



METSIMAHOLO LOCAL MUNICIPALITY

RE-ADVERT: CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO uPVC PIPES IN ZAMDELA TOWNSHIP

BID NO.: MLM 22/2021/22

CIDB GRADING: 4 CE OR HIGHER

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LIST OF CONTRACT DOCUMENTS

The following documents form part of this contract:

- Volume 1: The General Conditions of Contract for Construction Works, Third Edition (GCC 2015), published by the South African Institute of Civil Engineers, which the Tenderer shall purchase himself (see note 1 below).
- Volume 2: SANS 1200 The Standard Specifications for Civil Engineering Construction
- Volume 4: The Project Document containing the Tender Notice, Conditions of Tender, Tender Data, Returnable Schedules, Form of Offer, General and Particular Conditions of Contract, Pricing Schedule, Project Specifications and Site Information, issued by the Employer (see note 4 below). The Employer's Form of Acceptance and any correspondence from the selected Tenderer, performance security-demand guarantee, and all addenda issued during the period of tender will also form part of this volume once a Tenderer has been appointed.
- Volume 5: The civil/structural drawings

Notes to Tenderer

1. **Volume 1 is obtainable from SAICE, Private Bag X200, Halfway House, 1685.**
Tel: +27 11 805 5947 Fax: +27 11 805 5971, email: civilinfo@saice.org.za.
Website: <http://www.saice.org.za>
2. **Volume 2 is obtainable from SA Bureau of Standards Dr Lategan Road; Groenkloof; Pretoria; 0001. Private Bag X191, Pretoria, 0001.**
3. **Volume 4 is issued at tender stage as per tender advertisement. The pricing data is available on request in Excel format**
At contract stage Volume 4 will be a bound signed paper copy containing the following documents:
 - **Returnable schedules relevant to the project**
 - **Agreements and Contract Data**
 - **Pricing Data**
 - **Scope of Work**
 - **Site Information**
4. **SUBMISSION OF TENDER – Refer to clause F2 in the Tender Data**

Information provided by a Tenderer over and above the above elements of Volume 4 shall be treated as information only and will only be bound into the document if the tenderer notes on Form A4: Schedule of Variations or deviations that the information has a bearing on the tender price.

5. **For alternative offers, the Tenderer shall refer to clause F2.12 in the Tender Data**

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CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO uPVC PIPES IN ZAMDELA TOWNSHIP

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**CONSTRUCTION OF THE REFURBISHMENT OF
GALVANISED PIPES TO uPVC PIPES IN
ZAMDELA TOWNSHIP**

PART T1: TENDERING PROCEDURES

PART T2: RETURNABLE DOCUMENTS

T.1.1 TENDER NOTICE AND INVITATION TO TENDER



TENDER NOTICE

BID NO: MLM 22/2021/22

METSIMAHOLO LOCAL MUNICIPALITY invites tenders for the **CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC PIPES in ZAMDELA TOWNSHIP.**

Tenderers should have a CIDB Contractor grading designation of 4 **CE** or higher.

Bid documents will be available during working hours upon payment of R 250.00 at The Municipal Building, 10 Fichardt Street, Sasolburg. Documents can also be downloaded for the e-tender portal www.e-tenders.gov.za for free.

It is a pre-requisite that Bidders must be in good standing with SARS, have the requisite CIDB certificate, and must be registered on the Central Supplier Database (CSD).

The closing time and date for receipt of tenders is **08 March 2022, 11H00**. Bid documents, clearly marked **BID MLM 22/2021/22; RE-ADVERT: CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC PIPES in ZAMDELA TOWNSHIP** must be deposited in the bid box at the Municipal Building, 10 Fichardt Street, Sasolburg before the closing time. Bid documents will be opened in public soon after the closing time. Telegraphic, telephonic, telex, e-mail, facsimile and late tenders will not be accepted. Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

Service providers will be adjudicated according to the Supply Chain Management Policy using the 80/20 point system, based on the Preferential Procurement Policy Framework Act 5 of 2005 and MFMA, Act 56 of 2003 as well as the Broad-Based Black Economic Empowerment Act, Act 53 of 2003.

Queries relating to the issues of these documents may be addressed to:

Administrative:

Mr Sibusiso Bila

Tel No. +27 16 973 8487

E-mail: sibusiso.bila@metsimaholo.gov.za

Technical:

Mr Kevern Ramborosa

Tel No.+27 11 682 1247

E-mail: kevern@hcon.co.za

T1.2 CONDITIONS OF TENDER

T1.2 CONDITIONS OF TENDER

F.1 General

F.1.1 Actions

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

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

- Note:
- 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.
 - 2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

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

F.1.2 Tender Documents

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

F.1.3 Interpretation

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

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

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

- a) **conflict of interest** means any situation in which:
 - i) Someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
 - ii) an individual or organisation is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
 - iii) in compatibility or contradictory interests exist between an employee and the organisation which employs that employee.

- b) **comparative offer** means the tenderer's financial offer after all tendered parameters that will affect the value of the financial offer have been taken into consideration in order to enable comparisons to be made between offers on a comparative basis
- c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents, *or any official in the public service or in the employ of an Organ of State*, in the tender process; and
- d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels
- e) **organization** means a company, firm, enterprise, association or other legal entity, whether incorporated or not, or a public body
- f) **quality (functionality)** means the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs
- g) **tenderer** means any organisation who is represented by a duly authorised employee, partner, shareholder or director that responds to the Tender Notice by drawing tender documents
- h) **these conditions of tender** mean the Standard Conditions of Tender (as published and amended from time to time by the Construction Industry Development Board) and the employer's Special Conditions of Tender, the latter are demonstrated by appearing in italics.

F.1.4 Communication and employer's agent

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

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

F.1.5.1 The employer *does not bind itself to accept the lowest or any other tender, and may, in addition, accept or reject any variation, deviation, tender offer, or alternative tender offer, and may cancel the tender process and reject all tender offers at any time before the formation of a contract.* The employer shall not accept or incur any liability to a tenderer for such cancellation and rejection but will give written reasons for such action upon written request to do so.

F.1.5.2 The employer may not subsequent to the cancellation or abandonment of a tender process or the rejection of all responsive tender offers re-issue a tender covering substantially the same scope of work within a period of six months (*measured between the relevant closing dates of the abandoned tender and the re-issued tender*) unless only one tender was received and such tender was returned unopened to the tenderer, *or if there is agreement by the participating tenderers.*

F.2 Tenderer's obligations

F.2.1 Eligibility

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

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

F.2.2 Cost of tendering

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

F.2.3 Check documents

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

F.2.4 Confidentiality and copyright of documents

Treat as confidential, *regardless whether or not a tender offer is submitted*, all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

F.2.5 Reference documents

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

F.2.6 Acknowledge addenda

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

F.2.7 Clarification meeting

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

F.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five working days before the closing time stated in the tender data. *Any variation or deviation based on a point for which clarity should have been requested may render a tenderer's offer non-responsive in terms of F.3.8.*

F.2.9 Insurance

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

F.2.10 Pricing the tender offer

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

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

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

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

F.2.11 Alterations to documents

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

F.2.12 Alternative tender offers

F.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed. *Alternative tender offers shall not alter any contingency pay items provided in the tender documents or offer fixed prices (except where such are provided in the postulated pricing schedule) or a fixed price contract.*

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

F.2.12.3 *Qualify a tender offer (except that no qualifications shall be in conflict with F.2.8) but undertake to do so by submitting such qualification in terms of F.2.12.1 and F.2.12.2.*

F.2.13 Submitting a tender offer

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

F.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

F.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

F.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

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

F.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

F.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.

F.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

F.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

F.2.14 Information and data to be completed in all respects

Accept that tender offers, which do not provide all the data or information requested completely and, in the form, required, may be regarded by the employer as non-responsive.

F.2.15 Closing time

F.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

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

F.2.16 Tender offer validity

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

F.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

F.2.16.3 Accept that a tender submission that has been submitted to the employer may only be *modified, corrected*, withdrawn or substituted by giving the employer written notice before the closing time for tenders that a tender is to be *modified, corrected*, withdrawn or substituted.

F.2.16.4 Where a tender submission is to be substituted, submit a substitute tender in accordance with the requirements of F.2.13 with the packages clearly marked as "SUBSTITUTE".

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

F.2.17.1 Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors or *adjusting of imbalanced rates*, by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

F.2.17.2 *Accept that the employer may, at its sole discretion, accept a less favourable tender from those already received or invite fresh tenders if a tenderer, at any time after the opening of his tender offer but prior to the signing of a contract based on his tender offer:*

- a) *withdraws his tender; or*
- b) *gives notice of his inability to execute the contract in terms of his tender; or*
- c) *fails to sign a contract or furnish the performance security within the period fixed in the letter of award or any extended period fixed by the employer; or*
- d) *fails to comply with a request made in terms of F.2.17.1 or F.2.18.1,*

in which case such tenderer shall be automatically barred from tendering on any of the employer's future tenders for a period to be determined by the employer, but not less than twelve (12) months, from the date of tender closure. The employer may fully or partly exempt a tenderer from the provisions of this condition if he is of the opinion that the circumstances justify the exemption.

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

F.2.18 Provide other material

F.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment. Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive *and may invoke the same remedy as provided for under F.2.17.2.*

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

F.2.18.3 *Accept the employer's right, at its sole discretion, to appoint suitably qualified persons to report on the financial resources, standing with the South African Revenue Service regarding all taxes, management structure and ownership details of any tenderer and/or to verify the correctness of any information furnished to the employer in terms of F.2.17.1. Comply with the employer's request within the time stated in the request. Failure on the part of the tenderer to cooperate with such an inquiry shall entitle the employer to declare such tender offer as non-responsive and may invoke the same remedy as provided for under F.2.17.2.*

F.2.19 Inspections, tests and analysis

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

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

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

F.2.21 Check final draft

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

F.2.22 Return of other tender documents

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

F.2.23 Certificates

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

F.3 The employer's undertakings

F.3.1 Respond to requests from the tenderer

F.3.1.1 Unless otherwise stated in the tender data respond to a request for clarification received up to five working days before the tender closing time stated in the tender data and notify all tenderers who drew *tender* documents.

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

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

F.3.2 Issue Addenda

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

F.3.3 Return late tender offers

Return tender offers *withdrawn in terms of F.2.16.3* or received after the closing time stated in the tender data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

F.3.4 Opening of tender submissions

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

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

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

F.3.5 Two-envelope system

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

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

F.3.6 Non-disclosure

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

F.3.7 Grounds for rejection and disqualification

F.3.7.1 Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices. *In addition, any such disqualification shall entitle the employer, at its sole discretion, to impose a specified period during which tender offers will not be accepted from the offending tenderer.*

F.3.7.2 *Communicate to other state tender boards, provincial tender boards or parastatal tender boards any tenderer disqualified in terms of special condition F.3.7.1.*

F.3.7.3 *Consider rejecting any tender offers received from tenderers who are involved in any form of litigation or legal proceedings by or against the Employer.*

F.3.7.4 *Reject any offer from a tenderer who has not purchased the tender documents in his own name or in the name of a fellow member of a joint venture.*

F.3.7.5 *Reject any offer from a tenderer that contains information or data that is not in compliance with the minimum key staff qualification requirements.*

F.3.8 Test for responsiveness

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

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

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

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

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

F.3.9 Arithmetical errors, omissions, discrepancies and imbalanced unit rates

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

F.3.9.2 Check *responsive* tender offers for:

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

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

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

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line 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 unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall be corrected.
- c) *Where the unit rates are imbalanced request tenderers to amend and adjust any rates declared imbalanced by the employer while retaining the total of the prices derived after any adjustment made.*

F.3.9.5 Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of his arithmetical errors or amend/adjust an imbalanced unit rate in the manner described above.

F.3.10 Clarification of a tender offer

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

F.3.11 Evaluation of tender offers

F.3.11.1 General

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

F.3.11.2 Method 1: Financial offer

In the case of a financial offer:

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

F.3.11.3 Method 2: Financial offer and preference

In the case of a financial offer and preferences:

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

$$T_{EV} = N_{FO} + N_P$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

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

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

F.3.11.4 Method 3: Financial offer and quality

In the case of a financial offer and quality:

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

$$T_{EV} = N_{FO} + N_Q$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

N_Q is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

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

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

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

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

$$T_{EV} = N_{FO} + N_P + N_Q$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer made in accordance with F.3.11.7;

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

N_Q is the number of tender evaluation points awarded for quality offered in accordance with F.3.11.9.

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

F.3.11.6 Decimal places

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

F.3.11.7 Scoring Financial Offers

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

$$N_{FO} = W_1 \times A$$

where: N_{FO} is the number of tender evaluation points awarded for the financial offer.
 W_1 is the maximum possible number of tender evaluation points awarded for the financial offer as stated in the tender data.
 A is a number calculated using the formula and option described in Table F.1 as stated in the tender data.

Table F.1: Formulae for calculating the value of A

Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a
1	Highest price or discount	$A = (1 + \frac{(P - P_m)}{P_m})$	$A = P_m / P$
2	Lowest price or percentage commission / fee	$A = (1 - \frac{(P - P_m)}{P_m})$	$A = P_m / P$
P_m is the comparative offer of the most favourable comparative offer (excluding all Provisional and Prime Cost Sums and the associated VAT). P is the comparative offer of the tender offer under consideration (excluding all Provisional and Prime Cost Sums and the associated VAT).			

F.3.11.8 Scoring preferences

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

F.3.11.9 Scoring quality

Score each of the criteria and sub-criteria for quality in accordance with the provisions of the tender data.

