FOR JOINT VENTURES (WHERE APPLICABLE)

Employer: ……

Contract Number: ……

NOTE 1 This form need only be completed in the event of a Joint Venture submitting this Tender.

NOTE 2 Fill in all the information requested in the spaces provided. Attach additional sheets if required.

NOTE 3 Provide a copy of the Joint Venture agreement. Demonstrate that the partners to the Joint Venture share in the ownership, control, management responsibilities, risks and profits of the Joint Venture. The Joint Venture agreement shall include specific details relating to:

a) the contributions of capital and equipment;
b) portions of the Contract to be performed by the partner's own resources; and
c) portions of the Contract to be performed under the supervision of each partner.

NOTE 4 Provide copies of all written agreements between partners concerning the Joint Venture, including those that relate to ownership options and to restrictions/limits regarding ownership and control.

1. Joint Venture Particulars

Name ……

Postal Address: ……

Physical Address
……

……

Telephone……

Fax……

Name of authorized representative……

2. Identity of Partner No. 1

Name…….....

Postal Address ……

Physical Address ……

……

Telephone……

Fax ……

Contact Person……

3. Identity of Partner No. 2

Name…….....

Postal Address……...

Physical Address ……

…….

Telephone……...

Fax……...

Contact Person……

4. Identity of Partner No. 3

Name …….....

Postal Address……...

Physical Address ……

……

Telephone……...

Fax……...

Contact Person……

5. Description of the role of the partners in the joint venture

Partner No. 1:……..……...

……...

Partner No. 2:……..……...

……...

Partner No. 3:……..……...

……...

6. Ownership of the joint venture

(i) Ownership percentage(s) Partner No. 1 ……..%

Partner No. 2 ……..%

Partner No. 3 ……..%

(ii) Partner percentage in respect of:

a) Profit and loss sharing: Partner No. 1 ……..%

Partner No. 2 ……..%

Partner No. 3 ……..%

b) Initial capital contribution Partner No. 1 R……..

Partner No. 2 R……..

Partner No. 3 R……..

(iii) Anticipated ongoing capital contributions:

Partner No. 1 R.....

Partner No. 2 R.....

Partner No. 3 R.....

(iv) Contributions of equipment (specify types, quality and quantities of equipment) to be provided by each partner:

Partner No. 1: ……

……...

Partner No. 2:……..……...

……

Partner No. 3:……..……...

……

7. Recent contracts performed by partners in their own right or as partners in other joint ventures

a) Partner No. 1

(i) ……..

(ii) .....……...

(iii) …..……...

(iv) ……..……...

(v) ……..……...

b) Partner No. 2

(i) ……..

(ii) .....……...

(iii) …..……...

(iv) ……..……...

(v) ……..……...

c) Partner No. 3

(i) ……..

(ii) .....……...

(iii) …..……...

(iv) ……..……...

(v) ……..……...

8. Control and participation in the joint venture

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

a) Joint Venture cheque signing

……

……

……

b) Authority to enter into contracts on behalf of the Joint Venture

……

…….....

…….....

c) Signing, co-signing or collateralizing of loans

……
……

……

d) Acquisition of lines of credit

……
……

……

e) Acquisition of demand bonds

……

……

……

f) Negotiating and signing of labour agreements

……

……

……

9. Management of the performance of the Contract
(Fill in the name and firm of the responsible person)

a) Supervision of field operations……...…

….……

b) Major purchasing……..

….……

c) Estimating ……

….……

d) Technical management……...……

….……

10. Management and control of the joint venture

a) Identify the managing partner

……

……
……

b) What authority does each partner have to commit or obligate the other to financial institutions, insurance companies, suppliers, subcontractors or other parties participating in the performance of the contemplated works:

Partner No. 1: ……

.....

Partner No. 2: ……

.....

Partner No. 3: …….

.....

c) Describe the management structure for the joint venture's work under this Contract

Management Function/Designation	Name	Partner

11. Personnel

a) State the approximate number of operative personnel (by trade/function/discipline) needed to execute the Joint Venture contract.

Trade/function/discipline	Number

b) State the number of operative personnel to be employed on the Contract who are currently in the employ of partners:

……

c) State the number of operative personnel who are not currently in the employ of the respective partners and shall be engaged on the project by the Joint Venture:

……

d) State the name of the individual who shall be responsible for hiring Joint Venture employees:

……

e) State the name of the partner who shall be responsible for the preparation of Joint Venture payrolls:

……

……

12. Services

List the firms who provide the following services:

Service	Name	Contact Person	Telephone No.
Accounting			
Auditing			
Banking			
Insurance			
Legal			

13. Control and structure of the Joint Venture

Briefly describe the manner in which the Joint Venture is structured and controlled.

……

……

……

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

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

Duly authorized to sign on behalf of…….
(**the Joint Venture**)

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

Address: .....

.....

Telephone: .....

Date: .....

Duly authorized to sign on behalf of……

(**Partner No. 1**)

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

Address: .....

.....

Telephone: .....

Date: .....

Duly authorized to sign on behalf of……

(**Partner No. 2**)

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

Address: .....

.....

Telephone: .....

Date: .....

Duly authorized to sign on behalf of……

(**Partner No. 3**)

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

Address: .....

.....

Telephone: .....

Date: .....

D. COMPULSORY ENTERPRISE QUESTIONNAIRE

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

Section 1: Name of enterprise: . . . .

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

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

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration number . . . . . .

Close corporation number . . . . . .

Tax reference number . . . . . .

Section 6: Record in the 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:

☐ a member of any municipal council ☐ a member of any provincial legislature ☐ a member of the National Assembly or the National Council of Province ☐ a member of the board of directors of any municipal entity ☐ an official of any municipality or municipal entity	☐ 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) ☐ a member of an accounting authority of any national or provincial public entity ☐ an employee of Parliament or a provincial legislature

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:

☐ a member of any municipal council ☐ a member of any provincial legislature ☐ a member of the National Assembly or the National Council of Province ☐ a member of the board of directors of any municipal entity ☐ an official of any municipality or municipal entity	☐ 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) ☐ a member of an accounting authority of any national or provincial public entity ☐ an employee of Parliament or a provincial legislature

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

*insert separate page if necessary

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

i) 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; and

v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed		Date	
Name		Position	
Enterprise name			

E. RECORD OF ADDENDA TO TENDER DOCUMENTS

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

No.	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Attach additional pages if more space is required.

Signed		Date	
Name		Position	
Tenderer			

F. PROPOSED AMENDMENTS AND QUALIFICATIONS

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

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

Page	Clause or item	Proposal

Signed		Date	
Name		Position	
Tenderer			

G. FORM OF INTENT TO PROVIDE A DEMAND GUARANTEE

If my/our Tender is accepted, I/we will, when required and within the time stipulated, provide a guarantee of

(*) Insurance Company (name)……..

(of address) ……

……

(*) Commercial Bank (Name)…….....

(Branch)……...

(of address) …….

……

to be approved by you, the Employer, for the amount stipulated.

(*): delete whichever is not applicable.

I/we understand that failure to produce an acceptable Demand Guarantee within the stipulated period is a fundamental breach of Contract, entitling the Employer to:

(i) withhold all payments which may be due to the Contractor pending compliance with the stipulated requirements to produce an acceptable Demand Guarantee.

(ii) instruct the Contractor to cease all work pending provision of the Demand Guarantee, and

(iii) cancel the Contract.

Signed	……	Date	……
Print Name	……	Position	……
Tenderer	……		

H. SCHEDULE OF PROPOSED SUBCONTRACTORS

We notify you that it is our intention to employ the following Subcontractors for work in this contract.
If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.
We confirm that all Subcontractors who are contracted to construct a house are registered as home builders with the National Home Builders Registration Council.

No	Name and address of proposed Subcontractor	Nature and extent of work	Previous experience with Subcontractor.
1.			
2.			
3.			
4.			
5.			

Signed		Date	
Name		Position	
Tenderer			

I. SCHEDULE OF AVAILABLE INFRASTRUCTURE, RESOURCES AND EXPERIENCE

1. Tenderer's List of Third Party Design Engineers

In the event that the Tenderer desires to design all or part of the Works or submit any alternative, he/she shall list here-following, the Design Engineers, accomplished in the specific field of practice, which he/she proposes to employ for the purpose of third party certification of all works designed by the Tenderer for the Works.

Notes: (i) All costs of third party designs shall be borne solely by the Tenderer.
(ii) This Schedule must be accurately completed. Phrases such as "to be advised" will not be accepted.

Section of Works	Name and Address of Registered Engineer				ECSA Registration No.

2. Tenderer's Personnel Profile

Key Staff Permanently employed, of foreman level and above	Number of staff
Sub-Total	
Other Permanent Staff	**Number of staff**
Sub-Total	
Temporary Staff	**Number of staff**
Sub-Total	

3. **List the Firms who provide the following services:**

Service	Name	Contact Person	Telephone
Accounting			
Auditing			
Insurance			
Legal			

4. **Identify any amounts of money loaned to your enterprise, indicating the loan source, date and amount**

Loan Source	Address	Date of Loan	Loan Amount

5. **List a maximum of five contract which your enterprise is engaged in and has not yet completed**

Contract Description	Location	Client	Contract Amount	Expected Completion (month & year)

6. **List the four largest assignments completed by your enterprise in the last three years**

Nature of Work Performed	Client	Consultant Contact Person	Telephone No.	Contract Amount

7. **Address of workshop facilities from where maintenance of works will be undertaken**

……

……

8. **Address of Branch Offices in the RSA**

……

……

9. **Address of Nearest Representative to Polokwane**

……

……

10. **Has work previously been performed for the Employer?** YES/NO* -

Specify……

11. <u>Tenderer's Financial Ability to execute and complete the Works</u>

Provide the estimated cash flow on the project in terms of submissions of payment certificates or payment schedules of the Employer.

NOTES APPLICABLE:

(i) Value added tax to be included in all amounts

(ii) Assume for the purpose of this estimate, payment of certificates within 30 days after receipt by the Employer.

(iii) In calculation of the last column,

j = d	m = l + g
k = j + e	n = m + h
l = k + f	etc

(iv) Failure to detail the required information, shall automatically signify that the Tenderer lacks the infrastructure and resources necessary to execute and complete the Works

Month No. in Contract Period	**Estimated amount in Rands (VAT included)**			
	a Received	**b Payments made**	**a-b Net cash flow**	**Cumulative cash flow**
1	-		D	j
2			E	k
3			F	l
4			G	m
5			H	n
6			etc.	etc.
7				
8				
9				
10				
11				
12				
Maximum negative cash flow. Take the largest negative number in the last column and write in here → → → → →				

Signed	……	Date	……
Print Name	……	Position	……
Tenderer	……		

J. FINANCIAL INFORMATION OF TENDERER

This information sheet has to be filled in by the financier of the Tenderer, duly signed and stamped on behalf of the financial institution he represents.

Tenderer Details

Tender Description : …….

Contract Period : …….

Name of Tenderer : …….

Bank Account Number : …….

Tendered Amount : …….

Demand Guarantee will be provided by this Bank: YES □ NO □

If yes, state amount of Demand Guarantee: R ……

Financial Institution

Name of Commercial Bank : …….

Branch : …….

Name of Bank Manager : …….

Telephone Number : …….

I / We acting on behalf of the above Commercial Bank confirm that

……. (Tenderer)

has operated an account with us for the last ..... years.
We have been requested to provide a bank rating based in relation to the financial capability of the Tenderer, taking into account directives set out in the following two tables.

Financial Capability	
Maximum value of contract that the Tenderer is considered capable of	Value on which Bank Rating must be used
up to R300 000	R24 000
R1 000 000	R78 000
R3 000 000	R240 000
R5 000 000	R480 000
R10 000 000	R900 000
R30 000 000	R2 400 000
R100 000 000	R7 800 000

BANK RATING	
Bank Code	**Description of Bank Code**
A	Undoubted for the amount of enquiry
B	Good for the amount of enquiry
C	Good for the amount quoted if strictly in the way of business
D	Fair trade risk for amount of enquiry
E	Figures considered too high
F	Financial position unknown
G	Occasional dishonours
H	Frequent dishonours

The value on which our Bank Rating of the Tenderer is based is R…….

(In words…… only)

ANNEXURE: B

K. CERTIFICATE FOR MUNICIPAL SERVICES AND PAYMENTS

TO: MUNICIPAL MANAGER, POLOKWANE MUNICIPALITY

FROM: _____(Name of Tenderer)

FURTHER DETAILS OF TENDERER(S); DIRECTORS/SHAREHOLDERS/PARTNERS, ETC.

Directors/share holders/Partner	Physical address of the Business	Municipal Account No.	Physical residential address of the Director/ Shareholder/ Partner	Municipal Account No.

NB: Please attach certified copy of ID document(s)

_____ _____

Signatory **Date**

Witnesses

1. _____ _____ _____

Full Names **Signature** **Date**

2. _____ _____ _____

Full Names **Signature** **Date**

ANNEXURE: C

L. AUTHORISATION FOR DEDUCTION OF OUTSTANDING AMOUNTS OWED TO COUNCIL

TO: MUNICIPAL MANAGER, POLOKWANE MUNICIPALITY

FROM: _____ (Name of the Tenderer or Consortium)

I, _____ the undersigned, hereby authorise the Polokwane Municipality to deduct the full amount outstanding by the business organisation/Director/Shareholder/Partner, etc. from any payment due by us/me.

Signed at _____ Date_____ Month _____ 20_____

Print Name: _____

Signature: _____

Thus, done and signed for and on behalf of the Tenderer/Contractor

_____ _____
Signatory **Date**

Witnesses

1. _____ _____ _____
Full Names **Signature** **Date**

2. _____ _____ _____
Full Names **Signature** **Date**

M. DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

1. This Municipal Tendering Document must form part of all Tenders 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 to combat the abuse of the supply chain management system.

3. The of any Tenderer may be rejected if the Tenderer, or any of its directors have:

a) Abused the Municipality's Supply Chain Management System or committed any improper conduct in relation to such system:

b) Been convicted for fraud or corruption during the past five years:

c) Wilfully neglected, reneged or failed to comply with any government, municipal or 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 Corruption 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 Tender.

ITEM	QUESTION	YES	NO
4.1	Is the Tenderer or any of its directors listed on the National Treasury's database as a company or person prohibited from doing business with the public sector? **(Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the audi alteram partem rule was applied).**		
4.1.1	If so, furnish particulars:		
4.2	Is the Tenderer or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corruption Activities Act (No 12 of 2004)? **(To access this Register, enter the National Treasury's website www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012 326 5445).**		
4.2.1	If so, furnish particulars:		
4.3	Was the Tenderer 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?		
4.3.1	If so, furnish particulars:		
4.4	Does the Tenderer or any of its directors owe any municipal rates and taxes or municipal charges to the municipality/municipal entity, or any other municipality/municipal entity, that is in arrears for more than three months?		
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the Tenderer 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?		
4.5.1	If so, furnish particulars:		

CERTIFICATION

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

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

_____	_____
Signature	**Date**
_____	_____
Position	**Name of Tenderer**

N. DECLARATION OF INTEREST

1. No Tender will be accepted from persons in the service of the State*.

2. Any person, having a kinship with persons in the service of the State, including a blood relationship, may make an offer/s in terms of this invitation to Tender. In view of possible allegations of favouritism, should the resulting Tender, or part thereof, be awarded to persons connected with or related to persons in service of the State, it is required that the Tenderer or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.

3. In order to give effect to the above, the following questionnaire must be completed and submitted with the Tender.

Full Name: _____

Identity No: _____

Company Registration No: _____

Tax Reference No: _____

VAT Registration No: _____

Are you at present in the service of the State? **Yes/No**

If so, furnish particulars

_____

_____

- **Municipal Supply Chain Management Regulation**: "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 National Council of Provinces
  (b) A member of 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. 1of 1999);
  (e) A member of Parliament or provincial legislature.
  (f) A member of the accounting authority of any national or provincial public entity; or
  (g) An employee of Parliament or a provincial legislature

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

If so, furnish particulars.

_____

_____

Do you have any relationship (family, friend, other) with persons in the service of the State and who may be involved with the evaluation or adjudication of this Tender? **YES/NO**

If so, furnish particulars.

Are you aware of any relationship (family, friend, other) between a Tenderer and any persons in the service of the State who may be involved with the evaluation or adjudication of this Tender? **YES/NO**

If so, furnish particulars?

Are any of the company's directors, managers, principle shareholders or stakeholders in service of the State? **YES/NO**

If so, furnish particulars.

Are any spouses, child or parent of the company's directors, managers, principle shareholders or stakeholders in service of the State? **YES/NO**

If so, furnish particulars?

_____

_____

CERTIFICATION

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 Tenderer**

This document must be signed and submitted together with your Tender

O. THE NATIONAL INDUSTRIAL PARTICIPATION PROGRAMME

INTRODUCTION

The National Industrial Participation (NIP) Programme, which is applicable to all government procurement contracts that have an imported content, became effective on the 1 September 1996. The NIP policy and guidelines were fully endorsed by Cabinet on 30 April 1997. In terms of the Cabinet decision, all state and parastatal purchases / lease contracts (for goods, works and services) entered into after this date, are subject to the NIP requirements. NIP is obligatory and therefore must be complied with. The Industrial Participation Secretariat (IPS) of the Department of Trade and Industry (DTI) is charged with the responsibility of administering the programme.

1 PILLARS OF THE PROGRAMME

1.1 The NIP obligation is benchmarked on the imported content of the contract. Any contract having an imported content equal to or exceeding US$ 10 million or other currency equivalent to US$ 10 million will have a NIP obligation. This threshold of US$ 10 million can be reached as follows:

(a) Any single contract with imported content exceeding US$10 million, Or

(b) Multiple contracts for the same goods, works or services each with imported content exceeding US$3 million awarded to one seller over a 2 year period which in total exceeds US$10 million. or

(c) A contract with a renewable option clause, where should the option be exercised the total value of the imported content will exceed US$10 million. or

(d) Multiple suppliers of the same goods, works or services under the same contract, where the value of the imported content of each allocation is equal to or exceeds US$ 3 million worth of goods, works or services to the same government institution, which in total over a two (2) year period exceeds US$10 million.

1.2 The NIP obligation applicable to suppliers in respect of sub-paragraphs 1.1 (a) to 1.1 (c) above will amount to 30 % of the imported content whilst suppliers in respect of paragraph 1.1 (d) shall incur 30% of the total NIP obligation on a *pro-rata* basis.

1.3 To satisfy the NIP obligation, the DTI would negotiate and conclude agreements such as investments, joint ventures, sub-contracting, licensee production, export promotion, sourcing arrangements and research and development (R&D) with partners or suppliers

A period of seven years has been identified as the time frame within which to discharge the obligation

2. REQUIREMENTS OF THE DEPARTMENT OF TRADE AND INDUSTRY

2.1 In order to ensure effective implementation of the programme, successful Tenderers (contractors) are required to, immediately after the award of a contract that is in excess of **R10 million** (ten million Rands), submit details of such a contract to the DTI for reporting purposes.

2.2 The purpose for reporting details of contracts in excess of the amount of R10 million (ten million Rands) is to cater for multiple contracts for the same goods, works or services; renewable

contracts and multiple suppliers for the same goods, works or services under the same contract as provided for in paragraphs 1.1.(b) to 1.1. (d) above.

3 TENDER SUBMISSIONS AND CONTRACT REPORTING REQUIREMENTS OF TENDERERS AND SUCCESSFUL TENDERERS (CONTRACTORS)

3.1 Tenderers are required to sign and submit this Standard Tendering Document (SBD 5) together with the Tender on the closing date and time.

3.2 In order to accommodate multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as indicated in sub-paragraphs 1.1 (b) to 1.1 (d) above and to enable the DTI in determining the NIP obligation, successful Tenderers (contractors) are required, immediately after being officially notified about any successful Tender with a value in excess of R10 million (ten million Rands), to contact and furnish the **DTI with the following information**:

- Tender / contract number.
- Description of the goods, works or services.
- Date on which the contract was accepted.
- Name, address and contact details of the government institution.
- Value of the contract.
- Imported content of the contract, if possible.

3.3 The information required in paragraph 3.2 above must be sent to the Department of Trade and Industry, Private Bag X 84, Pretoria, 0001 for the attention of Mr Elias Malapane within five (5) working days after award of the contract. Mr Malapane may be contacted on telephone (012) 394 1401, facsimile (012) 394 2401 or e-mail at Elias@thedti.gov.za for further details about the programme.

4 PROCESSES TO SATISFY THE NIP OBLIGATION

4.1 Once the successful Tenderer (contractor) has made contact with and furnished the DTI with the information required, the following steps will be followed:

(a) the contractor and the DTI will determine the NIP obligation;

(b) the contractor and the DTI will sign the NIP obligation agreement;

(c) the contractor will submit a performance guarantee to the DTI;

(d) the contractor will submit a business concept for consideration and approval by the DTI;

(e) upon approval of the business concept by the DTI, the contractor will submit detailed business plans outlining the business concepts;

(f) the contractor will implement the business plans; and

(g) the contractor will submit bi-annual progress reports on approved plans to the DTI.

4.2 The NIP obligation agreement is between the DTI and the successful Tenderer (contractor) and, therefore, does not involve the purchasing institution

Tender number ……. Closing date:……

Name of Tenderer……

Postal address ……

……

Signature…….. Name (in print) …….

Date…….

P. DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (ALL APPLICABLE TAXES INCLUDED

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

1 Are you by law required to prepare annual financial statements for auditing? ***YES/NO**

1.1 If yes, submit audited annual financial statements 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?

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

2.2 If yes, provide particulars.

……
……
……
……....

* Delete if not applicable

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 Tenderer**

Q. DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT

This Municipal Tendering Document (MBD) must form part of all Tenders invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

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

1. General Conditions

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

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

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

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

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

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

$$LC = 1 - \left(\frac{x}{y}\right) x\ 100$$

Where
x imported content
y Tender price excluding value added tax (VAT)

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

1.7. A Tender will be disqualified if:

- The Tenderer fails to achieve the stipulated minimum threshold for local production and content indicated in paragraph 3 below; and this declaration certificate is not submitted as part of the Tender documentation.

2. Definitions

2.1. **"Tender"** includes advertised competitive Tenders, written price quotations or proposals;

2.2. **"Tender price"** price offered by the Tenderer, excluding value added tax (VAT);

2.3. **"contract"** means the agreement that results from the acceptance of a Tender by an organ of state;

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

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

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

2.7. **"local content"** means that portion of the Tender price which is not included in the imported content, provided that local manufacture does take place;

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

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

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

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

4. **Does any portion of the services, works or goods offered have any imported content?**

YES / NO

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

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

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

Currency	**Rates of exchange**
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

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

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

IN RESPECT OF TENDER No. .....

ISSUED BY: (Procurement Authority / Name of Municipality / Municipal Entity): .....

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

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

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

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

(a) The facts contained herein are within my own personal knowledge.
(b) I have satisfied myself that the goods/services/works to be delivered in terms of the above-specified Tender comply with the minimum local content requirements as specified in the Tender, and as measured in terms of SATS 1286.
(c) The local content has been calculated using the formula given in clause 3 of SATS 1286, the rates of exchange indicated in paragraph 4.1 above and the following figures:

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

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

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

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

SIGNATURE: _____ **DATE:** _____

WITNESS No. 1 _____ **DATE:** _____

WITNESS No. 2 _____ **DATE:** _____

R. CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

1 This Municipal Tendering Document (MBD) must form part of all Tenders[1] 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 Tendering (or Tender rigging).[2] Collusive Tendering is a *pe se* prohibition 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 Tender of any Tenderer if that Tenderer 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 Tendering 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 Tenders are considered, reasonable steps are taken to prevent any form of Tender-rigging.

5 In order to give effect to the above, the attached Certificate of Tender Determination (MBD 9) must be completed and submitted with the Tender:

[1] Includes price quotations, advertised competitive Tenders, limited Tenders and proposals.

[2] Tender rigging (or collusive Tendering) 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 Tendering process. Tender rigging is, therefore, an agreement between competitors not to compete.

S. CERTIFICATE OF INDEPENDENT TENDER DETERMINATION

I, the undersigned, in submitting the accompanying Tender:

_____

(Tender Number and Description)

in response to the invitation for the Tender 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 Tenderer)

1. I have read and I understand the contents of this Certificate;

2. I understand that the accompanying Tender will be disqualified if this Certificate is found not to be true and complete in every respect;

3. I am authorized by the Tenderer to sign this Certificate, and to submit the accompanying Tender, on behalf of the Tenderer;

4. Each person whose signature appears on the accompanying Tender has been authorized by the Tenderer to determine the terms of, and to sign, the Tender, on behalf of the Tenderer;

5. For the purposes of this Certificate and the accompanying Tender, I understand that the word "competitor" shall include any individual or organization, other than the Tenderer, whether or not affiliated with the Tenderer, who:

   (a) has been requested to submit a Tender in response to this Tender invitation;
   (b) could potentially submit a Tender in response to this Tender invitation, based on their qualifications, abilities or experience; and
   (c) provides the same goods and services as the Tenderer and/or is in the same line of business as the Tenderer

6. The Tenderer has arrived at the accompanying Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium[3] will not be construed as collusive Tendering.

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 Tender;
   (e) the submission of a Tender which does not meet the specifications and conditions of the Tender; or
   (f) Tendering with the intention not to win the Tender.

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 Tender invitation relates.

9. The terms of the accompanying Tender have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official Tender opening or of the awarding of the contract.

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

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to Tenders and contracts, Tenders 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 Tenderer**

T. COMPLIANCE WITH OHSA (ACT 85 OF 1993)

Tenderers are required to satisfy the Employer and the Engineer as to their ability and available resources to comply with the above by answering the following questions and providing the relevant information required below.

1. Is the Contractor familiar with the OHSA (ACT 85 of 1993) and its Regulations?		**YES**	**/**	**NO**
2. Who will prepare the Contractor's Health and Safety Plan? (Provide a copy of the person/s curriculum vitae/s or company profile).		**YES**	**/**	**NO**
3. Does the Contractor have a health and safety policy? (If yes, provide a copy). How is this policy communicated to all employees?		**YES**	**/**	**NO**
4. Does the Contractor keep records of safety aspects of each construction site? If yes, what records are kept?		**YES**	**/**	**NO**
5. Does the Contractor conduct monthly safety meetings? If yes, who is the chairperson of the meeting, and who attend these meetings?		**YES**	**/**	**NO**
6. Does the Contractor have a safety officer in his employment, responsible for the overall safety of his company? If yes, please explain his duties and provide a copy of his CV.		**YES**	**/**	**NO**
7. Does the Contractor have trained first aid employees? If yes, indicate, who.		**YES**	**/**	**NO**
8. Does the Contractor have a safety induction-training programme in place? (If yes, provide a copy)		**YES**	**/**	**NO**

Signature of Tenderer: ……**Date**: ……

U. ORIGINAL BANK RATING LETTER

Attached the Bank Rating to this Page

V. DAY WORK SCHEDULE

This Day work Schedule shall be used for the valuation of any additional or substituted work which cannot conveniently be valued at the rates and prices submitted in the schedule of quantities.

In respect of labour and materials used in the additional or substituted work not covered in the Day work Schedule the Contractor shall be paid the actual cost plus the percentage allowance stated in the schedule of quantities.

The Tenderer shall quote hereunder rates which shall apply for payment purposes if the Engineer orders additional or substituted work to be carried out on a day work basis and shall therefore be in accordance with the requirements of clause 37(2) of the General Conditions of Contract.

1. LABOUR AND MATERIALS

Rates and prices entered in the schedule shall be held to allow for net cost of labour and materials delivered to site respectively with the percentage allowances stated in the schedule of quantities.

2. PLANT AND EQUIPMENT

The Tenderers shall list all major items of plant and equipment to be used on the works and which may be required for use on day works. The proposed hire rates of these items shall be entered against each type of machine, such rates to include for all relevant costs of plant hire inclusive of fuels and lubricants but exclusive of labour charges for the operators, which will be paid for under sub-clause (1) above.

The rates for plant items not listed in the schedule will be the ruling plant hire rates, inclusive of fuels and lubricants but exclusive of labour charges for the operators, inclusive of a 7,5% handling charge. It is therefore in the Tenderers interest to ensure that the list is complete.

Should there be insufficient space on the pages provided; the Tenderer shall add further pages as required.

THE RATES FOR THE PLANT AND EQUIPMENT MENTIONED IN THE SCHEDULE SHALL BE FILLED IN FOR THE ITEMS REQUESTED. SHOULD AN ITEM BE OMITTED IT SHALL BE DEEMED TO HAVE BEEN INCLUDED IN THE OTHER DAYWORKS RATES.

I. LABOUR

DESIGNATION		RATE	
		R	C
Brick Layers	per hour		
Pipe Layers	per hour		
Plant Operators	per hour		
Truck drivers			
Labour - unskilled	per hour		
- semi-skilled	per hour		
- skilled	per hour		

II. MATERIALS

DESIGNATION		RATE	
		R	C
Cement	per 50 kg pocket delivered		
Concrete Sand	per m³ delivered		
Concrete Aggregate	per m³ delivered		
Pipes	per m delivered		
Electrical cables	per m delivered		

III. TRANSPORT

DESIGNATION	RATE	
	R	C
Per cubic metre kilometre		

IV. PLANT AND EQUIPMENT

ITEM	DESCRIPTION	NON-WORKING RATE*		OPERATING RATE		PER
		R	c	R	C	UNIT
	Excavator (30 ton minimum)					
	Tipper 10 cubic meter					
	Water Tanker					

*Only applicable on authority of the Employer's Agent.

POLOKWANE MUNICIPALITY

PART C1: AGREEMENTS AND CONTRACT DATA

C1.1: FORM OF OFFER AND ACCEPTANCE

C1.2: CONTRACT DATA

C1.3: DEMAND GUARANTEE AND RETENTION MONEY GUARANTEE

C1.4: AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT No 85 OF 1993

C1.5: AGREEMENT WITH ADJUDICATOR

POLOKWANE MUNICIPALITY

PROJECT DESCRIPTION: CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE

C1.1 Form of Offer and Acceptance

Offer

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of construction works viz.:

Project Description: _____

Contract No. _____

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

By the representative of the Tenderer, deemed to be duly authorized, signing this part of 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

……

……..(Amount in words);

R…….. (Amount 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 terms of the Conditions of Contract identified in the Contract Data.

Signature(s) .....

Print Name(s) .....

Capacity .....

For the Tenderer.....

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

Signature of witness.....Date: .....

Print Name .....

<u>Important Note:</u> This page to be duly completed by the Tenderer before submitting the Tender.

ACCEPTANCE

By signing this part of this Form of Offer and Acceptance, the Employer 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 include this Agreement)

Part 2: Pricing Data

Part 3: Scope of Work

Part 4: Site Information

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

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

The Tenderer shall, within 7 days of 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 guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data. Failure to fulfil any of the obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed copy of this original document, including the Schedule of Deviations (if any). Such date should be confirmed in a manner that can be read, copied and recorded and shall be accepted by the contracting parties as the Commencement Date. This agreement shall constitute a binding contract between the parties.

Signature(s) .....

Print Name(s) .....

Capacity .....

For the Employer .....
(Name of Organization)

……

……
(Address of Organization)

Signature of witness..... Date: .....

Print Name .....

SCHEDULE OF DEVIATIONS

The extent of deviations from the Tender documents issued by the Employer before the Tender closing date is limited to those permitted in terms of the Conditions of Tender.

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

Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the Tender documents, and which it is agreed by the Parties becomes an obligation of the contract, shall also be recorded here.

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

3.1 Subject……..

Details……...

3.2 Subject……..

Details……...

3.3 Subject……..

Details……...

By the duly authorized representatives signing this Schedule of Deviations, the Employer and the Contractor agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Contractor and the Employer in concluding this process of offer and acceptance; in witness thereof the parties hereto have caused this agreement to be executed.

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 Contractor of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

Signed by: .....Signed by: .....

Print Name: .....Print Name: .....

Address: ..... Address: .....

.....

For and on behalf of the **Employer** in the Presence of

Witness: .....

Print Name: .....

Date: .....

.....

For and on behalf of the **Contractor** in the presence of

Witness: .....

Print Name: .....

Date.....

POLOKWANE MUNICIPALITY

C.1.2 Contract Data

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C.1.2.1 . Part 1: Data provided by the Employer

C.1.2.1.1 Conditions of Contract

The Conditions of Contract are:

- the "General Conditions of Contract" as they appear in the commercially-available publication "General Conditions of Contract for Construction Works, Third Edition, 2015", hereinafter referred to as "GCC 2015"; and

- Specific data as contained in this Contract Data.

Each party to the Contract shall purchase its own copy of the GCC 2015 that applies to this Contract, available from its publisher:

South African Institution of Civil Engineering
Private Bag X200
Halfway House
1685
South Africa

Tel +27 (0)11 805 5947

The following Notes apply:

Note 1
The GCC 2015 makes several references to the Contract Data.

Each item of data below is cross-referenced to the clause in the Conditions of Contract to which it applies. Notwithstanding anything specified to the contrary, the Contract Data shall take precedence in the interpretation of any ambiguity or inconsistency between it and the GCC 2015.

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purpose of interpretation, the priority of the documents shall be in accordance with the following order of precedence:

(a) The Form of Offer and Acceptance.
(b) Amendments to the General Conditions of Contract within the Contract Data.
(c) Additional conditions to the General Conditions of Contract within the Contract Data.
(d) Corrigenda to the General Conditions of Contract.
(e) The General Conditions of Contract.
(f) The Specifications, Drawings, Schedules and other documents forming part of the Contract (in that order) contained in the Scope of Work and the Site Information.

If any ambiguity or discrepancy is found in the documents, the Engineer needs to be contacted to issue any necessary clarification or instruction.

Note 2
Certain pro-forma forms and pro-forma agreements contained in the GCC 2015 have been adapted for this particular contract. Those pro-forma forms and pro-forma agreements contained in the GCC 2015 do not apply where replaced by similar pro-forma forms and pro-forma agreements in this document.

C.1.2.1.2 Contract-specific Data

The following contract-specific data, referring to the General Conditions of Contract, are applicable to this Contract:

C.1.2.1.2.1 Compulsory Data

Clause	Data
1.1.1.13	The Defects Liability Period is **12 months**
1.1.1.14	The time for achieving Practical Completion is **06 months**
1.1.1.15	The name of the Employer is Polokwane Municipality
1.1.1.26	The Pricing Strategy of a Re-measurement Contract shall apply
1.2.1.2	The address of the Employer is: Physical address: Civic Centre Landdros Mare Street Polokwane City Postal address: PO Box 111 Polokwane 0700 e-mail address: mapula@polokwane.gov.za Contact numbers: Corporate: 015 023 5346 Direct: 015 023 5335
1.1.1.16	The name of the Employers Agent is: **Tshashu Consulting and Project Managers**
1.2.1.2	The address of the Employers Agent is: **Physical address:** Suite 11, 06 Hans van Rensburg Street POLOKWANE, 0700 **Postal address:** P O Box 5617 Polokwane-North; 0750 **e-mail address:** admin@tsconsulting.co.za **Contact number:** (015) 291 4365 **Fax:** (015) 291 5392

Clause	Data
3.3.1	The Employers Agent shall obtain the specific approval of the Employer before executing any of his functions or duties according to the following table:

GCC Clause No	Description	Requires EWA*	Delegated to ER*
3.3.1	Employers Agent's Representative appointment and termination	Y	
3.3.4	Employers Agent's Representative acting on Engineer's behalf	Y	
4.5.4	Payment for notices and fees	Y	
4.7.1	Fossils, etc on Site	Y	
5.7.2	Work at night	Y	
5.7.3	Acceleration of rate of progress	Y	
5.7.3	Payment for acceleration	Y	
5.9.1	Instructions and drawings on Commencement Date		Y
5.11.1	Suspension of the Works		Y
5.11.3	Proceeding with Works after suspension	Y	
5.12.4	Acceleration instead of extension of time	Y	
5.13.2	Reduction in penalty		Y
6.3.1	Variation orders	Y	
6.3.2.1	Confirmation of a Variation Order	Y	
6.4.1.4	Day works as a Variation Order	Y	
6.5.2	Materials for day works	Y	
6.8.2	Contract Prise Adjustment to apply	Y	
6.8.3	Price adjustment for special material	Y	
6.8.4	Costs due to changes in legislation	Y	
6.11.1	Variations exceeding 20%		Y
8.2.2.2	Damage due to excepted risks		Y
10.1.5	Consultation on Contractor's claim	Y	Y
10.1.5	Ruling on Contractor's claim	Y	N

Clause	Data
	*The following abbreviations apply: EAR Employers Agent's Representative EAWA Employers Agent's Written Action N No NA Not Applicable Y Yes
4.9.1	The Contractor shall deliver to the Employers Agent's, on a monthly basis, a detailed inventory of Construction Equipment kept on Site, full particulars given for each day of the month. Distinction shall be made between Owned Equipment and Hired Equipment as well as Equipment in working order and Equipment out of order. Such inventory shall be submitted by the seventh day of the month following the month to be reported.
4.10.2	The Contractor shall deliver to the Employers Agent's, on a monthly basis, a return in detail of supervisory staff and the number of categorized classes of labour employed each day for the said period by the Contractor for execution of the Contract. Such return shall be submitted by the seventh day of the month following the month to be reported.
5.3.1	The documentation required before commencement with Works execution are: Health and Safety Plan (Refer to Clause 4.3) A signed Agreement between the Employer and the Contractor for the Works to be completed by the Contractor in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act (Act No.85 of 1993) and the Construction Regulations promulgated thereunder (Refer to Clause 4.3). Proof of payment to the Employer, that the Contractor has paid all contributions required in terms of the Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (Refer to Clause 4.3). Initial programme (Refer to Clause 5.6). Security (Refer to Clause 6.2). Insurance (Refer to Clause 8.6).
5.3.2	The time to submit the documentation required before commencement with Works execution is **14 Days.**
5.4.2	The access and possession of Site shall not be exclusive to the Contractor but shall be as set out elsewhere in the Contract.
5.8.1	The non-working Days are Sundays. The special non-working Days are: Statutory public holidays; and All annual year-end shutdown periods as recommended by the South African Federation of Civil Engineering Contractors (SAFCEC),
	and which commence after the Commencement Date and which commence before the Due Completion Date.
5.13.1	The penalty for failing to complete the Works is 0,1 percent of contract price per calendar day.
5.16.3	The latent defect period is 10 years, commencing on the Day after the date of certification of Practical Completion.

Clause	Data
6.5.1.2.3	The percentage allowance to cover overhead charges is: 50 per cent for labour; and 15 per cent for materials.
6.8.2	Contract Price Adjustment: The contract shall be subject to Contract Price Adjustment. The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule included in the General Conditions of Contract. The value of "x" is 0.15 The values of the coefficients are: a = 0.25 Labour b = 0.3 Contractor's equipment c = 0.35 Material d = 0.1 Fuel The Province wherein the larger part of the Site is located is **Polokwane**. The applicable industry for the Producer Price Index for material is Diesel The area for the Producer Price Index for fuel is Example Fuel index area The base month is **NOVEMBER 2021**
6.8.3	
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is 80%. Proof of ownership is required.
6.10.3	The limit of **retention money is 10%** of the value of the Contract Price. **A Retention Money Guarantee is compulsory**. A penalty will be applied for non-delivery of the Retention Money Guarantee as required. The penalty will be 10% of the value of the completion Retention Money Amount per calendar month for late delivery of the said Retention Money Guarantee.
8.6.1.1.2	The value of Plant and materials supplied by the Employer to be included in the insurance sum is **nil**.
8.6.1.1.3	The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is a maximum of **0% (Zero percent)** of the Contract Sum.
8.6.1.3	The limit of indemnity for liability insurance is equal to the contract amount.
10.5.1	Dispute resolution shall be by standing adjudication, use GCC 2015, Appendix 5.
10.7.1	The determination of disputes shall be by arbitration.
	Payment for labour-intensive component of the works *Payment for works identified in the Scope of Works as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.*

Clause	Data
	Linkage of payment for labour-intensive component of works to submission of project data *The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the employer. If the contractor chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and timeframe stipulated by the Employer. The contractor's invoices shall not be paid until all pending labour information has been submitted.*
	Applicable Labour Laws *The current Ministerial Determination (also downloadable at www.epwp.gov.za), Expanded Public Works Programmes, issued in terms of the Basic Condition of Employment Act of 1997 by the Minister of Labour in Government Notice, shall apply to works described in the scope of work as being labour-intensive and which are undertaken by unskilled workers.*

C.1.2.1.2.2 Variations to the General Conditions of Contract

Clause	Data
2.5.1	**Cession** *Amend Clause 2.5.1 as follows:* *Delete the words* “without the written consent of the other”
5.14.5.1	**Consequences of Completion** *Amend Clause 5.14.5.1 as follows:* *In the second line, substitute the word* ‘Guarantor’ *with* ‘Contractor’.
6.2	**Security** *Replace Sub-Clauses 6.2.1 and 6.2.2 with:* “The Contractor shall deliver to the Employer within such time as may be stated in the Contract Data, a Demand Guarantee, of an Insurance Company registered in terms of the Short-term Insurance Act (Act 53 of 1998) or of a registered Commercial Bank, in a sum equal to the amount stated in the Contract Data. The Demand Guarantee shall be issued by an entity subject to the approved of the Employer, and shall conform in all respects to the format contained in the Contract Data. The security to be provided by the Contractor shall be a Demand Guarantee of 10% of the Contract Sum. Wherever a joint venture constitutes the contracting party, the Demand Guarantee shall be issued on behalf of the joint venture. Failure to produce an acceptable Demand Guarantee within the period stated in the Contract Data, is a fundamental breach of Contract, entitling the Employer to cancel the Contract by due notice in terms of Clause 9.2 with specific reference to Sub-clause 9.2.2.5 as amended in the Contract Data.”
6.3	**Variations** *Amend Clause 6.3, as follows:* *In the first paragraph, third line, after the words* "or for any reason appropriate"*, add the phrase* ", including the limiting of contract expenditure so as not to exceed the Employer’s budgeted project funding, " *Add the following phrase to the last paragraph of Clause 6.3.1.6, after the words* "ascertaining the amount of the Contract Price": ", and no such variation shall give reason for consideration of any claim in terms of Clause 6.11.”
6.3.2	**Orders for Variations to be in writing** Omit the words “Provided that” under Clause 6.3.2 and omit Clause 6.3.2.1.
6.9.2	**Definition of “materials”** *Amend Clause 6.9.2, as follows:* *Substitute the word* ‘plant’ *with* ‘Plant’.

Clause	Data
6.10.1	**Interim Payments** *Amend Clause 6.10.1.5 as follows:* *In the third line, add the words* 'not yet' *before the words* 'built into'
6.10.5	**Payment of retention money** *Amend Clause 6.10.5 as follows:* *In the second line, add the words* ', if any,' *after the words* 'Defects Liability Period'
6.10.6	**Set-off and delayed payments** *Amend Clause 6.10.6.2 as follows:* *Delete the words* 'Contractor's Bank' *and substitute with the words* 'Employer's Bank'
6.11	**Variations exceeding 15 per cent** *Replace the marginal heading with:* **"Variations exceeding 20 per cent"** *Replace* "**15 per cent**" *with* "20 per cent" *in the text of this Sub-Clause*
7.8.2	**Cost of making good of defects** *Amend Clause 7.8.2.1 as follows:* *In the first line, correct the spelling of* 'therefore'.
8.3.1	**Excepted risks** *Amend Clause 8.3.1.12 as follows:* *In the second line, delete the words* 'Employer or any of their' *and substitute with* 'or any of its'.
8.6.6	**Contractor to produce proof of payment** "The Contractor shall before commencement of the Works produce to the Employer's Agent: 8.6.6.1 The policies by which the insurances are effected, 8.6.6.2 Proof that due payment of all premiums there under, covering the full required period has been made, and 8.6.6.3 Proof of continuity of the policies for the required period.
	Should, during the currency of the Contract, the required period of insurance be extended for any reason, the Contractor shall timeously extend (so as to maintain) the said insurances for the full extended duration. The Employer's Agent shall be empowered to withhold all payment certificates until the Contractor has complied with his obligations in terms of this Clause 8.6.6."
8.6.7	**Remedy on Contractor's failure to insure**

Clause	Data
	Delete sub-clause 8.6.7 and substitute with: "Failure on the part of the Contractor to effect and keep in force any of the insurances referred to in Clause 8.6.1 and its sub-clauses, is a fundamental breach of Contract, entitling the Employer to cancel the Contract by due notice in terms of Clause 9.2 and with specific reference to sub-clause 9.2.2, as amended in the Contract Data."
9.1.2	**State of emergency** *In the <u>fourth</u> line, delete the words '*supply of*' and substitute with '*availability of*'.*
9.2	**Termination by Employer** *Delete the contents of Clause 9.2 and substitute with:* "9.2.1 The Employer may terminate the Contract by written notice to the Contractor if: 9.2.1.1 Sequestration of the Contractor's estate is ordered by a Court with due jurisdiction, or 9.2.1.2 The Contractor publishes a notice of surrender or presents a petition for the surrender of his estate as insolvent, or makes a compromise with his creditors, or assigns in favour of his creditors, or agrees to carry out the Contract under the supervision of a committee representing his creditors, or (being a company) goes into liquidation, whether provisionally or finally (other than a voluntary liquidation for the purpose of amalgamation or reconstruction), or if the Contractor assigns the Contract without having first obtained the Employer's consent in writing, or if execution is levied on his goods, or 9.2.1.3 The Contractor, or anyone on his behalf, or in his employ, offers to any person in the employ of the Employer or the Engineer, a gratuity or reward or commission, or 9.2.1.4 The Contractor furnished materially inaccurate information in his Tender, which had a bearing on the award of the Contract, or 9.2.1.5 The Contractor has abandoned the Contract. 9.2.2 If the Contractor: 9.2.2.1 Has failed to commence the Works in terms of Clause 10 hereof, or has suspended the progress of the Works for fourteen (14) days after receiving from the Engineer written notice to proceed, or 9.2.2.2 Has failed to provide the Guarantee in terms of Clause 7 within the time stipulated in the Contract Data, or
	9.2.2.3 Has failed to proceed with the Works with due diligence, or 9.2.2.4 Has failed to remove materials from the Site or to pull down and replace work within fourteen (14) days after receiving from the Engineer written notice that the said materials or work have been condemned and rejected by the Engineer in terms of these conditions, or 9.2.2.5 Is not executing the Works in accordance with the Contract, or is neglecting to carry out his obligations under the Contract, or

Clause	Data
	9.2.2.6 Has, to the detriment of good workmanship or in defiance of the Engineer's instructions to the contrary, sublet any part of the Contract, or 9.2.2.7 Has assigned the Contract or any part thereof without the Employer's consent in writing, then the Employer may give the Contractor 14 days' notice to rectify the default, and if the Contractor fails to rectify the default in said 14 days, then, without further notice, notify the Contractor in writing of the termination of the Contract and expel the Contractor and order the Contractor to vacate the site within 24 hours of issue of the Notice of Termination and to hand the Site over to the Employer, and the Employer may then enter upon the Site and the Works without affecting the rights and powers conferred on the Employer or the Engineer by the Contract and the Employer may himself complete the Works or may employ another contractor to complete the Works, and the Employer or such other contractor may use for such completion so much of the Construction Equipment, Temporary Works and materials brought onto the Site by the Contractor as the Employer may think proper, and the Employer may at any time sell any of the said Construction Equipment, Temporary Works and unused materials and apply the proceeds of sale towards payment of any sums that may be due or become due to the Employer by the Contractor under the Contract. In such circumstances the Contractor shall forthwith vacate the Site and shall not be entitled to remain on the Site on the grounds that he is entitled to do so on a right of retention until amounts due to him have been paid, neither will the Contractor be entitled to any further payments in terms of this Contract. 9.2.3 If the Contractor, having been given notice to rectify a default in terms of 9.2.2 above, rectifies said default, but later repeats the same or substantially the same default, then the Employer may notify the Contractor of the immediate termination of the Contract, and proceed as stated in the paragraph following the word 'writing' in Clause 9.2.2.7 above. 9.2.4 Should the amounts that the Employer must pay to complete the Works, exceed the sum that would have been payable to the Contractor on due completion by him, then the Contractor shall upon demand pay to the Employer the difference, and it shall be deemed a debt due by the Contractor to the Employer and shall be recoverable accordingly. Provided that should the Contractor on demand not pay the amount of such excess to the Employer, such sum may be determined and deducted by the Employer from any sum due to or that may become due to the Contractor under this or any previous or subsequent contract between the Contractor and the Employer."

