



CAPRICORN DISTRICT MUNICIPALITY

BID NUMBER: INF-W06/2026/2027

FOR:

PHASHA WATER SUPPLY - CONTRACT B

WITHIN THE: MOLEMOLE LOCAL MUNICIPALITY

TARGET WORK OPPORTUNITIES :62

TARGET FTEs:41

6CEPE/7CE or Higher

TENDER DOCUMENT

THIS DOCUMENT IS COMPILED FOR:
CAPRICORN DISTRICT MUNICIPALITY
P.O BOX 4100
POLOKWANE
0700

Tel: +27 15 294 1000

Fax: +27 15 295 4010

Name of Bidder:			
Bid Amount Contract C (VAT Inclusive):			
BBBEE status:			
Bidder Address:			
CSD Supplier Number:			
Email Address:			
Contact numbers:	Cell:	Tel:	Fax:

Prepared by:

PREPARED BY:
VICTORY DEVELOPMENT PROJECT
14 PAUL KRUGER STREET
POLOKWANE
0700

Tel: (015) 291 3892

Fax: (015) 291 2821

Email: admin@victorydevelopment.co.za

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Infrastructure
Grant**



**EXPANDED PUBLIC WORKS PROGRAMME
CONTRIBUTING TO A NATION AT WORK**

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TENDER NOTICE AND INVITATION TO TENDER

CAPRICORN DISTRICT MUNICIPALITY

PHASHA WATER SUPPLY-CONTRACT B

TO BE IMPLEMENTED IN MOLEMOLÉ LOCAL MUNICIPALITY

CONTRACT No: INF-W06/2026/2027

Capricorn District Municipality invites tenders for the construction of Phasha Water Supply Contract B at Phasha village situated within Molemole Local Municipality which is situated approximately 56km north of Polokwane town towards Louis Trichardt Town.

(23°25'58"S, 29°44'14"E)

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

INF-W06/2026/2027	PHASHA WATER SUPPLY CONTRACT B	80/20 preferential points system, Owned by black south African people - 4 Owned by RSA people who are women (of all races) - 4 Owned by RSA black people who are youth - 4 Owned by RSA people with disabilities-4 Military Veterans-4	25 SEPTEMBER 2026 Molemole Fire station (Matoks) @ 10H00 23.4899° S, 29.7255° E	6CEPE/7CE or higher	R2 116.00	19 October 2026 @11H00	Ms.Mahlase Marcia mahlasem@cdm.org.za 015 294 1132
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Only Tenderers that have a CIDB contractor grading of **6CEPE/7CE** or higher are eligible to submit bids. Joint ventures are also eligible to submit bids provided every member of the Joint Venture is registered with the CIDB and a combined grade of the Joint Venture calculated in accordance with the construction industry development regulations is equal to or higher than a contractor grading of **6CEPE/7CE**.

Tender documents will be available during office hours as from the 25th of September 2026 from the office of the Capricorn District Municipality, 41 Biccard Street, Polokwane, Capricorn District Municipal Website or E-tender portal website. A non-refundable cash tender deposit of R2 116.00 is payable to secure a copy of the tender document from Capricorn District Municipality office. Queries relating to the issues of these documents may be addressed to Violet Masemola at 015 294 1210 email masemolav@cdm.org.za or Kwen Mashiane at Tel No: (015) 294 1039 emails: mashianek@cdm.org. Technical queries may be directed to Madisha Klaas or Marcia Mahlase at Tel: 015 294 1132/015 294 1154 email madishak@cdm.org.za or Mahlasem@cdm.org.za.

Bids will be adjudicated in terms of the preferential procurement Policy Framework Act, 5/2000 in consultation with the CIDB Act. Bids will remain valid for 90 days. Capricorn District Municipality reserves the right to negotiate further conditions and requirements with the successful bidder.

A compulsory clarification meeting will take place on **25th September 2026 starting at 10h00** Prospective Tenderers are requested to meet the engineer at T-Junction of N1 and Ga Phasha (23°25'58"S, 29°44'14"E).

Complete bid documents fully priced and signed, sealed in an envelope marked "**CONTRACT No INF-W04/2026/2027, Phasha Water Supply Contract B**" should be deposited in the Tender Box located in the foyer at the Capricorn District Municipality offices at 41 Biccard Street, Polokwane not later than **11h00 on Monday the 19th of October 2026**. Tenders will be opened in public immediately after the closing time referred to above. Telegraphic, e-mail or Tele-fax transmission and late tenders will not be accepted for consideration and where feasible shall be returned to the sender.

The Tenderer must have a staff member who has completed, the NQF level 5-unit standard "Develop and Promote Labour Intensive Construction Strategies".

Public bodies must only award contracts to contractors who have demonstrated that they will have in their employ (if awarded the contract) suitably qualified senior and middle supervisory staff to supervise the labour-intensive works during the validity of the contract.

Ramakuntwane Selepe
Municipal Manager

CAPRICORN DISTRICT MUNICIPALITY
41 Biccard Street, Polokwane

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF CAPRICORN DISTRICT MUNICIPALITY

BID NUMBER: INF-W06/2026/2027 **CLOSING DATE:** 19 October 2026 **CLOSING TIME:** 11:00

DESCRIPTION: *PHASHA WATER SUPPLY-CONTRACT B*

The successful bidder will be required to fill in and sign a written Contract Form (MBD 7).

BID DOCUMENTS MAY BE POSTED TO:

CAPRICORN DISTRICT MUNICIPALITY
PO BOX 4100
POLOKWANE
0700

OR

DEPOSITED IN THE BID BOX SITUATED AT (*STREET ADDRESS*)

41 BICCARD STREET
POLOKWANE
0699

Bidders should ensure that bids are delivered timeously to the correct address. If the bid is late, it will not be accepted for consideration.

The bid box is generally open 24 hours a day, 7 days a week.

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS – (NOT TO BE RE-TYPED)

THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2011, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT

NB: NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE (as defined in Regulation 1 of the Local Government: Municipal Supply Chain Management Regulations)

**THE FOLLOWING PARTICULARS MUST BE FURNISHED
(FAILURE TO DO SO MAY RESULT IN YOUR BID BEING DISQUALIFIED)**

NAME OF BIDDER

POSTAL ADDRESS

STREET ADDRESS

TELEPHONE NUMBER CODE.....NUMBER.....

CELLPHONE NUMBER

FACSIMILE NUMBER CODE NUMBER.....

E-MAIL ADDRESS

VAT REGISTRATION NUMBER.....

HAS AN ORIGINAL AND VALID TAX CLEARANCE CERTIFICATE BEEN ATTACHED? (MBD 2)YES/NO

HAS A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE BEEN SUBMITTED? (MBD 6.1)YES/NO

IF YES, WHO WAS THE CERTIFICATE ISSUED BY?

AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA) ☐
A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN NATIONAL ACCREDITATION
SYSTEM (SANAS) ☐
A REGISTERED AUDITOR ☐
(Tick applicable box)

**(A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE 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)

SIGNATURE OF BIDDER

DATE

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

TOTAL BID PRICE..... TOTAL NUMBER OF ITEMS OFFERED.....

ANY ENQUIRIES REGARDING THE BIDDING PROCEDURE MAY BE DIRECTED TO:

Municipality / Municipal Entity: Capricorn District Municipality.

Department: Supply Chain

Contact Person: Ms Violet Masemola or Ms Kwena Mashiane

Tel: 015 294 1039 or 015 294 1210

Fax: 015 291 5697

ANY ENQUIRIES REGARDING TECHNICAL INFORMATION MAY BE DIRECTED TO:

Contact Person: Senior Manager: Technical Services

Tel: 015 294 1144/1196

Fax: 015 291 5697



CAPRICORN DISTRICT MUNICIPALITY

T1.2 Bid Data

The conditions of Bid are the Standard Conditions of Bid as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement. (See www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of Bidders as an Annex to this Bid Data.

The Standard Conditions of Bid make several references to the Bid Data for details that apply specifically to this Bid. The Bid Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of Bid. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Bid to which it mainly applies.

The additional conditions of Bid are:

Clause number	Bid Data
F.1.1	The employer is: Name: Capricorn District Municipality Address: PO BOX 4100, 41 Biccard Street, Polokwane Telephone: (015) 294 1000 Fax: (015) 291 5697
F.1.2	The Bid documents issued by the employer comprise: T1.1 Bid notice and invitation to Bid T1.2 Bid data T2.1 List of returnable documents T2.2 Returnable schedules Part 1: Agreements and contract data C1.1 Form of offer and acceptance C1.2 Contract data C1.3 Form of Guarantee C1.4 Occupational Health and Safety Part 2: Special Conditions of Contract C2.1 Special Conditions of Contract Part 3: Scope of work C3.1 Scope of work C3.2 Drawing Descriptions C3.3 Procurement C3.4 Construction C3.5 Management Part 4: Project Specification Part 5: Drawings Part 6: Site information Part 7: Schedule of Quantities C7.1 Preamble to Schedule of Quantities C7.2 Schedule of Quantities
F.1.4	The employer's agent is: VICTORY DEVELOPMENT PROJECT 14 PAUL KRUGER POLOKWANE, 0700 Telephone: (015) 291 3892 Facsimile: (015) 291 2821 E-mail: admin@victorydevelopment.co.za / victoryce9@gmail.com
F.2.1	Only those tenderers who can demonstrate that they will have in their employ management and supervisory staff satisfying the requirements of the scope of work for labour-intensive competencies for supervisory and management staff during the validity of the contract are eligible to submit tenders. The tenderers 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 eligibility requirements.
F.2.1	Only those Bidders who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance

	with the sum Bided for a 6CEPE/7CE or higher class of construction work, are eligible to submit Bids. Joint ventures are eligible to submit Bids provided that: 1. every member of the joint venture is registered with the CIDB; 2. the lead partner has a contractor grading designation in the 6CEPE/7CE or higher class of construction work; and 3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum Bided for a 6CEPE/7CE or higher class of construction work.
F.2.1	The following Bidders who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to submit Bids: a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum Bided for a 6CEPE/7CE class of construction work; and b) contractors registered as potentially emerging enterprises with the CIDB who are registered in one contractor grading designation lower than that required in terms of a) above and who satisfy the following criteria: i) The Department, following an interview with the management of the enterprise, is satisfied that the enterprise has the potential to develop and qualify to be registered in a higher contractor grading designation; and ii) The Department, following a risk assessment, is able to provide the necessary supportive measures required to enable the enterprise to successfully execute the contract. Joint ventures are eligible to submit Bids provided that: 1. every member of the joint venture is registered with the CIDB; 2. the lead partner has a contractor grading designation in the 6CEPE/7CE or higher class of construction work; and 3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum Bided for a 6CEPE/7CE or higher class of construction work.
F.2.7	The arrangements for a compulsory clarification meeting are as stated in the Bid Notice and Invitation to Bid. Bidders must sign the attendance list in the name of the Bidding entity. Addenda will be issued to and Bids will be received only from those Bidding entities appearing on the attendance list.
F.2.12	No alternative Bid offers will be considered If a Bidder wishes to submit an alternative Bid offer, the only criteria permitted for such alternative Bid offer is that it demonstrably satisfies the Employer's standards and requirements, the details of which may be obtained from the Employer's Agent. Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative Bid offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal. Acceptance of an alternative Bid offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the Bidder, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements. The modified Pricing Data must include an amount equal to 5% of the amount Bided for the alternative offer to cover the Employer's costs of confirming the acceptability of the detailed design before it is constructed.
F.2.13.3	Parts of each Bid offer communicated on paper shall be submitted as original, plus 2 copies.

F.2.13.5 F.2.15.1	The employer's address for delivery of Bid offers and identification details to be shown on each Bid offer package are: Location of Bid box: Tender Box Physical address: 41 Biccard Street, Polokwane, 0700 Identification details: Contract No. INF-W06/2026/2027 Phasha Water Supply Contract B Postal address: Box 4100, Polokwane,0700
F.2.13 F.3.5	A two-envelope procedure will not be followed.
F.2.15	The closing time for submission of Bid offers is as stated in the Bid Notice and Invitation to Bid.
F.2.15	Telephonic, telegraphic, telex, facsimile or e-mailed Bid offers will not be accepted.
F.2.16	The Bid offer validity period is 90 days
F.2.18	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
F.2.19	Access shall be provided for inspections, tests and analysis.
F.2.23	The Bidder is required to submit with his Bid a Certificate of Contractor Registration issued by the Construction Industry Development Board and a copy of an original valid Tax Clearance Certificate issued by the South African Revenue Services. Where a Bidder satisfies CIDB contractor grading designation requirements through joint venture formation, such Bidders must submit the Certificates of Contractor Registration in respect of each partner.
F.3.4	Bids will be opened immediately after the closing time for Bids at Municipal Offices, at 41 Biccard Street, Polokwane.
	The procedure for the evaluation of responsive Bids is Method 2 The financial offer will be scored using Formula 2 (option 1) where the value of W_1 is: 1) 90 where the financial value inclusive of VAT of all responsive. Bids received have a value in excess of R 50 000 000.00; or 2) 80 where the financial value inclusive of VAT of one or more responsive Bid offers equals or is less than R 50 000 000.00. Up to 100 minus W_1 Bid evaluation points will be awarded to Bidders who complete the preference schedule and who are found to be eligible for the preference claimed.
F.3.11	A maximum of 100 minus W_1 Bid evaluation points will be awarded for the extent to which the Bided Contract Participation Goal exceeds the specified minimum. The basis of award of preference points is: $N_p = \frac{(100 - W_1) \times (D - D_s)}{(X - D_s)}$ where D = Bided Contract Participation Goal. D_s = the minimum Contract Participation Goal below which no preference will be granted, namely,% X = the maximum Contract Participation Goal above which no further Bid evaluation points are awarded, namely %.

F3.13.1	Bid offers will only be accepted if: a) the Bidder has in his or her possession an original valid Tax Clearance Certificate issued by the South African Revenue Services or has made arrangements to meet outstanding tax obligations; b) the Bidder is registered with the Construction Industry Development Board in an appropriate contractor grading designation; c) the Bidder or any of its directors is not listed on the Register of Bid 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; d) the Bidder has not: i) abused the Employer's Supply Chain Management System; or ii) failed to perform on any previous contract and has been given a written notice to this effect; and e) Bidder has completed 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 Bid process. f) the Bidder does not have arrears on municipal rates and levies exceeding 3 months.
F.3.18	The number of paper copies of the signed contract to be provided by the employer is one.

Standard Conditions of Bid

F.1 General

F.1.1 Actions

The employer and each Bidder submitting a Bid offer shall comply with these conditions of Bid. 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 Bid Documents

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

F.1.3 Interpretation

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

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

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 Bidder's financial offer after the factors of non-firm prices, all unconditional discounts and any other Bided 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 Bid process; and
- c) **fraudulent practice** means the misrepresentation of the facts in order to influence the Bid process or the award of a contract arising from a Bid 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 Bidder 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 Bidder. The name and contact details of the employer's agent are stated in the Bid data.

F.1.5 The employer's right to accept or reject any Bid offer

F.1.5.1 The employer may accept or reject any variation, deviation, Bid offer, or alternative Bid offer, and may cancel the Bid process and reject all Bid offers at any time before the formation of a contract. The employer shall not accept or incur any liability to a Bidder 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 Bid process or the rejection of all responsive Bid offers re-issue a Bid covering substantially the same scope of work within a period of six months unless only one Bid was received and such Bid was returned unopened to the Bidder.

F.2 Bidder's obligations

F.2.1 Eligibility

Submit a Bid offer only if the Bidder complies with the criteria stated in the Bid data and the Bidder, or any of his principals, is not under any restriction to do business with employer.

F.2.2 Cost of Bidding

Accept that the employer will not compensate the Bidder for any costs incurred in the preparation and submission of a Bid offer, including the costs of any testing necessary to demonstrate that aspects of the offer satisfy requirements.

F.2.3 Check documents

Check the Bid 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 Bid. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a Bid offer in response to the invitation.

F.2.5 Reference documents

Obtain, as necessary for submitting a Bid 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 Bid documents by reference.

F.2.6 Acknowledge addenda

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

F.2.7 Clarification meeting

Attend **compulsory a clarification meeting** at which Bidders may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the Bid data.

F.2.8 Seek clarification

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

F.2.9 Insurance

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

F.2.10 Pricing the Bid offer

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

F.2.10.2 Show VAT payable by the employer separately as an addition to the Bided 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 Bid 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 Bid documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the Bidder. All signatories to the Bid offer shall initial all such alterations. Erasures and the use of masking fluid are prohibited.

F.2.12 Alternative Bid offers

F.2.12.1 Submit alternative Bid offers only if a main Bid offer, strictly in accordance with all the requirements of the Bid documents, is also submitted. The alternative Bid offer is to be submitted with the main Bid offer together with a schedule that compares the requirements of the Bid documents with the alternative requirements the Bidder proposes.

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

F.2.13 Submitting a Bid offer

F.2.13.1 Submit a Bid 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 Bid 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 Bid offer communicated on paper as an original plus the number of copies stated in the Bid 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 Bid offer where required in terms of the Bid data. The employer will hold all authorized signatories liable on behalf of the Bidder. Signatories for Bidders 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 Bid offer.

F.2.13.5 Seal the original and each copy of the Bid offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the Bid data, as well as the Bidder's name and contact address.

F.2.13.6 Where a two-envelope system is required in terms of the Bid data, place and seal the returnable documents listed in the Bid 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 Bid data, as well as the Bidder's name and contact address.

F.2.13.7 Seal the original Bid 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 Bid data.

F.2.13.8 Accept that the employer shall not assume any responsibility for the misplacement or premature opening of the Bid 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 Bid 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 Bid offer at the address specified in the Bid data not later than as stated in the Bid data. Proof of posting shall not be accepted as proof of delivery. The employer shall not accept Bid offers submitted by telegraph, telex, facsimile or e-mail, unless stated otherwise in the Bid data.

F.2.15.2 Accept that, if the employer extends the closing time stated in the Bid data for any reason, the requirements of these conditions of Bid apply equally to the extended deadline.

F.2.16 Bid offer validity

F.2.16.1 Hold the Bid offer(s) valid for acceptance by the employer at any time during the validity period stated in the Bid data after the closing time stated in the Bid data.

F.2.16.2 If requested by the employer, consider extending the validity period stated in the Bid data for an agreed additional period.

F.2.17 Clarification of Bid offer after submission

Provide clarification of a Bid offer in response to a request to do so from the employer during the evaluation of Bid 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 Bid offer is sought, offered, or permitted. **The total of the prices stated by the Bidder shall be binding upon the Bidder.**

Note: Sub-clause F.2.17 does not preclude the negotiation of the final terms of the contract with a preferred Bidder 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 Bid offer, the Bidder'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 Bidder 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 Bid 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 Bid 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 Bid documents

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

F.2.23 Certificates

Include in the Bid submission or provide the employer with any certificates as stated in the Bid 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 prior to the Bid closing time stated in the Bid Data and notify all Bidders who drew procurement documents.

F.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the Bid documents to each Bidder during the period from the date of the Bid Notice until seven days before the Bid closing time stated in the Bid Data. If, as a result a Bidder applies for an extension to the closing time stated in the Bid Data, the Employer may grant such extension and, will then notify it to all Bidders who drew documents.

F.3.3 Return late Bid offers

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

F.3.4 Opening of Bid submissions

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

F.3.4.2 Announce at the opening held immediately after the opening of Bid submissions, at a venue indicated in the Bid data, the name of each Bidder whose Bid offer is opened, the total of his prices, preferences claimed and time for completion, if any, for the main Bid 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

A two-envelope procedure will not be followed in this contract.

F.3.6 non-disclosure

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

F.3.7 Grounds for rejection and disqualification

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

F.3.8 Test for responsiveness

Determine, on opening and before detailed evaluation, whether each Bid offer properly received:

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

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

- detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,
- change the Employer's or the Bidder's risks and responsibilities under the contract, or
- affect the competitive position of other Bidders presenting responsive Bids, if it were to be rectified.

Reject a non-responsive Bid 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

Check responsive Bid offers for arithmetical errors, correcting them in the following manner:

- Where there is a discrepancy between the amounts in figures and in words, the amount in words shall govern.
- If a bill of quantities (or schedule of rates) applies 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 will be corrected.
- Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the Bidder's addition of prices, the total of the prices shall govern and the Bidder will be asked to revise selected item prices (and their rates if a bill of quantities applies) to achieve the Bided total of the prices.

Consider the rejection of a Bid offer if the Bidder does not correct or accept the correction of his arithmetical errors in the manner described above.

F.3.10 Clarification of a Bid offer

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

F.3.11 Evaluation of Bid offers

F3.11.1 Critical Criteria:

Step 1

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.

- Tax Pin Access Code (If JV, For Both)
- Cipro Document Attached (If JV, For Both)
- Certified ID Copies of All Directors/Members/Shareholders of The Company/Business (If JV, For Both)
- Proof of company registration on central supplier database registration (CSD)
- Proof of residence municipal rates and taxes or letter from tribal authority or valid lease agreement must be attached for both company & all directors (If JV both) - not older than three months.
- Attended Compulsory Site meeting.
- Authority of Signatory (in a company letter head)
- Signing of Form of Offer
- Document filled in using a black pen.
- Alterations signed.
- CIDB grading (only applicable to construction projects)
- JV Agreement in Case Of JV
- All pages initialled.
- All forms in tender document must be completed and signed in full – If not, tender will be rejected.
- Bidders not completing the MBD 4 form in full (Bidders are urged to read and understand the contents of MBD 4 form and special attention to clause 2.3, please ensure that all companies related to the bidder and its directors are disclosed, failure to disclose the information would lead to automatic disqualification).

Step 2

According to the MFMA Circular No. 53 of the Municipal Finance Act No. 56 of 2003. Bidders will firstly be evaluated on Functionality. The minimum Score for functionality is 70%.

Only the qualifying Tenderers will be evaluated on Method 2.

The following is the criteria that the Bidders will be evaluated for Functionality:

FUNCTIONALITY COMPETENCE ACHIEVEMENT SCHEDULES

TABLE A1: COMPANY EXPERIENCE (EXPERIENCE IN SIMILAR PROJECTS)

	TARGETED GOALS Name reference with contact details	TENDERED GOAL	POINTS CLAIMED BY TENDERER	ALLOCATED POINTS
1	5 projects and above	20		
2	3 to 4 projects	15		
3	2 projects	10		
4	1 project	5		
	MAXIMUM POINTS	20		

N.B: TENDERERS TO SUBMIT NAMES COMPLETE WITH VALID CONTACT DETAILS. ATTACH APPOINTMENT LETTERS AND COMPLETION CERTIFICATES FOR THE LISTED PROJECTS. NON-SUBMISSION WILL RESULT IN LOSS OF POINTS.

TABLE A2: FINANCIAL REFERENCES

	TARGETED GOALS	TENDERED GOAL	POINTS CLAIMED BY TENDERER	ALLOCATED POINTS
1	Tenderer submitted banking details proof attached	5		
2	Bank rating of "C" or better	5		
3	Letter of intent from a registered financial institution as a guarantor in the amount of 10% as specified for surety purposes shall be submitted.	10		
	MAXIMUM POINTS	20		

N.B: TENDERERS TO SUBMIT PROOF. NON-SUBMISSION WILL RESULT IN LOSS OF POINTS.

TABLE A3: KEY PERSONEL EXPERIENCE & SPECIFIC KNOWLEDGE

	TARGETED GOALS	TENDERED GOAL	POINTS Claimed by tenderer	ALLOCATED POINTS
1	Site agent 5 years labour intensive construction experience	10		
2	Site agent 5 years' experience in water projects	15		
3	Site agent trained in labour intensive construction methods at least NQF 2	5		
4	Site agent has NQF Level 5 Unit Standard "Develop & Promote Labour Intensive Construction Strategies".	10		
	MAXIMUM POINTS	40		

N.B: TENDERERS TO SUBMIT CURRICULUM VITAE & CERTIFICATES OF SITE AGENT AND COMPANY PROFILE. NON-SUBMISSION WILL RESULT IN LOSS OF POINTS.

TABLE A4: PLANT AND EQUIPMENT

	TARGETED GOALS	TENDERED GOAL	POINTS Claimed by tenderer	ALLOCATED POINTS
1	1 TLB	5		
2	1 20-ton Excavator	5		
3	2 Tipper trucks	5		
4	1 Water truck (10000lt)	5		
	MAXIMUM POINTS	20		

N.B: TENDERERS TO SUBMIT VEHICLE/EQUIPMENT OWNERSHIP PROOF OR INTENTION TO HIRE WITH PROOF OF THE OWNER'S DOCUMENTS. NON-SUBMISSION WILL RESULT IN LOSS OF POINTS.

THE MINIMUM SCORE FOR FUNCTIONALITY IS 70

Step 3

Price and BBEE Contribution. Reduce each responsive Bid offer to a comparative offer and evaluate it using the Bid evaluation method that is indicated in the Bid Data and described below:

Method 2: Financial offer, and preferences	1) Score Bid evaluation points for financial offer.
	2) Confirm that Bidders are eligible for the preferences claimed, and if so, score Bid evaluation points for preferencing.
	3) Calculate total Bid evaluation points.
	4) Rank Bid offers from the highest number of Bid evaluation points to the lowest.
	5) Recommend Bidders with the highest number of Bid 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 Bid offers using the following formula:

$N_{FO} = W_1 \times A$ where:
 N_{FO} = the number of Bid evaluation points awarded for the financial offer.
 W_1 = the maximum possible number of Bid evaluation points awarded for the financial offer as stated in the Bid Data.
 A = a number calculated using either formulas 1 or 2 below as stated in the Bid Data.

Formula	Basis for comparison	Option 1	Option 2
1	Highest price or discount	$(1 + \frac{(P - P_m)}{P_m})$	P/P_m
2	Lowest price or percentage commission/fee	$(1 - \frac{(P - P_m)}{P_m})$	P_m/P

where:

P_m = the comparative offers of the most favourable Bid offer.

P = the comparative offers of Bid offer under consideration.

F.3.11.3 Scoring quality (functionality)

Score quality in each of the categories stated in the Bid Data and calculate total score for quality.

F.3.12 Insurance provided by the employer

If requested by the proposed successful Bidder, submit for the Bidder'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 Bid offer

F.3.13.1 Accept Bid offer only if the Bidder satisfies the legal requirements stated in the Bid Data.

F.3.13.2 Notify the successful Bidder of the employer's acceptance of his Bid offer by completing and returning one copy of the form of offer and acceptance before the expiry of the validity period stated in the Bid 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 Bidder as described in the form of offer and acceptance.

F.3.14 Notice to unsuccessful Bidders

After the successful Bidder has acknowledged the employer's notice of acceptance, notify other Bidders that their Bid 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 Bid documents to take account of:

- a) addenda issued during the Bid period,
- b) inclusion of some of the returnable documents,
- c) other revisions agreed between the employer and the successful Bidder, 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 Bidder 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 Bid require the Bidder 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 Bidder the number of copies stated in the Bid Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.



CAPRICORN DISTRICT MUNICIPALITY

T2.1 List of Returnable Documents

The Bidder must complete the following returnable documents:

1 Returnable Schedules required only for Bid evaluation purposes

- Record of Addenda to Bid Documents
- Certificate of authority for joint ventures (where applicable)
- Schedule of Subcontractors
- Schedule of Plant and Equipment
- Schedule of the Bidder's Experience
- Proposed Amendments and Qualifications
- Municipal statement on Bidder's rates and taxes
- Schedule of personnel & employees
- Preliminary programme
- Signatory of authority (Power of attorney)
- Site inspection certificate
- CIDB Certificate

2 Other documents required only for Bid evaluation purposes

- Certificate of Contractor Registration issued by the Construction Industry Development Board
- MBD 2: An original valid Tax Clearance Certificate issued by the South African Revenue Services.