Calculate the total number of tender evaluation points for quality using the following formula:

$$N_Q = W_2 \times S_O / M_S$$

where: S_O is the score for quality allocated to the submission under consideration;
 M_S is the maximum possible score for quality in respect of a submission; and
 W_2 is the maximum possible number of tender evaluation points awarded for the quality as stated in the tender data.

F.3.12 Insurance provided by the employer

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

F.3.13 Acceptance of tender offer

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

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

F.3.14 Prepare contract documents

F.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

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

F.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

F.3.15 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.3.16 Notice to unsuccessful tenderers

F.3.16.1 Notify the successful tenderer of the employer's acceptance of his tender offer by completing and returning one copy of the form of acceptance before the expiry of the validity period stated in the tender data, or agreed additional period.

F.3.16.2 After the successful tenderer has been notified of the employer's acceptance of the tender, notify other tenderers that their tender offers have not been accepted.

F.3.17 Provide copies of the contracts

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

F.3.18 Provide written reasons for actions taken

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

F.3.19 Delegation of authority

The Employer may delegate any power vested in him by virtue of these Conditions of Tender to an officer or employee of the Employer.

T1.3 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (May 2010) as published in Government Gazette No 33239, Board Notice 86 of 2010.

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

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

Sub-clause	Data
F.1.1	The Employer is Metsimaholo Local Municipality.
F.1.2	The Project Document issued by the Employer consists of the following: THE TENDER Part T1: Tendering procedures: T1.1 Tender notice and invitation to tender T1.2 Tender Data Part T2: Returnable documents T2.1 Returnable Schedules required for Tender Evaluation T2.2 Other Documents required for Tender Evaluation T2.3 Returnable Schedules that will be incorporated into the Contract THE CONTRACT Part C1: Agreements and contract data C1.1 Form of Offer and Acceptance C1.2 Agreement in terms of Occupation Health and Safety Act C1.3 Form of Guarantee C.1.4 Contract Data Part C2: Pricing data C2.1 Pricing instructions C2.2 Bills of quantities Part C3: Scope of work Part C4: Site information Drawings

Tender data contd.

Sub-clause	Data
F.1.3	The Tender Document is available upon payment of R 250.00 or can be downloaded free of charge from the e tender website.
F.1.4	Name: Hlanganani Engineers & Project Managers (Pty) Ltd Address: 28 Burnham Road, Mulbarton, 2061 Contact person: Mr Kevern Ramborosa Tel: +27 11 682 1247 Cell: +27 82 600 8604 E-mail: kevern@hcon.co.za
	Only those tenderers 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 4 CE or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for an 4 CE class of construction work, are eligible to have their tenders evaluated.
	a) Only those tenderers 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 4 CE or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for an 4 CE class of construction work, are eligible to have their tenders evaluated. - every member of the joint venture is registered with the CIDB; - 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 tendered for an 4 CE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

Tender data contd.

Sub- clause	Data
F.1.4	b) The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated: 1. contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) of 25(7A) of the Construction Industry Development Regulations, for an 4 CE class of construction work; and • the employer is satisfied that such a contractor has the potential to develop and qualify to be registered in that higher grade as determined in accordance with the provisions of the CIDB Specification for Social and Economic Deliverables in Construction Works Contracts; and • the employer agrees to provide the financial, management or other support that is considered appropriate to enable the contractor to successfully execute that contract.
F.2.1	Eligibility Only those tenderers who satisfy the following eligibility criteria and who provide the required evidence in their tender submissions are eligible to submit tenders and have their tenders evaluated: a) Only those tenderers 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 4 CE or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a 4 CE class of construction work, are eligible to have their tenders evaluated. Joint ventures are eligible to submit tenders provided that: - every member of the joint venture is registered with the CIDB; - 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 tendered for an 4 CE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

Tender data contd.

Sub-clause	Data
F.2.1	b) The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated: I. contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) of 25(7A) of the Construction Industry Development Regulations, for an 4 CE class of construction work; and - the employer is satisfied that such a contractor has the potential to develop and qualify to be registered in that higher grade as determined in accordance with the provisions of the CIDB Specification for Social and Economic Deliverables in Construction Works Contracts; and - the employer agrees to provide the financial, management or other support that is considered appropriate to enable the contractor to successfully execute that contract.
F.2.10	a) The Valued Added Tax (VAT) rate shall be 15% or as otherwise provided for by legislation. b) The successful Tenderer shall be required to produce a VAT invoice that shall only be prepared once measurements and valuations for work done in terms of the contract offer have been agreed with the Employers agent and a certificate of payment issued. Payment of VAT to previously non-VAT vendors shall be processed from the month in which the Tenderers liability with the South African Revenue Services is effective.
F.2.11	A Tender offer shall not be considered if alterations have been made to the forms of tender data or contract data (unless such alterations have been duly authenticated by the Tenderer) or if any particulars required therein have not been completed in all respects.
F.2.12	No alternative tender offers will be considered
F.2.13.1	The Tenderer may not make an offer for only part of the services as defined in the Scope of Work.

Tender data contd.

Sub-clause	Data
F.2.13.3	Parts of each tender offer communicated on paper shall be submitted as original, plus 0 copies. Under no circumstances whatsoever may the tender forms be retyped or redrafted.
F.2.13.5	The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package is: Municipal Building, 10 Fichardt Street, Sasolburg Location of tender box: As mentioned on the tender advertisement
F.2.15	The closing time for submission of Tender Offers is: 11H00 on 08 MARCH 2022 Telephonic, telegraphic, telex, electronic or emailed tenders will not be accepted.
F.2.16	The tender offer validity period is 90 days
F.2.23	Functionality Returnable • Completion certificates of similar projects • Plant Schedule and registrations • Key Staff / Personnel CV • Company Quality Management System

RETURNABLE DOCUMENTS

NO	RETURNABLES	NOTES
1	Form of Offer	• Fully completed and signed in black ink pen.
2	A copy of a CSD summary report OR CSD number.	• CSD full report or summary report OR CSD number. • Municipality may not make any award to a person whose tax matters are not complaint with SARS, please note that tax compliance will be verified before any award.
3	Proof of company registration documents with the Director's details must be attached.	• The company registration documents must indicate the company and Director's details.
4	Fully completed MBD forms	• Fully Completed and signed in hand writing and in black ink pen.
5	Fully completed Bill Of Quantity (BOQ)	• Fully completed in hand writing and in black ink pen
6	Joint Venture Agreement (Must indicate the lead partner, if the bidders grading is not the same the lead partner must have the higher grading)	• If applicable submit a complete and signed JV agreement. • JV agreement stating who the lead partner is with the shared percentages.

		Note: JV agreement must be as per CIDB regulation of 2008 regulation 25 (5)(a),(b) and (6)
NB! The following documents will not be accepted: for number 7, 8, and 9 Affidavits; Address confirmation letter; invoices from the body corporates or agents, rates and taxes of the lessor (without a lease agreement) and municipal tender / rates clearance letter.		
7	Latest Municipal rates and taxes account for the COMPANY AND DIRECTORS/TRUSTEES/MEMBERS/SHAREHOLDERS.	- Submit strictly February 2022 or March 2022 municipal rates & taxes statement must be attached - The submitted account must not be in arrears for more than 3 months. - In a case of Rates & Taxes Account being in a family member's name, ONLY MUNICIPAL Account where the address of the Account matches the address on the company registration documents will be accepted) if not in arrears for more than 3 months.
8	In the event of a tenant renting a lease agreement MUST be attached for the COMPANY AND DIRECTORS/TRUSTEES/MEMBERS/SHAREHOLDERS.	The lease agreement must include the following: - A valid copy of the lease agreement must be signed by (both Lessor and lessee). - The lease agreement must indicate dates of commencement and expiry or duration. - In a case where the lease agreement has expired and there is a clause indicating an automatic renewal the original lease agreement and a confirmation letter signed by Lessor must be attached. - In the occasion where the lease agreement has expired the original lease agreement AND extension must be attached with commencement and expiry dates or duration.
	<i>Note: If the company registration document's physical address on lease agreement or the municipal rates and taxes statement is the same as the Director's physical address we will accept for both Company & Director.</i>	
9	Municipal rates and taxes for bidders who are from the rural areas for the COMPANY AND DIRECTORS/TRUSTEES/MEMBERS/SHAREHOLDERS.	In the event that the bidder is from the rural area a letter from the municipality that the area is not liable to pay municipal rates and taxes OR a signed letter from the chief indicating that the bidder is from that particular rural/tribal area.
10	BBBE Certificate or Affidavit	Valid Certified copy of SANAS only accredited BBEE certificate OR valid copy of BBEE Sworn Affidavit must be attached. (Failure to submit Valid Certificate will result in your bid not being allocated Points for BBEE).

11	CIDB Grading	Copy of Company CIDB Grading designation 4 CE or Higher
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Failure to comply with the above mentioned terms and conditions will deem your bid to be disqualified.

Bidders must keep a copy of a completed excel spreadsheet BOQ which may be required during the evaluation processes

PROPOSED ALLOCATION OF POINTS IN TERMS OF FUNCTIONALITY

For the first round the functionality of the tender will be technically evaluated as envisaged below and in order to qualify for the second round of evaluation the tenders must score a minimum of 60 Percent.

Table 1: Technical Functionality

Functionality	75 Points
A. PROJECT EXPERIENCE AND PERFORMANCE	40
B. CONSTRUCTION PLANT	15
C. COMPANY KEY PERSONNEL	15
D. QUALITY MANAGEMENT SYSTEM	05
Total	75
Minimum Threshold	45

Table 2: Technical Functionality Point Allocation

Criteria	Evaluation Indicators	Points Allocated	Weight
A. PROJECT EXPERIENCE AND PERFORMANCE			MAX. 40 POINTS
Company experience with regards to Sewer/Water Pipe Replacement/ Upgrades projects	Required submission to claim points: 1. Project signed Appointment letter (letter must be within the past 10 years and the value of the project must be above R500 000.00) & corresponding reference letter or Completion certificate/ letter as a main contractor. 2. A minimum of one project must be submitted from a State/Government/ SOE. Non-submission of a state project will render any submission for experience as none responsive and Zero (00) point will be	20 points per project	Max 40 Points

	allocated for Company experience.		
B. CONSTRUCTION PLANT			MAX. 15 POINTS
TLB X 2	Vehicle Registration Certificates in a company or directors name/ Signed letter from Rental Company on rental company letterhead	5 points per TLB if owned 3 points per TLB if rented	Max 10 Points
Roller Compactor	Vehicle Registration Certificates in a company or directors name/ Signed letter from Rental Company on rental company letterhead	5 points	Max 5 points
C. COMPANY KEY PERSONNEL	NO CVS WILL BE CONSIDERED FOR POINT ALLOCATION. COMPLETE PAGE 30-32 TO CLAIM POINTS		MAX. 15 POINTS
Site Agent	Personnel 1- is required to attach a National Diploma qualification or higher in the Built environment and have project construction experience. NB: Fully complete and list all projects on the compulsory personnel form on page 30 To claim points	5 or More Projects= 5 Points 2 – 4 Projects= 3 Points	Max 5 points
Foreman	Personnel 2- is required to have projects construction experience in Water/ Sewer construction projects projects NB: Fully complete and list all projects on the compulsory personnel form on page 31 To claim points	5 or more Projects= 5 Points 2 – 4 Projects= 3 Points	Max 5 points
Safety Officer	Safety officer on permanent/contract basis, with First Aid plus OHS (Construction Regulations) qualification or related qualification with experience in construction projects of not less than two (2) projects. NB: Fully complete and list all projects on the compulsory personnel form on page 32 To claim points	2 Projects= 5 Points	Max 5 points
D. QUALITY MANAGEMENT SYSTEM			MAX 05 POINTS

QMS Methodology	Attach Company Quality Management system approved by QMS Officer/ company representative.	05 points	Max 05 Points
MINIMUM SCORE			45
TOTAL			75

In order to qualify for the second round of evaluation the tenders must score a minimum of 45 functionality points.

The recommended bidders company personnel and completed projects may be verified before appointments can be finalised. Misrepresentation of information will lead to the application of PPPFA 2017 (14) on the bidder.

Tender data contd.

Sub-clause	Data
F.3.13	Acceptance of Tender Offer
F.3.13.1	Tender offers will only be accepted if: a) the tenderer is registered on the Central Supplier Database (CSD) for the South African government (see https://secure.csd.gov.za/) b) the tenderer is in good standing with SARS according to the Central Supplier Database; c) the tenderer submits a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in Part C1.3 of this procurement document d) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation; e) the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; f) the tenderer 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; g) the tenderer has completed the Compulsory Declaration and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process; h) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer; i) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.
F.3.17	The number of paper copies of signed contract to be provided by the Engineer is one (1).

SCHEDULE G: TENDERERS' KEY PERSONNEL

SITE AGENT

NB: Attach: Copy of qualification (Failure to fully complete will lead to no point scoring for functionality)

Name & Surname	ID/Passport Number	Highest Qualification	Employer & Contact reference No.	Project	Project Duration (Year)

FOREMAN**NB: Attach: Copy of qualification** (Failure to fully complete will lead to no point scoring for functionality)

Name & Surname	ID/Passport Number	Highest Qualification	Employer & Contact reference No.	Project	Project Duration (Year)

SAFETY OFFICER**NB: Attach copy of qualification** (Failure to fully complete will lead to no point scoring for functionality)

Name & Surname	ID/Passport Number	Highest Qualification	Employer & Contact reference No.	Project	Project Duration (Year)



METSIMAHOLO LOCAL MUNICIPALITY

BID NO: MLM 22/2021/22

**CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC PIPES
IN ZAMDELA TOWNSHIP**

PART T2 : RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

The Tender Document must be submitted as a whole. All forms must be properly completed as required, and the document shall not be taken apart or altered in any way whatsoever.