C.1.2.1.2.3 Additional clauses to the General Conditions of Contract:

Clause	Data
1.1	**Definitions** *Add the following at the end of Sub-Clause 1.1.1:*
1.1.1.35	"Client", as used in the Occupational Health and Safety Act - Construction Regulations, means Employer.
1.1.1.36	"Principal Contractor", as used in the Occupational Health and Safety Act - Construction Regulations, means Contractor.
4.12	**Contractor's superintendence** *Add the following sub-clause 4.12.4 to Clause 4.12:* "Where a form is included in the Contract Data for this purpose, the Tenderer shall fill in the name of the person he proposes to entrust with the post of Construction Manager on this Contract in the space provided therefore. Previous experience of this person on work of a similar nature during the past five (5) years is to be entered on the form. The Contractor's Construction Manager shall be on Site at all times when work is being performed. The person shall be subject to approval of the Employers Agent's in writing and shall not be replaced or removed from Site without the written approval of the Employers Agent'.
5.6	**Programme** *Add the following sub-clause 5.6.6 to Clause 5.6:* "Failure on the part of the Contractor to deliver to the Employers Agent, the • programme of the Works in terms of Clause 5.6.1 and • supporting documents in terms of Clause 5.6.2 Within the period stated in the Contract Data, shall be sufficient cause for the Engineer to retain 25 per centum of the value of the Fixed Charge and Value-related items in assessment of amounts due to the Contractor, until the Contractor has submitted aforementioned first Programme of the Works and Supporting Documents".
5.9.7	**Employers Agent's to approve Contractor's Designs and Drawings** *Add the following at the end of Sub-Clause 5.9.7* "All designs, calculations, drawings and operation and maintenance manuals shall be fully endorsed by a third party registered engineer, accomplished in such specific field of practice and the cost thereof shall be borne solely by the Contractor. Once the alternative design has been approved, the Contractor shall indemnify and hold harmless the Employers Agent's, the Employer, their agents and assigns, against all claims howsoever arising out of the said design, whether in contract or delict".

Clause	Data
5.11	**Suspension of the Works** *Add the following sub-clause 5.11.7 to Clause 5.11:* "If the Contractor does not receive from the Employer the amount due under an Interim Payment Certificate within 28 days after expiry of the time stated in sub-clause 6.10.4 within which payment is to be made (except for deductions in accordance with sub-clauses 6.10.1.6 and 6.10.1.7), the Contractor may, after giving 14 days' notice to the Employer, suspend the progress of the Works. The Contractor's action shall not prejudice his entitlements to a claim in terms of Clause 10.1 and to cancellation of the Contract in terms of Clause 9.3. If the Contractor subsequently receives full payment of the amount due under such Interim Payment Certificate before giving a notice of cancellation of the Contract, the Contractor shall resume normal working as soon as is reasonably practicable."
5.12	**Extension of Time for Practical Completion** *Add the following at the end of Sub-Clause 5.12.2.2:* "The extension of time to be allowed due to abnormal rainfall shall be calculated separately for each calendar month or part thereof in accordance with the following formula: $V = (Nw - Nn) + \left(\frac{Rw - Rn}{x}\right)$ where V = Extension of time in calendar days for the calendar month under consideration Nw = Actual number of days during the calendar month on which a rainfall of 10 mm or more has been recorded Rw = Actual recorded rainfall for the calendar month Rn = Average rainfall for the calendar month, as derived from existing rainfall records x = 20
	The rainfall records which shall provisionally be accepted for calculation purposes are: Based on records taken at: **Rainfall Station : Polokwane** **Years of record: 2006 – 2016**

Clause	Data

Table 1 – *RAINFALL RECORDS FOR PERIOD:* ***2006– 2016***

RAINFALL STATION: Polokwane Lat: 23.8570 Lon: 29.451 Height 1226 m

Average No of Days with Rainfall exceeding 10mm: 9.8 days/year

Average Rainfall: 488.6 mm/year station no: 0677802BX

MON	AVE	ST	N DAY	NUM	1	5.1	10.1	20.1	50.1	100.1	MAX R	MAX RAIN
MON		DEV	RAIN	MON	5	10	20	50	100	900	DAY	DATE
MON	AVE	ST	N DAY	NUM	1	5.1	10.1	20.1	50.1	100.1	MAX R	MAX RAIN
MON		DEV	RAIN	MON	5	10	20	50	100	900	DAY	DATE
JAN	65.9	39.3	65.9	11	3.4	2.1	1.3	0.7	0	0	38	1/18/2013
FEB	47.3	49.7	47.3	11	1.6	0.9	1.1	0.6	0	0	49	2/26/2006
MAR	58.4	33.2	58.4	11	3	1.3	1.1	0.7	0.1	0	51.5	3/27/2006
APR	43.3	46.6	43.3	11	1.5	1	0.7	0.5	0.1	0	68	4/4/2011
MAY	10.4	14	10.4	11	0.5	0.4	0.3	0.1	0	0	29.2	5/8/2009
JUN	1.7	3.6	1.7	11	0.3	0	0.1	0	0	0	12	6/10/2009
JUL	2.4	4.3	2.4	11	0.3	0.1	0.1	0	0	0	12.1	7/4/2007
AUG	2.3	5.6	2.3	11	0.2	0	0.1	0	0	0	19.2	8/15/2011
SEP	6.6	8.2	6.6	11	0.4	0.4	0.1	0.1	0	0	22.5	9/4/2015
OCT	48.1	29.5	48.1	11	1.5	0.7	1.4	0.6	0	0	38.2	10/29/2009
NOV	97.7	40.5	97.7	11	3.1	2	1.3	1.5	0.2	0	65.5	11/12/2008
DEC	104.6	56.3	104.6	11	3.8	1	1.7	1.9	0.1	0	55	12/16/2014
YR	488.6		67.9		19.5	9.8	9.2	6.8	0.5	0	488.6	

The factor (Nw - Nn) shall be considered to represent a fair allowance for days during which rainfall exceeds 10 mm and the factor (Rw - Rn)/x shall be considered to represent a fair allowance for those days when rainfall does not exceed 10 mm but wet conditions prevent or disrupt work.

The total extension of time shall be the algebraic sum of all monthly totals for the contract period, but if the algebraic sum is negative the time for completion shall not be reduced due to subnormal rainfall. Extensions of time for a part of a month shall be calculated using pro rata values of Nn and Rn."

For this project the rainfall formula will only apply as background information, or dispute resolution. Extension of time for rainfall will only be granted on Actual Delays experienced; noted and agreed upon by the engineer.

6.10	**Payments**

Clause	Data
	Add the following at the end of Sub-Clause 6.10.1: "The Contractor shall complete the 'Contractor's Monthly Report Schedule', which pro forma documentation is obtainable from the Employer's Agent. Pursuant to Sub-Clause (1), these, duly signed by all concerned, together with the Contractor's statement and a VAT invoice in original format are to be submitted to the Employer's Agent. Issue by the Employer's Agent to the Employer and Contractor of any signed payment certificate is conditional to this information being fully endorsed, accurately and timeously submitted to the Employer's Agent r". *Add the following at the end of Sub-Clause 6.10.1.5:*
	"All documentary evidence of such materials shall be unambiguous with respect to ownership having fully passed to the Contractor on or before the date of submittal of the Contractor's monthly statement. Should the Contractor fail to supply unambiguous documentary evidence, he shall, prior to submittal of his monthly statement, deliver to the Employer a Guarantor Guarantee in the form contained in the Appendices to the Contract Data."
9.3	**Termination by the Contractor** *Add the following at the end of Sub-Clause 9.3:* 9.3.5"In addition to, or as an alternative to the rights to termination contained in this Clause 9.3, the Contractor may notify the default to the Employer, with a copy to the Employer's Agent, and if the default is not rectified within 10 days the Contractor may suspend progress of the works until a date 7 days after the default is rectified. The Contractor shall be entitled to extension of time to the extent of delay caused by or resulting from such suspension, and to payment of additional costs caused by or resulting from the suspension. Such extension of time and additional costs shall be promptly ascertained by the Employer's Agent, who shall then grant the extension of time and include the additional costs in all future payment certificates. Such suspension, extension of time and/or payment of additional costs, shall not prejudice the Contractor's rights to cancel the contract."

C.1.2.2 Part 2: Data provided by the Contractor

The General Conditions of Contract, as specified in Part 1, shall be used as a basis for this Data which is required to be completed.

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

Clause	Data
1.1.1.9	The Name of the Contractor is: ....
1.2.1.2	The address of the Contractor is: Physical address: ....
1.2.1.2	Postal address: .... e-mail address: …… Contact numbers: Corporate: ..... Direct: ..... Mobile: ..... Fax: .....

POLOKWANE MUNICIPALITY
(Not to be completed at tender stage)

C1.3 Demand Guarantee and Retention Money Guarantee

In accordance with clause 6.2.1 of General Conditions of Contract, 3rd Edition 2015

Contract No: ----------

Description of Contract: ----------

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means: ----------

---------- (Please put name of firm)

Physical address: ----------

Postal address: ----------

Tel:----------

Fax: ----------

"Employer" means: **POLOKWANE MUNICIPALITY**.

"Contractor" means: ----------

---------- (Please put name of firm)

"Guarantee sum" means: 10% of the contract amount

"**Employer's Agent"** means: ----------

"**Works"** means: Permanent works together with temporary works

"**Site"** means: The land and other places, made available by the Employer for the purpose of the contract, on under over in or through which the works are to be executed or carried out.

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

"**Contract Sum**" means: The accepted amount inclusive for tax of R----------

Amount in words: ----------

---------- "**Expiry Date**" This Guarantee shall expire upon the issue of the **Completion Certificate** issued by Polokwane Municipality signed by the Director of ENGINEERING Services, as such date is advised to the Guarantor in writing confirmed by the Employer.

CONTRACT DETAILS

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

PERFORMANCE GUARANTEE

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
2. Expiry Date" This Guarantee shall expire upon the issue of the final completion certificate issued by Polokwane Municipality signed by the Director of ENGINEERING Services, as such date is advised to the Guarantor in writing confirmed by the Employer
   The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on the Certificate 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 surety ship;

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 issues by the Employer to the Contractor stating that payment of a sum certified by the Employer's Agent and/ or Employer 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 and / or postal address with a copy to the Contractor stating that period of seven (7) days has elapsed since the first written demand terms of 4.1 and the sum certificate has still not been paid;

4.3. A copy of the aforesaid payment certificate which entails the Employer to receive payment in terms of the Contract sum 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 and/ or postal address calling up this Performance Guarantee, such demand stating that:

5.1. The contractor has been termination due to the Contractor's default and 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. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the guarantor.
8. Payment by Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
9. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from his Performance Guarantee on account alleged to be prejudicial to the Guarantor.
10. The Guarantor chooses the physical address and postal address as stated above for the service of all notices for all purposes in connection herewith.
11. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after on claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
12. This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
13. Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Court 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.

Sign at ----------

Date ----------

Guarantor's signatory (1) ----------

Capacity ----------

Guarantor's signatory (2) ----------

Capacity ----------

Witness signatory (1) ----------

Witness signatory (2) ----------

RETENTION MONEY GUARANTEE
(Not to be completed at tender stage)

In accordance with clause 6.2.1 of General Conditions of Contract, 3rd Edition 2015

Contract No: ----------

Description of Contract: ----------

GUARANTOR DETAILS AND DEFINATIONS

"Guarantor" means: ----------

---------- (Please put name of firm)

Please address: ----------

Postal address: ----------

Tel:----------

Fax: ----------

"Employer" means: **POLOKWANE MUNICIPALITY**.

"Contractor" means: ----------

---------- (Please put name of firm)

"Guarantee sum" means: 10% of the contract amount

"**Employer's Agent"** means: ----------

"**Works"** means: Permanent works together with temporary works

"**Site"** means: The land and other places, made available by the Employer for the purpose of the contract, on under over in or through which the works are to be executed or carried out.

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

"**Contract Sum**" means: The accepted amount inclusive for tax of R----------

Amount in words: ----------

----------"**Expiry Date**" This Guarantee shall expire upon the issue of the **Final Completion Certificate** issued by Polokwane Municipality signed by the Director of ENGINEERING Services, as such date is advised to the Guarantor in writing confirmed by the Employer.

CONTRACT DETAILS

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

RETENTION GUARANTEE

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
2. Expiry Date" This Guarantee shall expire upon the issue of the final completion certificate issued by Polokwane Municipality signed by the Director of ENGINEERING Services, as such date is advised to the Guarantor in writing confirmed by the Employer
   The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on the Certificate 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 surety ship;

3.3 . Its obligation under this Retention 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 issues by the Employer to the Contractor stating that payment of a sum certified by the Employer's Agent and/ or Employer 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 and / or postal address with a copy to the Contractor stating that period of seven (7) days has elapsed since the first written demand terms of 4.1 and the sum certificate has still not been paid;

4.3. A copy of the aforesaid payment certificate which entails the Employer to receive payment in terms of the Contract sum 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 and/ or postal address calling up this Performance Guarantee, such demand stating that:

5.1. The contractor has been terminated due to the Contractor's default and this Retention 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 Retention 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. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the guarantor.

8. Payment by Guarantor in terms of 5 will only be made against the return of the original Retention Guarantee by the Employer.
9. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from his Retention Guarantee on account alleged to be prejudicial to the Guarantor.
10. The Guarantor chooses the physical address and postal address as stated above for the service of all notices for all purposes in connection herewith.
11. This Retention Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after on claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
12. This Retention Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
13. Where this Retention Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Court 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.

Sign at ----------

Date ----------

Guarantor's signatory (1) ----------

Capacity ----------

Guarantor's signatory (2) ----------

Capacity ----------

Witness signatory (1) ----------

Witness signatory (2) ----------

C1.4 OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

This agreement is mandatory for all contractors appointed by the Polokwane Municipality or any other institution that do work for or on behalf of Municipality.
This agreement is between:

THE CONTRACTOR:

Herein represented by……..……...…….

In his capacity, as …….…...……Being duly authorized hereto hereinafter

Referred to as "contractor".

Compensation Commissioner Number:
(Attach a copy of the Registration

Certificate to this agreement)

Company : Name:……

Registration Number: ……

CEO : Name:……..

ID Number: …….

Physical Address: …….

….……

And the POLOKWANE MUNICIPALITY
(Hereinafter referred to as "the Council")

1. DEFINITIONS

1.1	**CONTRACTOR**	Means the “Contractor” as defined in the “Principal Contract”. Annexed hereto in his capacity as mandatory.
1.2	**MANDATORY**	Includes an agent, contractor or subcontractor for work to be done or service rendered, but without derogating from his status in his own right as an employer of people or user of equipment, machinery, tools or materials.
1.3	**THE PRINCIPAL CONTRACT**	Means the contract annexed hereto as annexure “A”.
1.4	**COUNCIL**	Means the Polokwane Municipality
1.5	**RISK CONTROL OFFICER**	A person appointed in writing by Council.

1.6 Any definitions contained in any Statute hereinafter mentioned shall have the meaning allocated to it by the specific statute.

2. OBJECTIVE

2.1 Whereas Council and the Contractor have entered into a contract for service (work) as fully indicated in the “Principle Contract” and whereas the “Contractor” agreed to indemnify Council against the risks stated hereunder whether foreseeable or not, and, whereas it is agreed between the parties that it is of cardinal importance to safeguard both Council and the Contractor’s obligation in terms of relevant legislation as well as to extend the obligation as a company and/or legal person and/or person as an entity concerned with health, safety and the environment.

2.2 These rules are applicable to all contractors performing work for Council within the jurisdictional area of the Council and on any premises, which are owned, rented or developed by the Council.

2.3 The Council acts though those officials or persons who are generally or specifically charge with the responsibility, in terms of legislation, as well as any other official or person who is generally or specifically charged with the control and supervision of the project.

IT IS HEREBY AGREED AS FOLLOWS:

3. INDEMNITIES

3.1 The “Contractor” hereby indemnifies the “Council” against any loss in respect of all claims, proceeding, damages, costs and expenses arising out of any claim or proceeding pertaining to the non-compliance by the “Contractor” of any statutory requirements and/or requirements regarding the following Acts in particular pertaining to the provisions of:

3.1.1 The Occupational Health and Safety Act 85 of 1993 (as amended), including the Construction Regulations, 2014 as promulgated on 7 February 2014, in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), in Government Gazette No. 25207 and Regulation Gazette No. 7721. See Annexure B.

3.1.2 The Health Act 63 of 1977.

3.1.3 Road Traffic Act 29 of 1989 (as amended).
3.1.4 Environment Conservation Act 73 of 1989.
3.1.5 The National Water Act 36 of 1998.
3.1.6 The Criminal Procedure Act 51 of 1977.
3.1.7 The Explosives Act 26 of 1956.
3.1.8 The Arms and Ammunition Act 75 of 1969.
3.1.9 Compensation for Occupational Injuries and Diseases Act 130 of 1993.
3.1.10 The Labour Relations Act 66 of 1995.
3.1.11 The Unemployment Insurance Act 30 of 1966 (as amended).
3.1.12 The Basic Conditions of Employment Act 75 of 1997 (as amended).
3.1.13 Standards Act 29 of 1993.
3.1.14 any statutory provisions in any act and/or any law or bylaw of any local government and/or any published official standard incorporated into any statute or bylaw relating to the completion of the work set out in the "Principal Contract".
3.1.15 Any other health and safety standard prescribed by the "Council".

3.2 The "Contractor" shall ensure that he familiarizes himself with the requirements of the above legislation and that he, his employees and any subcontractor will comply with all the statutory provisions contained in them.

3.3 The "Contractor" shall indemnify the "Council" in respect of any physical loss or damage to any plant, equipment or other property belonging to the "Contractor" or for which he is responsible and he hereby indemnifies the "Council" against any loss in respect of all claims, proceedings, damages, costs and expenses consequent upon the loss of or damage to any plant, equipment or other property belonging to, or which is the responsibility of, any subcontractor, agent or employee of the subcontractor.

3.4 The "Contractor" shall and hereby indemnifies the "Council" against any liability, loss, claim or proceedings whatsoever, whether arising in common law or by statute, consequent on personal injuries to or the loss of health or death of any person whosoever arising out of or in the course of or caused by the execution of the "Principal Contract".

3.5 The "Contractor" shall and hereby indemnifies the "Council" against any liability, loss, claim or proceedings consequent on loss of or damage to any movable or immovable property arising out of or in the course of or caused by the execution of the "Principal Contract" and due to any act or omission of the "Contractor", his agents, servants or subcontractors.

4. PERFORMANCE SAFE WORKING PRACTICE

4.1 The "Council" requires a high standard of safe work performance from all employees and expects that the standard be maintained by the "Contractor" within the "Council's" jurisdictional area or on its premises.

4.2 Irrespective of human considerations, the maintaining of these health and safety rules shall be the execution of the prescribed legal requirements. These rules are not to hinder the "Contractor" in rendering services or indemnify the "Contractor" from any legal responsibility to ensure healthy and safe work circumstances.

4.2 The "Council" shall assist the "Contractor" in any practical considerations to accommodate the healthy and safe execution of work and therefore require co-operation in the execution of these safety rules.

5. LOCK OUT PROCEDURE

5.1 When power or air driven machines or equipment, electrical apparatus or pipe lines are examined, repaired, adjusted, cleaned, lubricated or serviced in any other way than normal servicing, then all isolating switches, -levers, valves or appliances must be put in the “off” or “closed” position and locked.

5.2 Should more than one team work on a machine, then each person in control of a team, must put a separate lock on the switch, lever, valve or appliance.

6. CRANES, VEHICLES AND HOISTING

6.1 For each crane or hoisting equipment used, the “Contractor” must submit a valid and recent test certificate or other form of the last examination of the machine or equipment, to the “Council”.

6.2.1 Only trained personnel with written permission and where determined by Law, with a valid driver’s license, may be allowed to operate any electrical diesel or petrol driver overhead crane, hydraulic or electrical hoisting equipment, self-driven forklift, tractor or any other crane or vehicle. No employee of the “Contractor” may perform any overhead work or work on an overhead crane or hoisting equipment or work near cranes or crane rail, before:

i) An agreement was concluded with the “Council”.
ii) Approval has been obtained from the “Council” to perform the work.
iii) All applicable danger – and warning symbolic signs are put into position, or exemption, if applied for, is in operation.

6.3 The “Contractor” shall be wholly responsible for any loss or damage to cranes, hoisting equipment, plant, machines or equipment brought onto the work site by the “Contractor”

7. MACHINE VALANCES, PROTECTION AND FENDING

7.1 No machine valances, protection or fending may be removed from machines, manholes, etc. without the written permission of “Council” if applicable exemption procedures were not appropriated.

8. SCAFFOLD, LADDERS, TOOLS AND EQUIPMENT

8.1 No equipment or appliance belonging to “Council” may be used without written permission from “Council”.

8.2 Unless prior arranged, “Contractors” must bring sufficient tools and equipment to the site to finish the contract, including offices and storerooms. The mentioned equipment remains the responsibility of the “Contractor” with respect to loss, damage and theft.

8.3 In exceptional cases, where tools and equipment belonging to “Council” are used to finish the contract, the said equipment and tools are used on own risk and the “Contractor” indemnifies “Council” from any claims that may arise. The said indemnity must be in writing, as well as information regarding the loan period, identification and condition of tools and equipment. The “Contractor” is responsible for the returning of said tools and equipment in the same condition or better. The “Contractor” is responsible to “Council” for any damage or excessive wear of such tools or equipment and material.

9. EXCAVATIONS

9.1 Before any excavations commence, written permission must be obtained from “Council” to confirm the location of existing electrical cables, water pipes, etc.

9.2 All excavations and obstructions in floor, tar and dirt surfaces must be fenced effectively and safeguarded between sundown and sunup with a sufficient amount of red/yellow warning lights and symbolic signs.

9.3 The surrounding area must be kept clean, safe and tidy during excavation. Excess material may not obstruct unnecessarily.

9.4 If any property is in danger during excavation, it must be supported and the proposed support work must be submitted to the Department of Labour (OHS) and “Council” for approval.

9.5 Written permission must be obtained from “Council” to grant admittance to restricted areas as well as areas where dangerous or poisonous gases are present.

10. FIRST AID

10.1 The “Contractor” must provide and maintain a first aid box equipped according to legal requirement where more than (5) five persons are employed. The first aid box must be in the care of a person with a competency certificate from one of the following organizations:

(i) SA Red Cross Association;
(ii) St Johns Ambulance;
(iii) SA First Aid League; or
(iv) A person or organization approved by the Chief inspector for this purpose.

10.2 A visible notice must be put up on any work premises with the name of the person responsible for first aid. In an emergency “Council’s” Ambulance / Fire Department or emergency services may be contacted at (015) 290 2000.

11. FLAMMABLE LIQUIDS

11.1 The “Contractor” shall be held responsible for the necessary precautionary fire prevention measures. No smoking signs must be put up where applicable. The “Contractor’s” employees must be informed of “Council’s” fire prevention measures and evacuation procedures.

12. COMPENSATION BY CONTRACTOR

12.1 The “Contractor” shall be held responsible for all loss of and damage to property, the death or injury of persons, the resultant loss or damage suffered as well as all law suits, claims, costs, charges, fines and expenses due to negligence, violation of statutory liability or neglect of the “Contractor” or the “Contractor’s” employees.

13. TRANSGRESSION OF RULES AND MISBEHAVIOUR

13.1 The “Contractor” is warned that any act(s) leading to damage or loss of employees of the “Contractor” or the “Council” shall not be tolerated. The “Council” may (without any reason) demand that any employee of the “Contractor” be withdrawn from the principal “Contract” or site.

14. INCIDENT REPORTING

14.1 All incidents referred to in Section 24 of the Occupational Health and Safety Act and or other incidents shall be reported, by the "Contractor", to the Department of Labour, as well as to the "Council" and should such an incident take place outside normal working hours, on a Saturday, Sunday or Public holiday provided with a written report relating to any incident.

14.2 The "Council" will obtain an interest in the issue of any formal inquiry conducted in terms of the Occupational Health and Safety Act in any incident involving the "Contractor" and/or his employees and/or his subcontractors.

14.3 The "Contractor" undertakes to report to "Council" anything deemed to be unhealthy and/or unsafe and that he undertakes to verse his employees and/or subcontractors in this regard.

15. LIAISON AND SUPERVISION

15.1 The "Contractor" hereby undertakes to liaise on a regular basis with the designated Risk Control Officer and "Council" representative regarding any hazards or incidents that may be identified or encountered during the performance of the "Principal Contract".

16. SERVICE INTERRUPTION

16.1 Should any work done by the "Contractor" cause a possible interruption, written permission must be obtained from "Council", before such work commences. The "Contractor" may not switch on or off any compressed air, steam, oxygen, vacuum supply or electrical supply without written permission from the "Council".

17. CONFIDENTIALITY

17.1 The "Contractor" and his employees shall regard all data, documentation and information of the contract and related documentation as confidential.

17.2 Lost documentation/plans or related documentation shall immediately be reported in writing to the "Council".

17.3 The "Contractor" shall not put up any advertisements or billboard at the site without permission.

17.4 The "Contractor" shall not take photographs of the contract site or part thereof or any work process or part thereof, without written permission from the "Council", or have photographs taken, published or let it be published.

18. CONTRACT SITE AND PRESERVATION

18.1 Employees of the "Contractor" shall not be allowed entrance to the site unless a valid identity document, issued by "Council", is displayed. The mentioned documents shall only be valid for a limited period, where after it must be renewed.

19. COMPLETION OF WORK

19.1 The "Contractor" or his employees shall not leave the contract site before the "Council" is satisfied that the contract is completed according to the requirements and standards set out in the contract and that the working site is left in a satisfactory and safe condition.

20. LIQUOR, DRUGS, DANGEROUS WEAPONS AND FIREARMS

20.1 The “Contractor” shall ensure that no liquor, drugs, dangerous weapons or firearms be brought onto the premises.

21. SEARCHES

21.1 The “Contractor” and any person engaged in the contract work may at any time be searched by “Council” appointed security personnel and all packages, suitcases, etc. must be presented to the access control point for examination prior to them being brought onto the property or leaving the property.

22. GENERAL CONDITIONS

22.1 Notwithstanding anything to the contrary in this agreement, it is hereby specifically determined that the “Contractor-“

22.1.1 shall have acquainted himself and be conversant with the contents of all statutory provisions applicable to the health and safety of workers and other persons on the site including the execution of the work, and in particular the conditions contained in the Occupational Health and Safety Act, 1993 (Act 85/1993), and the regulations promulgated in terms thereof, and shall comply therewith meticulously and in all aspects and/or take care that it is complied with;

22.1.2 shall be obliged to immediately execute all instructions given to him by an authorized representative of “Council” in order to ensure and uphold the implementation and enforcement of the provisions referred to in sub-paragraph 1, to the satisfaction of the said representative;

22.1.3 shall indemnify the “Council” against any or all liability which may be incurred by the “Council” as a result of the omission of the “Contractor”, his employees, sub-contractors and/or representatives to comply with the provisions referred to in sub-paragraph 1, or to ensure that it shall be complied with;

22.1.4 shall undertake to pay upon demand any and/or all legal costs and other expenses which “Council” may have incurred as a consequence of any criminal charges or other proceedings pending against, or involving the “Council” as a result of the contravention or non-compliance by the “Contractor”, his employees, sub-contractors and/or representative of any of the statutory provisions referred to in sub-paragraph 1.

22.1.5 Should the “Contractor” neglect to immediately execute any health and safety written orders issued to him, or to his employee in charge of the works, in terms of the stipulations of sub-paragraph 2, the “Council” shall be entitled to suspend the execution of the works and take the necessary steps to execute or have such order executed. Under these circumstances the contractor shall be obliged to pay “Council”, upon demand, all costs and expenses incurred by “Council”, in order to execute or have the said orders executed.

22.1.6 Should the abovementioned steps not establish a healthy and safe work environment the “Council” will be entitled to terminate the contract without incurring any further costs or claims from the contractor?

23. "CONTRACTOR" IDENTIFICATION BOARD

23.1 The "Contractor" shall provide on any work premises a temporary identification board containing at all worksites the following information:

- Company name on behalf of which division/department the work is being done.
- The contact number and name of the person representing the "Contractor".
- The contact number and name of the person representing "Council"

24. ACKNOWLEDGEMENT

24.1 The "Contractor" hereby acknowledges that he has read and received a copy of the "Principal Contract" and agrees to be bound by and undertakes to observe all the terms and conditions of the "Principal Contract". This appointment is made in terms of Section 37(2) of the Occupational Health and Safety Act, 85 of 1993.

25. EXCEPTIONS AND OMISSIONS

_____

_____

_____

_____

_____

_____

_____

26. REMARKS

_____

_____

_____

_____

_____

_____

_____

THE CONTRACTOR

SIGNED AT …….…… ON THIS …… DAY OF ……..……..

WITNESSES:

…… 1. .....
THE CONTRACTOR

2. ……

THE COUNCIL

SIGNED AT …….…… ON THIS …… DAY OF……..……..

WITNESSES…… 1. …….
THE COUNCIL

2. …… ……...……

b) INDEMNITY CERTIFICATE

Contractor…….

Employer: Polokwane Municipality

Contract…….

I/we ……

Hereafter the “Contractor”

“Contractor” hereby indemnifies the Polokwane Municipality (Council) against any claim of whatever sort which may arise directly or indirectly from the execution by me/us of the above-mentioned contract and which may be instituted against “Council”, as well as of any loss or damage which the “Council” suffers or expenditure the “Council” incurs to prevent responsibility for such claim, loss or damage, whatever the cause of such claim may be or whatever loss or damage the “Council” suffers.

THUS done and signed at …… on this……. Day

of……... 20…....

WITNESSES:

1. …….. ……..
CONTRACTOR

2. …….. ……
COUNCIL

c) ACKNOWLEDGEMENT CERTIFICATE

I, in my capacity as……...……

Duly authorized hereto ……..……representing

……Contractors, acknowledge receipt of a copy of the Polokwane Municipality's safety manual for contractors and the under mentioned person as my supervisor regarding all works and services which must be executed by the Contractor. The appointment is done in terms of the Occupational Health and Safety Act, 1993 (Act 85/1993).

SIGNED AT ……. ON……. 20.....

I, ……..… accept the abovementioned appointment, and declare that I am familiar with the contents of the Polokwane Municipality's Safety Manual for contractors.

CASUALTIES REGISTRATION NUMBER

_____

_____

_____

SIGNED AT ……. ON…… 20…….

SIGNATURE:

WITNESSES: 1. …….

2. ……..

A copy of this certificate shall be submitted to the "Council" before any work commences.

C1.5: Agreement with Adjudicator

This agreement is made on the.....day of ..... 20.....between: The Employer

(name of company / organisation) ..... of

(*address)*.....

.....and the Contractor

(name of company /organisation) .....

of (*address)*.....

.....(hereinafter called **the Parties**)

and

(name).....of *(address)*

..... (hereinafter called **the Adjudicator**)

Disputes or differences may arise/have arisen* between the Parties under a Contract dated.....

and known as Contract No.....

(Contract title) .....

and these disputes or differences shall be/have been* referred to adjudication in accordance with the CIDB Adjudication Procedure, (hereinafter called "**the Procedure**") and the Adjudicator may be or has been requested to act.
(Delete as necessary)*

IT IS NOW AGREED as follows:

1. The rights and obligations of the Adjudicator and the Parties shall be as set out in the Procedure.

2. The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.

3. The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure as set out in the Contract Data.

4. The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.

5. The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

SIGNED by:

(*Signature*): ..... (*Signature*): .....(*Signature*): .....

Name:	**Name**:	**Name**: .....
who warrants that he/ she is duly authorised to sign for and on behalf of the **First Party** in the presence of	who warrants that he/ she is the duly authorised to sign for and on behalf of the S**econd Party** in the presence of	**Adjudicator** in the presence of
Witness:	**Witness:**	**Witness:**

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

Name:	**Name**:	**Name**: .....
Address:	Address:	Address: .....
.....	.....	.....
Date:	Date:	Date: .....

POLOKWANE MUNICIPALITY

PROJECT DESCRIPTION: CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE

C2.1 Pricing Instructions

1. GENERAL

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

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

The Bidder's obligations in pricing the Bidder offer and the Employer's undertakings in the checking and correction of arithmetical errors are dealt with in the Standard Conditions of Bidder contained in Annexure F of SANS 294, as amended in and read in conjunction with the Bidder Data.

2. DOCUMENTS MUTUALLY EXPLANATORY

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

3. DEFINITIONS

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

Unit	:	The unit of measurement for each item of work as defined in the Scope of Work and Site Information.
Quantity	:	The number of units of work for each item.
Rate	:	The payment per unit of measurement at which the Contractor Contracts to do the work.
Amount	:	The product of the quantity and the rate Bidded for an item.
Sum	:	An amount contracted for an item, the extent of which is described in the Bill of Quantities, the specifications or elsewhere but the quantity of work of which is not measured any units.

4. DESCRIPTIONS

Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each Standardised Specification, read together with

the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standardised Specification, or the Scope of Work, conflict with the terms of the Bill, the requirements of the Standardised Specification or Scope of Work, as applicable, shall prevail.

5. REFERENCES

The clauses in a specification in which further information regarding the schedule item can be obtained appear under "Reference clause" in the Bill. The reference clauses indicated are not necessarily the only sources of information in respect of scheduled items. Further information and specifications may be found elsewhere in the contract documents. Standardised Specifications are identified by the letter or letters which follow SABS in the SABS 1200 series of specifications, e.g. G for SABS 1200 G.

6. UNITS OF MEASUREMENT

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

%	=	per cent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kilolitre
km	=	kilometre
km-pass	=	kilometre-pass
kW	=	kilowatt
l	=	litre
m	=	metre
mm	=	millimetre
MN	=	meganewton
MN-m	=	meganewton-metre
MPa	=	megapascal
m^2	=	square metre
m^3	=	cubic metre
m^3-km	=	cubic metre-kilometre
m^2-pass	=	square metre-pass
no	=	number
PC sum	=	Prime Cost sum
Prov Sum	=	Provisional Sum
sum	=	lump sum
t	=	ton (1 000 kg)

7. NET MEASUREMENTS

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

8. QUANTITIES

The quantities set out in these Bills of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified

for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.

The Contract Amount to be determined in accordance with the conditions of contract identified in the Contract Data shall be computed from the actual quantities of authorized work done, value at rates determined in terms of the Contract Data, against the respective items in the Bill of Quantities.

9. CURRENCY

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

10. VALUE ADDED TAX

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

11. RATES AND PRICES

11.1 General

a) The Contractor must price each item in the Bill of Quantities in BLACK INK. Reproduced computer printouts of the Bills of Quantities will not be acceptable.

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

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

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

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

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

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

11.2 "Rate only" items

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

11.3 Arithmetic

Excepting where Sum Amounts are required or where Provisional Sums have been indicated, the Contractor shall enter an applicable rate in the Rate Column of the Bill of Quantities for each scheduled item. He shall also enter an appropriate sum in the Amount column for each scheduled item, by determining in the applicable line item the product of the Quantity and the Unit Rate.

Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.

If bills of quantities (or schedule of quantities or schedule of rates) 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.

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.

11.4 Labour Intensive work

Those parts of the contract to be constructed using labour-intensive methods have been marked in the bill of quantities with the letters LI in a separate column or as a prefix or suffix against every item so designated. The works, or parts of the works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such works, other than plant specifically provided for in the scope of works, is a deviation from the contract. The items marked with the letters 'LI' are not necessarily an exhaustive list of all the activities which must be done by hand, and this clause does not over-ride any of the requirements in the generic labour-intensive specification in the Scope of Works.

Where minimum labour intensity is specified by the design the contractor is expected to use their initiative to identify additional activities that can be done labour-intensively in order to comply with the set minimum labour intensity target.

Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works) will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.

12. VARIATION IN TEXT

No alteration, erasure or addition is to be made in the text of the Bill of Quantities. Should any alteration, erasure or addition be made, it will not be recognized; the original wording of the Bill of Quantities will be adhered to.

POLOKWANE MUNICIPALITY

PROJECT DESCRIPTION: AGANANG RWS (CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE)

C2.2 BILL OF QUANTITIES

The following is a sample Bill of Quantities for a typical conventional Water project with bill items indicated with "LI" to be executed by Labour Intensive methods.

Section D 1000: Provision for Structured Training

Item	Description	Unit	Quantity	Rate	Amount
D10.01	**Accredited Training**				
	Training allowance paid to targeted labour in terms of formal training days	Person days of Training	(insert No. of Workers to be employed x Training days)	(insert the specified daily wage rate)	**(insert amount)**
	Extra over for the administration payment of training allowances to targeted labour (25% of training allowance)	Sum			**(insert amount)**
	Transport and accommodation of workers for training where it is not possible to undertake the training in close proximity to the site (provisional sum)	Sum	(Insert Provisional sum)		**(insert amount)**

BILL OF QUANTITIES

Contents

Description		Page
Schedule A	Preliminary and General	136-140
Schedule C	Site Clearance	141
Schedule DB	Earthworks for Pipe Trenches	142-143
Schedule LB	Pipe Bedding	144
Schedule L	Medium Pressure Pipelines	145-148
Schedule LF	Erf Connections	149
Schedule GA	(Concrete Small Works)	150
Schedule H	Construction of Elevated Steel Tank	151
Schedule VC	Pumps	152
Summary of Bills		134
Calculation of Tender Sum form		153

	SUMMARY SCHEDULE OF QUANTITIES	TENDER NO.
	CONSTRUCTION SUPERVISION OF WATER SUPPLY IN GA-RAMALAPA VILLAGE	

SCHEDULE	SECTION	DESCRIPTION	AMOUNT
A	1	PRELIMINARY AND GENERAL - FIXED CHARGE AND VALUE RELATED OBLIGATIONS	
	2	PRELIMINARY AND GENERAL - TIME RELATED OBLIGATIONS	
	3	PRELIMINARY AND GENERAL - PROVISIONAL SUMS	
	4	PRELIMINARY AND GENERAL - PRIME COST SUMS	
	5	PRELIMINARY AND GENERAL - DAYWORK	
C	1	SITE CLEARANCE	
DB	1	EARTHWORKS FOR PIPE TRENCHES	
LB	1	PIPE BEDDING	
L	1	MEDIUM PRESSURE PIPELINES	
LF	1	ERF CONNECTIONS (WATER)	
GA	1	CONCRETE (SMALL WORKS)	
H	1	CONSTRUCTION OF ELEVATED STEEL TANKS	
VC	1	PUMPS	
		TOTAL SCHEDULE OF QUANTITIES AMOUNT:	

CALCULATION OF TENDER SUM	
TOTAL SCHEDULE OF QUANTITIES AMOUNT BROUGHT FORWARD:	
CONTINGENCIES@5%:	
SUB-TOTAL:	
ADD 15% VAT:	
TOTAL TENDER AMOUNT CARRIED TO FORM OF OFFER:	

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION SUPERVISION OF WATER SUPPLY IN GA-RAMALAPA VILLAGE

SCHEDULE A: PRELIMINARY AND GENERAL OBLIGATIONS
SECTION 1: PRELIMINARY AND GENERAL - FIXED CHARGE AND VALUE RELATED OBLIGATIONS

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
A1	PSA 8.3	**FIXED CHARGE AND VALUE RELATED ITEMS:** *(As specified in SABS 1200 A, SABS 1200 AB and the Project Specifications.)*				
1.1		**Contractual Requirements:**				
1.1.1	PSA 8.3.1	Fixed charge contractual requirements.	Sum	1		
1.1.2	PSA 8.3.1	Value related contractual requirements.	Sum	1		
1.2		**Facilities for Engineer:**				
1.2.1	PSA 8.3.2.1 a	Furnished office	Sum	1		
1.2.2	PSA 8.3.2.1 c	Name board (1 No)	Sum	1		
1.3		**Facilities for Contractor:**	Sum			
1.3.1	PSA 8.3.2.2 a	Offices and storage sheds	Sum	1		
1.3.2	PSA 8.3.2.2 b	Workshops	Sum	1		
1.3.3	PSA 8.3.2.2 c	Laboratories	Sum	1		
1.3.4	PSA 8.3.2.2 d	Living accommodation	Sum	1		
1.3.5	PSA 8.3.2.2 e	Ablution and latrine facilities	Sum	1		
1.3.6	PSA 8.3.2.2 f	Tools and equipment	Sum	1		
1.3.7	PSA 8.3.2.2 g	Water supplies, electric power and communications	Sum	1		
1.3.8	PSA 8.3.2.2 h	Dealing with water	Sum	1		
1.3.9	PSA 8.3.2.2 i	Access	Sum	1		
1.3.10	PSA 8.3.2.2 j	Plant	Sum	1		
1.3.11	PSA 14.2 a	Materials on site storage and protection.	Sum	1		
1.3.12	PSA 14.2 b	Accommodation of traffic.	Sum	1		
1.4	PSA 8.3.3	**Other Fixed Charge Obligations:**	Sum	1		
1.5	PSA 8.3.4	**Removal of Site Establishment:**	Sum	1		
1.6	PS A 8.5	**Sum Stated Provisionally by Engineer**				
		Occupation Health and Safety				
1.6.1	PS A 8.3.5.1	Contractor's initial obligations in respect of the Occupational Health and Safety Act contractual Regulations	Prov. Sum			R 15,000.00
1.6.2	PS A 8.3.5.2	Occupational, health and Safety act	sum			
TOTAL SCHEDULE A - SECTION 1 CARRIED TO SUMMARY:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION SUPERVISION OF WATER SUPPLY IN GA-RAMALAPA VILLAGE

SCHEDULE A: PRELIMINARY AND GENERAL OBLIGATIONS

SECTION 2: PRELIMINARY AND GENERAL - TIME RELATED OBLIGATIONS

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
A.2		**TIME RELATED ITEMS:** *(As specified in SABS 1200 A, SABS 1200 AB and the Project Specifications.)*				
2.1	8.4	**Scheduled Tie-Related Items:**				
2.1.1	8.4.1	Contractual Requirements	Month	6		
2.2		**Facilities for Engineer:**				
2.2.1	PS A 8.4.2.1 a	Furnished offices	Month	6		
2.2.3	PS A 8.4.2.1 c	Name boards (1 No)	Month	6		
2.3		**Facilities for Contractor:**				
2.3.1	PS A 8.4.2.2 a	Offices and storage sheds.	Month	6		
2.3.2	PS A 8.4.2.2 b	Workshops.	Month	6		
2.3.3	PS A 8.4.2.2 c	Laboratories.	Month	6		
2.3.4	PS A 8.4.2.2 d	Living accommodation.	Month	6		
2.3.5	PS A 8.4.2.2 e	Ablution and latrine facilities.	Month	6		
2.3.6	PS A 8.4.2.2 f	Tools and equipment.	Month	6		
2.3.7	PS A 8.4.2.2 g	Water supplies, electric power and communications.	Month	6		
2.3.8	PS A 8.4.2.2 h	Dealing with water.	Month	6		
2.3.9	PS A 8.4.2.2 i	Access.	Month	6		
2.3.10	PS A 8.4.2.2 j	Plant.	Month	6		
2.4	PS A 8.4.3	**Supervision for Duration of the Contract:**	Month	6		
2.5	PS A 8.4.4	**Company and Head Office Overhead Costs's for the Duration of the Contract:**	Month	6		
2.6	PS A 8.4.5	**Other Time Related Obligations:**	Month	6		
2.7	PSA 8.5	**Environmental Management:**	Month	6		
2.8	PSA 8.5	**-** **Occupational Health and Safety**	Month	6		
TOTAL SCHEDULE A - SECTION 2 CARRIED TO SUMMARY:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE
SCHEDULE OF QUANTITIES:

CONSTRUCTION SUPERVISION OF WATER SUPPLY IN GA-RAMALAPA VILLAGE

SCHEDULE A: PRELIMINARY AND GENERAL OBLIGATIONS
SECTION 3: PRELIMINARY AND GENERAL - PROVISIONAL SUMS

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
A.3		**PROVISIONAL SUMS:** *(As specified in SABS 1200 A and the Project Specifications.)*				
3.1	PS A 8.5 (a)1	**Community Liaison Officer:**				
3.1.1	PS A 8.5 (a)1	Provision for the employment of CLO.@ R4500/m	Prov. Sum			**R 36,000.00**
3.1.2		Overheads, charges and profit on item 3.1.1.	%	36,000.00		
3.2	PS A 8.5 (a)2	**PSC Meetings Attendance**				
3.2.1	PS A 8.5 (a)2	Provision for the payment of PSC members @ R140/sitting	Prov. Sum			**R 14,000.00**
3.2.2		Overheads, charges and profit on item 3.2.1.	%	14,000.00		
3.3	PS A 8.5 b.1	**Basic Skills and Construction Training:**				
3.3.1	PS A 8.5 b.1	Provision for basic skills and construction site safety training.	Prov Sum			**R 108,000.00**
3.3.2	PS A 8.5 b.2	Overheads, charges and profit on item 3.3.1.	%	108,000.00		
3.3.3	PS A 8.5 b.3	Payment for laboures undergoing training	Prov. Sum			**R 13,824.00**
3.3.4	PS A 8.5 b.4	Overheads, charges and profit on item 3.3.3.	%	13,824.00		
	8.8	**Temporary Works**				
3.4	PS A 8.8.2	**Accommodation of Traffic**				
3.4.1	PS A 8.8.2	a) Provision for relocation/protection of existing services.	Prov. Sum			**R 100,000.00**
3.4.2	PS A 8.8.2	b) Overheads, charges and profit on item 3.4.1.	%	100,000.00		
3.5	8.5 b	**Routine Tests required by Engineer:**				
3.5.1	PSA 14.5 i	Provision for routine tests.	Prov. Sum			**R 50,000.00**
3.5.2	PSA 14.5 j	Overheads, charges and profit on item 3.5.1.	%	50,000.00		
3.6		**Safety Rep**				
3,6,1		Provision for Safety Rep Services.@ R4500 P/M	Prov. Sum			**R 31,500.00**
3,6,2		Overheads, charges and profit on item 3.6.1.	%	31,500.00		
3.7		Student/s Trainee				
3.7.1		Provision for Student Trainee Services. @ R4500p/m	Prov. Sum			**R 31,500.00**
3.7.2		Overheads, charges and profit on item 3.7.1.	%	31,500		
TOTAL SCHEDULE A - SECTION 3 CARRIED TO SUMMARY:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION SUPERVISION OF WATER SUPPLY IN GA-RAMALAPA VILLAGE

SCHEDULE A: PRELIMINARY AND GENERAL OBLIGATIONS

SECTION 4: PRELIMINARY AND GENERAL - PRIME COST SUMS

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
A.4		**PRIME COST ITEMS:** *(As specified in SABS 1200 AB and the Project Specifications.)*				
4.1		**Protective Clothing:**				
4.1.1		a) Provision for PPE	PC Sum			R 41,400.00
4.1.2		b) Overheads, charges and profit on item 4.1.1.	%	41,400.00		
		-				
TOTAL SCHEDULE A - SECTION 4 CARRIED TO SUMMARY:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION SUPERVISION OF WATER SUPPLY IN GA-RAMALAPA VILLAGE