3 Returnable Schedules that will be incorporated into the contract

- MBD 3.1: Pricing schedule – Firm prices (Purchases)
- MBD 3.2: Pricing schedule – non-Firm prices (Purchases)
- MBD 6.1: Preference Points Claim Form in Terms of The Preferential Procurement Regulations 2001
- MBD 7.2: Contract form - rendering of services
- MBD 4 : Declaration of interest
- MBD 8 : Declaration of bidder's past supply chain management practices
- MBD 9 : Certificate of independent bid determination

4 Other documents that will be incorporated into the contract

5 The offer portion of the C1.1 Offer and Acceptance

6 C1.2 Contract Data (Part 2)

7 C6.2 Bills of quantities

Record of Addenda to Bid documents

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

	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

Attach additional pages if more space is required.

Signed		Date	
Name		Position	
Bidder			

Certificate of Authority for Joint Ventures (Where applicable)

This Returnable Schedule is to be completed by joint ventures.

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

NAME OF FIRM	ADDRESS	DULY SIGNATORY (Signature, designation)	AUTHORISED name &
Lead partner			

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.

	Name and address of proposed Subcontractor	Nature and extent of work	Previous experience with Subcontractor.
1.			
2.			
3.			
4.			
5.			
Signed		Date	
Name		Position	
Bidder			

Schedule of Plant and Equipment

The following are lists of major items of relevant equipment that I/we presently own or lease and will have available for this contract or will acquire or hire for this contract if my/our Bid is accepted.

(a) Details of major equipment that is owned by and immediately available for this contract.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

(b) Details of major equipment that will be hired or acquired for this contract if my/our Bid is acceptable.

Quantity	Description, size, capacity, etc.

Attach additional pages if more space is required.

Signed		Date	
Name		Position	
Bidder			

Schedule of the Bidder's Experience

The following is a statement of similar work successfully executed by myself/ourselves:

Employer, contact person and telephone number.	Description of contract	Value of work inclusive of VAT (Rand)	Date completed
Signed		Date	
Name		Position	
Bidder			

Proposed amendments and qualifications

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

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

Page	Clause item	or	Proposal

Signed		Date	
Name		Position	
Bidder			

Schedule of Personnel and Employees

The Tenderer shall state below the number of Personnel and Employees to be employed on the Works.

PERSONNEL AND EMPLOYEES	TENDER			TENDER
	FULL TIME	PART TIME	FULL TIME	PART TIME
1. Technical staff				
2. Clerical staff				
3. Artisans				
4. Semi-skilled				
5. Unskilled labour				
Total				

State the name, qualifications and experience of permanent Site agent:

Date:

SIGNATURE OF TENDERER:

Preliminary Programme

The Tenderer shall detail below or attach a preliminary programme reflecting the proposed order and rate of progress for each portion of the work comprising this Contract. The programme shall be consistent with and in support of his time required for completion and shall be in accordance with the requirements of this tender. Labour intensive activities shall be clearly indicated as such in the Programme.

[illegible]

SIGNATURE OF TENDERER:

Signatories Authority (Power of Attorney)

1. INFORMATION TO BE PROVIDED

1.1 If the Tenderer is a COMPANY

- (a) Affix a certificate copy of the Certificate of Incorporation to this page.
- (b) Affix a copy of the relevant resolution of the Board of Directors, duly signed
and dated
- (c) List the Directors

.....
.....

1.2 If the Tenderer is a CLOSE CORPORATION

- (a) Affix a certificate copy of the Founding Statement to this page
- (b) Affix a copy of the relevant resolution of the Members, duly signed and dated
- (c) List the Members

.....
.....

1.3 If the Tenderer is a PARTNERSHIP

- (a) Affix a copy of the relevant resolution on the Partners, duly signed and dated
- (b) List the Partners

.....
.....

1.2 If the Tenderer is a ONE-MAN-CONCERN.

Provided the full name, identity number and qualifications of the person

.....

1.3 If the Tenderer is a JOINT VENTURE

- a) Affix a copy of the original document of information defining the conditions under which the joint venture will function, its period of duration and the participating persons, companies and/or firms
- b) Affix a certificate signed for or on behalf of each participating person, company and/or firm authorizing the person who signed the tender to do so.

1.4 If the Tenderer is a CONCERN OTHER than these listed above

Provide full details of the CONCERN submitting the tender:

.....

Site Inspection Certificate

This is to certify that I,

.....

representing and duly authorized by (Tenderer)

.....

attended the site inspection on

.....

Having prior to this site visit carefully examined the tender document, technical information and drawings supplied, I confirm that I was given unrestricted access to inspect those sections of the Site necessary for the execution of the Works.

I further confirm that I am completely satisfied with the scope of work as explained by the Engineer, and am fully aware of all Site conditions and regulations of whatsoever nature that could influence the preparation of our tender.

I therefore append my signature below in agreement that we will not institute any claim against the Employer after submission of our tender based on lack of knowledge of site conditions or regulations appertaining to the execution of this Contract.

Signature of Tenderer's Representative

Date

Signature of Engineer's Representative

Date

COMPLIANCE WITH OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 AND CONSTRUCTION REGULATIONS, 2003

The tenderer shall attach to this Form evidence that he is registered and in good standing with a compensation insurer who is approved by Department of Labour in terms of section 80 of the Compensation for Injury and Disease Act (COID)(Act 130 of 1993).

The tenderer is required to disclose, by also attaching documentary evidence to this form, all inspections, investigations and their outcomes conducted by the Department of Labour into the conduct of the tenderer at any time during the 36 months preceding the date of this tender.

SIGNED ON BEHALF OF THE TENDERER:

Note to tenderer:

Discovery that the tenderer has failed to make proper disclosure may result in CDM terminating a contract that flows from this tender on the ground that it has been rendered invalid by the tenderer's misrepresentation.

CONSTRUCTION INDUSTRIES DEVELOPMENT BOARD REGISTRATION

The tenderer is to affix to this page either:

- Written proof of his registration with the CIDB as a Category **6CEPE/7CE**

Or

- Written proof of his application to the CIDB for registration as a contractor in the category listed above.

Note:

1. Failure to affix such documentation as prescribed to this page shall result in this tender not being further considered for the award of the contract.
2. Should this tender be considered for award of the contract, based on proof of submission of application for registration in the appropriate category with the CIDB, and should proof of such subsequent registration not be forthcoming to the employer by the time of award of the contract, then this tender will no longer be considered for the award of the contract.

**PRICING SCHEDULE – FIRM PRICES
(PURCHASES)**

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

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

Name of Bidder.....	Bid Number.....
Closing Time	Closing Date

OFFER TO BE VALID FOR.....DAYS FROM THE CLOSING DATE OF BID.

ITEM NO.	QUANTITY	DESCRIPTION **(ALL APPLICABLE TAXES INCLUDED)	BID PRICE IN RSA CURRENCY
-------------	----------	--	---------------------------

- | | | |
|---|--|-----------------------------------|
| - | Required by: | ..... |
| - | At: | ..... |
| - | Brand and Model | ..... |
| - | Country of Origin | ..... |
| - | Does the offer comply with the specification(s)? | *YES/NO |
| - | If not to specification, indicate deviation(s) | ..... |
| - | Period required for delivery |
*Delivery: Firm/Not firm |
| - | Delivery basis | ..... |

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

** "all applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

**PRICING SCHEDULE – NON-FIRM PRICES
(PURCHASES)**

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

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

Name of Bidder.....	Bid number.....
Closing Time	Closing Date

OFFER TO BE VALID FOR.....DAYS FROM THE CLOSING DATE OF BID.

-

ITEM NO.	QUANTITY	DESCRIPTION **(ALL APPLICABLE TAXES INCLUDED)	BID PRICE IN RSA CURRENCY
----------	----------	--	---------------------------

-

- Required by:

- At:

- Brand and model

-

- Country of origin

- Does the offer comply with the specification(s)? *YES/NO

- If not to specification, indicate deviation(s)

- Period required for delivery

- Delivery: *Firm/Not firm

** "all applicable taxes" includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

PRICE ADJUSTMENTS

A NON-FIRM PRICES SUBJECT TO ESCALATION

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

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

Where:

Pa	=	The new escalated price to be calculated.
(1-V) Pt	=	85% of the original bid price. Note that Pt must always be the original bid price and not an escalated price.
D1, D2..	=	Each factor of the bid price eg. labour, transport, clothing, footwear, etc. The total of the various factors D1,D2...etc. must add up to 100%.
R1t, R2t.....	=	Index figure obtained from new index (depends on the number of factors used).
R1o, R2o	=	Index figure at time of bidding.
VPt	=	15% of the original bid price. This portion of the bid price remains firm i.e. it is not subject to any price escalations.

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

Index..... Dated..... Index..... Dated..... Index..... Dated.....

Index..... Dated..... Index..... Dated..... Index..... Dated.....

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

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

B PRICES SUBJECT TO RATE OF EXCHANGE VARIATIONS

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

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

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

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

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

- 2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest¹ in the enterprise, employed by the state? **YES/NO**
- 2.1.1 If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

- 2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

- 2.2.1 If so, furnish particulars:

.....

- 2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

- 2.3.1 If so, furnish particulars:

.....

¹ the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

3 DECLARATION

I, the undersigned, (name)..... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

- 3.1 I have read, and I understand the contents of this disclosure.
 - 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect.
 - 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium² will not be construed as collusive bidding.
 - 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
 - 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
 - 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- 3.6 I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....

.....

² 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.

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

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

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

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

.....

2 Do you have any outstanding undisputed commitments for municipal services towards any Municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days? YES / NO

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

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

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

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

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

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

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

1. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

- (a) The applicable preference point system for this tender is the 90/10 preference point system.
- (b) The applicable preference point system for this tender is the 80/20 preference point system.
- (c) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

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

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

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

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

- 1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.
- 1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

$$\begin{array}{ccc}
 \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\
 \\
 \mathbf{Ps} = \mathbf{80} \left(\mathbf{1} - \frac{\mathbf{Pt} - \mathbf{Pmin}}{\mathbf{Pmin}} \right) & \mathbf{or} & \mathbf{Ps} = \mathbf{90} \left(\mathbf{1} - \frac{\mathbf{Pt} - \mathbf{Pmin}}{\mathbf{Pmin}} \right)
 \end{array}$$

Where

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

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

3.2.1. POINTS AWARDED FOR PRICE

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

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

Where

- P_s = Points scored for price of tender under consideration
 P_t = Price of tender under consideration
 P_{max} = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such. Note to tenderers: The tenderer must indicate how they claim points for each preference point system and proof (identity document, medical report and Military Veterans certificate) should be submitted). Failure to submit proof will result in loss of specific goals points.

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

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Owned by black South African people		4		
Owned by RSA people who are women (of all races)		4		
Owned by black RSA black people who are youth		4		
Owned by RSA people with disabilities		4		
Military Veterans		4		
Total points claimed		20		

DECLARATION WITH REGARD TO COMPANY/FIRM

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

4.4. Company registration number:

4.5. TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

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

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

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

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

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

1. I hereby undertake to render services described in the attached bidding documents to (name of the institution)in accordance with the requirements and task directives / proposals specifications stipulated in Bid Number..... at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the Purchaser during the validity period indicated and calculated from the closing date of the bid.
2. The following documents shall be deemed to form and be read and construed as part of this agreement:
 - (i) Bidding documents, viz
 - Invitation to bid;
 - Tax clearance certificate;
 - Pricing schedule(s);
 - Filled in task directive/proposal;
 - Declaration of interest;
 - Declaration of Bidder's past SCM practices;
 - Certificate of Independent Bid Determination;
 - Special Conditions of Contract;
 - (ii) General Conditions of Contract; and
 - (iii) Other (specify)
3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.
4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfilment of this contract.
5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.
6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES	
1	.....
2	.....

CONTRACT FORM - RENDERING OF SERVICES

PART 2 (TO BE FILLED IN BY THE PURCHASER)

1. I..... in my capacity as..... accept your bid under reference numberdated.....for the rendering of services indicated hereunder and/or further specified in the annexure(s).
2. An official order indicating service delivery instructions is forthcoming.
3. I undertake to make payment for the services rendered in accordance with the terms and conditions of the contract, within 30 (thirty) days after receipt of an invoice.

<i>DESCRIPTION OF SERVICE</i>	PRICE (ALL APPLICABLE TAXES INCLUDED)	COMPLETION DATE	B-BBEE STATUS LEVEL OF CONTRIBUTION	MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT (if applicable)

4. I confirm that I am duly authorized to sign this contract.

SIGNED AT ON

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

1

2

DATE:

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

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

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

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

CERTIFICATION

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

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Municipal Bidding Document (MBD) must form part of all bids¹ invited.

- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding 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. takes all reasonable steps to prevent such abuse;
 - b. rejects the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancels a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.

- 4 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.

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

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

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

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

in response to the invitation for the bid made by:

(Name of Municipality / Municipal Entity)

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

I certify, on behalf of:

that:

(Name of Bidder)

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

(a) has been requested to submit a bid in response to this bid invitation;

(b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and

(c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

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 bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder



CAPRICORN DISTRICT MUNICIPALITY

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:

CONTRACT NO. INF-W06/2026/2027

PHASHA WATER SUPPLY -CONTRACT B

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

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

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

..... Rand (in words);

R (In figures)

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the Bidder before the end of the period of validity stated in the Bid data, whereupon the Bidder becomes the party named as the contractor in the conditions of contract identified in the contract data.

Signature
Name
Capacity

Date

for the Bidder

(Name and
address of
organization)

Name and
signature
of witness

Acceptance

By signing this part of this form of offer and acceptance, the employer identified below accepts the Bidder'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 Bidder's offer shall form an agreement between the employer and the Bidder upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

- Part C1: Agreements and contract data, (which includes this agreement)
- Part C2: Pricing data
- Part C3: Scope of work.
- Part C4: Site information

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

Deviations from and amendments to the documents listed in the Bid data and any addenda thereto as listed in the Bid schedules as well as any changes to the terms of the offer agreed by the Bidder 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.

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

Notwithstanding anything contained herein, this agreement comes into effect on the date when the Bidder receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the Bidder (now contractor) within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature	Date
Name	
Capacity	

for the Employer CAPRICORN DISTRICT MUNICIPALITY
Box 4100
41 Biccard Streets
Polokwane
0700

Name and signature of witness	Date
.....	

Schedule of Deviations

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

By the duly authorised representatives signing this agreement, the employer and the Bidder agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the Bid data and addenda thereto as listed in the Bid schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Bidder and the employer during this process of offer and acceptance.

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



CAPRICORN DISTRICT MUNICIPALITY

C1.2 Contract Data

The General Conditions of Contract for Construction Works (2015) published by the South African Institution of Civil Engineering, are applicable to this contract and forms Volume 1 of the Contract Document. Volume 2 is the Contract Drawings Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering (tel: 011-805 5947).

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

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

4.5.2 49.6.1 to 4.9.6.3 55.1.8	The variations to the General Conditions of Contract are: Replace the term “Safety” with “Occupational Health and Safety” Replace the term “Bank” with “Bank or Insurance Company” Replace sub-clause with: The Contractor or anyone on his behalf or in his employ would pay, offer or offer as payment to any person in the employ of the Employer, or in the employ of the Engineer, a gratuity or reward or commission.
	The additional clauses to the General Conditions of Contract are: Payment for the labour-intensive component of the works Payment for works identified in the Scope of Work 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. 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 Conditions 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 or semi-skilled workers.

Introduction

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

1.2 In this document

- (a) "department~~ means any department of the State, implementing agent or contractor;
- (b) "employer" means any department, implementing agency or contractor that hires workers to work in elementary occupations on an EPWP;
- (c) "worker" means any person working in an elementary occupation on an EPWP;
- (d) "elementary occupation" means any occupation involving unskilled or semi-skilled work;
- (e) "management" means any person employed by a department or implementing agency to administer or execute an EPWP;
- (f) "task" means a fixed quantity of work;
- (g) "task*based work" means work in which a worker is paid a fixed rate for performing a task;
- (h) "task-rated worker" means a worker paid on the basis of the number of tasks completed;
- (i) "time-rated worker means a worker paid on the basis of the length of time worked.

Terms of Work

2.1 Workers on an EPWP are employed on a temporary basis or contract basis.

Normal Hours of Work

3.1 An employer may not set tasks or hours of work that require a worker to work

- (a) more than forty hours in any week;
- (b) on more than five days in any week; and
- (c) for more than eight hours on any day.

3.2 An employer and worker may agree that a worker will work four days per

week. The worker may then work up to ten hours per day.

3.3 A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

Meal Breaks

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

4.2 An employer and worker may agree on longer meal breaks.

4.3 A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.

4.4 A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

Special Conditions for Security Guards

5.1 A security guard may work up to 55 hours per week and up to eleven hours per day.

5.2 A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

Daily Rest Period

Every worker is entitled to a daily rest period of at least twelve 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.

Weekly Rest Period

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

Sick Leave

8.1 Only workers who work more than 24 hours per month have the right to claim sick-pay in terms of this clause.

8.2 A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.

8.3 A worker may accumulate a maximum of twelve days' sick leave in a year.

8.4 Accumulated sick-leave may not be transferred from one contract to another contract.

8.5 An employer must pay a task-rated worker the worker's daily task rate for a day's

	sick leave. 8.6 An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave. 8.7 An employer must pay a worker sick pay on the workers usual payday. 8.8 Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is (a) absent from work for more than two consecutive days; or (b) absent from work on more than two occasions in any eight-week period. 8.9 A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorized to issue medical certificates indicating the duration and reason for incapacity. 8.10 A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Diseases Act. 9. Maternity Leave 8.11 A worker may take up to four consecutive months' unpaid maternity leave. 8.12 A worker is not entitled to any payment or employment-related benefits during maternity leave. 8.13 A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work. 8.14 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. 8.15 A worker may begin maternity leave (a) four weeks before the expected date of birth; or (b) on an earlier date (i) if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of her unborn child; or (ii) if agreed to between employer and worker; or (c) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health. 8.16 A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth. 10. Family responsibility leave
--	--

10.1 Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances

- (a) when the employee's child is born;
- (b) when the employee's child is sick;
- (c) in the event of a death of -
 - (i) the employee's spouse or life partner;
 - (ii) the employee's parent, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

11. Statement of Conditions

11.1 An employer must give a worker a statement containing the following details at the start of employment

- (a) the employer's name and address and the name of the EPWP;
- (b) the tasks or job that the worker is to perform; and
- (c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;
- (d) the worker's rate of pay and how this is to be calculated;
- (e) the training that the worker will receive during the EPWP.

11.2 An employer must ensure that these terms are explained in a suitable language to any employee who is unable to read the statement.

11.3 An employer must supply each worker with a copy of these conditions of employment.

12. Keeping Records

- a. Every employer must keep a written record of at least the following
 - (a) the worker's name and position; signed contract by both parties
 - (b) copy of an acceptable worker identification certified
 - (c) in the case of a task-rated worker, the number of tasks completed by the worker; or daily attendance register
 - (d) in the case of a time-rated worker, the time worked by the worker;
 - (e) payments made to each worker signed off by worker.
- b. The employer must keep this record for a period of at least three years after the completion of the EPWP.

13. Payment

- a. An employer must pay all wages at least monthly in cash or by cheque or into a bank account.
- b. A worker may not be paid less than the minimum EPWP wage rate of R160,00 per day or per task. This will be adjusted annually on the 1st of March in line with inflation (available CPI as provided by StatsSA six (6) weeks before implementation).
- c. A task-rated worker will only be paid for tasks that have been completed.

- d. 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.
- e. A time-rated worker will be paid at the end of each month.
- f. Payment must be made in cash, by cheque or by direct deposit into a bank account designated by the worker.
- g. Payment in cash or by cheque must take place
 - (a) at the workplace or at a place agreed to by the worker;
 - (b) during the worker's working hours or within fifteen minutes of the start or finish of work;
 - (c) in a sealed envelope which becomes the property of the worker.
- h. 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.
- i. 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.
- j. 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.

14. 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
 - (a) repay any payment except an overpayment previously made by the employer by mistake;
 - (b) state that the worker received a greater amount of money than the employer actually paid to the worker; or
 - (c) pay the employer or any other person for having been employed.

15. Health and Safety

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

b. A worker must –

- (a) work in a way that does not endanger his/her health and safety or that of any other person;
- (b) obey any health and safety instruction;
- (c) obey all health and safety rules of the EPWP;
- (d) use any personal protective equipment or clothing issued by the employer;
- (e) report any accident, near-miss incident or dangerous behavior by another person to their employer or manager.

16. 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 EPWP 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.

17. 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.
- 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.

18. Certificate of Service

- a. On termination of employment, a worker is entitled to a certificate stating
 - (a) the worker's full name;
 - (b) the name and address of the employer;
 - (c) the EPWP on which the worker worked;
 - (d) the work performed by the worker;

	(e) any training received by the worker as part of the EPWP; (f) the period for which the worker worked on the EPWP; (g) any other information agreed on by the employer and worker.
	Contractor's default in payment to Labourers and Employees Any dispute between the Contractor and labourers, regarding delayed payment or default in payment of fair wages, if not resolved immediately may compel the Employer to intervene. The Employer may, upon the Contractor defaulting payment, pay the moneys due to the workers not honoured in time, out of any moneys due or which may become due to the Contractor under the Contract. Minimum Number of Workers to be Employed The Contractor shall employ a minimum number of 62 unskilled workers, failure to which the Employer may take such steps to source these workers and incorporate them into the Contractor's workforce without any financial adjustment of the Contract. Should the Contractor continually and deliberately fail to adhere to this provision without the express written consent of the Employer, the Employer shall have the right to take over the project and terminate the Contract in line with the Conditions of Contract. Reporting The Contractor shall submit monthly returns/reports as specified below: • Signed Muster rolls/pay sheets of temporary workers and permanent staff detailing the number, category, gender, rate of pay and daily attendance. • Plant utilization returns • Progress report detailing production output compared to the programme of works Provision of Hand tools The Contractor shall provide his labour force with hand tools of adequate quality, sufficient in numbers and make the necessary provisions to maintain the tools in good and safe working conditions.

Part 1: Contract Data completed by the Employer

Clause	
1.1.1.5	Clause 1.1.1.5 of the GCC is replaced by the following: The "Commencement date" shall be the date the site is handed over to the Contractor.
1.1.1.15	The name of the Employer is the Capricorn District Municipality. The address of the Employer is: Telephone: 015-294-1000 Facsimile: 015-291-5697 Address: 41 Biccard street, Polokwane, 0700 Address: Box 4100, Polokwane, 0700
1.1.1.16	The engineer representing the Consultant is Mr Alpheus Matshimbe
	The engineer's address for receipt of communication is: VICTORY DEVELOPMENT PROJECT 14 PAUL KRUGER STREET POLOKWANE 0700 Telephone: (015) 291 3892, Fax: (015) 291 2821/086 664 6282 e-mail: admin@victorydevelopment.co.za or victoryce9@gmail.com
1.1.1.12 and 5.8	The special non-working days are public holidays, Saturdays, Sundays and the days on which the contractor grants the majority of his permanent workforce leave around the 15 th December and the first Monday of the subsequent year.
3.1	The engineer is required in terms of his appointment with the employer to obtain the following specific approvals from the employer: e.g., 1. Approval of extension of time; 2. Approval of additional costs; 3. Approval of variation orders; 4. Approval of penalties; 5. Approval from Capricorn District Municipality for the utilization of any Contingencies

3.1.3	The Engineer is required to obtain the specific approval of the Employer before executing any of the following functions or duties: 1. Nominating the Engineer's Representative in terms of Clause 3.2.1. 2. Delegation of Engineer's authority in terms of Clause 3.2.4. 3. Providing consent for subcontracting part of the contract in terms of Clause 4.4.3. 4. The issuing of further drawings or instructions in terms of Clause 5.9.1 5. The issuing of instructions for dealing with fossils and the like in terms of Clause 4.7. 6. Authorizing the Contractor to repair and make good, excepted risks in terms of Clause 8.2.2.2. 7. The issuing of a variation order in terms of Clause 6.3.2. 8. Issuing of instructions to carry out work on a day work basis in terms of Clause 6.4.1.4. 9. Granting permission to work during non-working times in terms of Clause 5.8.1. 10. Suspend the progress of the works in terms of Clause 5.11.1. 11. The issuing of an instruction to accelerate progress in terms of Clause 5.7.3. 12. The reduction of a penalty for delay in terms of Clause 5.13.2. 10. The determination of additional or reduced costs arising from changes in legislation in terms of Clause 6.8.4. 11. The giving of a ruling on a contractor's claim in terms of Clause 10.1.5. 12. The agreeing of an extension to the 28 period in terms of Clause 10.1.5.1. 13. The inclusion of credits in the next payment certificate in terms of Clause 10.1.5.2. 14. The agreeing of the adjustment of the sums for general items in terms of Clause 6.11.1
	The time to deliver the Form of Guarantee within 14 days of the Commencement Date. The Form of Guarantee is to contain the wording of the document included in Clause.2.4 or as supplied by the Employer. The liability for the guarantee shall be for 10% of the contract amount.
5.3	The Works are to be commenced within 14 days of the Commencement Date.
5.6.1	The Works programme is to be delivered within 14 days of the Commencement Date.
8.6.	The amount to be included in the sum insured to cover the value of:
8.6.1.1.2	The value of the materials supplied by the Employer to be included in the insurance sum is R0-00
8.6.1.1.3	The amount to cover professional fees for repair or reinstatement of damage to the works to be included in the insurance sum is R0-00
8.6.1.5	Contractor to provide ALL RISK insurance within 14 days of award.
6.5.1.2.3	The percentage allowance to cover overhead charges is 15% .
5.14 1.1.1.5	The works shall be completed within SEVEN (7) months exclusive of year end break.
5.13	The penalty for failing to complete the Works is 1.5% of the contract amount per month or pro rata (daily)
6.8.2	The value of the payment certificates is to be adjusted in accordance with the Contract Price Adjustment Schedule, where: The value of "x" is 0,15 The values of the coefficients are:

	a = Labour b = Contractor's equipment c = Material d = Fuel The urban area nearest to the Site is Louis Trichardt The base month is the month prior to the closing of the Bid, i.e. October 2026
6.10.1.5	The percentage advance on materials not yet built into the Permanent Works is 80%
6.10.3	The percentage retention on amounts due to the Contractor is 10% of the contract amount.
6.10.1	Minimum amount of interim payment certificate is R 500 000.00
6.10.5	Retention of 10% will be deducted on every payment certificate
7.8	The Defects Liability Period is 12 calendar months after the final completion date
10.5	Dispute resolution is to be by means of adjudication
10.7	Disputes are to be referred for final settlement to arbitration.
Special Clause in terms of RDP	Requirements in terms of government's reconstruction and development programme. Target values In this contract the minimum target values shall be as follows: Labour Maximisation : 30% ABE support : 10% HDI Supervisory Staff : 10% The penalties for not reaching the required target values will be calculated at 20% of the difference between the set target values and the actual target values achieved by the contractor at completion of the works. No bonuses for achieving the set target values are applicable.