All the certificates and forms to be provided with the tender are listed in the Tender Data under F2.23: Certificates, and under the returnable schedules and forms in T2.2 hereafter.

The list of returnable documents comprises the following:

1. All the certificates listed in the Tender Data under F2.23: Certificates;
2. All the returnable schedules and forms listed in T2.2.1: Returnable Schedules Required for Tender Evaluation Purposes;
3. All the returnable documents listed in T2.2.2: Preferential Procurement Schedules and Affidavits that will be incorporated into the Contract;
4. All the agreements and forms listed in T2.2.3: Forms to be completed by Successful Tenderer;
5. All the forms and agreements in the Contract Data in C1.2, where some of the forms (agreements) need to be completed only by successful Tenderer;
6. Pricing Data in C2.2: Bill of Quantities.

T2.2 RETURNABLE SCHEDULES

NOTE: The Tenderer is required to complete each and every schedule and form listed above to the best of his ability, as the evaluation of tenders and the eventual contract will be based on the information provided by the Tenderer. Failure of a Tenderer to complete the schedules and forms to the satisfaction of the Employer will inevitably prejudice the tender and may lead to rejection on the grounds that the tender is not responsive.

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PART A

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE METSIMAHOLO LOCAL MUNICIPALITY					
BID NUMBER:	MLM 22/2021/22	CLOSING DATE:	08 MARCH 2022	CLOSING TIME:	11H00
DESCRIPTION	CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC PIPES IN ZAMDELA TOWNSHIP				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT (MBD7).					
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN BOX SITUATED AT (<i>STREET ADDRESS</i>)					
Metsimaholo Local Municipality					
No 1 Fichardt Street					
Finance Building					
Ground Floor					
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	☐ Yes ☐ No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT		☐ Yes ☐ No

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]			
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES, ANSWER PART B:3]
TOTAL NUMBER OF ITEMS OFFERED		N/A	N/A
SIGNATURE OF BIDDER		DATE	
CAPACITY UNDER WHICH THIS BID IS SIGNED			
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		TECHNICAL INFORMATION MAY BE DIRECTED TO:	
DEPARTMENT		CONTACT PERSON	MR S BILA
CONTACT PERSON		TELEPHONE NUMBER	016 973 8487
TELEPHONE NUMBER		FACSIMILE NUMBER	
FACSIMILE NUMBER		E-MAIL ADDRESS	
E-MAIL ADDRESS			

PART B

TERMS AND CONDITIONS FOR BIDDING

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

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

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

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:

DATE:

DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state¹.
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

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

- 3.1 Full Name of bidder or his or her representative:
- 3.2 Identity Number:
- 3.3 Position occupied in the Company (director, trustee, hareholder²):
- 3.4 Company Registration Number:
- 3.5 Tax Reference Number:
- 3.6 VAT Registration Number:
- 3.7 The names of all directors / trustees / shareholders / members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.
- 3.8 Are you presently in the service of the state? YES / NO
- 3.8.1 If yes, furnish particulars.
.....

¹MSCM Regulations: "in the service of the state" means to be –

- (a) a member of –
 - (i) any municipal council;
 - (ii) any provincial legislature; or
 - (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) an employee of Parliament or a provincial legislature.

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

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

3.9.1 If yes, furnish particulars.....

.....

3.10 Do you have any relationship (family, friend, other) with persons?

in the service of the state and who may be involved with

the evaluation and or adjudication of this bid? YES / NO

3.10.1 If yes, furnish particulars.

.....

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

3.11.1 If yes, furnish particulars

.....
.....

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

3.12.1 If yes, furnish particulars.

.....
.....

3.13 Are any spouse, child or parent of the company's directors, trustees, managers,
principle shareholders or stakeholders in service of the state?

YES / NO

3.13.1 If yes, furnish particulars.

.....
.....

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract.

YES / NO

3.14.1 If yes, furnish particulars:

.....

Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	State Number	Employee

.....
Signature

.....
Date

.....
Capacity

.....
Name of Bidder

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2017

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

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

1. GENERAL CONDITIONS

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

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

1.2

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

1.3 Points for this bid shall be awarded for:

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

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

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

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

1.6 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any

time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

2. DEFINITIONS

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

3. POINTS AWARDED FOR PRICE

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

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

80/20 or 90/10

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

Where

P_s = Points scored for price of bid under consideration

P_t = Price of bid under consideration

Pmin = Price of lowest acceptable bid

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

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

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

5. BID DECLARATION

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

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

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

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

7. SUB-CONTRACTING

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

(Tick applicable box)

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

- 7.1.1 If yes, indicate:

- What percentage of the contract will be subcontracted.....%?
- The name of the sub-contractor.....
- The B-BBEE status level of the sub-contractor.....
- Whether the sub-contractor is an EME or QSE

(Tick applicable box)

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

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

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

8. DECLARATION WITH REGARD TO COMPANY/FIRM

8.1 Name of company/firm:

8.2 VAT registration number:

8.3 Company registration number:

8.4 TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

.....
.....
8.6 COMPANY CLASSIFICATION

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

[TICK APPLICABLE BOX]

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

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

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

WITNESSES

- 1.
- 2.

.....
SIGNATURE(S) OF BIDDERS(S)

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. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

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

MBD 9

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

MBD 9

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.**

MBD 9

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

SCHEDULE B: RECORD OF ADDENDA TO TENDER DOCUMENTS

I / We confirm that the following communication/s, amending the tender documents, received from the Employer or his representative before the closing date for submission of this tender offer, have been taken into account in this tender offer.

ADD. No	DATE	TITLE OR DETAILS
1		
2		
3		
4		
5		
6		
7		
8		

SIGNATURE:

SCHEDULE C: CERTIFICATE OF AUTHORITY

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

(I) COMPANY	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) JOINT VENTURE	(V) SOLE PROPRIETOR

(i) CERTIFICATE FOR COMPANY

I,, Managing Director of the Board of Directors of, hereby confirm that by resolution of the Board (copy attached) taken on 20....., Mr/Ms, acting in the capacity of, was authorized to sign all documents in connection with this tender and any contract resulting from it, on behalf of the company.

Managing Director:

(ii) CERTIFICATE FOR CLOSE CORPORATION

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

.....
hereby authorise Mr/Ms, acting in the capacity of, to sign all documents in connection with this tender and any contract resulting from it, on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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

(iii) CERTIFICATE FOR PARTNERSHIP

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

.....

hereby authorize Mr/Ms acting in the capacity of
....., to sign all documents in connection with this
tender and any contract resulting from it, on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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

(iv) CERTIFICATE FOR JOINT VENTURE

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorize Mr/Ms
....., authorized signatory of the company,
....., acting in the capacity of lead partner, to sign all
documents in connection with this tender offer and any contract resulting from it, on our behalf. This
authorization is evidenced by the attached power of attorney signed by legally authorized signatories of
all the partners to the Joint Venture.

NAME OF FIRM	ADDRESS	AUTHORIZING SIGNATURE, NAME AND CAPACITY
(Lead partner)		

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

(v) CERTIFICATE FOR SOLE PROPRIETOR

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

Signature of Sole owner:

REGISTRATION CERTIFICATE / AGREEMENT / ID DOCUMENT***Important note to Tenderer:***

Registration Certificates for Companies, Close Corporations and Partnerships, or Agreements and Powers of Attorney for Joint Ventures, or ID documents for Sole Proprietors, all as referred to in the foregoing forms and in T2.1, must form part of this submission either separately as separate bunch of supporting documents or at the end of the this bid document and must be properly referenced.

SCHEDULE D: COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. **In the case of a Joint Venture, separate enterprise questionnaires in respect of each partner must be completed and submitted. The questionnaires for the other partners must be inserted after this questionnaire.**

Section 1: Name of enterprise:

Section 2: VAT registration number:

Section 3: CIDB registration number:.....

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record of service of the state

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

- | | |
|--|---|
| ☐ a member of any municipal council | ☐ an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| ☐ a member of any provincial legislature | |
| ☐ a member of the National Assembly or the National Council of Province | ☐ a member of an accounting authority of any national or provincial public entity |
| ☐ a member of the board of directors of any municipal entity | ☐ an employee of Parliament or a provincial legislature |
| ☐ an official of any municipality or municipal entity | |

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

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

Insert separate page if necessary

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

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

- | | |
|--|---|
| ☐ a member of any municipal council | ☐ an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999) |
| ☐ a member of any provincial legislature | |
| ☐ a member of the National Assembly or the National Council of Province | |
| ☐ a member of the board of directors of any municipal entity | ☐ a member of an accounting authority of any national or provincial public entity |
| ☐ an official of any municipality or municipal entity | ☐ an employee of Parliament or a provincial legislature |

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

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

Insert separate page if necessary

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

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

Signed Date

Name Position

Enterprise
Name



METSIMAHOLO LOCAL MUNICIPALITY

BID NO: MLM 22/2021/22

**CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC
PIPES IN ZAMDELA TOWNSHIP**

THE CONTRACT

PART C1 : AGREEMENTS AND CONTRACT DATA
PART C2 : PRICING DATA
PART C3 : SCOPE OF WORK
PART C4 : SITE INFORMATION

PART C1: AGREEMENTS AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE

OFFER

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

BID NUMBER MLM 22/2021/22: CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC PIPES IN ZAMDELA TOWNSHIP

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

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

The offered total of the prices inclusive of Value Added Tax is:

R

(In words)

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

Signature:(of person authorized to sign the tender):

Name: (of signatory in capitals):

Capacity: (of Signatory):.....

Name of Tenderer:
(organisation):.....

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

Telephone number: Fax number:

Cell phone number:

Witness:

Signature:

Name: (in capitals):

Date:

ACCEPTANCE

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

The terms of the contract are contained in

Part 1 Agreement and Contract Data, (which includes this Agreement)

Part 2 Pricing Data, including the Bill of Quantities

Part 3 Scope of Work

Part 4 Site Information

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

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

The Tenderer shall deliver the Guarantee in terms of Clause 7 of the General Conditions of Contract 2004 within the period stated in the Contract Data, and he shall, immediately 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 other bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data, within 14 days of the date on which this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives the fully completed original of this document, including the Schedule of Deviations (if any). Unless the Tenderer (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:

Name:

Capacity: Municipal Manager

For: METSIMAHOLO LOCAL MUNICIPALITY
10 FICHARDT STREET, SASOLBURG, 4800

Witness:Name:

Date:

SCHEDULE OF DEVIATIONS

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

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

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

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

1. Subject:

Details:

2. Subject:

Details:

3. Subject:

Details:

4. Subject:

Details:

5. Subject:

Details:

6. Subject:

Details:

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

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

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

FOR THE TENDERER:**Signature:****Name:****Capacity:****Witness:..****Name:****Date:****FOR THE EMPLOYER:****Signature:****Name:****Capacity:****Witness:..****Name:****Date:**

C1.2 CONTRACT DATA

C1.2.1 CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT

This Contract will be based on the "General Conditions of Contract for Construction Works –Third Edition 2015, Third print", issued by the South African Institution of Civil Engineering. (Short title: "General Conditions of Contract 2015").

It is agreed that the only variations from the General Conditions of Contract 2015 are those set out hereafter under "Contract Specific Conditions".

CONTRACT SPECIFIC CONDITIONS

1. GENERAL

These Contract Specific Conditions (CSC) form an integral part of the Contract. The Contract Specific Conditions shall amplify, modify or supersede, as the case may be, the General Conditions of Contract 2015 to the extent specified below, and shall take precedence and shall govern.

The clauses of the Special Conditions hereafter are numbered "CSC" followed in each case by the number of the applicable clause or sub-clause in the General Conditions of Contract 2015, and the applicable heading, or (where a new special condition that has no relation to the existing clauses is introduced) by a number that follows after the last clause number in the General Conditions, and an appropriate heading.

2. AMENDMENTS TO THE GENERAL CONDITIONS OF CONTRACT

CSC 1.1.25 DEFINITIONS, INTERPRETATIONS AND GENERAL PROVISIONS

Add the following definitions:

"Labour-based Construction" means the effective employment of appropriate technologies and labour-intensive construction methods on projects specifically designed to maximize the workforce with limited use of machines.

"Community" shall mean all persons deemed to reside in the immediate vicinity of the project.

CSC1.10 Add the following Sub-Clause 1.10:

Training will be provided by the employer through various training providers. Training will be theoretical and practical and will be conducted in class rooms and on site. No separate payment of any nature will be made to the contractor for attendance of training sessions by the contractor or the contractor's staff. The Construction Project Manager will program and manage all training to ensure limited disruption to the contractors and the overall project.

CSC 2.3 Specific Approval of the Employer required

The Engineer has to obtain specific approval or consent from the Employer for the decisions in the following clauses:

Clauses 6.2, 6.6, 3.2.1, 3.2.4, 4.7, 8.2.2.2, 6.3.2, 6.4.1.4, 5.8.1, 5.11.1, 5.11.3, 6.6.1, 2.2.3, 6.10, 6.11, 5.14.1, 5.16.1, 7.8.2.2, 5.7.3 and 7.8.2.

CSC 4.5 Compliance with applicable laws

CSC 4.5.2 Health and Safety

Add the following:

"The Occupational Health and Safety Act No. 85 and Amendment Act No 181 of 1993 and the Construction Regulations 2003 will in all respects be applicable to this contract."