SCHEDULE A: PRELIMINARY AND GENERAL OBLIGATIONS

SECTION 5: PRELIMINARY AND GENERAL - DAYWORKS

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
A.5		**DAYWORK:** *(As specified in SABS 1200 A and the Project Specifications.)*				
5.1	PS A8.7	**Labour - Normal Working Hours: [Provisional]**				
5.1.1		Skilled Labour (Artisan).	hr	1		
5.1.2		Semi-skilled Labour.	hr	1		
5.1.3		Unskilled Labour.	hr	1		
5.1.4		Foreman.	hr	1		
5.1.5		Extra-over rate for items 5.1.1 to 5.1.4 for work during non-working hours.	hr	50		
5.2	8.7	**Materials: [Provisional]**				
5.2.1		Allowance for Materials used under Dayworks.	Prov Sum			1500.00
5.2.2		Overheads, Handling and all Charges on Item 5.2.1.	%	1,500		
5.3	8.7	**Plant - Heavy Equipment: [Provisional]** *(Plant shall not be more than 3 years old or have more than 3000 hrs logged. Operator to be qualified and competency certified.)*				
5.3.1		Excavator - Size Cat 225.	hr	1		
5.3.2		Excavator - TLB.	hr	1		
5.3.3		Grader 140G or similar.	hr	1		Rate Only
5.3.4		Front end loader - bucket capacity ≤ 1.5 m^3.	hr	1		Rate Only
5.3.5		Front end loader - bucket capacity ≤ 1.5 m^3.	hr	1		Rate Only
5.3.6		Tip truck - 5 m^3 capacity.	hr	1		Rate Only
5.3.7		Tip truck - 10 m^3 capacity.	hr	1		Rate Only
5.3.8		Vibratory compaction roller - 13.5 ton.	hr	1		Rate Only
5.3.9		Transport cost per any unit of plant to deliver to site and remove from site for items 5.3.1 to 5.3.8	Sum	-		Rate Only
5.4	8.7	**Plant - Small Equipment: [Provisional]**				
5.4.1		Pedestrian roller - BW90 or similar.	hr	1		
5.4.2		Vibratory plate compactor.	hr	1		
5.4.3		Vibratory rammer.	hr	1		
5.4.4		Transport cost per any unit of plant to deliver to site and remove from site for items 5.4.1 to 5.4.3.	Sum	-		
TOTAL SCHEDULE A - SECTION 5 CARRIED TO SUMMARY:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION OF WATER SUPPLY IN RAMALAPA

SCHEDULE C: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS

SECTION 1: EARTHWORKS FOR PIPE TRENCHES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C.1		**SITE CLEARANCE** *(As specified in SABS 1200 C and the Project Specifications.)*				
1.1		**Site Clearance:**				
1.1.1	PSC 8.2.1	Clear vegetation, 800 mm wide. (Provisional)	m	14,093		
1.1.2	PSC 8.2.2	Clear trees of girth over 1.0 m.	No.	5		
1.1.3	PSC 8.2.5	Take down existing fence and reinstate to original position	m	1		
SUB-TOTAL SCHEDULE C - SECTION 1 CARRIED SUMMARY:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION OF WATER SUPPLY IN RAMALAPA

SCHEDULE DB: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS

SECTION 2: EARTHWORKS FOR PIPE TRENCHES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
DB.1		**EARTHWORKS: PIPE TRANCHES** *(As specified in SABS 1200 DB and the Project Specifications.)*				
1.1	PSDB 8.3.2	**Excavation**				
1.1.1		a) Excavate in all materials for trenches, backfill, compact and dispose of surplus material.	m	14093		
1.1.2		b) 1. Extra-over items (a) for excavation in intermediate material.	m^3	5637		
1.1.3		c) 2. Extra-over items (a) for hard rock excavation.	m^3	2114		
1.1.4		d) 3. Extra-over items (a) for hand excavation and backfill where ordered by engineer.	m^3	100		
1.1.5		e) Soilcrete backfilling where ordered by Engineer.	m^3	30		
TOTAL SCHEDULE DB - SECTION 2 CARRIED FORWARD:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION OF WATER SUPPLY IN RAMALAPA

SCHEDULE DB: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS

SECTION 2: EARTHWORKS FOR PIPE TRENCHES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SUB-TOTAL SCHEDULE DB - SECTION 2 BROUGHT FORWARD:						
DB.1		**EARTHWORKS: (Continues)** *(As specified in SABS 1200 DB and the Project Specifications.)*				
1.2	**DB 8.3.3.2**	**Backfill and Compaction:**				
1.2.1.1		Backfill and Compaction tranches	m^3	6,765		
1.2.1.2		Dispose of surplus material	m^3	338		
1.3	PSDB 8.3.3	**Excavation Ancillaries;**				
	PSDB 8.3.3.1	**Make up deficiency in backfill material (Provisional)**				
1.3.1.1 1.3.1.2		a) from other necessary excavations on site	m^3	200		
1.3.1.3		(c) importing from commercial or off site source selected by the contractor.	m	1		
1.3.2	DB 8.3.3.3	Compaction within road reserve to 90 % of Modified AASHTO density clause 5.7.1.	m^3	1,500		
1.4	DB 8.3.3.4	**Overhaul:**				
1.4.1		b) Overhaul in excess of the free-haul of 3.0 km.	m^3	8,456		
1.5	PSDB 8.3.5	**Existing Services:**				
1.5.1		a) Services that intersect a trench.	No.	10		
TOTAL SCHEDULE DB - SECTION 2 CARRIED TO SUMMARY:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION OF WATER SUPPLY IN RAMALAPA

SCHEDULE LB: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS

SECTION 4: PIPE BEDDING

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
LB 1		**BEDDING:** *(As specified in SABS 1200 LB and the Project Specifications.)*				
1.1	PSLB 8.1.1	**Provision of Bedding from Trench Excavations:** *(Bedding to be Class C for flexible pipes as indicated in the contract drawings)*				
1.1.1		b) Provision of bedding from pipe trench excavation within 1.0 km, using selected fill material.	m^3	4,510		
1.2	PSLB 8.1.2	**Supply Only of Bedding by Importation:** *(Bedding to be Class C for flexible pipes as indicated in the contract drawings)*				
1.2.1		b) Provision of bedding imported from designated borrow pit using selected fill material.	m^3	2,114		
1.3	PSLB 8.2.4	**Encasing of Pipes in concrete Class A, 19mm stone ,20MPA reinforced & mass concrete:**				
		Encasement of pipe through stream crossings, Rate shall include formwork, mixing and placing of concrete($5m^3$) and Gabions ($10m^3$)	m^3	1		
1.4	PSLB 8.2.5	**Overhaul**				
1.4.1		a) Limited overhaul (0,5 km to 1,0 km)	m^3	100		
1.4.2		b) Long overhaul	m3	1		
TOTAL SCHEDULE LB - SECTION 4 CARRIED TO SUMMARY:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION OF WATER SUPPLY IN RAMALAPA

SCHEDULE L: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS
SECTION 5: MEDIUM PRESSURE PIPELINES AND ANCILLARIES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
L 1		**MEDIUM PRESSURE PIPES:** *(As specified in SABS 1200 L, SABS 1200 GA and the Project Specifications.)*				
1.1	PSL 8.2.1	**Supply, Lay and Bed uPVC Pipes Complete with Couplings** *(The rates shall include disinfecting of pipes after completion of hydraulic pipe test.)*				
1.1.1		110 mm uPVC medium pressure pipes - Class 12 .	m	1,950		
1.1.2		90 mm uPVC medium pressure pipes - Class 09 .	m	1,343		
1.1.3		75 mm uPVC medium pressure pipes - Class 12.	m	900		
1.1.4		75 mm uPVC medium pressure pipes - Class 09.	m	9,900		
1.2	PSL 8.2.2	**Fittings and Specials - uPVC Laying Bends:** *(Extra-over rate to Items 3.1.1 to 3.1.6.)*				
1.2.1		**110 mm uPVC:**				
1.2.1.1		uPVC bends less than 90 degree angle.	No	2		
1.2.1.2		uPVC bends less than 45 degree angle.	No	1		
1.2.1.3		uPVC bends less than 22,5 degree angle.	No	6		
1.2.1.4		uPVC bends less than 11,5 degree angle.	No	7		
1.2.2		**90 mm uPVC:**				
1.2.2.1		uPVC bends less than 90 degree angle.	No	2		
1.2.2.2		uPVC bends less than 22,5 degree angle.	No	2		
1.2.2.3		uPVC bends less than 11,5 degree angle.	No	2		
1.2.3		**75 mm uPVC:**				
1.2.3.1		uPVC bends less than 90 degree angle.	No.	10		
1.2.3.2		uPVC bends less than 45 degree angle.	No.	7		
1.2.3.3		uPVC bends with 22,5 degree angle.	No.	14		
1.2.3.4		uPVC bends with 11,5 degree angle.	No.	20		
1.2.4	8.2.2	**Specials and Fittings - uPVC Equal Tees:** *(Bitumen dipped and LAYING sockets on all sides all to SABS 546 and SABS 966.)*				
1.2.4.1		90 mm dia.	No.	15		
1.2.4.2		75 mm dia.	No.	8		
SUB-TOTAL SCHEDULE L - SECTION 5 CARRIED FORWARD:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE
SCHEDULE OF QUANTITIES:
CONSTRUCTION OF WATER SUPPLY IN RAMALAPA

SCHEDULE L: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS
SECTION 5: MEDIUM PRESSURE PIPELINES AND ANCILLARIES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SUB-TOTAL SCHEDULE L - SECTION 5 BROUGHT FORWARD:						
L 2		**MEDIUM PRESSURE PIPES: (continues)** *(As specified in SABS 1200 L, SABS 1200 GA and the Project Specifications.)*				
1.2.5	PSL 8.2.2	**Specials and Fittings - uPVC End Caps:**				
1.2.5.1		110 mm dia.	No.	1		
1.2.5.2		90 mm dia.	No.	1		
1.2.5.3		75 mm dia.	No.	2		
1.2.6	PSL 8.2.2	**Specials and Fittings - uPVC Reducers:** *(Bitumen dipped, spigot and socket and socketed cast iron reducers all to SABS 546 and SABS 966.)*				
1.2.6.1		90 mm x 75 mm dia. [S]	No.	5		
1.2.7	8.2.2	**Specials and Fittings - uPVC Equal Crosses:** *(Bitumen dipped and LAYING sockets on all sides all to SABS 546 and SABS 966.)*				
1.2.7.1		90 mm x 75 mm dia. [S]	No	15		
1.2.8	8.2.3	**Specials and Fittings - uPVC Reducing Crosses:** *(Bitumen dipped, spigot and socket and socketed cast iron reducers all to SABS 546 and SABS 966.)*				
1.2.8.1		90 mm x 75mm dia. [S]	No.	10		
1.2.9	8.2.4	**Specials and Fittings - uPVC Reducing Tee:** *(Bitumen dipped, spigot and socket and socketed cast iron reducers all to SABS 546 and SABS 966.)*				
1.2.9.1		110 mm x 75mm dia. [S]	No.	2		
1.2.9.2		90 mm x 75mm dia. [S]	No.	8		
SUB-TOTAL SCHEDULE L - SECTION 5 CARRIED FORWARD:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION OF WATER SUPPLY IN RAMALAPA

SCHEDULE L: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS

SECTION 5: MEDIUM PRESSURE PIPELINES AND ANCILLARIES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SUB-TOTAL SCHEDULE L - SECTION 5 BROUGHT FORWARD:						
L 3		**MEDIUM PRESSURE PIPES: (continues)** *(As specified in SABS 1200 L, SABS 1200 GA and the Project Specifications.)*				
1.2.10	PSL 8.2.3	**Specials and Fittings -Scour valves:** *(Vent O' Mat SERIES RBX with screwed BSP male inlet, or similar. Complete with flange, barrel nipple, and gate valves)*				
1.2.10.1		75 mm Gate Valve	No.	18		
1.2.11	PSL 8.2.4	**Specials and Fittings - Air Valve:** All air valves to be Double orifice type. Rate shall include all accessories required as per tender drawing.				
1.2.11.1		25 mm Air Valve	No.	9		
1.2.12	PSL 8.2.4	**Specials and Fittings -Gate valve:** *All gate valves shall be of the AVK type, shall comply with the requirements of SABS 664 and shall be suitable for a working pressure of 1,6 MPa (Class 16), or as indicated on the detail drawings.*				
1.2.12,1		90 mm Gate Valve	No.	3		
1.2.12,2		75 mm Gate Valve	No.	41		
1.2.12	PSL 8.2.5	**Specials and Fittings -Bulk Water Meter:** *(Kent or Similar approved,flanged and Drilled to SABS 1123,Table 16.)*				
1.2.12.1		90 mm dia.In Line Bulk Water Meter	No.	1		
SUB-TOTAL SCHEDULE L - SECTION 5 CARRIED FORWARD:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION OF WATER SUPPLY IN RAMALAPA

SCHEDULE L: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS
SECTION 5: MEDIUM PRESSURE PIPELINES AND ANCILLARIES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SUB-TOTAL SCHEDULE L - SECTION 5 BROUGHT FORWARD:						
L 4		**MEDIUM PRESSURE PIPES: (continues)** (As specified in SABS 1200 L, SABS 1200 GA and the Project Specifications.)				
1.2.12	PSL 8.2.11	**Thrust Blocks:**				
1.2.12.1		Concrete volume < 0,5m³	No.	210		
1.2.12.2		Concrete pipe line markers as per details.	No.	20		
1.2.13	PSL 8.2.13	**Valve Chambers:**				
1.2.13.1		Valve chamber - As per detail complete including excavation, materials, plant, labour and incidentals, as per detail drawings.	No.	40		
1.2.13.2		Extra-over Item 3.15.1 for depth increments of 250 mm.	No.	12		
1.2.14	PSL 8.2.1	**Manholes as per Drawings**				
1.2.14.1		a) 550 mm x 550 mm Fabricated manhole not exceeding 1.5m with cover and frame, galvanised	No	2		
1.2.14.2		b) Extra -over for manhole of the depth exceeding 1.5m	No	1		
SUB-TOTAL SCHEDULE L - SECTION 5 CARRIED TO SUMMARY:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION OF WATER SUPPLY IN RAMALAPA

SCHEDULE B: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS
SECTION 3: MEDIUM PRESSURE PIPELINES AND ANCILLARIES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
LF 1		**ERF CONNECTIONS (WATER):** *(As specified in SABS 1200 L, SABS 1200 LF and the Project Specifications.)*				
1.1	PSLF 8.2.1	**Provide yard connections complete as per drawing, and, as follows:**				
1.1.1		Metered yard connection - ramalapa	No.	360		
TOTAL SCHEDULE B - SECTION 3 CARRIED TO SUMMARY:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION OF WATER SUPPLY IN RAMALAPA

SCHEDULE B: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS

SECTION 1: EARTHWORKS FOR PIPE TRENCHES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
GA 1		**CONCRETE (SMALL WORKS)** *(As specified in SABS 1200 GA and the Project Specifications.)*				
	8.2	**SCHEDULED FORMWORK ITEMS**				
	8.2.1	Rough surface finish (vertical)	m²	75		
	8.2.2	Smooth surface finish (vertical)	m²	25		
	8.3	**SCHEDULED REINFORCEMENT ITEMS**				
	PSGA 8.3.1	a) Mild steel bars	kg	1		
	PSGA 8.3.2	b) High-tensile steel bars	t	1		
	PSGA 8.4	**SCHEDULED CONCRETE ITEMS**				
	8.4.1	Reinforced Strength concrete, 30MPa/19mm	m³	14		
	8.4.2	Blinding layer in 20 Mpa conctere,with 100mm thickness	m³	2		
TOTAL SCHEDULE GA SECTION 3 CARRIED TO SUMMARY:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE
SCHEDULE OF QUANTITIES:

CONSTRUCTION OF WATER SUPPLY IN RAMALAPA

SCHEDULE H: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS
SECTION 1: ANCILLARY WATER SUPPLY WORKS

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
H 1		**STRUCTURAL STEELWORK**				
		(As specified in the Project Specifications.)				
1.1	PSH 8.3.1	**Elevated Pressed Steel Reservoir:**				
		(Steel Tank shall be a Braithwaite type, or similar,pressed steel. All manufacturing to SABS standards with hot dip galvaising to SANS 121(ISO 1461), installation to be performed by the supplier)				
1.1.1		1) Supply and erect 101 kl capacity elevated pressed steel reservoir with Stand of 12 m min above natural ground level excluding foundations.	Prov Sum	1.00		R 1,200,000.00
1.1.2		a) Contractor's handling costs, profit and all other charges in respect of subitems 1.1.1	%	1200000.00		
		-				
TOTAL SCHEDULE H - SECTION 7 CARRIED TO SUMMARY:						

POLOKWANE MUNICIPALITY - LIMPOPO PROVINCE

SCHEDULE OF QUANTITIES:

CONSTRUCTION OF WATER SUPPLY IN RAMALAPA

SCHEDULE VC: WATER SUPPLY AND NETWORK DISTRIBUTION WORKS

SECTION 1: PUMPS

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
VC		**PUMPS** *(As specified in the Project Specifications.)*				
1.1	PS VC 10	**Supply and Delivery of Pumps**				
1.1.1	PSVC 10.4	Refurbishment of borehole H04-0355 Equipment (Replace 65mm with 80mm pipe installation)	no	1 10000		
1.1.2		Compile, Supply and delivery of a complete set of operation and maintenance manuals of all pumps as specified and measured in PMB-10.4	Prov Sum			
1.1.3	PSB 1.5	Testing of pumps (a) Complete workshop testing a specified, for each pump-set as scheduled in item PS VC -10	Prov Sum			
1.1.4		Contractors handling costs, profits and all other charges in respect of item 10.4	%	5000		
1.2		**Pump House** -				
1.2.1		Supply and Erect pre-cast pump house complete with lockable device as per drawings.	No	1		
1.3		**Fencing**				
1,3,1		Supply, deliver and erect clear-vu fence 1,8m high including 10m sliding gate	m	360.00		
TOTAL SCHEDULE VC - SECTION 9 CARRIED TO SUMMARY:						

POLOKWANE MUNICIPALITY

PROJECT DESCRIPTION: AGANANG RWS (CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE)

CALCULATION OF TENDER SUM

TOTAL FOR SCHEDULE OF QUANTITIES (brought forward)		R
CONTINGENCIES The sum provided here is under the sole control of the employer and may be deducted in whole or in part	(5%)	R
SUB-TOTAL		R
15% VAT		R
TOTAL TENDER SUM CARRIED FORWARD TO FORM OF OFFICE		R ……..

PART C3: SCOPE OF WORK

C3.1: STANDARD SPECIFICATIONS

C3.2: PROJECT SPECIFICATIONS

PART B: AMENDMENTS TO THE STANDARD SPECIFICATIONS

PROJECT DESCRIPTION: AGANANG RWS (CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE)

C3: SCOPE OF WORK

C3.1 STANDARD SPECIFICATIONS

C3.2 PROJECT SPECIFICATIONS

PART A: GENERAL

PS-1	Project Description
PS-2	Description of the Site and Access
PS-3	Details of the Works
PS-4	Construction Management Requirements
PS-5	Security Clearance of Personnel
PS-6	Subcontractors
PS-7	Execution of Works
PS-8	Execution of the works expanded public works programme (EPWP) labour intensive specification.

PART B: AMENDMENTS TO THE STANDARD SPECIFICATIONS

PSA	SABS 1200 A: General
PSD	SABS 1200 D: Earthworks (Pipe trenches)
PSG	SABS 1200 G: Concrete (Small works)
PSL	SABS 1200 L: Medium Pressure Pipelines
PSLB	SABS 1200 LB: Bedding (Pipes)

C3.3 PARTICULAR SPECIFICATIONS

SECTION PC	Trimming of Site
SECTION PC	Maintenance
SECTION PE	Contingences
SECTION PG	Generic Labour-Intensive Specification
SECTION POHS	OHSA 1993 Safety Specification

PROJECT DESCRIPTION: AGANANG RWS (CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE)

C3 Scope of Work

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

1 DESCRIPTION OF THE WORKS

1.1 Employer's objectives

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

Labour-intensive works

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

Labour-intensive competencies of supervisory and management staff

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

1.2 Overview of the works

The work will be carried using Labour- Intensive approach as much as possible. Labour-intensive works comprise the activities described in SANS 1921-5, Earthworks activities which are to be performed by hand, and its associated specification data. Such works shall be Constructed using local workers who are temporarily employed in terms of this Scope of Work.

1.3 Extent of the works

The Construction of Water Infrastructure in Ga-Ramalapa which includes the following:

(i) SUMMARY-SCOPE OF WORK UNDER THIS APPOINTMENT

- Refurbishment of existing borehole H04-0355 equipment. (Replace 65 mm with 80mm pipe installations).
- Supply and Erect Precast Pump House complete with lockable device for borehole H04-0355.
- Supply and installation of a minimum of 114-kl elevated steel tank inclusive of foundations at a minimum height of 10 m.
- Supply and installation of water lines as follows:
    - 110mm Ø uPVC class 12 rising main from Borehole BH04-201 for 1.950 km.
    - 75mm Ø uPVC class 12 rising main for 900M.
    - 90 mm Ø uPVC class 09 distribution lines for 1,343 km
    - 75 mm Ø uPVC class 09 reticulation pipelines for 9,900 km
- Supply and installation of 360 -Yard Connections.
- Pipe line ancillaries (valves, meters, reducers, etc)

1.4 Location of the Works

The limits of the project are as shown on the locality plan bound into the book of drawings to be received together with this document. The site of works is located at;

Village Name	Longitude	Latitude
Ramalapa	23º 43´ 05" S	29º 02´ 57" E

The site shall not only include the works area for the construction of the new services, but shall be extended in the broader sense to take account of all areas occupied by the Contractor, be it deliberate or unintentional, in the execution of the contract.

1.5 General Information

Labour Regulations

C3.1.7.1 Payment for the labour-intensive component of the works
Payment for works identified in clause 2.3 "the Extent of the Project" in the Project Specifications as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the scope of work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

C3.1.7.2 Applicable labour laws
The Ministerial Determination for Special Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in **Government Notice N° R949 in Government Gazette 33665 of 22 October 2015,** as reproduced below, shall apply to works described in the scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.
C3.1.7.3 Introduction

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

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

C3.1.7.4 Terms of Work

(a) Workers on a SPWP are employed on a temporary basis.

(b) A worker may NOT be employed for longer than 24 months in any five-year cycle on a SPWP.

(c) Employment on a SPWP does not qualify as employment as a contributor for the purposes of the Unemployment Insurance Act 30 of 1966.

C3.1.7.5 Normal Hours of Work

An employer may not set tasks or hours of work that require a worker to work–
(a) more than forty hours in any week
(b) on more than five days in any week; and
(c) for more than eight hours on any day.

(d) 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.

(e) 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.

C3.1.7.6 Meal Breaks

(f) A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.

(g) An employer and worker may agree on longer meal breaks.

(h) 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.

(i) 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.

C3.1.7.7 Special Conditions for Security Guards

(a) A security guard may work up to 55 hours per week and up to eleven hours per day.

(b) 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.

C3.1.7.8 Daily Rest Period

(a) 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.

C3.1.7.9 Weekly Rest Period

(a) 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").

C3.1.7.10 Work on Sundays and Public Holidays

(a) A worker may only work on a Sunday or public holiday to perform emergency or security work.

(b) Work on Sundays is paid at the ordinary rate of pay.

(c) A task-rated worker who works on a public holiday must be paid –

i. the worker's daily task rate, if the worker works for less than four hours;

ii. double the worker's daily task rate, if the worker works for more than four hours.

(d) A time-rated worker who works on a public holiday must be paid –

i. the worker's daily rate of pay, if the worker works for less than four hours on the public holiday;

ii. double the worker's daily rate of pay, if the worker works for more than four hours on the public holiday.

C3.1.7.11 Sick Leave

(a) Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.

(b) 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.

(c) A worker may accumulate a maximum of twelve days' sick leave in a year.

(d) Accumulated sick-leave may not be transferred from one contract to another contract.

(e) An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.

(f) An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.

(g) An employer must pay a worker sick pay on the worker's usual payday.

(h) 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 –

i. absent from work for more than two consecutive days; or

ii. absent from work on more than two occasions in any eight-week period.

(i) 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.

(j) 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.

C3.1.7.12 Maternity Leave

(a) A worker may take up to four consecutive months' unpaid maternity leave.

(b) A worker is not entitled to any payment or employment-related benefits during maternity leave.

(c) A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.

(d) 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.

(e) A worker may begin maternity leave –

(f) four weeks before the expected date of birth; or

(g) 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.

(h) 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.

(i) A worker who returns to work after maternity leave, has the right to start a new cycle of twenty-four months employment, unless the SPWP on which she was employed has ended.

C3.1.7.12 Family responsibility leave

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.

C3.1.7.13 Statement of Conditions

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 SPWP;
(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 SPWP.
(f) An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.
(g) An employer must supply each worker with a copy of these conditions of employment.

C3.1.7.14 Keeping Records

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.
(e) The employer must keep this record for a period of at least three years after the completion of the SPWP.

C3.1.7.15 Payment

(a) An employer must pay all wages at least monthly in cash or by cheque or into a bank account.

(b) A task-rated worker will only be paid for tasks that have been completed.

(c) 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.

(d) A time-rated worker will be paid at the end of each month.

(e) Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.

(f) Payment in cash or by cheque must take place –

i. at the workplace or at a place agreed to by the worker;

ii. during the worker's working hours or within fifteen minutes of the start or finish of work;

iii. in a sealed envelope which becomes the property of the worker.

C3.1.7.16 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.
(f) 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
(g) 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.

C3.1.7.17 Deductions

(a) An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.

(b) An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.

(c) 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.

(d) An employer may not require or allow a worker to –

i. repay any payment except an overpayment previously made by the employer by mistake;

ii. state that the worker received a greater amount of money than the employer actually paid to the worker; or

iii. pay the employer or any other person for having been employed.

C3.1.7.18 Health and Safety

(a) Employers must take all reasonable steps to ensure that the working environment is healthy and safe.

(b) A worker must –

i. work in a way that does not endanger his/her health and safety or that of any other person;

ii. obey any health and safety instruction;

iii. obey all health and safety rules of the SPWP;

iv. use any personal protective equipment or clothing issued by the employer;

v. report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

C3.1.7.19 Compensation for Injuries and Diseases

(a) It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on a SPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.

(b) A worker must report any work-related injury or occupational disease to their employer or manager.

(c) The employer must report the accident or disease to the Compensation Commissioner.

(d) 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.

C3.1.7.20 Termination

(a) The employer may terminate the employment of a worker for good cause after following a fair procedure.

(b) A worker will not receive severance pay on termination.

(c) 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.

(d) 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.

(e) 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.

C3.1.7.21 Certificate of Service

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 SPWP on which the worker worked;
(d) the work performed by the worker;
(e) any training received by the worker as part of the SPWP;
(f) the period for which the worker worked on the SPWP;
(g) any other information agreed on by the employer and worker.

C3.1.7.22 Contractor's default in payment to Labourers and Employees

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

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

C3.1.7.23 Provision of Hand tools

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

C3.1.7.23 Reporting

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

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

C3.1 STANDARD SPECIFICATIONS

This project specification is set out in two parts. Portion 1 cover a general description of the project, the facilities available, and the requirements to be met. Portion 2 covers variations and additions to standardised or particular specifications that are applicable to the contract.

The numbering method in portion 2 of this project specification deviates as follows from the method suggested in Code of Practice SANS 1200.

Each clause with the prefix PS shall refer to the congruent clause in the appropriate section of the standardised or particular specification. Such clause shall either substitute, or supplement, or amend the clause with the same number. Where there is no such congruent clause in the standardised or particular specification, the PS clause shall be a new clause in the project specification. Any clause that is referred to in the standardised specification will also include the appropriate project specification.

The standard specifications on which this contract is based are:

SABS 1200 A 1986	:	General
SABS 1200 C 1980 (Amended 1982)	:	Site Clearance
SABS 1200 DB 1989	:	Earthworks (Pipe works)
SABS 1200 L 1983	:	Medium Pressure Pipes
SABS 1200 LB 1983	:	Bedding
SABS 1200 LF 1983	:	Erf Connection
SABS 1200 GA 1982	:	Concrete (Small Works)

(Note: “SABS” has been changed to “SANS”; the SABS 1200 specifications are due to be replaced in the foreseeable future by SANS 1200)

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 – 1 (2004): Construction and Management Requirements for Works Contracts Part 1: *General Engineering and Construction Works*

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 and, if applicable, the Particular Specifications.

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) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

The standard specifications which form part of this contract have been written to cover all phases of work normally required for civil contracts, and they may therefore cover items not applicable to this particular contract.

C3.2 PROJECT SPECIFICATIONS

PART A: GENERAL

PS1 PROJECT DESCRIPTION

(ii) SUMMARY-SCOPE OF WORK UNDER THIS APPOINTMENT

- Refurbishment of existing borehole H04-0355 equipment. (Replace 65 mm with 80mm pipe installations).
- Supply and Erect Precast Pump House complete with lockable device for borehole H04-0355.
- Supply and installation of a minimum of 114-kl elevated steel tank inclusive of foundations at a minimum height of 10 m.
- Supply and installation of water lines as follows:
    - 110mm Ø uPVC class 12 rising main from Borehole BH04-201 for 1.950 km.
    - 75mm Ø uPVC class 12 rising main for 900M.
    - 90 mm Ø uPVC class 09 distribution lines for 1,343 km
    - 75 mm Ø uPVC class 09 reticulation pipelines for 9,900 km
- Supply and installation of 360 -Yard Connections.
- Pipe line ancillaries (valves, meters, reducers, etc)

Tenderers must note that certain rates in this tender are fixed and based on prices that the successful Tenderer shall undertake the complete construction of such installations. Tenderers are also to take note of the fact that the bulk of the work is to be executed by means of labour-intensive construction (LIC) methods, where feasible. The execution of the work will be done using the two following methods:

(i) Established contractor to employ people from the communities where the work is to be done.

(ii) Nominated emerging sub-contractors, which are to be employed and trained by the established contractor with the assistance of an approved training institution.

The tenderers must take note of the fact that it will be expected of the successful Tenderer to enter into a formal agreement with the Nominated Emerging Contractors (NEC) and all local labour to be employed on the project. The established/main contractor (MC) will be responsible for the quantity and progress of the work of the nominated emerging contractors.

The work to be carried out during the contract period may be given as separate tasks. Each task to be undertaken will be issued as a written instruction by the Engineer and will consist of a detail scope of work and relevant drawings for each particular task.

PS2 DESCRIPTION OF THE SITE AND ACCESS

2.1 Access to site

Access to the site can be obtained via the public streets within the perimeter of the site of works.

The contractor shall be responsible for the maintenance and reinstatement of damage caused by him or his agents/deliveries to any property (Private or State Owned), fauna and flora and rights of way.

The contractor shall take cognizance of the aforementioned items and should allow in his rates tendered for any costs that could be incurred due to damages by the contractor.

The site of works is located at;

Village Name	Longitude	Latitude
Ga-Ramalapa	23º 43´ 05" S	29º 02´ 57" E

PS3 DETAILS OF THE WORKS

PS4 CONSTRUCTION AND MANAGEMENT REQUIREMENTS

4.1 General

The Contractor is referred to ***SANS 1921: 2004 parts 1, 2 and 3: Construction and Management Requirements for Works Contracts.*** 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.

4.2 Drawings *(Read with SANS 1921 – 1: 2004 clauses 4.1.7; 4.1.11 and 4.1.12)*

The reduced drawings form part of the tender documents as mentioned under Part T1 and shall be used for tendering purposes only.

The contractor shall be supplied with three complete paper copies of the construction drawings free of charge. The Contractor shall at his own expense re-produce further paper prints required for the construction of the work.

At the completion of the Contract, the Contractor shall return to the Engineer all drawings, provided or made, during the contract period.

Any information which the Contractor has control over and which is required by the Resident Engineer to complete the as built drawings shall be made available to the Resident Engineer before the Certificate of Completion is issued.

Only written dimensions may be used. Dimensions are not to be scaled from drawings unless ordered by the Engineer. The Engineer will supply all figures / dimensions which are not shown on the drawings. The levels or dimensions given on the drawings are subject to confirmation on site. The Contractor shall submit all levels and dimensions to the Engineer for confirmation before he commences with any structural construction work. The Contractor shall also check all dimensions which are given on the drawings and inform the Engineer of any conflicting dimensions.

4.3 Responsibilities for design and construction *(Read with SANS 1921 – 1:2004 Clause 4.2)*

4.3.1 The responsibility strategy followed in this contract shall be A.

4.3.2 The structural and civil engineer responsible for the design in accordance with the specification is: Tshashu Consulting and Projects Managers

4.4 Planning, Programme and Method Statements *(Read with SANS1921-1:2004 clause 4.3)*

4.4.1 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.

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

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

4.4.2 Programme in terms of Clause 12 of the General Conditions of Contract

It is essential that the construction programme, which shall conform in all respects to Clause 12 of the General Conditions of Contract, be furnished within the time stated in the Contract Data. The preliminary programme to be submitted with the tender shall be used as basis for this programme.
The following must be stated on the programme:

(a) The quantity of work applicable to each bar item as well as the rate at which the work will be completed.
(b) A budget of the value of completed work, month by month, for the full contract period.
(c) The critical path.

(d) Work to be undertaken by Local Contractor (if applicable)
(e) Training Courses
(f) Schedule of plant and resources to be utilized

The Contractor's attention is also drawn to clause 40.3 of the General Conditions of Contract 2004.

4.4.3 Time for Completion

The tenderer shall indicate under section C1.2.2: ***Data provided by Contractor*** the time within which the contract shall be completed.

4.4.4 Delay in Completion

The Contractor shall organise the Works in such a manner that no delays occur. Delays due to faulty organisation or lack or shortage of materials or labour or co-operation with other parties or to any other cause within the control of the Contractor will not be countenanced and full power is reserved by the Engineer to order the Contractor to expedite the work should the work, in the opinion of the Engineer, not progress in a satisfactory way.

4.5 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.

4.6 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 water and stormwater on the site. 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.

4.7 Earthworks *(Read with SANS 1921 - 1: 2004 clause 4.10)*

4.8 Testing *(Read with SANS 1921 – 1: 2004 clause 4.11)*

4.8.1 Process control

The Contractor shall arrange for his own process control tests. The Contractor will be expected of to employ the services of the existing established laboratory on site. T 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.

4.8.2 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 shall have his own acceptance control tests carried out by the laboratory. The cost of acceptance testing shall be to the account of the client.

4.9 Site Establishment *(Read with SANS 1921 - 1: 2004 clause 4.14)*

4.9.1 Contractor's camp site and depot

The Contractor is responsible to provide a suitable site for his camp and to provide accommodation for his personnel, labourers, clerk of works and contracts manager. If the Employer can make any specific site available to the Contractor, such site will be pointed out to the Contractor.

The Contractor shall provide security watchmen for the contract as he deems fit at no extra cost for 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

The chosen site shall be subject to the approval of the Engineer and Employer. Possible locations for a campsite shall be pointed out at the Site Inspection. The Contractor shall conform to all local authority, environmental and industrial regulations.

4.9.2 Power Supply

The Contractor shall make his own arrangements concerning the supply of electrical power at the contractor’s campsite. No direct payment shall be made for the provision of electrical services. Electrical power cannot be guaranteed by the service provider. During power failures and shortages, the Contractor must make his own arrangements for the provision of electricity.

The rates tendered for the relevant items in the Preliminary and General Section of the schedule shall include all costs for the establishment and maintenance of a power supply to the works.

4.9.3 Water Supply and Sewer

The Contractor shall erect and maintain on the site proper ablution facilities. The Contractor shall service and maintain the facilities in a clean and hygienic state for the duration of the contract period and on completion of the works from the site.

The Contractor shall make his own arrangements concerning the supply of water and sewer disposal at the contractor's campsite. No direct payment shall be made for the provision of water or sewer disposal.

The Contractor must supply all necessary materials for the water connection at a position pointed out by the Engineer. The availability of water cannot be guaranteed by the Municipality and in the event of water no longer being freely available, the Contractor must make his own arrangements to acquire it.

The rates tendered for the relevant items in the Preliminary and General Section of the schedule shall include all costs for the establishment and maintenance of water supply to the works and the Contractor shall make his own arrangements for the possible conveyance and storage of water if necessary. The Contractor will be held responsible for any wastage of water due to negligence.

4.9.4 Accommodation of Employees

No housing is available for the Contractor's employees, and the Contractor shall make his own arrangements for housing his employees or transporting them to and from the site. The Contractor is in all respects responsible for the housing and transporting of his employees, and for the arrangement thereof, and no extension of time due to any delays resulting from this, will be granted.

4.9.5 Water for construction

Water for construction purposes will be for the account of the contractor at the ruling tariff and will be supplied at a suitable point, from where the contractor will be responsible to convey the water to the point of usage.

4.9.6 Facilities for the Engineer

No housing is required for the Engineer. Other facilities such as an office, telephone, name board, survey equipment, etc. required for the Engineer, are described under the relevant sections.

4.9.7 Telephone Facilities

Telephone and facsimile facilities are needed on the site. The Contractor must make his own arrangement for communication and a telephone service.

4.9.8 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 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.

4.10 Existing Services *(Read with SANS 1921 - 1: 2004 clause 4.17)*

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

The Contractor will 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.

Services belonging to the following service owners will be encountered:

SERVICE OWNER	TYPE OF SERVICE
Eskom	Electrical/Power lines
Telkom	Telephone lines
Polokwane Municipality	Sewer, water and electrical infrastructure

4.11 Health and Safety *(Read with SANS 1921 - 1: 2004 clause 4.18)*

4.11.1 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 (OHSA) No 85 and Amendment Act No 181 of 1993, and the OHSA 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 in the form as included in section C1.4.

4.11.2 Health and Safety Specifications and Plans

(a) Employer's Health and Safety Specification

A Health and Safety Specification is included in Section C3.3, Part PE of the tender documents as part of the Particular Specifications.

(b) Tenderer's Health and Safety Plan

The Tenderer shall submit with the tender his own documented Health and Safety Plan proposed to be implemented for the execution of the work under the contract. The 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

4.11.3 Cost of compliance with the OHSA 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.

4.12 Management of the environment *(Read with SANS 1921 - 1 : 2004 clause 4.19)*

Respect for the environment is an important aspect of this contract and the Contractor shall pay special attention to the following:

4.12.1 Natural Vegetation

The Contractor shall confine his operation to the limits of the pipeline reserve (4m wide) for the purpose of constructing the works and where applicable detours, shall be sited in consultation with the Engineer and the local communities.

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

4.12.2 Fires

The Contractor shall comply with the statutory and local fire regulations. He shall also take all necessary precautions to prevent any fires. In the event of fire, the Contractor shall take active steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires which may have been caused by him or his employees.

4.12.3 Environmental Management Plan

In addition to the above all requirements according to the Environmental Management Plan will be adhered to.

4.13 Contract Name board

One official contract name board, as per C4.2 *Site Information: Construction Notice Board*, is required for this contract.

4.14 Railway Facilities

The nearest railway siding is Polokwane Railway Station.

PS 5 SECURITY CLEARANCE OF PERSONNEL

Tenderers should note that the Polokwane Municipality may require that Security Clearance investigations be conducted on any number of the Tenderer's personnel.

If so required, by the Polokwane Municipality, the Tenderer must remove personnel as indicated immediately and ensure that they have no access to the works or documentation or any other information pertaining the site.

The Employer shall not be liable for any cost concerning the removal of personnel or the effect thereof on the execution of the work.

PS 6 SUPPLY OF MATERIALS

All material to be used in the Works is to be supplied by the Contractor.

The Contractor shall ensure that the work is not delayed due to the lack of materials on Site, by placing orders for material required under this Contract as soon as possible. No extension of time will be allowed for any delay due to the supply of materials.

Although the quantities have been carefully calculated, it must be considered as approximate only and the Contractor, before ordering any materials, should check the quantities required. The bill of quantities is provisional.

PS 7 EXECUTION OF THE WORKS

7.1 Inspection by the Engineer

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

7.2 Certificate of Completion

When all the work under the Contract have been completed to the entire satisfaction of the Engineer, he will issue a certificate of completion to the Contractor informing the Contractor of the date the date at which the works are deemed to be completed and accepted by the Employer.

The sureties provided by the Contractor for the fulfilment and completion of the Contract in terms of the Form of Agreement will be released upon the issue of the Certificate of Completion.

PS 8 EXPANDED PUBLIC WORKS PROGRAMME (EPWP) LABOUR INTENSIVE SPECIFICATION (*Read with SANS 1914 -5 2002 and Guidelines for the implementation*

of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP) third edition 2015)

8.1 Labour intensive competencies of supervisory and management staff

Contractors having a CIDB Contractor grading designation of **6 CE or Higher** only shall engage supervisory and management staff in labour intensive works who have either completed, or for the period 1 April 2004 to 30 June 2006, are registered for training towards, the skills programme outlined in Table 1.

Table 1: Skills programme for supervisory and management staff

Personnel	NQF level	Unit standard titles	Skills programme description
Foreman/ supervisor	4	Implement labour Intensive Construction Systems and Techniques or the equivalent QCTO qualification	This unit standard must be completed, **and**
		Use Labour Intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage or the equivalent QCTO qualification	any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Construct and Maintain Water and Sanitation Services or the equivalent QCTO qualification	
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures or the equivalent QCTO qualification	
Site Agent / Manager (i.e. the Contractor's most senior representative that is resident on the site)	5	Manage Labour Intensive Construction Processes or the equivalent QCTO qualification	Skills Programme against this single unit standard or part qualification

8.2 Employment of unskilled and semi-skilled workers in labour-intensive works

8.2.1 Requirements for the sourcing and engagement of labour.

8.2.1.1 Unskilled and semi-skilled labour required for the execution of all labour intensive works shall be engaged strictly in accordance with prevailing legislation and SANS 1914-5, Participation of Targeted Labour.

8.2.1.2 The rate of pay set for the EPWP is R 191.60 per task or per day.

8.2.1.3 Tasks established by the Contractor must be such that:

a) the average worker completes 5 tasks per week in 40 hours or less; and
b) the weakest worker completes 5 tasks per week in 55 hours or less.

8.2.1.4 The Contractor must revise the time taken to complete a task whenever it is established that the time taken to complete a weekly task is not within the requirements of 5.2.1.3.

8.2.1.5 The Contractor shall, through all available community structures, inform the local community of the labour intensive works and the employment opportunities presented thereby. Preference must be given to people with previous practical experience in construction and / or who come from households:

a) where the head of the household has less than a primary school education;
b) that have less than one full time person earning an income;
where subsistence agriculture is the source of income;
d) those who are not in receipt of any social security pension income

8.2.1.6 The Contractor shall endeavor to ensure that the expenditure on the employment of temporary workers is in the following proportions:

a) 55% women;
b) 55% youth who are between the ages of 18 and 25; and
c) 2% on persons with disabilities.

8.2.2 Specific provisions pertaining to SANS 1914-5

8.2.2.1 Definitions

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

8.2.2.2 Contract participation goals

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

8.2.2.3 Terms and conditions for the engagement of targeted labour

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

8.2.2.4 Variations to SANS 1914-5

The definition for net amount shall be amended as follows:
Financial value of the contract upon completion, exclusive of any value added tax or sales tax which the law requires the employer to pay the Contractor.

The schedule referred to in 5.2.2.3 shall in addition reflect the status of targeted labour as women, youth and persons with disabilities and the number of days of formal training provided to targeted labour.

8.2.2.5 Training of targeted labour

a) The Contractor shall provide all the necessary on-the-job training to targeted labour to enable such labour to master the basic work techniques required to undertake the work in accordance with the requirements of the contract in a manner that does not compromise worker health and safety.

b) The cost of the formal training of targeted labour, will be funded by the provincial office of the Department of Labour. This training should take place as close to the project site as practically possible. The Contractor, must access this training by informing the relevant provincial office of the Department of Labour in writing, within 14 days of being awarded the contract, of the likely number of persons that will undergo training and when such training is required. The employer must be furnished with a copy of this request.

c) A copy of this training request made by the Contractor to the DOL provincial office must also be faxed to the EPWP Training Director in the Department of Public Works– Cinderella Makunike, Fax Number 012 328 6820 or email cinderella.makunike@dpw.gov.za Tel: 083 677 4026.

d) The Contractor shall be responsible for scheduling the training of workers and shall take all reasonable steps to ensure that each beneficiary is provided with a minimum of six (6) days of formal training if he/she is employed for 3 months or less and a minimum of ten (10) days if he she is employed for 4 months or more.

e) The Contractor shall do nothing to dissuade targeted labour from participating in training programmes.

f) An allowance equal to 100% of the task rate or daily rate shall be paid by the Contractor to workers who attend formal training, in terms of d above.

g) Proof of compliance with the requirements of b to f must be proven.

8.3 Typical construction work to be executed applying labour intensive principles

8.3.1 Labour intensive activities planned on this project will include the following:

- Excavation if possible, bedding, selected backfill and backfill
- Pipe laying, valves and fittings
- Concrete work and bricklaying for buildings and pipeline chambers

PART B: AMENDMENTS TO THE STANDARD SPECIFICATIONS

SABS 1200 A : CIVIL ENGINEERING CONSTRUCTION : GENERAL

PSA **<u>GENERAL (SABS 1200 A)</u>**

PS A 3 MATERIALS

PS A 3.1 QUALITY

Substitute the second sentence of the first paragraph of A 3.1 with the following:

Materials shall bear the official mark of the appropriate standard.

Substitute the second paragraph with the following:

The Contractor is responsible for the cost of all testing to ascertain that the materials do comply with the relevant minimum requirements and all such costs shall be deemed to be included in the tendered rates. The cost of control tests done by the Engineer and of which the results do not comply with the minimum requirements shall be for the Contractor's account.

The Contractor shall inform the Engineer of any control testing to be done <u>at least 48 hours before</u> such tests are required and must allow in his program for the time necessary for the tests and the processing of the results thereof.

The handling, storage, transport, and erection of equipment, machinery, and materials shall be strictly in accordance with the requirements of the supplier and/or manufacturer.

All materials shall be new and of the best quality available unless otherwise specified. They must function satisfactorily under prevailing climate and weather conditions at the place of installations.

PS A 4 PLANT

PS A 4.2 Contractor's Offices, Stores and Resources

Add the following to A 4.2:

No housing is available for the contractor's employees and the contractor must make his own arrangements for accommodation and transport of his employees.

PS A 4.3 Hand Tools

The contractor shall provide and maintain all hand tools required for the execution of the Works.

PS A 5 CONSTRUCTION

PS A 5.1 SURVEY

PS A 5.1.1 Setting out of the Works

Substitute the first sentence in A 5.1.1 with the following:

Setting out of the works is the sole responsibility of the Contractor and shall be done from the layouts given to him. The proposed network pipes must be placed 2,0m away from the erf boundaries in the road reserve. Any discrepancy shall immediately be reported in writing to the Engineer. Any costs or subsequent costs arising from discrepancies, which had not been reported to the Engineer, shall be the sole responsibility of the Contractor. *The exact position of the network pipes shall be determined on site in conjunction with the Engineer and must be approved before construction of the specific section starts*.

The Engineer may alter any part of the works to suit local conditions. The Contractor must therefore contact the Engineer immediately after the preliminary setting out of any part of the works before starting with detail setting out, or construction. Only after the Engineer has approved a specific site or part of the works, may the detail setting out and construction commence.

PS A 5.2 WATCHING, BARRICADING, LIGHTING AND TRAFFIC CROSSINGS

Add the following to A 5.2:

The crossing of existing tar and dirt roads must be done in half widths, while the total traffic is accommodated on the other lane.

Road traffic signs shall comply with the requirements of the "South African Road Traffic Signs Manual" and shall be approved by the Engineer before construction commences.

PSA 7 TESTING

PS A 7.4 STATISTICAL ANALYSIS OF CONTROL TESTS

Substitute A 7.4 with the following:

Test results shall not be evaluated by statistical methods. All results shall comply with the specified minimum requirements of the materials concerned.

PS A 8 MEASUREMENT AND PAYMENT

PS A 8.2 PAYMENT

PS A 8.3 Fixed-Charge and Value-Related Items

PSA 8.3.1 Contractual Requirements..... Unit: Sum

The sum shall cover the Contractor's initial costs of providing sureties, insurance of the works and plant, third party or public liability insurance and unemployment insurance to cover his compliance with the requirements of the Workmen's Compensation Act, 1941 (Act NO. 30 of 1941) and any other initial financing obligations of a preliminary and general nature, such as contributions to the CEITB.

The tendered amounts for fixed-charge and value-related items will not be increased, if extension of time for the completion of the works is awarded.