Part 2: Data provided by the Contractor

Clause																															
1.1.1.9	The contractor is																														
	The contractor's address for receipt of communication is: Telephone: Mobile phone: Facsimile: e-mail: Address:																														
6.5.1.2.3	The percentage allowances to cover all charges for the contractor's and subcontractor's profits, timekeeping, clerical work, insurance, establishment, superintendence and the use of hand tools is%.																														
5.14	The Works shall be completed within months as proposed by the contractor.																														
6.8.3	The variation in cost of special materials is: <table border="1"> <thead> <tr> <th rowspan="2">Special material</th><th colspan="2">Unit on which variation will be determined</th><th rowspan="2">Price for base month ex factory, excluding transport, labour or any other costs.</th></tr> <tr> <th>Containers</th><th>Delivered in bulk</th></tr> </thead> <tbody> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td><td></td></tr> </tbody> </table> *State unit in appropriate column	Special material	Unit on which variation will be determined		Price for base month ex factory, excluding transport, labour or any other costs.	Containers	Delivered in bulk																								
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	Containers	Delivered in bulk																													



CAPRICORN DISTRICT MUNICIPALITY

C1.3 Form of Guarantee

Contract No. INF-W06/2026/2027

WHEREAS The **CAPRICORN DISTRICT MUNICIPALITY** (hereinafter referred to as the Employer”) entered into, a Contract with:

.....
(Hereinafter called “the Contactor”) on the day of20.....,
for the construction of **PHASHA WATER SUPPLY -CONTRACT B**

AND WHEREAS it is provided by such Contract that the Contractor shall provide the Employer with security by way of a guarantee for the due and faithful fulfilment of such Contract by the Contractor;

AND WHEREAS has / have at the
request of the Contractor, agreed to give such guarantee;

NOW THEREFORE WE do hereby
guarantee and bind ourselves jointly and severally as Guarantor and Co-principal Debtors to the Employer under renunciation of the benefits of division and execution for the due and faithful performance by the Contractor of all the terms and conditions of the said Contract, subject to the following conditions:

1. The Employer shall, without reference and / or notice to us, have complete liberty of action to act in any manner authorized and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the completion date of the works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or of any modification, variation, alterations of the completion date which the Employer may make, give, concede or agree to under the said Contract.
2. This guarantee shall be limited to the payment of a sum of money.
3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.
4. This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.
5. Our totally hereunder all not exceed the Guaranteed Sum of
liability. Rand (in words); R
(in figures)
6. The Guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon our liability hereunder shall cease.

7. We hereby choose our address for the serving of all notices for all purposes arising here from as

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

IN WITNESS WHEREOF this guarantee has been executed by us at
on this day of 20

Signature

Duly authorized to sign on behalf of

Address

.....

.....

As witnesses:

1

2



CAPRICORN DISTRICT MUNICIPALITY

C1.4 Occupational Health and Safety

AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993)

THIS AGREEMENT IS made at

on the day of in the year

Between CAPRICORN DISTRICT MUNICIPALITY (hereinafter called "the Employer") of the one part, herein represented by

In his capacity as

and delegate of the Employer in terms of the Employer's standard powers of delegation pursuant to the provisions of Act No 7 of 1998,

and

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

.....

in his capacity as

and being duly authorized by virtue of a resolution appended hereto as Annexure A;

WHEREAS the Employer requires certain works be constructed, viz **PHASHA WATER SUPPLY- CONTRACT B** has accepted a Tender by the Mandatory for the construction, completion and maintenance of such Works and whereas the Employer and the Mandatory have agreed to certain arrangements and procedures to be followed in order to ensure compliance by the Mandatory with the provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).

NOW THEREFORE THIS AGREEMENT WITNESSES AS FOLLOWS:

- 1 The Mandatory shall execute the work in accordance with the Contract Documents pertaining to this Contract.
- 2 This Agreement shall hold good from its Commencement Date, which shall be the date of a written notice from the Employer or engineer requiring him to commence the execution of the Works, to either -
 - (a) the date of the Final Certificate issued in terms of Clause 55 of the Committee of Land Transport Officials General Conditions of Contract 1998 (hereinafter referred to as "the GCC"), as contained in Volume 1 of the Contract Documents pertaining to this Contract, or
 - (b) The date of termination of the Contract in terms of Clauses 57, 58 or 59 of the GCC.
- 3 The Mandatory declares himself to be conversant with the following:
 - (a) All the requirements, regulations and standards of the Occupational Health and Safety Act (Act 85 of 1993), hereinafter referred to as "The Act", together with its amendments and with special reference to the following Sections of The Act:
 - (i) Section 8 : General duties of Employers to their employees
 - (ii) Section 9 : General duties of Employers and self-employed persons to persons other than employees

- (iii) Section 37 : Acts or omissions by employees or mandataries
 - (iv) Sub-section 37(2) relating to the purpose and meaning of this Agreement
 - (b) The procedures and safety rules of the Employer as pertaining to the Mandatory and to all his subcontractors.
- 4 In addition to the requirements of Clause 36 of the GCC (as amended by Special Condition of Contract contained in Volume 3 of the Contract Documents pertaining to this Contract) and all relevant requirements of the above-mentioned Volume 3, the Mandatory agrees to execute all the Works forming part of this Contract and to operate and utilize all machinery, Plant and equipment in accordance with the Act.
 - 5 The Mandatory is responsible for the compliance with the Act by all his subcontractors, whether or not selected and/or approved by the Employer.
 6. The Mandatory warrants that all his and his subcontractors' workmen are covered in terms of the Compensation for Occupational Injuries and Diseases Act, 1993 (Act No 130 of 1993), which cover, shall remain in force whilst any such workmen are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.
 7. The Mandatory undertakes to ensure that he and/or subcontractors and/or their respective employers will at all times comply with the following conditions:
 - a) The Mandatory shall assume the responsibility in terms of Section 16.1 of the Act. The Mandatory shall not delegate any duty in terms of Section 16.2 of this Act without the prior written approval of the Employer. If the Mandatory obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Employer.
 - b) All incidents referred to in the Act shall be reported by the Mandatory to the Department of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.
 - c) The Employer hereby obtains an interest in the issue of any formal enquiry conducted in terms of section 32 of the Act into any incident involving the Mandatory and/or his employees and/or his subcontractors.

In witness thereof the parties hereto have set their signatures hereon in the presence of the subscribing witnesses:

SIGNED FOR AND ON BEHALF OF THE EMPLOYER :

Witness

(Name)
(Print)

Witness

(Name)
(Print)

SIGNED FOR AND ON BEHALF OF THE MANDATARY :

Witness

(Name)
(Print)

Witness

(Name)
(Print)

ANNEXURE A

CERTIFICATE OF AUTHORITY FOR SIGNATORY TO AGREEMENT IN TERMS OF OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO 85 OF 1993)

The signatory for the company that is the Contractor in terms of the above-mentioned Contract and the Mandatory in terms of the above-mentioned Act shall confirm his or her authority thereto by attaching to this page a duly signed and dated copy of the relevant resolution of the board of directors.

By resolution of the board of directors passed at a meeting held on 20.....,

Mr//Ms whose signature

appears below, has been duly authorised to sign the AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT 85 OF 1993) on behalf of

.....

SIGNED ON BEHALF OF THE COMPANY :

IN HIS/HER CAPACITY AS :

DATE :

SIGNATURE OF SIGNATORY :

WITNESS : WITNESS :

NAME (in capitals): NAME :



CAPRICORN DISTRICT MUNICIPALITY

C2.1 Special Conditions of Contract

The following special conditions of contract, which include amendments to, omissions of or additions to certain clauses of the "General Conditions of Contract for Construction Works, Second Edition (2010) and 3rd Edition (2015)", shall be applicable to the works. In the case of conflict with the mentioned general conditions of contract, these special conditions of contract shall be binding and applicable to the contract.

Each clause with the prefix SCC shall refer to the concurrent clause in the general conditions of contract. Such clause shall substitute, supplement or amend the clause with the same number in the general conditions of contract. Where there is no such concurrent clause in the general conditions of contract the SCC clause shall be numbered as a new clause in the special conditions of contract.

1. DEFINITIONS, INTERPRETATIONS AND GENERAL PROVISIONS

SCC 1.1.1.15 EMPLOYER

Add the following to GCC 1.1.1.15:

The employer is the **Capricorn District Municipality**, and includes any persons appointed by the Employer. The official address is:

Capricorn District Municipality
41 Biccard Street
PO Box 4100
POLOKWANE
0700

SCC 1.1.1.16 ENGINEER

Add the following to GCC 1.1.1.16:

The Engineer means:

VICTORY DEVELOPMENT PROJECT
14 PAUL KRUGER STREET
POLOKWANE
0700

P.O. Box 5981
Postnet Suite No.98
POLOKWANE
0750
Telephone: (015) 291 3892
Fax: (015) 291 2821

2. AMBIGUITY IN DOCUMENTS

Add the following to GCC 2.4.1:

The several documents forming the contract shall rank in the following order of precedence:

- a) contract agreement;
- b) tender form and appendix;
- c) special conditions of contract;
- d) project specifications;
- e) general conditions of contract;
- f) drawings;
- g) standardised specifications (SABS 1200) and particular specifications;
- h) schedule of quantities and summary;
- i) statutory regulations and requirements;
- j) standard SABS specifications (not SABS 1200);
- k) other standard specifications.

If the requirements of any part of the tender document contradict any other part, the document in the highest position on the above order of precedence, shall have preference and apply.

3. PROGRAMME OF THE WORKS

SCC 5.6.1 PROGRAMM

Add the following to GCC 5.6.1:

The critical path of the works shall also be stipulated clearly in the programme.

4. INSTRUCTIONS AND DRAWINGS

SCC 5.9.1 DRAWINGS AND INSTRUCTIONS

Add the following to GCC 5.9.1:

The Contractor is entitled to three (3) free sets of paper plans for normal use and one (1) free set of paper plans on which to enter "as built" information. He shall also be supplied with one (1) free copy of the contract document. These drawings and contract document shall be issued to the Contractor, at the time of commencement of the contract, by the Engineer.

SCC 5.9.7 ENGINEER TO APPROVE CONTRACTOR'S DESIGNS AND DRAWINGS

Add the following to GCC 5.9.7:

Although the Engineer may approve plans and designs of the Contractor, this does not exempt the Contractor from his responsibility. The professional responsibility for such designs shall be that of the Contractor and his Engineer.

5. CLEARANCE OF SITE

SCC 5.15.1 CLEARANCE OF SITE ON COMPLETION

Add the following to GCC 5.15.1:

After completion of the works, the Contractor shall obtain certificates from all concerned land owners on whose property works have been executed, stating that they are satisfied with the condition of their property, which will normally include finishing of pipe trenches and structures, clearance and finishing of all stone quarries, borrow pits, diversions, private or tertiary or haulage roads that have been used for the transport of material, waste material, fencing, gates, etc on their properties. These certificates shall all be handed to the Engineer before he issues the certificate of completion. Notwithstanding a certificate of completion will not be issued if the work is not to the satisfaction of the Engineer.

6. CONTRACTOR'S EMPLOYEES

SCC 4.10.1 ENGAGEMENT OF EMPLOYEES

Add the following to clause 4.10.1:

In the event that the Contractor does not pay local labour or any outside agency employed on a monthly basis, the Employer has the automatic right to deduct such wages from the Contractor's next payment certificate. This will be deducted from either monies due to the Contractor or from retention already retained on the project. Payments to the local labour or outside agency will be made by cession.

7. MATERIALS, WORKMANSHIP AND CONSTRUCTIONAL PLANT

SCC 7.2.1 QUALITY OF MATERIALS AND WORKMANSHIP

Add the following to GCC 7.2.1:

No second-hand or reject material shall be used without written permission from the Engineer.

SCC 7.4.4 COST OF TEST SPECIMENS AND TESTS

Substitute GCC 7.4.4 with the following:

- (a) It is deemed that the Contractor has made provision in his tender for all such services and tests that are required from him. It is the duty of the Contractor to, at his own cost and by means of the necessary tests, prove to the Engineer that the works and compaction prescribed, comply with the specification.

8. EXAMINATION OF THE WORKS

SCC 7.5.1 EXAMINATION OF WORK BEFORE COVERING UP

Add the following to GCC 7.5.1:

The Contractor shall give the Engineer a reasonable time to accommodate examinations in his programme, in which case a time for inspection can be agreed upon.

SCC 7.5.3 NOTICE TO BE GIVEN

Add the following to paragraph 2 of GCC 7.5.3:

If the Engineer attends with the purpose of examining any part or materials of the works at any time and date as agreed upon with the Contractor, and it is found that the works or materials are not yet ready for inspection, the Contractor shall be responsible for the costs of such a visit by the Engineer.

9. INDEMNIFICATIONS

SCC 8.4.1 LIABILITY

Add the following to GCC 8.4.1:

The Contractor indemnifies the Employer against any liability in respect of damage to or physical loss of the property of any person or injury to or death of any person due to not complying with the Occupational Health and Safety Act No 85 of 1993.

Attached in the tender document is the form "Contract between Employer and Contractor" to be completed by the successful Contractor.

SCC 8.6.1 INSURANCES

Add the following to GCC 8.6.1:

The amount shall be per occurrence. The number of occurrences is unlimited.

Add the following to GCC 8.6.6:

Within 14 days of receipt of the letter of acceptance of his tender, the Contractor shall submit proof of payment to the Engineer.

SCC 35.9 CONTRACTOR AND EMPLOYER TO COMPLY

The Contractor and the Employer shall comply with the terms and conditions of the insurance policies.

As soon as a claim arises, the Contractor shall immediately submit the necessary claims on behalf of himself and the Employer. Copies of all claims and relevant documentation shall be submitted to the Engineer.

SCC 35.10 TIME TO REPAIR DAMAGES

If any insurance claim arises, the Contractor shall immediately proceed with the necessary repairs after the assessor, irrespective of whether the claim has been settled, has established the damage. No extension of time shall be granted if there is a waiting period for the settlement of the claim and all costs or losses which the Contractor may have regarding lost time, shall be deemed as covered by the insurance claim, or shall be borne by the Contractor himself.

10. VARIATIONS

SCC 6.5 DAYWORK

Add the following to GCC 6.5.1

"Total remuneration" shall include the following:

Basic wage
Holiday fund stamp
Unemployment insurance
Employee's compensation
Service bonus

Add the following to SCC 6.5.2:

The percentage allowance stated in the appendix shall also include travelling cost or travelling allowance (transport of workmen with the Contractor's transport vehicles or transport vehicles hired by the Contractor or for which the Contractor paid), and residence allowance and other wages that are payable to the workmen on the date for submission of tenders.

11. SUSPENSION OF THE WORKS

SCC 5.11.1 SUSPENSION OF THE WORKS

Add the following to GCC 5.11.1:

No payment shall be made for costs incurred by recompiling a construction programme. In the case of suspension of work, either for a change in sequence or as a result of GCC 5.11.1 to 5.11.3, no payment shall be made for such costs resulting from this.

12. EXTENSION OF TIME FOR COMPLETION

SCC 5.12.1 TIME FOR COMPLETION

Add the following to GCC 5.12.1:

The time for completion shall exclude the period of builder's holidays from 19 December till 5 January , as well as other special non-working days and public holidays.

SCC 5.12.1 EXTENSION OF TIME FOR COMPLETION

Add the following to GCC 5.12.1:

Extension of the time for completion as a result of extra or additional work and unfavourable physical conditions shall only be granted if such work or conditions influence work on the critical path of the programme. If no definitive method for extension of time due to weather conditions and rain is specified, extension of time as a result of this shall also only be applicable if it influences the critical path of activities.

SCC 5.12.2 SOME REASONS FOR EXTENSIONS OF TIME

Add the following to GCC 5.12.2:

5.12.2.2 Abnormal climatic conditions.

No extension of the time for completion shall be granted on the grounds of normal rainfall conditions, but extension of time in terms of clause 5.12.1 of the general conditions of contract on the grounds of abnormal rainfall or wet conditions shall be calculated separately for each calendar month or part thereof, according to the following formula. It shall be calculated as follows for the time for completion, including any extension thereof:

$$V = (N_w - N_n) + \left(\frac{R_w + R_n}{X} \right)$$

V = Extension of time for calendar days of the calendar month concerned. If the value of V is negative and the absolute value thereof is greater than Nn, V is taken as negative Nn.

Nw = Actual number of days during calendar month on which a rainfall of Y mm or more is recorded.

Nn = Average number of days in the calendar month concerned on which a rainfall of Y mm or more is recorded in terms of existing rainfall data.

Rw = Actual rainfall for the calendar month concerned in mm.

Rn = Average rainfall for the calendar month in mm deduced from existing rainfall data.

The total extension of time is the algebraic sum of the monthly totals for the period concerned. Extension of time for parts of a month shall be calculated by using pro rata values of N_n and R_n . If the algebraic sum of the monthly totals is negative, no reduction of the time for completion as a result of rainfall shall be applicable.

This formula does not take any delays as a result of flood damage, which may cause further or simultaneous delays; into consideration and flood damage shall be treated separately for purposes of extension of time for completion.

The factor $(N_w - N_n)$ is considered as a fair allowance for deviation from the normal for the number of days on which the rainfall exceeds Y mm. The factor $(R_w - R_n)/X$ is considered as a fair allowance for deviation from the normal for the number of days on which the rainfall does not exceed Y mm, but on which wet conditions will hamper or disrupt work.

For the purpose of this contract the values of N_n , R_n , X and Y will be the relevant values of the nearest weather station to the site as supplied by the South African Weather Bureau. It is the sole responsibility of the Tenderer to acquaint himself with the relevant values. These values shall, at the start of the contract be submitted to the Engineer for scrutiny and approval.

SCC 5.12.2.5 AVAILABILITY OF PETROLEUM PRODUCTS

The tender shall be based on the available supply of petroleum products required for the completion of the works. If, during the contract period, for reasons outside the control of the Contractor, a restriction or breakdown in the supply of petroleum products may occur, which has an actual influence on the execution of the works for a period of at least thirty (30) days, the Contractor shall make all reasonable efforts to complete the works and he shall be entitled to an extension of the time for completion and he shall also be entitled to such an adjustment of the contract price as deemed reasonable by the Engineer, with consideration of all materials and relevant factors directly responsible or having a direct effect on such restriction or breakdown, with the inclusion of the Contractor's site and overhead costs relevant to the contract.

SCC 5.12.2.5 EXTENSION OF TIME DUE TO SHORTAGE OF MATERIAL

If, during the preparation of his tender or during construction, the Contractor bases his unit prices on prices obtained from specific material or specific suppliers, it will be accepted that the Contractor has ascertained that such material shall be available on a continuous basis for the execution of the contract.

No extension of time shall be granted if material cannot be obtained locally, but is available from other sources in the country, and no additional remuneration shall be granted for increased costs due to obtaining material from sources in other parts of the country.

If suppliers cannot adhere to the quoted delivery dates, any delays resulting from this shall be considered as a matter between the supplier and the Contractor. Extension of time could be granted under such conditions after complete proofs have been submitted to and accepted by the Engineer, but without any financial implications for the Employer.

13. INTERIM PAYMENTS

SCC 6.10.2 VALUATION OF MATERIAL BROUGHT ONTO SITE

Add the following to GCC 6.10.2:

Material or goods for which payment is made in terms of this clause, shall be identified uniquely and be stored in a space approved by the Engineer, and which will only be used for the purposes of the Employer.

SCC 6.10.3 RETENTION MONEY

Add the following to GCC 6.10.3:

No limit of retention money will be applicable only the % as stated in the Contract Data will be applicable on the contract.

SCC 6.10.5 EMPLOYER'S OBLIGATION TO PAY

Replace GCC 6.10.5 with the following:

The Engineer shall deliver to the Employer and the Contractor the payment certificate referred to in clause 49.1 within 07 (seven) days after the receipt by the Engineer of the Contractor's said statement, and the Employer shall pay the amount due to the Contractor within 65 (sixty-five) days after receipt by the Employer of the payment certificate signed by the Engineer.

SCC 6.10.1 VALUE ADDED TAX

Add the following to GCC 6.10.1:

Value added tax (VAT) shall be calculated on each payment certificate, but it shall remain the responsibility of the Contractor to issue a tax invoice for the certified amount. The Contractor is responsible for the payment of VAT.

14. DEFECTS

SCC 7.8.1 MAKING GOOD OF DEFECTS

Add the following to GCC 7.8.1:

If it is deemed necessary in the opinion of the Engineer, the defects liability period after repairs can be extended for a further period of twelve months or for a period to the discretion of the Engineer, as regards the relevant part of the works that is made good.

15. ADD THE FOLLOWING ADDITIONAL CLAUSE/S

SCC 4.3.1 COMPLIANCE WITH APPLICABLE LAWS

The Contractor shall be conversant with all the requirements, regulations, and standards of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), hereinafter referred to as “the Act” and undertakes to execute all the works forming part of this Contract and to operate and utilise all machinery, plant, and equipment in accordance with the Act.

The Contractor shall, from the commencement date of the Contract up to completion or termination thereof, be the Employer’s mandatory regarding occupational health and safety for all activities on the site but without derogating from his status in his own right as an employer or a user in accordance with the Act.

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

The Contractor shall, when called upon to do so, enter into and execute an Agreement, as provided for under Section 37(2) of the Act, with the Employer. The Agreement in the relevant form shall be prepared at the expense of the Employer.



CAPRICORN DISTRICT MUNICIPALITY

C3. Schedule of Quantities

C3.1 Labour-Intensive Works

The following wording, as appropriate, should be included in the pricing Instructions and in the bills of quantities in the pricing data:

1. Those parts of the works to be constructed using labour-intensive methods should be marked in the bill of quantities with the letters LI either in a separate column or as a prefix or suffix against every item so designated (as illustrated in the table below). 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 work, 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.
2. 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.
3. 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.
4. 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 return shall still be submitted as per frequency and timeframe stipulated by the employer. The contractor's invoice shall not be paid until all pending labour information has been submitted in order for the employer to report on EPWPRS monthly.

C3.2 Preamble to Schedule of Quantities

1. The general conditions of contract, the special conditions of contract (if any), the specifications (including the project specification) and the drawings are to be read in conjunction with the schedule of quantities.
2.
 - a) The schedule comprises items covering the Contractor's profit and costs of general liabilities and of the construction of temporary and permanent works.
 - b) The Contractor is at liberty to insert a rate of his own choosing for each item in the schedule and his attention is drawn to the fact that the Contractor has the right, under various circumstances, to payment for additional works carried out and that the Engineer is obliged to base his assessment of the rates to be paid for such additional work on the rates inserted in the schedule by the Contractor.
 - c) Clause 8 of each standardised specification and the measurement and payment clause of each particular specification, read together with the relevant clauses of the project specification, set out what ancillary or associated activities are included in the rates for the operations specified.
3. Descriptions in the schedule of quantities are abbreviated and the schedule has been drawn up generally in accordance with the latest issue of Civil Engineering Quantities¹. Should any requirement of the measurement and payment clause of the applicable standardised specification², or the project specification², or the particular specification(s)² conflict with the terms of the schedule or, when relevant, Civil Engineering Quantities¹, the requirement of the standardised, project or particular specification, as applicable, shall prevail.
4. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made for waste.

5. The prices and rates to be inserted in the schedule of quantities are to be the full inclusive prices to the Employer for the work described under the several items, value added tax excluded. Such prices shall cover all costs and expenses that may be required in and for the construction of the work described, and shall cover the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the quotation is based.
6. A price or rate is to be entered against each item in the schedule of quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the schedule.
7. The Contractor must price each item in the schedule of quantities in **BLACK INK**.
8. **All prices and rates shall exclude value added tax (VAT)**. The Contractor shall calculate value added tax and enter it at the end of the summary of the schedule of quantities.
9. For the purposes of this Schedule of Quantities, the following words shall have the meanings hereby assigned to them:

Unit	:	The unit of measurement for each item of work as defined in the Specifications.
Quantity	:	The number of units of work for each item
Rate	:	The payment per unit of measurement at which the Tenderer tenders to do the work.
Amount	:	The product of the quantity and the rate tendered for an item
Sum	:	An amount tendered for an item, the extent of which is described in the Schedule of Quantities, the specifications or elsewhere but the quantity of work of which is not measured in any units.
Prime Cost (or PC item)	:	A sum fixed by the Engineer and entered in the Schedule of Quantities as the net sum provided to cover the cost of specific goods or materials to be supplied under the contract, or the net sum to be paid by the Contractor to merchants or others for such articles or materials. ¹
Provisional Sum	:	A sum of money fixed by the Engineer and entered in the Schedule of Quantities to provide for work not defined at the tender stage and includes any allowance specifically made for unforeseen contingencies. ¹
Extra Over (or EO)	:	Qualifies an operation (or combination of operations) which is common in a varying degree to a number of other operations and which is scheduled once as "extra over" those other operations in order to avoid a multiplicity of items each reflecting the degree to which the common operations apply. The term "extra over" invariably denoted double measurement, no deduction being made from one on account of the other. ¹

10. The units of measurements indicated in the Schedule of Quantities are metric units.

The following abbreviations are used in the Schedule of Quantities:

mm	=	millimetre
m	=	metre
km	=	kilometre
km-pass	=	kilometre-pass
m ²	=	square metre
m ² -pass	=	square metre-pass
ha	=	hectare
m ³	=	cubic metre
m ³ -km	=	cubic metre-kilometre
/	=	litre
kl	=	kilolitre
kg	=	kilogram
t	=	ton (1 000 kg)
no	=	number
%	=	percentage
kW	=	kilowatt
PC Sum	=	prime cost sum
Prov. Sum	=	provisional sum
kPa	=	kilopascal
R/only	=	Rate only
W/day	=	Work day

-
- 1) The standard system of measurement of Civil Engineering Quantities of South Africa published by the South African Institution of Civil Engineers.
 - 2) See definition in sub clause 2.1 of Part 1 of SABS 0120: Format and Contents.

- 11 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.
- 12 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.
- 13 Payment for items which are designated to be constructed labour-intensively (either in this schedule or in the scope of works) will not be made unless they are constructed using labour-intensive methods. Any 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.
-

DAY WORK LIST

GENERAL

Contractors must complete this list, which will be used to assess the value of work that the Engineer instructs in writing to be done on a day work basis, all in agreement with clause 6.5 of the General Conditions of Contract for Construction Works, Second Edition, 2010 and coupled Special Conditions of Contract. All the rates are fixed and shall be binding till the issuing of the final certificate, except for statutory increases that are announced from time to time.

LABOUR COSTS

Rates for labour as listed below shall include all the allowances as specified in the General Conditions of Contract for Construction Works, Second Edition, 2010, third edition of 2015 and Special Conditions of Contract. The extra allowance, applicable on Labour costs listed below, is given in the tender appendix and must not be taken into account in this list.

Overtime costs incurred by this contract shall be paid in the same proportion as the amounts actually paid to the employees.

DESCRIPTION	UNIT	RATE
Unschoolled labour	Hour	R
Half- Schooled labour	Hour	R
Pipe layer	Hour	R
Ganger	Hour	R
Foreman / Section leader	Hour	R
Brick layer	Hour	R
Plumber	Hour	R

EQUIPMENT COSTS

Full comprehensive hourly rates, which also include the cost of operators, must be listed below. Rates must also include all the costs of consumable items, maintenance, depreciation, tools, and all other coincidences that shall be necessary to operate the equipment for the purpose it is designed for. The rates must also include all the overhead costs, profits, site supervision, insurance, holidays with payment, travelling costs (or travelling allowances) and residence allowances of operators and any other allowances that are applicable on equipment. The Tenderer must list under each heading the make and specification of the equipment available.