CSC 5.3.1 Commencement of the Works

Delete the entirety of Clauses 5.3.1 and 5.3.2 and replace them with the following:

“SCC 5.3.1 Commencement of the Works

Upon the Employer's Agent's instruction, the Contractor shall, save as may be otherwise provided in the Contract, or be legally or physically impossible, commence carrying out the Works. Such instruction shall be provided not later than 14 days after the Commencement Date. Such instruction shall be subject to:

SCC 5.3.1.1 The timely submission by the Contractor, and approval by the Employer's Agent, of documentation required before commencing to carry out the Works and before the Employer applying for a permit to do construction work, as set out in the Contract Data,

SCC 5.3.2 Unacceptable documentation

If the documentation referred to in Clause SCC 5.3.1 is not submitted within the number of days stipulated in the Contract Data from the date that the Agreement, made in terms of the Form of Offer and Acceptance, comes into effect, or if such documentation is found to be unacceptable, the Employer may terminate the Contract in terms of Clause 9.2.

CSC 6.6.2 Payment to subcontractor

Add the following:

"The above-mentioned procedure shall adhere to the **Preferential procurement regulations, 2011, pertaining to the Preferential Procurement Policy Framework Act, Act No. 5 of 2000, published by National Treasury on 1 December 2011** and to any prescribed regulations of the FREESTATE Provincial Government pertaining to procurement.

CSC 40 PROGRESS OF THE WORKS

Add the following to Sub-Clause 40.1 :

Delete the last sentence and add the following:

The contractor shall within 3 days of receipt of notification submit to the Engineer in writing the action(s) the contractor intends to take to expedite the rate of progress, and within 7 days of receipt of notification implement such steps. The contractor shall as part of his actions submit to the Engineer a detailed revised program accommodating the agreed steps to meet the Due Completion date.

CSC 49.6 GUARANTEE IN LIEU OF RETENTION

Add to all references to a "Bank" also "*or an accredited Insurance Company*"

Add the following sub-clause

CSC 46: CONTRACT PRICE ADJUSTMENT SCHEDULE

Paragraph 1

Adjust the definitions of "L", "P", "M" and "F" in the 4th to the 7th subparagraphs with the following:

Definition of "L":

Insert "(Consumer Price Index)" after "P0141.1" in the third line

Insert "(Consumer Price Index and Percentage Change according to Urban Area)" after "Table 21" in the third line

Definition of "P":

Insert "(Production Price Index)" after "P0142.1" in the second line

Insert “(Production Price Index for Selected Materials, item ‘Civil Engineering Plant’)” after “Table 16” in the second line

Definition of “M”:

Insert “(Production Price Index)” after “P0142.1” in the second line

Insert “(Production Price Index for Materials used in Certain Industries, item ‘Civil Engineering Plant’)” after “Table 15” in the second line

Definition of “F”: *Insert “(Production Price Index)” after “P0142.1” in the second line*

Insert “(Production Price Index for Selected Materials, item Diesel Oil – Coast and Witwatersrand)” after “Table 16” in the second line

[Note: The indices are obtainable in www.statssa.gov.za. The latest indices for L (certain urban areas only), P, M and F, are more readily obtainable in www.safcec.org.za under “CPAF Indices”]

Paragraph 2 : Assessment of Amount subject to Adjustment: *Add the following to the paragraph defining “E”:*

“Where the amount is based on current costs de-escalated to the base month, or where daywork is calculated at rates tendered in a daywork schedule, the costs shall not be included in the value of “E”.

C1.2.2 CONTRACT SPECIFIC DATA

General

This section contains the Contract Specifications Data referred to under Clause 1(1) of the General Conditions of Contract. Civil and Structural Engineering Work (1985)

Should any requirements of the Specific Data conflict with the requirements of the General Conditions of Contract, then the requirements of the Specific Data shall prevail.

Clause

1 Definitions and interpretation

The “**Employer**” as defined under Clause 1(1) of the General Conditions shall be the METSIMAHOLO LOCAL MUNICIPALITY

MUNICIPAL BUILDING
10 FICHARDT
SASOLBURG
4800

The “**Engineer**” as defined under Clause 1(1)(d) of the General Conditions shall be HLANGANANI ENGINEERS & PROJECTS MANAGERS (PTY) LTD.

28 BURNHAM ROAD
MULBARTON
2061

Tel: + 27 11 682 1247
+ 27 82 600 8604

4.1 Language

English

4.2 Law

The governing law shall be that of the Republic of South Africa.

7.1 Time for Completion

..... * (weeks). To be completed by Tenderer*.

9.1 Performance Board or Surety

10 % of Contract amount.

10.1 Commencement of the Works

Prior to commencement of construction Works, the Contractor shall ensure that all the listed site personnel and applicable plant are available onsite.

12.1 Programme

The limit for submission of programme – one week.

14.3 Electricity, water and gas

Available on site free of charge.

16.4 Limitation of liability

Contractor's liability shall not exceed 100 % of the Contract Sum.

The contractor's liability shall expire on the date of issue of the Final Certificate.

17.1 Insurance of Works

Amount of insurance during Defects Liability Period: 100 % of the Contract Sum.

17.2 Minimum Amount of Third Party Insurance

R1 000 000 for any single claim, number of claims unlimited.

20.6 Import permits and licenses

The Contractor shall obtain and provide all necessary import permits and licenses required.

31.1 Amount of Reduction for delay

R5 000,00 per Calendar Day of delay.

Maximum Reduction

15 % of Contract Price.

32.1 Bonus

No bonus will apply.

33.1 Defects liability period

12 Months with use of works assumed 24 hours per day.

33.4 Maximum permitted extension: 12 months

34.1 Variations

The total variation shall not be more than 35 % of the Contract Sum for any single Contract.

37.3 Certificates and Payment

Payment certificates shall be paid within 28 days of submission of the approved invoice by the engineer to the PMU. 10 % Retention retained up to Completion Certificate.

Builders lien is not applicable in this contract.

40. Payment Conditions

For Mechanical and Electrical Work ninety-five percent (95 %) of the quoted price will be payable on completion of delivery, installation and commissioning. A further 5 % will be payable at the end of the defect liability period. For Civil and Structural Work payment up to the Completion Certificate will be @ 90 % of tendered rates with 10 % retention held back, 5 % retention paid on issue of Completion Certificate and 5 % after the Defects Liability period.

41.4 Payment in foreign currencies

No payment will be made in foreign currencies.

52.1 Changes in Cost and Legislation
(Labour, Materials and Transport)

Prices to be fixed if award is made within 90 days of closing of date of tender.

53.1 Customs and import duties

All customs and import duties shall be paid for by the Contractor.

.....
SIGNATURE

C1.2.3 DATA PROVIDED BY THE TENDERER

Clause 6.8.3 of the GCC 2015:

Special materials	Unit on which variation will be determined *	Rate or price for the base Month (Excl. VAT) **

Notes:

* Indicate whether the material will be delivered in bulk or in containers.

** The price for special materials is only the price for the material and does not include the cost of transport, labour or any other costs. When called upon to do so, the Tenderer shall substantiate the above prices with acceptable documentary evidence.

.....
SIGNATURE

C1.3 FORM OF GUARANTEE

BID NO MLM 22/2021/22

WHEREAS **METSIMAHOLO LOCAL MUNICIPALITY** (hereinafter referred to as the Employer") entered into, a Contract with:

.....
(hereinafter called "the Contactor") on the day of 20.....,
for **CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC PIPES IN ZAMDELA TOWNSHIP.**

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 excussion 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 total liability hereunder shall not exceed the Guaranteed Sum of 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

C1.4 ADJUDICATOR'S AGREEMENT (Pro Forma only)

To be entered into when required

This agreement is made on the day of between:

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

of

..... (address) and

..... (name of company / organization)

of

..... (address)

(the Parties) and

..... (name)

of

..... (address)

(the Adjudicator).

Disputes or differences may arise/have arisen* between the Parties under a Contract dated and known as.
and these disputes or differences shall be/have been* referred to adjudication in accordance with GCC 2004, Clause 58.3, and the Adjudicator may be / has been* requested to act.

* Delete as necessary

IT IS NOW AGREED as follows:

1. The adjudication shall be conducted in accordance with the rights and obligations of the Adjudicator and the Parties as set out in the Procedure as per Clause 58.3.1 of the GCC 04.
2. The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.
3. The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure.
4. The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
5. The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.
6. The Adjudicator shall be paid at the hourly rate of R. in respect of all time spent upon, or in connection with, the adjudication including time spent travelling.
7. The Adjudicator shall be reimbursed in respect of all disbursements properly made including, but not restricted to:
 - (a) Printing, reproduction and purchase of documents, drawings, maps, records and photographs.
 - (b) Telegrams, telex, faxes, and telephone calls.

- (c) Postage and similar delivery charges.
- (d) Travelling, hotel expenses and other similar disbursements.
- (e) Room charges.
- (f) Charges for legal or technical advice obtained in accordance with the Procedure.

8. The Adjudicator shall be paid an appointment fee of R This fee shall become payable in equal amounts by each Party within 14 days of the appointment of the Adjudicator, subject to an Invoice being provided. This fee will be deducted from the final statement of any sums which shall become payable under item 6 and/or item 7. If the final statement is less than the appointment fee the balance shall be refunded to the Parties.
9. The Adjudicator is/is not* currently registered for VAT.
10. Where the Adjudicator is registered for VAT it shall be charged additionally in accordance with the rates current at the date of invoice.
11. All payments, other than the appointment fee (item 8) shall become due 7 days after receipt of invoice, thereafter interest shall be payable at 5% per annum above the Reserve Bank base rate for every day the amount remains outstanding.

SIGNED

by: _____

Name:

who warrants that he / she is
duly authorized to sign for and
on behalf of the first Party in the
presence of

SIGNED

by: _____

Name:

who warrants that he / she is
duly authorized to sign for and
on behalf of the second Party in
the presence of

SIGNED

by: _____

Name:

the Adjudicator in the presence
of

Witness

Name:

Address:

Date:

Witness:

Name

Address:

Date:

Witness:

Name:

Address:

Date:

* Delete as necessary



METSIMAHOLO LOCAL MUNICIPALITY

BID NO: MLM 22/2021/22

**CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC PIPES
IN ZAMDELA TOWNSHIP**

PART C2: PRICING DATA

C2.1 PRICING INSTRUCTIONS – CIVIL WORK

1. The following materials has been purchased by the Metsimaholo Local Municipality:
 - (i) 75mm nominal diameter Class 16 High Impact uPVC pipes – 8915m
 - (ii) 160mm nominal diameter Class 16 High Impact uPVC pipes – 1150m
 - (iii) 15mm Class C above ground domestic water meters – 481 No.
 - (iv) 50mm Class B above ground bulk water meters – 5 No.

Bidders are to price for installation only for the above mentioned items.

Measurement and payment shall be in accordance to SANS 1200.

2. The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

%	=	percent
h	=	hour
ha	=	hectare
kg	=	kilogram
kl	=	kiloliter
km	=	kilometer
km-pass	=	kilometer-pass
kPa	=	kilopascal
kW	=	kilowatt
ℓ	=	liter
m	=	meter
mm	=	millimeter
m ²	=	square meter
m ² -pass	=	square meter-pass
m ³	=	cubic meter
m ³ .km	=	cubic meter-kilometer
MN	=	mega newton
MN.m	=	mega newton-meter
MPa	=	megapascal
No.	=	number
Prov sum	=	Provisional Sum
PC sum	=	Prime Cost Sum
R/only	=	rate only
Sum	=	lump sum
t	=	ton (1000 kg)
W/day	=	work day

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

Unit:	The unit of measurement for each item of work as defined in the SANS 1200
Quantity:	The number of units of work for each item.
Rate:	The agreed payment per unit of measurement.
Amount:	The product of the quantity and the agreed rate for an item.
Lump sum:	An agreed amount for an item, the extent of which is described in the Bill of Quantities but the quantity of work of which is not measured in any units.

4. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
5. It will be assumed that prices included in the Bill of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that

were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards).

6. The prices and rates in the Bill of Quantities are fully inclusive prices for the work described under the items. Such prices and rates cover all costs and expenses that may be required in and for the execution of the Works described in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices will be used as a basis for assessment of payment for additional work that may have to be carried out.
7. Where the Scope of Work requires detailed drawings and designs or other information to be provided, all costs associated therewith are deemed to have been provided for and included in the unit rates and sum amounts tendered under such items.
8. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
9. The quantities set out in the Bill of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bill of Quantities.
10. The short descriptions of the items of payment given in the Bill of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
11. The item numbers appearing in the Bill of Quantities refer to the corresponding item numbers in the "SANS 1200 as prepared by South African National Roads Agency Limited" and additional Project Specifications as per the Scope of Work.
12. 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 filled in 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 Work, is a variation to 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.
13. Payment for items, which are designated to be constructed labour-intensively (either in this schedule or in the Scope of Works), will not be made unless they are constructed using labour-intensive methods. Any unauthorized use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.