PS A 8.3.2 Establishment of Facilities on the Site

PS A 8.3.2.1 Facilities for Engineer

a) Furnished office (No) ……..... Unit: Sum

b) Telephone (1 No.) ……... Unit: Sum

c) Name-board (1 No.) ……..... Unit: Sum

PS A 8.3.2.2 Facilities for Contractor

(a) Offices, workshop and storage sheds …… Unit: Sum

b) Workshops ……..…. Unit: Sum

c) Laboratories ……. Unit: Sum

d) Living accommodation ……. Unit: Sum

e) Ablution and latrine facilities …… Unit: Sum

f) Tools and equipment …… Unit: Sum

g) Water supplies, electric power and communications …… Unit: Sum

h) Dealing with water …… ….. Unit: Sum

i) Access ……... Unit: Sum

j) Plant …… Unit: Sum

PS A 8.3.3 Other Fixed-Charge Obligations..... Unit: Sum

This item as listed under Schedule A of the bill of quantities is as specified in the standardised specification SANS 1200 A.

PS A 8.3.4 Removal of Site Establishment..... Unit: Sum

The sum shall cover the cost of the demolition on and the removal from the surface of the site of all items established in terms of 8.3.2 and 8.3.3, and shall provide for the making good and the restoring of the Site to the satisfaction of the Engineer

PS A B.8.3.5 OCCUPATIONAL HEALTH AND SAFETY

PS A B.8.3.5.1 Contractor's initial obligations in respect of the Occupation Health and Safety Act and Contractual Regulation..... Unit: P/Sum

The full amount will be paid on the scheduled rate on condition that:

(a) The contractor has notified the Provincial Director of the Department of Labour in writing of the project.
(b) The contractor has made the required initial appointment of Employees and sub- contractors
(c) The client has approved the contractor's Health and safety plan
(d) The contractor has set up his Health and safety File and Safety Plan.
(e) The Contractor has appointed a Health and Safety officer.

The provincial sum shall represent full compensation for that part of the contractor's general obligations in terms of Occupational Health and Safety Act and the Construction Regulation which are mainly a function of time. The sum for the supply of all safety equipment, safety clothing, first aid kit, etc. in order to adhere to the Occupational, Health and Safety Act specifications. The Contractor must familiarise himself with the conditions as per Occupational, Health and Safety Act and adhere thereto. The rate shall cover the Contractor's overheads, changes, and profit on payments for the Service Provider. Contractor to note that this item covers the costs for the preparation and submission of Health and Safety plan and file.

Payment shall be as specified for item 1.3 in the standard specifications

PS A B.8.3.5.2 Occupational, Health and Safety Act.....Unit: Sum

Handling cost in respect of sub-item 8.3.5. A percentage of the payment made to the Occupational health and safety act will be paid to the Contractor under this section. The rate shall cover the Contractor's overheads, changes, and profit on payments for the Occupational health and safety act.

(a) Provision for safety officer

The Contractor should appoint the safety officer who will be full time responsible for all safety issuers on site, and he or she should be full time on site.

The tendered rates include the full compensation for that part of the provision of safety officer in terms of the Occupational Health and Safety Act and the construction regulation which are mainly a function of time. Payment shall be made monthly.

Handling cost in respect of sub-item 8.3.5.2 (a). A percentage of the payment made to the Safety Officer will be paid to the Contractor. The rate shall cover the Contractor's overheads, changes, and profit on payments for the Safety Officer.

PS A B.8.3.5.3 Contractor's time related obligation in respect of the OH&S Act and Construction regulation

The tendered lump sum shall represent full compensation for that part of the contractor's general obligations in terms of Occupational Health and Safety Act and the Construction Regulations which are mainly a function of time. The lump sum will be paid monthly only after payment for item 1.3.3 and item 1.1.5 has been made Payment of the lump sum shall be made monthly (calculated by the division of the lump sum by the number of months remaining)

PS A 8.2.2 Time-Related Items

The tendered amount for a time-related item will be increased; if an extension of time for the completion of the works is awarded on the condition that the activity related to the item tendered for must be sustained during the extended period.

The ratio between the increased amount for a time-related item and the tendered amount must be the same as the ratio between the extension of the time period for the completion of the works and the original time period allowed for completion of the works.

If the works is completed before the end of the original time period allowed for completion of the works, the tendered amount of a time related item that is influenced by the earlier completion would be reduced similarly.

PS A 8.4 SCHEDULED TIME RELATED ITEMS

PS A 8.4.2.1 Facilities for Engineer

a) Furnished offices ……..... Unit: Month

b) Telephone for engineer's representative.....…Unit: P/Sum

c) Name-board…….....…Unit: P/Sum

PSA 8.4.2.2 Facilities for Contractor ..... Unit: Sum

The sum shall cover the Contractor's time related costs of providing sureties, insurance of the works and plant, third party or public liability insurance and unemployment insurance to cover his compliance with the requirements of the Workmen's Compensation Act, 1941 (Act NO. 30 of 1941) and any other initial financing obligations of a preliminary and general nature, such as contributions to the CEITB. Establishment of Facilities on the Site Facilities for Engineer

PS A 8.4.2.2 Facilities for Contractor

(a) Offices, workshop and storage sheds……... Unit: Month

d) Workshops …..……...…. Unit: Month

c) Laboratories …..…….…. Unit: Month

d) Living accommodation ……..…….…. Unit: Month

e) Ablution and latrine facilities ……. ….…Unit: Month

f) Tools and equipment ……..……Unit: Month

g) Water supplies, electric power and communications …..…….. Unit: Month

h) Dealing with water …….…….. Unit: Month

i) Access ……..……. . Unit: Month

e) Plant ……. Unit: Month

PSA 8.4.3 Supervision for Duration of Construction..... Unit: Sum

The sum shall cover the costs of on-site supervision and such local administration as the Contractor considers necessary for the proper completion of the Works, and shall cover the cost of the salaries, wages and allowances paid to the site agent, general foreman, section foremen (where applicable), site surveyors, timekeepers, assistants and other site supervisory staff, and of transport incurred in connection with such staff. Plant (designated plant or plant for designated operations or plant for use during Supervision for Duration of Construction

PSA 8.4.4 Company and Head Office Overhead Cost's for the Duration of the Contract.....Unit: Sum

The sum shall cover the Contractor's company and head office overhead costs.

PS A 8.5 SUMS STATED PROVISIONALLY BY ENGINEER

PS A 8.5(a)1 Community Liaison Officer
Unit: P/Sum

The Contractor must pay a salary to a person appointed as the Community Liaison Officer for the project. The amount of payment and payment dates will be determined as soon as the Community Liaison Officer is appointed.

PSA 8.5 (a) 2 PSC Meetings Attendance **Unit: P/Sum**

The tendered rate shall cover the compensation of all members of Project Steering Committee for attending meetings. The amount of payment and payment dates will be determined on the commencement date of the project. The Engineer should authorise payment before it is made. Proof of payment has to be submitted to Engineer before claim can be certified.

PS A 8.5(a) 3 Overheads, charges and profit on (1) above **Unit: %**

Handling cost and profit in respect of sub-item 8.5(a)1& 1. A percentage of the payment made to the Community Liaison Officer and PSC Meeting attendance will be paid to the contractor. The rate shall cover the Contractor's overheads, charges, and profit on payments for the Community Liaison Officer and PSC members. No payment will be made under this item before payment to the Community Liaison Officer and PSC members.

cPS A 8.5(b)1 Training **Unit: P/Sum**

Provisional sum for training services supplied by the Training Company. The name and contact details of the Training Company, to be appointed by the Contractor, will be supplied to the Contractor by the Employer or Engineer.

PS A 8.5(b)2 Overheads, changes and profit on (1) above **Unit: %**

Handling cost and profit in respect of sub-item 8.5(b)1. A percentage of the payment made to the Training Company will be paid to the Contractor. The rate shall cover the Contractor's overheads, changes, and profit on payments for the Training Company. No payment will be made under this item before any payment is made to the Training Company.

PS C 8.5 EXISTING SERVICES

The services parallel to the pipeline routes must only be removed and re-erected at the positions as indicated and approved by the Engineer and repaired where it was damaged. When the pipeline routes cross fencing or gates temporary wire gates must be provided that must be kept closed. After completion of the work these fences or gates must be repaired to the same condition as before commencement of the work.

PS A 8.5(c)2 Overheads, changes and profit on (1) above **Unit: %**

Handling cost in respect of sub-item 8.5(c)1. A percentage of the payment made to the Service Provider will be paid to the Contractor. The rate shall cover the contractor's overheads, changes, and profit on payments for the Service Provider.

PS A 8.7 DAYWORK

Replace A 8.7 with the following:

Daywork will be paid according to the percentage allowance method. For calculating the total remuneration, the General Conditions of Contract for Construction Works, Second Edition, 2015 shall apply, with the amendments as in the appropriate special conditions of contract, which is bound into this document. A day work schedule will be provided for filling in the necessary information.

A 8.8 TEMPORARY WORKS

PS A 8.8.2 Accommodation of Traffic Unit: Sum

Add the following to A 8.8.2:

The rate shall cover all costs pertaining to the provision, erection, moving, re-erection and maintenance of all temporary barricades, road signs, lights, flagmen, etc. as required, for the guarding and protection of the works, for the construction, gravelling and maintenance of access roads and detours to the site of the works, borrow pits or spoil sites, as well as for the later removal or the cleaning and tidying up thereof.

BASELINE RISK MATRIX	HAZARD EFFECT / CONSEQUENCE				
Loss Type	1 **Insignificant**	2 **Minor**	3 **Moderate**	4 **Major**	5 **Catastrophic**
Timeline	No impact on overall project timeline	May result in overall project timeline overrun of less than 5%	May result in overall project timeline overrun of between 5% and less than 20%	May result in overall project timeline overrun of between 20% and less than 50%	May result in overall project timeline overrun of 50% or more
Budget	No impact on the budget of the project	May result in overall project budget overrun of less than 5%	May result in overall project budget overrun of between 5% and less than 20%	May result in overall project budget overrun of between 20% and less than 50%	May result in overall project budget overrun of 50% or more
Investment Return – NPV loss	Less than R5m	R5m to less than R50m	R50M to less than R500m	R500m to R5b	R5b or more
Quality	No impact on quality	Minimal quality issues that can be addressed in a short timeframe with minimal interactions	Some quality issues that requires immediate management action	Significant quality issues that requires senior project management interaction	Significant quality issues that requires sponsorship intervention with significant resource and cost implications for rework
Safety / Health	First aid case / Exposure to minor health risk	Medical treatment case / Exposure to major health risk	Lost time injury / Reversible impact on health	Single fatality or loss of quality of life / Irreversible impact on health	Multiple fatalities / Impact on health ultimately fatal
Environment	Minimal environmental harm – L1 incident	Material environmental harm – L2 incident remediable short Term	Serious environmental harm – L2 incident remediable within LOM	Major environmental harm – L2 incident remediable post LOM	Extreme environmental harm – L3 incident irreversible
Legal & Regulatory	No legal impact	Minor legal concerns with minor impact	Some legal concerns with manageable level of impact	Serious legal concerns and significant impact on operations	Legal non-compliance with risk of shutdown of operations with significant cost impacts
Reputation / Social / Community	Slight impact - public awareness may exist but no public concern	Limited impact - local public concern	Considerable impact - regional public concern	National impact - national public concern	International impact - international public attention
LIKELIHOOD		**RISK RATING**			
5 Almost Certain	The unwanted event has occurred frequently; has a 90% and higher probability of reoccurring	**11 Medium**	**16 Significant**	**20 Significant**	**23 High**	**25 High**
4 Likely	The unwanted event has a probability of between 60% and less than 90% of occurring	**7 Medium**	**12 Medium**	**17 Significant**	**21 High**	**24 High**
3 Possible	The unwanted event has a probability of between 30% and less than 60% of occurring	**4 Low**	**8 Medium**	**13 Significant**	**18 Significant**	**22 High**
2 Unlikely	The unwanted event has a probability of between 1% and less than 30% of occurring	**2 Low**	**5 Low**	**9 Medium**	**14 Significant**	**19 Significant**
1 Rare	The unwanted event has never occurred, has a probability of less than 1% of occurring	**1 Low**	**3 Low**	**6 Medium**	**10 Medium**	**15 Significant**

BASELINE RISK ASSESSMENT

NO	HAZARD/ITEM	RISK ASSOCIATED WITH HAZARD	CONSEQUENCES	RR	HOW IS HAZARD TO BE DEALT	BY WHOM	BY WHEN
1.	SITE ESTABLISHMENT						
	Incompetent persons Uncontrolled site establishment activities Incorrect stacking procedures	• Injuries during off loading • Cuts and burns • Rushed activities • Incorrect supervision • Management team not identifying existing services • Trip and fall • Cuts • Collapsing of stacks • Incorrect manual handling – back injuries	• Hand and back injuries • Dropping of equipment • Physical injuries • Incorrect manual handling • Potentially fatal accidents • Loss of limbs • Lost time injuries • Medical treatment cases	12	• The contractor must ensure that site is established at the correct location as identified by the Client. • Contractor OHS file must be approved prior to site establishment begins – aligned to New Construction Regulation 2014 • All workers on site must be declared medically fit by an Occupational Health Practitioner. (Annexure 3) • Site –induction must be given to all employees to make them aware of the specific hazards • The contractor must declare all employees competent in writing. • Before the commencement of this phase a site-specific risk assessment must be conducted by a	– Construction Supervisor – Contractor Safety Officer – Construction Supervisor	Before construction commences

					competent risk assessor. • **All the employees involved must be inducted on the risks; proof of this would be signing off on these risks.** • **Site specific safe work procedures must be followed during these activities.** • **Relevant toolbox talks must also be held with employees.** • **The contractor must ensure that the correct serviceable tools are available during this phase.** • **Employees must be issued with correct PPE before works begin**		

	Offloading heavy equipment and containers with mobile cranes.	• **Defective mobile crane can cause accidents** • **Damage lifting tackle** • **Unsecure offloading area could cause accidents**	• **Serious injury and fatalities** • **Standing time** • **Lost time injuries** • **1st Aid medical treatment cases**	**13**	• **All lifting equipment including the mobile crane must be checked before allowed on site.** • **Ensure that the correct mobile crane to be used for the offloading process.** • **Safe Working Load must be clearly displayed on the crane.** • **Load test certificate will be submitted to the client.**	– **Construction Supervisor** – **Lifting tackle Inspector** – **Construction OHS officer**	**During site establishment**

					• Rope and or sling certificates must be submitted to the client. • Only competent operators will be allowed to operate the mobile crane. • Daily checks as per checklist by operator. • Lifting tackle to be inspected daily. • Material to be stacked on firm and level ground. • Stacking to be supervised by a competent supervisor. • Adequate storage area to be provided • All unstable stacks to be dismantled and stacked over, in pre-determined area		
	Site security and fencing: – Fence with lockable gates – 24 security deployed – Fire prevention – All required OHS signage – Accommodation of offices	• Theft of property • Fires • Unsafe conduct by visitors	• Financial losses • Loss of equipment / documentation • Lost time due to theft • Production time lost • Injuries to visitors.	5	• All visitors must report to site office. • All visitors must also be inducted. • Checklist signed by supervisor and filed by safety officer	– Construction Supervisor. – Security	During Site Establishment
	Housekeeping:	• Inadequate storing facilities. • Damage to material and equipment.	• Serious injuries • Electrocution • Environmental impact • Personal injuries	9	• Use site establishment checklist to ensure compliance with all items	– Construction Supervisor – Staff Welfare Inspector – Safety Officer – Qualified Electrician.	During Site Establishment

		• Accumulation of waste. • Environment pollution. • Facilities for employees. • Electrical installations	• Lost time in production • Damage to equipment and material.		• Toilet facilities & staff welfare as per Construction Reg 2014 • Toilets 1:30(regular service) • Correct storing facilities for hazardous chemicals. • Correct signage for all storage of hazardous materials • Proper storing facilities for tool and equipment. • Adequate waste bins available. • Regular cleaning of these bins • Waste recycling is encouraged. • A COC certificate for temporary electrical installations by a register competent electrician.		
CIVIL WORKS:							
1.	Establish temporary parking area	• Offloading machinery could lead to damage to property and equipment • Falling machinery from low bed • Workers hit by machinery	• Serious injury • Fatality • Lost time injury • First aid treatment cases	21	• Method statement • Issue base risk assessments • Offloading procedures • Qualified operators • Check operator's medicals • Pre- start checklist • Supervision • Correct PPE	– Construction Supervisor – Construction OHS Officer	Before and during task
2.	Using motor grader; tlb; excavator; water truck;	• Employees hit with machinery	• Fatalities • Lost time injuries	21	• Method Statements	– Construction Supervisor	Before and during task

	roller compactor; tipper trucks	• Breakdowns • Oil spillage • Poor workmanship • Poor visibility due to dust	• Serious injuries • First aid treatment cases • Production time lost		• Issue base risk assessments • Induction all employees • Medicals of operators • Qualified operators • Pre- start checklist of machinery • Identify lay-down area • Supervision	– Construction OHS Officer – Qualified operators.	
3.	Soil Poisoning	• Using unregistered service providers • Using of unlicensed poisons • Using the wrong PPE	• Environmental damage • Soil pollution • Inhalation of harmful vapours • Injuries associated with poisons include eye/skin and inhalation	19	• This service provider must be inducted by the principal contractor. • Only competent and trained employees must be used. • MSDS must be available of the herbicides and pectised at the first aid box • The correct PPE must used • Risk assessment and method statements must be made available to the Construction Manager • Propper disposal of empty containers must apply. • All these employees do need valid medical certificates on annexure 3 format • Contractor must submit a basic OHS file for approval	– Construction Manager – OHS Officer – Supervisors and Health and Safety Reps	Before and during task

					before work can commence. • The principal contractors and other contractors on site must be inducted on the risk associated with poison.		
4.	Installation of drainage systems	• Trip and fall into excavations • Falling concrete pipes while offloading • Poor quality workmanship • Employees buried in trenches	• Fatalities • Serious injuries • Lost times injuries • Standing time due to poor workmanship and work to repeat.	19	• Method statements • Issue base risk assessments • Employees must be visible always • Direct supervision.	– Construction Supervisor – Construction OHS Officer – Qualified operators.	Before and during task

5.	**Excavations and trenches**	• **Excavate with excavator to the specific level** • **Trip and fall** • **Collapsing soil** • **Machine struck employees** • **Hand injuries by excavation by hand** • **Incorrect manual handling**	• **Fatalities** • **Serious injuries** • **Lost times injuries** • **Accidents due to defective machines** • **Damaging services** • **Over excavation** • **Dust** • **Electrocution when damaging electrical services** • **Damage to services** • **Employees not visible to machine operator** • **Material falling in excavations while employees are working in excavations** • **Inadequate access and exit points** • **Employees may strain muscles to get into or out of excavations**	**13**	• **Method statements** • **Issue base risk assessments** • **Employees must be visible always** • **Direct supervision.** • **Well trained operators** • **Level on survey profiles clearly indicated** • **Proper communication between supervisor and operators** • **Induct employees on safe working procedures** • **All excavations must be inspected daily** • **Provide ladders ever 6 m for access in and out of excavations deeper than 1.5 m**	– **Construction Supervisor** – **Excavation Supervisor** – **Construction OHS Officer**	**Before and during task**

					• Excavated material to be placed away from side of excavation • During excavation with machine no employees are allowed in the trench. • Sides of excavation to be shored (if necessary) and barricaded immediately • Excavations should be backfilled as soon as possible after excavation • Keep area barricaded with hard barricading until backfill is done.		
BUILDING WORKS							
1.	Excavation/ filling Trenches /Brick Work in foundations	• Hard rock material • Risk of collapsing excavations • Seepage of subterranean water • Employees inhaling dangerous fumes • Skin contact with hazardous substances(cement) • Man/machine interface • Slip/trip & fall risks • Brick falling into foundation due to poor stacking • Poor stacking practises	• Manual handling injuries • Lost time injuries • First aid treatments • Bruises to legs and feet	18	• Method statements • Issue base risk assessments • Inspections by excavation supervisor • Proper train operators • Location of services • Construction supervisor	- Construction supervisor - Construction OHS Officer - Excavation Supervisor - Civil Engineer - Hazardous Chemical Supervisor	Before and during task

2.	Reinforcing Concrete	• Filling material • Concrete dust inhalation	• Cuts; bruises; hand injuries due to steel work activities	13	• Quailed steel fixers	- Construction supervisor - Construction OHS Officer	Before and during task
		• Skin irritation (dermatitis) • Unsecure retaining wall • Sharp edges	• Medical treatment cases • Serious injuries to back due to inadequate manual handling procedures • Lost time injuries • First aid treatment cases.		• Induct workers on MSDS for concrete dust • Correct PPE for task • Correct gloves for steel fixing • Toolbox talks • Direct supervision • Correct tools for the task.	- Excavation Supervisor - Hazardous Chemical Supervisor	
3.	Formwork and Shuttering	• Concrete in contact with skin • Sharp edges could cut body parts • Heavy rebar could have potential back injuries	• Dermatitis • Lost time injuries	9	• Method statements • Issue base risk assessments • Toll box talks • Proper induction in task • Supervision	- Health and Safety representative - Construction Supervisor - Construction OHS officer	Before and during task

4.	**Roof work**	• **Inadequate preparedness for type of equipment could lead to serious injuries and fatalities** • **Use of incorrect equipment could cause falls, falling objects** • **Defective equipment's could lead to collapsing of Struthers** • **Fragile objects** • **Overloading can lead to ropes 'slings snapping and cause damage and injuries to employees.**	• **Fatalities and major disabling** • **Standing /lost time injuries** • **Failure to establish safe work could lead to fatalities and serious injuries** • **First aid treatment injuries**	**18**	• **Method statements** • **Issue base risk assessments** • **Propper approved work platforms to work from.** • **Toll box talks** • **Inspect slings, chains, pulley's and hooks** • **Barricade working area (drop zone)** • **No employees under suspended load.** • **All employees working at heights must have medical for working at heights.** • **All employees working at heights need to have working at heights training** • **Fall protection plan written by a**	- **Health and Safety Representatives** - **Construction Supervisor** - **Construction OHS Officer** - **Fall protection plan Implementer**	**Before and during task**
					competent fall protection plan developer must be in place and inducted to all employees working at heights.		

5.	Scaffolding Work	- Work At heights risks - Potential fall incidents - Falling equipment\Erection of scaffolds leading to potential fall injuries and potential fatalities - Scaffold collapse - Uneven surface - Insufficient / non - compliant scaffold - Insufficient scaffold components -	- Slip and fall while erecting scaffolding - Incompetent scaffolding Erector could cause the collapse of scaffolds while erecting the scaffolds. - Unsafe structures leading to falling from heights - Lost Time Injuries - Fatal injuries - Non- adherence to FPP could lead to major and serious injuries - Tools or material dropped unto persons working below - Damages to plant and equipment	17	• Operators are well trained and certified (Scaffold Erectors) • Using safety harnesses. • Work is adequately supervised (Scaffold Inspector) • Erectors are well trained and certified • No erecting scaffolds in wet weather or on wet ground • Compile Fall Protection Plan • FPP to be approved by client • Area is barricaded while dismantling or work above • Safety rails are present • Persons use lifeline (harnesses/fall rescue equipment) • Medicals for all people working at heights • Competent supervision of work • Employees are well trained to implement FPP • Tools/Material is kept in buckets	- Site Supervisor - Team members - Safety Rep - Scaffold erector - Scaffold inspector - Scaffold Supervisor - Fall Protection Plan Developer	Before and During task Working at Heights

					• Good communication practices are always encouraged and enforced • Head protection is compulsory (Correct PPE) • Scaffolding checked daily to a checklist. • Scaffolds completely checked after heavy rains or storm winds • Working on scaffold in bad weather is not allowed • Propper signage indicating safe or unsafe to used		
6.	External walling - Brick wall construction - Plastering + Painting of houses - Masonry work - Hollow walls - Face bricks	- Potential trip & fall incidents - Brick falling into due to poor stacking - Bruises to legs & feet - Poor stacking could lead to work to be re-done - Insufficient PPE - Paint particles in eyes - Skin irritation from paint - Paint spillage on property - Falling from heights	- Loss of production due to incident investigation - Lost time injury - Medical treatment cases - Back / body injuries - LTI - Medical treatment - Environmental damage from spillage - Project time and budget overrun	21	• Correct tools for job • Stack bricks not higher than pallets high • Correct PPE for handling bricks – sharp edges • Toolbox Talk • SWP • Qualified brick layers • Correct handling of bricks / concrete cement into foundation • Emergency escape drill (workers in trench) • All workers must wear PPE such as gloves, goggles, sus masks / respirator • Ensure to place a plastic cover on ground to prevent	- Site supervisor - Team members - Safety Rep	Before and During task

					spillage Proper supervision from supervisor • MSDS must always be available • Toolbox talks • Ensure workers are medically fit and trained to work at heights		
7.	Installation of Windows /doors Carpentry & Joining	• Use and hand tools that is damaged • Unskilled worker could damage glass	- Hand cuts could lead to first aid cases - Cost budget overrun - Lost time injuries	13	• Ensure tools and equipment is inspected before use • Correct PPE to be issued and used	- Site Supervisor - Team members - Safety Rep	Before and During task
8.	Internal work - Installation OF Doors - Installation of skirting	- Use of hand tools that is damaged - Manual handling injuries	- Hand injuries that could lead to 1st aid cases - Incorrect manual handling leading to Injuries	10	• Use of correct PPE issued • Correct manual handling methods • Supervision	- Site Supervisor - Team members - Safety Rep	Before and During task
9.	Floor finishes - Installation Of tiles - Skirting - Plastering walls + paint	- Sharp edges of tiles could cut hands - Insufficient PPE - Paint particles in eyes - Skin irritation from paint - Paint spillage on property - Falling from heights	- Loss of production due to incident investigation - Lost time injury - Medical treatment cases - Back / body injuries - LTI - Medical treatment - Environmental damage from spillage - Project time and budget overrun	10	• Correct tools for job • Stack bricks not higher than pallets high • Correct PPE for handling bricks – sharp edges • Toolbox Talks • SWP • Qualified brick layers • Correct handling of bricks / concrete cement into foundation • Emergency escape drill (workers in trench) • All workers must wear PPE such as gloves, goggles, dust masks / respirator	• Site Supervisor • Safety Rep • Team • Working at Heights • Supervisor • Ladder Inspector	Before and During task

					• Ensure to place a plastic cover on ground to prevent spillage. Proper supervision from supervisor • MSDS must always be available • Toolbox talks • Ensure workers are medically fit and trained to work at heights		
10.	Ceilings - Install ceilings	- Cutting of steel branding – Hand Injuries - Electrocution from power drill - Falling from ladder - Damage to equipment / property - Cutting of plasterboard using hack saw – Hand injuries	- Lost time injuries - 1St Aid Cases / Medical treatment - Serious injuries from falling - Back injuries from falling - Possibility of budget overrun on project - May result in project time overrun	18	• Ensure all workers are medically fit to work at height • Ensure all workers received working at heights training • Toolbox talk on ladder safety • Ensure measurements are correct • Ensure tools and equipment is inspected prior to use • All required PPE must be worn	- Site Supervisor - Safety Rep - Team - Working at Heights Supervisor - Ladder Inspector	Before and During task
11.	Electrical installations - External main power supply - Power supply to houses: Lights + Plugs	- Falling from ladder, back injuries - Hand injuries - Dust particles falling from roof, - Eye damage - Damage to cable if not done properly - Electrocution - Falling of lights damage to property / assets	- Lost time injury - 1st Aid Cases / Medical treatment - Serious injuries from falling - Back injuries from falling - Possibility of budget overrun on project - May result in project time overrun	13	• Ensure power is off and isolate • All workers must wear PPE to prevent injuries • Trained and qualified electrician to complete task • Proper supervision from Supervisor • Toolbox Talks to be conducted on electrical tasks	- Site Supervisor - Safety Rep - Team - Competent Electrician	Before and during task

		- Fire from incompetent electrical when misconnecting cables etc.			• Always have a Fire extinguisher at job task • All tools and equipment must be inspected • Fire extinguishers must be available and serviced • Proper supervision must be applied from Supervisor • Correct tools and equipment must be used • All workers must wear correct and enough PPE as required • Toolbox talk on Power tools • Ensure Electricity is isolated and locked out / switched off • Propper communication with the rest of the construction teams.		
12.	Plumbing works - All plumbing fittings, taps, basins	• Poor housekeeping • Falling of objects • Hand Injuries • Back Injuries • Strains • Damage to property / Equipment	• Loss time injuries • Medical Cases / 1st Aid Cases • May result in overall project overrun • Trip slip and falls	9	• Ensure measurements are correct • Supervisor to supervise • Proof of all workers medically fit • Ensure all workers are trained on the specific task to prevent damage • Toolbox talks to be held on job specific	- Site Supervisor - Safety Rep - Team - Competent Plumber	Before and During task

13.	**Fire protection** **-Fire Extinguishers**	• **Inadequate and wrongly placed fire equipment can cause delay in dealing with fire should it occur** • **Poor housekeeping** • **Falling objects** • **Hand Injuries** • **Back Injuries** • **Strains** • **Non-availability of fire equipment's** • **Untrained personnel using wrong type of equipment to extinguish the fire delays in searching for fire extinguisher** • **Fire alarm not functional or inaudible** • **Access blocked a people trapped inside; firefighting team not able to obtain access** • **Shortage or non-operation of firefighting equipment** • **Overcrowding an exit point during fire**	• **Lost time injury** • **Medical Cases / 1st Aid Cases** • **May result in overall project overrun** • **Trip slip and falls** • **Serious injuries or possible fatalities when fire gets out of control** • **Damage to property** • **Medical treatment** • **Bruises, cuts, broken limb** • **1st aid case treatment** • **Loss of life**	**18**	• **Adequate fire equipment to be provided and placed at suitable location** • **Monthly checklist of all fire equipment's** • **Provide training and have fire drills periodically** • **Store material in demarcated areas** • **Cigarettes to be extinguished properly and thrown into rubbish bins** • **Ashtrays and waste bins to be emptied daily** • **Fire escape routes and assembly points to be determined and clearly marked** • **All workers must use appropriate PPE,** • **Close supervision** • **Discuss risk assessment with workers** • **Induction training** • **Toolbox talks training**	- **Construction Supervisor** - **Foreman** - **Fire Fighting Team** - **First Aider** - **Fire prevention supervisor**	**Before and During task**

14.	**Electrical installation works**	• **Potential trip & fall incidents** • **Paving Brick falling onto due to poor stacking** • **Bruises to legs & feet** • **Poor stacking could lead to work to be re-done** • **Insufficient PPE** • **Paint particles in eyes**	• **Loss of production due to incident investigation** • **Lost time injury** • **Medical treatment cases** • **Back / body injuries** • **LTI** • **Medical treatment**	**14**	• **All tools and equipment must be inspected** • **Correct tools and equipment must be used** • **Registers to be signed off by competent supervisor**	- **Construction Supervisor** - **Construction OHS Officer** - **Electrician**	
		• **Skin irritation from paint** • **Paint spillage on property** • **Falling from heights** • **Back injuries due to heavy gate. Back injuries due to kerbing lifted incorrect method**	• **Environmental damage from spillage** • **Project time and budget overrun**		• **Employees must make use of issued PPE** • **Only a competent electrician must be used** • **Proper lock out procedure must in place during this activity**		
WORKING AT HEIGTHTS							

	Anny work on site where a possibility exists to fall from one level to another level	• Falling from a height this include ladders • Equipment and or tools falling from a height • Falling into an excavation	• Fatalities when falling from a height • Lost time injuries • Medical treatments • Damage to equipment and or tools	18	• A fall protection plan must be developed for all fall risks on site • Fall protection plan must be develop by a competent fall protection plan developer. • All the fall risk positions must have a proper risk assessment that must be inducted with the employees. • All employees working at heights must have the working at heights training. • All employees must have the appropriate medical certificates in place. • Correct tools and equipment must be used. • The correct fall protection PPE must be provided to the identified competent employees.	• Fall protection plan implementer • Construction supervisor • First aider • Safety officer	

					• Employees need to be inducted of the risk associated with the activity • Proper barricading around the working at heights site must be in place. • Enough working at heights working signs must be in place around the area. • All equipment and tools must be checked and place on a register. • Issued PPE must be inspected and signed off by a competent inspector.		
ERGONOMICS							
1.	**All Construction work**	• Repetition movements resulting in MSD'S • Grip force with hands, wrist, arms resulting in muscle fatigue and inflammation of the muscles and tendons • Lift /lower force activities that could result in lower back injuries • Working in awkward positions • Extreme temperatures • Activities that result in hand arm vibration that	• Lost time injury • Medical treatment incidents • Body injuries • Heat exhaustion	**18**	• Employees trained to recognise MSD symptoms • Encourage early reporting of MSD symptoms • Re-evaluate work procedures • Ensure regular resting periods • Employees need proper training in lifting practises • Job task observations • Mechanical lifting where possible	- Construction Supervisor - Construction OHS Officer - All employees - First aider	Before and during task

		could result in MSD and white finger syndrome			• Redesigned tasks • Trained first aider • Enough freshwater hourly (600 ml) • Sunscreen should also be available • Equipment with lowest vibration be used • Proper maintenance schedules must be in place • Proper medical surveillance program in place • Vibrating reducing hand gloves must be used.		

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SANS 1200 C: SITE CLEARANCE

PS C 3 MATERIALS

PS C 3 MATERIALS

PS C 3.1 DISPOSAL OF MATERIAL

Substitute the first sentence of C 3.1 with the following:

Material obtained from clearing and grubbing shall be disposed of at the site indicated at the site inspection. If such a site is indicated at tender stage, the cost of transporting material and debris will be included under 8.2.1.

Loading and off-loading should be done by hand and the contractor must price accordingly under item 8.2.1.

PS C 5 CONSTRUCTIONS

PS C 5.1 AREAS TO BE CLEARED AND GRUBBED

Substitute the first sentence of C 5.1 with the following:

Unless otherwise indicated by the Engineer, clearing and grubbing are limited to a 2,5m wide strip along the pipe route. Measurement and payment for clearing and grubbing shall only occur for areas as required in writing by the Engineer.

The Contractor may proceed with clearing and grubbing after the handing over of the site.

PS C 5.2 CUTTING OF TREES

PS C 5.2.3 Preservation of Trees

PS C 5.2.3.2 Individual trees

Add the following to C 5.2.3.2:

Trees outside pipeline routes must be left standing and undamaged, except where otherwise ordered in writing by the Engineer.

A penalty of **R15 000,00** per tree for trees damaged and/or removed will be charged.

PSC 5.3 EXISTING FENCING

The fencing parallel to the pipeline routes must only be removed and re-erected at the positions as indicated and approved by the Engineer and repaired where it was damaged.

When the pipeline routes cross fencing or gates temporary wire gates must be provided that must be kept closed. After completion of the work these fences or gates must be repaired to the same condition as before commencement of the work.

PS C 8 MEASUREMENTS AND PAYMENT

PS C 8.2 SCHEDULED ITEMS

PS C 8.2.1 Clear and grub (0.8m wide) Unit: m

The removal of all rocks and boulders on site over 0,15 m^3 will be paid under sub clause D 8.3.2(b). The removal of hard rock other than boulders will be paid under sub clause PS DB 8.3.2(b).

PSC 8.2.2 Remove and grub large trees and tree stumps of girth

a) over 1 m and up to and including 2 m ..... Unit: No
b) over 2 m and up to and including 3 m ..... Unit: No

The girth of a tree or stump will be measured at the narrowest point of the tree or stump in the first metre of its height above ground level. Trees and stumps of girth exceeding 1 m will be measured individually and classified according to site in increments of 1 m as indicated above.

The rate shall cover the cost of clearing and grubbing trees and stumps of all sizes, cutting branches, backfilling holes, and removing, transporting, and disposing of all such trees, stumps, and branches and associated material.

PSC 8.2.3 Remove and grub all trees and tree stumps regardless of girth ……. Unit: No

In exceptional circumstances, where construction is carried out through plantations or where the quantity of trees or girth exceeding 1 m renders individual measurement impracticable the project specification may provide that the clearing and grubbing of trees be measured in hectares. If this method of measurement is used the areas to which it is applicable will be defined clearly on the drawings and the reason for adopting the method of measurement will be stated in the project specification.
The rate shall cover the cost of all operations specified in .8...2.2.

PSC 8.2.5 Take down existing fence……..……..… Unit: m

The rate shall cover the cost of taking down the fences, coiling wire, sorting and stacking all material at sites indicated by the Engineer and the cost of loading, transporting and offloading such material.

PROJECT SPECIFICATION

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SANS 1200 DB: EARTHWORKS (PIPE TRENCHES)

PSDB 1 SCOPE

This specification covers earthworks for trenches for all types and sizes of pipes. It covers excavation, the preparation of a trench bottom, backfilling and the reinstatement of surfaces.

PS DB 3 MATERIALS

PS DB 3.1 CLASSIFICATION FOR EXCAVATION PURPOSES

PS DB 3.1.1 Method of Classifying

Substitute DB 3.1.1 and DB 3.1.2(a), (b) and (c) with the following:

The Engineer shall classify excavated materials as Soft Class and Rock will be measured individually as extra-over items.

TABLE 1 : CLASSIFICATION OF MATERIALS

CLASSIFICATION	DESCRIPTION
Soft	All material other than rock
Rock	Material which cannot be economically fragmented and loosened for removal by hand implements and pneumatic tools, except by drilling and blasting or the use of rock breaking equipment.

In the first instance, the classification shall be based on the descriptions given in Table 1. In the event of disagreement between the Contractor and the Engineer, the Engineer shall reclassify the material in accordance with relevant specifications and without being unreasonable to the Contractor. The decision of the Engineer on the classification shall then, subject to the provisions of the Contract, be final and binding.

The Contractor shall notify the Engineer of the presence of what he considers to be rock immediately upon discovery thereof. The Engineer will inspect the material and decide whether or not it warrants the use of pneumatic tools or rock breaking equipment. In the case of isolated boulders set in a soil matrix, the Engineer may order the Contractor to either widen the excavation or roll the boulders sideways or lift the boulders out from the trenches.

In the event that the Engineer decides that the use of pneumatic tools, rock breaking equipment, or blasting is necessary, he will classify the material accordingly and arrange for the quantity thereof to be measured. The Construction Manager will supply necessary pneumatic equipment and arrange for others to break up rock into manageable pieces.

PS DB 3.5 BACKFILL MATERIALS

a) Substitute "from trenches" in DB 3.5(a) with "from trenches and street excavations".

Add the following to DB 3.5(b):

c) Road crossings, access to services, farms and camps and any section that fall within the road reserve shall be classified as areas subject to loads from road traffic and must be compacted accordingly to the top of the trench (natural ground level).

PS DB 3.7 SELECTION OF MATERIAL FOR REPAIR WORK

If the excavation of a pipeline damages an existing road surface, the Contractor must stockpile material from the top 200mm of such a road surface in order to reuse it as sub base for the repairing of the road crossing.

If necessary, gravel material that is suitable for the reparation of road surfaces must be imported.

The Contractor must make provision in his tariffs for compaction in road reserves for the selection of excavated material as specified above.

PS DB 4 PLANT

PS DB 4.1 EXCAVATION EQUIPMENT

Add the following to DB 4.1:

An adequate number of suitable tools, including hand stampers, wheelbarrows and hosepipes shall be provided by the Contractor. The Contractor will supply mechanical compaction equipment and when required pneumatic and rock breaking equipment.

All excavations exceeding the specified widths shall be backfilled with approved selected material. No payment shall be made for this and all relevant costs shall be deemed to be included in the tendered rates.

PSDB 5 CONSTRUCTION

PSDB 5.1 PRECAUTIONS

PS DB 5.1.1.1 Water in Trenches

Water in pipe trenches may cause movement of the pipes as a result of flotation and backfilling must therefore be executed as quickly as possible. If movement of the pipes does occur the contractor must, unless otherwise instructed by the Engineer, remove the pipes from the trench and reinstall it at his own expense.

PS DB 5.4 EXCAVATION

Add the following to DB 5.4:

“Excavation and backfilling of pipe trenches on sidewalks in the residential area shall be done in such a manner as to ensure the least possible disruption to the public and access to the properties. No additional payment shall be made for this and all relevant costs shall be deemed to be included in the tendered rates.

PS DB 5.5 TRENCH BOTTOM

Substitute "90 %" in the second paragraph of DB 5.5 with "93 % ".

PS DB 5.5.1 Over Excavation of Trenches

Where pipe trenches are excavated deeper than specified or shown on the drawings, these excavations must be backfilled with suitable approved selected material in layers of not more than 150mm uncompacted thickness and must be compacted to the thickness of the adjoining in-situ material or as prescribed by the Engineer.

PS DB 5.6 BACKFILLING

PS DB 5.6.1 General

Backfilling in road reserves must be compacted in 100mm layers up to natural ground level.

Where prescribed by the Engineer all surplus material must be neatly piled over the real trench width to a height not more than 150mm higher than the adjoining level.

PS DB 5.6.3 Disposal of Soft Excavation Material

Add the following to DB 5.6.3:

All surplus and unsuitable material as described in DB 5.6.3 shall be disposed of at the spoil site, (as described in PS D 5.2.2.3) and levelled.

PS DB 5.7 COMPACTION

PS DB 5.7.2 Areas Subject to Traffic Loads

Add the following to DB 5.7.2:

All pipe trenches within road crossings, accesses to services, farms and camps that fall within the road reserve, will be regarded as areas subject to traffic loads. Backfilling of trenches that are subject to traffic loads will be executed in layers of 100mm as follows:

Item	% mod AASHTO	Final Layer Thickness
Approved Backfill	93%	200mm
Main Backfill up to road layers	96%	200mm
Sub-base	97%	200mm
Base	98%	175mm

PS DB 5.9 REINSTATEMENT OF SURFACE

PS DB 5.9.2 Private Property and Commonage

Add the following to DB 5.9.2:

Gardens and lawns shall be repaired to the original standard where they were crossed. Grass and plants shall be taken out of the ground, temporarily stocked, watered during construction, and replanted after backfilling.

PSDB 8 MEASUREMENT AND PAYMENT

PSDB 8.2 COMPUTATION OF QUANTITIES

PS DB 8.2.4 Shoring

Add the following to DB 8.2.4:

Shoring will only be measured and paid for, if the Engineer gives written approval before it is installed.

PSDB 8.3.2 Excavation

(a) Excavation in all material for trenches, backfill, compact and dispose of surplus material…… Unit (m)

Item will be provided for various pipe diameters in steps not greater than those specified in 5.2 and various depths in increments of 1.0 m measured to the bottom of the bedding layer (see Drawing DB 2, DB 3, and DB 4). Where measured volumetrically in terms of 8.1.2 (a), the volume of excavation will be computed in accordance with 8.2.2 and 8.2.3

The rate shall cover the cost of the same operation in heading where the Contractor elects to use such a method of excavation. The volume or length will be measured for payment on the assumption that normal trench excavation has been carried out. The volume or length in the undisturbed prism of material between the top of the tunnel and ground level will be classified as soft excavation in terms of 3.1. No additional payment will be made for such headings and no deductions will be made for reduced excavation quantities.

(b) Extra-over item (a) above for:

1. Intermediate excavation …… Unit: m³
2. Hard rock excavation……..…… Unit: m³
3. Hand excavation and backfill where ordered by the engineer…… Unit: m³
4. Soil Crete backfilling where directed by the engineer. …… Unit: m³

Separate items will not be provided for depth increment, volume will be computed from the trench width determined in accordance with 8.2.3 and the depth from the top of the intermediate or hard rock excavation, as the case may be, either to the bottom of the same material or to the bottom of the trench as specified in (a) above, whichever is the lesser (see Drawing DB 5

The rates shall cover the additional cost of the excavation and hauling of the more difficult material of unsuitable material. The Contractor must obtain written approval for all stages on item (b) (a) 1 to 4.

c) Excavate and dispose of unsuitable material from trench bottom (provisional… Unit: m³

The volume will be computed from the trench width determined in accordance with 8.2.3 and m³ the additional depth ordered.

The rate shall cover the cost of the excavation of the additional depth in any material, the disposal of the unsuitable material as specified for soft: excavation in 5.6.3 within free haul distance and the backfilling of the additional depth with suitable material from the side of the trench.

PSDB 8.3.3 EXCAVATION ANCILLARIES

PSDB 8.3.3.1 Make up deficiency in backfill material

a) from other necessary excavations on site ……Unit: m³
b) by importation from-designated borrow pits …… Unit: m³
c) by importation from commercial or off-site sources selected by the Contractor ....Unit: m³

Items (b) and (c) above will not be measured for payment unless importation has been ordered in writing. The volume will be computed from the trench width determined in accordance with 8.2.3 and the depth from the top of the backfill to the top of the bedding as shown on Drawing DB-1 or the actual depth of backfill used to make up the deficiency or the depth of additional excavation ordered in terms of B.3.2(c), as applicable.

The rate for material from other necessary excavations on site shall cover the cost of selection of suitable material, the moving of the material to points alongside the trench spaced to suit the Contractor's method of working, and the disposal of the material that is replaced, all within free-haul distance.

The rate for material from designated borrow pits shall cover the cost of royalties, if applicable, excavation and selection of suitable material, ,the moving of the material to points alongside the trench spaced to suit the Contractor's methods of working, and the disposal of the material that becomes surplus as a result of the importation, all within free-haul distance.

The rate for material from commercial or off-site sources selected by the Contractor shall cover the cost of the acquisition of the material (including royalties, if applicable), the moving of the material to points alongside the trench spaced to suit the Contractor's methods of working, and the disposal of the material that becomes surplus as a result of the importation, all within free-haul distance (see Subclause 5.2.5.1 of SANS 1200 D or Subclause 5.2.6.1 of SANS 1200 DA, as applicable).

PS DB 8.3.3.2 Opening up and closing down of designated borrow pit .....Unit: Sum

This item will only be scheduled when a new borrow pit has to be established or when access to an existing borrow pit has to be established.

With the exception of the cost of the removal and spreading back of the topsoil (if scheduled), the sum shall cover the cost of opening up and of restoring the Site as specified in Subclause 5.2.2.2 of SANS 1200 D or Subclause 5.2.2(f) of SANS 1200 DA, as applicable.

PS DB 8.3.5 Existing Services

Existing Services-that Intersect or Adjoin a Pipe Trench (see Sub-clauses 5.1.2 and 8.3.8 of SANS 1200 D or Sub-clauses 5.1.3 and 8.3.5 of SANS 1200 DA, as applicable.)
(See Subclauses 5.1.2 as applicable.)

(i) Services that intersect a trench (angles between centre-lines in plan of 45-90°)..unit (No)

Except where water pipes are to be recovered, existing water pipes, sewers, stormwater pipes, concrete-lined channels and drains, box culverts, electric cables, ducts, kerbs, channels, erf connections and various sizes of pipes and services that intersect a trench of specified width and require various degrees of care, whether or not their presence is known before they are uncovered, will be measured separately. The unit refers to one service, but services that are so grouped that they can be contained within a horizontal dimension of 200 mm measured at right angles to the axis of the services will be measured as one unit.

(b) Services that adjoin a trench (parallel to or at an angle between centre-lines in plan of less than 45O) ..... Unit No)

<u>In a case where a trench of specified width</u>

1 runs parallel to or at an angle (in plan) of less than 45O to an existing service, and is such that the nearer side of the bottom of the trench lies at least partly between a vertical plane and a plane that lies at an angle of 45O below the horizontal, both planes passing through the axis of the service, the length of service within the minimum base width of the trench, determined in accordance with 5.2, will be measured for payment under this item and the remaining length, the side of the trench which, in the opinion of the Engineer, is rendered liable to collapse because of the existence of such service, will be measured for shoring (see 8.3.4(a)).

The rate for an item scheduled in terms of (a) and (b) above shall cover the additional cost of

i) care in excavation necessitated by the presence of such service in or across the trench;

ii) protecting and maintaining such service in operation by mans of temporary supports or shoring, as necessary;

iii) delays and disruption of the progress of the work due to the existence of the service1 and

iv) repairs necessitated by damage caused by the Contractor.