DESCRIPTION	UNIT	RATE
1. Excavators		
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
2. Front-end loaders		
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
3. Trucks (m ³ specified)		
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
4. Water truck (litres specified)		
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
5. Tractor & Trailer		
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
6. Compressor		
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....

DESCRIPTION	UNIT	RATE
7. Concrete mixer (litres specified)		
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
8. "Dumper"(m ³ specified)		
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
.....	Hour	.....
9. Water pumps		
75mm.....	Hour	.....
100mm.....	Hour	.....
150mm.....	Hour	.....
10. Compactors		
Plate	Hour	
.....	Hour	
.....	Hour	
.....	Hour	
11. Other equipment		
.....	Hour	
.....	Hour	
.....	Hour	
.....	Hour	

SECTION 1200 A

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SECTION 1200 A

ITEM NO	LI	PMT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD							
1,17		PSA8.4 .2.h	Testing Equipment	Month	7		
1,18		8.4.3	Supervision for duration of construction	Month	7		
1,19		8.4.4	Company and head office overhead costs for the duration of the construction	Month	7		
1,20		PSAB4. 2.b	Quality Control, Testing and Certification	Month	7		
		8,5	SUMS STATED PROVISIONALLY BY THE ENGINEER:				
1,21		PSA8.5 .1.a	Remuneration of a Community Liaison Officer at R4500.00 per month for the duration of construction	Psum	1,00	R 63 000,00	R 63 000,00
1,22		PSA8.5 .2.b	Training of local labour by accredited training provider	Psum	1,00	R 200 000,00	R 200 000,00
1,23		PSA8.5 .3.c	Remuneration of local labour undergoing training	Psum	1,00	R 20 000,00	R 20 000,00
1,24		PSA8.5 .4.d	Allowance for PSC members on official meetings @ R150.00 per member present with no apology	Psum	1,00	R 30 000,00	R 30 000,00
1,25		PSA8.5 .4.d	Occupational Health and Monitoring for the duration of the project	Psum	1,00	R 313 044,00	R 313 044,00
1,26		PSA8.5 .4.d	Environmental Monitoring for the duration of the project	Psum	1,00	R 313 044,00	R 313 044,00
1,27		PSA8.3 .7.g	Provision of Cellular telephones	Psum	1,00	R 40 000,00	R 40 000,00
TOTAL CARRIED FORWARD							

SECTION 1200 A

ITEM NO	LI	PMT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD							
1,28		PSA8.3.9.h	Protection of pedestrians during construction	Psum	1,00	R 40 000,00	R 40 000,00
1,29		PSA8.3.10.i	Provision for materials, special services,quality assurance and third party	Psum	1,00	R 50 000,00	R 50 000,00
1,30		PSA8.3.10.j	Handling cost and profit in respect of all Provisional Sums above	%	1 069 088,00		
		8,6	PRIME COST ITEMS				
1,31		PSA8.6.1.a	Inspection, handling,transportation and installation of materials such as pipes and fittings etc.	PCSu m	1,00	R50 000,00	R 50 000,00
1,32		PSA8.6.1.b	Handling cost and profit in respect of 1.4.1 above	%	50 000,00		
		8,7	DAY WORKS				
1,33		PSA8.7.1	a)Labour				
			i)Site Agent	hours	8		
			ii)Qualified Artisan/s	hours	8		
			iii)Qualified Mechanic/s	hours	8		
			iv)Foreman	hours	8		
			v)Semi-skilled	hours	8		
			vi)Unskilled	hours	8		
1,34		PSA8.7.2	b)Planthire: work rates on site				
			i)Tipper truck(5.5m3)	hours	8		
			ii)Tipper truck(10m3)	hours	8		
			iii)Flatbed truck (7ton)	hours	8		
			iv)LDV	hours	8		
			v)Tractor loader backhoe(TLB)	hours	8		
			vi) Pedestrian roller(Bomag 90)	hours	8		
			vii) Concrete mixer(0.9m3)(wet)	hours	8		
			viii) Water Tanker(10000L)	hours	8		
			ix) Water Tanker(16000L)	hours	8		
			x) Compressor	hours	8		
			xi) Excavator	hours	8		
			xii) Compactor.....(specify size)	hours	8		
			xiii) Water pumps	hours	8		
			xiv) Dumper.....(specify size)	hours	8		
TOTAL CARRIED FORWARD							

CAPRICORN DISTRICT MUNICIPALITY							
PHASHA WATER SUPPLY							
CONTRACT NO.:INF-W06/2026/2027							
PRELIMINARY AND GENERAL							
SECTION 1200 A							
ITEM NO	LI	PMT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD							
1,35		PSA8.7.3	c) Planthire: Transport cost to and from site for low -bed truck	km	300		
		8,8	TEMPORARY WORKS				
1,36		8.8.1	Main Access Road to works	Sum	1		
1,37		8.8.2	Accomodation of Traffic for the duration of construction	Sum	1		
		8.8.4	Existing Services				
1,38	LI		Temporary protection of existing services	Psum	1	R 60 000,00	R 60 000,00
1,39	LI		Relocation of existing services	Psum	1	R 80 000,00	R 80 000,00
1,40	LI		Provision of an instrument to detection the location of existing services	Psum	1	R 60 000,00	R 60 000,00
1,41			Provision of for rented hotel and other accomodation	Psum	1	R 60 000,00	R 60 000,00
1,42			Handling cost and profit in respect of existing services above	%	260 000,00		
TOTAL CARRIED FORWARD TO SUMMARY							

SECTION 1200 DB

[illegible]

CAPRICORN DISTRICT MUNICIPALITY							
PHASHA WATER SUPPLY-CONTRACT B							
CONTRACT NO.:INF-W06/2026/2027							
EARTHWORKS(PIPE TRENCHES)							
SECTION 1200 DB							
ITEM NO	LI	PMT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD							
3,4	LI	PSDB3 .2.d	Labour Intensive Method on Backfilling: i) Backfill and Compaction of material of all type ii) Soilcrete backfill where directed by the Engineer iii) Dispose of surplus excavted material(limited overhaul of 0,5 to 1km). iv) Backfill road crossings using a commercial or designated borrowpit type G4 class of material compacted to 98% Mod AASHTO density v) Backfill to structures using approved cohesionless material from stockpile	m³ m³ m³ m³ m³	12500,00 450,00 160,00 300,00 300,00		
3,5		8.3.3 8.3.3.1	Excavation Ancillaries Make up deficiency in backfill ,material b) Extra over for importation of materials from commercial sources or from a designated borrow pits, placed , mixed,watered, lay, compacted to 95% mod.AASHTO in layers not exceeding 150mm and tested by an accredited independent laboratory. c)Dealing with overburden on designated borrow pits	m³ m³	3200,00 350,00		
3,6		8.3.3.2	Opening up and closing down of designated borrow pits	Psum	1,00	20 000,00	R 20 000,00
3,7		PSDB3 .2	Handling cost and profit in respect of 4.16 above	%	20000,00		
TOTAL CARRIED FORWARD							

CAPRICORN DISTRICT MUNICIPALITY							
PHASHA WATER SUPPLY-CONTRACT B							
CONTRACT NO.:INF-W06/2026/2027							
EARTHWORKS(PIPE TRENCHES)							
SECTION 1200 DB							
ITEM NO	LI	PMT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD							
3,8		8.3.3.4	Overhaul				
			a) Limited overhaul(0,5km to 1,0km)	m³	362,00		
			b) Overhaul in excess of free-haul of	m³.km	5500,00		
3,9		8.3.4	Particular Items				
			a) Shore trench opposite structure or service	m	100,00		
			b) Tempoary works(including provision of necessay equipments, operate,maintanance and removing them):i.e control of water inflow	sum	1,00		
3,10	LI	PSDB3.5	Existing Services				
			a. Excavate and expose of existing	m³	120,00		
3,11	LI	8.3.6.1	Re-instating of road surfaces complete with all courses				
			i) Compaction in road reserves	m2	1200,00		
3,12	LI	PSDB3.6.2	Extra-over item3,3,1 by means of 4% stabilized backfill material and the density compaction test(90%) layer(150mm) as ordered by the Engineer:				
			a) Lime stabilisation layer	t	Rate Only		Rate Only
			b) Cement stabilisation layer	t	0,40		
TOTAL CARRIED TO SUMMARY							

SECTION 1200 LB

[illegible]

CAPRICORN DISTRICT MUNICIPALITY
PHASHA WATER SUPPLY-CONTRACT B
CONTRACT NO.:INF-W06/2026/2027
MEDIUM PRESSURE PIPELINES AND ANCILLARIES
SECTION 1200 L

[illegible]

CAPRICORN DISTRICT MUNICIPALITY							
PHASHA WATER SUPPLY-CONTRACT B							
CONTRACT NO.:INF-W06/2026/2027							
MEDIUM PRESSURE PIPES							
SECTION 1200 L							
ITEM NO	LI	PMT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD							
5,3			iv)11.25 degree: uPVC Class 16 to fit uPVC pipes				
			a)75mm diameter	No	37		
			b)90mm diameter	No	1		
			b)Elbow: Male/Female				
5,4			i)90 degree angle : Steel				
			1)80mm Norminal Diameter	No	2		
			ii)45 degree angle : Steel				
			1)80mm Norminal Diameter	No	2		
5,5			c)Plugs:Steel				
			i)80mm Norminal Diameter	No	1		
5,6	LI		d)Repair Coupling: Steel				
			i)80mm Norminal Diameter	No	2		
5,7	LI		e) Cast Iron Equal Tees: for uPVC				
			i)75mm dia	No	60		
			ii)90mm dia	No	1		
5,8	LI		f) Cast Iron Reducing Tee: Socket-ended to fit uPVC				
			i)75mm x90mm x 90mm dia	No	6		
			i)90mm x 75mm dia	No	2		
			g) End Caps				
			i)75mm dia	No	7		
			ii)90mm dia	No	1		
TOTAL CARRIED FORWARD							

SECTION 1200 L

ITEM NO	LI	PMT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD							
5,9	LI		h) Repair Couplings for uPVC Pipes i)75mm dia ii)90mm diameter	No No	6 1		
5,10	LI		i) Flange Adaptor Cast iron bitumen dipped and lyng sockets to SABS 546 and SABS 966 with flange drilled to SABS 1123, table 16 complete including Supply, handle and joint to the system pipe uPVC Class 16 flange including all couplings where necessary. i)75mm dia ii)90mm dia	No No	6 1		
5,11	LI	8.2.3	Isolation Valves Socketed Valves(Socketed RSV isolating valves, valves to be non- rising spindles with housing box together with cap top and rates shall include supply, lay and bed class 10 socket ended, clockwise gate valve to SABS 664 with housing box) i)75mm, diameter,class 16 ii)90mm diameter,class 16	No No	30 2		
5,12	LI	8.2.3.2	Socketed Valves(Flanged RSV isolating valves, valves to be non- rising spindles with housing box together with cap top and rates shall include supply, lay and bed class 10 socket ended, clockwise gate valve to SABS 664 with housing box) i)80mm, class 16	No	2		
5,13	LI	8.2.3.3	Non Return Valve i) 80mm Nominal Diameter	No	2		
TOTAL CARRIED FORWARD							

CAPRICORN DISTRICT MUNICIPALITY							
PHASHA WATER SUPPLY-CONTRACT B							
CONTRACT NO.:INF-W06/2026/2027							
MEDIUM PRESSURE PIPES							
SECTION 1200 L							
ITEM NO	LI	PMT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD							
5,14	LI	8.2.3.3	Air Valves(Vent O Mat Series RBX with screwed BSP male inlet or similar, complete with flange, barrel nipple and 80mm gate valve) i)80mm dia Air Valve	No	1		
5,15	LI	8.2.3.4	Bulk water meter (Kent or similar approved, flanged and drilled to SABS 1123,table 16) i)80mm dia in Bulk Line ii)100mm dia in Bulk Line	No No	1 1		
5,16	LI	8.2.9	Hydraulic Pipe Testing : i)75mm uPVC medium pressure pipes-Class12 ii)90mm uPVC medium pressure pipes-Class12 iii) 32mm Class PN10 iv) 25mm Class PN10 v) 80mm Galvanised Steel Pipe vi)Pipe Special and fittings for testing	m m m m m Sum	23 750 5 500 5 300 2 000 1 200 1		
5,17	LI	PSLB2.10	Disinfecting Pipe Works: i)75mm uPVC medium pressure pipes-Class12 ii)90mm uPVC medium pressure pipes-Class12 iii) 32mm Class PN10 iv) 25mm Class PN10 v) 80mm Galvanised Steel Pipe	m m m m m	23 750 5 500 5 300 2 000 1 200		
5,18	LI	8.2.11	Thrust Blocks: Formworks Concreteworks(Class 20/19Mpa)	m2 m3	180 35		
5,19	LI	PSLB 2.13	Pipeline markers Supply and install pipeline markers	No	60		
5,20	LI	8.2.15	Special Wrapping in Corrosive Soil a)Supply and wrap steel pipes by Denso Tape with thickness of 1.15mm , widths of a minimum of 100mm	m	450		
TOTAL CARRIED TO SUMMARY							

CAPRICORN DISTRICT MUNICIPALITY							
PHASHA WATER SUPPLY-CONTRACT B							
CONTRACT NO.:INF-W06/2026/2027							
ERF CONNECTIONS(Water)							
SECTION 1200 LF							
ITEM NO	LI	PMT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
6		SABS 1200L F	ERF WATER CONNECTIONS				
		8.2.1	Provide Erf Connections complete with excavations, saddles, pipelaying (HDPE, type iv(7210), class12 pipe), bedding, testing, connections, stop taps, backfilling, concrete works, etc				
6,1		8.2.1.a	On the same side of the the street as the water pipe				
	LI		i) Double short drawoff connections, saddle,standpipe bedding and concrete block(20/Mpa)(0.5m x 0.4m x 0.1m)less than 5,0m long from saddle, for 32mm diameter	No.	50		
	LI		ii) Single short drawoff connections,saddle,standpipe,bedding and concrete block(20/19Mpa)(0.5m x 0.4m x 0.1m), less than 5,0m long from saddle, for 25mm diameter	No.	130		
6,2		8.2.1.b	Across the street from the water pipe				
	LI		i) Double long drawoff connections,saddle,standpipe, bedding and concrete block(20/19Mpa)(0.5m x 0.4m x 0.1m))more than 15,0m long from saddle, for 32mm diameter	No.	490		
	LI		iii) Single long drawoff connections,saddle,standpipe, bedding and concrete block(20/19Mpa)(0.5m x 0.4 x 0.1m),more than 15,0m long from saddle,for 25mm diameter	No.	15		
6,3		8.2.4	Supply and Install water meter complete including Plasson box (KENT KSM) or similar approved				
	LI		i) 32mm diameter	No.	540		
	LI		ii)25mm diameter	No.	145		
6,4		8.2.5	Extra over item 8.2.1 for hauling bedding and selected fill in excess of the freehaul of 2,0km	m3-km	85		
	LI		Note: This item 8,2,5 must be done only on instruction of the Engineer/Representative				
TOTAL CARRIED FORWARD TO SUMMARY							

CAPRICORN DISTRICT MUNICIPALITY		
PHASHA WATER SUPPLY-CONTRACT B		
CONTRACT NO.:INF-W06/2026/2027		
SUMMARY SCHEDULE OF QUANTITIES		
ITEM	DESCRIPTION	AMOUNT
SECTION A	PRELIMINARY AND GENERAL	
SECTION C	SITE CLEARANCE	
SECTION DB	EARTHWORKS(Pipe Trenches)	
SECTION LB	BEDDING	
SECTION L	MEDIUM PRESSURE PIPES	
SECTION LF	ERF CONNECTIONS	
	SUB - TOTAL 1	
	CONTINGENCIES(10%)	
(Note: The sum provided above is under the sole control of the Engineer and may be deducted in whole or in part. The tenderer shall add 10% of the total of schedule of quantities (sub-total 1) for contingencies)		
	SUB - TOTAL 2	
	ESCALATION(2.5%)	
	SUB - TOTAL 3	
	VAT (15%)	
TOTAL TENDER AMOUNT TO BE CARRIED TO FORM OF OFFER		
Bidder 's Signature:.....		
Note: Verification with suppliers on Rate Only Items will be done by the Consultant during construction		



CAPRICORN DISTRICT MUNICIPALITY

C4.1 Scope of Work

4.1.1. Employer's objectives

The employer's objectives are to deliver public infrastructure using labour-intensive methods in accordance with EPWP Guidelines. Employment Creation will benefit the entire local community. Accredited training providers will provide in-service training opportunities to learners waiting to graduate from various institutions.

The contractor shall engage in his management and supervisory staff in labour intensive works that have completed the skills programs that benefit them National qualification frameworks i.e NQF Level 2, 4 and 5 to run the project.

4.1.2 Overview of the works

On this Contract the aim is to provide a basic level of services, with regards to improve aspects of the current conditions. The Contract will entail a provision of the services as listed in the Project Specification. Also, with regards to EPWP requirements, 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. Time is of the essence for this contract. The Tenderer shall state the time in calendar months required by him/her to complete the Works. Tenderers offering early completion dates will generally be more favourably received, other things being equal.

The construction of Phasha Water Supply-Contract B

The works entails the followings:

- Construction of about 5500m length of 90mm nominal diameter (ND) uPVC pipe, Class 12
- Construction of about 23750m length of 75mm nominal diameter (ND) uPVC pipe, Class 12
- Construction of about 1200m length of 80mm nominal diameter galvanised steel pipe
- Construction of 5300m, 32mm HDPE Class PN10 pipe.
- Construction of 2000m, 25mm HDPE Class PN10 pipe.
- Construction of 685 Metered Household Connections.
- Installation of necessary fittings and specials, i.e Bends, Valves etc.
- Hydraulic Pipe Testing.
- Pipe Disinfection.
- Pipeline Marker

Extent of the works

The major items of works to be carried out under this contract include the following but are not limited it:

General and Others

- i) Establishment of camp and plant on site
- ii) Discovery, exposing and demarcation of existing services to be protected and relocated
- iii) Protection and relocation of services as directed by the Employer 's Agent
- iv) Excavation mostly by Hand for pipe trenches on the road reserve and inside stands
- v) Excavations by Construction Machinery in most of the excavations
- vi) Commissioning of the works is not necessarily complete and shall not limit the works for twelve months period. The description of the works is not necessarily complete and shall not limit the work to be carried out by the contractor under this Contract.

Testing, Commissioning and Handover

The Contractor shall:

- Conduct hydrostatic pressure testing,
- Submit as-built drawings.
- Provide training to Employer's personnel or locals.
- Remove temporary works and reinstate the site.

4.1.3 Labour-Intensive Works

Labour-intensive tasks/works shall be constructed/maintained using local workers who are temporarily employed in terms of the scope of work.

Labour-Intensive Competencies of Supervisory and Management Staff

Contractors shall only engage supervisory and management staff in labour-intensive works that have completed the skills programme including Foremen/ Supervisors at NQF level 4 "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 (See Page 112) at NQF outlined in Table 1

4.1.4 Location of the works

The project is located about 56km north of Polokwane town and situated at Phasha village within the jurisdiction of Molemole Local Municipality within Capricorn District Municipality of Limpopo Province. The nearest business centre being Botlokwa business centre.

The site has the following coordinates:

Village Name	Co - ordinates	
	Latitude (S)	Longitude (E)
PHASHA	23°25'58"	29°44'14"

Locality Details

- Province : Limpopo Province
- District : Capricorn District Municipality
- Municipality : Molemole Local Municipality

4.1.5 Temporary works

The Contractor shall provide, erect, maintain and remove on completion of the Contract, ample temporary offices and sheds for the proper storage of perishable materials and for the use of his workmen.

4.1.6 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 2010**, as reproduced below, shall apply to works described in the scope of work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.

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.

C3.1.7.7 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; 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

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

- (a) A worker will not receive severance pay on termination.
- (b) 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.
- (c) 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.
- (d) 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

.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

Progress report detailing production output compared to the programme of works



CAPRICORN DISTRICT MUNICIPALITY

C4.2 Drawing Descriptions

The following drawings are applicable to the contract:

General

List of Drawings

Key Plans

Key Plan

Layout Plans

General Layout Plan

Standard Details

Typical Details for pipeline markers and benchmarks
Valve chambers details
Typical Thrust Block
Pipe bedding details
Details of household connections
Name board details(details to include the EPWP Logo)

4.2.1 Key plans

All key plans for this type of project are included in the tender document as "Part C.8 Drawings".

4.2.2 Typical details

All typical details for this type of project are included in the tender document as "Part C.8 Drawings".

4.2.3 Civil engineering drawings

The drawings used for setting up the Bills of Quantities are as indicated above in paragraph 4.2.1 and 4.2.2.



CAPRICORN DISTRICT MUNICIPALITY

C4.3 Procurement

3.4.1 Preferential procurement procedures

The works shall be executed in accordance with the conditions attached to preferences granted in accordance with the referencing schedule.

3.4.2 Scope of mandatory subcontract work

The following portions of the works shall be subcontracted to CIDB registered contractors in accordance with the subcontracting procedures described hereunder:

Competitive Bids shall be invited in respect of each of the above portions of the works in accordance with the relevant provisions of the latest edition of the CIDB Standard for Uniformity in Construction Procurement. The Contract Data in the associated procurement documents shall be based on the use of BIFSA Non-Nominated Subcontract for use with the JBCC Series 2000 Principal Building Agreement / CIDB Standard subcontract (labour only) / JBCC series 2000 Nominated / Selected Subcontract Agreement / SAFCEC General conditions of subcontract (2003 edition) (select appropriate option) / NEC Engineering and Construction Subcontract / NEC Engineering and Construction Short Subcontract with minimal project specific variations and amendments that do not change their intended usage.

The Employer together with the Contractor shall evaluate the Bids received in accordance with the provisions of the Standard Conditions of Bid contained in Annex F of Standard for Uniformity in Construction Procurement. The evaluation panel shall comprise equal representatives from the Employer and from the Contractor.

The Contractor shall without delay enter into contract with the successful Bidding subcontractor based on their accepted Bid submission. The Contractor shall remain responsible for providing the subcontracted portion of the works as if the work had not been subcontracted.



CAPRICORN DISTRICT MUNICIPALITY

C4.4 Construction

4.4.1 Setting out of Works (Sub clause 5.1.1)

The Employer shall arrange for the Contractor to be given sufficient reference pegs from which to work. The value of all benchmarks shall be given in writing. The Contractor shall bear the cost of any re-survey and the cost of re-establishment or checking of any pegs, benchmarks, etc. disturbed, destroyed or interfered with in any way and the cost of any survey to prove the accuracy of the setting out after any disturbance of or interference with any peg or benchmark. All surveys or re-survey shall be by Surveyors appointed by the Employer."

4.4.2 Applicable national and international standards

SABS 1200

4.4.3 Particular / generic specifications

The relevant provisions of the SABS 1200 (1981 edition) shall apply to the contract with the following amendments:

1115 Replace clause with the following:

The general conditions of contract are the General Conditions of Contract for Construction Works (2010/2015) as published by the South African Institution of Civil Engineering read in conjunction with the Contract Data.

1202 Replace "Clause 15" with "Clause 12".

1206 Replace the first sentence with the following:

The contractor shall comply with all legal provisions in regard to surveying and setting out work.

1209(e) Replace "Clause 52" with "Clauses 29 and 49.2".

1210 Replace "Clause 54" with "Clause 51".

1212(1) Replace "Clause 49" with "Clause 46".

1215 Replace "Clause 45" with "Clause 42".

1217 Replace "Clause 35" with "Clause 31".

1303 Replace "Clauses 49 and 53" with "Clause 50".

13.01(3) Replace "Clauses 12 and 45" with "Clauses 1.1.4 and 42".

14.03(c) Replace "Clause 40(1)" with "Clause 37".

1505 Replace "Clauses 40 and 53" with "Clause 37".

3204(b) (iii) Replace "Clauses 40 and 53" with "Clause 37".

4.4.4 EPWP labour intensive specification

4.4.4.1 Labour intensive competencies of supervisory and management staff

Contractors having a CIDB contractor grading designation of **6 CEPE / 7CE and higher** shall only engage supervisory and management staff in labour intensive works who have either completed, or for the period 1 November 2014 to 30 June 2015, are registered for training towards, the skills programme outlined in Table 1.

The managing principal of the contractor, namely, a sole proprietor, the senior partner, the managing director or managing member of a close corporation, as relevant, having a contractor grading designation of **6 CEPE/7CE** shall have personally completed, or for the period 1 November 2014 to 30 June 2015 be registered on a skills programme for the NQF level 2. All other site supervisory staff in the employ of such contractors must have completed, or for the period 1 November 2014 to 30 June 2015 be registered on a skills programme for, the NQF level 2 unit standards or NQF level 4 unit standards.

Table 1: Skills programme for employer staff

Personnel	NQF	Unit Standard Title	Skills Programme Description
Senior management and professionals	7	Develop and Promote Labour- Intensive Construction Strategies or equivalent QCTO qualification	Skills Programme against this single unit standard or part qualification
Middle (technical)	5	Manage Labour-Intensive Construction Projects or equivalent QCTO qualification	Skills Programme against this single unit standard or part qualification

Table 2: The Unit Standards For Contractors Or Equivalent QCTO Qualification

Personnel	NQF level	Unit standard titles	Skills programme description
Team leader	2	Apply Labour-Intensive Construction Systems and Techniques or equivalent QCTO qualification	This unit standard must be completed, and any one of these 3 unit standards
		Use Labour-Intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage or equivalent QCTO qualification	
		Use Labour-Intensive Construction Methods to Construct and Maintain Water and Sanitation Services or equivalent QCTO qualification	
		Use Labour-Intensive Construction Methods to Construct, Repair and Maintain Structures or equivalent QCTO qualification	
Foreman/ supervisor	4	Implement Labour-Intensive Construction Systems and Techniques or equivalent QCTO qualification	This unit standard must be completed, and any one of these 3 unit standards
		Use Labour-Intensive Construction Methods to Construct and Maintain Roads and Stormwater Drainage or equivalent QCTO qualification	
		Use Labour-Intensive Construction Methods to Construct and Maintain Water and Sanitation Services or equivalent QCTO qualification	
		Use Labour-Intensive Construction Methods to Construct, Repair and Maintain Structures or equivalent QCTO qualification	
Site Agent / Manager	5	Manage Labour-Intensive Construction Processes or equivalent QCTO qualification	Skills Programme against this single unit standard or part qualification

4.4.4.2 Employment of unskilled and semi-skilled workers in labour-intensive works

4.4.4.2.1 Requirements for the sourcing and engagement of labour.

4.4.4.2.1.1 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.

4.4.4.2.1.2 The rate of pay set for the EPWP is **R 160 per task or per day**.

4.4.4.2.1.3 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.

4.4.4.2.1.4 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 3.4.4.2.1.3.

4.4.4.2.1.5 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;
- c) where subsistence agriculture is the source of income.
- d) those who are not in receipt of any social security pension income

4.4.4.2.1.6 The Contractor shall endeavour to ensure that the expenditure on the employment of temporary workers is in the following proportions:

- a) 60 % women;
- b) 55% youth who are between the ages of 18 and 36; and
- c) 2% on persons with disabilities.

4.4.4.2.2 Specific provisions pertaining to SANS 1914-5

4.4.4.2.2.1 Definitions

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

4.4.4.2.2.2 Contract participation goals

4.4.4.2.2.2.1 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.

4.4.4.2.2.2.2 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.