C2.2

BILL OF QUANTITIES

ITEM NO	PAYMENT REFER	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
1.0	SABS 1200A & 1200AB	SCHEDULE NO 1 : GENERAL				
		PRELIMINARY AND GENERAL				
1.1	PSA 8.3	<u>Fixed Charge Items</u>				
1.1.1	8.3.1	Contractual Requirements	Sum	1		
	8.3.2	Establish facilities on the site: Facilities for Engineer for duration of construction (SABS 1200 AB)				
1.1.2	PS 9.2.1.1	a) Offices: 1 furnished room	Sum	1		
1.1.3		b) Provision of survey equipment and materials	Sum	1		
1.1.4	PSAB 3.2	c) Garages : 2 lean-to's	Sum	1		
1.1.5	PSAB 4.1	d) Provision for cellular telephones	No	1		
1.1.6	PSAB 3.1	c) Standard Project name boards Facilities for Contractor. Made Covid-19 Safe	Prov Sum	10,000.00	1	10,000.00
1.1.7	PSA 4.2	Offices and storage sheds	Sum	1		
1.1.8		Living accommodation	Sum	1		
1.1.9		Ablution and latrine facilities	Sum	1		
1.1.10		Tools and equipment	Sum	1		
1.1.11		Water supplies, electric power and communications	Sum	1		
1.1.12		Access (subclause 5.8)	Sum	1		
1.1.13	8.3.3	Other fixed-charge obligations	Sum	1		
1.1.14	8.3.4	Remove Engineer's & Contractor's site establishment on completion	Sum	1		
1.1.15	PSAB 4.2	Costs associated with ensuring compliance with Health & Safety Regulations as detailed in Project Specifications. Compulsory Health and Safety Plan to be included.	Sum	1		
		OHS Act and Construction Regulations (2014)				
1.1.16		Preparation of Contractor's Site Health and Safety file (H&S) Plan (Once for the duration of contract)	Sum	1		
1.1.17		Review of (H&S) Plan for each assignment. Rate to include for risk assessment specific to the COVID-19 pandemic and other adjustments to ensure compliance for the assignment	Sum	1		
1.1.18		Principal Contractor's fixed cost obligation in respect of the OHS Act And Construction Regulations Signage -COVID -19 Related	Sum	1		
1.1.19		Costs associated with ensuring compliance with the EMP.	Sum	1		
1.2	8.4	<u>Time Related Items</u>				
1.2.1	8.4.1	Contractual Requirements	Month	6		
	8.4.2	Operate and maintain facilities on the site:				
	PS 9.2.1.1	Facilities for Engineer for duration of construction (SABS 1200 AB)				
1.2.2		a) Offices: 1 room etc, as for item 1.1.2	Month	6		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT REFER	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		SCHEDULE NO 1 : GENERAL (PAGE 2)				
		PRELIMINARY AND GENERAL				
		TOTAL BROUGHT FORWARD				
1.2.3	PS 9.2.1.1	b) Maintain of survey equipment and materials	Month	6		
1.2.4		c) Garages : 2 lean-to as for item 1.1.4	Month	6		
1.2.5		d) Provision for cellular telephones	Month	6		
	8.4.2.2	Facilities for Contractor for duration of construction, except where otherwise stated				
1.2.6		Offices and storage sheds	Month	6		
1.2.7		Living accommodation	Month	6		
1.2.8		Ablution and latrine facilities	Month	6		
1.2.9		Tools and equipment	Month	6		
1.2.10		Water supplies, electric power and communications	Month	6		
1.2.11		Access (subclause 5.8)	Month	6		
1.2.12	8.4.3	Supervision (Contractor's)	Month	6		
1.2.13	8.4.4	Company and head office overhead costs	Month	6		
1.2.14	8.4.5	Other time-related obligations	Month	6		
1.2.15	PSAB 4.2	Costs associated with ensuring compliance with Health & Safety Regulations as detailed in Project Specifications. Compulsory Health and Safety Plan to be included.	Month	6		
1.3	PSA 8.5	SUM STATED PROVISIONALLY BY ENGINEER				
1.3.1		Relocation and protection of services:	Prov. Sum	5,000.00	1	5,000.00
1.3.2		Testing	Prov. Sum	5,000.00	1	5,000.00
1.3.3		Formalized training	Prov. Sum	150,000.00	1	150,000.00
1.3.4	PS 10.8	Community liaison officer	Prov. Sum	52,500.00	1	52,500.00
1.3.5		Reinstatement of asphalt by MLM	Prov. Sum	5,000.00	1	5,000.00
1.3.6		Engineer's fulltime supervision	Prov. Sum	210,000.00	1	210,000.00
1.3.7		Allow for additional costs for use by the Engineer	Prov. Sum	100,000.00	1	100,000.00
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT REFER	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		SCHEDULE NO 1 : GENERAL (PAGE 3)				
		PRELIMINARY AND GENERAL				
		TOTAL BROUGHT FORWARD				
1.3.8	PSAB 4.2	Provision of photographic records	Prov. Sum	3,500.00	1.00	3,500.00
1.3.9		Landscape rehabilitation and grassing.	Prov. Sum	5,000.00	1.00	5,000.00
1.3.10	PS 5	Security costs for duration of contract	Prov. Sum	30,000.00	1.00	30,000.00
1.3.11		Overheads, charges and profit on items 1.3.1 to 1.3.7	%	527,500.00		
1.3.12		Provision of "Bonus" for compliance with Environmental Management during construction. (To be paid at the discretion of the Engineer)	Sum	1		
1.4		LABOUR INTENSIVE WORK				
1.4.1		Training allowance paid to targeted labour i.r.o. formal training	Person Days	25		
1.4.2		Extra over for the administration of payment of training allowances to targeted labour	Sum	1.00		
1.4.3		Transport and accommodation of workers for training where it is not possible to undertake the training in close proximity to the site. (Provisional sum)	Prov.Sum	2,500.00	1	2,500.00
1.5		POLITICAL AND COMMUNITY UNREST SITUATIONS				
1.5.1	PSA8.9	Allow for all costs which might arise due to the interruption of works and/or standing time in terms of political and community unrest on site.	Days	10		
TOTAL CARRIED FORWARD TO SUMMARY						

[illegible]

ITEM NO	PAYMENT REFER	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
3.0	SABS 1200 DB	SCHEDULE NO 3 : EARTHWORKS (PIPE TRENCHES)				
	8.3.2	EARTHWORKS Excavate in all materials for trenches, backfill & compact <u>including the disposal</u> of surplus or unsuitable material by machine:				
3.1	8.3.2(a)	for all pipe diameters for maximum depth of 1,5m:	m	11,200		
3.2	8.3.2(b)	Extra-over items 3.1 for excavation in:				
3.2.1	PSD 5.1.1.3	Hard rock where ordered by the Engineer	m ³	30		
3.2.2	PSD 5.1.1.4	Hard rock without using explosives	m ³	30		
3.2.3		Intermediate material	m ³	30		
3.2.4		Boulders Class A	m ³	15		
3.2.5		For excavation and backfill by hand close to existing bulk water mains, manholes, abutments and restricted access areas for machines.	m ³	150		
3.3	8.3.2	Excavate in all materials for trenches, backfill & compact <u>including the disposal</u> of surplus or unsuitable material by labour intensive(LI) methods:				
3.3.1	8.3.2(a)	for all pipe diameters for maximum depth of 1,5m:	m	1,150		
3.3.2	8.3.2(c)	Excavate & dispose of unsuitable material from trench bottom on <u>Engineer's instruction</u>	m ³	15		
3.4	8.3.3.1(a)	Imported backfill materials from designated borrow pit	m ³	30		
3.5	8.3.3.1(b)	Imported backfill materials from commercial sources	m ³	20		
3.6	8.3.3.3	Compaction in road reserves, below travelled way only.	m ³	200		
3.7	PSD 5.2.5.1	Overhaul (0,5 km freehaul)	m ³ -km	1,000		
3.7.1		Extra over item 3.7 for double handling of material from trench in road reserves to temporary spoil and back.	m ³ -km	250		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT REFER	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		SCHEDULE NO 3 : EARTHWORKS (PAGE 2)				
		TOTAL BROUGHT FORWARD				
3.8	8.3.5	EXISTING SERVICES				
3.8.1	PS 10.1	b) The use or hire of specialist equipment for detection	Prov. Sum	15,000.0	1.00	15,000.00
3.8.2		c) Excavate by hand in soft material to expose services	m ³	5		
		SERVICES THAT INTERSECT A TRENCH				
3.8.3		a) Cables	No.	50		
3.8.4		b) Pipes up to 300mm diameter.	No.	30		
3.8.5		c) Pipes over 300mm diameter.	No.	20		
		SERVICES THAT ADJOIN A TRENCH				
3.8.6		a) Cables	m	120		
3.8.7		b) Pipes up to 300mm diameter.	m	110		
3.8.8		c) Pipes over 300mm diameter.	m	60		
3.9	8.3.6	FINISHING				
3.9.1	PSDB 5.9.4	Reinstate road layerworks to below asphalt level as per project specification and Drawings	m ²	250		
3.9.2	PSDB 5.9.7	Reinstate footway and sidewalk layerworks as per project specification and Drawings	m ²	150		
3.9.3		Hydrofill concrete (2.5MPa 300mm thick)	m ³	45		
3.9.4		Soil/Cement backfill in road areas as instructed (40kg/m3)	m ³	50		
3.10	SABS 1200DA	EARTHWORKS (SMALL WORKS)				
3.10.1	8.3.1(b)	Excavate in all materials and use for backfill or embankment or dispose as ordered, within a freehaul distance of 0,5km.	m ³	5		
3.11	8.3.4	PARTICULAR ITEMS:				
3.11.1	PSD 5.1.1.2	Shoring of trenches where required(both sides included)	m	20		
3.11.2	5.1.2	Shoring of existing bulk water mains and valve chambers where required.	m	2		
3.11.3	5.1.4	Temporary works: control of water inflow				
		a) Provide equipment	Sum	1		
		b) Operate and maintain such equipment	days	10		
		c) Remove equipment	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT REFER	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
		SCHEDULE NO 4 : BEDDING (PIPES)				
4.1	SABS 1200 LB	BEDDING (PIPE)				
	PSLB 8.2.1	Provision of bedding from trench excavation within 0.5km without the need for screening:				
4.1.1		a) Selected granular material	m ³	335.8		
4.1.2		b) Selected fill material	m ³	599.3		
	PSLB 8.2.1	Provision of bedding from trench excavation within 0.5km with the need for mesh screening on site:				
4.1.3		a) Selected granular material	m ³	165.8		
4.1.4		b) Selected fill material	m ³	297.5		
	8.2.2.2	Provision of bedding from approved commercial sources:				
4.1.5		a) Selected granular material	m ³	34.0		
4.1.6		b) Selected fill material	m ³	59.5		
4.1.7	8.2.3	Concrete bedding, 20MPa.	m ³	10.0		
4.1.8	PSLB 8.2.6	19mm crushed stone in 150mm bedding layer.	m ³	34.0		
4.1.9		Supply and install "Kaytech" geofabric grade U34 or similar with 300mm overlap where ordered by the Engineer.	m ²	100.0		
4.1.10		Supply and install "Kaytech" Geopipe M100 or similar where ordered by the Engineer.	m	50.0		
4.1.11		Encasing of pipe in 20MPa concrete (Provisional)	m ³	5.0		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT REFER	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
5.1	SABS 1200L	SCHEDULE NO 5 : WATER MAINS				
		PIPELINE				
	8.2.1 PSL 3.9.2.2	Hi Impact uPVC pipes as per SABS 966. Handle, lay, disinfect, test and bed on Class B bedding the following uPVC pipes as detailed in the project specification (MATERIAL AVAILABLE AT MUNICIPAL STORES):				
5.1.1	PSL 5.1	Class 16 High Impact Pressure Pipe with victaulic couplings				
		a) 75mm nominal diameter	m	8915		
		b) 160mm nominal diameter	m	1150		
5.2		SPECIALS AND FITTINGS Supply, lay, bed, including cut pipes to length where required, disinfect, test and including jointing the the following extra over items for pipelaying:				
5.2.1		<u>(i) uPVC Bends - Class 16</u> 75mm Dia - Plain-ended bends for the following angles: a) 11.25 degrees b) 22.5 degrees c) 45 degrees d) 90 degrees 160mm Dia - Plain-ended bends for the following angles: a) 11.25 degrees b) 22.5 degrees c) 45 degrees d) 90 degrees	No. No. No. No. No. No. No. No. No. No.	5 5 8 4 2 2 2 2		
5.2.2		Cast Iron end caps	No.	9		
5.2.3		<u>(ii) Cast Iron Hydrant Tees</u> Plain-ended for the following pipe sizes as detailed in the project specification : a) 75mm x 75mm diameter b) 160mm x 75mm diameter c) 160mm x 160mm diameter d) 200mm x 75mm diameter e) 200mm x 160mm diameter	No. No. No. No. No.	15 18 2 4 1		
5.2.4		<u>(iii) Viking Johnson/KLAMFLEX or similar type Couplings in accordance with SABS 719, SABS 62 & BS534.</u> For joining plain ended pipes of the following nominal sizes and rated for 16 Bar working pressure: a) 75mm diameter b) 160mm diameter	No. No.	6 4		
TOTAL CARRIED FORWARD						