PS DB 8.3.6 Finishing

PS DB 8.3.6.1 Reinstate road surfaces complete with all courses **Unit: m^2**

Replace DB 8.3.6.1 with the following:

a) Gravel Unit: m^2

The area will be calculated from the length of finished road or paved surfaces as applicable and with the trench width taken as 0,8m. Payment for finishing will be additional to that for excavation covered by 8.3.2.

The rate shall cover the cost, selective excavation (including the equipment that is required to break up, remove and, if necessary, stockpile the original surface material), and subsequently of reinstating and compaction and shall include the cost of delays and the cost of any risk of having to repair damage as specified in DB 5.10. Compaction to be according to PS DB 5.7.2

PROJECT SPECIFICATIONS

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SANS 1200 GA: CONCRETE (SMALL WORKS)

PSG1 SCOPE

This specification covers the requirements for concrete (plain and reinforced) for small works associated with pipelines, roads, railways, pump stations, etc. It covers the basic materials, the plant did formwork required, the quality, manufacture, arid curing of concrete, tolerances in workmanship, testing, and the methods by which the finished structure is to be measured for the purposes of payment

PSGA 3 MATERIAL

PSGA 3.2.1 Applicable Specifications

Add the following to G 3.2.1:

Portland cement that conforms to SANS 471

PSGA 3.2.2 Storage of Cement

Add the following to G 3.2.2:

Consignments of cement shall be used in the same sequence as that in which they are delivered to site. No cement shall be used which has been stored on site for a longer period than 6 (six) weeks. All cement so stored for a longer period than 6 (six) weeks, all cement damaged in any way, and all cement which does not comply with the specification, shall be removed immediately and permanently from the site.

PSGA 4 PLANT

PSGA 4.4 Formwork

PSGA 4.3.3 Ties

Add the following to G 4.4.3:

No ties will be allowed in vertical walls and permanent metal ties shall have a minimum concrete cover of 40 mm. Tie holes shall be filled with an approved non-shrink epoxy grout.

PSGA 5 CONSTRUCTION

PSGA 5.1 REINFORCEMENT

PSGA 5.1.3 Cover

Substitute G 5.1.3 with the following:

The cover of concrete over reinforcement, unless otherwise indicated on the drawings, shall be not less than 40 mm.

PSGA 5.2 FORMWORK

PSGA 5.2.1 Classification of Finishes

Add the following to G 5.2.1:

The following surface conditions are required in the various portions of the finished concrete:

(a) **Rough**

Concealed surfaces and surfaces lower than 100 mm below finished ground level.

(b) **Smooth**

All surface finishes not classified as "rough" in paragraph (a) shall be classified as "smooth". All exposed edges unless otherwise indicated on the drawings, shall be chamfered 20 mm x 20 mm by means of triangular fillets fixed to the formwork.

PSGA 5.4 CONCRETE

PSGA 5.4.1 Quality

PSGA 5.4.1.2 Consistency

Add the following to sub clause G 5.5.1.2(a):

The slump of concrete used in water retaining structures may not be less than 30mm and not more than 60mm.

PSGA 5.4.1.5 Strength concrete

Add the following to G 5.5.1.7:

The grade of strength concrete and the maximum nominal size of coarse aggregate for each portion of the works, unless otherwise indicated on the drawings, shall be as follows:

(a)	Blinding layers and encasing of pipes	20 MPa/19 mm
(b)	Benching	20 MPa/19 mm
(c)	Screeds	20 MPa/10 mm
(d)	Reinforced concrete	30 MPa/19 mm

PSGA 5.4.1.7 Durability

Concrete shall be so proportioned to ensure that the water/cement ratio does not exceed 0,5 and, to ensure workability, water-reducing admixtures of approved manufacture shall be used in preference to increasing the cement content.

PSGA 5.4.8 Concrete Surfaces

Add the following to GA 5.4.8.1:

Concrete surfaces under screeds, granolithic finishes or benching shall be brought up to a plane, uniform surface with a suitable screed board.

PSGA 5.4.11 Construction Joints

The use of construction joints must be minimised and may only be placed as shown on the drawings or at positions as approved by the Engineer.
At all construction joints in walls a PVC water stop without a centre bulb must be placed as shown on the drawings.
Alternative materials with similar properties may be proposed but may only be installed after approval of the Engineer.

PSGA 5.5.10.4 Wood-floated finish

Where wood floating is specified or scheduled, the surface shall first be given a finish as specified in G 5.5.10.1 and after the concrete has hardened sufficiently; it shall be floated to a uniform surface free from trowel marks. The screed surface shall be wood-floated, either by hand or machine, only sufficiently to produce a uniform surface free from screed marks.

PSGA 5.5.10.5 Steel-floated finish

Where steel floating is specified or scheduled, the surface shall be treated as specified in PS G 5.5.10.4 except that, when the moisture film has disappeared and the concrete has hardened sufficiently to prevent laitance from being worked to the surface, the screed surface shall be steel-trowelled under firm pressure to produce a dense, smooth, uniform surface free from trowel marks.

PSGA 8 Measurements and Payment

PSGA 8.1.1 Formwork

Formwork, other than formwork covered by 8.1.1.2 and 8.1.4, will be measured as the net area of the face of the concrete to be supported during the deposition of concrete. No

deduction will be made for fillets and splays of size up to 50 mm x 50 mm or for openings of diameter up to 0,7 m or of area up to 0.5 m².

Formwork in continuous lengths of narrow widths and of fillets or splays over 20 mm x 20 mm will be measured by length, the width or range of widths being stated in the schedule. Boxing-out, the forming of holes, and other such operations will be measured by number, basic dimensions, perimeters, or drawing references, as stated in the schedule.

The unit rate shall cover the cost of all parts of formwork in contact wi.th the concrete, and the necessary bearers, struts, and other supports, plus the labour and plant necessary to erect and strike such formwork.

PSGA 8.1.2 Reinforcement

Steel for normal reinforced concrete will be measured net by mass of all bars, including supporting steel detailed on the reinforcing schedules. The mass will be computed from the nominal bar size and nominal mass per unit length. No allowance will be made for cutting, waste, spacer devices (materials other than steel bars), or binding wire.

Steel reinforcement for precast concrete units will not be measured unless so scheduled (see 8.6).
Welded mesh will be measured by area as shown on the drawings, No allowance being made for cutting, waste, laps, or deductions for end cover. The areas measured will be those of the concrete floor or slab being reinforced by means of mesh. In the case of continuous unit partly reinforced by mesh, the area will be computed from the outside dimensions of the area covered by mesh regardless of whether or not additional reinforcing steel is present in the same area.
Steel off cuts resulting from the cutting and bending of reinforcement in accordance with the bending schedules shall be deemed to be the property of the Contractor.

PSGA 8.1.3 Concrete

a) Concrete will be measured net to the dimensions shown on the drawings or to the dimensions cast, whichever are the smaller. Structural elements that are undersized will be measured for payment only if they are accepted by the Engineer

b) No allowance will be made for concrete required to make up overbreak in soft excavation, but payment will be made for additional concrete or formwork, or both, ordered i n writing by the Engineer to replace unsuitable material or overbreak in hard rock or in intermediate excavation (see (d) below).

The unit rates shall cover the cost of the provision of concrete (made with ordinary portland cement unless otherwise scheduled), mixing, testing, placing, compacting, the forming of stop-ends and unforeseen construction joints, striking of for levelling as applicable, and curing and repairing where necessary, together with the cost of all parts of formwork in contact with the concrete aid the necessary bearers, struts, and other supports, plus the layout and plant necessary to erect and strike such formwork.

PROJECT SPECIFICATION

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SANS 1200 L: MEDIUM PRESSURE PIPELINES

PSL 1 SCOPE

This specification covers the supply and installation of pipelines of diameter up to 1 000 mm, Complete with ancillary works, for transporting water and sewage under working pressures of up to 2.5 MPa.

PSL 3 MATERIAL

PSL 3.1 GENERAL

Replace the first sentence of L 3.1 with the following:

uPVC pipes, where relevant, will be used in the water pipelines.

Pipes and fittings shall be of the types specified in the schedule or in the project specification and, unless otherwise required in terms of the project specification, they and their couplings shall be capable of withstanding the applicable test pressure specified in 7.3.1. All pipes and fittings shall be supplied complete with couplings and jointing material.

Satisfactory temporary end covers shall be provided for the protection of threads, flanges, and prepared ends of plain-ended pipes and fittings, and to prevent damage to internal lining during transportation and during handling on Site.

Pipeline materials shall be so transported, stored, and handled that pipes are not overstressed at any time and fittings are not damaged in any way. PVC pipes to be stored under shade for the period between delivery to site and pipe laying and backfilling. All thin-walled, flexible, and soft-coated pipes shall be handled with particular care and shall be so stored that they are not subject to concentrated pressure from stones or other objects. Pipes damaged or cracked in any way shall be removed from the Site.

PSL 3.9 CORROSION PROTECTION

PSL 3.9.2 Protection of Steel Pipes and Accessories

All the pipe items of steel with diameters from 100mm and more must, unless otherwise specified be provided of three coats of epoxy paint (KSIR 88 or similar) to provide a final film of 300-micron dried thickness. Application must be according to the suppliers' prescription and must be on the inside and outside. Steel pipe items with diameters smaller than 100mm must be protected using galvanising or epoxy paint.

PSL 3.10 VALVES

All valves must be painted according to an approved method with epoxy paint (KSIR 88 or similar), to provide a final film of 300-micron dried thickness, after manufacturing and testing. Complete technical information of all valves must be submitted to the Engineer for approval before purchase.

PSL 3.10.1 Gate Valves

All gate valves shall be of the AVK type, shall comply with the requirements of SANS 664 and shall be suitable for a working pressure of 1,6 MPa (Class 16), or as indicated on the detail drawings. All gate valves must be supplied with a square spindle nut, suitable to be used with a valve key, or with a hand wheel as indicated on the detailed drawings. One valve key per nut size must be provided and will be included in the rate for valves.

All gate valves shall be flanged and drilled according to SANS 1123 or B.S. 4504 Table 16, unless shown differently on the drawings, and shall be right hand closing. The direction for opening and closing shall be permanently displayed on the valves. Valves shall have non-rising spindles.

Compression shut-off valves with rubber protected gate and smooth finish without recess inside, may be used.

The spindle seal shall consist of at least two O-rings located in a corrosion resistant housing. A wiper ring to prevent ingress of dirt shall be provided. The spindle nut may be loose or fixed in the gate.

The valves shall be provided with a straight, unobstructed body passage without any pocket and the gate shall be completely clear of the waterway in the fully open position. The sealing and gate guide areas shall be designed to eliminate deposits in the valve body. The gate guides shall be of substantial design to support the gate until the point of closure.

All components shall be interchangeable between valves of one size.

The rated working pressure shall be as detailed on the drawings. The valves are required to seal drop tight from zero to a test pressure of 1,1 times the rated working pressure under test and field conditions.

The valve shall be capable of being opened and closed under an unbalanced pressure equal to the rated working pressure.

Pipes shall not be tested against a closed valve. Thrust blocks for test sections shall be approved by the Engineer prior to testing of pipes.

PSL 3.10.2 Air Valves

All air valves to be Double orifice type. Rate shall include all accessories required as per tender drawing.

PSL 5 CONSTRUCTION

PSL 5.1 LAYING

PSL 5.1.1 General

Where connecting to the existing pipeline the position of the existing pipeline must be established by excavating test holes (hand excavation) before any trench excavation to the planned connection point is undertaken. The Contractor will not be compensated for excavation and any other work that is executed and proves to be unnecessary because this specification was not followed.

PSL 5.4 CONCRETE ENCASING

Replace the first sentence of L 5.4 with the following:

Concrete encasing with concrete with strength of 20 MPa/19mm, must be provided at positions indicated by the Engineer. Provision must be made to keep the pipe in position during the placement of the concrete encasing. The length of concrete encasing will be determined by means of site instructions from the Engineer.

PSL 5.4.1 Soil Crete Encasing

Add the following:

A mixture of Portland cement and gravel of base quality that is mixed in a ratio of 1:10 must be provided at positions indicated by the Engineer. Provision must be made to keep the pipe in position during the placement of the soilcrete encasing. The length of soilcrete encasing will be determined by means of a site instruction from the Engineer.

PSL 5.5 ANCHOR BLOCKS

Delete “15 Mpa/37,5mm” in the second sentence and replace with “20Mpa/19mm”

PSL 5.6 VALVE CHAMBERS

PSL 5.6.1 General

Substitute the first sentence of L 5.6.1 with the following:

The drawings of valve chambers, which are bound into the document, shall supersede the corresponding drawings in the standard specification.

Valve chambers, to the relevant specified sizes and specifications, shall be installed at all the new positions as indicated on the detailed drawings.

PSL 5.10 CLEANING OF PIPE

Sub clauses (a), (b) and (c) must be adhered to.

PSL 5.11 PIPE MARKERS

Pipe markers shall be installed at 50m intervals on the pipeline route, at all the newly installed isolation and scour valves as indicated on the detailed drawings as well as at all positions where the pipeline route deviates from the horizontal.

PSL 7 TESTING

PSL 7.3 STANDARD HYDRAULIC PIPE TEST

PSL 7.3.1 Test pressure and time of test

Add the following to L 7.3.1.1:

Pipes shall not be tested against isolating valves. Special blank flanges or end caps, fully anchored, shall be provided for testing.

PSL 8 MEASUREMENT AND PAYMENT

PSL 8.2 SCHEDULED ITEMS

PSL 8.2.1 Supply, Lay and Bed Pipes complete with couplings ……Unit: m

PSL 8.2.1.1 uPVC Class 9 Pipes

The pipes should be the type with a spigot at one end and a socket with tying rubber at the other. Contractor has an option to supply mPVC piping of same class and diameter if he so wishes, on condition the rate of cost used is that of uPVC. All pipes to have the class and diameter clearly marked, in addition to Manufacturer's details.

PSL 8.2.1.2 Steel Pipes

The pipes should be threaded at both ends and supplied fitted with one threaded socket. The pipes will thus be jointed using threaded sockets except on advice of Engineer or where drawings details indicate otherwise.

PSL 8.2.2 Extra-over 8.2.1 for the Supplying, Laying, and Bedding of Specials Complete with Couplings……..……..Unit: No

These shall be measured and paid for per installation, complete with the inclusion of the cutting of pipes, couplings, extra excavation and all extra material and labour that is required, including tees, fittings complete as shown on the drawings.

PSL 8.2.2.1 Extra-over 8.2.1.1 for the Supplying, Laying, and Bedding of Specials Complete with Couplings for Steel pipes and adaptors to PVC

Bends, Tees and Reducers shall be steel, be flanged and drilled to Table 16 at all ends. End caps to be flanged at the open end. Bends to be long radius. Steel - uPVC Adaptors to be flanged at end linking to the steel pipe and spigot ended at end linking the PVC pipe. The

spigot end to match the diameter of PVC piping. Separate flanges to be drilled to Table 16 with threading to match the steel pipe threading.

PSL 8.2.2.2 Extra-over 8.2.1.2 for the Supplying, Laying, and Bedding of Specials Complete with Couplings for uPVC pipes

All bends, reducers, tees, end caps etc for uPVC sections to be uPVC, unless indicated on the drawings. All bends to be long radius with one end socketed and the other spigot end. The rest of the fittings/ specials to be socketed at all ends, unless the drawings or Engineer suggests otherwise.

PSL 8.2.3 Extra-over 8.2.1 for the Supply, Fixing and Bedding of Valves Unit: No

Add the following to L 8.2.3:

Valves are measured and paid for per installation, complete with the inclusion of the cutting of pipes, couplings, extra excavation and all extra material and labour that is required, including tees, fittings complete as shown on the drawings.

PSL 8.2.4 Cut into and Connect to Existing Mains Unit: No

The number of each type and diameter of pipe cut into small measure the cutting into existing mains.

The Tendered rate shall include full compensation for all arrangements with the relevant authorities, isolating the main, cutting into the main to accommodate the connecting fitting, dewatering, excavating, removing of excess material, taking steps to prevent the ingress of soil, stones and other material into the main as well as all material and labour to connect the pipe.

PS L 3.10 VALVES

PS L 3.10.1 Gate Valves

(a) 200mm isolation valve…….…….. unit (No.)

All gate valves shall comply with the requirements of SANS 664 – Figure 2 and shall be suitable for a working pressure of 1.0 MPa. All gate valves shall be supplied with hand wheels, unless shown otherwise on the drawings.

Gate valves shall have flanged ends unless shown otherwise on the drawings and shall open clockwise. The direction for opening and closing shall be permanently displayed on the valves. Valves shall have non-rising spindles.
Spindles, spindle nuts, gate rings and body rings shall all be of bronze.

All flanged gate valves shall be drilled according to SANS 1123 Table 1600/3.

PSL8.2.10 Temporary Valves,

Payment for the supply or loan of temporary valves, end caps, blank flanges, or other isolating devices ordered by the Engineer in terms of 7.3.1.1 will be made at daywork rates or at a price to

be agreed by the Engineer, unless the method of payment for the work has been dealt with in the project specification and a suitable item included in the schedule.

PSL 8.2.11 Anchor/Thrust Blocks **Unit: m³**

Substitute L 8.2.11 with the following:

Anchor and thrust blocks shall be measured per cubic metre concrete and the Tendered rate shall include for all formwork and reinforcement (where specified) for the required dimensions.

"The concrete will be measured net by volume to the specified width and depth in excess of the external volume of the pipe (i.e. the volume of the pipe will be deducted).

The rate shall cover the cost of formwork and concrete."

PSL 8.2.13 VALVE CHAMBERS

Valve and hydrant chambers, manholes, etc., will be measured as complete units.
The rate shall cover additional excavation (see Subclauses 8.2.2 and 8.2.3 of SADS 1200 LIB), materials, plant, and labour necessary for the complete construction including the installation of the surface boxes or covers.

Valve chambers will be measured and paid for by number and the tariff must include all excavation, installation, finishing and numbering of the chamber, all materials as well as labour as described in PS L 5.12.

PSL 8.2.17 Soil Crete Casing **Unit: m³**

The soilcrete (1:10 ratio) is measured by volume according to the specified width and depth that exceeds the outside volume of the pipe (the volume of the pipe detracted).

The tariff includes the cost of shuttering and soilcrete mixture.

PSL 8.2.18 Pipe Markers **Unit: No**

Pipe markers will be measured and paid for by number and the tariff must include all excavation, installation, and paint and numbering of marker, concrete as well as labour as described in PS L 5.11.

PROJECT SPECIFICATION

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SANS 1200 LB: BEDDING (PIPES)

PS LB 1 SCOPE

PS LB 1.1 SCOPE

Add the following to LB 1.1:

This specification also covers the bedding required for sleeve pipes.

PS LB 3 MATERIALS

PS LB 3.1 SELECTED GRANULAR MATERIAL

Substitute LB 3.1 with the following:

Selected granular material shall be an aggregate, sand or granular material, all of a non-cohesive nature and free from any organic material, of which the grading analysis shows 100 % passing a 13, 2 mm sieve and not more than 5 % passing a 0,075 mm sieve.

Only if approved by the Engineer may sand from the trench excavations be used as selected material

PS LB 3.2 SELECTED FILL MATERIAL

Substitute LB 3.2 with the following:

The requirements of PS LB 3.1 shall apply *mutatis mutandis*.

PS LB 3.3 BEDDING

Add the following to LB 3.3:

All pipes shall be classified as flexible pipes and shall have a bedding of selected granular material and selected fill material.

PS LB 3.4 SELECTION

PS LB 3.4.1 Suitable Material from Trench Excavation Available

Replace the first sentence of LB 3.4.1 with the following:

Notwithstanding the requirements DB 3.7 and LB 3.4.1 relating selected excavation methods, the Contractor must follow selected excavation methods and provide or use plant that will prevent material that is suitable and necessary for bedding being contaminated.

PS LB 5 CONSTRUCTION

PS LB 5.1 GENERAL

PS LB 5.1.4 Compacting

Substitute "90 % of Mod. AASHTO" in LB 5.1.4 with "93 % of Mod. AASHTO.

If sand is used the compaction grade must be 100% Mod. AASHTO

PS LB 8 MEASUREMENT AND PAYMENT

PS LB 8.1 PRINCIPLES

PS LB 8.1.1 Provision of Bedding from Trench Excavation

a) Selected granular material .....Unit: m^3

b) Selected fill material ..... Unit: m

The rates shall cover the cost of acquiring, from within 0,5 km, 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, and of disposing of displaced material within a free haul distance of 0,5 km.

In terms of the standardized specifications covering pipelines, the rate for the supply and laying of pipelines covers the cost of handling bedding material from alongside the trench and placing it under and around the pipeline.

PSLB 8.1.2 Supply only of Bedding by Importation

From other necessary excavations
a) Selected granular material .....Unit: m

b) Selected fill material ..... Unit: m

PSLB 8.1.4 From commercial sources

a) Selected granular material ..... Unit: m

b) Selected fill material ..... Unit: m

The rate shall cover the cost of acquiring, regardless of distance, the required bedding from commercial sources (see Subclause 8.3.4 of SANS 1200 D or Subclause 8.3.4 of SANS 1200 DA, as relevant), of delivering it to points alongside the trench spaced to suit the Contractor's methods of working, and of delivering it to points alongside the trench spaced to suit the Contractor's methods of working, and of disposing of material displaced by such importation, within a free haul distance of 0,5 km.

PSLB 8.1.6 Encasing of Pipes in Concrete ..... Unit:

Separate items will be scheduled for each size of pipe and for each grade of concrete specified.

The volume will be computed from the dimensions of the concrete as given on the drawing.

The rate shall cover the cost of dealing with any excavation (in all materials including disposal of surplus) that is additional to that measured under the item for pipe trench excavation, the cost of encasing the pipe in concrete including the cost of formwork (if any), etc., and the cost of formwork to form flexible joints at 4 m centres.

PS LB 8.2.5 Overhaul of material for Bedding cradle and selected fill blanket Unit: m³.km

Substitute LB 8.2.5 with the following:

a) Limited overhaul (0,5 km to 1,0 km) ..... Unit: m^3

b) Long overhaul ..... Unit: m³.km

Except that the volume is calculated according to LB 8.1.3, the requirements of D 8.3.6 or DA 8.3.3, as applicable, shall apply for overhaul.

PSA 1 MATERIALS (Clause 3)

PSA 1.1 <u>Standardisation mark</u> (Clause 3.1)

Add the following to the Clause:

All material delivered to the site shall bear the Official Standardisation Mark.

PSA 2 PLANT (Clause 4)

PSA 2.1 <u>Restrictions on employee accommodation</u> (Sub-clause 4.2)

No housing is available for the Contractor's employees. The Contractor shall make his own arrangements to house his employees.

The Employer shall place an area at the disposal of the Contractor to enable him to erect his site offices, workshops and stores. Any facilities shall comply with the requirements of the local authority. The Contractor shall provide his own fencing and site security.

PSA 3 CONSTRUCTION (Clause 5)

PSA 3.1 <u>Dealing with water</u> (Sub-clause 5.5)

In addition to the items as set out in Subclause 5.5, the Contractor shall also provide pumping equipment, pipes and other equipment as may be necessary.

PSA 4 MEASUREMENT AND PAYMENT (Clause 8)

PSA 4.1 Fixed charge and Value Related Items (Sub-clause 8.2.1)

Replace the sub-clause with the following:

"Payment shall be a lump sum to provide for the Contractor's expenses in connection with:

(a) setting up and maintaining his organisation, camps and plant on the site;
(b) effecting the insurance's and indemnities required in terms of the General Conditions of Contract
(c) meeting all other general obligations and liabilities which are not specifically measured for payment in these contract documents.

The lump sum total of items (a), (b) and (c) as measured and Fixed Charge Items and time Related Items shall not exceed 15% of the nett total Tender Amount. If the Tenderer should tender a higher amount for this item it shall be reduced to the amount allowed above and all other tendered prices increased in the proportion required to retain the same Nett Total Tender Amount.

The tendered lump sum shall not be subject to any variation if the actual value of work done under the Contract exceeds, or falls short of, the Tender Amount, or as a result of an extension of time for completion in terms of Clause 42 of the General Conditions of Contract.

Any payment made under this item shall not be taken into account when determining whether the value of a certificate complies with the "minimum amount of monthly certificate" laid down in the Appendix.

Before any payment is made under this item the Contractor shall satisfy the Engineer that he has provided on site an establishment and plant of good quality and in value exceeding that of the first instalment. The Contractor may be asked to furnish documented proof that he owns the offices and plant on site, the value of which should exceed the amount claimed in the first certificate. In the event that the Contractor cannot satisfy the Engineer as to the value or ownership, the Engineer shall have the right to withhold part of any payments to be made under this item, until the Works have been completed.

Payment of the lump sum shall be made in three separate instalments as follows:

(a) The first instalment, 50% of the lump sum, will be paid in the first payment certificate after the Contractor has met all his obligations under this sub-clause and has made a substantial start on construction in accordance with the approved programme.

(b) The second instalment, 35% of the lump sum, will be paid when the value of the work done reaches one half of the Nett Total Tender Amount.

(c) The third and final instalment, 15% of the lump sum, will be paid when the works have been completed and the Contractor has fulfilled all requirements of this sub-clause. No payment for the scheduled Fixed Charge Items for this contract will not be made until the requirements regarding and the erection of name boards have been met."

PSA 4.2 <u>Time-Related Items</u> (Sub-clause 8.2.2)

Replace this sub-clause with the following:

Subject to the provisions of 8.2.3 and 8.2.4, payment of item 8.4 (time-related item) will take place in equal monthly amounts, calculated on the tendered amount for the item, divided by the contract period in months, with the understanding that the total of the monthly payments which was paid for this specific item does not exceed the proportion that the progress of the works to date bears in relation to the works as a whole.

Should the Engineer grant an extension of time, the Contractor is entitled to an increase in the amount tendered for time related items, and this increase must be kept in the same proportion to the original tender amount as the extension of time is to the original time of the completion of the works.

Payment for such increased amounts will be considered as full compensation for all time related, provisional and general costs which arise as a result of the extension of time.

PSA 4.3 <u>Exposing of existing services</u> (add the following Sub-clause 8.9)

Add the following new pay item:

Item:

Excavation by hand in all materials to expose existing services Unit: m^3

The tendered sum must include full compensation for all hand excavation as per the dimension approved by the Engineer for the locating, exposing and moving of existing services. Excavation outside of approved dimensions will not be paid. The rate must also include for backfill and compaction to 90% of mod AASHTO density and, if applicable, the removal of excess material not used for backfill, the securing of excavations, for handling surface and subsurface water, for protection of existing services and for any other activity necessary to complete the work. Free haul of 1,0 km will be applicable on the transport of excess material.

No distinction will be made between classes of material or types of services.

Note: The Contractor must provide sufficient supervision over labourers when services are exposed.

PSA 4.4 Occupational Health and Safety (add the following Sub-clause 8.10)

Add the following new pay items:

Item:

Provision for the cost related to the Occupational Health and Safety Act, 85 of 1993, and the relevant Regulations:

a)	Complete "Notification of Construction" form and submit	Unit: Sum
b)	Prepare a Health and Safety Plan for compliance with all the requirements of the OHS Act and the Construction Regulations 2003 and submit to the engineer Preparation of a Health & Safety Plan	Unit: Sum
c)	Compilation of a Risk Assessment prior to Construction	Unit: Sum
d)	Health & Safety induction Training of employees	Unit: Sum
e)	Compilation and keeping up to date the Health & Safety plan and file which shall include all documentation required in terms of the act, over the entire construction period	Unit: Sum

The tendered sum shall include full compensation for providing the above services as required from the Occupational Health & Safety Act. The rate shall include all related costs incurred by the Act, remuneration of personnel, trainers, etc. and equipment required for the execution of the required services as depicted by the Act. The tendered amount for items a, b, c, d and e shall only be paid on the successful completion of the task as approved by the client. The tendered amount for item e shall be paid on a monthly basis.

PSA 4.5 Facilities for Engineer (Fixed Charge) (Sub-clause 8.3.2.1)

PSA 4.5.1 Furnished office (Sub-clause 8.3.2.1 a)

Add the following to the pay item:

No office will be required for the Engineer.

PSA 4.6 Facilities for Engineer (Time Related) (Sub-clause 8.4.2.1)

PSA 4.6.1 Furnished office (Sub-clause 8.4.2.1 a)

Add the following to the pay item:

No office will be required for the Engineer.

PSA 4.6.2 Survey assistant and materials (Sub-clause 8.4.2.1 d)

Add the following to the pay item:

The Contractor shall make available for the duration of the contract period, when required by the Engineer, one skilled and one unskilled survey labourers.

SABS 1200 D : CIVIL ENGINEERING CONSTRUCTION : EARTHWORKS

PSD 1 SPECIFICATION FOR BORROW PITS

PSD 1.1 SCOPE

This section shall include all work in obtaining materials for work under this contract, negotiation with owners of the ground on which borrow pits are situated, clearing the site, stripping excess or unsuitable overburden, excavating selected material for use on the works, and finishing off the borrow area to the satisfaction of both the owners and the Engineer, all in accordance with these Specifications or as directed.

PSD 1.2 GENERAL

The Contractor shall be solely responsible for the locating and supply of all materials required from borrow pits for the due and proper construction of the works embodied in this contract.

Before commencing operations at any borrow pit the Contractor shall consult the property owner concerted and the Engineer regarding his proposals for operating the quarry or borrow pit and obtaining access thereto.

The Contractor shall take all measures for the protection and control of livestock, etc., which is made necessary by his operations, such as providing of gates in the existing fences and ensuring that all gates are closed during the whole of the time that they are not actually in use by his traffic.

Where access to the Contractor's quarries is not obtainable by existing roads he shall after consultation with the property owner concerned construct such access roads and provide such gates as he requires and as the authorities concerned may agree to, but the cost of construction of such access roads and the provision of gates shall be deemed to be covered by the prices tendered for the construction of those parts of the works in which the materials from the quarries concerned are being used. The provision of gates and subsequent removal of the gates when no longer required as well as restoration of the fence to its former standard will be at the Contractor's expense.

Whenever required by the owner of the land on which the borrow pit is situated or when it appears necessary in the interest of public health, or the prevention of soil erosion, adequate provision for draining the borrow pit must be made.

PSD 1.3 USE OF IMPORTED MATERIAL

The onus shall rest on the Contractor to ensure that the materials used in each stage of the work comply with the requirements for materials as specified for that stage before proceeding with the processing of the next stage and the Contractor is required to ensure that his organisation is at all times properly and adequately equipped to fulfil the above requirements.

All materials which do not conform to the requirements of these Specifications, shall be considered as defective and all such material, whether in place or not, shall be removed from the site of the works by the Contractor at his own expense.

No payment will be made for the shifting of the Contractor's equipment from one borrow pit position to the next.

PSD 1.4 TAKING AND TESTING OF SAMPLES

The Contractor must supply the Engineer with comprehensive test results regarding the proposed borrow material 14 days before any borrowing starts. The results must contain enough information to enable the Engineer to access the quality and quantity of material available from the borrow site. The total cost of these tests must be borne by the Contractor. The exploitation of the pit must be planned in such a way that material of varying quality may be planned in such a way that material of varying quality may be selected and loaded directly or otherwise stockpiled temporarily without contamination.

If, after trial, it is found that any sources of supply, which have previously been approved, do not furnish a uniform product, or if the product from any source proved unsatisfactory in any way, the Contractor shall furnish materials from other approved sources.
The Engineer may from time to time instruct the Contractor to submit samples from approved sources of supply in order to ensure that the quality of materials remains satisfactory.
The cost of taking and testing of samples shall be borne by the Contractor.

PSD 1.5 MEASUREMENT AND PAYMENT

The rate for importing material from borrow pits selected by the Contractor or other commercial sources (item 8.3.4(a)2) shall cover the cost of acquiring suitable material, handling and transportation regardless of distance, and placing. No separate payment will be made for location of borrow pits, the taking of samples, the testing of samples, the construction and maintenance of access roads, the clearing of the borrow pit site, the removal and replacement of overburden, the shaping and drainage of borrow pits, the scarifying of access roads, and paying of any royalties.

PSD 1.6 FREEHAUL

Replace clause 5.2.5.2 with:

All haul will be regarded as free haul.

PSD 1.7 CLASSIFICATION OF EXCAVATIONS

Notwithstanding anything to the contrary as may be contained elsewhere in the specifications, excavations shall be classified according to the specified method of excavation as follows :

(i) Excavations which are :

- not specified in as being required to be executed utilizing labour intensive construction methods : and

- specified as being required to be executed utilising labour intensive construction methods but which notwithstanding, are executed by the Contractor using mechanical plant and equipment which is prohibited in terms of the project specifications, either with the prior authorisation of the Engineer or in breach of the provisions of the specifications :

shall be classified in accordance with the provisions of the SABS 1200 standard specification.

(ii) Excavations which are specified as being required to be executed utilising labour intensive construction methods and which are so executed, shall be classified in accordance with TABLE 1.

(iii) Where only softer classes of excavation are required in terms of part 1 to be executed utilising labour-intensive methods, the classification for the purposes of determining the cut-off point for labour intensive excavation shall be made in terms of sub subclause (ii) above, and the excavation beyond the cut-off point shall be in terms of sub subclause (i) above. (i.e. a material classified as "intermediate" in terms of sub subclause (ii) may, when not excavated by labour intensive methods, be classified as "soft" in terms of sub subclause (i).

(iv) Where materials which are specified to be excavated utilising labour intensive construction methods are not in fact excavated by such methods, whether in compliance of an instruction from the Engineer, or in accordance with a concession granted by the Engineer or through default of the Contractor, classification of the material shall be in terms of sub subclause (i) above.

TABLE 1

	NUMBER OF BLOWS REQUIRED FOR A DCP PENETRATION OF 100mm	
	GRANULAR SOIL	COHESIVE SOIL

SOFT - Class 1	**≤ 2**	**≤ 1**
SOFT - Class 2	**> 2, ≤ 6**	**> 1, ≤ 5**
SOFT - Class 3	**> 7, ≤ 5**	**> 5, ≤ 8**
INTERMEDIATE	**> 15, ≤ 50**	**> 8,**
HARD	**> 50**	**-**

"In all cases where soft founding materials is classified as suitable for culvert bedding construction, the in situ material shall be ripped, moistened and compacted to 90% or 93% modified AASHTO density. The depth of preparation and compaction of founding material shall be as indicated on the drawings or as specified by the engineer. Allowance for measurement and payment for this work is made in the bill of quantities under this section."

The Generic Labour-intensive specification below is the same as SANS 1921-5, Construction and management requirement for works contracts- Part 5: Earthworks activities which are to be performed by hand and should be included in the scope of works without amendment or modification as set out below.

Scope

This specification establishes general requirements for activities which are to be executed by hand involving the following:
a) trenches having a depth of less than 1.5 metres
b) bedding and pipelaying
c) blanketing and backfill

Precedence

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

Hand excavatable material

Hand excavatable material is material:

a) granular materials:

i) whose consistency when profiled may in terms of table 1 be classified as very loose, loose, medium dense, or dense; or

ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100mm;

b) cohesive materials:

i) whose consistency when profiled may in terms of table 1 be classified as very soft, soft, firm, stiff and stiff / very stiff; or

ii) where the material is a gravel having a maximum particle size of 10mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100mm;

Note:

1) A boulder, a cobble and gravel is material with a particle size greater than 200mm, between 60 and 200mm.

2) A dynamic cone penetrometer is an instrument used to measure the insitu shear resistance of a soil comprising a drop weight of approximately 10 kg which falls through a height of 400mm and drives a cone having a maximum diameter of 20mm (cone angle

of 60° with respect to the horizontal) into the material being used

Table 1: Consistency of materials when profile

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

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

Compaction of backfilling to trenches (areas not subject to traffic)
Backfilling to trenches shall be placed in layers of thickness (before compaction) not exceeding 100mm. Each layer shall be compacted using hand stampers
a) to 90% Proctor density;
b) such that in excess of 5 blows of a dynamic come penetrometer (DCP) is required to penetrate 100 mm of the backfill, provided that backfill does not comprise more than 10% gravel of size less than 10mm and contains no isolated boulders, or
c) such that the density of the compacted trench backfill is not less than that of the surrounding undisturbed soil when tested comparatively with a DCP.

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

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

Measurement and payment

Separate items will be listed in the schedule of quantities for works which are required to be executed utilising labour intensive construction methods and for works to which such requirement does not apply :

Items which apply in respect of Works which in terms of part 1 are required to be executed utilising labour intensive construction methods, are identified in the schedule of quantities by way of the upper case letter "L" suffixed to the item number. Item numbers not suffixed with the letter "L" shall, unless the context implies otherwise, be deemed to apply in respect of Works not required to be executed by labour intensive methods.

Where any item in the SABS 1200 standard specifications or in part 2 refers to the measurement and payment of excavations in terms of increments in the depth of the excavation, the depth increment for excavations required in terms of part 1 to be executed by labour intensive methods shall be taken as 1,0 metre.

The measurement and payment clauses as set out in the SABS 1200 standard specification and in part 2 shall, unless specifically stated to the contrary, apply generally whether or not the Works to which they relate are required to be executed utilising labour intensive construction methods; provided always that where the Works is required to be executed by labour intensive construction methods, each particular clause shall be interpreted and constructed mutatis mutandis in accordance with the provisions of this clause 2.

SABS 1200 G: CONCRETE (STRUCTURAL)

PS G 3 MATERIALS

PS G 3.2 CEMENT

ADD THE FOLLOWING:

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

PS G 3.2.2 Alternative types of cement

REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:
"Only CEM I 42,5 (Portland cement) or CEM II/A-V 42,5 (Portland fly ash cement) according to (SANS 50197-1), may be used. The cement may not consist of more than 20% siliceous fly ash blended with the OPC (Ordinary Portland Cement). Should the Contractor wish to use any other type of cement, he shall obtain the Engineer's prior written approval (see 8.1.3.2 and 8.1.3.3)."

PS G 3.2.3 Storage of cement

ADD THE FOLLOWING:

"Cement shall not be stored for longer than 12 weeks without the Engineer's permission."

PS G 3.4 AGGREGATES

PS G 3.4.3 Storage of aggregates

ADD THE FOLLOWING:

"When aggregates of different chloride content are stored on the site, their use in the various classes of concrete shall be strictly controlled."

ADD THE FOLLOWING SUB-SUBCLAUSE:

"PS G 3.4.4 Aggregate of dolomitic origin

“Aggregates for structural concrete shall be of dolomitic origin. The quantity of insoluble matter in respect of concrete made with aggregates of dolomitic origin, determined according to the method described in SANS 677, Appendix C, shall not be more than 15%"

PS G-3.5.1 Approval of admixtures required

No admixtures or aeration agents may be used without the prior written approval of the Engineer. Admixtures which have a retarding effect on the rate of hydration of the cement may not be used when the concrete temperature is below 20ºC. A retarding admixture shall be used if temperatures of concrete mixes using cements of strength class 42.5R or 42.5 are between 20 to 30 ºC or where the ambient temperature is between 20 to 30 ºC.

ADD THE FOLLOWING SUBCLAUSES:

PS G 4 PLANT

PS G 4.5 FORMWORK

PS G 4.5.1 Design

ADD THE FOLLOWING:

"All formwork or scaffolding required for any part of the Works shall be designed by the Contractor, and before commencing with the erection of any formwork or scaffolding, the Contractor shall submit the methods he proposes to use to the Engineer for approval. The Engineer has the authority to order alterations to the design or the sizes of any part of the formwork or scaffolding. The Contractor shall check the safety and suitability of all such alterations. The fact that the Engineer has approved or altered any part of the formwork of scaffolding shall not be construed as relieving the Contractor of his responsibility with regard to the strength and stability of the formwork or scaffolding."

PS G 4.5.2 Finish

CHANGE THIS SUB-CLAUSE AS FOLLOWS:

The quality of finish on the final concrete surfaces shall be as follows:

(a) All visible concrete and up to 150 mm beneath ground level: ..….Smooth

(b) All concrete covered by soil:…….…...……..Rough

PS G 4.5.3 Ties

ADD THE FOLLOWING:

"No plugs, bolts, ties or clamps of any description used to hold the formwork will be allowed to project into or through the concrete unless expressly approved by the Engineer.

Only approved tie-rods consisting of solid rods (that remain embedded in the concrete) and with removable ends shall be used to hold the formwork of the walls. The removable tie-rod ends shall facilitate removal without damage to the concrete, and no permanently embedded parts of such tie-rods shall have less than 50 mm of cover to the finished concrete surface.

The cavities left in the concrete when the tie-rod end cones are removed shall be soundly caulked with a cement mortar to which an approved shrinkage-reducing agent has been added, and shall be neatly finished to a smooth surface uniform with that of the surrounding concrete.
The cost of supplying special tie-rods as well as the filling of cavities left by the tie-rod cones shall be included in the rates tendered for formwork under the appropriate pay items.

On no account shall formwork be secured to reinforcing bars."

PS G 5 CONSTRUCTION

PS G 5.1 REINFORCEMENT

PS G 5.1.2 Fixing

ADD THE FOLLOWING:

"The Engineer will inspect the reinforcing after it has been fixed in place, the formwork has been cleaned, cover blocks have been positioned, and before concreting commences.

Should the reinforcement be supported by the joint filler, the filler shall be covered with a hard surface on the side to be concreted. The hard surface shall be sufficiently resilient to ensure that the joint and surfaces will be without defects.

Welding of reinforcing steel will not be permitted."

PS G 5.1.3 Cover

ADD THE FOLLOWING:

"The distance between pipes in the concrete and the reinforcing steel shall nowhere be less than

(a) 40 mm or

(b) 5 mm plus the maximum size of the coarse aggregate, whichever is the largest.

(c) the cover specified on the Drawings."

PS G 5.2 FORMWORK

PS G 5.2.1 Classification of finishes

(c) Special

ADD THE FOLLOWING:

"This finish is obtained by first giving the surface a smooth finish with the joints between formwork panels forming an approved regular pattern suitable for the appearance of the structure. All projections shall then be removed, irregularities repaired and the surface rubbed or otherwise treated until it is smooth with an even texture, appearance and colour.

If the finish of exposed surfaces does not comply with the requirements for uniformity of the texture and appearance, the Contractor shall, when instructed to do so by the Engineer, rub down the exposed surfaces of the entire structure or any part thereof as specified below, entirely at his own cost. All repairs must be completed before the rubbing commence
The surface shall be saturated with water for at least one hour. The initial rubbing of the face shall be carried out with a medium coarse carborundum stone together with a small amount of mortar of the same cement/sand ratio as the concrete being repaired. Rubbing shall continue until all form marks, projections and irregularities have been removed and a uniform surface has been obtained. The paste produced by the rubbing shall be kept in place. The final rubbing shall be carried out with a fine carborundum stone and water. This rubbing shall continue until the entire surface has a smooth, even texture and is uniform in colour. The surface shall subsequently be washed with a brush to remove surplus paste and powder."

PS G 5.2.2 Preparation for formwork

ADD THE FOLLOWING:

"Construction joints shall be positioned as shown on the Drawings."

PS G 5.2.5 Removal of formwork

ADD THE FOLLOWING SUBCLAUSE:

"PS G 5.2.5.6 "The Contractor shall make provision for the continued support of beams and slabs while the formwork is being removed and/or for back propping of beams and slabs."

PS G 5.3 HOLES, CHASES AND FIXING BLOCKS

ADD THE FOLLOWING:

"Cover blocks for reinforcing and fixtures may be placed into the concrete provided that neither the strength nor any other desirable characteristic (such as the appearance) of the concrete section is affected or impaired in the opinion of the Engineer.

The holes or cavities left by ferrule heads in the concrete shall be filled with an approved non-shrink grout applied strictly in accordance with the manufacturer's specifications."

PS G 5.4 PIPES AND CONDUITS

ADD THE FOLLOWING:

"All pipes passing through concrete floors, walls or slabs shall be cast into a concrete member simultaneously with the casting of the member. Openings for pipes shall only be left in concrete members when so directed by the Engineer or when shown on the Drawings. Pipes shall be installed in such openings according to the details shown on the Drawings.

If water tightness is a requirement where pipes are cast into walls, floors and slabs, the Contractor shall ensure water tightness where smooth-surfaced pipes are used by using an approved method such as tape wrapping the pipes prior to casting in. The cost of such method will be deemed to be included in the rates tendered for item PSG 8.14."

PS G 5.5 CONCRETE

PS G 5.5.1 Quality

PS G 5.5.1.5 Durability

The exposure conditions of the concrete are classified as "moderate - severe".

PS G 5.5.1.7 Strength concrete

ADD THE FOLLOWING:

"The concrete mixes shall be designed by the Portland Cement Institute or a similar approved laboratory.

PS G-5.5.1.8 Bleeding

ADDITIONAL CLAUSE AFTER 5.5.1.7

The concrete shall be proportioned with suitable materials so that total bleeding does not exceed 0,3mm/cm² as measured by ASTM C232-92."

PS G 5.5.3 Mixing

PS G 5.5.3.2 Ready-mixed concrete

ADD THE FOLLOWING:

"Ready-mixed concrete may be used on the Site. The Contractor shall take samples for testing from every load delivered to the Site."

PS G 5.5.5 Placing

ADD THE FOLLOWING:

"Concreting of the wall between horizontal construction joints shall be carried out in both directions from a point on the wall in order to close the gap with fresh concrete."

PS G-5.5.6 Compaction

CHANGE THIS SUB-CLAUSE AS FOLLOWS:

PS G-5.5.6.3 Only mechanical vibrations will be allowed for compaction unless the Engineer approves in writing any other method.

PS G 5.5.7 Construction joints

REPLACE THE CONTENTS OF THIS CLAUSE WITH THE FOLLOWING:

No construction joints other than those indicated on the drawings will be permitted without the written approval of the Engineer. In all cases the proposed method of forming the joint shall be discussed and agreed with the Engineer.

PS G 5.5.8 Curing and protection

ADD THE FOLLOWING TO SUB CLAUSE (e):

Only water based curing compounds shall be allowed. Concrete will not be paid for unless properly cured and proof of curing is continuously visible on site."

ADD THE FOLLOWING NEW SUB CLAUSE (f):

Where curing by retention of formwork is used as the only method of curing the concrete, it must be left in place for the minimum period specified in clause 5.5.8 but in no instance shall it be less than 7 days. The materials used for formwork shall take into account properties such as thermal insulation and moisture absorption when assessing the suitability of the material, to the approval of the Engineer.

If impermeable curing membranes are to be used as a curing method, they shall be installed at the same time as formwork is removed and no portion of a concrete surface may be left unprotected for a period in excess of 2 hours. If the surface is an unformed finish e.g. top of deck slab, then the surface must be protected immediately by appropriate methods approved by the Engineer after it is finished, without damage to that surface, since it is vulnerable to plastic shrinkage cracking due to high rates of evaporation while the concrete is still in a plastic state. Plastic shrinkage and settlement shall not be permitted on any of the structural elements since it compromises the durability of the concrete."

PS G-5.5.9 Adverse weather conditions

ADD A NEW SUB CLAUSE 5.5.9.4:

The temperature of concrete delivered to site shall be within the range 10º C to 30º C. Concrete which has a temperature outside of this range shall not be placed in the structure.

The rate of hydration of the cement in the concrete shall be such that the concrete can be placed and properly compacted within 2 hours after the addition of water to the mix ingredients. The initial set of the concrete shall not be unduly delayed due to inappropriateness of admixtures or cement type, which could promote bleeding."

PS G 5.5.10 Concrete surfaces

<u>Wood-floated finish</u>

Where wood floating is specified or scheduled, the surface shall first be given a finish as specified in sub-clause 5.5.10.1 of SABS 1200 G and, after the concrete has hardened sufficiently, it shall be floated to a uniform surface free of trowel marks. The screeded surface shall be wood-floated, either by hand or machine, only sufficiently to produce a uniform surface free from screed marks.

NOTE: A degree of Accuracy II is required for wood-floated surfaces.
Steel-floated finish

Where steel floating is specified or scheduled, the surface shall be treated as specified in wood-floated finish except that, when the moisture film has disappeared and the concrete has hardened sufficiently to prevent laitance from being worked to the surface, the screeded surface shall be steel-trowelled under firm pressure to produce a dense, smooth, uniform surface free from trowel marks.