4.4.4.2.2.3 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.

4.4.4.2.2.4 Variations to SANS 1914-5

4.4.4.2.2.4.1 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.

4.4.4.2.2.2.4.2 The schedule referred to in 5.2 shall in addition reflect the status of targeted labour as women, youth and persons with disabilities and the number of days of formal training provided to targeted labour.

4.4.4.2.2.2.5 Training of targeted labour

4.4.4.2.2.2.5.1 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.

4.4.4.2.2.2.5.2 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.

4.4.4.2.2.2.5.3 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, Fax Number 012 328 6820 or email cinderella.makunike@dpw.gov.za Tel: 083 677 4026.

4.4.4.2.2.2.5.4 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.

4.4.4.2.2.2.5.5 The contractor shall do nothing to dissuade targeted labour from participating in training programmes.

4.2.2.5.4 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 4.4.4.2.2.2.5.4 above.

4.4.4.2.2.2.5.5 Proof of compliance with the requirements of 4.4.4.2.2.2.5.2 to 4.4.4.2.2.2.5.6 must be provided by the Contractor to the Employer prior to submission of the final payment certificate.

4.4.4.3.1 Contractor's default in payment to Labourers and Employees

- (c) 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.
- (d) 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.

4.4.4.3.2 Provision of Handtools

- (b) 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

4.4.4.3.3 Reporting

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

- (f) Signed Muster rolls/pay sheets of temporary workers (separate) and permanent staff detailing the number, category, gender, rate of pay and signed daily attendance register.
- (g) Copies of certified identity documents of workers
- (h) Number of persons who have attended training including nature and duration of training provided (training attendance register).copies of issued training certificates should be provided.
- (i) Assets created, rehabilitated or maintained in accordance with indicators in the EPWP M&E framework.

- (j) Plant utilization returns
- (k) Progress report detailing production output compared to the programme of works

4.4.5. GENERIC LABOUR-INTENSIVE SPECIFICATION

The Generic Labour-intensive specification below is the same as SANS 1921-5, Construction and management requirement for works contracts- Part 5: Earthworks activities which are to be performed by hand and should be included in the scope of works without amendment or modification as set out below.

4.4.5.1. 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
- c) pipe laying
- d) household connections
- e) pipeline marker

4.4.5.2 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.

4.4.5.3 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 3: Consistency of materials when profiled

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 up to 10 mm; very difficult to mould with fingers; can just be penetrated

GRANULAR MATERIALS		COHESIVE MATERIALS	
CONSISTENCY	DESCRIPTION	CONSISTENCY	DESCRIPTION
			with an ordinary hand spade.
Dense	Very high resistance to penetration by the sharp end of geological pick; requires many blows for excavation.	Stiff	Can be indented by thumbnail; slight indentation produced by pushing geological pick point into soil; cannot be moulded by fingers.
Very dense	High resistance to repeated blows of a geological pick.	Very stiff	Indented by thumbnail with difficulty; slight indentation produced by blow of a geological pick point.

4.4.5.4. Trench excavation

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

4.4.5.5. 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 cone 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.

4.4.5.6. Excavation

All hand excavatable material including topsoil classified as hand excavatable 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.

4.4.5.7. Clearing and grubbing

Grass and small bushes shall be cleared by hand.

4.4.5.8. Shaping

All shaping shall be undertaken by hand.

4.4.5.9. Loading

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

4.4.5.10. Haul

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

4.4.5.11. Offloading

All material, however transported, is to be off-loaded by hand, unless tipper-trucks are utilized for haulage

4.4.5.12. Spreading

All material shall be spread by hand.

4.4.5.13. Compaction

Small areas may be compacted by hand provided that the specified compaction is achieved.

4.4.5.14. Grassing

All grassing shall be undertaken by sprigging, sodding, or seeding by hand.

4.4.5.15. Stone pitching and rubble concrete masonry

All stone required for stone pitching and rubble concrete masonry, whether grouted or dry, must be collected, loaded, off loaded and placed by hand.

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

Grout shall be mixed and placed by hand.

4.4.5.16. Manufactured Elements

Elements manufactured or designed by the Contractor, such as manhole rings and cover slabs, precast concrete planks and pipes, masonry units and edge beams shall not individually, have a mass of more than 320kg. In addition, the items shall be large enough so that four workers can conveniently and simultaneously acquire a proper hand hold on them.

4.4.6 Plant and equipment

Add Subclause 4.4.5: Restriction on the use of plant.

“Except for the type of plant, and to the extent permitted in terms of the project specification or approved by the Engineer, in writing, the Contractor shall use only hand tools and equipment in the construction of the Works, or portion(s) of the Works, that are required in terms of the project specification to be constructed using labour intensive methods.

Failure by the Contractor to adhere to this clause will put him in breach of contract. The provisions contained in this contract with regard to labour content and labour-intensive construction, are binding, and will be enforced accordingly.”

The plant and equipment used on the site shall not be inferior to that described in the Schedule of Plant and Equipment.



CAPRICORN DISTRICT MUNICIPALITY

C4.5 Management

4.5.1 Applicable SANS 1921 standards

The following parts of SANS 1921 Construction works standards and associated specification data are applicable to the works:

- 1) SANS 1921-1:2004
- 2) SANS 1921-2:2004
- 3) SANS 1921-5:2004
- 4) SANS 1921-6:2004

The abovementioned South African National Standards make several references to the Specification Data for data, provisions and variations that make these standards applicable to this contract. The Specification Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and these standards.

Each item of Specification Data given below is cross-referenced to the clause in the standard to which it mainly applies.

The associated Specification Data is as follows:

SANS 1921-1, Construction and management requirements for works contracts – Part 1: General engineering and construction works	
Clause	Specification data
Essential data	
4.1.7	There are no requirements for drawings, information and calculations for which the contractor is responsible
4.2.1	The responsibility strategy assigned to the contractor for the works is A.
4.3.1	The planning, programme and method statements are to comply with the following: • format of programme, • critical path activities and their dependencies, • frequency of updating,
4.3.3	The notice period for inspection is 5 Days
4.7.3	The over break allowances for blasting are provided for in the scope of work.
4.9.3	The trees and shrubs which are not to be disturbed are identified in the scope of work.
4.12.2	The samples of materials, workmanship and finishes that the contractor is to provide and deliver to the employer are: 1)concrete works 2) pressure testing results done.
4.14.3	The office accommodation, equipment, accommodation for site meetings and other facilities for use by the employer and his agents are: 1) Site office which shall be used for site meetings and for the contractor's use. Such an office shall comprise a minimum of 20m² in area and 3 m high, be ventilated, have good lamination, must be reasonably soundproof, and have a hard floor construction. It shall be furnished with a desk on which drawings can be rolled open and on which there is sufficient writing space and sufficient temporary chairs or benches to accommodate all persons present at site meetings.
4.14.5	The Contractor is required to provide latrine and ablution facilities.
4.14.6	The requirements for the provision and erection of separate sign boards for consultants and subcontractors are: 1) The boards must comply with the official standard type signboard of the Employer and be at least 2750 x 1800 mm high. 2) The boards must be constructed with a firm flat exposed face using suitable material of firm construction, painted and lettered according to the standard drawings available from the Employer on request and mounted on sturdy pipe-standards at a height of 1800 mm above natural ground level.
4.17.1	The requirements for the termination, diversion or maintenance of existing services are: 1) Water 2) Electricity 3) Sanitation
4.17.3	Services which are known to exist on the site are: 1) Water 2) Sanitation 3) Electricity
Additional clauses	

1 Site meetings and procedures

The Employer's Representative and the Contractor shall hold meetings relating to the progress of the works at regular intervals and at other such times as may be necessary. The Contractor shall attend all site meetings and shall ensure that all persons under his jurisdiction are notified timeously of all site meetings should the Employer's Representative require their attendance at such meetings.

The Contractor shall keep on site a set of minutes of all site meetings, daily records of resources (people and equipment employed), a site instruction book, a complete set of contract working drawings and a copy of the procurement document and make these available at all reasonable times to all persons concerned with the contract.

2 Water

The Contractor is to provide, and remove and make good upon completion, all the necessary temporary plumbing connections and purchase water from the local authority for the works at his own cost.

3 Electricity

The Contractor is to provide, and remove and make good upon completion, all the necessary temporary electrical connections and installations and purchase electricity from the local authority / ESKOM for the works at his own cost.

4.5.2 Particular / generic specifications

The management of the site shall be in accordance with the provisions of the COLTO Standard Specification for Road and Bridge Works for State Authorities (1998 edition), obtainable from the South African Institution of Civil Engineering.

4.5.3 Recording of weather

The Contractor shall erect an effective rainfall gauge on the site and record the daily rainfall figures in a book. Such book shall be handed to the employer's representative for his signature no later than 12 days after rain that is considered to justify an extension of time occurs.

4.5.4 Unauthorised persons

The Contractor shall keep unauthorized persons from the works at all times. Under no circumstances may any person except guards be allowed to sleep on the building site.

4.5.5 Management meetings

Site meetings will be held on monthly basis. The following parties are required to attend these meetings: the Employer's Representative, the Engineer and/or Representative, the Contractor and/or Representative, the Community Liaison Officer, the Health and Safety Officer and all members of the Project Steering Committee.

4.5.6 Forms for contract administration

These forms will be issued to the Contractor as required.

4.5.7 Electronic payments

Proof of all electronic payments must on request be supplied to the Employer.

4.5.8 Daily records

All accidents and incidents shall be recorded daily in a site diary. Apart from the site diary the Contractor shall provide a site instruction notebook for use by the Engineer. The notebook shall be signed by both the Engineer and the Contractor whenever a site instruction is issued by the Engineer.

The Contractor must ensure daily attendance register by temporary workers is signed

4.5.9 Payment certificates

Contractor to submit claims for the work done. All claims are subjected to verification by the Engineer.

Contractor must ensure that to submit the following documents when submitting the claim for work done to be verified by the Engineer:

- EPWPRS-Data tool template obtained from the Capricorn District Municipality
- Signed temporary contracts for all temporary workers on site
- Certified ID copies for all temporary workers
- Signed daily attendance registers by all temporary workers
- Signed monthly payment register by all temporary workers

4.5.10 Permits

Contractor to ensure that no unauthorised persons are permitted to site

4.5.11 Proof of compliance with the law

Contractor to submit copies of the CIDB Registration and the Company Registration Certificates



CAPRICORN DISTRICT MUNICIPALITY

C5. Project Specification

SCOPE

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 SABS 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

PROJECT SPECIFICATION

PORTION 1: THE WORKS

C5. Project Specification

SCOPE

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 concurrent 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 concurrent 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

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

PORTION 1: THE WORKS

PS 1 GENERAL DESCRIPTION OF WORKS

Preliminaries and General

The contractor shall:

- Establish the site and assume control of the works
- Provide all Contractor and Engineer facilities.
- Comply fully with Occupational Health and Safety Act and Construction Regulations.
- Provide insurances, guarantees and compliance documentation.
- Submit a construction programme.
- Submit a cashflow projection
- Submit a project team

Site shaping and Fencing

The Works include

- Supply and installation of 2.4m high anti-climb Clear-Vu (or approved equivalent) security fencing.
- Installation of a 5m wide vehicle access gate
- Modular units mainly, guardhouse, Accommodation unit, Executive office container

Water Reticulation Infrastructure

Construction of:

- Water reticulation system
- Metered Household Connections,

Testing, Commissioning and Handover

The Contractor shall:

- Conduct hydrostatic pressure testing,
- Submit as-built drawings.
- Submit operation and maintenance manuals.
- Provide training to Employer's personnel or locals.

Remove temporary works and reinstate the site. 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.

PS 2 DESCRIPTION OF THE SITE AND ACCESS

Refer to the "*PART C.7 Site Information*".

PS 3 DOCUMENTATION

PS 3.1 The Provisional Bill of Quantities is included in this document and *must be completed and handed in with the tender*.

PS 3.2 The drawings, for tender purposes, listed under part C3.2 are applicable to this contract

PS 3.3 The Tenderer shall check the Bills of Quantities for missing or duplicated pages or drawings and should any be missing or duplicated, or the reproduction be indistinct, or if any doubt exists as to the full intent or meaning of any particulars or description, or this Bills of Quantities contain any obvious errors, the Tenderer shall notify the Engineer at once who shall promptly give a written directive. No liability whatsoever will be admitted in respect of errors in any tender due to the abovementioned causes.

No alteration, erasure, omission or addition is to be made in the text and conditions of these Bills of Quantities or other documents. Should any such alterations, amendment, note or addition is made, it will not be recognised and the text of the Bills of Quantities or other documents as prepared by the Representative must be adhered to.

PS 3.4 The Tenderer shall examine all documents and shall thoroughly acquaint himself with the nature and extent of the Works and the manner in which they are to be executed as no claim for extra payment in this connection will be entertained.

PS 4 NATURE OF GROUND AND SUBSOIL CONDITIONS ON SITE

No bore tests or investigation of the in-situ material were done.

The water table may be relatively high during the summer months and provision must be made for effective draining of excavations.

It is the Contractor's responsibility to supply and deliver all material that complies with the minimum standards as well as for the building and maintaining of access roads to the works on site, haul areas or dumping sites. No additional payment will be applicable to the above-mentioned, other than the relevant items in the schedule of quantities.

No trial holes were dug along the network layout. Note that the prospective tenderers shall acquaint themselves with the nature of materials on site.

PS 5 DETAILS OF THE CONTRACT

PS 5.1 MAIN CONTRACT

Work included in this contract involves the scope of work as per paragraph PS1.

The other main components of the work under this contract are:

- a) Establishment of the Contractor's camp.
- b) Setting out of the works
- c) Site clearance and earthworks.
- d) Provision of all materials, special fittings and accessories as required, to complete the work as prescribed.
- e) Excavation and backfill compacted as specified, of pipe trenches and the removal of all excess material.
- f) Laying, bedding and installation of all pipes and accessories.
- g) Concrete work associated with the above-mentioned work.
- h) Construction of concrete anchor blocks associated with the above.
- i) Construction of the pipelines
- j) Commissioning of the works.
- k) Maintenance on the works for a twelve-month period.

PS 6 CONSTRUCTION PROGRAM AND METHODS

The construction site is situated in a built-up area; the Contractor shall ensure the least possible disruption of movement of the public during construction.

Construction methods must be of such a nature that no property or life is endangered. The Employer accepts no responsibility for work that is done without consent by the Engineer outside the site boundaries. The Contractor himself is responsible for liaison and arrangements with the Local Authority in connection with the finalisation and approval of the construction program.

The Contractor is responsible for liaison and the necessary arrangements with the relevant road authorities in respect of the finalisation and approval of the works programme.

Sufficient photos of existing structures, walls, and areas that have to be crossed must be taken by the Contractor and handed over to the Engineer before such operations commence. No payment will be made in this regard and it shall be deemed to be covered in the Preliminary and General items.

Local labourers must do the trench preparation, bedding, handling, laying and backfilling of pipes and fittings. The contractor is responsible to liaise with the Labour Desk for labourers.

No separate payment shall be made for any arrangements with relative local authorities for closing off the current water supply or for the distribution of notices to the public.

The compilation of the construction programme and any amendments thereto during the course of construction shall be at the cost of the Contractor and shall not be measured elsewhere in this contract. The contract has to be completed within the time specified in the "Contract Data" of this document, excluding the builder and public holidays.

PS 7 SITE FACILITIES AVAILABLE

PS 7.1 SOURCES OF WATER SUPPLY, POWER SUPPLY, SANITATION, AND COMMUNICATION

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. Water for human consumption will from the existing network at the ruling tariff. Electrical power is available from the existing reticulation at ruling tariffs. The Contractor shall make his own arrangement for any water or power he may require. Any extension of time due to delays resulting from these facilities will not be granted.

The Contractor must supply and maintain at his own cost a sufficient number of portable chemical toilets, one of which must be situated at the campsite and the rest in the area of the site.

No waste or sludge must be left uncovered until it is removed. The contractor must operate an efficient solid waste removal system to the satisfaction of the engineer for the duration of the contract.

The Contractor must make his own arrangement for communication and a telephone service.

PS 7.2 LOCATION OF CAMP AND DEPOT

A site for the Contractor's camp and depot will be pointed out during the site inspection. No trees may be removed and the Contractor must provide his own firewood.

PS 7.3 HOUSING FOR CONTRACTOR'S 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.

PS 8 SITE FACILITIES REQUIRED

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.

PS 9 FEATURES REQUIRING SPECIAL ATTENTION

PS 9.1 CONTROL OF WATER

The Contractor is in all respects responsible for the handling of storm water from higher-laying areas, adjacent to the works for the handling of possible sub-surface water and for the handling of spoiled water when disconnecting existing connections or valves. No separate payment shall be made for this, as all costs related thereto shall be deemed to be included elsewhere in the tendered rates.

PS 9.2 "AS BUILT" DRAWINGS

As the work progresses, the Contractor shall keep full records of all amendments to and deviations from the drawings as issued to the Contractor at the start of the contract. The true positions, invert levels and ground levels of all services shall be indicated on the drawings, for which purpose the Contractor shall receive a separate complete set of drawings from the Engineer, at no cost.

The completion certificate shall only be issued after the Engineer has received a properly completed set of "**AS-BUILT**" drawings from the Contractor. No separate payment shall be made for this service, as all costs related thereto shall be deemed to be included in the related items.

PS 9.3 FINISHING AND TIDYING

Progressive and systematic finishing and tidying will form an essential part of this contract. Under no circumstances shall spoil, rubble, materials, equipment or unfinished operations be allowed to accumulate unnecessarily and in the event of this occurring the Engineer shall have the right to withhold payment for as long as necessary in respect of the relevant works in the area(s) concerned.

PS 9.4 SURVEY BEACONS

No setting out of the pipeline route was done. All proposed pipelines shall be parallel (at least 2,5 m away) to the existing yard boundaries. No separate payment shall be made for this, as all costs related thereto shall be deemed to be included elsewhere in the tendered rates.

PS 9.5 CONSTRUCTION MODUS OPERANDI

Labour-based or labour-intensive construction may be defined as the economically efficient employment of as much labour as is technically feasible to produce as high a standard of construction as demanded by the specification and allowed by the funding available. In other words, projects based on labour-intensive principles aim at devoting the highest feasible proportion of projects costs to unskilled, semi-skilled and skilled labour without jeopardising the technical quality of the product demanded by the specification.

The following regulations must be adhered to so as to ensure that the construction methods used are labour intensive.

- i) The remuneration to local labour for hourly-rated employees and/or daily-based work shall be in accordance with the terms and conditions of Proclamation R1841 of Government Gazette 16833 dated 24 November 1995 or its latest amendment.
- ii) The name, identification number, task performed, and hours worked per day for each labourer shall be recorded by the Contractor. These records shall be submitted to the secretary of the Project Steering Committee on the second working day of each week following the recounted week.

The employment of local labour must be at least **30%**, if at all possible, of the total contract amount. The **30%** must be divided as follows:

Percentage of labour	Description
60%	Women
55%	Youth (Above school, 35yrs and below)
2%	Disabled persons

PS 9.6 LOCALLY BASED SUB-CONTRACTORS

Tenderers are encouraged to utilise the services of locally based sub-contractors.

PS 10 TRAINING

PS 10.1 General

A suitably capable Training consultant is to be employed on this project.

Their duty is to identify suitable persons and train them for the following:

- i) Employee Training – community-based labour
- ii) Employer Training – community-based contractors
- iii) Committee Training – maintenance and operation of the Works (this however falls outside the scope of this Contract)

This project is a project using community-based labour and community-based contractors as far as possible.

The Contractor using the necessary plant and labour as he sees fit shall carry out conventional construction. However, the Contractor may only bring in key staff from outside the area that has the necessary skills not available among the local community. Other than key staff, all other labour must be employed from the local communities. As a guideline, key staff would include general foreman, foreman, site managers, buyers, quantity surveyors, etc.

The Training Consultant will provide the necessary training so that the local labourers will have the necessary skills to carry out this work. In this respect, the contractor and the Training Consultant will have to work closely together to identify what skills are required, how many labourers in each trade are required and when this labour will be required, so that the necessary training can be given timeously.

Typical training that is envisaged at this stage includes shuttering, concrete work, reinforcing, team leaders, etc.

The other part of the Contract is work that will be carried out by community-based contractors.

The Training Consultant will identify persons, with the assistance of the Project Steering Committee, and train these persons to establish small community based contracting firms, who will employ local labour. These firms will tender to carry out this work and successful Tenderers will be appointed by the Contractor as nominated sub-contractors to execute this work.

Typical training that will be given by the Training Consultant is:

- i) Community based contractors
 - Preparation phase – using a calculator, numeracy, using a scale ruler, reading a building plan, handling administrative tasks in the building industry.
 - Estimating and tendering – marketing the services of a company, seeking, selecting, collecting and studying tender documents, investigating and assessing a site, developing a bill of quantities from building plans, calculating the cost of a project, finalizing tender prices, completing and submitting a tender.
 - Project planning – introducing to planning techniques, pre-tender planning, planning contract activities, contract planning, executing a contract programme.
 - Executing the project – managing the finances of the company, managing materials, administering record systems, managing manpower, completion and handover.
- ii) Community based labour

Local labour will be taught the following skills:

 - Excavation if possible, bedding, selected backfill and backfill
 - Pipe laying, valves and fittings
 - Valve boxes, manholes, anchor blocks etc.

Again the Contractor and Training Consultant will have to work closely together to identify what their requirements are and when this labour is needed.

Community based labour training will take place on site before actual production starts. No allowance needs to be made for wages, food or travelling during training.

Training of community-based contractors will take place at a central point. The Provincial Sum allowed in the Schedule of Quantities, makes allowance for travelling and meals for the training of community-based contractors.

PS 10.2 Construction and Materials Management

This section applies only to work to be carried out by community-based contractors.

The contractor shall provide construction and material management to the community-based contractors. In this respect, each party has the following responsibilities.

- i) Community Based Contractors
 - To tender on the labour-based sub contract work and enter into a contract with the Contractor.
 - To carry out the work according to specification and on time using community-based labour.
 - To liaise and co-operate with the contractor regarding specifications, programme, progress, delivery of material, quality of work etc.
 - To provide wheelbarrows, hand tools, clothing, safety equipment, etc. to enable his labourers to carry out the work. All material (pipes, fittings, valves, etc.) to be provided by the Contractor.
 - To receive material required for the task, store it and provide the necessary security until the material is built into the works.
 - To provide the necessary transport for this labour force.

- To carry out a task in its entirety until final approval and acceptance. In other words, there will be no split responsibility. For example, a community-based contractor will excavate, provide the bedding, selected backfill, backfill, lay pipes, valves and fittings, build valve boxes, manholes, anchor blocks etc. and test the pipes in conjunction with the Contractor.
- To pay his labourers. VAT etc. and finalize the final account.

ii) Contractor

- In conjunction with the Training Consultant, establish the needs, training and programming of the work.
- To assist the Training Consultant in drawing up the agreements of association between the Contractor and the community-based contractors where applicable.
- To enter into nominated sub contracts with the community-based contractors.
- To provide the necessary skills transfer and construction management for the community-based contractors to successfully complete this work. This includes setting out of the work, quality control over the work, programming of the work, progress, testing and acceptance thereof.
- To provide the necessary materials to execute the work. This includes purchasing the required materials, transporting them to the camp site, storage at the campsite, transporting of materials as required from camp site to the sites of the various community-based contractors, handing over of the materials.
- To pay the community-based contractors as the work progresses and the Contractor must make allowance in his Tender for this. Retention monies will be as for this Contract. No sureties will be required from the community-based contractors.
- To measure the work and finalize the final account.
- Complete copies of the emerging contractor's contracts to be given to the Engineer for endorsement prior to the contract being signed.

Candidate selection would be according to the requirements for a particular discipline. A Certificate of Achievement should be awarded to a student who has attained a prescribed level of competency.

A provisional amount for training has been recorded in both sections under the Item "Training", in the Preliminary and General portions in the Schedule of Quantities.

PS 11 APPLICABLE STANDARDISED SPECIFICATIONS

Although not bound in nor issued with this document, the following standardised specifications shall form part of the contract and, notwithstanding the provisions of sub clause 2.2 of SABS 1200 A, the editions specified below shall apply:

SABS 1200 A	-	1986	General
SABS 1200 AB	-	1986	Engineers Office
SABS 1200 C	-	1986	Site Clearance
SABS 1200 D	-	1988	Earthworks
SABS 1200 DA	-	1988	Earthworks (Small Works)
SABS 1200 DB	-	1989	Earthworks (Pipe Trenches)
SABS 1200 G	-	1982	Concrete (Structural)
SABS 1200 GA	-	1982	Concrete (Small Works)
SABS 1200 HA	-	1990	Structural Steelwork (Sundry Items)
SABS 1200 L	-	1983	Medium Pressure Pipelines
SABS 1200 LB	-	1983	Bedding (Pipes)

The newest additions of above specifications up to and including the month of this tender will prevail.

PROJECT SPECIFICATION

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SABS 1200 A: GENERAL

PSA 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 at least 48 hours before 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.

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.

A 5 CONSTRUCTION

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.

A 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.

A 8 MEASUREMENT AND PAYMENT

A 8.2 PAYMENT

PS A 8.2.1 Fixed-Charge and Value-Related Items

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 8.2.2 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.

A 8.3 SCHEDULED FIXED-CHARGE AND VALUE-RELATED ITEMS

PS A 8.3.3 Other Fixed-Charge Obligations

This item as listed under Schedule A of the bill of quantities is as specified in the standardised specification SABS 1200 A.

A 8.4 SCHEDULED TIME RELATED ITEMS

PS A 8.4.5 Testing..... Unit : Sum

The cost of all sampling and testing executed by the Contractor or approved laboratory must be included in the amount for other time related items and no separate payment shall be made for this. This condition also relates to the placing, curing and testing of concrete cubes.

A 8.5 SUMS STATED PROVISIONALLY BY ENGINEER

PS A 8.5(a)1 Community Liaison Officer..... Unit : 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.

PS A 8.5(a)2 Overheads, charges and profit on (1) above..... Unit : %

Handling cost and profit in respect of sub-item 8.5(a)1. A percentage of the payment made to the Community Liaison Officer will be paid to the contractor. The rate shall cover the Contractor's overheads, charges, and profit on payments for the Community Liaison Officer. No payment will be made under this item before payment to the Community Liaison Officer.

PS A 8.5(b)1 Training..... Unit : 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, charges 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 A 8.5(c)1 Occupational, Health and Safety Act Unit : Prov. Sum

Provisional 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.

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 (2010) shall apply, with the amendments as in the appropriate special conditions of contract, which is bound into this document. A daywork 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.

PROJECT SPECIFICATION

PORTION 2 : VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SABS 1200 AB: ENGINEER'S OFFICE

AB 3 MATERIALS

PS AB 3.1 NAME BOARDS

Substitute "South African Institution of Civil Engineers" in the first paragraph of AB 3.1 with "South African Association of Consulting Engineers".

PS AB 3.2 OFFICE BUILDING

Replace AB 3.2 with the following:

Prior to commencing with work, the contractor shall provide and furnish for the use of the engineer's representative and his staff one office (3.0 x 4.5m Wendy House Type with veranda) in an approved position. The Engineer will indicate the position. All plans shall be submitted to the engineer for approval, before the commencement of erection.

The office with a minimum floor area of 13.50m² (the smaller dimension at least 3.0m) with a ceiling height of minimum 2.1m, shall also have one toilet apart from the office building for the exclusive use of the engineer's representative.