ITEM NO	PAYMENT REFER	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
5.2.5		SCHEDULE NO 5 : WATER MAINS (PAGE 2) TOTAL BROUGHT FORWARD <u>(iv) Flange Adaptors in accordance with SABS 719, SABS 62 & BS534.</u> For joining plain ended pipes to flanges of the following nominal sizes and rated for 16 Bar working pressure: a) 75mm nominal diameter b) 160mm nominal diameter	No. No.	195 4		
5.2.6	PSL 3.10	<u>(v) Valves</u> RSV Isolation Valves, anti-clockwise closing and rated for 16 Bar work pressure in accordance with SABS 664 for the following nominal diameter: Includes installation in valve box. a) 80mm diameter - Flanged Type b) 160mm diameter - Flanged Type	No. No.	195 4		
5.2.7	PSL 3.11	<u>(v) Hydrants</u> Above ground Fire hydrant assemblies complete as detailed. Includes installation and new hydrant box to JW standard.	No.	3		
5.2.8		<u>Sundries</u> Allow provisional sum for miscellaneous fittings, valves, flow meters and other specials that may be required.	Prov.Sum	250,000.00	1	250,000.00
5.3		<u>Valve Box</u> Construct complete as detailed on proj.dwgs. 620mm x 550mm precast Salberg or similar approved valve box, including concrete lid.	No.	199		
6.0	SABS 1200 LF	ERF CONNECTIONS Supply and install pipes and PLASSON compression fittings for erf connections as detailed in project dwgs: a) 15mm Class 10 Type IV HDPE pipes b) 15mm x 1" male adaptors c) Poly-propylene Saddles - 75mm diameter d) Poly-propylene Saddles - 160mm diameter e) 15mm 90 degree elbows	m No No No No	2175 481 481 5 481		
6.1		Install water meters complete with couplings (MATERIAL AVAILABLE AT MUNICIPAL STORE) a) 15mm Class C above ground domestic water meters (rate to include all fittings for connecting to the erf connection) b) 50mm Class B above ground bulk water meters (rate to include all fittings for connecting to the erf connection)	No No	481 5		
6.2	PSL 8.2.11	Connection to existing water mains	Sum	1		
7		Road Boring (Erf Connections) Boring of small diameter erf connections including supply and installation of HDPE pipe for the following: a) 15mm to 32mm diameter b) 50mm diameter	m m	100 100		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT REFER	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
SCHEDULE NO 6: TRENCHLESS PIPE CROSSINGS						
7.1		TRENCHLESS INSTALLATION				
7.1.1	8.2.1	Establishment	Sum	1.00		
	PSLG 2.1	a) Fixed Charges				
		b) Time Related Charges based on : Time Related Period <u>10</u> days.	Sum	10.00		
7.1.2	8.2.6	Install pipes by Trenchless Method, complete with excavations in all material for launching and reception pits and including removal of spoil material off site for the following pipe diameters: <i>Average length of 20m per crossing.</i>				
		a) 160mm diameter HDPE PE 100 PN 16	m	25.00		
		b) 80mm diameter HDPE PE 100 PN 16	m	25.00		
7.1.3	8.2.8	Extra-over for 7.1.2 for Excavation in Rock				
		a) using pneumatic tools or other techniques where blasting is not permitted.	m ³	1.00		
		b) using explosives where permitted.	m ³	2.00		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO	PAYMENT REFER	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
8.1	SABS1200 PSA 6	SCHEDULE NO 7 : DAYWORKS				
8.1.1		DAYWORKS				
		Personnel during normal working hours				
		(a) Unskilled labour	hr	75.00	30.00	
		(b) Semi-skilled labour	hr	75.00	35.00	
		(c) Skilled labour	hr	75.00	45.00	
		(d) Ganger	hr	100.00	85.00	
		(e) Flagmen	hr	100.00	25.00	
8.1.2		Personnel outside normal working hours				
		(a) Outside normal working hours and Saturdays				
		(i) Unskilled labour	hr	50.00	30.00	
		(ii) Semi-skilled labour	hr	50.00	45.00	
		(iii) Skilled labour	hr	50.00	55.00	
		(iv) Ganger	hr	40.00	110.00	
		(v) Flagmen	hr	40.00	40.00	
8.1.3		(b) Sundays and public holidays				
		(i) Unskilled labour	hr	50.00	40.00	
		(ii) Semi-skilled labour	hr	50.00	60.00	
		(iii) Skilled labour	hr	50.00	70.00	
		(iv) Ganger	hr	40.00	110.00	
		(v) Flagmen	hr	40.00	50.00	
8.1.4		Plant				
		(a) Grader (CAT 140G or similar)	hr	20.00	550.00	
		(b) Pedestrian Roller (Bomag BW 90 or similar)	hr	50.00	250.00	
		(c) Water truck (5000 litres)	hr	15.00	550.00	
		(d) Tipper truck, 10.0 m3	hr	30.00	550.00	
		(e) Backhoe TLB type (Cat 428 or equivalent)	hr	25.00	650.00	
		(f) Dewatering pump including generators and accessories (50 mm pump, 600 litres per minute)	hr	50.00	45.00	
		(g) Compressor including hoses and tools (180cfm)	hr	20.00	110.00	
8.1.5		Materials				
		(a) Procurement of materials	Prov. Sum	1.00	R 15,000.00	15,000.00
		(b) Contractors handling cost, profit and all other charges in respect of sub- item (a) above.	%	15,000.00	%	
TOTAL CARRIED FORWARD TO SUMMARY						

SUMMARY		
SECTION	DESCRIPTION	AMOUNT (R)
1200A & 1200AB	GENERAL REQUIREMENTS AND PROVISIONS	
1200C	SITE CLEARANCE	
1200DB	EARTHWORKS	
1200LB	BEDDING (PIPES)	
1200L & 1200LF	MEDIUM PRESSURE PIPELINES	
1200LG	TRENCHLESS CROSSINGS	
1200PSA	DAYWORKS	
	NETT TOTAL OF TENDER	
	ADD CONTINGENCIES 10% OF NETT TOTAL	
	TENDER AMOUNT	
	ALLOWANCE FOR VAT AT 15%	
	TOTAL TENDER SUM CARRIED TO FORM OF OFFER	



METSIMAHOLO LOCAL MUNICIPALITY

BID NO: MLM 22/2021/22

**CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC PIPES
IN ZAMDELA TOWNSHIP**

C3: SCOPE OF WORKS

C3.1 DESCRIPTION OF WORKS**C.3.1.1 EMPLOYER'S OBJECTIVES**

The main objective of this project is that optimum utilisation shall be made of the resources within the local community and that these resources shall be improved and enhanced through their participation in the execution of the works. The excavation, bedding and backfilling of trenches in soft material shall be by labour intensive methods and items are provided in the Bill of Quantities to cover these operations.

C.3.1.2 EXTENT OF WORKS

The Contractor's obligations under the Contract comprise the construction, completion and maintenance of the Works and the provision of all labour, fittings and specials as specified in the Bill of Quantities, construction plant, temporary works and everything, whether of a temporary or permanent nature required in and for such construction, completion and maintenance so far as the necessity for providing the same is specified in or reasonably to be inferred from the Contract.

The Contractor's obligations shall also include strict compliance with any Environmental specifications and/or reports deemed to form part of this contract.



METSIMAHOLO LOCAL MUNICIPALITY

BID NO: MLM 22/2021/22

**CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC
PIPES IN ZAMDELA TOWNSHIP**

PORTION 2: CONTRACT

PART C3.2

GENERAL SPECIFICATIONS

PART A: GENERAL

THE WORKS

3.2 GENERAL DESCRIPTION OF THE CONTRACT

The project will entails the construction of approximately 8915m of uPVC pipeline of 75mm nominal diameter in size and approximately 1150m of uPVC pipeline of 160mm nominal diameter in size. The works is located within the Metsimaholo Local Municipality, situated in the township of Zamdela Ward 11. The pipe material consists of Class 16 hi-impact pressure pipe with Victaulic couplings. The contract will include a section of trenchless crossings below existing trafficked roadways.

The Contractor's obligations under the Contract comprise the construction, completion and maintenance of the Works and the provision of all labour, fittings and specials as specified in the Bill of Quantities, construction plant, temporary works and everything, whether of a temporary or permanent nature required in and for such construction, completion and maintenance so far as the necessity for providing the same is specified in or reasonably to be inferred from the Contract.

The maximum time allowed for completion of the entire contract is 24 weeks from the date of issue of the Employer's instruction to commence the Works in terms of Clause 5.3.1 of the General Conditions of Contract Third Edition (2015).

C3.2.2 DESCRIPTION OF SITE AND ACCESS

The project is located in the township of Zamdela ward 11 area of Metsimaholo Local Municipality in the Free State Province. The area is generally flat open farming area with an unsurfaced access road. However, there is no problem of access to the site as arterial and major distributary roads are paved.

C3.2.3 NATURE OF GROUND AND SUBSOIL CONDITIONS

The area has the following co-ordinates; Latitude 26°58'25.15"S and Longitude 28°10'58.04"E. The area is characterized a gently sloping topography and generally the soil is of a clayey nature.

3.2.4 DETAILS OF CONTRACT

The intention is to execute as much work as economically feasible using labour intensive construction methods. The portions of the Works to be constructed utilising labour-intensive construction methods only, unless otherwise instructed by the Engineer and in accordance with the further provisions of the relevant sections of the Project Specifications set out in Portion 2, shall be:

- clearing and grubbing of the Site;
- backfilling of all pipe trenches to depths up to 1m;
- mixing, transporting, placing and finishing of small concrete works;
- excavation (in soft and intermediate materials where ordered in writing by the Engineer), spreading, processing and compaction;

- spoiling of all materials within distances not exceeding 20 metres;
- transportation of earthworks for distances not exceeding 20 metres;
- construction of valve chambers, manholes and the like;
- removal of oversized materials;
- cleaning and tidying up of the Site

The Contractor shall consult with the relevant Ward Councillor in order to appoint local labour from the community for the purpose of this contract.

3.2.5 CONSTRUCTION PROGRAMME

The Contractor shall submit a detailed programme within 28 days of the acceptance of the tender. The programme shall clearly show the order in which the Contractor proposes to carry out the Work, the critical path, the proposed rate of progress and a linked cash flow forecast.

The Contract Period shall include all Saturdays, Sundays, non-working days as well as an allowance for expected inclement weather and consequential delays during normal working days. The time for completion of the works shall be as stated in the Contract Data, Part C1.2, clause 5.5. A week shall consist of five working days. The programme shall be approved by the Employer's Agent prior to the implementation of the construction works.

If the construction programme has to be revised in terms of Clause 5.6.4 of the General Conditions of Contract because the Contractor is falling behind in his programme, the Contractor shall submit a revised programme of how he intends to regain lost time to ensure completion of the Works before the Due Completion Date. Any proposals by the Contractor to increase the tempo of work must incorporate positive steps to increase production either by the provision of more labour and Plant on the Site, or by using the available labour and Plant in a more efficient manner.

Failure on the part of the Contractor to submit or to work according to the programme or revised programmes shall be sufficient reason for the Employer's Agent to take steps as set out in sub clause 5.7.1 of the conditions of contract.

3.2.6 SITE FACILITIES AVAILABLE

3.2.6.1 Sources of Water Supply and Power Supply

Water and electricity services are available in the vicinity of the Site, and the Contractor shall, at his own expense, be responsible for connections to the available services, as well as for the distribution of water and electricity for construction and domestic use. The distribution of water and electricity shall be carried out in accordance with the applicable laws and regulations.

The Contractor shall make his own arrangements with the appropriate authority for water and electricity and sewerage connections.

No extension of time due to delays resulting from obtaining and maintaining these facilities will be granted.

3.2.6.2 Location of Camp and Depot

The Contractor must negotiate the location of his own camp site with the Project Steering Committee. The construction camp shall be near the Site of Works.

3.2.6.3 Housing for the 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.

3.2.7 SITE FACILITIES REQUIRED

3.2.7.1 Facilities for the Employer's Agent

A site office, toilet and carport for the Employer's Agent and his staff are required, and the Contractor must provide suitable facilities in his own offices for the holding of site meetings. The Employer's Agent's Representative shall also be allowed the free use of the necessary survey equipment and survey assistants to enable him to carry out control work as and when required.

Office facilities shall be provided by the Contractor as described in SANS 1200 AB and PSAB of the Specification.

3.2.7.2 Equipment for Employer's Agent staff

The Contractor shall allow for all the necessary protective clothing for the Employer's Agent staff:

3.2.7.3 Water, electricity and sewage

The Contractor shall, at his own expense, be responsible for obtaining and distributing the water and electricity required for construction and domestic use. The distribution of water and electricity shall be carried out in accordance with the applicable laws and regulations.

No separate payment will be made for obtaining and distributing water and electricity, the cost of which will be deemed to be included in the tendered rates.

3.2.7.4 Excrement Disposal

The Contractor shall, at his own expense, be responsible for safely and hygienically dealing with and disposing of all human excrement and similar matter generated on the Site during the course of the Contract, to the satisfaction of the responsible health authorities in the area of the Site and the Employer's Agent. All such excrement shall be removed from the Site and shall not be disposed of by the Contractor on the Site. The Contractor shall further comply with any other requirements in this regard as may be stated in the Contract.

No separate payment will be made to the Contractor in respect of discharging his obligations in terms of this sub clause and the costs thereof shall be deemed to be included within the Contractor's tendered Preliminary and General items.

3.2.7.5 Site instruction book

A triplicate book shall be provided by the Employer's Agent to be used for site instructions. It shall at all times be kept on the site.

3.2.8 FEATURES REQUIRING SPECIAL ATTENTION

3.2.8.1 Access to properties

The Contractor shall organize the work in such a manner as to cause the least possible inconvenience to the public and to the property owners adjacent to or affected by the work included in this contract.

If, as a result of restricted road reserve widths and the nature of the works, the construction of bypasses is not feasible, construction shall be carried out under traffic conditions in order to provide access to the erven and properties.

The Contractor may, with the approval of the Employer's Agent, make arrangements with the occupiers of the affected erven and properties to close off a portion of a street, road, footpath or entrance temporarily, provided the Contractor duly notifies the occupiers of the intended closure and its probable duration and shall, as punctually as possible, re-open the route at the prescribed time. Where possible, the road shall be made safe and re-opened to traffic overnight. Any such closure shall be made by arrangement between the Contractor and the occupiers and shall not absolve the Contractor from his obligations under the contract to provide access at all times. Barricades, traffic signs and drums shall be provided by the Contractor to suit the specific conditions. The Contractor shall also comply with all the requirements of the Local Authority with regard to safety, signage and notices to the public.

3.2.8.2 Existing residential areas

Access to the adjacent residential areas shall be maintained at all times, as shall access to individual houses.

Electricity and water supply interruptions to existing residential areas shall be kept to a minimum. Whenever it is necessary to interrupt these supplies, the Employer's Agent's approval shall first be obtained. The affected residents shall then be notified in writing at least 3 days, but not more than 5 days in advance. Supplies shall be normalized by 16:00 on the same day.