NOTE: A degree of Accuracy II is required for steel-floated surfaces

ADD THE FOLLOWING SUBCLAUSES:

"PS G 5.5.16 Applied loads

No crushed-stone covering or any other loads shall be placed on roofs of structures where shown on drawings before the concrete has attained its design strength, unless approved supports are provided.

PS G 5.5.17 Pipes and conduits

All pipes passing through concrete floors, walls or slabs shall be cast into the concrete member simultaneously with the casting of the member. Openings for pipes shall only be left in the concrete members when so directed by the Engineer or when shown on the Drawings. Pipes shall be installed in such openings according to the details shown on the Drawings. The cost of
such method will be deemed to be included in the rates tendered for.

PS G 5.5.18 Soilcrete

Where soilcrete is specified for filling under floor slabs, the soilcrete shall comply with the requirements of subclause 3.5(d) of section 1200 DB as amended and shall be placed as specified in the subclause.

PS G-5.5.20 Plasterwork

Plasterwork shall consist of a single coat, comprising one application of a 1:7 Cement: sand mixture with a wood float finish. The thickness of the plaster shall be between 13 and 20 mm. All plaster shall be finished smooth, shall be plumb and corners shall be rounded and square.

PS G 6 TOLERANCES

PS G 6.2 PERMISSIBLE DEVIATIONS

PS G 6.2.3 Specified permissible deviations

ADD THE FOLLOWING:

"Degree-of-accuracy II is applicable.

Every specified permissible deviation is binding in itself. The cumulative effect of permissible deviations will not be considered. The maximum permissible vertical deviation is subject to the other permissible deviations."

REPLACE SUBCLAUSE 6.2.3(D)(5) WITH THE FOLLOWING:

	Permissible deviation		
	Degree of accuracy		
	III	II	I
	mm	mm	mm
"Vertically, per metre of height	5	3	2
subject to a maximum of	50	30	10

PS G 7 TESTS

PS G 7.1 FACILITIES AND FREQUENCY OF SAMPLING

PS G 7.1.1 Facilities

ADD THE FOLLOWING:

"The Contractor shall provide sufficient storage capacity for the concrete cubes and shall test the cubes by means of an approved, calibrated cube testing press installed on Site in a manner approved by the Engineer, or shall arrange to have them tested by an approved laboratory.

The cost of all testing, including the cost of sampling, storage and transport of samples shall be included in the rates tendered for concrete work."

PS G 7.3 ACCEPTANCE CRITERIA FOR STRENGTH CONCRETE

ADD THE FOLLOWING:

"Test results obtained from the supplier of ready-mixed concrete will not be accepted for evaluation in terms of subclause 7.3, but samples for testing shall be taken of such concrete at the point of placing."

PS G 8 MEASUREMENT AND PAYMENT

PS G 8.1 MEASUREMENT AND RATES

PS G 8.1.1 Formwork

DELETE

"or splays over 20 mm x 20 mm"

FROM THE FIRST LINE OF PARAGRAPH 8.1.1.2.

ADD THE FOLLOWING TO PARAGRAPH 8.1.1.2:

"Splays up to and including 25 mm x 25 mm will not be measured separately and will be deemed to be included in the formwork costs."

ADD THE FOLLOWING PARAGRAPHS:

"8.1.1.7 For construction joints at kickers, all additional costs for formwork to edges up to 300 mm high will be deemed to be included in the rates tendered for vertical formwork to sides of walls and will not be measured separately in narrow widths.

8.1.1.8 No formwork will be measured to edges of blinding layers under structures, and the cost thereof (if needed) will be deemed to be included in the rates tendered for concrete in blinding layers.

8.1.1.9 Back-shuttering or formwork to top revealed surfaces of sloping or conical formwork will only be measured to surfaces of over 40° and up to 85° to the horizontal.

8.1.1.10 Formwork to horizontal surfaces in pump stations, valve chambers, manholes or sumps can either be removed through the manhole cover opening or the Contractor may use permanent formwork at his own cost as no claims in this regard will be considered."

PS G 8.1.2 Reinforcement

REPLACE THE CONTENTS OF THIS SUBCLAUSE WITH THE FOLLOWING:

"The unit of measurement for steel bars shall be the ton of reinforcement in place, in accordance with the Drawings or as authorised by the Engineer.

The unit of measurement for welded steel fabric shall be the kilogram of fabric reinforcement in place, and the quantity shall be calculated from the net area covered by the mesh, excluding overlaps.

Clips, ties, separators, stools and other steel used for positioning reinforcement will not be measured, unless these are shown on the bending schedules.

The tendered rate shall include full compensation for the supply, delivery, cutting, bending, welding, placing and fixing of the steel reinforcement, including all tying wire, stools, supports and waste."

PS G 8.1.3 Concrete

DELETE

", or the plan size of the excavation where additional excavation is provided to facilitate erection of forms"

FROM THE SECOND LINE OF PARAGRAPH 8.1.3.1(C).

PS G 8.4 SCHEDULED CONCRETE ITEMS

PS G 8.4.3 Strength concrete

ADD THE FOLLOWING AFTER THE LAST SENTENCE:

"In the case of structural floor screeds, the unit of measurement shall be the square metre and the average thickness and proportions will be stated."

REPLACE

"Unit: m^3"

WITH

"Unit: m^3, m^2"

PS G 8.4.4 Unformed surface finishes

(b) Steel-floated finishes

ADD THE FOLLOWING SUBITEM:

"(i) Extra over subitem (b) for special finishing tolerances to top of outside ringwalls asspecified Unit: m^2

The quoted rate shall include full compensation for the additional cost of finishing the ringwalls to closer tolerances as specified on the Drawings and in clause PSG 6.2.3 (i)."

PS G 8.5 JOINTS

REPLACE

"Unit: m"

WITH

"Unit: m or m^2".

ADD THE FOLLOWING ITEMS:

"PS G-8.9 CONCRETE BENCHING *(grade of concrete given)*……..Unit: m^3

The unit of measurement shall be the cubic metre of benching, measured as detailed on the drawings, constructed in the specified grade of concrete with granolithic rendering.

The tendered rate shall include full compensation for procuring and furnishing all materials, placing the concrete benching, and rendering with the specified granolithic rendering.

PS G 8.10 BRICKWORK *(as specified)*..... Unit: m²

Separate items will be scheduled for brickwork of different thicknesses.
The unit of measurement shall be the net area (on elevations) of brickwork constructed to the specified thickness, measured in square metres.

The tendered rate shall include full compensation for constructing the brickwork as specified including the provision of all materials and cleaning up on completion of the work.

PS G 8.11 PLASTERWORK

(a) Plaster (state thickness) Unit: m²

(b) Fillets, skirtings, etc. (state dimensions) Unit: m

The unit of measurement for subitem (a) shall be the net area of plasterwork constructed to the specified thickness, measured in square metres, or for subitem (b) the net length of corner fillets, skirtings, etc. constructed to the specified dimensions, measured in linear metres.

The tendered rate shall include full compensation for constructing the plasterwork including rounded corners, the supply of all materials, mixing, applying, finishing and all else that may be required to complete the work as specified.

PS G 8.12 SCREEDS

(a) Floor screeds (1:3) with falls including V-joints to form panels and a smooth steel trowelled finish/power float finish to top:

(i) Description of application and thickness Unit: m²

(ii) Etc. for other applications and thicknesses

The unit of measurement shall be the square metre of screeds constructed.

The tendered rate shall include full compensation for constructing the screeds as specified including supplying of all materials, preparing the concrete surface to receive the screeds and for all else that may be necessary to complete the work.

PS G 8.13 CASTING IN PIPES WITH OR WITHOUT PUDDLE FLANGES

(a) Up to 300 mm nominal bore:

(i) Through (description and thickness of structural elements) Unit: number

(b) Over 300 mm up to 600 mm nominal bore:

(i) Through (description and thickness of structural elements) Unit: number

(c) Etc for other nominal bores in increments of 300 mm

The unit of measurement shall be the number of each size of pipe installed.

The tendered rates shall include full compensation for installing the pipe where new pipes are used (with or without a puddle flange) in the exact position as shown on the Drawings, for splitting or cutting the formwork where required, for ensuring water tightness where required and for all additional costs required to install the pipes specified or shown on the Drawings.

New pipes shall be measured under the items of the relevant section of the specifications."

PSH STRUCTURAL STEEL: SANS 1200 H

CONTENTS

PSH1: MATERIALS
PSH 2: CONSTRUCTION
PSH 3: FABRICATION
PSH 4: MEASUREMENT AND PAYMENT

PSH 1: MATERIALS

The materials specifications shall apply to pressed steel tanks, including any tank support structures, supplied and installed under this contract**.**

PSH 2: CONSTRUCTION

Detail design drawings and specifications shall be prepared by the tank supplier and provided to the Engineer prior to the procurement of pressed steel tanks. Detail design drawings and specifications for the support frame structure for elevated steel tanks shall also be provided to the Engineer, where applicable.
The supplier is responsible for shop drawings for steel tanks and support frame structure.
The supplier shall also provide design certificates to the Engineer prior to procurement.

PSH 3: FABRICATION

The fabrication specifications shall apply to pressed steel tanks, including any tank support structures, supplied and installed under this contract.

PSH 4: MEASUREMENT AND PAYMENT

PRE-FABRICATED PRESSED STEEL TANK:
PSH 8.3.1 Elevated Pressed Steel Reservoir:

The materials, design, fabrication and testing shall be in accordance with SANS 1200 H and these variations to the standard specifications.
The rate shall provide for all labour, plant, equipment and incidental costs to supply and erect the pressed steel tank complete for operation. The rate shall include all support frames and structures, concrete foundations and any other work required to complete the supply and erection of the tank. The rate shall also include for the supply of detail design drawings, shop drawings, test certificates and engineering design certificates to the Engineer.

SABS 1200 L: MEDIUM PRESSURE PIPELINES

L 3 MATERIAL

PS L 3.1 GENERAL

Replace the first sentence of L 3.1 with the following:

Duraflow mPVC and uPVC pipes, where relevant, will be used in the water pipelines.

PS L 3.4 STEEL PIPES, FITTINGS AND SPECIALS

PS L 3.4.3 Pipes of Nominal Bore over 150mm

ADD THE FOLLOWING PARAGRAPHS:

"All mild steel pipes and fittings other than screwed and socketed pipes, shall comply with the requirements of SABS 719 grade A. Specials shall be manufactured from straight pipes in accordance with the relevant requirements of BS534. All welding in pipes and specials shall be electric fusion welding.

Before leaving the factory all mild steel pipes and fittings shall be protected against corrosion in accordance with the relevant Particular Specification.

Plain ends of pipes and fittings shall be covered and protected against damage while being transported from the factory to the Site.

The Contractor is responsible for preparing detailed dimensioned pipe schedules for the approval of the Engineer prior to the start of fabrication of the pipes, fittings and specials.

The Engineer will supply a general arrangement drawing of each pipeline showing its start and end points as well as its horizontal and vertical alignment together with positions of valves and other specials

The Contractor will be responsible for detailing each individual pipe and pipe special. Site welding shall not be permitted due to its deleterious effect on linings and coatings. All pipes and specials shall be eminently suitable for receiving internal linings as specified.

Welding and visual examination of mild steel piping shall be carried out in accordance with BS 4871 Part 1, BS 2633 or BS 2571 as appropriate. Dye penetration examination shall be undertaken on not less than 10 % of all welds.

PS L 3.4.4 Fittings and Specials

ADD THE FOLLOWING TO THIS SUB-CLAUSE:

"All pipe specials shall be accurately made to the sizes and dimensions specified or given on the drawings and/or Schedule.

Unless otherwise specified, segmented steel bends shall be made with a radius equal to 2.0 times the pipe diameter. If details of segmented bends are not provided, the bends shall have one mitre weld each, up to and including a deflection angle of 22.5° and two mitre welds each up to and including 45°, and three mitre welds each up to and including 90°.

All other fittings and specials (excluding pipe bends) to be in accordance with SABS 719 unless otherwise indicated on the drawing.

The vertical axis of all fabricated steel items shall be accurately identified by using paint marks on the pipe ends."

PS L 3.4.5 Welding Operators and Procedures

ADDITIONAL CLAUSE AFTER 3.4.4:

PS L 3.4.5.1 Competence of Workmen

"The Contractor shall employ only competent and coded welders and shall submit certificates proving the competence of welders. The Engineer will ask for additional competence tests if and when required."

PS L 3.4.5.2 Welding Procedure

Welding is to conform to the latest edition of API 1104 and BS 4515 field welding of carbon steel pipelines.

Before the start of any welding work under this Contract, the Contractor shall submit his proposed welding procedures of the various types of welds to the Engineer for approval. The Engineer may require procedures to be qualified by destructive testing.

Once the welding procedures have been approved, no modifications will be allowed without the consent of the Engineer in writing.

No welding shall be done until the welding procedures and welders have been properly qualified in accordance with the procedure and performance qualification test requirements of SABS 044. Exception may be allowed if the fabricator can submit records of such tests which have been made by an independent inspection authority.

PS L 3.8 JOINTING MATERIALS

PS L 3.8.3 Flanges and Accessories

ADD THE FOLLOWING TO THIS SUB-CLAUSE:

"The requirements of SANS 1123 are applicable.

All flanges for pipes of nominal bore up to 150mm shall be full face slip-on flanges made of ASTMA 105 grade 1 steel to ANSI B16.5.

All flanges for pipes of nominal bore exceeding 150mm shall be full face flanges made of grade 43 steel to BS 4360 (or equal). Bolts shall be made from grade B steel to ASTM A307.

Stainless steel bolts are to be used for all stainless steel flanges.
Wall or puddle flanges shall be made of flat iron, 75mm X 8mm thick, welded to pipe specials on both sides of the flange.
Where stainless steel flanges are to be bolted to mild steel flanges, isolating bushes and washers are to be used to electrically isolate two connected pipe sections. Gaskets used shall have adequate isolating capacity in terms of cathodic protection requirements.

Flange drilling to conform to SANS 1123/2001 (Table as indicated on the Drawings). It is the Contractor's responsibility to ensure that the flange sizes and drilling match.

Material for gaskets on flanged joints shall comply with the requirements of BS 4865 and be cut to the full width of the flange. The material shall be selected to accommodate the maximum conditions of temperature, pressure, and to be compatible with the material conveyed."

PS L 3.8.4 Loose Flanges

ADD THE FOLLOWING TO THIS SUB-CLAUSE:

"Slip-on flanges, when required, shall be welded inside and outside.
There shall be a distance from the face of the flange to the pipe end equal to the pipe wall thickness plus 3mm. The seal weld shall be applied so that the flange face shall be free of weld spatter and does not require re-facing.
Unless otherwise indicated, the flange bolt holes shall be orientated to straddle the vertical centreline in the case of vertical flange face. For horizontal flange face, bolt holes shall straddle the north-south centrelines."

PS L 3.8.8 Bolts, Nuts and Fasteners

ADD THE FOLLOWING NEW SUB-CLAUSE:

"Bolts, nuts and other fasteners for the assembly and installation of fabricated components and standard flanges other than anchor bolts shall be hexagon head type complying with the requirements of SABS 135 with ISO threads of the coarse pitch series. Except where high

tensile fasteners are required the material shall be of equal or better corrosion or coating than the items being fastened.

Washers of the same or compatible material as the bolts shall be provided at each nut. The use of multiple washers will not be accepted. Spring washers together with flat washers shall be fitted to all nuts subject to vibration. Bolts shall project not less than 3mm and not more than 8mm from the head of the nuts after tightening. Projections on individual and common flange sets shall be identical.

Bolts, nuts and washes shall be hot dip galvanised as a minimum level of corrosion protection unless stainless steel is specified. Plated nuts, bolts and washers shall not be used on the permanent Contract Works.

High tensile bolts shall only be used when it is essential and shall be coated to a system approved by the Engineer."

PS L 3.8.9 Couplings

ADD THE FOLLOWING NEW SUB-CLAUSE:

"General purpose flexible couplings for M.S. and 3CR12 pipelines shall be "Viking Johnson" or similar type as approved by the Engineer and manufactured from the same material as the pipes to be coupled. Nuts and bolts shall comply with Sub-clause PSL 3.8.8.

All buried couplings shall be completely wrapped in "Denso" or equal approved mastic impregnated tape after installation and testing.

All exposed couplings shall be coated to the same specification as the pipeline in which they are used."

PS L 3.9 CORROSION PROTECTION

PS L 3.9.2 Protection of Steel Pipes and Accessories

All the pipe items of steel with diameters from 100mm and more must, unless otherwise specified be provided of three coats of epoxy paint (KSIR 88 or similar) to provide a final film of 300 micron dried thickness. Application must be according to the suppliers' prescription and must be on the inside and outside. Steel pipe items with diameters smaller than 100mm must be protected using galvanising or epoxy paint.

PS L 3.10 VALVES

All valves must be painted according to an approved method with epoxy paint (KSIR 88 or similar), to provide a final film of 300 micron dried thickness, after manufacturing and testing. Complete technical information of all valves must be submitted to the Engineer for approval before purchase.

PS L 3.10.1 Gate Valves

All gate valves shall comply with the requirements of SABS 664 and shall be suitable for a minimum working pressure of 1,0 MPa (Class 10), or as indicated on the detail drawings. All gate valves must be supplied with a square spindle nut, suitable to be used with a valve key, or with a hand wheel as indicated on the detailed drawings. One valve key per nut size must be provided and will be included in the rate for valves.

Gate valves shall have socketed ends, unless shown differently on the drawings, and shall be right hand closing. The direction for opening and closing shall be permanently displayed on the valves. Valves shall have non-rising spindles.

Compression shut-off valves with rubber protected gate and smooth finish without recess inside, may be used.

The spindle seal shall consist of at least two O-rings located in a corrosion resistant housing. A wiper ring to prevent ingress of dirt shall be provided. The spindle nut may be loose or fixed in the gate.

The valves shall be provided with a straight, unobstructed body passage without any pocket and the gate shall be completely clear of the waterway in the fully open position. The sealing and gate guide areas shall be designed to eliminate deposits in the valve body. The gate guides shall be of substantial design to support the gate until the point of closure.

All components shall be interchangeable between valves of one size.

The rated working pressure shall be as detailed on the drawings. The valves are required to seal drop tight from zero to a test pressure of 1,1 times the rated working pressure under test and field conditions.

The valve shall be capable of being opened and closed under an unbalanced pressure equal to the rated working pressure.

All flanged gate valves shall be drilled according to SABS 1123. Pipes shall not be tested against a closed valve. Thrust blocks for test sections shall be approved by the Engineer prior to testing of pipes.

L 5 CONSTRUCTION

L 5.1 LAYING

PS L 5.1.1 General

Where connecting to the existing pipeline the position of the existing pipeline must be established by excavating test holes (hand excavation) before any trench excavation to the planned connection point is undertaken. The Contractor will not be compensated for excavation and any other work that is executed and proves to be unnecessary because this specification was not followed.

PS L 5.2 JOINTING METHODS

PS L 5.2.2 Flanges (Steel Pipelines)

ADD THE FOLLOWING TO THIS SUB-CLAUSE:

Pipes shall not be aligned and levelled such that the pipes, specials and valves strain the flexible couplings. All precautions shall be taken to ensure water tightness for every type of coupling.

Where specified, pipes on both sides of flexible couplings shall be anchored across the coupling with tie rods or straps to prevent them pulling out.

PS L 5.3 SETTING OF VALVES, SPECIALS AND FITTINGS

ADD THE FOLLOWING TO THIS SUB-CLAUSE:

Valves shall be jointed such as to remain operative when the downstream pipe is removed. All valves shall be placed as and where indicated on the drawing.

PS L 5.4 CONCRETE ENCASING

Replace the first sentence of L 5.4 with the following:

Concrete encasing with concrete with strength of 20 MPa/19mm, must be provided at positions indicated by the Engineer. Provision must be made to keep the pipe in position during the placement of the concrete encasing. The length of concrete encasing will be determined by means of site instructions from the Engineer.

PS L 5.4.1 Soilcrete Encasing

Add the following:

A mixture of Portland cement and gravel of base quality that is mixed in a ratio of 1:10 must be provided at positions indicated by the Engineer. Provision must be made to keep the pipe in position during the placement of the soilcrete encasing. The length of soilcrete encasing will be determined by means of a site instruction from the Engineer.

PS L 5.5 ANCHOR BLOCKS

Delete “15 Mpa/37,5mm” in the second sentence and replace with “20Mpa/19mm”

L 5.6 VALVE CHAMBERS

PS L 5.6.1 General

Substitute the first sentence of L 5.6.1 with the following:

The drawings of valve chambers, which are bound into the document, shall supersede the corresponding drawings in the standard specification.

PS L 5.10 CLEANING OF PIPE

Sub clauses (a), (b) and (c) must be adhered to.

PS L 5.11 PIPE MARKERS

Pipe markers shall be installed at 50m intervals on the pipeline route, at all the newly installed isolation and scour valves as indicated on the detailed drawings as well as at all positions where the pipeline route deviates from the horizontal.

PS L 5.12 VALVE CHAMBERS

Valve chambers, to the relevant specified sizes and specifications, shall be installed at all the new positions as indicated on the detailed drawings.

L 7 TESTING

PS L 7.1 TESTING

ADD THE FOLLOWING SUB-CLAUSES:

PS L 7.1.1 Inspection (Additional Clause 7.1.1 under 7.1)

The Contractor shall be responsible for supplying pipes and specials which comply with the specification in every way and he shall arrange for such inspection of his own work as well as work done by others as may be necessary to ensure this.

All welded steel items shall receive a 100% visual inspection of all welds after they have been cleaned and all visible defects shall be rectified.

The Employer reserves the right to appoint suitable qualified inspectors to inspect all stages of the manufacturing process in the Contractor's workshop and in those of his suppliers, on either a part time or a full time basis. The Contractor shall have no claim for moderate inconvenience due to the inspection procedure.

PS L 7.1.2 Standard of Acceptance (Additional Clause 7.1.2 under 7.1)

The Standard of acceptance of welding shall be laid down in API 1104: Standard for welding pipe lines and related facilities, for API 5L line pipe.

PS L 7.1.3 Marking (Additional Clause 7.1.3 under 7.1)

All individual pipe fillings and pipe specials shall be clearly marked with the appropriate reference numbers for identifying purposes. Reference numbers shall be legibly painted and also stamped on the one end of each pipework item.

The position of a weld test shall be clearly recorded and related to a pipe number.

PS L 7.2 INITIAL TESTS ON WELDING STEEL PIPES

PS L 7.2.1 Dye-Penetrant Test

ADD THE FOLLOWING TO THIS SUB-CLAUSE:

The Contractor shall perform non-destructive testing on complete welds being not less than 10% of the total welding performed, in addition to every weld for steel specials.

PSL 7.2.2 Radiographic Examination

ADD THE FOLLOWING SUB-CLAUSES:

Testing for X-ray examination shall be carried out as specified in BS 2600: Methods of Radiographic Examination of Fusion Welded Butt Welds in Steel.

The Contractor shall allow for X-ray tests on 1% of all welds performed by an automatic process and on 2½% of all welds performed manually or by a semi-automatic process. The cost of this work shall be deemed to have been included in the rates tendered for steel pipes and specials.

Testing for ultrasonic examination shall be carried out as specified in BS 3923, 1968, Part 1: Manual Examination of Fusion Welded Butt Joints in Ferritic Steel.

PS L 7.2.3 Magnetic Particle Examination (Additional Clause after 7.2.2)

Testing shall be carried out to BS 4397, 1969, Methods of Magnetic Particle Testing of Welds.

PS L 7.2.4 Paraffin Test (Additional Clause after 7.2.2)

All fabricated steel bends, fittings and specials which cannot readily be pressured tested in the works shall receive a paraffin test on all welds to ensure that they are completely watertight. Alternatively other liquid penetrants may be used.

PS L 7.2.5 Destructive Tests (Additional Clause after 7.2.2)

The Engineer receives the right to call on the Contractor to perform destructive tests such as transverse tensile, root bend and flattering tests on test specimens cut from the pipes.

Separate payment will be made for such tests if they are called for, but the Contractor shall accept that the cutting out of a specimen and its testing may cause a moderate disruption of his work.

PS L 7.3 STANDARD HYDRAULIC PIPE TEST

PS L 7.3.1 Test pressure and time of test

Add the following to L 7.3.1.1:

Pipes shall not be tested against isolating valves. Special blank flanges or end caps, fully anchored, shall be provided for testing.

L 8 MEASUREMENT AND PAYMENT

PS L 8.2 SCHEDULED ITEMS

PS L 8.2.3 Extra-over 8.2.1 For the Supply, Fixing And Bedding Of Valves Unit : No

Add the following to L 8.2.3:

Valves are measured and paid for per installation, complete with the inclusion of the cutting of pipes, couplings, extra excavation and all extra material and labour that is required, including tees, fittings complete as shown on the drawings.

PS L 8.2.11 Anchor/Thrust Blocks Unit : m³

Anchor and thrust blocks shall be measured per cubic metre concrete and the tendered rate shall include for all formwork and reinforcement (where specified) for the required dimensions.

PS L 8.2.16 Cut Into And Connect To Existing Mains Unit : No

The number of each type and diameter of pipe cut into shall measure the cutting into existing mains.

The tendered rate shall include full compensation for all arrangements with the relevant authorities, isolating the main, cutting into the main to accommodate the connecting fitting, dewatering, excavating, removing of excess material, taking steps to prevent the ingress of soil, stones and other material into the main as well as all material and labour to connect the pipe

PS L 8.2.17 Soilcrete Casing Unit: m³

The soilcrete (1:10 ratio) is measured by volume according to the specified width and depth that exceeds the outside volume of the pipe (the volume of the pipe detracted).

The tariff includes the cost of shuttering and soilcrete mixture.

S L 8.2.18 Pipe Markers Unit : No

Pipe markers will be measured and paid for by number and the tariff must include all excavation, installation, and paint and numbering of marker, concrete as well as labour as described in PS L 5.11.

PS L 8.2.19 Valve chambers Unit : No

Valve chambers will be measured and paid for by number and the tariff must include all excavation, installation, finishing and numbering of the chamber, all materials as well as labour as described in PS L 5.12.

SABS 1200 LB : BEDDING (PIPES)

LB 1 SCOPE

PS LB 1.1 SCOPE

Add the following to LB 1.1:

This specification also covers the bedding required for sleeve pipes.

LB 3 MATERIALS

PS LB 3.1 SELECTED GRANULAR MATERIAL

Substitute LB 3.1 with the following:

Selected granular material shall be an aggregate, sand or granular material, all of a non-cohesive nature and free from any organic material, of which the grading analysis shows 100 % passing a 13,2 mm sieve and not more than 5 % passing a 0,075 mm sieve.

Only if approved by the Engineer may sand from the trench excavations be used as selected material.

PS LB 3.2 SELECTED FILL MATERIAL

Substitute LB 3.2 with the following:

The requirements of PS LB 3.1 shall apply *mutatis mutandis*.

PS LB 3.3 BEDDING

Add the following to LB 3.3:

All pipes shall be classified as flexible pipes and shall have a bedding of selected granular material and selected fill material.

LB 3.4 SELECTION

PS LB 3.4.1 Suitable Material from Trench Excavation Available

Replace the first sentence of LB 3.4.1 with the following:

Notwithstanding the requirements DB 3.7 and LB 3.4.1 relating selected excavation methods, the Contractor must follow selected excavation methods and provide or use plant that will prevent material that is suitable and necessary for bedding being contaminated.

LB 5 CONSTRUCTION

LB 5.1 GENERAL

PS LB 5.1.4 Compacting

Substitute "90 % of Mod. AASHTO" in LB 5.1.4 with "93 % of Mod. AASHTO.

If sand is used the compaction grade must be 100% Mod. AASHTO.

LB 8 MEASUREMENT AND PAYMENT

LB 8.1 PRINCIPLES

PS LB 8.1.1 Supply of Bedding Materials Measured Separately

Add the following to LB 8.1.1:

Payment for bedding material and selected fill material is only made if the selected trench excavation material cannot be used in the same position as bedding material but has to be obtained from another part of the site of works or designated borrow pits, or from commercial sources.

PS LB 8.1.4 Separate Items for Cradle and Blanket

Substitute LB 8.1.4 with the following:

No distinction shall be made as regards material for the bedding cradle and selected fill blanket, and the material shall comply with the requirements for material for bedding cradle.

PS LB 8.1.5 Disposal of Displaced Material

Add the following to LB 8.1.5:

Surplus displaced material shall be dumped and levelled at the spoil site.

LB 8.2 SCHEDULED ITEMS

PS LB 8.2.5 Overhaul of Material for Bedding Cradle and Selected Fill Blanket Unit: m^3.km

Substitute LB 8.2.5 with the following:

a) Limited overhaul (0,5 km to 1,0 km) Unit : m^3

b) Long overhaul Unit : m^3.kmExcept that the volume is calculated according to LB 8.1.3, the requirements of D 8.3.6 or DA 8.3.3, as applicable, shall apply for overhaul.

POLOKWANE MUNICIPALITY
Coherent Health & Safety Specifications

PROJECT NAME: AGANANG RWS (CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE)
Project number:PM26/2021

FOREWORD

These health & safety specifications have been compiled in terms of the Occupational Health& Safety Act no. 85 of 1993 and Construction Regulations of 7 February 2014 as amended. It must be clear that this document is a management tool and should be used by the Principal Contractor and Contractors to comply with the Act and regulations.

Should there be any contradiction between this document and the Act; the Act must take preference except where explicitly stated.

Similarly, where this document is silent on a specific health & safety requirement, the Act must be used as the minimum requirement.

Should you be unclear about anything set out in this document, please contact this office.These specifications are site specific and include all works to be done by the principal contractor. The principal contractor will be responsible for all the work on site.

Every endeavour has been made to address the most critical aspects relating to Health and Safety issues to assist contractors in adequately providing for Health and Safety of employees on site. However, the Principal Contractor is required to ensure they stay compliant with statutory requirements and construction programs and processes and include such aspects in their Health and Safety file.

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COHERENT HEALTH AND SAFETY SPECIFICATIONS FOR AGANANG RWS (2)- GA-RAMALAPA.

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3.6 Polokwane Municipality identified Hazards and Potentially Hazardous Situations

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3.7.1 Health and Safety Representative(s)

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3.7.3 Health and Safety Training

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3.7.8 Occupational Health and Safety (OHS) Signage

3.7.9 Public and Site Visitor Health & Safety

3.7.10 Access to Site

3.7.11 Night Work (After Hours)

3.7.12 Transport of Workers

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3.8.3 Deliveries, Waste Removal, Stacking/Storage of Materials

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3.8.5 Traffic Control

3.9 Plant, Machinery and Equipment

3.9.1 Construction Vehicles & Mobile Plant

3.9.2 Pressure Equipment

3.9.3 Hired Plant and Machinery

3.9.4 General Machinery

3.9.5 Electrical Installations and Portable Electrical Tools

3.10 Occupational Health

3.10.1 Industrial Hygiene (exposure to physical and chemical stress factors)

3.10.1.1 Noise

3.10.1.2 Ergonomics

3.10.2 Hazardous Chemical Substances (HCS)

3.10.3 Welfare Facilities

3.10.4 Alcohol and other Drugs

3.10.5 COVID-19

4. Omissions from the Site-Specific Health and Safety Specifications

Annexure A
Primary Health & Safety Compliance

Annexure B
Principal Contractor and Contractors' Responsible Persons

Annexure C
General Compliance Requirements

Annexure D
Occupational Health & Safety - Health & Safety pricing guidelines

Annexure E
Occupational Health & Safety File Index

Annexure F
Notification of Construction work

Gazette 37305 shall specifically apply to all persons involved in the construction workpertaining to this project.

“Purpose of the Act” –To provide for the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establishan advisory council for occupational health and safety; and to provide for matters connected therewith.
“Agent” –means a competent person who acts as a representative for a Polokwane Municipality.
“Polokwane Municipality” –means any person for whom construction work is performed;
"Construction manager" means a competent person responsible for themanagement of the physical construction processes and the coordination, administration and management of resources on a construction site;
"Construction site" means a workplace where construction work is being performed.
"Construction supervisor" means a competent person responsible for supervising construction activities on a construction site.
"Construction work" means any work in connection with -

- **a)** The construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure; or 6
- **b)** The construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work;

“Contractor” means an employer who performs construction work.

"Designer" means-

- **a)** A competent person who-
  Prepares a design.

Checks and approves a design.
Arranges for a person at work under his or her control to prepare a design,including an employee of that person where he or she is the employer; or Designs temporary work, including its components.

- **b)** An architect or engineer contributing to or having overall responsibility for a design.
- **c)** A building services engineer designing details for fixed plant.
- **d)** A surveyor specifying articles or drawing up specifications.
- **e)** A contractor carrying out design work as part of a design and building project; or an interior designer, shopfitter, or landscape architect.

“Health and Safety File” –means a file, or other record containing the information bythe Construction Regulations.
“Health and Safety Plan” –means a site, activity or project specific documented planin accordance with the Polokwane Municipality 's health and safety specification.

“Health and Safety Specification” –means a site, activity or project specific document prepared by the Polokwane Municipality pertaining to all health and safetyrequirements related to construction work.
“Method Statement” –means a document detailing the key activities to be performedto reduce as reasonably as practicable the hazards identified in any risk assessment. **"Principal contractor"** means an employer appointed by the Polokwane Municipalityto perform construction work.
“Risk Assessment” –means a program to determine any risk associated with anyhazard at a construction site, to identify the steps needed to be taken to remove, reduce or control such hazard.

1.5 Abbreviations:

GMR: General Machinery Regulations
OHS Act: Occupational Health & Safety Act. Act 85 of 1993Constr
Reg: Construction Regulation 2014
ORHVS: Operating Regulations for High Voltage SystemsPPE:
Personal Protective Equipment

2. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

2.1 ROLES

Polokwane Municipality / Agent

a) Prepare a baseline risk assessment and issue a health and safety specification to the Principal Contractor, Designer and include the specification in tender documentation.
b) The Polokwane Municipality or the appointed Polokwane Municipality Agent will appoint each Principal Contractor for this project or phase/section of the project in writing for assuming the role of Principal Contractor as intended by the Construction Regulations.
c) The Polokwane Municipality or the appointed Polokwane Municipality Agent shall discuss, negotiate, and approve the contents of the specified project health and safety plan submitted by the Principal and Sub Contractor.
d) The Polokwane Municipality or his Agent will take reasonable steps to ensure that the health and safety plan of the Principle and Sub Contractor is correctly implemented and maintained. Monthly audits shall be conducted to monitor the compliance.
e) In the event of design changes the Polokwane Municipality or the appointed Agent on his behalf will ensure that enough resources will be provided to implement the work safely.
f) The Polokwane Municipality or his appointed Agent on his behalf will prevent the Principal Contractor and/or the Contractor from commencing or continuing with construction work should the Principal Contractor and/or the Contractor at any stage in the execution of the works be found to:

have failed to have complied with any of the administrative measures required by the Construction Regulations in preparation for the construction project or any physical preparations necessary in terms of the Act;

have failed to implement or maintain their health and safety plan;
have executed construction work which is not in accordance with their healthand safety plan; have acted in any way which may pose a threat to the health and safety of any person(s) present on the site of the works or in its vicinity, irrespectiveof him/them being employed or legitimately on the site of the works or in its vicinity.

Designer

- Must consider the health and safety specifications of the Polokwane Municipality.
- Before the tender process, the designer must make available a report to the Polokwane Municipality about:
    - All the relevant health and safety information about the design of the relevant structure that might affect the pricing of the construction work.
    - The geotechnical -science aspects, where appropriate.
    - The loading that the structure is design to withstand.
- Inform the Polokwane Municipality in writing of any known or anticipated dangers or hazards related to the project.
- Make available all relevant information required for the safe execution of the work upon being designed or when the design is subsequently altered.
- During the design consider the hazards relating to any subsequent maintenance to be performed with the minimum risk.
- During the design stage cognizance of ergonomic design principals must be applied to minimize ergonomic related hazards in all phases of the life cycle of a structure.

2.2 Implementation of the Health and Safety Specifications (Drafting of the coherent Health & Safety Plan)

These health & safety specifications document forms an integral part of the contract, and the Principal Contractor is expected to use it when compiling its project-specific coherent health & safety plan. The Principal Contractor must forward a copy of thesespecifications to all Contractors at their bidding stage so that they can in turn preparecoherent health & safety plans relating to their operations.

3. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEM ELEMENTS

3.1 Scope of the Project

These Specifications set out the requirements for eliminating or if this is not possible, for minimising as far as reasonably practicable, the risk of incidents and injuries occurring at Polokwane Municipality. **This document covers work to be undertakenof the project and sets out the rules and procedures for engagement on the project.** The scope also addresses legal compliance, Polokwane Municipality standards, hazard identification and risk assessment, risk control, and the promotion

of a health and safety culture amongst those working on the project. The health &safety specifications also make provision for the protection of those persons otherthan employees.

3.2 The Extent of the works:

Summary of the scope of work

• Refurbishment of existing borehole H04-0355 equipment. (Replace 65 mm with 80mm pipe installations).
• Supply and Erect Precast Pump House complete with lockable device for borehole H04-0355.
• Supply and installation of 114-kl elevated steel tank inclusive of foundations at a minimum height of 10 m.
• Supply and installation of water Lines (Rising Main, Distribution and Reticulation lines).
• Supply and installation of Yard Connections, pipe line ancillaries.

3.3.1 Application

This specifications document is a legal compliance document compiled in termsof the OHS Act & Construction Regulations 2014 and is therefore binding. The document must be read in conjunction with other relevant legislation.

3.3.2 Definitions

The definitions as listed in the OHS Act 85/1993 and Construction Regulations(February 2014) shall apply.

3.3 Minimum Administrative Requirements

3.4.1 Notification of Intention to Commence Construction Work

The Principal Contractor must notify the Provincial Director of the Department ofLabour in writing before construction work commences. A copy of this notification must be held in the Principal Contractor's health & safety file on site.The fax transmission slip will serve as proof of notification.

See attached **Annexure "F"**

3.4.2 Assignment of the Principal Contractor's / Contractors' Responsible Persons to supervise and Co-ordinate Health and Safety on Site

The Principal Contractor and all Contractors must make supervisory appointments as well as other relevant appointments in writing (as stipulated bythe OHS Act and Construction Regulations 2014). See attached **Annexure 'B'** for more detail on what health & safety management appointments are relevanton this project.

3.4.3 Competence of the Principal Contractor's / Contractors' Appointed Competent Persons

The Principal Contractor and Contractors' competent persons for the variousrisk management portfolios must fulfil the criteria as stipulated in terms of thedefinition 'Competent' in accordance with the Construction Regulations (February 2014).

3.4.4 Compensation for Occupational Injuries and Diseases Act 130 of 1993 (COIDA)

The Principal Contractor must have in its possession a letter of good standing issued by its Compensation Assuror as proof of registration. Contractors must also hold proof of workman's compensation assurance registration in the form of a letter of good standing and forward a copy to the Principal Contractor before they begin work on site. Contractors must alwaysbe in good standing while carrying out work on site.

3.4.5 Health and Safety Organogram

Including all appointed risk management competent persons. In cases whereappointments have not yet been made, the organogram shall reflect the intended positions.

The organogram must be updated when there are changes in the Site Management Structure and dated accordingly. The organogram merely servesas a quick reference to who is responsible for what risk portfolio in what area.

3.4.6 Preliminary Hazard Identification and Risk Assessments, Progress Hazard Identification and Risk Assessments Reviews.

The Principal Contractor must cause preliminary hazard identification and risk assessment to be performed under the leadership of a competent person before commencement of construction work. On this project detailed task- specific risk assessments based on the proposed sequence of work (method ofwork) must be compiled. Generic risk assessments will not be accepted.

The assessed risks, together with written safe work procedures for the 'medium& high-risk' rated activities must form part of the coherent site-specific health and safety plan submitted for approval by House of Safety. The risk assessments must include:

a) A list of hazards identified as well as potentially hazardous tasks;
b) The risks which may result based on the list of hazards and tasks;
c) A set of safe work procedures to be implemented with the aim of eliminating or if this is not possible, reducing and/or controlling the risks as far as reasonably practicable to ALARP (as low as reasonably practicable);
d) A monitoring and review procedure of the risk assessments as they change i.e., how will the risk assessments be reviewed, when will they be reviewedand by whom.

The Principal Contractor must ensure that all Contractors inform, instruct and train their workers regarding any hazards, the associated risks and therelated safe work procedures to be implemented before any work commences and thereafter at regular intervals as the risks change and as new risks develop. This training should be carried out in the form of toolbox health & safety talks. Contractors must conduct their own toolbox talks andsubmit proof of these talks in the form of attendance registers to the Principal Contractor at least every two weeks. Every worker on site must undergo such toolbox safety talks with the attendance registers kept in the Principal Contractor's safety file.
Contractors must conduct their own hazard identifications and riskassessments specific to their operations and forward a copy to thePrincipal Contractor.
The Principal Contractor when required must report on the status of theseContractor risk assessments to the Polokwane Municipality i.e. at audits.

3.4.7 General Record Keeping

The Principal Contractor and all Contractors must keep and maintain all the necessary Health and Safety records to demonstrate compliance with these Coherent Specifications, the OHS Act 85/1993, and the Construction Regulations (February 2014). The Principal Contractor must also ensure that allrecords of incidents/injuries, emergency procedures, training, planned maintenance inspections, monthly contractor audits, etc. are kept in the health

& Safety file(s) held in the site office. The Principal Contractor must ensure thatevery Contractor keeps its own health & safety file, maintains the file, and makes it available on request (the file must include the Contractor's health & safety plan and all relevant records). Such 'Contractor safety files' must be audited by the Principal Contractor monthly with audit reports kept as proof.

3.4.8 Injury / Incident Reporting and Investigation

Injuries are to be categorised into first aid; medical; disabling (lost day); and fatal. When reporting injuries to the Polokwane Municipality, these categories must be used. The Principal Contractor must investigate all injuries. All Contractors must report injuries to the Principal Contractor immediately and thePrincipal Contractor must inform the Polokwane Municipality immediately. All incidents reportable in terms of the provisions of Section 24 of the OHS Act must be reported to the local Dept. of Labour in the prescribed manner.

3.4.9 Consolidation of Health & Safety Documentation

It is the duty of the Principal Contractor to ensure that all documentation required to be kept or generated during the construction phase is consolidated into one set of documents that must be handed over to the Polokwane Municipality upon completion of the construction work. This consolidated safetyfile(s) should include instructions from the design team that will be required for the continued safe operation and maintenance of the new structure(s).

3.4.10 Offences and Penalties

Penalties may be imposed on the Principal Contractor and Contractors for ongoing non-compliance with the provisions of the Polokwane Municipality 's coherent health & safety specifications, the Principal Contractor's coherent health & safety plan, site health & safety procedures and rules. Non- compliances identified during safety agent audits and visits will be categorised into one of three levels based on severity. These will be as follows: Life threatening situation - a prohibition order will be issued by means of a written instruction in the site instruction book or an explanation in an audit report. This activity must be seized immediately, and corrective measures taken. Serious injury possible – a contravention notice will be issued with a time frame for compliance stipulated. Minor or no injury may result – an improvement notice will be issued. The corrective measures stipulated in the audit report must be taken. The methodology used to decide the above levels will be causally linkedto the risk assessments of the Principal Contractor and contractors, PolokwaneMunicipality Standards. The decision of the safety Agent will be final.

3.4 Principal Contractors, Contractors and Sub-contractors

3.5.1 Principal Contractor's and Contractors' Requirements

The Principal Contractor must ensure that all Contractors appointed by them comply with these Specifications, the Principal coherent health & safety plan aswell as the OHS Act, Construction Regulations (February 2014), and other relevant legislation that may relate to the activities directly or indirectly. A Contractor, when appointing other Contractors as 'Sub-contractors', shall mutatis mutandis ensure compliance as if it was the Principal Contractor.

The Principal Contractor may only allow a Contractor to begin work on site afterreceiving a coherent health & safety plan which must include a project specific hazard identification, risk assessments and safety measures. The Principal Contractor must test competency and finally approve his sub – contractor coherent site-specific health and safety plan. The Principal Contractor must audit each of its contractors monthly, with audit reports kept in the health & safety file on site. The audit must include an administrative assessment as well as a physical inspection of the contractor's site activities. *The Principal Contractor must stop any Contractor from carrying out construction work that isnot in accordance with the Principal Contractor's and/or Contractor's health & safety plan or if there is an immediate threat to the health and safety of persons.*

The Principal Contractor shall take all reasonable steps necessary to ensureco-operation between all contractors to enable each of those contractors to comply with the provisions of the Construction Regulations;

The Principal Contractor shall take all reasonable steps to ensure that each contractor's coherent health and safety plan is implemented and maintained onthe construction site: Provided that the steps taken shall include periodic auditsat intervals mutually agreed upon between the Principal Contractor and contractors, but at least once every month;

The Principal Contractor must ensure that where changes are brought about tothe design and construction, that sufficient health and safety information and appropriate resources are made available to contractors to allow them to execute the work safely;

The Principal Contractor must ensure that every contractor is registered and ingood standing with a recognised compensation fund or with a licensed compensation insurer prior to work commencing on site;

The Principal Contractor must ensure that potential contractors submitting tenders have made provision for the cost of health and safety measures duringthe construction process;

The Principal Contractor shall discuss and negotiate with the contractor the contents of the coherent health and safety plan and shall finally approve thatplan for implementation;

The Principal Contractor shall hand over a consolidated health and safety file tothe Polokwane Municipality upon completion of the construction work and shall include a record of all drawings, designs, materials used and other similar information concerning the completed structure;

The Principal Contractor may only appoint a contractor to perform construction work when such Principal Contractor is reasonably satisfied that the contractor he or she intends to appoint, has the necessary competencies and resources toperform the construction work safely and that the contractor is an approved Polokwane Municipality contractor.

3.5.2 Principal Contractor / Contractor Competency Assessment

The Principal Contractor must be reasonably satisfied that the contractors it intends to appoint have the necessary competencies and resources to safely conduct the work they will be appointed for. This should be established at tender stage and before appointments are made. One of the preferred ways of determining whether a contractor is competent is to make sure the contractor isan accredited contractor for Polokwane Municipality. Once the contractor is appointed, but before it begins work on site a site- specific safety plan must be discussed and negotiated with the Principal Contractor. Such safety plan must be approved for implementation by the Principal Contractor.

The Principal Contractor and Contractors should submit the following documentation for perusal and verification by the Polokwane Municipalityand Principal Contractor respectively:

- Coherent health & safety plan as compiled for this project; (including Risk assessments, safe work procedures, fall protection plan, PTW Issuer/PTW Holder certificates
- Management Structure as envisaged at tender (organogram);
- Letter of Good Standing with the Compensation Commissioner or FEM;
- Proof of health & safety training and other related training; (CV and certificates) Legislative appointment letters
- Notification of Construction work; (proof notification was done)

3.5.3 Pricing for Occupational Health & Safety Compliance All parties bidding to do work on this construction project must ensure that they have made provision for the cost of complying with this Specifications document as well as with the OHS Act and incorporated Regulations as a minimum requirement in their tender documentation. It must also be taken into consideration that time is money, which implies that sufficient time must be allowed for the implementation of the minimum OHS standards. No additional claims will be

entertained at a later stage should a compliance requirement be prescribed inthe OHS Act, incorporated regulations or in this Specifications document.

3.5.4 Contractors' Coherent Health & Safety Plans [Construction Regulations 7]

1. Introduction:

The Construction Regulations (2014) aims to improve overall managementand co-ordination of Health, Safety and Welfare throughout the Construction Phase and reduce the large number of serious and fatal injuries and cases of ill health, which occur every year in the Construction Industry.

In terms of the Construction Regulations (2014), the Principal Contractor isrequired to develop a Health and Safety Plan before work commences on site and review it throughout the Construction Phase. The degree of detail required in the Health and Safety Plan and the time and effort in preparing it should be in proportion to the nature, size and level of Health and Safetyrisks involved in the project. Projects involving minimal risks will call for simple, straightforward plans. Large projects or those involving significant risks such as this project will need much more detail.