The office shall be provided with lined walls and boarded ceilings and floor and suitable door with secure locks. The office shall be ventilated, weather proof and waterproof and shall have windows with an area to at least 20% of the floor area. The office shall be insulated to provide comfortable working conditions.

Internal furnishings shall include:

- One desk (1,5m long x 1,0m wide x 0,9m high) with lockable drawers with keys
- One drawing table
- Eight desk chairs
- One table (2,0m long x 1,0m wide x 0,9m high) with smooth top.

AB 4 PLANT

PS AB 4.1 TELEPHONE AND FAX

Replace AB 4.1 with the following:

The Contractor shall supply the Engineer with a cellular telephone service for the exclusive use of the Engineer and Engineers Representative for official purposes for the duration of the contract.

AB 5 CONSTRUCTION

PS AB 5.1 NAME BOARDS

Add the following to AB 5.1:

The name boards including EPWP logo as per EPWP guideline shall be erected within a month of the commencement date of the contract and shall be placed at the position indicated by the Engineer. Any damage to these boards shall be repaired within seven days of a written instruction issued by the Engineer. No payment shall be made in terms of the contract prior to the erection of the name boards.

The Contractor will be permitted to erect a maximum of two of his own name boards, in positions approved by the Engineer. The Engineer reserves the right to order the removal of these boards if they are not kept in good repair.

PS AB 5.5

SURVEY ASSISTANTS

Substitute "two or more suitably educated survey labourers" in the first sentence of PS 5.5 with "two semi-skilled labourers."

PS AB 5.6

SURVEY EQUIPMENT

The Contractor shall provide the following tested and approved survey equipment on site for the duration of the contract and for the use of the Engineer whenever needed:

- a) one tachometer capable of reading to minimum 20 seconds and maximum 6 seconds of arc, plus tripod;
- b) one automatic level plus tripod;
- c) two tachometer staffs and one level staff, all graduated metrically;
- d) one 5m and one 100 m tape measure; and
- e) diverse surveyors' necessities like paint, pegs, etc.

The above-mentioned equipment may by arrangement be shared between the Contractor and the Engineer's representative.

The Contractor shall keep the equipment continuously insured against any loss, damage, or breakage, and he shall indemnify the Engineer and the Employer against any claims in this regard.

The Contractor shall maintain the equipment in good working order and keep it clean throughout the contract period.

AB 8 MEASUREMENT AND PAYMENT

AB 8.2 PAYMENT

PS AB 8.2.2(a) Office buildings..... Unit : Sum

The rate shall cover all time-related costs pertaining to the office building as prescribed in PS AB 3.2.

PS AB 8.2.2(b) Telephone and fax..... Unit : Sum

The rate shall cover all time-related costs pertaining to the telephone and fax as prescribed in PS AB 4.1.

PS AB 8.2.2(c) Name boards (2 off)..... Unit : Sum

The rate shall cover all time-related costs pertaining to the name board/s as prescribed in PS AB 5.1.

PS AB 8.2.2(d) Survey assistance and equipment..... Unit : Sum

The rate shall cover all time-related costs pertaining to the survey assistants and equipment as prescribed in PS AB 5.6.

PROJECT SPECIFICATION

PORTION 2 : VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SABS 1200 C : SITE CLEARANCE

C 3 MATERIAL

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.

C 5 CONSTRUCTION

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.

C 5.2 CUTTING OF TREES

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.

PS C 5.9 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.

C 8 MEASUREMENT AND PAYMENT

C 8.2 SCHEDULED ITEMS

PS C 8.2.1 Clear and grub (3.0m strip)

Unit : m

The removal of all rocks and boulders on site over 0,15 m³ 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

PROJECT SPECIFICATION

PORTION 2 : VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SABS 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. Rock will be measured individually as extra-over items.

All unsuitable material shall be removed prior to importing fill material in such areas.

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.

TABLE 1.1

	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 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.

(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.

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.

PSLF 8.17 GENERIC LABOUR-INTENSIVE SPECIFICATION

The Generic Labour-intensive specification below is the same as SANS 1921-5, Construction and management requirement for works contracts- Part 5:

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 Sub clause 5.2.5.1 of SANS 1200 D or Sub clause 5.2.6.1 of SANS 1200 DA, as applicable).

PSDB 8.3.3.2 Opening up and closing down of designated borrow pitUnit: 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 Sub clause 5.2.2.2 of SANS 1200 D or Subclause 5.2.2(f) of SANS 1200 DA, as applicable.

PSDB 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.)

- (a) 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 45°)..... Unit. (No)

In a case where a trench of specified width

1 runs parallel to or at an angle (in plan) of less than 45° 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 45° 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 means 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 Reinstatement Road surfaces complete with all courses

Unit: m²

Replace DB 8.3.6.1 with the following:

- a) Gravel

Unit: m²

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

SABS 1200 G: CONCRETE (STRUCTURAL)

PSG1 SCOPE

This specification covers the requirements for structural concrete work (plain and reinforced) for civil engineering and building construction. It covers the basic materials, the plant and formwork required, the quality, manufacture, and curing of concrete, tolerances in workmanship, tests and acceptance, and the methods by which the finished structure is to be measured for the purposes of payment.

PSGA 3 MATERIAL

PSG 3.2 CEMENT

PSG 3.2.2 Alternative types of cement

Only sulphate resistant cement shall be used on this project.

If the Contractor wishes 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.) The tendered rates, however, shall be based on the use of sulphate resistant cement only.

PSG 3.2.3 Storage of Cement

Cement shall not be store for longer than 12 weeks without the Engineers permission.

PSG 3.4 AGGREGATES

PSG 3.4.4 Aggregate of dolomitic origin

All aggregates for structural concrete, manholes, pipe encasement, pipe bedding cradles, mass filling, etc. 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%.

PSG 4 PLANT

PSG 4.1 GENERAL

PSG 4.1.1 Minimum Plant

The contractor shall have the following minimum Plant available and in sound working order:

- (a) Two concrete mixers, each of sufficient capacity to complete a section off the wall between horizontal construction joints within 4 hours and without interruption;
- (b) Two concrete vibrators, at least one of which shall be powered by an internal combustion engine;
- (c) One air compressor;
- (d) Storage tanks at the water carts or trucks are adequate capacity to ensure that sufficient water will be available before commencement of every major concrete-placing operation.

If the Plant used for placing concrete for the structure of electrically or mechanically powered, the Contractors shall also provide some other approved, non- electrically powered standby means for placing concrete at an adequate rate in the event of a power or mechanical failure of the main Plant.

When the Contractor elects to place a crane inside the walls of the structure during the construction period, shall communicate with the Engineer in good time to ensure that the design and layout of the panels that form the roof slabs and floor allow for such positioning of the crane. When sections of the roof and floor have to be redesigned to accommodate the crane, the redesigned cost shall be borne by the Contractor.

PSG 4.5 FORMWORK

PSG 4.5.1 Design

All form work with scaffolding required for any part 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 of 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.

PSG 4.5.3 Ties

No plugs, bolts, ties or clamps of any description used to hold formwork will be allowed into the project 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 50mm of cover to the finished concrete surface.

The cavities left in the concrete when the tie-rod end cones are removed shall soundly caulked with a cement mortar to which an approved shrinkage-reducing agent has been added, and shall be neatly to 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 the 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.

PSG 5 CONSTRUCTION

PSG 5.1 REINFORCEMENT

PSG 5.1.2 Fixing

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.

Welding of reinforcing steel will not be permitted.

PSG 5.1.3 Cover

The distance between pipes in 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

PSG 5.2 FORMWORK

PSG 5.2.5 Removal of formwork

PSG 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 that propping of beams and slabs.

PSG 5.3 HOLES, CHASES AND FIXING BLOCKS

Cover blocks for reinforcing and fixtures may be placed into the concrete provided that neither the strength nor any other desirable characteristics (such as the appearance) of the concrete section is affected or impaired in the opinion of the Engineer.

The holes or cavities left by the ferrule heads in the concrete of water-retaining structures shall be filled with an approved non-shrink grout applied strictly in accordance with the manufacturer's specifications.

PSG 5.4 PIPES AND CONDUITS

All pipes passing through to 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 8.10.

PSG 5.5 CONCRETE

PSG 5.5.1 Quality

PSG 5.5.1.5 Durability

The exposure conditions of the concrete are classified as "severe".

PSG 5.5.1.7 Strength concrete

The concrete mixes for sulphate resistant cement shall be designed by an approved laboratory for approval by the Engineer before commencement of any concrete work.

PSG 5.5.3 Mixing

PSG 5.5.3.2 Ready-mixed concrete

Ready-mixed concrete may be used on the Site. The contractor shall take samples for testing from every load delivered to the Site.

PSG 5.5.5 Placing

PSG 5.5.5.10 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.

PSG 5.5.7 Construction joints

Horizontal construction joints are permitted in structure walls in positions indicated on the drawings or approved by the Engineer. Vertical construction joints in the wall are subject to the written approval of the Engineer and the cost of all such vertical or horizontal construction joints will be deemed to be included in the rates for cast-in-situ concrete. This also applies to the preparation of concrete to form construction joints in the flume walls as specified on the drawings.

The construction joints in water-retaining structure shall be made strictly in accordance with the details shown on the drawings. The joints between screeds and concrete floors shall be regarded as construction joints and the surface of the floor shall be prepared as described for construction joints.

Should the Contractor's method of construction necessitate the placing of construction or other joint in a position not shown on the drawings, such method of construction and position of the joint shall be approved by the Engineer in writing. The cost of such joint shall be included in the tendered rates and shall include scrubbling of the concrete where steel reinforcement is continuous

The walls shall be cast in lifts of height that permits each lift to be poured without interruption in one continuous operation during working hours.

It is the Contractor's responsibility to ensure that construction joints are watertight. The Contractor's proposed method for ensuring the watertightness of such joints shall be submitted to the Engineer for his approval.

For construction joints at kickers all additional costs for concrete, preparation, etc will be deemed to be included in the rates tendered for concrete in walls or sides and kicker joints or construction joints will not be measured separately.

PSG 5.5.8 Curing and protection

Curing by retaining the formwork in place or by covering with a waterproof membrane are the curing methods strongly recommended. Concrete will not be paid for unless properly cured and proof of curing is continuously visible on the Site.

PSG 5.5.11 Watertight concrete

The minimum cement content in water-retaining structures shall be 325 kg/m³, and the maximum cement content shall be 450 kg/m³ in reinforced concrete.

The maximum water cement ratio for water-retaining structures shall not be more than 0,50.

PSG 5.5.16 Soilcrete

Where soilcrete is specified for filling under floor slabs the soilcrete shall comply with the requirements of subclause PSDB 3.5 (d) of section 1200 DP as amended and shall be placed as specified in this subclause.

PSG 6 TOLERANCES

PSG 6.2 PERMISSIBLE DEVIATIONS **PSGA 6.2.3 Specified permissible deviations**

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.

Vertically, per meter of height
Subject to a maximum

Permissible deviation		
Degree of accuracy		
III	II	I
mm	mm	mm
5	3	2
50	30	10

PSG 7 TESTS

PSG 7.1 FACILITIES & FREQUENCY OF SAMPLING

PSG 7.1.1 Facilities

The Contractor shall provide sufficient storage capacity for the concrete cubes and shall arrange to have them tested by an approved laboratory.

The cost all testing, including the cost of sampling, storage and transporting samples should be included in the rates tendered for concrete work.

PSG 7.3 ACCEPTANCE CRITERIA FOR STRENGTH CONCRETE

Test results obtained from the supplier of ready-mix concrete will not be accepted for evaluation in terms of subclause 7.3, but samples for testing shall be taken off such concrete at the point of placing.

PSG 7.3.6 Testing for watertightness

Water for testing shall be provided by the Contractor and shall be responsible for providing all necessary equipment that may be required for filling the structures.

The structure shall be filled with water at a uniform rate not exceeding 2.0 m in 24 hours until the top water level been reached. The water level will then be carefully noted and recorded by the Engineer in relation to a fixed benchmark, and shall be contained by the addition of further water for a sterilising period to permit complete absorption of water by the concrete.

The sterilising period may be 7 days for a maximum design crack width of 0.1mm or 21 days for 0.2mm or larger. After the sterilising period, the level of the liquid surface shall be recorded at 24-hour intervals for a test period of 7 days. During the 7-day test period the total permissible drop in level, after allowing for evaporation shall not exceed 1/500 the one of the average water depth of the full tank, or 10 mm.

The evaporation shall be measured by the mean drop in level caused by the evaporation of the water in three flat containers floating in the water being recorded.

In the event of appreciable leakage being evident at any of the stages of the filling or testing or the event of the Engineer considering the final degree of water tightness to be unsatisfactory, the contractor when ordered by the Engineer shall discontinue such filling or testing and shall, at his own expense, take approved steps immediately to rectify the leakage, until a satisfactory test is obtained, which shall prove to the Engineer that a sufficient degree of watertightness has been obtained.

The cost of emptying a water-retaining structure which cannot be drained shall be borne by the Contractor. The water shall be discharged in a manner approved by the Engineer and shall be such that the employer can utilise the water is he so desires.

The water shall not be used as a medium for additives to affect remedial work or to stop leaks.

The cost of retesting the structure for watertightness shall be borne by the Contractor.

PSG 8 MEASUREMENT AND PAYMENT

PSG 8.1 MEASUREMENT AND RATES

PSG 8.1.1 Formwork

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

- 8.1.1.7 For construction joints at kickers (joint F), 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 width.
- 8.1.1.8.1 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.
- 8.1.1.8.2 Back-shuttering or formwork to top revealed surfaces of sloping - or conical formwork will only be measured to surfaces over 40° and 85° to the horizontal.
- 8.1.1.8.3 Formwork to horizontal surfaces in pump stations, valve chambers, man holes 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.

PSG 8.1.2 Reinforcement

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 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.

PSG 8.9 Testing for watertightness

The lump sum figure will cover all the required processes to be carried out in accordance with the information and specifications referred to in clause PSG 5.5.11.3.

The tendered lump sum shall include full compensation for all materials, equipment and work required in order to complete the work as specified.

PSG 8.10 Cleansing and disinfection

The lump sum figure will cover all the required processes to be carried out in accordance with the information and specifications referred to in clause PSG 5.5.11.4

The tendered lump sum shall include full compensation for all materials, equipment and work required in order to complete the work as specified.

PSG 8.12 Thermo insulation.....Unit: m²

Measurement shall be for the entire area of roofing to be covered with a 100mm thick layer of well-graded, thoroughly cleaned, 26mm concrete aggregate placed as shown and detailed on the drawings.

The rate tendered shall include full compensation for all materials, equipment and work required in order to complete the work as specified.

PSG 8.13 Drain pipes.....Unit: m

Measurement shall be per linear metre of drain pipe required as indicated in the bill of quantities and on the drawing. The protective geotextile for these pipes is to be measured and included with this item.

The rate tendered shall include full compensation for all materials, equipment and work required in order to complete the work as specified and must include the pipe and associated protective geotextiles.

PSG 8.14 Geofabric layer.....Unit: m²

Measurement shall be for the total area of geotextile as specified in the bill of quantities and on the drawings, placed between the no-fines concrete drainage layer and the 30mm thick blinding layer

The rate tendered shall include full compensation for all materials, equipment and work required in order to complete the work as specified.

PSG 8.15 Manholes.....Unit: No

Measurement shall be for the complete number of manholes required as specified on the drawings.

The rate tendered shall include full compensation for all materials, equipment and work required in order to complete the work as specified.

PSG 8.16 Bearing strip.....Unit: m

Measurement shall be per linear metre of limitgliss bearing strip required to be placed between the reservoir wall and roof as specified on the drawings.

The rate tendered shall include full compensation for all materials, equipment and work required in order to complete the work as specified.

PSG 8.17 Roof weep holes.....Unit: No

Measurement shall be for the number of weep holes required as per the drawings.

The rate tendered shall include full compensation for all materials, equipment and work required in order to complete the work as specified.

PROJECT SPECIFICATIONS

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SABS 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 and formwork required, the quality, manufacture, and 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

PS GA 3.2.1 Applicable Specifications

Add the following to G 3.2.1:

Portland cement that conforms to SABS 471.

PS GA 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.

GA 4 PLANT

PS GA 4.4 Formwork

PS GA 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.

GA 5 CONSTRUCTION

GA 5.1 REINFORCEMENT

PS GA 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.

GA 5.2 FORMWORK

PS GA 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.

GA 5.4 CONCRETE

GA 5.4.1 Quality

PS GA 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.

PS GA 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

PS GA 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.

PS GA 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.

PS GA 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.

PS G 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.

PS G 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.

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 with 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 slabbing 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 over break in soft excavation, but payment will be made for additional concrete or formwork, or both, ordered in writing by the Engineer to replace unsuitable material or over break in hard rock or in intermediate excavation.

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 and the necessary bearers, struts, and other supports, plus the layout and plant necessary to erect and strike such formwork.

**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

PSLB 8.1.1 Provision of Bedding from Trench Excavation

a) Selected granular materialUnit: m³

b) Selected fill material.....Unit: m

The rates shall cover the cost of acquiring, from within 1 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 1 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 materialUnit: m³

a) Selected fill material Unit: m³

PSLB 8.1.4 From commercial sources

a) Selected granular material Unit: m³

b) Selected fill material Unit: m³

The rate shall cover the cost of acquiring, regardless of distance, the required bedding from commercial sources (see Sub clause 8.3.4 of SANS 1200 D or Sub clause 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: m³

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.

The rate shall cover encasement of pipe through stream crossings, Rate shall include formwork, mixing and placing of concrete (5m³) and Gabions (10m³).

Substitute LB 8.2.5 with the following:

- a) Limited overhaul (0,5 km to 1,0 km) Unit: m³
- b) Long overhaulUnit: 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.

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:

Duraflow mPVC and 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 soil crete encasing. The length of soil crete 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 couplingsUnit: m

PSL 8.2.1.1 uPVC Class 12 and 16 Pipes

The pipes should be the type with a spigot at one end and a socket with lying 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 CouplingsUnit: 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 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 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 Sub clauses 8.2.2 and 8.2.3 of SANS 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 PSL 5.12.

PSL 8.2.17 Soil Crete Casing

Unit: m³

The soil Crete (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 soil Crete 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 VC: FENCING

PSVC 1SCOPE

This specification covers the erection of a new 2.4m high electric fence (clear view fence) with 1 x motor gate 2.4 x 5m.

PSVC 4.2 SECURITY FENCING

Add this item to cover the erection of a new 2.4m high electric fence

PSVC 4.2.1 Material

B 5514 MEASUREMENT AND PAYMENT

Item	Unit
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55.01 Clearing the fence line 2 m wide strip.....	m(m)
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The removal of trees and stumps with a girth exceeding 1 m shall be paid as specified in section 1700

B 55.02 Supply and erect new fencing material for anti-climb ClearVu fence with electric wire around the reservoir platform with a height of 2.4m:

(a) Supply and install complete "Electric anti-climb ClearVu fence" or similar approved 2.4m high galvanised steel fencing with 85mm width posts at 3.4m intervals as per manufactured specification. The Panel aperture size shall be 76.2mm x 12.7mm. Wire ϕ will be 3mm. The rate to include excavation for posts and all concrete work required.....m (m)

(b) Supply and install complete 5m vehicle access sliding steel gate see drawings.....No (No)

**PROJECT SPECIFICATION
PORTION 2: VARIATIONS AND ADDITIONS TO
STANDARDISED 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: Unit: Sum

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.

**PROJECT SPECIFICATION
PORTION 2: VARIATIONS AND ADDITIONS TO
STANDARDISED SPECIFICATIONS**

SANS 1200 VC: WATER PUMPS PROJECT SPECIFICATIONS

PSVC WATER PUMPS

CONTENTS

- PSVC 1: SCOPE
- PSVC 2: GENERAL
- PSVC 3: MATERIALS AND WORKMANSHIP
- PSVC 4: INSTALLATION

PSVC 1: SCOPE

This specification covers the design, manufacture, supply, delivery and testing of water pumps such as used for pumping water from dams and reservoirs, and as in line booster pumps.

PSVC 2: GENERAL

Pumps shall be of the maker's standard and approved design, capable of performing the required duty at a preferred speed of 1500 RPM. Pumps shall be supplied complete with motor, drives, couplings and base plate or frame. Pipes, pipe fittings, valves etc. are specified and scheduled elsewhere. All electrical switchgear, cabling etc. shall be supplied as stated in the project specification. The design of the pump/motor set shall be of the non-overloading type to prevent failure of the motor should the delivery pipeline fail.

The duty required of the pump is described in terms of the system curves in this document and pumps supplied shall be capable of successfully performing under all conditions so indicated. As far as possible, standard component parts shall be used.

PSVC 3: MATERIALS AND WORKMANSHIP

The Contractor shall ensure that materials, seals, bearings and couplings are correctly chosen in compliance with the original design requirements. Where substitution to suit local (as opposed to overseas) conditions and availability of materials is required, the Engineer shall be advised in writing, together with the motivation for the substitution. The calculations and specifications for the original design and the proposed substitutions shall be made available to the Engineer.

PSVC 3.1: CASINGS:

Pump casings shall be of high-grade cast iron designed to be capable of pressures 40% greater than the shut off head of the pump.

PSVC 3.2: BEARINGS:

All bearings shall have a minimum design life given by a B10 rating of 30,000 hrs. Adequate attention to choose of bearings shall be made in respect of loading, thrust, mounting, thermal expansion and contraction, lubrication and the conditions under which the bearings will be operating.

PSVC 3.3: IMPELLERS:

Impellers shall be made of cast iron, cast steel zinc free bronze or stainless steel. For fractional kW pumps other materials may be considered but used only with the Engineer's approval. The impeller shall be securely fixed to the shaft with a key and keyway and blind nut.

PSVC 3.4: WEARING RINGS:

Where pumps are fitted with wearing rings to limit recirculation losses, they shall be machined to tolerances compatible with the solids content of the water to be pumped.

PSVC 3.5: SEALS:

Pumps shall be fitted with stuffing boxes rather than mechanical seals under most conditions for ease and simplicity of maintenance.

Seals shall be effective over the normal working range i.e., no flow static head to shut off head of pump. Leakage from glands shall be openly collected and suitably piped out of the pump station.

a). Stuffing Boxes:

Stuffing boxes shall be sized as to accommodate not less than four rings of packing plus the lantern ring and a portion of the gland. The lantern ring shall be served by both inlet and outlet connections. A renewable sleeve shall be fitted to the shaft where it passes through the stuffing box. A slinger shall be incorporated between the stuffing box and the bearings. The stuffing box shall be easily tightened, and removed for repacking.

b). Mechanical Seals:

Particular attention shall be paid to the selection of materials and design of the seal in relation to the conditions under which the pump is to operate.

PSVC 3.6: MOUNTINGS AND BASEPLATE:

The pump shall be suitably equipped with mounting points to facilitate location and fixing in position the pump to a baseplate or flange mounting. In mounting to the baseplate or frame, which shall also serve the prime mover and gearbox, facility shall be provided for setting up and alignment.

The baseplate shall be manufactured from steel and be of sufficient stiffness to ensure location and alignment within acceptable tolerances.

The baseplate shall be securely bolted to the floor or foundation block with at least M20 bolts, before final alignment and setting up of the pump/drive/motor.

PSVC 3.7: PIPE WORK AND FITTINGS:

PSVC 3.7.1: General:

The pipework associated with the pumps shall be supplied and installed by the Contractor to ensure the proper functioning of the installation.

Where specified, all pipework, reflux valves, puddle flanges, bends and specials shall conform to the following:

SANS 509 and 546:	Cast iron and cast steel fittings.
SANS 719 and 720:	Mild steel pipes and fittings.
SANS 286, 721 and 946:	Asbestos cement pipes and fittings.
SANS 121:	Galvanized iron pipes and fittings.
SANS 966:	Un-plasticized polyvinyl chloride pipes and fittings.
SANS 533:	High density Polyethylene pipes and fittings.
BS 3605:	Stainless Steel.
SANS 664:	Sluice Valves.

The pipework shall be designed by the Contractor to suit the characteristics of the pumps supplied, and in addition shall be sized so that the velocity in the suction pipework shall not exceed 1,5 m/sec whilst the velocity in the delivery pipework shall not exceed 2,5 m/sec.

PSVC 3.7.2: Pipes:

The class of pipe selected shall be such as to provide a working pressure equal to the greater of:

- a). Maximum shut off head of the pumps, or
- b). The pressure given in the project specifications which allows for working head and pressure surges, or
- c). For cast iron pipes Class B - BS 2035.
- d). For spun cast iron Class B - BS 1211.
- e). For steel, Grade A, SANS 719/71, manufactured to dimensions given in BS 534/1966, minimum test pressure of 1,5 x a) or b) above, whichever is the greater, subject to a minimum wall thickness of 6 mm.

PSVC 3.7.3: Pipe Joints:

Generally, flanged joints are required. Where required for movement or assembly and maintenance requirements Viking Johnson couplings shall be used.

Flanges shall be manufactured in accordance with SANS 1123 as amended, and the pressure requirements of the adjacent pipework. Each joint shall be completely watertight under test and working conditions.

PSVC 3.7.4: Valves:

Each pump shall be fitted with an isolating valve on both the suction and delivery pipes, and a non-return valve shall be installed adjacent to the pump on the delivery side.

PSVC 3.7.5: Gate Valves:

Gate valves shall be manufactured to the requirements of SANS 665. All valves shall close on clockwise rotation of the hand-wheel. The hand-wheel shall be clearly and permanently marked with "open" and "shut" with arrows indicating the direction of rotation. All valves shall be capable of being opened and closed by one man against the maximum differential pressure.

PSVC 3.7.6: Butterfly Valves:

Butterfly valves may be used only on "clear water" i.e., water containing no particles or stringy matter which would affect the operation of the valves.

All valves shall be capable of being opened and closed by one man against maximum differential pressure.

PSVC 3.7.7: Non-return valves:

Non-return valves shall be suitable for use in either horizontal or vertical mounting. They shall be so designed and manufactured so as to provide satisfactory operation under the conditions of service envisaged and under zero flow conditions. Access to moving parts shall be possible without the need to remove the body from the line.

PSVC 3.8: PRESSURE GAUGES:

Each pump shall be fitted with suitable pressure gauges on both the suction side and the delivery side of the pump. The gauges shall be permanently mounted in position and provided with an isolation valve.

Gauges shall be a diameter of not less than 100 mm and shall be calibrated to indicate at least 5%. An accuracy of within 1% or better is required.



CAPRICORN DISTRICT MUNICIPALITY

C6. OHS Specifications for construction projects

6.1. Specification

1. PREAMBLE

In terms of Construction Regulation 4(1)(a) of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), the Capricorn District Municipality, as the Client, shall be responsible to prepare Health & Safety Specifications for any intended construction project and provide any Principal Contractor who is making a bid or appointed to perform construction work for the Client on its behalf with the same.

The Client's further duties are as described in The Act and the Regulations made there-under. The Principal Contractor shall be responsible for the Health & Safety Policy for the site in terms of Section 7 of the Act and in line with Construction Regulation 5 as well as the Health and Safety Plan for the project.

This 'Health and Safety Specifications' document is governed by the "Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), hereinafter referred to as 'The Act'. Notwithstanding this, cognisance should be taken of the fact that no single Act or its set of Regulations can be read in isolation. Furthermore, although the definition of Health and Safety Specifications stipulates 'a documented specification of all health and safety requirements pertaining to associated works on a construction site, so as to ensure the health and safety of persons', it is required that the entire scope of the Labour legislation, including the Basic Conditions of Employment Act be considered as part of the legal compliance system. With reference to this specification document this requirement is limited to all health, safety and environmental issues pertaining to the site of the project as referred to here-in. Despite the foregoing it is reiterated that environmental management shall receive due attention.