Cognisance shall be taken by the Contractor of the possibility of residents from the adjacent residential areas having access, whether authorized or not, to the works. It is strongly emphasized that under no circumstances shall any claims be considered for delays or disruptions as a result of the presence of residents from the adjacent occupied areas.

3.2.8.3 Facilities to other Contractors

In addition to the requirements of clause 18 of the general conditions of contract, the Contractor must make allowance for the presence of other Contractors engaged on other contracts on the site, which may involve, inter alia, the adaption of his programme to fit in with work to be done by the other Contractors, as well as assuring other Contractors access to their sites along prescribed routes which may fall within the site of this contract.

3.2.8.4 Contractor's vehicles

All equipment and vehicles used by the Contractor shall be roadworthy at all times and all drivers and operators shall be in possession of valid drivers' licences.

3.2.8.5 Site maintenance

During the progress of the work and upon its completion, the site of the works shall be kept and left in a clean and orderly condition. The Contractor shall at all times store materials and equipment for which he is responsible in an orderly manner, and shall keep the site free from debris and obstruction. Workers shall lunch or have tea breaks only in a designated area with approved refuse and toilet facilities.

No open fires shall be permitted on the site.

Vehicles and workers must adhere to property demarcated access routes and not take or make short cuts.

3.2.8.6 Testing and quality control

3.2.8.6.1 Contractor to engage services of an independent laboratory

Notwithstanding the requirements of the Specifications pertaining to testing and quality control, the Contractor shall engage the services of an approved independent laboratory to undertake all testing of materials, the results of which are specified in, or may reasonably be inferred from, the Contract. These results will be taken into consideration by the Employer's Agent in deciding whether the quality of materials utilised and workmanship achieved by the Contractor comply with the requirements of the Specifications. The foregoing shall apply irrespective of whether the specifications indicate that the said testing is to be carried out by the Employer's Agent or by the Contractor.

The Contractor shall be responsible for arranging with the independent testing laboratory for the timeous carrying out of all such testing specified in the Contract, at not less than the frequencies and in the manner specified. The Contractor shall promptly provide the Employer's Agent with copies of the results of all such testing carried out by the independent laboratory.

For the purposes of this clause, an "independent laboratory" shall mean an "SANAS accredited laboratory" which is not under the management or control of the Contractor and in which the Contractor has no financial interest, nor which has any control or financial interest in the Contractor.

Density testing must be done as per SANAS 1200LB a minimum of 6 tests should be executed per lot of at 200m.

Sewer testing should be as per SANAS 1200LB section 7.2 2

3.2.8.6.2 Additional testing required by the Employer's Agent

In addition to the provisions of sub clause PS 8.6.1: Contractor to engage services of an independent laboratory, the Employer's Agent shall be entitled at times during the Contract to require that the Contractor arrange with the independent laboratory to carry out any such tests, additional to those described in sub clause PS 8.6.1, at such times and at such locations in the Works as the Employer's Agent shall prescribe. The Contractor shall promptly and without delay arrange with the independent laboratory for carrying out all such additional testing as required by the Employer's Agent, and copies of the test results shall be promptly submitted to the Employer's Agent.

3.2.8.6.3 Costs of testing

- (a) Tests in terms of sub clause 8.6.1

The costs of all testing carried out by the independent laboratory in accordance with the requirements of sub clause PS 8.6.1, above shall be borne by the Contractor and shall be deemed to be included in the tendered rates and prices for the respective items of work as listed in the Schedule of Quantities and which require testing in terms of the Specifications. No separate payments will be made by the Employer to the Contractor in respect of any testing carried out in terms of sub clause PS 8.6.1.

Where, as a result of the consistency of the materials varying or as a result of failure to meet the required specifications for the work, it becomes necessary to carry out additional tests (e.g. re-tests on rectified work and/or replacement materials), the costs of such additional testing shall be for the Contractor's account.

(b) Additional tests required by the Employer's Agent

The costs of any additional tests required by the Employer's Agent in terms of sub clause PS 8.6.2: Additional testing required by the Employer's Agent, shall be reimbursed to the Contractor against substitution of the Provisional Sum allowed therefore in the Schedule of Quantities; provided always that the costs of any such additional tests ordered by the Employer's Agent, the results of which indicate that the quality of the materials utilised and/or the standard of workmanship achieved are/is in accordance with the specifications. If the results are **not** in accordance with the specifications, the costs **shall not** be reimbursable to the Contractor.

3.2.8.7 Procurement of Sub contractors

Direct preference is given on the basis of the Targeted Enterprise status of the tenderer. Functionality points are allocated on the basis of the Contract Participation Goal offered in terms of the engagement of Local Enterprises and Local Labour.

Scope of mandatory sub contract work

It is **mandatory** to subcontract work of at least thirty percent (30%) of the value to the local enterprises so as to achieve the Contract Participation Goal. The choice of who and for which portions of the work he does is to be agreed with the Project Steering Committee or the Community Forum in liaison with the Liaison Officer and the Ward Councillor.

The Contractor commits himself to work closely with the Community Forum, who will compile a local resource database to assist the Contractor in maximizing the use of local resources. In inviting local enterprises to tender for subcontracted work, the Contractor shall include the local enterprises identified by the Community Forum, except if they are deemed by the Contractor to be unfit to provide the service or deliver the goods at the required quality, taking into account the entrepreneurial training available to empower them. In the event of a dispute between the Community Forum and the Contractor as to the ability of an identified service local enterprise for a particular subcontract, the final choice shall rest with the Contractor, following discussions with the CLO and the Engineer.

The Contractor is responsible for work carried out on his behalf by subcontractors. The Employer's Agent will not liaise directly with such subcontractors, and all problems relating to payments, programming, workmanship, etc, shall be the concern of the Contractor and the subcontractor, and the Employer's Agent will not be involved.

3.2.8.8 Existing Services

Before the Contractor commences operations, he must discuss with and have the approval of the Employer, authority or owner concerned regarding the method he proposes to use for relocating or safe-guarding any services and existing works he may encounter during construction.

Available drawings of existing services may be viewed at the offices of the Employer's Agent.

The positions of existing services shown on the Drawings are given in good faith and no guarantee can be given that:

- (a) these services actually are in the approximate positions indicated.
- (b) that these are the only services in the vicinity, and
- (c) that the nature and description of these services are correct.

The Contractor shall be responsible to locate and safeguard any existing service or works he may encounter during construction and shall obtain clearance from the Employer, authority and the Employer's Agent before commencing work in the proximity of existing services or works. The Contractor shall liaise with the local authority, electricity provider, telecommunication providers regarding the presence and location of any existing services. The Contractor shall arrange that a representative of such authorities or service providers to make known the location on site, before the commencement of works.

The Contractor shall be responsible for any damage to such existing services and works in the execution of this contract and shall reimburse the Employer, authority or the owner concerned for any repairs required and for damages.

The Contractor shall be responsible for immediately notifying the Employer's Agent and the authorities concerned regarding any damage caused to public services and existing works.

Any alteration to public services shall be carried out by the Authority concerned unless the Contractor is instructed otherwise.

The Contractor shall provide the necessary assistance during any operations necessary in connection with the removal, alteration or safe-guarding of any public service.

3.2.8.10 Health & Safety Regulations

3.2.8.10.1 General

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons who may be directly affected by his activities, are not exposed to hazards their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the OHSA 1993 Construction Regulations 2014 issued on 07 February 2014 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of the Occupational Health and Safety Act in the form as included in Part V of the Returnable Schedules.

Health and Safety Specifications and Plans

- a) Employer's Health and Safety Specification

The Employer's Health and Safety Specification will be included in the tender documents as part of the Project Specifications.

b) Tenderer's Health and Safety Plan

The Tenderer shall submit with his tender his own documented Health and Safety Plan he proposes to implement for the execution of the work under the contract. His Health and Safety Plan must at least cover the following:

- i. A proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 7 to 28;
- ii. Pro-active identification of potential hazards and unsafe working conditions;
- iii. Provision of a safe working environment and equipment;
- iv. Statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (Regulation 5);
- v. Monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- vi. Details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 6 and other applicable regulations; and
- viii. Details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014.

The Contractor's Health and Safety Plan will be subject to approval by the Employer, or amendment if necessary, before commencement of construction work. The Contractor will not be allowed to commence work, or his work will be suspended if he had already commenced work, before he has obtained the Employer's written approval of his Health and Safety Plan.

Time lost due to delayed commencement or suspension of the work as a result of the Contractor's failure to obtain approval for his safety plan, shall not be used as a reason to claim for extension of time or standing time and related costs.

Cost of compliance with the OHSA Construction Regulations

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract.

Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

3.2.8.10.1 Requirements for Accommodation of Traffic (Read with SANS 1921 - 2: 2004) General

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

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

Accommodation of traffic, where applicable shall comply with SANS 1921-2: 2004: Construction and Management Requirements for Works Contracts, Part 2: Accommodation of Traffic on Public Roads occupied by the Contractor. The Contractor shall obtain this specification from Standards South Africa if accommodation of traffic will be involved on any part of the construction works.

Basic Requirements

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

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

Failure to maintain road signs, warning signs or flicker lights and etc, in a good condition shall constitute ample reason for the Employer's Agent to suspend the work until the road signs, etc, have been repaired to his satisfaction.

The Contractor may not commence constructional activities affecting existing roads before adequate provision has been made to accommodate traffic in accordance with the requirements of this document and the South African Road Traffic Signs Manual.

The Contractor shall construct and maintain all temporary drainage works necessary for temporary deviations.

The Contractor shall provide and grant access to persons whose properties fall within or adjoin the area in which he is working.

3.2.8.11 Concurrent Construction Contracts

The Contractor's attention is drawn to the fact that other contiguous works will be executed concurrently by independent Contractor's under separate contracts in the vicinity of the Site.

The other Works which will be in progress or will come into operation on or adjacent to the Site of the Works during the progress or tenancy of this Contract are likely to include the construction and installation of sewer, water and main outfall sewers.

The Contractor shall ensure that neither his operations nor those of his subcontractors nor the activities of his employees shall interfere with or hinder the operations of the Employer or of other Contractors and he shall indemnify the Employer against all claims arising through default of this requirement.

The Contractor shall hand over portions of the Site of the Works (whether completed or not), or completed portions of the Works, to these Contractors when required by the Employer or detailed elsewhere in this document. The Contractor shall cause no interference with or delays in the execution of these contiguous contracts.

No discount or commission for the Contractor is allowed on these contracts, and it will be assumed that he has fully allowed in the Contract Price for the presence of these Contractors on Site. Any service rendered or assistance given by the Contractor to these Contractors, save as are provided for in the Project Specifications, shall be for their accounts only since the Employer shall in no way be responsible to the Contractor for any payments in this respect.

The Contractor shall protect all known existing services as well as all work being carried out and structures being erected on the Site by other Contractors. Any damage caused to these services or structures, or any obstruction or hindrance caused to other contractors by the contractor, and all claims arising there from, will be the sole responsibility of the Contractor.

All repair work shall be carried out at the Contractor's expense to the entire satisfaction of the Employer's Agent. The same obligations shall be imposed on the Employer and on other Contractors in respect of the Works being executed under this Contract.

3.2.9 INFORMATION SUPPLIED BY EMPLOYER

Certain information contained in these contract documents, or provided separately, is being offered in good faith. However, in the circumstances pertaining to the type of information supplied, no guarantee can be given that all the information is necessarily correct or representative. More specifically this applies to all material surveys and reports and similar information, the accuracy of which is necessarily subject to the limitation of testing, sampling, the natural variation of material or formations being investigated and the measure of confidence with which conclusions can be drawn from any investigations carried out. It also applies to the positions of existing services as indicated on the drawings.

The Employer accepts no liability for the correctness or otherwise of the information supplied or for any resulting damages, whether direct or consequential, should it prove during the course of the contract that the information supplied is either incorrect or not representative. Any reliance placed by the tenderer on this information shall be at his own risk.

3.2.9.1 Labour-intensive competencies of supervisory and management staff

Established contractors shall only engage supervisory and management staff in labour intensive works that have either completed, or for the period 1 April 2019 to 30 June 2020, are registered for training towards, the skills programme outlined in Table 1.

Emerging contractors shall have personally completed, or for the period 1 April 2019 to 30 June 2020 be registered on a skills programme for the NQF level 2-unit standard. All other site supervisory staff in the employ of emerging contractors must have completed, or for the period 1 April 2019 to 30 June 2019 be registered on a skills programme for, the NQF level 2-unit standards or NQF level 4-unit standards.

Table 1: Skills programme for supervisory and management staff

Personnel	NQF level	Unit standard titles	Skills programme description
Team leader / supervisor	2	Apply Labour Intensive Construction Systems and Techniques to Work Activities	This unit standard must be completed, and
		Use Labour Intensive Construction Methods to Construct and Maintain Roads and Storm water Drainage	} any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures	
Foreman/ supervisor	4	Implement labour Intensive Construction Systems and Techniques	This unit standard must be completed, and
		Use Labour Intensive Construction Methods to Construct and Maintain Roads and Storm water Drainage	} any one of these 3 unit standards
		Use Labour Intensive Construction Methods to Construct and Maintain Water and Sanitation Services	
		Use Labour Intensive Construction Methods to Construct, Repair and Maintain Structures	
Site Agent / Manager (i.e. the contractor's most senior representative that is resident on the site)	5	Manage Labour Intensive Construction Processes	Skills Programme against this single unit standard
Details of these skills programmes may be obtained from the CETA ETQA manager (e-mail: gerard@ceta.co.za, tel: 011-265 5900).			

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

3.2.9.2.1 Requirements for the sourcing and engagement of labour

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.

Tasks established by the contractor must be such that:

- the average worker completes 5 tasks per week in 40 hours or less; and
- the weakest worker completes 5 tasks per week in 55 hours or less.