2. What should the construction health & safety plan cover?

The Construction Health and Safety Plan should set out the arrangementsfor ensuring the Health and Safety of everyone carrying out the construction work as well as all other persons who may be affected by it. The index of this plan must be in line with Annexure:

3.5.5 Communication and Management of the work

The Principal Contractor must indicate in its health and safety managementplan that it has made provision for the following:

a. Management structure and responsibilities
b. Health and Safety goals for the project and arrangements for monitoring andreview of Health and Safety performance i.e. safety meetings; contractor meetings; risk assessment review, etc
c. Arrangement for:

    i. Regular liaison between parties on site i.e. meetings
    ii. Consultation with the work force i.e. toolbox talks
    iii. The exchange of design information between the Polokwane Municipality, designers, and Contractors on site
    iv. Selection and control of Contractors i.e. selection criteria; inspections;audits, etc.
    v. Site health & safety induction and onsite training i.e. toolbox talks

vi. Welfare facilities, first aid, emergency planning and fire preventionstrategy
vii. The reporting and investigation of injuries and incidents including nearmisses what the intended system will be
viii. The production, approval and review of risk assessments, safe work procedures and method statements and how does the company's riskassessment system work.
d. Site specific rules and procedures.

3.5 Polokwane Municipality identified Hazards and Potentially Hazardous Situations

See attachment.

Other possible risks you need to consider.

1. Existing services
2. Interface with the public
3. Hazardous chemical such as solvents, cleaning agents, cement, fuels, oils, epoxies, etc.
4. Site security and access control issues
5. Relocation and protection of existing services
6. Finishing trades

3.6.1 Unforeseeable Hazards

The Principal Contractor must immediately notify Contractors as well as the Polokwane Municipality, in writing, of any hazardous or potentially hazardoussituations that may arise during the performance of construction activities so that the necessary precautions may be taken before such work begins.

3.6 Site Operational Requirements

3.7.1 Health and Safety Representative(s)

The Principal Contractor and all Contractors must ensure that Health and Safety Representative(s) are appointed under consultation with the employees.The H&S representatives must be competent to carry out their functions. The appointments must be in writing. The Health and Safety Representatives should carry out monthly inspections, keep records of the inspections and report all findings to the Responsible Person or safety officer forthwith and at monthly health & safety committee meetings. At least one Health & safety representatives are required by all Employers on site.

3.7.2 Health and Safety Committees

The Principal Contractor must ensure that project health and safety committeemeetings are held monthly with minutes kept. Meetings must be chaired by thePrincipal Contractor's Responsible Person [CR 7(1) person]. All Contractors'

Responsible Persons and Health & Safety Representatives must attend the Principal Contractor's monthly health & safety meetings. The Principal Contractor's appointed supervisors must also attend health & safety meetings. The following topics must be tabled at meetings: management appointments and risk management portfolios; sub-contractor legal compliance issues; injuries and incidents; hazards and risk assessments (present and foreseen); safety procedures; method statements for upcoming activities; planned inspections and registers/record keeping, etc. The committee chairperson mustsign off and date the minutes.

3.7.3 Health and Safety Training

3.7.3.1 Induction

The Principal Contractor must ensure that all site personnel including allsub-contractors undergo the agreed health & safety induction training session held and managed by the P/Contractor before any worker startswork on the project. A record of attendance must be kept in the health &safety file. Workers must carry proof of inductions on their person while on site i.e. identification passport cards or like be agreed.

3.7.3.2 Awareness

The Principal Contractor must ensure that, on site, periodic toolbox health & safety talks take place at least once every two weeks. All site personnel including all sub-contractors must attend safety talks at such intervals and keep proof thereof. These talks should deal with risks relevant to the construction work at hand i.e. they should be based on the job-specific risk assessments and safe work procedures. Records ofattendance must be kept in the PI contractor's health & safety file. All contractors' employees must attend safety awareness toolbox talks carried out by their supervisors; the attendance registers must be copied to the Principal Contractor together with information on the information discussed at the session.

3.7.3.3 Competence

All competent persons must have the knowledge, experience, training, and qualifications specific to the work they have been appointed to supervise, control and/or carry out. This must be assessed on a regularbasis e.g. training, evaluation, and periodic audits by the Polokwane Municipality, progress meetings, etc. The Principal Contractor is responsible to ensure that Competent Contractors are appointed to carry out construction work on site.

3.7.4 Health & Safety Audits, Monitoring and Reporting

The Principal Contractor is obligated to conduct monthly audits on all Contractors appointed by it and keep audit reports in its health & safety file. Contractors must audit their sub-contractors and keep records of these auditsin *their* health & safety files, made available on request. The Polokwane Municipality Agent will conduct monthly audits on the Principal Contractors' safety management plan.

3.7.5 Emergency Procedures

The procedure must detail the response procedures including the following keyelements:

- List of key competent personnel;
- Details of emergency services;
- Actions or steps to be taken in the event of the specific types of emergencies;
- Evacuation procedures: including routes and exits to be available on a drawing.
- Emergency procedure(s) must include, but shall not be limited to fire; spills; injury to employees; damage to material / equipment / plant; use of hazardous substances; bomb threats; major incidents/injuries; evacuation; etc.
- The Principal Contractor must advise the Polokwane Municipality in writing forthwith, of any emergency situations, together with a record of action taken/action to be taken.
- A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc.) must be maintained and made available to site personnel.
- The emergency plan will need to be reviewed from time to time as conditions/environment changes i.e. as building work increases in extent.

3.7.6 First Aid Boxes and First Aid Equipment

The Principal Contractor and all Contractors must appoint First Aider(s) in writing. The Principal Contractor must appoint at least one First Aider to start with, which first aider must be certificated. Copies of valid certificates are to be kept on site. The Principal Contractor must provide at least 1 (one) first aid box,adequately always stocked. Due to the nature of this project i.e. satellite workstations/areas, further first aid boxes must be provided close to the various workstations to allow for quick, effective treatment of injured persons. As the work progresses and the structure increases in height, extra first aid

3.7.7 Personal Protective Equipment (PPE) and Clothing

The Contractor must ensure that all site workers are issued with and wear the appropriate PPE as indicated in their risk assessments. The Contractors must always make provision and keep adequate quantities of SANS approved PPE on site according to their risk assessments. Safety harnesses are mandatory wherever work takes place in an elevated area where safe working platforms orladders are not possible. Overalls clearly indicating the Contractor's logo must be worn and all sub-contractors must conform to this requirement. Eye protection must be worn by those working grinders, skill saws, and high- pressure water cleaners. Even those workers near these operations will also berequired to wear such eye protection.

Safe footwear will be required by all workers. A high visibility vest is mandatoryon a Polokwane Municipality site.

3.7.8 Occupational Health and Safety (OHS) Signage

The Principal Contractor must provide adequate on-site OHS signage. Including but not limited to: 'construction work - no unauthorised entry', 'bewareof overhead work', 'hard hat area', first aid – to be posted up at all work areas/zones.

Signage must also be posted up at strategic locations to warn the public ofdiversions, alternative through ways and other irregularities caused by construction work (pedestrians and motorists).

Signs are also required as per law e.g. scaffolding and other potential risk areas/operations such as exposed edges and openings and trenches/excavations where persons are at work. Safety signs and awareness posters will also be required in strategic locations on site such as frequently used access routes, stairways, and entrances to structures and buildings wherethe workers will continuously be made aware of health & safety. Health & safetysignage must be well maintained including weekly inspections, cleaning, replacement, and repair.

3.7.9 Public and Site Visitor Health & Safety

Public walkways and roadways must be kept clean and free of construction materials to prevent any negative impact on the public. Public roadways andwalkways will have to be cleaned on a regular basis – daily inspections to beconducted by the Principal Contractor with action to be taken without delay (daily).

Site visitors must be briefed on the hazards they may be exposed to as well aswhat measures are in place or should be taken to control these hazards. The Construction Regulations require that a record of these 'inductions' be kept on site. It is advised that a visitor book with site rules leaflet be kept at the

reception/site office and all visitors to be directed to such point where they mustread through the site safety information and sign the visitor book. It will be the Principal Contractor's prerogative to decide whether site visitors require supervision while on site. Visitor hard hats must be kept in the site office.

3.7.10 Access to Site

Where any permits are necessary from the local authorities, this will be the Principal Contractor's responsibility. The road surface of all public and private roadways and pavements/pedestrian walkways must remain in a reasonably clean state, free of excessive sand, stone, water, or other construction related materials. The access gate(s) must be controlled, and visitors must sign in andreport to the site office for further instruction.

3.7.11 Night Work (After Hours)

No night work will be allowed within the hazardous zone on this project withoutprior approval from the Polokwane Municipality /Polokwane Municipality 's Agent and the Construction Health and Safety Agent. Additional health and safety requirements will then be applicable.

3.7.12 Transport of Workers

The Principal Contractor and other Contractors may not transport:
Persons together with goods or tools unless there is an appropriate area or section to store the tools or equipment; Contractors must adhere to the NationalRoad Traffic Act.

3.7.13 Construction Health & Safety Officer

A *full-time* construction safety officer (in terms of Construction Regulation 8) willbe required on this project**. The construction health and safety officer must be registered with SACPCMP.** The construction officer will be required to carry out at least the following duties:

a) Health & safety audits and inspections on site including administrative and Physical audits of all Contractors' health & safety plans, files and activities,and record findings in the form of audit reports to be kept in the health & safety file; b) Assess, and finally approve contractor safety plans;

3.7 Physical Requirements

3.8.1 Earthworks (including Trenching and excavations)

The Principal Contractor and relevant Contractors must make provision in their tender for the shoring of excavations where the soil conditions warrant it or if thisis not possible cut it back - excavation walls must be battered back to a safe angle, termed the safe angle of repose.

The Principal Contractor has the following options: first option is to shore or bracethe excavation, should this not be practical then such excavation must be battered back to the safe angle of repose (second option). Should the first two options not be deemed necessary by the Contractor, then permission must be given in writing by the appointed competent excavation supervisor (third option).Where uncertainty pertaining to the stability of the soil exists, the decision of a professional engineer or professional technologist competent in excavations shall be decisive. Such permission must be in writing.

The following is relevant to excavations:

- Excavations/trenches are inspected before every shift and a record of these inspections is kept;
- Safe work procedures have been communicated to the workers;
- The safe work procedures are always enforced and maintained by the Principal Contractor's and Contractors' responsible persons;
- Excavations next to permanent or temporary roadways - ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endangering the safety of any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing;
- Ensure that where the stability of an adjoining building, structure or road is likely to be affected by the making of an excavation, steps are taken that may be necessary to ensure the stability of such building, structure or road as well as the safety of persons
- Cause convenient and safe means of access to be provided into every excavation in which persons are required to work and such access shall not be further than 6m from the point where any worker within the excavation is working;
- Ascertain as far as is reasonably practicable, the location and nature of electricity, water, gas, or other similar services which may in any way be affected by the work to be performed. The necessary steps must then be taken to render the circumstances safe for all persons involved;
- Cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or where the safety of persons may be endangered, to be
- Adequately protected by a barrier or fence of at least one meter in height and as close to the excavation as is practicable; and provided with warning illuminates or any other clearly visible boundary indicators at night or when visibility is poor;
- Cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests

3.8.2 Edge Protection, Barricading and Penetrations (CR 10)

A Contractor must ensure that—

- All unprotected openings in floors, edges, slabs, hatchways, and stairways are adequately guarded, fenced, or barricaded or that similar means are used to safeguard any person from falling through such openings;
- No person is required to work in a fall risk position, unless such work is performed safely as contemplated in sub-regulation (2);
- A detailed Fall Arrest and Rescue Plan will be drafted and implemented on site.
- The above-mentioned plan will be demonstrated on instruction of the Polokwane Municipality s Agent.

3.8.3 Deliveries, Waste Removal, Stacking/Storage of Materials

The Principal Contractor and other relevant contractors must ensure that there is an appointed stacking supervisor and all materials, formwork and all equipment is stacked and stored safely, on level, compact ground, out of access ways and no more than three times the minimum base width in height. Pallets of bricks may not be stacked more than two above each other and must be on timber pallets. No construction materials or equipment may be stacked orstored in public areas unless authorised by the Polokwane Municipality and fenced off as per the Polokwane Municipality's requirements. Waste materials must be kept within designated construction zones. The Principal Contractor will be responsible for co-ordinating and managing this function.

3.8.4 Fire Extinguishers and Fire Fighting Equipment

The Principal Contractor and relevant Contractors shall provide adequate, regularly serviced firefighting equipment located at strategic points on site, specific to the classes of fire likely to occur. The appropriate notices and signsmust be posted up as required. A minimum of four 9 kg dry chemical powder fire extinguishers must be available in and around the site office establishmentand stores. Fire extinguishers must also be placed at all work zones/areas, in strategic locations. Wherever *'hot work' is taking place, additional fire extinguishers must be on hand. Contractors are responsible for ensuring compliance with hot work procedures and must be in possession of method statements detailing the safe working procedures. *'Hot work' includes all workthat generates a spark or flame and may therefore result in a fire.
Further, during the finishing stages of the construction phase when the finishingtrades are on site, fire extinguishers will be required at strategic locations withinthe work areas – to be supplied and managed by the Principal Contractor.

3.8.5 Traffic Control

The Principal Contractor shall ensure that a fulltime traffic safety officer be appointed in writing, upon the commencement of construction activities. The traffic safety officer shall be tasked with regular inspections and movement ofroad traffic signs as per the approved traffic accommodation plans and will report to the safety officer.

The principal Contractor must prepare a site specific a Traffic AccommodationPlan that should be signed off by the relevant appointed Engineer on this project.

This document must indicate the potential risk to the public or environment posed by all vehicles travelling to and from the areas of construction for thepurpose of the construction work and proposes methods to eradicate or minimize these risks. Such a plan must include the following aspects:

- Design of Traffic Management Plan
- Site specific base line risk assessment
- Protection of employees
- Protection of pedestrians
- Specific signage and distances applicable
- Applicable training
- Appointments of road safety officers
- Management after hours/weekend/adverse weather conditions
- Setup and clearing of signage

Only SABS approved temporary road signage must be used. Note that thePrincipal Contractor must always enough signage available.

The Principal Contractor will also put in place flagmen to control the entry and exit of vehicles to and from the site onto the public road. These flag personnel must be highly visible and must have been trained. Flag personnel may not usecell phones while on duty.

3.8 Plant, Machinery and Equipment

3.9.1 Construction Vehicles & Mobile Plant

"Construction Plant" includes all types of plant including but not limited to, cranes, piling rigs, excavators, construction vehicles, compaction plant, batchplants and lifting equipment.

The Principal Contractor must ensure that such plant complies with the requirements of the OHS Act, Construction Regulations (Feb 2014) and anymanufacturers specifications. The Principal Contractor and all relevant

contractors must inspect and keep records of inspections on construction vehicles and mobile plant used on site. Only authorised/competent persons inthe possession of the necessary training certificates and in possession of a certificate of medical fitness may operate construction vehicles and mobile plant.

Appropriate PPE and clothing must always be provided and maintained in goodcondition.

Reverse alarms must be installed on construction vehicles i.e. trucks, diggerloaders, etc.

Vehicles and pedestrian traffic must be safely separated, preventing anyunnecessary interfacing.

Any vehicle or mobile plant using any public road must be roadworthy and carrya certificate proving this. Likewise, any operator of such construction vehicle or mobile plant will have to carry the necessary driver's license.

3.9.2 Pressure Equipment

The Principal Contractor and all relevant Contractors must comply with thePressure Equipment Regulations, including:

Providing competency and awareness training to the operators/users;Providing the relevant PPE and clothing;

Inspecting equipment regularly (every 3 months) and keeping records of theseinspections; Providing appropriate firefighting equipment (Fire Extinguishers) on hand;

Ensuring that oxygen and acetylene bottles are secured in an upright position,do not show signs of corrosion or damage, and have flash back arrestors fittedon both torch & bottle ends of hoses.

3.9.3 Hired Plant and Machinery

The Principal Contractor must ensure that any hired plant and machinery usedon site is safe for use and complies with the minimum legislated requirements. The necessary requirements as stipulated by the OHS Act and Construction Regulations shall apply. The Principal Contractor shall ensure that operators hired with machinery are competent and that competency and medical certificates are kept on site in the health & safety file. Any load test requirements and inspections in terms of legislation must be complied with andcopies of load test certificates and inspections must be kept in the health & safety file. All relevant contractors

3.9.4 General Machinery

The Principal Contractor and relevant contractors must ensure compliance withthe Driven Machinery Regulations, which includes carrying out risk assessments on the machines, inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE and relevant clothing, and training those who use machinery.

3.9.5 Electrical Installations and Portable Electrical Tools

The Polokwane Municipality will ensure as far as possible that the PrincipalContractor is made aware of the positions of all electrical power lines. The Principal Contractor must notify the Polokwane Municipality should it not besure of the location of any electrical power lines.

The Principal Contractor must comply with the Electrical Installation Regulations, the Electrical Machinery Regulations, and the ConstructionRegulations (CR 24).

The Principal Contractor must keep a copy of the Certificate of Compliance (CoC) for its temporary electrical power supply. A revised CoC is required whenever the installation is altered or changed in any way. All temporary electrical installations must be inspected at least weekly by a competent personappointed in writing with records kept. Portable electrical tools and equipment must be visually inspected daily with records kept. It is advised that the P/Contractor appoints the electrical contractor to inspect the temporary electrical installation on a weekly basis with feedback given in a report so that any maintenance and repairs can be undertaken. Such appointed inspector must 'stop' or isolate any distribution board that is unsafe for use.

3.9 Occupational Health

3.10.1 Industrial Hygiene (exposure to physical and chemical stress factors)

Exposure of workers to occupational health hazards and risks is quite common in any work environment, especially in construction. Occupational exposure is amajor problem, and all Contractors must ensure that proper health and hygienemeasures are put in place to prevent exposure to these hazards. Prevent inhalation, ingestion, and adsorption through the skin of hazardous chemical substances.

3.10.1.1 Noise induced hearing loss is a highly underrated occupational condition. Occupational noise emitted by construction machinery and power tools must be controlled as far as possible by implementing engineering solutions such as noise dampening, regular maintenance, servicing, and inspection, screening off the noise, and reducing the number of persons exposed. Personal protective equipment such as earmuffs and earplugs must also be used in conjunction with

engineering controls to reduce noise exposure to below theacceptable levels.

3.10.1.2 Ergonomics is the study of how workers relate to their workstations. We advise the Principal Contractor and Contractors to take this into consideration when conducting risk assessments, thereby improving the worker-task relationship, which will in turn improve productivity and reduce chronic conditions such as back strains, joint problems and mental fatigue, amongst others.

3.10.2 Hazardous Chemical Substances (HCS)

The Principal Contractor and other relevant contractors must provide the necessary training and information as far as the use, transport, and storage of HCS. The Principal Contractor must ensure that the use, transport, and storageof HCS are carried out as prescribed in the HCS Regulations. The Principal Contractor and contractors must ensure that all hazardous chemicals on site have Material Safety Data Sheets (MSDS) on site and the users are made aware of the hazards and precautions that need to be taken when using the chemicals. The First Aiders must be made aware of the MSDS's and how to treat HCS incidents appropriately. Copies of the MSDS's must be kept in the first aid box and in the store. All containers must be clearly labelled.
Flammable substances must be stored separately, away from other materials,and in a well-ventilated area (appropriate cross ventilation). A competent person should be appointed to be in control of this portfolio.
Stores must be well ventilated, preventing the build-up of flammable and toxic gases/vapours. Should fuel storage containers be used, they must conform to the general environmental legislation and Environmental Management Plan (if a requirement on this site). The necessary safety signage must be posted up –'no naked flames', 'no smoking'. Two 9 kg DCP fire extinguishers must be placed near to the fuel containers, but not within 5 m of the containers. These extinguishers are over and above the minimum four required for the offices andstores.

3.10.3 Welfare Facilities

The Principal Contractor must supply sufficient toilets (1 toilet per 30 workers),clean, lockable changing facilities, hand washing facilities, soap, toilet paper, and hand drying material. Waste bins must be strategically placed around siteand emptied regularly. Workers must not be exposed to hazardous materials/substances while eating and must be provided with adequate, sheltered eating areas complete with benches and tables. Stores may not double up a change rooms or mess areas**.**

3.10.4 Alcohol and other Drugs

No alcohol and/or other drugs will be allowed on site. No person may be underthe influence of alcohol or any other drugs while on the construction site. Any

person on prescription medication must inform his/her superior, who shall in turn report this to the Principal Contractor forthwith. Any person suffering fromany illness condition that may have a negative effect on his/her I anyone else'shealth or safety performance must report this to his/her superior, who shall in turn report this to the Principal Contractor forthwith. Any person suspected of being under the influence of alcohol or other drugs must be sent home immediately, to report back the next day for a preliminary inquiry. The Contractor concerned must follow a full disciplinary procedure and a copy of the disciplinary action must be forwarded to the Principal Contractor for its records.

3.10.5 COVID- 19

Response plan

This International pandemic will force the contractors and clients to think aboutthe workplace that the employees work in and the applicable PPE to safeguardthe employees against this COVID 19 virus. Polokwane Municipality have drawn up a checklist with all the necessary equipment and guidelines that will need to be in place before construction can start. The checklists are written using the above-mentioned acts, regulations, and guidelines. This checklist is listed as annexure A. The SHE committee shall have a meeting in the first week of starting to discuss the plan forward with COVID 19.

Access control

The client and the contractor will remain responsible to ensure that the correctmeasures are taken at the entrance of the construction site. The contractor shall have a thermometer available at each entrance to measure the temperature of each of the employees and visitors that enters and exits the site. The following is equipment and processes that will need to be in place ateach entrance:

NOTE: This shall be done when entering the site as well as exiting thesite every time

- Employee or security available at each gate
- Every entrance to site must have a thermometer
- Every entrance shall have a sanitation bottle to sanitize every person entering the sites hands
- Every person shall complete the sign in register that will enable the contractor to track the person in case of a possible positive case
- Non-essential visitors will not be allowed to enter the site
- All persons entering the site shall have a mask or a face shield on when entering, if not no access will be given to the person
- All hand sanitizer that is used must have 70% alcohol and the certificate must be available on site

Documents that need to be updated
Document control will be a critical path to ensure that all employees knows theexact risks and mitigation factors around the COVID 19 virus.

- Baseline risk assessment shall be written on COVID 19 to ensure all the risks is covered and discussed to the employees
- Health and safety policy would need to be changed to address the COVID 19 pandemic
- All safe work procedures shall cover COVID 19
- COVID 19 guideline or procedure shall be drawn up and available in the safety file and discussed to all employees. This procedure will explain how the contractor will ensure that the virus does not spread during construction
- A guideline on what the process will be if an employee or a visitor is showing symptoms of the COVID 19 virus
- COVID 19 Toolbox talks shall be held with all employees to explain to the employees what the COVID 19 virus is
- Applicable Checklist & register should be in place to ensure that all the measures that is stipulated in the Client OHS Spec, Baseline Risk assessment, COVID procedure and contractor OHS Plan
- Sign in register will need to be available at every site entrance where the employee or site security can write down the temperature of the employee or Visitor
- All Health and safety related policies will need to be revised to ensure that COVID 19 is cover and explained in all of them in the applicable manner
- COVID 19 manager shall be appointed on site. This employee shall be on site full-time.

Hand sanitation points
Hand sanitation points will need to be placed at strategic places as well as thehigh-risk area. The first place where sanitation station shall be placed is at all site entrances. High risk areas will be identified by the following:

- Areas where employees are in frequent and/or close contact (i.e. within 1,5 Meter of people)

The high-risk areas will have additional sanitation stations, all employees shallwear mask or face shield when working closer than 1, 5 Meter from the nearest employee. Employees will be trained to wash hands more frequently or to use sanitizer more frequently.

The hand sanitizer that will be used shall have more than 70% of Ethyl alcohol.This needs to be ensured by the safety office on site as well as a Material Safety Data Sheet (MSDS) available close by for confirmation of the 70%. Thehazardous chemical register shall be available in the flammable store. This register shall also include the hand sanitizer.

Hand washing posters shall be available at all hand washing stations to ensurethat all employees know what the correct way is of washing your hands to cover all the areas. Informational posters about COVID 19 shall also be visible at these areas to ensure that employees know how the virus spreads and how to prevent spreading. The sanitisation stations will need to be cleaned on a regular basis.

Cleaning & disinfecting

All work surfaces need to be cleaned and disinfected on a regular basis. The chemical that will be used to clean the surfaces must have a minimum of 70%Ethyl Alcohol and the MSDS for that specific sanitizer must be available in thesafety file under the MSDS's section. Plant, site offices & construction sites shall be decontaminated before the start of the site. The contractor that decontaminated the site shall issue a certificate to explain it has been done and explain what chemicals was used.

Offices

- All offices must have a biochemical hazardous bin with a medical waste bag that can be sealed
- The offices need to be cleaned on a regular basis
- If disposable gloves are being used, they must be discarded in the medical waste bin.
- Only employees that is working in the office will be allowed in the offices
- All visitors must arrange with office personnel if they have an appointment with one of the office employees to move outside and have the appointment outside or in a well-ventilated area and if possible, keep social distancing distance (1,5 Meter)
- Cleaners must focus on cleaning the following areas: desks, printers, door handles, kettles, microwaves & office equipment (cabinets, staplers, punchers) etc.
- No utensils shall be shared
- All employees shall sanitise their hands before and after using building plans

Ablution Facilities

- All ablution facilities shall have a washing station or a sanitation station.
- Sufficient paper towels shall be available to dry off hands after sanitizing
- All ablution facilities must have a biochemical hazardous bin, with a medical waste bag that can be sealed
- Paper towels shall be discarded into the medical waste bin provided at the ablution facilities
- Ablution facilities must always be cleaned on a more regular basis to ensure a clean surface
- Chemical toilets ratio is reduced to 1-10 employees and flush toilets ratio is reduced 1-15 employees
- Cleaners must focus on the most touch areas when cleaning ablution facilities (toilet handles, door handles, taps, basins surfaces, toilet seats etc.)

Eating areas

The eating areas in construction is a high risk since the employees undernormal circumstances would have sit within 1, 5 Meter of each other.

- Eating areas will need to make bigger to accommodate all employees at once but still implement social distancing of 1, 5 Meter at least.
- All eating areas must have a biochemical hazardous bin, with a medical waste bag that can be sealed
- All Servite that was used or paper towels that was used to dry hands after using the sanitation station must be discarded in the hazardous bin.
- All eating areas shall have a washing station or a sanitation station
- Lunch breaks should be staggered between contractors / employees to ensure that during lunch the social distancing 1, 5 Meter can still be implemented.
- All chairs, Tabletops and drinking water taps need to be cleaned after each lunch break
- Notice board shall be placed at the eating area to ensure that all employees see all posters and notices
- Clean drinking water need to be supplied to all employees at the eating area

Waste management

The waste management on site will be a critical path and will need to be monitored. The PPE and cleaning material that will be discarded will be medical (biological hazardous) waste. This will need to be separated from normal waste, all medical waste bins will need to have a waste bag that can seal and need to be removed by a registered service provider. Hazardous bins shall be foot operated to ensure employees do not touch the lid of the hazardous bin.

Paper towels

Paper towels shall be supplied to by the contractor at all sanitation stations and washing stations for employees to dry their hands. These towel papers willbe discarded in the medical waste bins. The contractor shall ensure that sufficient paper towels is in storage for a fast and effective replacements

PPE

All disposable PPE shall be discarded in these medical waste bins. DisposablePPE will be the following: dust masks, surgical masks etc.

Disinfectants

The sanitizers that will be available throughout the site if finished and not refilled will be discarded as medical waste. The contractor must ensure that sufficient stock of hand sanitizer and soap is available in the storeroom. Thischemicals and soap shall be recorded as it is booked out of the storeroom.

Wastewater

The water that will be used at the hand washing points will need be stored in acontainer with a lid. This infected water will then need to be treated before the water can be discarded in a normal municipal sewage system.

Personal Protective Equipment (PPE)

COVID 19 be prevented from spreading using the correct PPE. The COVID 19virus is spread by small droplets that can be enter the body at the face throughthe nose, mouth, and the eyes. This is the critical areas that must be protectedat all cost to prevent the employees from getting the feared COVID 19 virus.
The disposable PPE will be treated as biological hazardous waste asexplained above in waste management

The Contractor shall supply all employees with 2 cloth masks (1 to wear, 1 towash). The cloth masks will be checked every morning at the entrance of thegate to ensure that employees are washing the cloth masks. This is an example of a cloth mask:

If the employees are working in a high-risk area, the contractor will need to have a look at alternative measures to protect the employee's eyes as well asmouth and nose area. Face shields is a perfect example of an alternative wayto protect our workers. There are different types of face shields on the market,from loose face shields with a strap to face shield and hard hat combination.
Below is an example of these alternative equipment that will need to be inplace in high risk areas when possible:

Employees will only be required to wear hand gloves when the task will requireit (will be stipulated in the risk assessment). When for example the employee will do grinding work and the face shield will not last then the employee will be required to wear goggles and a normal dust mask.

Accommodation

When the contractor provides accommodation to the employees on site thefollowing shall be in place:

- The quantity of employees must be looked at that is accommodated on site
- The restrictions on the number of employees using the same ablution facilities
- Cutlery & utensils shall not be shares between employees
- Social distancing between employees (at least 1,5 Meter) when in sleeping quarters and in cooking facilities
- The employees shall practice good personal hygiene and shall sanitise areas that on a regular basis that is used by all employees
- Employees shall not share any personal belongings with each other for example: clothes & towels

Transportation
The transportation of employees shall be monitored by the site safety officer as well as site management. Transportation will be arranged that all employees always implement the social distance of at least 1, 5 Meter from each other. Employee using transportation as well as drivers will always wear mask to prevent the spread of the virus. Employees shall sanitize their hands before using transportation and after using transportation. Transporting employees in big quantities must always be prevented if possible. All transportshall be disinfected before and after use. If employees drive with personal transport, sufficient parking must be made available

COVID 19 Signage's
The applicable signage's shall be displayed at all the applicable places for example all the notice boards that is identified in this document. The contractorshall as far as reasonably practicably post posters about COVID 19 to ensure that all employees know the essential information of the virus. The signage's will be essential to show employees with the use of pictograms what is the most important factors to keep in mind on site. All hand sanitation station shall have a sign that states it is a sanitation station and while have a poster to explain to employees exactly how to wash their hands to prevent getting infected.

This is examples of signs that shall be visible all over site to keep reminding employees of the risks. The site entrances shall get additional signage's to explain to visitor and employees the applicable PPE for the site. These signsare examples of signs that shall be visible at the site entrances:

COVID 19 Posters
The contractor will be responsible to display posters on all notice boards on site as stipulated to ensure that employees are informed of the COVID 19 virus. The responsibility is with the contractor to communicate these posters tothe employees and the train them on all the precaution measures and the keepthem informed.

3 Omissions from the Site-Specific Health and Safety Specifications

Every endeavour has been made to address the most critical aspects relating toHealth and Safety issues to assist the contractor in adequately providing for the Health and Safety of employees on site. However, the Principal Contractoris required to ensure they stay compliant with statutory requirements and construction programs and processes and include such aspects in their Healthand Safety File.

PRIMARY HEALTH AND SAFETY COMPLIANCE
Project: AGANANG RWS (2)- GA-RAMALAPA

ANNEXURE A

The Principal Contractor and Contractors must submit compliance with Annexure 'A' before commencing on work on site. **Compliance with Annexure 'A' must be maintained and proven to the Safety Agent at audits.**

HSS Item no.	Requirement	Legal Reference	Compliance required:
A1	Health & Safety Plan (H & S Plan)	Constructions Regs.	Withing one weeks of receipt of these specifications
A2	Notification of intention to commence construction / building work	Complete schedule 1 (Construction Regs.)	Before commencement on site
A3	Assignment of responsible persons to supervise construction work	OHS Act ~ Section 16(2) appointee ~ all written appointments under the construction regulations 2014	Before commencement on site
A4	Competence of responsible persons in the form of CV's related work history of appointees	OHS Act ~ Section 16(2) appointee ~ all written appointments under the construction regulations 2014	Together with H & S Plan
A5	Compensation for occupational injuries and diseases - proof of registration and in good standing	COIDA or FEMA	Together with H & S Plan
A6	Health and safety organogram showing all safety management portfolios and positions	Polokwane Municipality requirement	Together with H & S Plan
A7	Initial hazard identification and risk assessment document	Construction regulations	Together with H & S Plan
A8	Fall protection plan (first draft) as defined in the construction regulations	Construction regulations	Together with H & S Plan

HSS = health & safety specifications
OHS Act = occupational health & safety Act
CR = construction regulations
COIDA = compensation for occupational injuries and diseases Act

ASSIGNMENT OF PRINCIPAL CONTRACTOR'S AND CONTRACTORS' RESPONSIBLE PERSONS
Project: AGANANG RWS (2)- GA-RAMALAPA

ANNEXURE B

The Principal Contractor must make all the management appointments as set out below. Compliance with annexure 'B' to be maintained and proven to the safety agent at audits (Further appointments could become necessary as the project progresses).

Item no.	Appointment	Legal Reference	Requirement
B1	CEO Assignee	Section 16(2)	A competent person to assist the CEO in achieving compliance with the OHS Act - PIContractor's I Contractor's Responsible person
B2	Construction Work Manager	CR 8(1)	A full time competent person to Supervise and be responsible for health & safety related issues on site. The person is appointed by the Section 16(2)
B3	Assistant Construction Work Manager	CR 8(2)	A full time competent person(s) to assist the CR 8(1) appointee with daily supervision of construction work safety. One of the CR8(2) appointees must be designated to fulfil the role of the CR6(1) when such person is not on site. Make this clear in the appointment letter
B4	Health & Safety Representative(s)	Section 17	A competent person(S) to be appointed to represent the workforce in H & S matters. Reps may attend safety meetings, conduct monthly site audits, attend incident / injury investigations and make recommendations as far as H&S goes.
B5	Health & Safety Committee Member(s)	Section 19	H&S reps, site supervisors / foreman and the safety officer should make up the committee, with the CR8(1) appointee chairing the committee.
B6	Incident Investigator	GAR 9	A competent person to head up the investigation team and co-ordinate incident / injury investigation on site.
B7	Risk assessment co-ordinator	CR9	A competent person to co-ordinate the drafting / reviewing / distribution of risk assessments on behalf of the principal contractor. The same applies to contractors. NQF Level 5

B8	Fall protection plan co-ordinator	CR10	A competent person to co-ordinate the drafting / reviewing / distribution of Fall Protection Plan. The same applies to contractors. NQF Level 4
B9	Emergency plan co-ordinator	Contractor Needs to be in line with service station ERP	A competent person to co-ordinate the drafting / reviewing / distribution of the site emergency procedures / evacuation plan. Such person must be fulltime on site so as to take charge of emergency situations.
B10	First Aider(s)	GSR 3	A certified person to address first aid situations and take charge of injuries. Level 1 certificate
B11	Lifting machine and lifting tackle supervisor	DMR 18	A competent P/Contractor employee to co-ordinate the management of lifting machines and tackle, ensuring that such equipment is safe for use at all times, inspected when necessary and repaired when required. The operators, banks men and contractors to laisse with this person
B12	Scaffolding inspector	SANS 10085 - 2004	A competent person to inspect scaffolding before use and every time after bad weather, etc.
B13	Scaffold supervisor (P/Contractor	SANS 10085 - 2004	A competent P/Contractor employee to supervise all scaffolding on site, ensuring that scaffolds are safe for use, inspected, extended / altered, repaired when required and that all trades are co-ordinated and authorised to work on such scaffolds
B14	Scaffolding erector	SANS 10085 - 2004	A competent person(s) to erect scaffolding - leader of the scaffold team
B15	Formwork & support work supervisor (Temporary Works)	CR12	A competent person to supervise all formwork & support work erection & dismantling. This person must also ensure that the equipment is safe and that all the necessary inspections (pre, during, post & every day thereafter) are carried out & records kept by the competent inspectors. Design drawings must be available to this supervisor.
B16	Excavation supervisor / inspector	CR13	A competent person to supervise & inspect excavation work (daily) and ensure that excavations are safe. Records of inspections must be kept by this person.

B17	Ladder inspector	GSR13A	A competent person to inspect ladders daily and ensure they are safe for use, keeping monthly record.
B18	Stacking supervisor	CR28	A competent person to supervise all stacking and storage operations
B19	Explosive powered tools inspector / supervisor	CR21	A competent person to inspect & clean the tool daily, store the tool in a safe location, ensure that cartridges are signed out and in, and control all operations thereof.
B20	Temporary electrical installations inspector	CR24	A competent person to inspect all temporary electrical installations. Including weekly inspections and record keeping.
B21	Portable Electrical Tool Inspector	CR 24	A competent person to co-ordinate / inspect portable electrical tools, leads and plugs.
B22	Fire-fighting equipment inspector	CR29	A competent person to co-ordinate & inspect fire fighting equipment. Including ad-hoc checks and monthly inspections with records kept.
B23	Construction vehicles & mobile plant supervisor	CR23	A competent person(s) to co-ordinate the safety of all construction vehicles & mobile plant. Ensuring that daily inspections are done and records kept, that safety measures are in place, that operators are certified and authorised to operate and that maintenance and services are carried out when required.
B24	Construction safety officer	CR8(6)	A competent person to fulfil the functions as set out in these HSS

GENERAL COMPLIANCE REQUIREMENTS

Project: AGANANG RWS (2)- GA-RAMALAPA

ANNEXURE C

The Principal Contractor and Contractors must comply with but not be limited to the requirements tabled below: Prove compliance with annexure 'C' at audits conducted by the safety agent.

Item no.	What	When	Output	Reviewed by Polokwane Municipality Agent
C1	Construction - phase Health & Safety Plan	Monthly review	Principal Contractor to indicate the status of Contractors health & safety plans	
C2	Health & Safety File(s)	Open file when construction begins and maintain throughout	Have file on hand at audits. Contractors to report on their file at monthly health & safety audits by the Principal Contractor.	
C3	OHS Act and relevant Regulations	Monthly review	To be kept in the health & safety file on site.	
C4	Health & Safety Induction training, PTW Procedures	Every worker before he/she starts work	Attendance registers to be kept	
C5	Awareness Training (Tool Box Talks)	At least once a week	Attendance registers to be kept	
C6	Health & Safety Meetings	Monthly	Meeting minutes to be kept	
C7	Health & Safety Reports	Monthly	**Report covering:** • Incidents / injuries and investigations • Non conformances by employees & Contractors - reports • Internal H&S audit reports	

C8	Audits on contractors	Monthly	**Report covering:** • H&S File / Plan • WCA status • Appointment letters • Section 37(2) agreements • Risk assessment & safe work procedures • Physical site inspection • Any other contractor specific requirements	
C9	Emergency procedure	Monthly evaluation of procedure	Compile written procedure as well as tel. Numbers	
C10	Risk assessments & fall protection plan	Updated and signed off	Documented risk assessments to be available	
C11	Method statements	Drawn up and distributed before workers are exposed to the risks	Documented set of method statements reviewed and signed off.	
C12	General Inspections	Daily	**Report OHS Act compliance:** • Excavations • Portable electrical tools • Formwork & support work • Explosive powered tools	
C13	General Inspections	Daily	• Scaffolding • Temporary Electrical Installations	
C14	General Inspections	Monthly	• Fire fighting equipment • Ladders	

C15	General Inspections	Monthly	• Lifting tackle • Oxy-acetylene cutting & welding sets • Fall prevention and arrest equipment	
C16	General Inspections	6-Monthly	• Lifting machines	
C17	Load tests / performance tests	Annually / once erected, before use	• Lifting machines	
C18	List of Contractors	List to be updated weekly	Compile a list of contractors: Name, supervisor, company tel. Numbers and trade.	
C19	Workman's Compensation	Ongoing	Compile a list of Contractors workman's Compensation proof of good standing.	
C20	Construction site rules & Section 37(2) Mandatary Agreements	Ongoing	Compile a list of all signed up Mandataries. Proof of agreement documents to be kept in H&S file.	

OCCUPATIONAL HEALTH & SAFETY – HEALTH & SAFETY COSTS TO BE INCLUDED IN THE PRINCIPAL CONTRACTOR'S / CONTRACTORS' PRICE

Project: AGANANG RWS (2)- GA-RAMALAPA

ANNEXURE D

In terms of the Construction Regulations (2014), it is the Polokwane Municipality's duty to ensure that the cost for health & safety has been provided for by the Principal Contractor, before appointment.
Acting on behalf of our Polokwane Municipality, we require the following health & safety coststo be included by the Principal Contractor. It must be made noticeably clear that these are just some of the health & safety costs to be included in your tender price. It is the duty of the Principal Contractor and Contractors to ensure that all aspects of the Occupational Health & safety Act 85/1993 and Construction Regulations are catered for.
Pricing for Occupational Health and Safety measures should include the following if applicable:

ITEM	DESCRIPTION
1	**Supply of all items of Personal Protective Clothing/Equipment & ensure use thereof for full compliance**
1.1	Steel toe capped safety boots
1.2	Overalls
1.3	Reflective vests (high visibility)
1.4	Hard hats
1.5	Dust masks
1.6	Hearing protection
1.7	Hand gloves
1.8	Any other: Principal Contractor to specify
2	**Supply and provision of Equipment for working at Heights & ensure use thereof for full compliance**
2.1	Fall protection equipment (Safety Harness)
2.2	Double lanyard harness
2.3	Fall protection plan
2.4	Scaffolding access ladders/toe boards/handrails
2.5	Portable Ladders
2.6	Any other: Principal Contractor to specify:
3	**Barricading: Supply & install, including removal upon completion to ensure full compliance to legislation**
3.1	Rigid type barricading
3.2	Temporary fence barricading along perimeter of excavated area
3.3	Danger tape pre-warning tape
3.4	Any other: Principal Contractor to specify:
4	**Related Training**
4.1	First Aid Training
4.2	Health and Safety Representative training

4.3	Emergency Rescue training (Height)
4.4	Hazard Identification Training
4.5	Training of Personnel working at heights
4.6	Construction Plant Training
4.7	Legal Liability (OHSACT) Training
4.8	COID ACT Training
4.9	Scaffold Erector and Inspector Training
4.10	Any other: Contractor to specify: Working at elevated
5	Occupational Health and Safety Administration
5.1	Develop of a Site-Specific Health and Safety Plan and Hazard and Risk Assessment by Competent person.
5.2	Develop of Fall Protection and Rescue Plan by a Competent Fall Protection Plan Developer.
5.3	Competent Occupational Health and Safety Officer/Consultant.
5.4	COVID-19 Requirements
6	Medical Surveillance
6.1	Medical Certificates of fitness for all Employees by an Occupational Health Practitioner.
6.2	Medical Certificates of fitness for all EPWP Employees by an Occupational Practitioner during the duration of the Construction Project.
7	Facilities and Equipment
7.1	Sanitary facility for each sex and for every 30 workers.
7.2	Changing facilities for each sex.
7.3	Sheltered eating areas
7.4	First aid boxes
7.5	Fire extinguishers
7.6	Waste bins
8	Safety Signage
8.1	Sufficient and adequate safety signage on constructions site and at all flammable stores.

ANNEXURE E

The Occupational health and Safety File must consist out of the following documentation:

INDEX

1	Appointment Letter from Polokwane Municipality.
2	Notification of Construction work.
3	Letter of Good standing - COID
4	Copy of Public Liability Insurance Policy and UIF Registration
5	Health and Safety Specifications
6	Scope of Work
7	Tool and Machinery list
8	Method Statement of all work that will be conducted.
9	Risk Assessment Guide / Procedure
10	Baseline Risk Assessments
11	Safe Work Procedures for all Risks
12	Health and Safety Information from Designer
13	Medical CertificatesICopy of ID'S and Personal Information
14	All Health and Safety Related Policies
15	Section 37.2 Agreements
16	Induction Training Information
17	Site Specific Emergency numbers and Emergency Plan
18	Site Specific Fall Protection and Rescue Plan
19	Site Specific Health and Safety Plan
20	Incident / Accident Management Control
21	Traffic Management Plan
22	Contractor Control Procedures
23	Environmental Management
24	Hazardous Chemical Substance Register and MSDS
25	Example of Monthly Health and Safety Report
26	COVID - 19 Management Plan
27	Health and Safety Organogram and Occupational Health and Safety (Construction) Appointments - With Competencies
28	Certificates for all lifting equipment
29	Sample of all registers that will be used on site.
30	Copy of Construction Building Plans (A4)
31	Copy of the Occupational Health and Safety Act and Construction Regulations 2014

ANNEXURE F

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993
(Regulation 4 of the Construction Regulations. 2014)

NOTIFICATION OF CONSTRUCTION WORK

1. (a) Name and postal address of principal contractor:

_____

(b) Name and tel. No of principal contractor's contact person:

_____

2. Principal contractor's compensation registration number:

_____

3. (a) Name and postal address of Polokwane Municipality:

_____

(b) Name and tel. No of Polokwane Municipality's contact person or agent:

_____

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

_____

(b) Name and tel. No of designer(s) contact person:

_____

5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 8(1).