Due to the wide scope and definition of construction work, every construction activity and site will be different, and circumstances and conditions may change even on a daily basis. Therefore, due caution is to be taken by the Principal Contractor when drafting the Health and Safety Plan based on these Health and Safety Specifications. Prior to drafting the Health and Safety Plan, and in consideration of the information contained here-in, the contractor shall set up a Risk Assessment Program to identify and determine the scope and details of any risk associated with any hazard at the construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard. *This Risk Assessment and the steps identified will be the basis or point of departure for the Health and Safety Plan.* The Health and Safety Plan shall include documented 'Methods of Statement' (see definitions under Construction Regulations) detailing the key activities to be performed in order to reduce as far as practicable, the hazards identified in the Risk Assessment.

2. SCOPE OF HEALTH AND SAFETY SPECIFICATION

The Health and Safety Specifications pertaining to this project; cover the subjects contained in the index and is intended to outline the normal as well as any special requirements of the Client pertaining to the health and safety matters (including the environment) applicable to the project in question. These Specifications should be read in conjunction with the Act, the Construction Regulations and all other Regulations and Safety Standards which were or will be promulgated under the Act or incorporated into the Act and be in force or come into force during the effective duration of the project. The stipulations in this specification, as well as those contained in all other documentation pertaining to the project, including contract documentation and technical specifications shall not be interpreted, in any way whatsoever, to countermand

or nullify any stipulation of the Act, Regulations and Safety Standards which are promulgated under, or incorporated into the Act.

3. PURPOSE

The Client is obligated to implement measures to ensure the health and safety of all people and properties affected under its custodianship or contractual commitments, and is further obligated to monitor that these measures are structured and applied according to the requirements of these Health and Safety Specifications.

The purpose of this specification document is to provide the relevant Principal Contractor with any information other than the standard conditions pertaining to construction sites which might affect the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery; and to protect 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 during the carrying out of construction work for the Capricorn District Municipality. The Principal Contractor is to be briefed on the significant health and safety aspects of the project and to be provided with information and requirements on inter alia:

- a) Safety considerations affecting the site of the project and its environment;
- b) Health and safety aspects of the associated structures and equipment;
- c) Submissions on health and safety matters required from the Principal Contractor and,
- d) The Principal Contractor's health & safety plan.

To serve to ensure that the Principal Contractor is fully aware of what is expected from him/her with regard to the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and the Regulations made thereunder including the applicable safety standards, and in particular in terms of Section 8 of the Act.

To inform the Principal Contractor that the Occupational Health and Safety Act, 1993 (Act 85 of 1993) in its entirety shall apply to the contract to which this specification document applies. The Construction Regulations shall apply to any person involved in construction work pertaining to this project, as will the Act.

4. DEFINITIONS

"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 establish an advisory council for occupational health and safety; and to provide for matters connected therewith.

"Agent" –

means any person who acts as a representative for a client;

"Client" –

means any person for whom construction work is performed;

"Construction Work" is defined as any work in connection with –

- (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
- (b) the installation, erection, dismantling or maintenance of a fixed plant where such work includes the risk of a person falling;
- (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
- (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;

"Contractor" –

means an employer, as defined in Section 1 of the Act, who performs construction work and includes Principal Contractors;

“Health and Safety File” –

means a file, or other record in permanent form, containing the information required a contemplated in the regulations;

“Health and Safety Plan” –

means a documented plan which addresses hazards identified and includes safe work procedures to mitigate, reduce or control the hazards identified;

“Health and Safety Specification” –

means a documented specification of all health and safety requirements pertaining to the associated works on a construction site, so as to ensure the health and safety of persons;

“Method Statement” –

means a document detailing the key activities to be performed in order to reduce as reasonably as practicable the hazards identified in any risk assessment;

“Principal Contractor” –

means an employer, as defined in section 1 of the Act who performs construction work and is appointed by the client to be in overall control and management of a part of or the whole of a construction site;

“Risk Assessment” –

means a program to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard.

5. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

5.1 Structure and Organisation of OH&S Responsibilities

5.1.1. Overall Supervision and Responsibility for OH&S

-
- The Client and/or its Agent on its behalf to ensure that the Principal Contractor, appointed in terms of Construction Regulation 4(1)(c), implements and maintains the agreed and approved H&S Plan. Failure on the part of the Client or Agent to comply with this requirement will not relieve the Principal Contractor from any one or more of his/her duties under the Act and Regulations.

- The Chief Executive Officer of the Principal Contractor in terms of Section 16 (1) of the Act to ensure that the Employer (as defined in the Act) complies with the Act.
- All OH&S Act (85 /1993), Section 16 (2) appointee/s as detailed in his/her/their respective appointment forms to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that the reports are made available to the principal Contractor to become part of site records (Health & Safety File).
- The Construction Supervisor and Assistant Construction Supervisor/s appointed in terms of Construction Regulation 6 to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that the reports are made available to the principal Contractor to become part of site records (Health & Safety File).
- All Health and Safety Representatives (SHE-Reps) shall act and report as per Section 18 of the Act.

5.1.2. **Legal Appointments**

Several appointments or designations of responsible and /or competent people in specific areas of construction work are required by the Act and Regulations. The following competent appointments, where applicable, in terms of the Construction Regulations are required to ensure compliance to the Act, Regulations and Safety Standards.

Required appointments as per the Construction Regulations: -

Item	Regulation	Appointment	Responsible Person
1.	4(1)(c)	Principal contractor for each phase or project	Client
2.	5.(3)(b)	Contractor	Principal Contractor
3.	5(11)	Contractor	Contractor
4.	6(1)	Construction supervisor	Contractor
5.	6(2)	Construction supervisor sub-ordinates	Contractor
6.	6(6)	Construction Safety Officer	Contractor
7.	7(1)	Person to carry out risk assessment	Contractor
8.	7(4)	Trainer/Instructor	Contractor
9.	8(1)(a)	Fall protection planner	Contractor
10.	10 (a)	Formwork & support work supervisor	Contractor
11.	10(e) + (f)	Formwork & support work examiner	Contractor
12.	11(1)	Excavation supervisor	Contractor
13.	11(3)(b)(ii)(b)	Professional engineer or technologist	Contractor
14.	11(3)(k)	Explosives expert	Contractor
15.	12(1)	Supervisor demolition work	Contractor
16.	12(2) + (3)	Demolition expert	Contractor
17.	12(11)	Explosives expert	Contractor
18.	14(2)	Scaffold supervisor	Contractor

Item	Regulation	Appointment	Responsible Person
19.	15(1)	Suspended platform supervisor	Contractor
20.	15(2)(c)	Compliance plan developer	Contractor
21.	15(8)(c)	Suspended platform expert	Contractor
22.	15(13)	Outrigger expert	Contractor
23.	17(8)(a)	Material hoist inspector	Contractor
24.	18(1)	Batch plant supervisor	Contractor
25.	18(7)	Batch plant operator	Contractor
26.	19(2)(b)	Power tool expert	Contractor
27.	19.2 (g) (i)	Power tool controller	Contractor
28.	20(f)	Tower crane operator	Contractor
29.	21(1)(d)(i)	Construction vehicle and mobile plant operator	Contractor
30.	21(1)(j)	Construction vehicle and mobile plant inspector	Contractor
31.	22(d)	Temporary electrical installations inspector	Contractor
32.	22 (e)	Temporary electrical installations controller	Contractor
33.	26 (a)	Stacking and storage supervisor	Contractor
34.	27 (h)	Fire equipment inspector	Contractor

This list may be used as a reference or tool to determine which components of the Act and Regulations would be applicable to a particular site. This list must not be assumed to be exclusive or comprehensive.

5.2 Communication & Liaison

- 5.2.1 OH&S Liaison between the Employer, the Principal Contractor, the other Contractors, the Designer and other concerned parties shall be through the project Committee as per the procedures determined by the project Committee.
- 5.2.2 In addition to the above, communication may be directly to the Client or his appointed Agent, verbally or in writing, as and when the need arises.
- 5.2.3 Consultation with the workforce on OH&S matters will be through their Supervisors and H&S Representatives ('SHE – Reps')
- 5.2.4 The Principal Contractor will be responsible for the dissemination of all relevant OH&S information to the other Contractors e.g. design changes agreed with the Client and/or its Agent on its behalf and the Designer, instructions by the Client and/or his/her agent, exchange of information between Contractors, the reporting of hazardous/dangerous conditions/situations etc.

6. RESPONSIBILITIES

6.1 Client

- 6.1.1 The Client or his appointed Agent on his behalf will appoint each Principal Contractor for this project in writing for assuming the role of Principal Contractor as intended by the Construction Regulations and determined by the Bills of Quantities.

- 6.1.2 The Client or his appointed Agent on his behalf shall discuss and negotiate with the Principal Contractor the contents of the health and safety plan of the both Principal Contractor and Contractor for approval.
- 6.1.3 The Client or his appointed Agent on his behalf, will take reasonable steps to ensure that the health and safety plan of both the Principal Contractor and Contractor is implemented and maintained. The steps taken will include periodic audits at intervals of at least once every month.
- 6.1.4 The Client 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 health and safety plan; or
 - act 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, irrespective of him/them being employed or legitimately on the site of the works or in its vicinity.

6.2 **Principal Contractor**

- 6.2.1 The Principal Contractor shall accept the appointment under the terms and Conditions of Contract. The Principal Contractor shall sign and agree to those terms and conditions and shall, before commencing work, notify the Department of Labour of the intended construction work in terms of Regulation 3 of the Construction. The Principal Contractor shall submit the notification in writing prior to commencement of work and inform the Client or his Agent accordingly.
- 6.2.2 The Principal Contractor shall ensure that he is fully conversant with the requirements of this Specification and all relevant health and safety legislation. *This Specification is not intended to supersede the Act nor the Construction Regulations or any part of either.* Those sections of the Act and the Construction Regulations which apply to the scope of work to be performed by the Principal Contractor in terms of this contract will continue to be legally required of the Principal Contractor to comply with. The Principal Contractor will in no manner or means be absolved from the responsibility to comply with all applicable sections of the Act, the Construction Regulations or any Regulations proclaimed under the Act or which may perceivable be applicable to this contract.
- 6.2.3 The Principal Contractor shall provide and demonstrate to the Client a suitable and sufficiently documented health and safety plan based on this Specification, the Act and the Construction Regulations, which shall be applied from the date of commencement of and for the duration of execution of the works. This plan shall, as appendices, include the health and safety plans of all Sub-contractors for which he has to take responsibility in terms of this contract.
- 6.2.4 The Principal Contractor shall provide proof of his registration and good standing with the Compensation Fund or with a licensed compensation insurer prior to commencement with the works.

- 6.2.5 The Potential Principal Contractor shall, in submitting his tender, demonstrate that he has made provision for the cost of compliance with the specified health and safety requirements, the Act and Construction Regulations.
- 6.2.6 The Principal Contractor shall consistently demonstrate his competence and the adequacy of his resources to perform the duties imposed on the Principal Contractor in terms of this Specification, the Act and the Construction Regulations.
- 6.2.7 The Principal Contractor shall ensure that a copy of his health and safety plan is available on site and is presented upon request to the Client, an Inspector, Employee or Sub-contractor.
- 6.2.8 The Principal Contractor shall ensure that a health and safety file, which shall include all documentation required in terms of the provisions of this Specification, the Act and the Construction Regulations, is opened and kept on site and made available to the Client or Inspector upon request. Upon completion of the works, the Principal Contractor shall hand over a consolidated health and safety file to the Client.
- 6.2.9 The Principal Contractor shall, throughout execution of the contract, ensure that all conditions imposed on his Sub-contractors in terms of the Act and the Construction Regulations are complied with as if they were the Principal Contractor.
- 6.2.10 The Principal Contractor shall from time to time evaluate the relevance of the Health and Safety Plan and revise the same as required, following which revised plan shall be submitted to the Client and/or his/her Agent for approval.

7. SCOPE OF WORK

These specifications are applicable to the specific scope of work pertaining to the project as detailed in the tender documents. ***Refer to Project specification.***

8. HEALTH AND SAFETY FILE

The Principal Contractor must, in terms of Construction Regulation 5(7), keep a Health & Safety File on site at all times that must include all documentation required in terms of the Act and Regulations and must also include a list of all Contractors on site that are accountable to the Principal Contractor and the agreements between the parties and details of work being done.

The Health and Safety File will remain the property of the Client and/or its Agent on its behalf throughout the period of the project and shall be consolidated and handed over to the Client and/or its Agent on its behalf at the time of completion of the project.

The safety file shall contain the following documentations:

- Safety reports,
- Notification documents,
- Appointment letters,
- Records of incidents,
- Records of training,
- Records of safety meetings,
- Records of PPE provision,
- And any other document related to safety issues on site.

9. MONITORING AND REVIEWING OH&S PERFORMANCE

The Principal Contractor is required to maintain acceptable incident rate and report on this to the Client and/or its Agent on its behalf on a monthly basis. The frequency rates must reflect permanent disability, lost workdays, restricted workdays, medical treatment and first aid treatment.

10. HAZARD IDENTIFICATION AND RISK ASSESSMENT

The Principal Contractor is required to develop Risk Assessments, Standard Working Procedures (SWP) and Method Statements for each activity executed in the contract or project. The identification of hazards is over and above the hazards identification program and those hazards identified during the drafting of the Health and Safety Plan. Hazard identification should be conducted continuously over and above the baseline risk assessment.

11. ARRANGEMENTS FOR MONITORING AND REVIEW

11.1 Monthly Audit by Client

The Client and/or its Agent on its behalf will be conducting Periodic Audits at times agreed with the Principal Contractor Audit to comply with Construction Regulation 4(1)(d) to ensure that the principal Contractor has implemented, is adhering to and is maintaining the agreed and approved OH&S Plan.

11.2 Other audits and inspections

The Client and/or its Agent on its behalf reserves the right to conduct any other ad hoc audits and inspections as it and/or its Agent on its behalf deem necessary.

A representative of the Principal Contractor and the relevant Health and Safety Representative(s) (SHE-Reps) must accompany the Client and/or its Agent on its behalf on all Audits and Inspections and may conduct their own audit/inspection at the same time. Each party will, however, take responsibility for the results of his/her own audit/inspection results. The Client and/or its Agent on its behalf may require to be handed a copy of the minutes of the previous Health and Safety Committee meeting reflecting possible recommendations made by that committee to the Employer for reference purposes and any other health and safety related issues.

11.3 Reports

- 12.3.1 The Principal Contractor shall report all incidents where an employee is injured on duty to the extent that he/she dies, becomes unconscious, loses a limb or part of a limb, is injured or becomes ill to such a degree that he/she is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he/she was usually employed, or where a major incident occurred, the health or safety of any person was endangered, where a dangerous substance was spilled, the uncontrolled release of any substance under pressure took place, machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects, machinery ran out of control, to the Provincial Director of the Department of Labour within seven days and at the same time to the Client and/or its Agent on its behalf.
- 12.3.2 The Principal Contractor is required to provide the Client and/or its Agent on its behalf with copies of all statutory reports required in terms of the Act and the Regulations.
- 12.3.3 The Principal Contractor is required to provide the Client and/or its Agent on its behalf with a monthly "SHE Risk Management Report".
- 12.3.4 The Principal Contractor is required to provide the Client and/or its Agent on its behalf with copies of all internal and external accident/incident investigation reports. As soon as the occurrence of any accident/incident of whatever nature comes to the notice of the Principal Contractor, it shall be reported immediately to any of the following:

11.4 Review

The Principal Contractor is to review the Hazard Identification, Risk Assessments and Standard Work Processes at each Production Planning and Progress Report meeting as the construction work develops and progresses and each time changes are made to the designs, plans and construction methods and processes. The Principal Contractor must provide the Client and/or its Agent on its behalf, and all other concerned parties with copies of any changes, alterations or amendments

11.5 Site Safety Rules

11.5.1 Site OH&S Rules

The Principal Contractor must develop a set of site-specific OH&S rules that will be applied to regulate the Health and Safety Plan and associated aspects of the construction. When required for a site by law, visitors and non-employees upon entering the site shall be issued with the proper Personal Protective Equipment (PPE) as and when necessary.

11.5.2 Security Arrangements

The Principal Contractor must establish site access rules and implement and maintain these throughout the construction period. Access control must include the rule that non-employees shall at all times be provided with fulltime supervision while on site. The Principal Contractor must develop a set of Security rules and procedures and maintain these throughout the construction period.

If not already tasked to the H&S Officer appointed in terms of Construction Regulation 6(6), the Principal Contractor must appoint a competent Emergency Controller who must develop contingency plans for any emergency that may arise on site as indicated by the risk assessments. These must include a monthly practice/testing program for the plans

11.6 Training

The Principal Contractor shall ensure that all employees under the his or her control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the risk assessment.

The Principal Contractor shall ensure that all labourers are informed regarding any hazard as stipulated in the risk assessment before any work commences, and thereafter at such times as may be determined in the risk assessment.

The Principal Contractor shall ensure that as far as is reasonably practicable, ergonomic related hazards are analysed, evaluated and addressed in the risk assessment.

No Principal Contractor shall allow or permit any employee to enter any site, unless such person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.

The Principal Contractor shall ensure that all visitors to a construction site undergoes health and safety instruction pertaining to the hazards prevalent on the site and shall be provided with the necessary personal protective equipment: Provided that where visits are made only to the site office which is not in direct contact with the construction work activities, those health and safety instructions and the provision of personal protective equipment may not apply.

The contents and syllabi of all training required by the Act and Regulations including any other related or relevant training as required must be included in the Principal Contractor's Health and Safety Plan and Health and Safety File.

11.6.1 General Induction Training

The Principal contractor must ensure that the employees on site are conversant with the general health and safety requirements on site. All employees of the Principal and other Contractors must be in possession of proof of General Induction training.

11.6.2 Site Specific Induction Training

All employees of the Principal and other Contractors must be in possession of Site Specific Occupational Health and Safety Induction or other qualifying training.

11.6.3 Other Training

All operators, drivers and users of construction vehicles, mobile plant and other equipment must be in possession of valid proof of training. All employees in jobs requiring training in terms of the Act and Regulations must be in possession of valid proof of training as follows:

- General Induction (Section 8 of the Act)
- Site/Job Specific Induction (also visitors) (Sections 8 & 9 of the Act)

- Site/Project Manager
- Construction Supervisor
- OH&S Representatives (Section 18 (3) of the Act)
- Training of the Appointees indicated in 12.6.1 & 12.6.2 above
- Operation of Cranes (Driven Machinery Regulations 18 (11))
- Operators & Drivers of Construction Vehicles & Mobile Plant (Construction Regulation 21)
- Basic Fire Prevention & Protection (Environmental Regulations 9 and Construction Regulation 27)
- As a minimum basic First Aid to be upgraded when necessary (General Safety Regulations 3)
- Storekeeping Methods & Safe Stacking (Construction Regulation 26)
- Emergency, Security and Fire Coordinator

11.7 Accident and Incident Investigation

The Principal Contractor is responsible to oversee the investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she/they had to receive first aid or be referred for medical treatment by a doctor, hospital or clinic, (General Administrative Regulation 9). The Principal Contractor is responsible for the investigation of all non-injury incidents as described in Section 24 (1) (b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar incidents in future.

The Principal Contractor is responsible for the investigation of all road traffic accidents relating to the construction site and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future. Notwithstanding the requirements of Section 24 of the Act, ALL incidents shall be investigated and reported on in writing, irrespective of whether such incident gave rise to injury or damage.

11.8 H&S Representatives and H&S Committees

11.8.1 Designation of H&S Representatives

Where the Principal Contractor employs more than 20 persons (including the employees of other Contractors (sub-contractors) he has to appoint one H&S Representatives for every 20 employees or part thereof. (Section 17 of the Act and General Administrative Regulation 6. & 7.) H&S Representatives have to be designated in writing and the designation shall be in accordance with the Collective Agreement as concluded between the parties as is required in terms of General Administration Regulation 6.

11.8.2 Duties and Functions of the H&S Representatives

The Principal Contractor must ensure that the designated H&S Representatives conduct at least a weekly inspection of their respective areas of responsibility using a checklist and report thereon to the Principal Contractor, after which these reports shall be consolidated for submission to the Health and Safety Committee. H&S Representatives must be included in and be part of accident/incident investigations. H&S Representatives shall be members of at least one H&S Committee and must attend all meetings of that H&S committee.

11.8.3 Establishment of H&S Committee(s)

The Principal Contractor must establish H&S Committees consisting of designated H&S Representatives together with a number of Employers Representatives appointed as per Section 19(3) that are not allowed to exceed the number of H&S Representatives on the committee. The persons nominated by the employer on an H&S Committee must be designated in writing for such period as may be determined by the project period. The H&S Committee shall co-opt advisory (temporary) members and determine the procedures of the meetings including the chairmanship.

12. HOUSE KEEPING

Good housekeeping will be maintained at all times as per Construction Regulation No. 25. Poor housekeeping contributes to three major problems, namely, costly or increased accidents, fire or fire hazards and reduction in production. Good housekeeping will enhance production time.

Particular emphasis is to be placed on the following crucial elements of a construction site:

- Phase priorities and production/plant layout
- Enclosures
- Pits, openings and shoring
- Storage facilities
- Effective, sufficient and maintained lighting or illumination
- Principal sources of injuries e.g. stairways, runways, ramps, loose building material
- Oil, grease, water, waste, rubble, glass, storm water
- Colour coding
- Demarcations
- Pollution
- Waste disposal
- Ablution and hygiene facilities
- First aid disposals
- Hazardous chemical substances

This list must not be taken to be exclusive or exhaustive.

In promotion of environmental control all waste, rubble, scrap etc, will be disposed of at a registered dumping site and records will be maintained. Where it is found to be impractical to use a registered dump site or it is not available, the Principal Contractor will ensure that the matter is brought to record with the client or his representative, after which suitable, acceptable alternatives will be sought and applied. Dross and refuse from metals, and waste matters or by-products whose nature is such that they are poisonous or capable of fermentation, putrefaction or constituting a nuisance shall be treated or disposed of by methods approved of by an inspector.

13. OPERATIONAL CONTROL

The Principal Contractor shall take reasonable steps to ensure that necessary control measures are taken to promote safe working environment during all operational works. Routine safety inspections shall be carried out to ensure plant; machinery and tools are safe enough for employees to work with. Operational control measures shall be taken for the following activities and plant or machinery where applicable:

- Fall protection;
- Excavation work;
- Scaffolding;
- Mobile plants;
- Electrical installation and machinery; and
- Other associated activities.

14. SUB CONTRACTORS

The Principal Contractor shall ensure that agreements are entered into by all sub-contractors on site, and ensure that all sub-contractors are in compliance with the health and safety standards on site. Particulars of sub-contractors involved in specialised work such as blasting, concrete works and electrical installations must be submitted to the designers for approval and their safety plans submitted to the Client for approval.

15. OFFENCES AND PENALTIES

Any contractor, who does not comply with the requirements of the Act, will be penalised or punished as per Section 38 of the Act. The principal contractor must also note that the Client may stop the execution of construction work if it is not in accordance with the health and safety plan or if it poses a threat on the health and safety of employees and the public.



CAPRICORN DISTRICT MUNICIPALITY

C7. Site Information

7.1 General

This section describes the site at the time of the tender in order to enable the tenderer to price his tender accordingly and to decide upon his method of working, programming and risks.

The tenderer shall inform him / herself on the nature of the site and inspect the site.

The Employer will consider a tender only if the site inspection and/or tenderer's meeting arranged by the Engineer has been attended by a representative who must:

- Be suitably qualified to comprehend the implications of the work involved, and
- Be the tenderer him/herself or a person in the direct employ of the tenderer

7.2 Site location

The area is situated in the villages of Phasha approximately 56km North of Polokwane and is part of MOLEMOLE Local Municipality in the jurisdiction of Capricorn District Municipality of Limpopo Province with the following coordinates:

Village Name	Co - ordinates	
	Latitude (S)	Longitude (E)
PHASHA	23° 25'58"	29° 44'14"

Locality Details

- Province : Limpopo Province
- District : Capricorn District Municipality
- Municipality : Molemole Local Municipality

The climate is very dry with an average annual rainfall below 600mm. General vegetation cover consists of sparse grasses and thorn trees scattered over the site. With thin vegetation cover, the area is susceptible to flood damage caused by sheet flow during heavy rains.

7.3 Access to site and restrictions

Access to this village is through N1 towards Louis Trichardt Road (Polokwane to Phasha).

The construction sites are situated in the existing villages as mentioned in 6.2. These sites can be reached via existing streets/roads and Provincial Roads

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

made for the use of temporary haul roads and all relevant costs shall be deemed to be covered by the appropriate rates.

The Contractor must note that no additional payment will be made for the construction of temporary access roads to the construction site, borrow-areas or to the spoil sites, except for payment made under payment item A.8.3.2.2 of SANS 1200 A.

If the Contractor does not make use of existing streets for the hauling of materials to or from the site, he shall be held responsible to clear any spillage caused by his activities on or near the roads by whatever means necessary, within two (2) days after such spillage has occurred. No additional payment will be made for the clearance of spillage and all relevant costs will be deemed to be covered under the relevant items.

7.4 Existing services, servitudes and way leaves

All the known existing services are indicated on the drawings.

7.5 Security

The security of the Contractor's plant, employers, materials and site camp will be the Contractor's responsibility.

7.6 Nature of ground and subsoil conditions

The Contractor shall familiarize himself with the conditions on site.

The materials on site mainly consist of soft and hard material. The majority of excavation will be in weathered and hard granite.

Also refer to the Project Specification "*PS 4 : NATURE OF GROUND AND SUBSOIL CONDITIONS ON SITE*".



CAPRICORN DISTRICT MUNICIPALITY

C.8 DRAWINGS

The following drawings, for tender purposes only, form part of this contract.