_____

6. Name of principal contractor's sub-ordinate supervisors on site appointed in terms of regulation 8(2).

_____

7. Exact physical address of the construction site or site office:

_____

8. Nature of the construction work:

_____

_____

_____

9. Expected commencement date: _____

10. Expected completion date: _____

11. Estimated maximum number of persons on the construction site.

Total:_____Male:_____Female: _____

12. Planned number of contractors on the construction site accountable to principalContractor: __

13. Name(s) of contractors already selected.

_____

_____

_____

_____ _____

Principal Contractor Date

_____ _____

Polokwane Municipality's Agent (where applicable) Date

_____ _____

Polokwane Municipality Date

- THIS DOCUMENT IS TO BE FORWARDED TO THE OFFICE OF THE DEPARTMENTOF LABOUR **PRIOR TO COMMENCEMENT** OF WORK ON SITE.
-

Copies:

1. Original to **Department of Labour**

POLOKWANE MUNICIPALITY

PROJECT DESCRIPTION: AGANANG RWS (CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE)

C4: SITE INFORMATION

C4.1: LOCALITY PLAN

The project will be implemented in Ga-Ramalapa village of Polokwane Municipality. (See location plan below). The project is located ±53km from Polokwane town. The project is also accessible from Matlala Road from Polokwane to Tibanefontein. (See locality Plan on next page)

The village co-ordinates are as follows:

Village Name	Longitude	Latitude
Ga-Ramalapa	23º 43´ 05” S	29º 02´ 57” E

LOCALITY PLAN: GA-RAMALAPA

SOURCE: GOOGLE EARTH

Tshashu Consulting and Project Managers

6A Hans Van Rensburg;

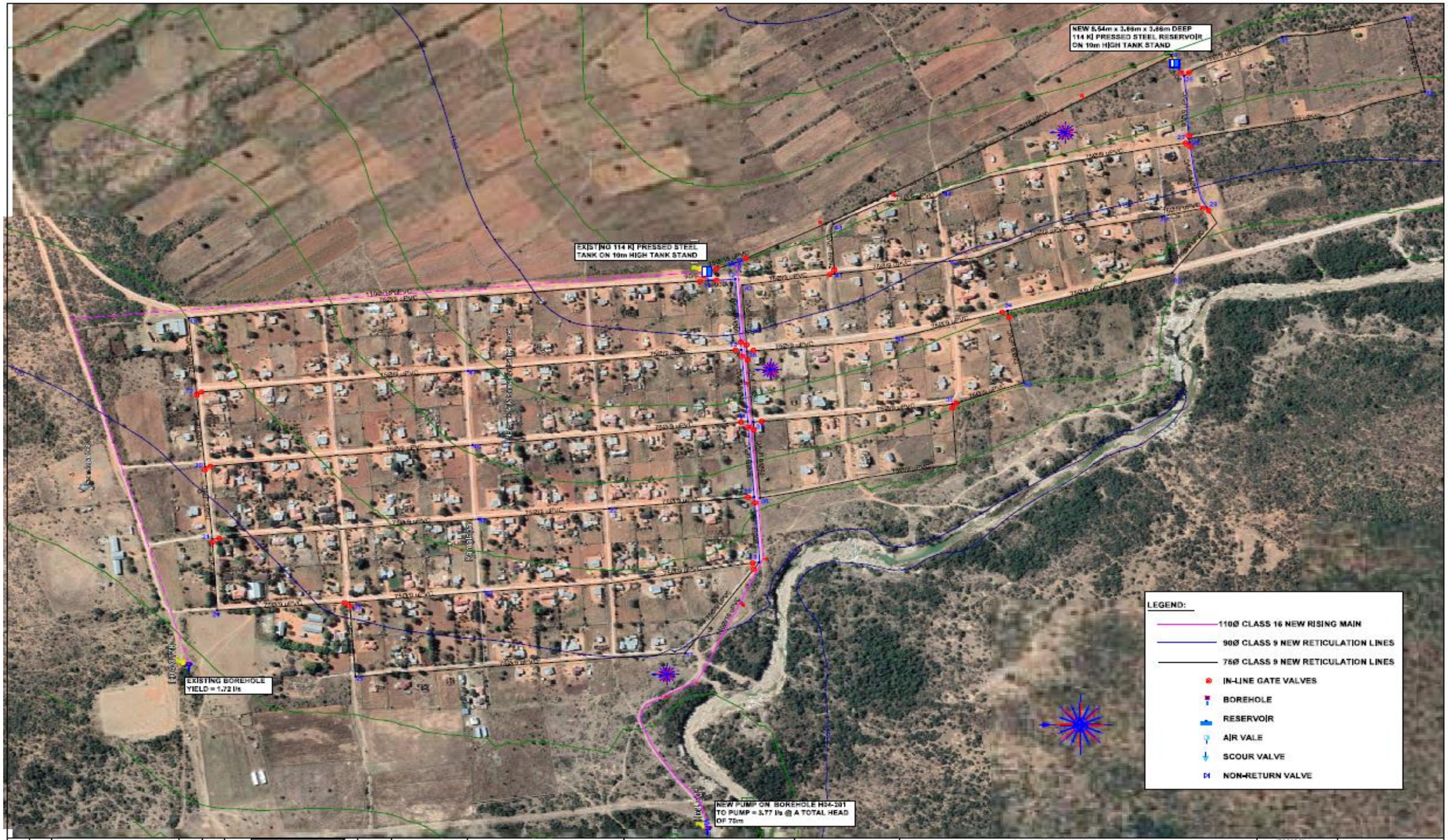
Polokwane,0700, Tel :015 291 4365

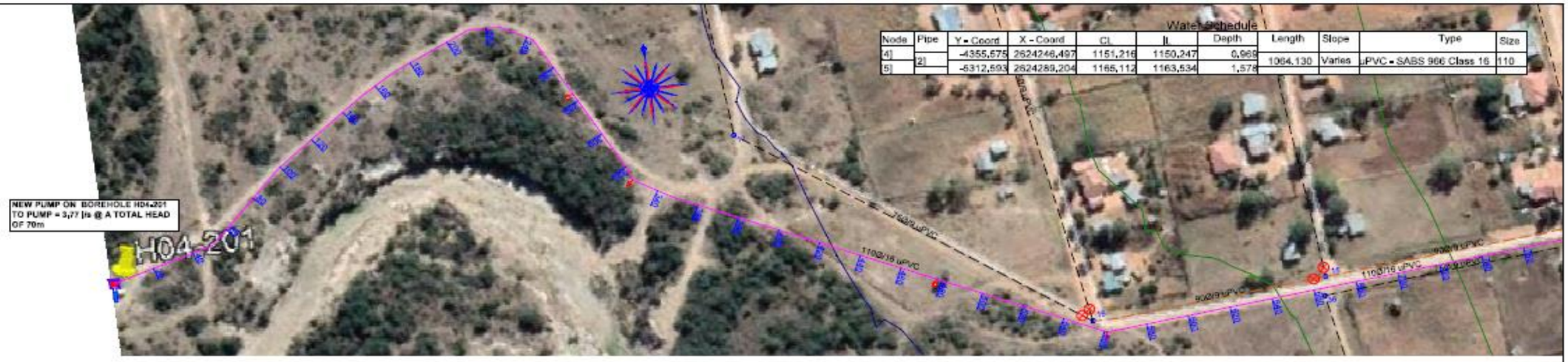
POLOKWANE MUNICIPALITY

PROJECT DESCRIPTION: AGANANG RWS (CONSTRUCTION OF WATER INFRASTRUCTURE IN GA-RAMALAPA VILLAGE) C4.2 BID DRAWING

LIST OF DRAWINGS

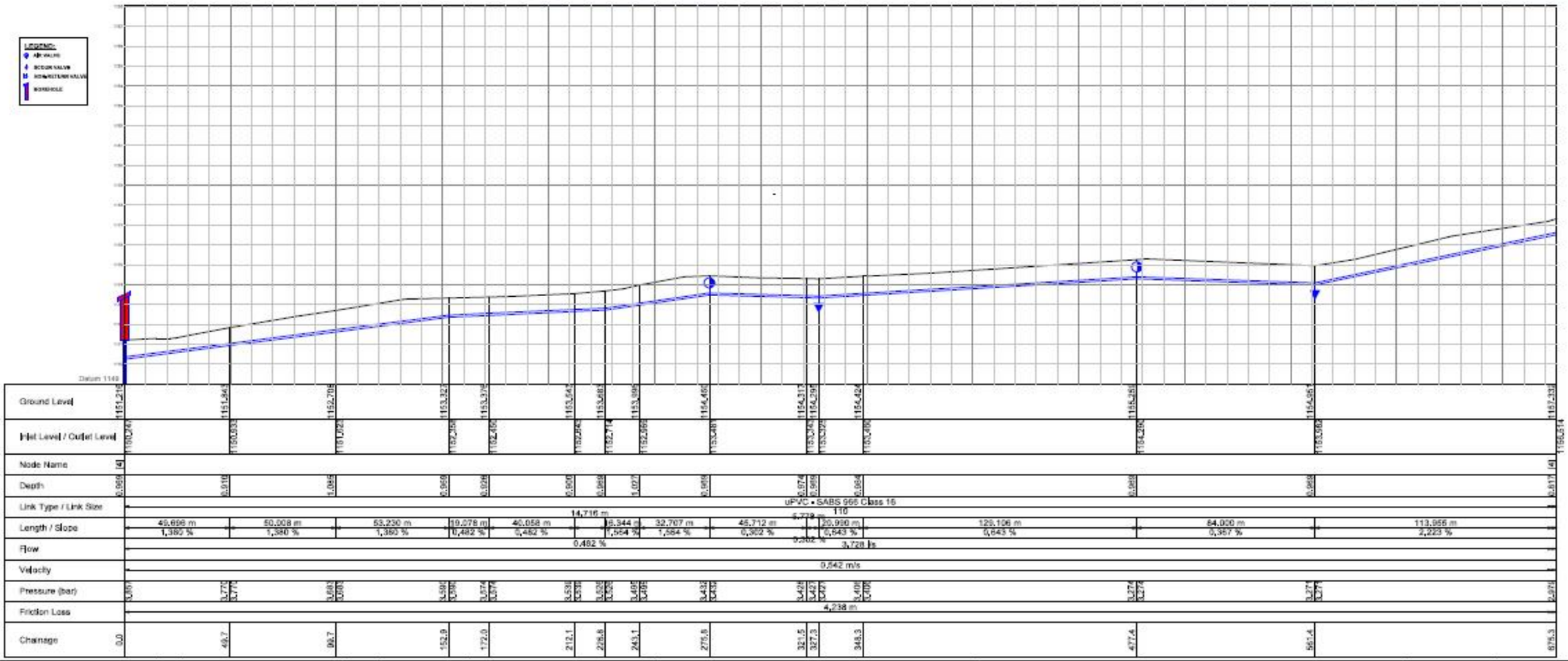
1. **TS-AGARWS -RAMA-FP: - Drawing Cover**
2. **TS-AGARWS -RAMA-01: -Proposed Layout**
3. **TS-AGARWS-RAMA-02: -New Rising Main**
4. **TS-AGARWS-RAMA-03: -New Rising Main**
5. **TS-AGARWS-RAMA-04: -New Rising Main**
6. **TS-AGARWS-RAMA-05: -Single and Double House Connections**
7. **TS-AGARWS-RAMA-06: -Valve and Bedding Details**
8. **TS-AGARWS-RAMA-07: -Concrete Thrust Block Configuration**
9. **TS-AGARWS-RAMA-08: -Contract Name Board**


NEW 8.54m x 3.66m x 3.66m DEEP
114 KI PRESSED STEEL RESERVOIR
ON 10m HIGH TANK STAND
EXISTING 114 KI PRESSED STEEL
TANK ON 10m HIGH TANK STAND
EXISTING BOREHOLE
YIELD = 1.72 l/s
NEW PUMP ON BOREHOLE H04-201
TO PUMP = 3.77 l/s @ A TOTAL HEAD
OF 70m
LEGEND:
110Ø CLASS 16 NEW RISING MAIN
90Ø CLASS 9 NEW RETICULATION LINES
75Ø CLASS 9 NEW RETICULATION LINES
IN-LINE GATE VALVES
BOREHOLE
RESERVOIR
AIR VALE
SCOUR VALVE
NON-RETURN VALVE
FOR DESIGN
PURPOSES
SCALE ON REDUCED DRAWING
TSHASHU CONSULTING & PROJECT MANAGERS
TS Consulting
CONTRACT NUMBER: XXX
AGANANG RWS (2) - CONSTRUCTION OF WATER
INFRASTRUCTURE IN RAMALAPA VILLAGE PHASE 1
PROPOSED LAYOUT
1 = 1
TS/AGARWS/RAMA01



Water Schedule

Node	Pipe	Y - Coord	X - Coord	CL	IL	Depth	Length	Slope	Type	Size
[4]	[2]	-4355,575	2624246,497	1151,216	1150,247	0,969	1064,130	Varies	uPVC - SABS 966 Class 16	110
[5]		-5312,593	2624289,204	1165,112	1163,534	1,578				



FOR DESIGN PURPOSES

SCALE ON REDUCED DRAWING

TSHASHU CONSULTING & PROJECT MANAGERS

TS Consulting

CONTRACT NUMBER: XXX

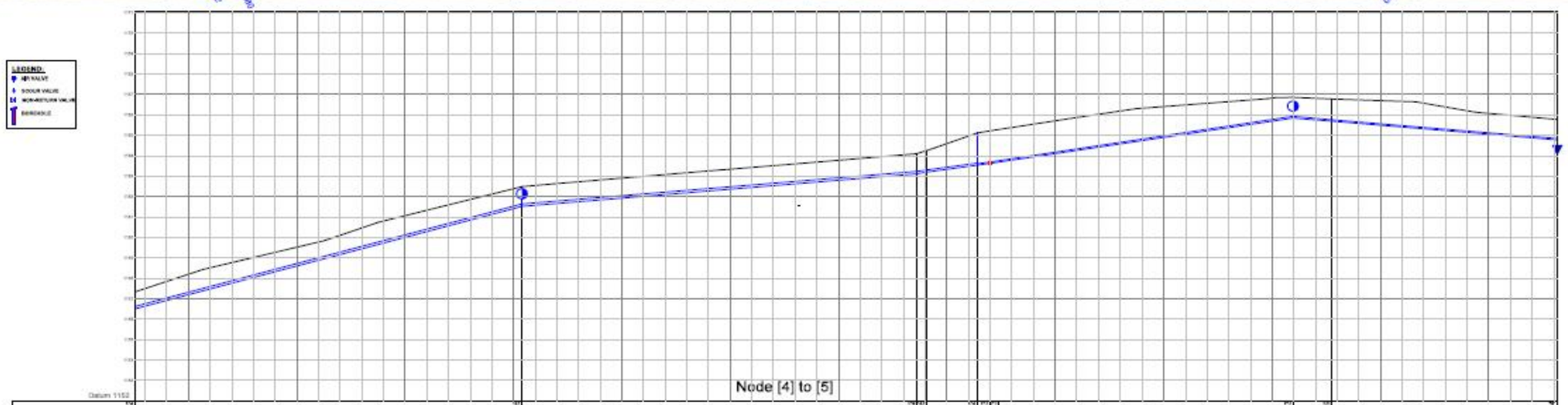
AGANANG RWS (2) - CONSTRUCTION OF WATER INFRASTRUCTURE IN RAMALAPA VILLAGE PHASE 1

LONGITUDINAL SECTION: NEW RISING MAIN
CH0 -CH675

TS/AGARWS/RAMA/02

Water Schedule

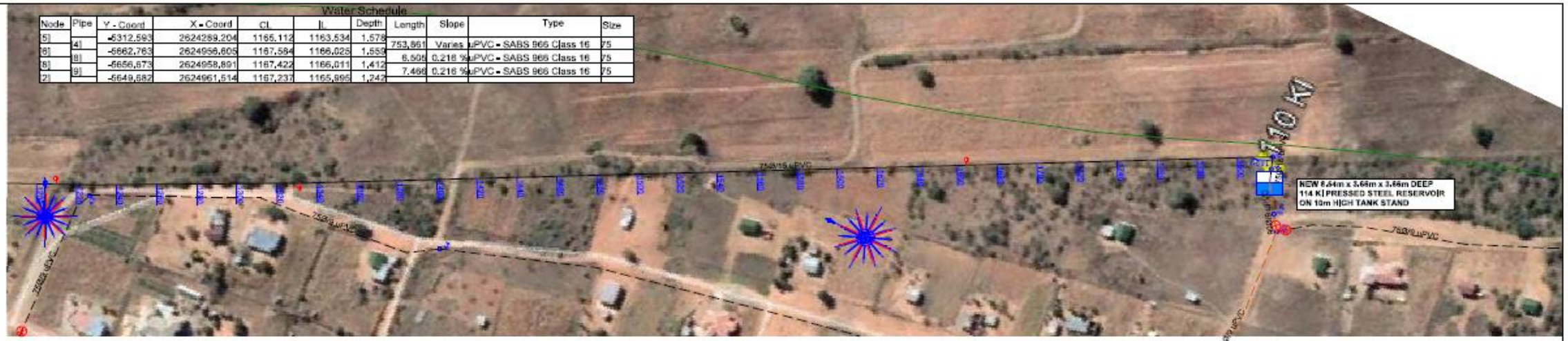
Node	Pipe	Y - Coord	X - Coord	CL	IL	Depth	Length	Slope	Type	Size
[4]		-4355,575	2624246,497	1151,216	1150,247	0,969				
	[2]						1064,130	Varies	uPVC - SABS 966 Class 16	110
[5]		-5312,593	2624289,204	1165,112	1163,534	1,578				
	[4]						753,861	Varies	uPVC - SABS 966 Class 16	75
[6]		-5662,763	2624956,605	1167,584	1166,025	1,559				

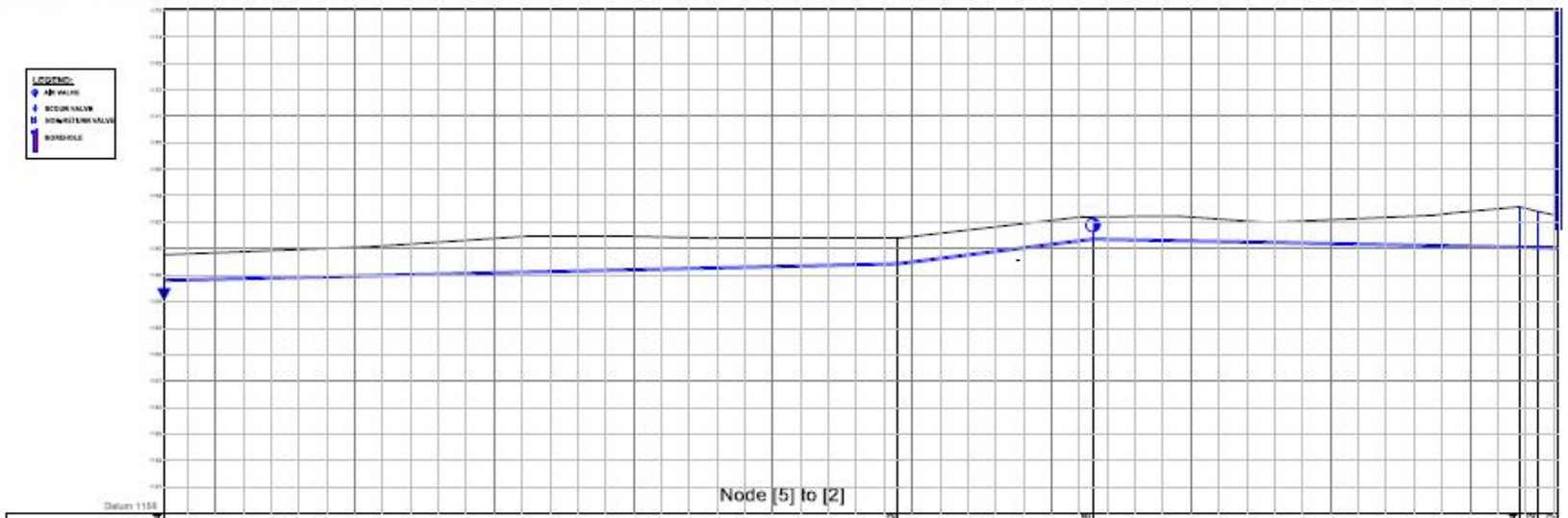


Ground Level	1157,332								1162,495							1164,094	1164,255	1165,113	1165,213	1165,271								1165,853		1166,774						1165,774
Inlet Level / Outlet Level	1156,014								1161,927								1161,128	1161,195	1163,534	1163,634	1163,628							1165,351		1165,692						1164,772
Node Name																			[5]																	[5]
Depth	0,817								0,969							0,969	1,062		1,578	1,537	1,585							1,502		1,087						1,002
Link Type / Link Size	uPVC - SABS 966 Class 16 110																			uPVC - SABS 966 Class 16 75																
Length / Slope	176,597 m 2,808 %								182,262 m 0,275 %							4,541 m		23,331 m 1,453 %		3,743 m 1,592 %		139,899 m 1,291 %						18,022 m 0,585 %		103,933 m 0,585 %						
Flow	3,728 l/s															1,591 %				1,260 l/s																
Velocity	0,542 m/s																			0,394 m/s																
Pressure (bar)	2,976								2,419	2,419						2,196	2,18	2,18	2,136	2,126	2,399	1,299						1,531	1,531	1,546	1,546					1,594
Friction Loss	4,238 m																			2,711 m																
Chainage	675,3								853,9							1036,1	1040,7		1040,8	1089,7	1095,7							1208,6		1227,6						1331,5

Water Schedule

Node	Pipe	Y - Coord	X - Coord	CL	IL	Depth	Length	Slope	Type	Size
[5]	[4]	-5312,593	2624289,204	1165,112	1163,534	1,578	753,861	Varies	uPVC - SABS 966 Class 16	75
[6]	[8]	-5662,763	2624956,605	1167,584	1166,025	1,559	6,505	0.216 %	uPVC - SABS 966 Class 16	75
[8]	[9]	-5656,873	2624958,891	1167,422	1166,011	1,412	7,466	0.216 %	uPVC - SABS 966 Class 16	75
[2]		-5649,682	2624961,514	1167,237	1165,995	1,242				





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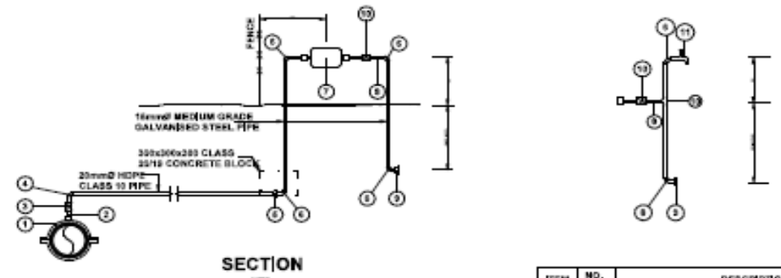
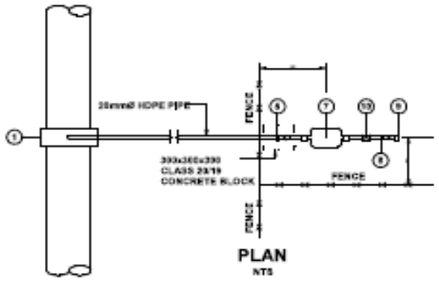


SECTION
NTS



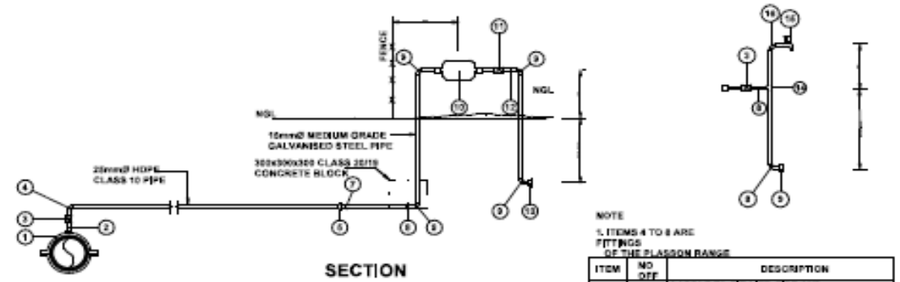
PLAN
NTS

SINGLE HOUSE CONNECTION

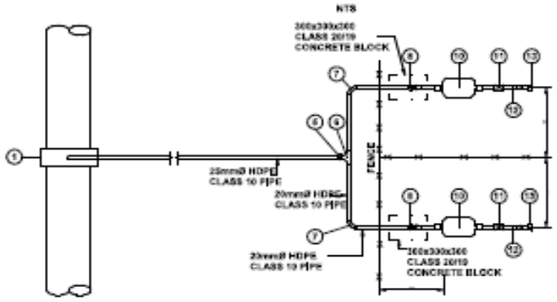
ITEM	NO. OFF	DESCRIPTION
1	1	SADDLE TO FIT SIZE, TIPE AND CLASS OF PIPE
2	1	16mmØ NIPPLE
3	2	16mmØ BALL VALVE
4	1	20mmØ 90@ ELBOW WITH MALE OFFTAKE
5	1	20mmØ MALE ADAPTOR
6	4	16mmØ GALVANISED STEEL 90@ ELBOW BOTH ENDS FEMALE
7	1	16mmØ PSM MODEL KENT WATER METER WITH CAP NUTS AND LINING
8	1	16mmØ GALVANISED STEEL STRAIGHT NIPPLE
9	1	16mmØ GALVANISED STEEL PLUG
10	1	16mmØ TRICKLE FLOW VALVE

NOTE

1. ITEMS 4 AND 5 ARE FITTINGS OF THE PLASSON RANGE.



SECTION
NTS



PLAN
NTS

DOUBLE HOUSE CONNECTION

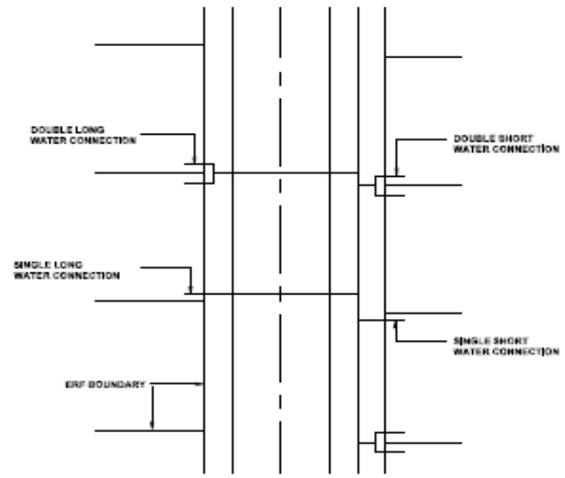
NOTE

1. ITEMS 4 TO 8 ARE FITTINGS OF THE PLASSON RANGE

ITEM	NO OFF	DESCRIPTION
1	1	SADDLE TO FIT SIZE, TIPE AND CLASS OF PIPE
2	1	20mmØ NIPPLE
3	1	20mmØ BK BRASS GATE VALVE
4	1	20mmØ 90@ ELBOW WITH MALE OFFTAKE
5	1	25-20mmØ REDUCING COUPLING
6	1	20x20x20mmØ 90@ TEE
7	2	20mmØ HDPE 90@ ELBOW
8	2	20mmØ MALE ADAPTOR
9	3	16mmØ GALVANISED STEEL 90@ ELBOW
10	2	16mmØ PSM MODEL KENT WATER METER WITH CAP NUTS AND LINING
11	2	16mmØ TRICKLE FLOW VALVE
12	2	16mmØ GALVANISED STEEL STRAIGHT NIPPLE
13	2	16mmØ GALVANISED STEEL PLUG

NOTE

1. ITEMS 4 TO 8 ARE FITTINGS OF THE PLASSON RANGE



TYPICAL POSITIONS OF SINGLE AND DOUBLE HOUSE CONNECTIONS
NTS

No	DATE	REVISION	REVISION	CONSULT	CIR

FOR DESIGN PURPOSES

SCALE ON REDUCED DRAWING

DESIGNED BY
CHECKED BY
DRAWN BY
CHECKED BY

POLOKWANE LOCAL MUNICIPALITY
P.O. BOX 111
POLOKWANE, 0699
TEL: (07) 0516 280 2102
FAX: (07) 0516 280 2106

TSHASHU CONSULTING & PROJECT MANAGERS

TS Consulting

Client | DATE
CONSULTING ENGINEER | DATE

CONTRACT NUMBER: XXX

AGANANG RWS (2) - CONSTRUCTION OF WATER INFRASTRUCTURE IN RAMALAPA VILLAGE PHASE 1

DETAILS OF SINGLE AND DOUBLE HOUSE CONNECTIONS (15mmØ & 20mmØ)

AS BUILT PLAN

SHEET 1 OF 1

SCALE: SCHEMATIC

TSIAGARWS/RAMA/05

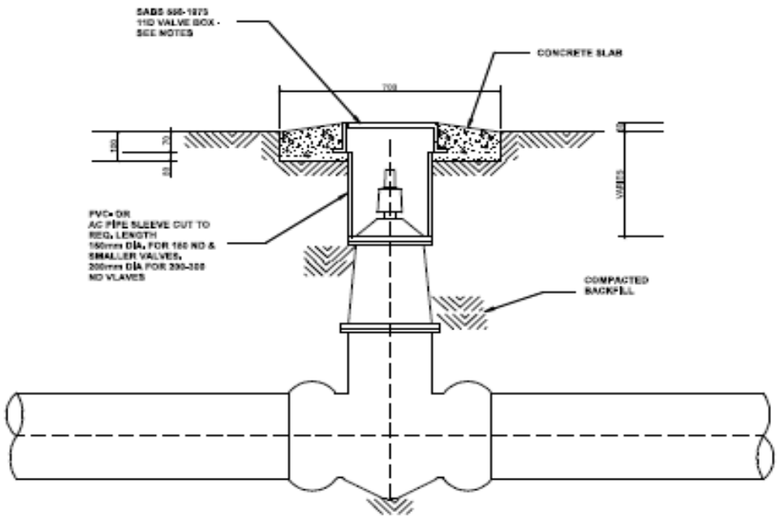
TSIAGARWS/RAMA/01

NOTES:

1. CONCRETE CLASS 20/19

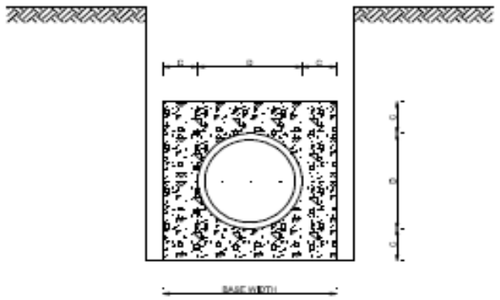
2. VLAVE BOX ALTERNATIVE :
THERMOPLASTIC AS SUPPLIED
BY DAVIS AND DEALE
(GERMISTON),
RECTANGULAR BOX 450mm x 300mm

3. VALVE BOX LID TO BE PAINTED
(OR COLOURED) GOLDEN YELLOW
ACCORDING TO SABS 1091,
COLOUR 845,
(CKS 229, COLOUR 036).



SECTION

N.T.S

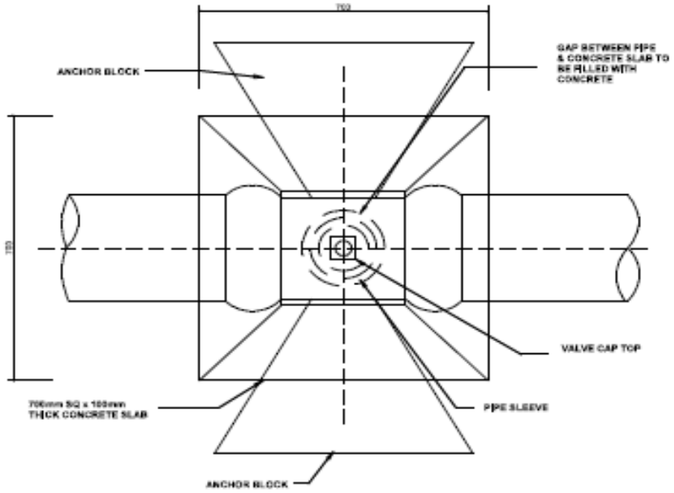


PIPE DIA. (mm)	CONCRETE COVER C (mm)
75	100
110	100
160	100
200	150

DETAIL OF CONCRETE ENCASEMENT

(ONLY ON INSTRUCTION OF THE ENGINEER)

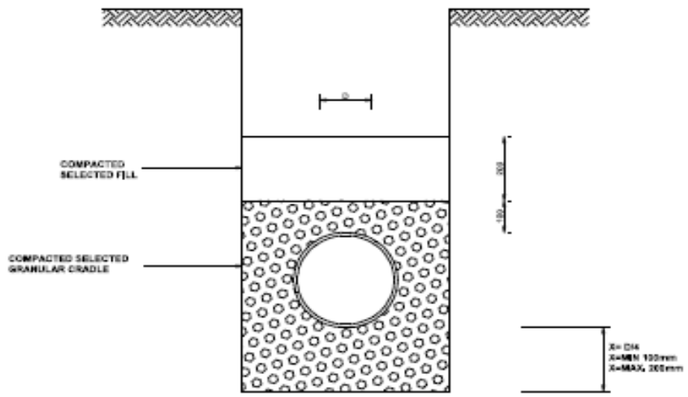
N.T.S



PLAN

N.T.S

VALVE BOX FOR 63-200ND PVC PIPEWORK



PIPE DIA. (mm)	TRENCH BASE WIDTH, W (mm)	SIDE ALLOWANCE S (mm)
75	600	250
110	600	250
160	600	250
200	700	250

FLEXIBLE PIPE SUPPORTED ON
SELECTED GRANULAR MATERIAL

DETAIL OF PIPE BEDDING

N.T.S

No.	DATE	REVISION	REVISION	CONSULT	CHK

FOR DESIGN PURPOSES

SCALE ON REDUCED DRAWING

DESIGNED BY
CHECKED BY
DRAWN BY
CHECKED BY

POLOKWANE LOCAL MUNICIPALITY
P.O. BOX 111
POLOKWANE
0700
TEL: 015 290 2100
FAX: 015 290 2166

TSHASHU CONSULTING & PROJECT MANAGERS

TS Consulting

Client DATE
CONSULTING ENGINEER DATE

CONTRACT NUMBER: XXX

AGANANG RWS (2) - CONSTRUCTION OF WATER
INFRASTRUCTURE IN RAMALAPA VILLAGE PHASE 1

VALVE AND PIPE BEDDING DETAILS

AS BUILT PLAN
Initials
Date

DRAWING NAME
DRAWING NUMBER
TSHAGARWS/RAMA/06

SHEET 1 of 1

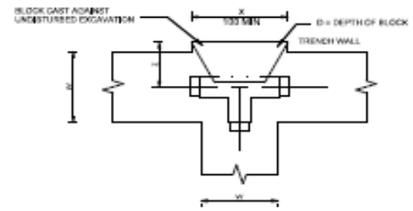
SCALE
NTS

DRAWING NUMBER
TSHAGARWS/RAMA/06

THRUST BLOCK FOR 45° BEND

NOMINAL DIAMETER	DEPTH OF BLOCK	MAXIMUM TESTING PRESSURE					
		600 kPa		1200 kPa		1800 kPa	
I (mm)	D (mm)	X (mm)	A (m^2)	X (mm)	A (m^2)	X (mm)	A (m^2)
300	1000	450	0.40	900	0.71	800	1.00
250	1000	350	0.34	600	0.51	700	0.90
200	800	300	0.22	450	0.33	600	0.40
150	600	250	0.13	350	0.21	450	0.28
100	400	150	0.04	200	0.09	300	0.11
75	300	100	0.03	150	0.05	200	0.06
50	200	100	0.02	150	0.02	150	0.03

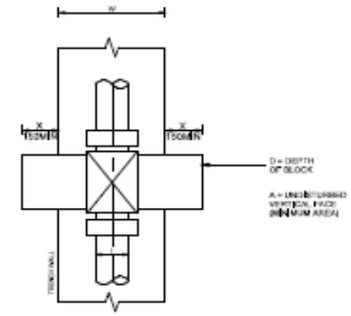
1. THIS TABLE IS VALID FOR 100 kPa EARTH BEARING PRESSURE
2. X= DIMENSION MAY BE REDUCED FOR HIGHER EARTH BEARING PRESSURES
3. Z SHALL BE THE MINIMUM OF X/2 OR W/2
4. HALF OF THE DEPTH OF THE BLOCK SHALL BE BELOW THE PIPE AXIS
5. KEEP COUPLINGS AND FLANGES 25mm CLEAR FORM CONCRETE



THRUST BLOCK FOR TEE

NOMINAL DIAMETER	DEPTH OF BLOCK	MAXIMUM TESTING PRESSURE					
		600 kPa		1200 kPa		1800 kPa	
I (mm)	D (mm)	X (mm)	A (m^2)	X (mm)	A (m^2)	X (mm)	A (m^2)
300	1000	550	0.84	800	0.98	1100	1.21
250	1000	450	0.44	750	0.67	900	0.99
200	800	300	0.20	600	0.43	750	0.57
150	600	300	0.18	400	0.34	550	0.52
100	400	200	0.07	300	0.11	350	0.14
75	300	150	0.04	200	0.08	250	0.09
50	200	100	0.02	150	0.03	250	0.04

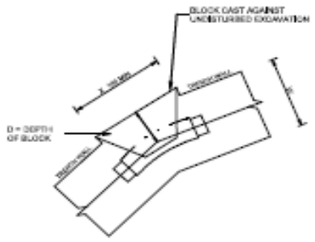
1. THIS TABLE IS VALID FOR 100 kPa EARTH BEARING PRESSURE
2. X= DIMENSION MAY BE REDUCED FOR HIGHER EARTH BEARING PRESSURES
3. Z SHALL BE THE MINIMUM OF X/2 OR W/2
4. HALF OF THE DEPTH OF THE BLOCK SHALL BE BELOW THE PIPE AXIS
5. KEEP COUPLINGS AND FLANGES 25mm CLEAR FORM CONCRETE



THRUST BLOCK FOR GATE VALVE

NOMINAL DIAMETER	NOMINAL DIAMETER	DEPTH OF BLOCK	MAXIMUM TESTING PRESSURE					
			600 kPa		1200 kPa		1800 kPa	
I1 (mm)	I2 (mm)	D (mm)	X (mm)	A (m^2)	X (mm)	A (m^2)	X (mm)	A (m^2)
300	300/300	750	500	0.41	400	0.54	600	0.89
300	300/250	750	350	0.36	450	0.63	600	0.71
250	200/150	650	250	0.24	350	0.42	450	0.57
200	150/150	600	200	0.20	300	0.32	400	0.40
150	150/75	500	150	0.12	250	0.16	350	0.24
100	75/50	400	100	0.06	150	0.08	200	0.11
75	50	300	100	0.03	150	0.04	150	0.05

1. THIS TABLE IS VALID FOR 100 kPa EARTH BEARING PRESSURE
2. X= DIMENSION MAY BE REDUCED FOR HIGHER EARTH BEARING PRESSURES
3. Z SHALL BE THE MINIMUM OF X/2 OR W/2
4. HALF OF THE DEPTH OF THE BLOCK SHALL BE BELOW THE PIPE AXIS
5. KEEP COUPLINGS AND FLANGES 25mm CLEAR FORM CONCRETE

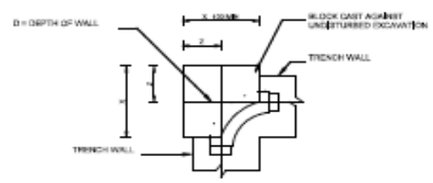


THRUST BLOCK FOR 22½° AND 11¼° BEND

(X AND A TO BE HALVED FOR 11¼ BEND)

NOMINAL DIAMETER	DEPTH OF BLOCK	MAXIMUM TESTING PRESSURE					
		600 kPa		1200 kPa		1800 kPa	
I (mm)	D (mm)	X (mm)	A (m^2)	X (mm)	A (m^2)	X (mm)	A (m^2)
300	1000	300	0.28	550	0.38	450	0.60
250	1000	300	0.18	500	0.28	350	0.30
200	800	150	0.11	250	0.17	300	0.44
150	600	150	0.06	300	1.05	250	0.19
100	400	150	0.04	100	0.04	150	0.06
75	300	150	0.03	100	0.03	150	0.05
50	200	150	0.02	100	0.02	150	0.03

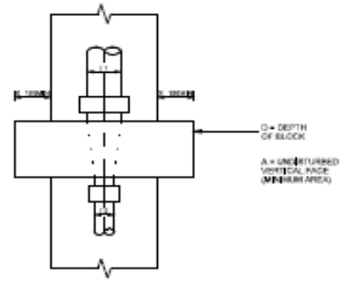
1. THIS TABLE IS VALID FOR 100 kPa EARTH BEARING PRESSURE
2. X= DIMENSION MAY BE REDUCED FOR HIGHER EARTH BEARING PRESSURES
3. Z SHALL BE THE MINIMUM OF X/2 OR W/2
4. HALF OF THE DEPTH OF THE BLOCK SHALL BE BELOW THE PIPE AXIS
5. KEEP COUPLINGS AND FLANGES 25mm CLEAR FORM CONCRETE



THRUST BLOCK FOR 90° BEND

NOMINAL DIAMETER	DEPTH OF BLOCK	MAXIMUM TESTING PRESSURE					
		600 kPa		1200 kPa		1800 kPa	
I (mm)	D (mm)	X (mm)	A (m^2)	X (mm)	A (m^2)	X (mm)	A (m^2)
300	1000	500	0.84	850	0.98	1100	1.27
250	1000	500	0.40	800	0.67	900	0.99
200	800	450	0.28	600	0.43	800	0.57
150	600	150	0.16	300	0.34	500	0.52
100	400	150	0.07	150	0.11	150	0.14
75	300	150	0.04	150	0.08	150	0.09
50	200	150	0.02	150	0.03	150	0.04

1. THIS TABLE IS VALID FOR 100 kPa EARTH BEARING PRESSURE
2. X= DIMENSION MAY BE REDUCED FOR HIGHER EARTH BEARING PRESSURES
3. Z SHALL BE THE MINIMUM OF X/2 OR W/2
4. HALF OF THE DEPTH OF THE BLOCK SHALL BE BELOW THE PIPE AXIS
5. KEEP COUPLINGS AND FLANGES 25mm CLEAR FROM CONCRETE



THRUST BLOCK FOR REDUCER

NOMINAL DIAMETER	DEPTH OF BLOCK	MAXIMUM TESTING PRESSURE					
		600 kPa		1200 kPa		1800 kPa	
I (mm)	D (mm)	X (mm)	A (m^2)	X (mm)	A (m^2)	X (mm)	A (m^2)
300	1000	750	0.60	1100	1.20	1550	1.91
250	1000	650	0.65	900	0.84	1300	1.28
200	800	550	0.40	750	0.60	1000	0.91
150	600	450	0.33	600	0.34	750	0.46
100	400	250	0.10	400	0.16	500	0.28
75	300	250	0.05	300	0.20	400	0.13
50	200	150	0.03	200	0.04	250	0.06

1. THIS TABLE IS VALID FOR 100 kPa EARTH BEARING PRESSURE
2. X= DIMENSION MAY BE REDUCED FOR HIGHER EARTH BEARING PRESSURES
3. Z SHALL BE THE MINIMUM OF X/2 OR W/2
4. HALF OF THE DEPTH OF THE BLOCK SHALL BE BELOW THE PIPE AXIS
5. KEEP COUPLINGS AND FLANGES 25mm CLEAR FORM CONCRETE

No	DATE	REVISION	REVISION	CONSULT	OK

FOR DESIGN PURPOSES

SCALE ON REDUCED DRAWING

DESIGNED BY
CHECKED BY
DRAWN BY
CHECKED BY

POLOKWANE LOCAL MUNICIPALITY
P.O.BOX 111
POLOKWANE,0699
TEL: (015) 290 2002
FAX: (015) 290 2106

TSHASHU CONSULTING & PROJECT MANAGERS

P.O. BOX 1917
POLOKWANE/0700
0700
TEL (015) 291 4184
FAX (086) 691 6245

TS Consulting

CONSULTING ENGINEER — DATE

CONTRACT NUMBER: XXX

AGANANG RWS (2) - CONSTRUCTION OF WATER INFRASTRUCTURE IN RAMALAPA VILLAGE PHASE 1

CONCRETE THRUST BLOCK CONFIGURATION

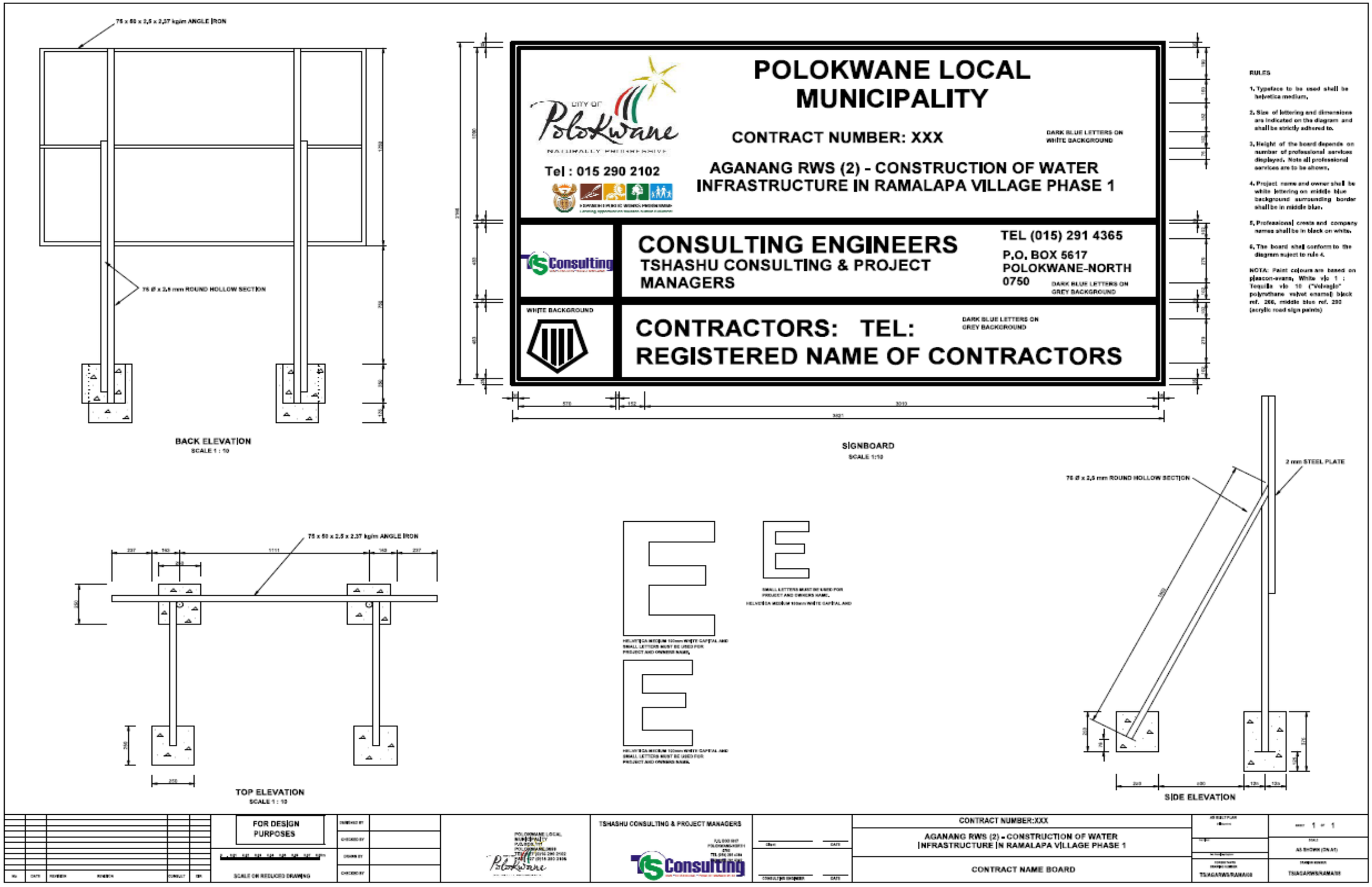
AS BUILT PLAN

SHEET 1 OF 1

SCALE: NTS

TSI/AGARWS/RAMA/07

TSI/AGARWS/RAMA/07



75 x 50 x 2,5 x 2,37 kg/m ANGLE IRON
75 Ø x 2,5 mm ROUND HOLLOW SECTION
BACK ELEVATION
SCALE 1 : 10
POLOKWANE LOCAL MUNICIPALITY
CONTRACT NUMBER: XXX
DARK BLUE LETTERS ON WHITE BACKGROUND
AGANANG RWS (2) - CONSTRUCTION OF WATER INFRASTRUCTURE IN RAMALAPA VILLAGE PHASE 1
Tel : 015 290 2102
CONSULTING ENGINEERS
TSHASHU CONSULTING & PROJECT MANAGERS
TEL (015) 291 4365
P.O. BOX 5617
POLOKWANE-NORTH
0750
DARK BLUE LETTERS ON GREY BACKGROUND
WHITE BACKGROUND
CONTRACTORS: TEL:
REGISTERED NAME OF CONTRACTORS
DARK BLUE LETTERS ON GREY BACKGROUND
SIGNBOARD
SCALE 1:10
RULES
1. Typeface to be used shall be helvetica medium.
2. Size of lettering and dimensions are indicated on the diagram and shall be strictly adhered to.
3. Height of the board depends on number of professional services displayed. Note all professional services are to be shown.
4. Project name and owner shall be white lettering on middle blue background surrounding border shall be in middle blue.
5. Professional crests and company names shall be in black on white.
6. The board shall conform to the diagram subject to rule 4.
NOTA: Paint colours are based on plascon-evans, White vlo 1 : Tequila vlo 10 ("Velvaglo" polyrethane velvet enamel) black ref. 266, middle blue ref. 290 (acrylic road sign paints)
75 x 50 x 2,5 x 2,37 kg/m ANGLE IRON
TOP ELEVATION
SCALE 1 : 10
SMALL LETTERS MUST BE USED FOR PROJECT AND OWNERS NAME.
HELVETICA MEDIUM 100mm WHITE CAPITAL AND SMALL LETTERS MUST BE USED FOR PROJECT AND OWNERS NAME.
HELVETICA MEDIUM 100mm WHITE CAPITAL AND SMALL LETTERS MUST BE USED FOR PROJECT AND OWNERS NAME.
2 mm STEEL PLATE
75 Ø x 2,5 mm ROUND HOLLOW SECTION
SIDE ELEVATION
FOR DESIGN PURPOSES
SCALE ON REDUCED DRAWING
TSHASHU CONSULTING & PROJECT MANAGERS
CONTRACT NUMBER:XXX
AGANANG RWS (2) - CONSTRUCTION OF WATER INFRASTRUCTURE IN RAMALAPA VILLAGE PHASE 1
CONTRACT NAME BOARD
1 of 1
AS SHOWN (ON A1)
TS/AGARWS/RAMA/08

POLOKWANE LOCAL MUNICIPALITY

CONTRACT NUMBER:XXX

AGANANG RWS (2) CONSTRUCTION OF WATER INFRASTRUCTURE IN RAMALAPA VILLAGE PHASE 1

PRELIMINARY DESIGN

ISSUED BY :-

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PREPARED BY :-

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