<u>DRAWING No:</u>	<u>DESCRIPTION:</u>	<u>ISSUED FOR:</u>
VDP/RWS/25/C00	: Cover	Tender
VDP/RWS/25/G01	: General Notes	Tender
VDP/RWS/25/KP01	: Key Plan	Tender
VDP/RWS/25/LM01	: Locality Map	Tender
VDP/RWS/25/LP02	: Water Reticulation Layout	Tender
VDP/RWS/25/SD01	Typical ERF Connection	Tender
VDP/RWS/25/SD02	: Typical Detail for Pipeline Marker	Tender
VDP/RWS/25/SD03	: Valve Chambers	Tender
VDP/RWS/25/SD04	: Thrust Block	Tender
VDP/RWS/25/SD05	: Pipe Bedding	Tender
VDP/RWS/25/SD06	Nameboard	Tender
VDP/RWS/25/SD07	: Pump House	Tender

CAPRICORN DISTRICT MUNICIPALITY



CONTRACT NUMBER: INF-W06/2026/2027

PHASHA WATER SUPPLY CONTRACT B

BOOK OF DRAWINGS

PREPARED FOR:

SEPTEMBER 2026

PREPARED BY:



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LIST OF DRAWINGS

GENERAL

VDP/PWS/25/G01

LIST OF DRAWINGS

KEY PLAN

VDP/PWS/25/KP01

LAYOUT PLANS

VDP/PWS/25/LM01

VDP/PWS/25/WRL02

LOCALITY MAP

WATER RETICULATION LAYOUT

STANDARD DETAILS

VDP/PWS/25/SD01

VDP/PWS/25/SD02

VDP/PWS/25/SD03

VDP/PWS/25/SD04

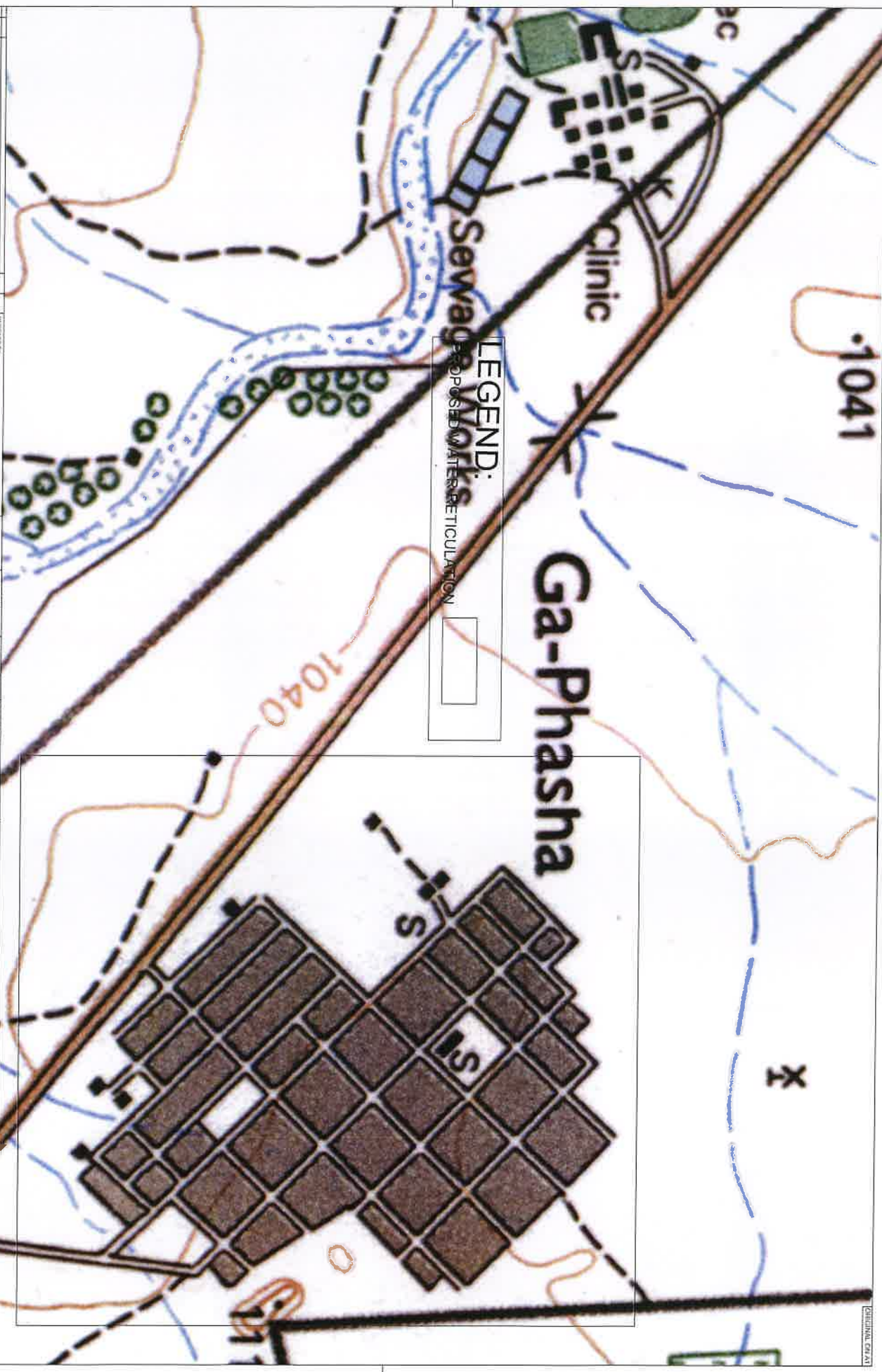
VDP/PWS/25/SD05

VDP/PWS/25/SD06

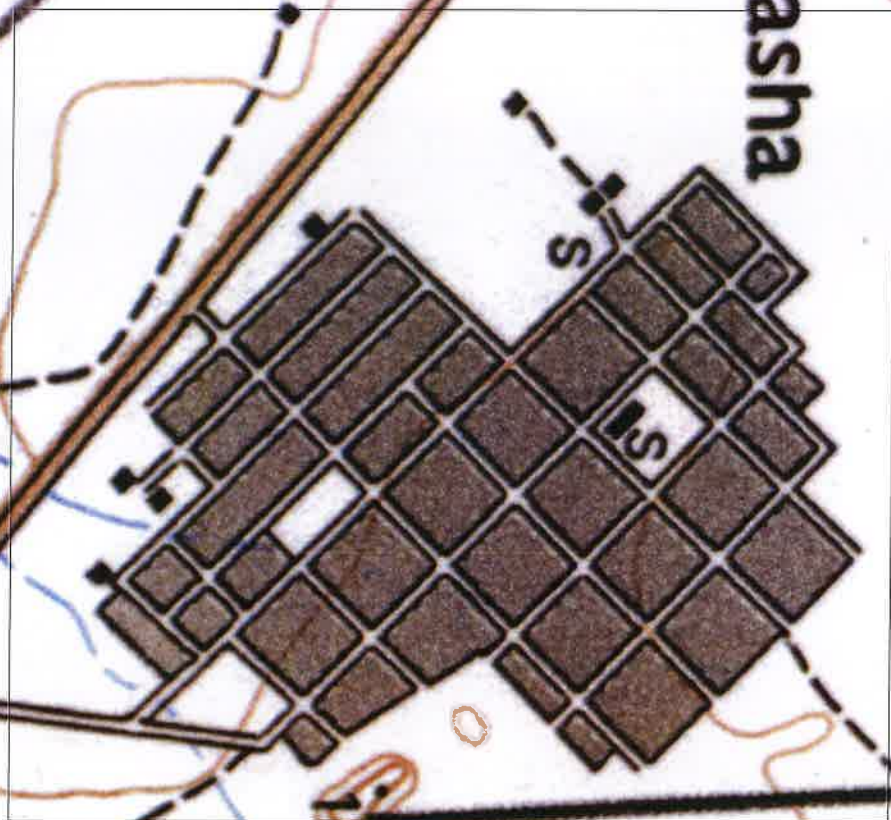
VDP/PWS/25/SD07

TYPICAL ERF CONNECTION
TYPICAL DETAILS FOR PIPELINE MARKERS AND BENCHMARKS
VALVE CHAMBER DETAILS
THRUST BLOCK
PIPE BEDDING DETAILS
NAME BOARD DETAILS
ROAD CROSSING DETAILS

[illegible]



LEGEND:
 PROPOSED WATER RETICULATION



		DEPARTMENT OF WATER AND SANITATION Water Development Project To provide water to the PHASHA DISTRICT MUNICIPALITY T.F. 01545/2002 P.A. 01545/2001		DATE 20/05/2010	
DESIGNER M. J. ... 10/05/2010		DATE 20/05/2010		SCALE 1:10,000	
PROJECT TITLE PHASHA WATER SUPPLY KEY PLAN		CONTRACT NO. ...		TYPE OF PLAN PLAN A	
PROJECT TITLE PHASHA WATER SUPPLY KEY PLAN		CONTRACT NO. ...		TYPE OF PLAN PLAN A	

NOTE:

1. ALL UNDERGROUND FITTINGS SHALL BE IN ACCORD TO TABLE (R600) SANS 11701 AND CORROSION PROTECTED
2. ALL UNDERGROUND STEEL FITTINGS SHALL BE TREATED WITH A PRIMER BASE COAT AND FINISHED WITH AN EPOXY BASED PAINT BACKED JAR AND PROTECTED WITH A PLASTIC SHEETING AS PER THE DIBNO 2A SPECIFICATION

LEGEND:

- PIPES**
- PROPOSED 100mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 150mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 200mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 300mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 400mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 500mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 600mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 800mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 1000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 1200mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 1500mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 2000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 2500mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 3000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 3500mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 4000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 4500mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 5000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 5500mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 6000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 6500mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 7000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 7500mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 8000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 8500mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 9000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 9500mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 10000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 11000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 12000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 13000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 14000mm Ø PVC CLASS 12 SABS 904
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 - PROPOSED 16000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 17000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 18000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 19000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 20000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 21000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 22000mm Ø PVC CLASS 12 SABS 904
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 - PROPOSED 72000mm Ø PVC CLASS 12 SABS 904
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 - PROPOSED 91000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 92000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 93000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 94000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 95000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 96000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 97000mm Ø PVC CLASS 12 SABS 904
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 - PROPOSED 99000mm Ø PVC CLASS 12 SABS 904
 - PROPOSED 100000mm Ø PVC CLASS 12 SABS 904

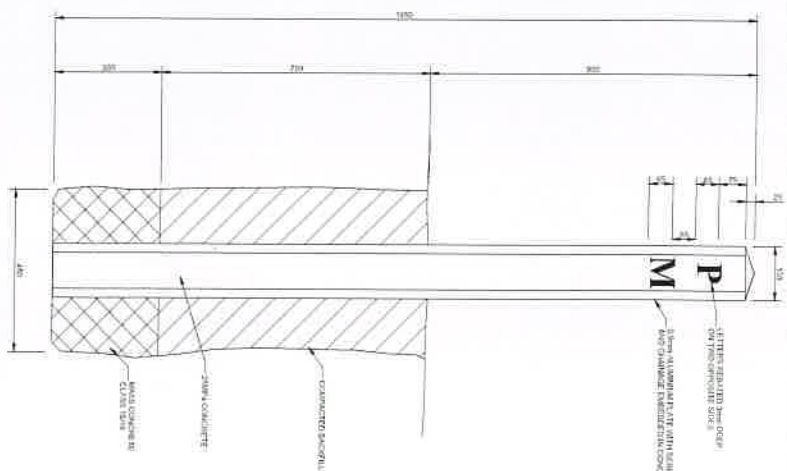
PROPOSED PIPE SIZES

PIPE SIZE (mm)	LENGTH (m)	QUANTITY
100	1000	100
150	1000	100
200	1000	100
300	1000	100
400	1000	100
500	1000	100
600	1000	100
800	1000	100
1000	1000	100
1200	1000	100
1500	1000	100
2000	1000	100
2500	1000	100
3000	1000	100
3500	1000	100
4000	1000	100
4500	1000	100
5000	1000	100
5500	1000	100
6000	1000	100
6500	1000	100
7000	1000	100
7500	1000	100
8000	1000	100
8500	1000	100
9000	1000	100
9500	1000	100
10000	1000	100

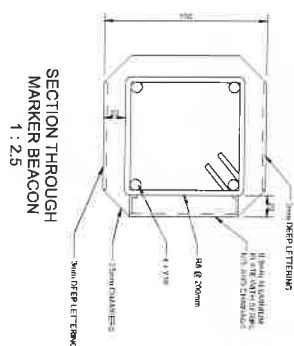
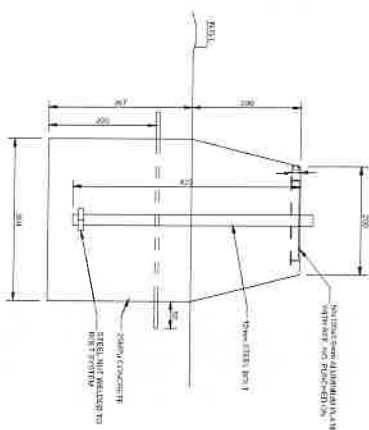


		PHASHA WATER SUPPLY WATER INFRASTRUCTURE PROJECT	
PROJECT TITLE PHASHA WATER SUPPLY		SCALE 1:10 000	
PROJECT NO. PHASHA/2024/001		DATE 15/05/2024	
PROJECT LOCATION PHASHA, EASTERN CAPE		PROJECT TYPE WATER INFRASTRUCTURE	
PROJECT DESCRIPTION Construction of a new water supply network for the Phasha area, including the installation of pipes, valves, and end caps.		PROJECT STATUS In Progress	
PROJECT TEAM Project Manager: [Name] Engineer: [Name] Designer: [Name]		PROJECT BUDGET R 1,500,000	
PROJECT RISK Low		PROJECT IMPACT Positive	
PROJECT SUSTAINABILITY High		PROJECT COMPLIANCE Yes	
PROJECT REVIEW Regular		PROJECT CLOSURE No	
PROJECT SIGNATURE [Signature]		PROJECT SEAL [Seal]	

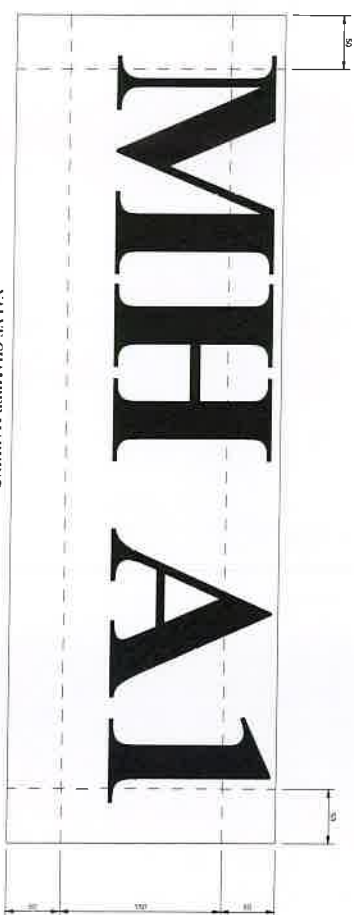
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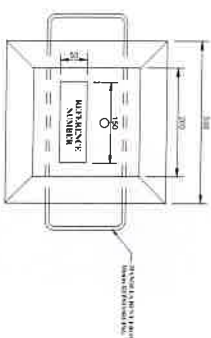
PIPELINE PRECAST CONCRETE
MARKER BEACON
1:75

SECTION THROUGH
MARKER BEACON
1:2.5

NOTE:
 1. PLEASE CLIPPING ANY MATERIAL FROM THIS MONTHLY LITIGATION AND REPORTS
 2. LETTERING SHOULD BE NUMBERED IN ORDER OF RECEIVING AND WITHIN
 3. BRIDGE ALL REPORTS SHOULD BE FOR THE PURPOSE OF LITIGATION OR REPORTING
 4. PLEASE DO NOT REPLY TO ANY REPORTS AND ALL INFORMATION SHOULD BE APPROVED BY



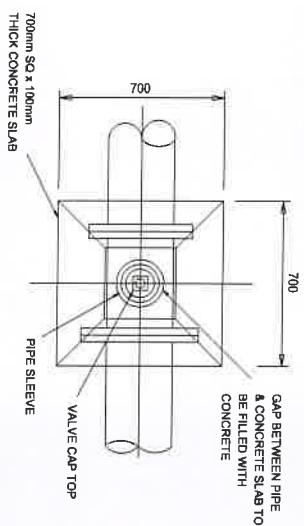
VALVE CHAMBER MARKING



COMBINED TRIANGULATION
BENCHMARK BEACON
1 : 5

[illegible]

SECTION: ISOLATING VALVE BOX



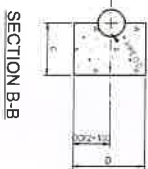
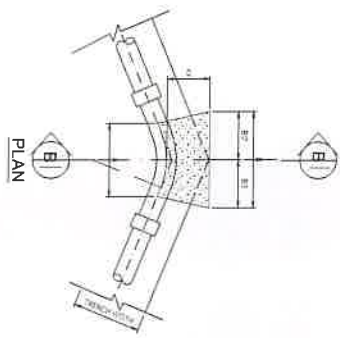
PLAN

VALVE BOX FOR 50-300ND FLANGED PIPEWORK

[illegible]

DIMENSIONS FOR PIPE BENDS

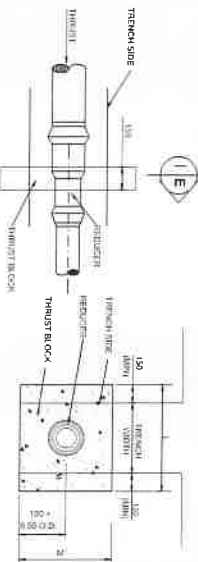
PIPE DIA	DEFLECTION ANGLE	OPERATING PRESSURE 0.1 - 0.9 MPa			
		A	B	C	D
50	11.25°	75	200	400	200
	22.5°	75	200	400	200
	45°	75	200	400	200
	67°	75	200	400	200
75	11.25°	90	250	500	250
	22.5°	90	250	500	250
	45°	90	250	500	250
	67°	90	250	500	250
100	11.25°	110	300	600	300
	22.5°	110	300	600	300
	45°	110	300	600	300
	67°	110	300	600	300
125	11.25°	130	350	700	350
	22.5°	130	350	700	350
	45°	130	350	700	350
	67°	130	350	700	350
150	11.25°	150	400	800	400
	22.5°	150	400	800	400
	45°	150	400	800	400
	67°	150	400	800	400
200	11.25°	200	500	1000	500
	22.5°	200	500	1000	500
	45°	200	500	1000	500
	67°	200	500	1000	500
250	11.25°	250	600	1200	600
	22.5°	250	600	1200	600
	45°	250	600	1200	600
	67°	250	600	1200	600



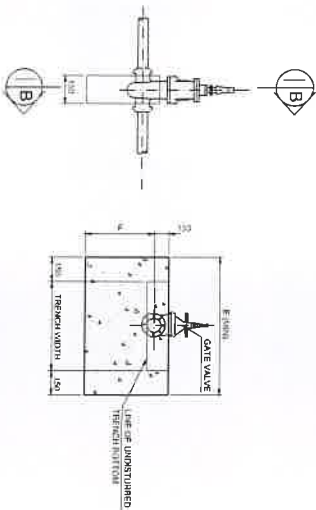
THRUST BLOCK DETAILS AT BENDS

DIMENSIONS FOR REDUCERS	
PIPE DIA	OPERATING PRESSURE 0.1 - 0.9 MPa
50	250
75	300
100	350
125	400
150	450
200	550
250	650

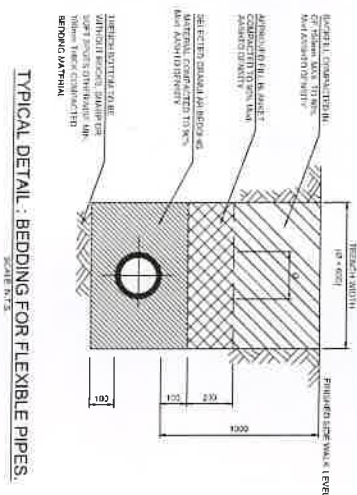
THRUST BLOCK DETAILS FOR REDUCERS



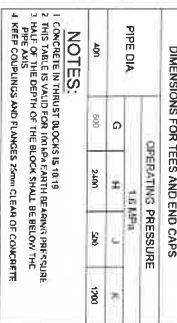
DIMENSIONS FOR VALVES	
PIPE DIA	OPERATING PRESSURE 0.1 - 0.9 MPa
50	125
75	150
100	180
125	210
150	240
200	300
250	360



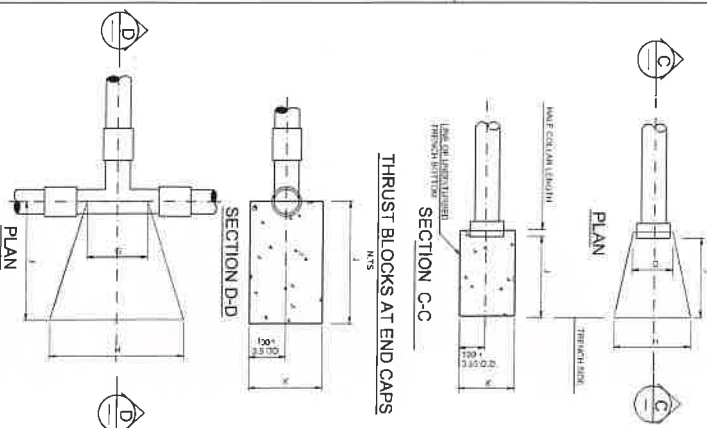
ANCHOR BLOCK DETAILS FOR VALVES



DIMENSIONS FOR TEES AND END CAPS	
PIPE DIA	OPERATING PRESSURE 0.1 - 0.9 MPa
50	200
75	250
100	300
125	350
150	400
200	500
250	600



THRUST BLOCKS AT END CAPS



THRUST BLOCK DETAILS AT TEE JUNCTIONS

N.T.S.



Phasha Water Supply
Project
Water Supply
Project

Client: CAPRICORN DISTRICT MUNICIPALITY
Project Title: PHASHA WATER SUPPLY
Drawing Title: THRUST BLOCK DETAILS

Scale: 1:100
Date: 15/05/2014
Drawn by: [Signature]
Checked by: [Signature]

Project Location: [Location]
Project Status: [Status]
Project Budget: [Budget]

Project Manager: [Name]
Project Engineer: [Name]
Project Designer: [Name]

Project Supervisor: [Name]
Project Assistant: [Name]
Project Clerk: [Name]

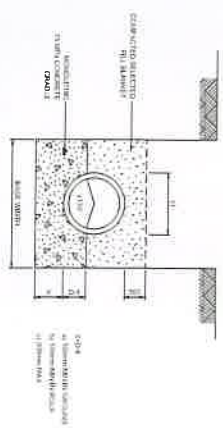
Project Accountant: [Name]
Project Administrator: [Name]
Project Secretary: [Name]

Project Receptionist: [Name]
Project Cleaner: [Name]
Project Gardener: [Name]

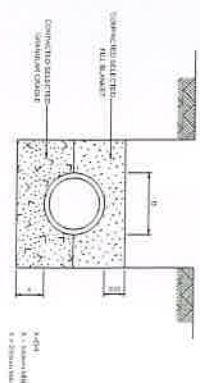
Project Security Guard: [Name]
Project Driver: [Name]
Project Porter: [Name]

Project Cook: [Name]
Project Nurse: [Name]
Project Doctor: [Name]

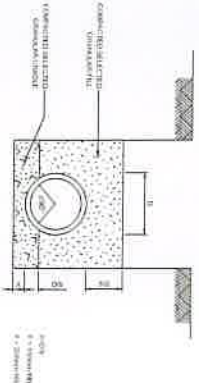
Project Lawyer: [Name]
Project Accountant: [Name]
Project Engineer: [Name]



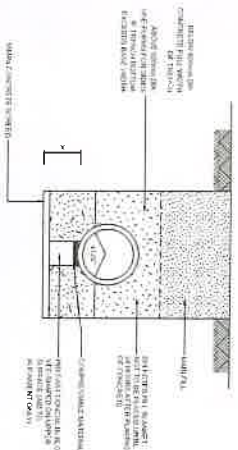
RIGID PIPE ON CLASS A BEDDING



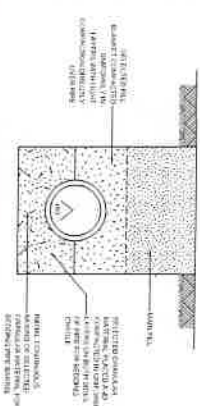
RIGID PIPE ON CLASS B BEDDING



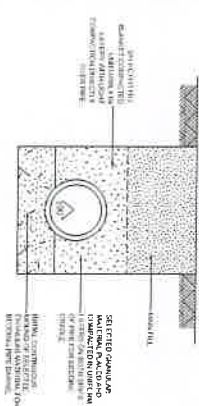
RIGID PIPE ON CLASS C BEDDING



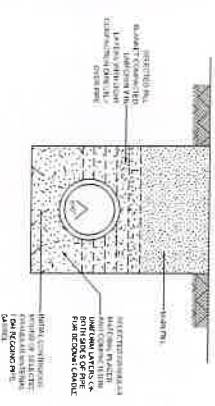
CONSTRUCTION OF RIGID PIPE ON CLASS A BEDDING



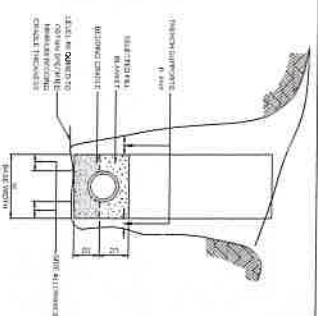
CONSTRUCTION OF RIGID PIPE ON CLASS B BEDDING



CONSTRUCTION OF RIGID PIPE ON CLASS C BEDDING

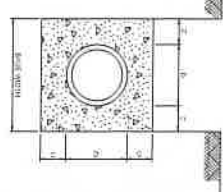


CONSTRUCTION METHOD OF PIPE BEDDING FOR FLEXIBLE METHOD OF PIPE BEDDING ON SELECTED GRANULAR MATERIAL

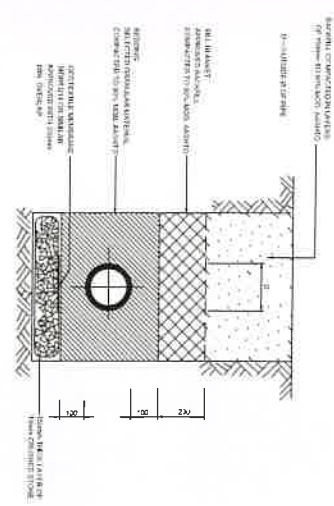


MEASUREMENT OF BEDDING

NOMINAL PIPE DIA (mm)	MIN. BEDDING THICKNESS (mm)
150mm	200
200mm	250
250mm	300
300mm	350



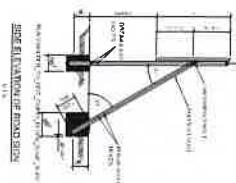
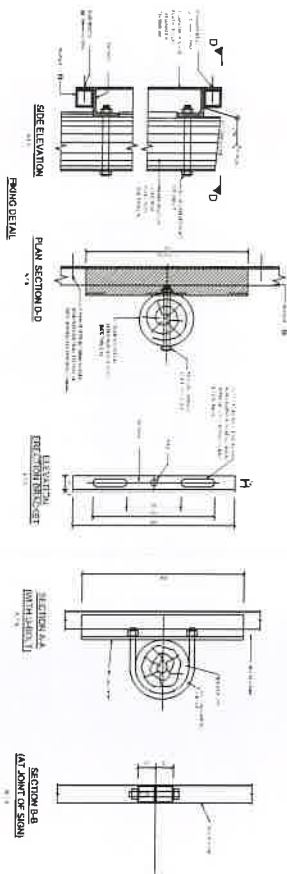
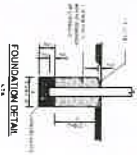
DETAIL OF CONCRETE ENCASEMENT



BEDDING FOR PIPE TRENCH DRAINAGE

[illegible]

TABLE 1				
FIVE-YEAR TRENDS				
Year	1980	1981	1982	1983
1. Total population	1,000,000	1,000,000	1,000,000	1,000,000
2. Total population aged 15 and over	700,000	700,000	700,000	700,000
3. Total population aged 15 and over, female	350,000	350,000	350,000	350,000
4. Total population aged 15 and over, female, 15-44 years	150,000	150,000	150,000	150,000
5. Total population aged 15 and over, female, 15-44 years, 15-24 years	75,000	75,000	75,000	75,000
6. Total population aged 15 and over, female, 15-44 years, 15-24 years, 15-24 years, 15-24 years	37,500	37,500	37,500	37,500

[illegible]