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 above requirements.

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:

- where the head of the household has less than a primary school education;
- that have less than one full time person earning an income;
- where subsistence agriculture is the source of income.
- those who are not in receipt of any social security pension income

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

- a) 60 % women;
- b) 20% youth who are between the ages of 18 and 25; and
- c) 2% on persons with disabilities.

3.2.9.2.2 Specific provisions pertaining to SANS 1914-5

Definitions

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

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.

Variations to SANS 1914-5

The definition for net amount shall be amended as follows:

Financial value of the contract upon completion, exclusive of any value added tax or sales tax which the law requires the employer to pay the contractor.

The schedule referred to in 5.2 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.

3.2.10 EXTENSION OF TIME ARISING FROM ABNORMAL RAINFALL

See Part C1.2, Contract Data, Clause 5.12.2.2.

3.2.11 CERTIFICATES OF PAYMENT

The statement to be submitted by the Contractor in terms of clause 6 of the conditions of contract shall be prepared by the Contractor at his own cost, strictly in accordance with the standard payment certificate prescribed by the Employer's Agent, in digital electronic computer format. The Contractor shall, together with a copy of the digital electronic computer file of the statement, submit two (2) A4 size paper copies of the statement.

For the purposes of the Employer's Agent's payment certificate, the Contractor shall subsequently be responsible, at his own cost, for making such adjustments to his statement as may be required by the Employer's Agent for the purposes of accurately reflecting the actual quantities and amounts which the Employer's Agent deems to be due and payable to the Contractor in the payment certificate.

The Contractor shall, at his own cost, make the said adjustments to the statement and return it to the Employer's Agent within three (3) normal workings days from the date on which the Employer's Agent communicated to the Contractor the adjustments required. The Contractor shall submit to the Employer's Agent five (5) sets of A4 size paper copies of such adjusted statement, together with a copy of the electronic digital computer file thereof.

Any delay by the Contractor in making the said adjustments and submitting to the Employer's Agent the requisite copies of the adjusted statement for the purposes of the Employer's Agent's payment certificate will be added to the times allowed to the Employer's Agent in terms of sub- clause 6.10.4 of the conditions of contract to submit the signed payment certificate to the Employer and the Contractor. Any such delay will also be added to the period in which the Employer is required to make payment to the Contractor

3.2.12 CONSTRUCTION IN LIMITED AREAS

In certain cases, working space may be limited. The method of construction in these restricted areas will depend largely on the Contractor's plant. However, the Contractor must note that measurement and payment will be according to the specified cross-sections and dimensions irrespective of the method used to achieve these cross-sections and dimensions, and that the rates and prices tendered shall be deemed to include full compensation for any difficulty encountered while working in limited areas and narrow widths, and that no extra payment will be made, nor will any claim for payment due to these difficulties be considered.

3.2.13 NON-WORKING DAYS

The Contractor shall not work on Sundays or on the following statutory Public Holidays: New Year's Day, Human Rights Day, Good Friday, Family Day, Freedom Day, Workers Day, Youth Day, National Women's Day, Heritage Day, Day of Reconciliation, Christmas Day and Day of Goodwill. Whenever any of the above statutory Public Holidays fall on a Sunday, the following Monday shall be a Public Holiday.

3.2.14 SPOIL MATERIAL

No indiscriminate spoiling of material will be allowed. All surplus or unsuitable material shall be spoiled in designated areas as directed by the Employer's Agent. Spoiling shall comply with the applicable statutory and Municipal regulations.

3.2.15 DRAWINGS

All "as built" information, as listed below, must be submitted to the Employer's Agent's Representative before a certificate of completion will be issued, the cost of which shall be included in the rates tendered for items PSA 8.3.1 and 8.3.2 under section 1200 A of the schedule of quantities.

3.2.15.1 List of "as built" information required- sewers

- (a) Exact coordinates and invert level of each sewer manhole and dimensioned sewer house connection details.
- (b) Positions of unknown existing services and crossings and water reticulation routes and metre numbers to be listed.

A Registered Land Surveyor shall be required to provide the above information.

Only figured dimensions shall be used and drawings shall not be scaled unless so instructed by the Employer's Agent. The Employer's Agent will supply any figured dimensions which may have been omitted from the drawings.

3.2.15.2 As-built drawings, operating manuals and maintenance schedules: Mechanical/Electrical Equipment

3.2.15.2.1 The Contractor provides the following: The Contractor shall be required to furnish three final copies of each manual/handbook for each piece of equipment in terms of this contract.

3.2.15.2.2 One copy of the preliminary handbooks shall be made available to the Project Manager two weeks prior to commissioning of the equipment.

3.2.15.2.3 One copy of the final set of handbooks will be kept at WWTW and the Contractor must bind and cover every page of this set with translucent plastic.

3.2.15.2.4 The following manuals shall be supplied as part of the contract:

- Maintenance Instruction manual
- Operator's manual
- Parts Catalogue and full detailed drawings of the components
- Training Manual
- All the above manuals in CD-Format (soft copy)

3.2.15.2.5 The Contractor provides manuals in an A4 hard covered, red, grease and waterproof binder, using 2 ring type binders. The manuals are well indexed and user friendly and include a summarized Table of Contents.

3.2.15.2.6 Drawings and charts larger than A4 are folded and those greater than A3 are enclosed in an A4 plastic pocket of adequate strength.

3.2.15.2.7 As-Built/Final Documentation

In undertaking the 'Works' (including all incidental services required), the Supplier shall conform and adhere to the requirements of the 'Contractor Document Submittal Requirements' Standard included in the Works Information.

3.2.15.2.8 Where manuals include drawings that still need to be revised to "As-Built" status, and such manuals are required prior to 'As-Built' status, the manual will not be considered to be in its final form until the "As-Built" version of each such drawing has been incorporated.

3.2.15.2.9 Installation, Maintenance and Operating Manuals and Data Books

In undertaking the 'Works' (including all incidental services required), the Supplier shall conform and adhere to the requirements of the 'Contractor Document Submittal Requirements' Standard included in the Works Information.

3.2.16 TRENCHES

No trenches may be left open during the Contractor's holiday during December and January. All trenches which have been excavated but which have not been finally backfilled and compacted at the commencement of the said holiday period shall be temporarily fully backfilled and compacted to a standard which will

- (a) prevent damage occurring to the trenches or any other part of the Works;
- (b) prevent damage to or physical loss of the property of any person and
- (c) eliminate the risk of injury to any person during the said period

All costs involved in the temporary backfilling and compaction of such trenches and the subsequent reopening of the trenches after the holiday period shall be for the Contractor's account.

3.2.17 SAMPLES

The Contractor shall at his own cost, supply all samples that may be required. Material or work not conforming to the approved samples shall be rejected. The Employer's Agent reserves to himself the right to submit samples to any tests to ensure that the material represented by the sample conforms to the requirements of the specifications. The cost of all tests failed shall be for the Contractor's account.

3.2.18 MANUFACTURER'S INSTRUCTIONS

The recommendations of the manufacturers of patented materials must be strictly adhered to regarding the use, mixing, application, fastening, etc. thereof except when otherwise instructed in writing by the Employer's Agent.

3.2.19 PROPRIETARY MATERIALS

Where proprietary materials are specified it is to indicate the quality or type of materials or articles required, and where the terms "or other approved" or "or approved equivalent" are used in connection with proprietary materials or articles, it is to be understood that the approval shall be at the sole discretion of the Employer's Agent.

3.2.20 NOTICES, SIGNS, BARRICADES AND ADVERTISEMENTS

The Contractor shall erect the necessary signs, notices and barricades for the duration of the contract in order to safeguard both the works and the public.

Notices, signs and barricades as well as advertisements may be used only upon approval by the Employer's Agent, and the Contractor shall be responsible for their supply, erection, maintenance and ultimate removal and shall make provision for this in his tendered rates.

The Employer's Agent shall have the right to have any sign, notice or advertisement moved to another position or to have it removed from the site of the works, should it in any way prove to be unsatisfactory, inconvenient or dangerous to the general public.

Such notices, signs and barricades shall be provided and erected at the Contractor's own expense.

A standard name board as per the included details shall be erected. The cost of which shall be included in the rates tendered for items 1.1.2 and 8.3.2 under section 1200A of the Schedule of Quantities.

3.2.21 SETTING OUT OF WORK

Reference and level beacons will be shown to the Contractor by the Employer's Agent at the commencement of the Contract and the Contractor will be responsible for transferring the data to the Site of Works.

The Contractor shall check the condition and accuracy of all reference and level beacons and satisfy himself that they have not been disturbed and are true with regard to position and level. A beacon that has been disturbed shall not be used until its true position and level have been re-established and the new values have been certified by the Employer's Agent. The Contractor shall thereafter be held entirely responsible for the protection of all reference and level beacons.

The Contractor shall employ a capable surveyor to set out the Works to the required lines and levels. The Employer's Agent shall be informed immediately should any discrepancy be discovered between the levels or dimensions obtained by the Contractor and those shown on the drawings.

Where a beacon is likely to be disturbed during construction operations, the Contractor shall establish suitable reference beacons at locations where they will not be disturbed during construction. No beacons shall be covered over, disturbed or destroyed before accurate reference beacons have been established and details of the positions and levels of such beacons have been submitted to the Employer's Agent. The Contractor's

reference beacons shall be of at least the same accuracy and sturdiness of construction as the existing beacons.

The Contractor shall submit the method of setting out he proposes to employ to the Employer's Agent. Accurate control of line and level shall be provided by the Contractor at all stages of construction.

Work set out by the Contractor may be checked by the Employer's Agent and any errors found shall be rectified by the Contractor at his own expense. The Contractor shall supply any instrument, equipment, material and labour required by the Employer's Agent for this survey work. Any assistance, including checking given to the Contractor by the Employer's Agent or any setting out done by the Employer's Agent for Contractor shall not be held as relieving the Contractor of his responsibility for the accurate construction of the Works.

The Contractor's survey instruments and survey equipment shall be suitable for the accurate setting out of the Works and shall be subject to the approval of the Employer's Agent. They shall furthermore be checked and correctly adjusted by the authorized agents before the commencement of the contract and subsequently when required by the Employer's Agent and when otherwise necessary.

When required the Contractor shall, at his own expense, provide two labourers to assist the Employer's Agent. The Employer's Agent shall have the sole right of approving of such a labourer.

Survey work shall not be measured and paid for directly and compensation for the work involved in setting out shall be deemed to be covered by the rates tendered and paid for the various items of work included under the contract.

3.2.22 WORKMANSHIP AND QUALITY CONTROL

The onus to produce work which conforms in quality and accuracy of detail to the requirements of the Specifications and Drawings rests with the Contractor, and the Contractor shall, at his own expense, institute a quality-control system and provide experienced Employer's Agents, foremen, surveyors, materials technicians, other technicians and technical staff, together with all transport, instruments and equipment, to ensure adequate supervision and positive control of the works at all times.

The costs of all supervision and process control, including testing thus carried out by the Contractor shall be deemed to be included in the rates tendered for the related items of work.

The Contractor's attention is drawn to the provisions of the various standardized specifications regarding the minimum frequency of testing that will be required for process control. The Contractor shall, at his own discretion, increase this frequency where necessary to ensure adequate control.

On completion of every part of the work and submission thereof to the Employer's Agent for examination, the Contractor shall furnish the Employer's Agent with the results of all relevant tests, measurements and levels to indicate compliance with the specifications.

3.2.23 TRANSPORT OF MATERIAL

All costs of transporting material, including overhaul, shall be included in the applicable tendered rates. All references in the specifications to transport, overhaul and haul distances shall be deleted irrespective of whether or not the deletion is included in these project specifications.

3.2.24 LIAISON WITH LOCAL AUTHORITIES

The Contractor will have to liaise with local authorities regarding the following matters:

- (a) Dealing with traffic.
- (b) Locating of existing underground services.
- (c) Protection of existing services during construction.
- (d) Access to properties.

It is the Contractor's onus to immediately contact all these authorities and to accommodate their involvement in his programme of work. The Contractor should also warn the authorities at least 48 hours before the actual work commences. Compensation for delays, losses or accidents will not be considered should the Contractor at any time have failed to keep the local authorities informed.

The Employer's Agent or Employer must immediately be notified, should the Contractor experience any problem regarding work which involves a local authority.

In all dealings with communities through which the Works are to be constructed, and in all dealings with workers employed from within such communities, the Contractor shall take due cognisance of the character, culture and circumstances of the specific community, and shall at all times use his best endeavours to avoid the development of disputes and rather to foster a spirit of co-operation and harmony towards the project.

The Contractor shall at all times, keep the Employer's Agent fully informed regarding all matters affecting or negotiated between the Contractor and the community, and he shall attend all liaison meetings as may be arranged by the Employer's Agent and / or the Employer. All matters concerning the community shall be discussed and where possible, resolved at such meetings.

Where any resolutions during such negotiations or at such meetings shall be contrary to the terms and provisions of the Contract, the Contractor shall not give effect thereto without a prior written instruction from the Employer's Agent. Where the Contractor is of the opinion that any instruction of the Employer's Agent issued in terms of this clause will result in the incurring of additional costs which were not provided for in his tendered rates and prices and/or that a delay in the progress of the Works will result, he shall be entitled to submit a claim in terms of Clause 51 of the Conditions of Contract, provided always that the period of twenty-eight (28) days referred to in Clause 51 shall be reduced to three (3) normal working days in respect of all claims submitted in terms of this clause.

3.2.25 APPLICABLE STANDARDIZED SPECIFICATIONS

For the purposes of this contract, SABS 1200 Standardized Specifications shall apply:

SANS 1200 A	:	General (1986)
SANS 1200 C	:	Site clearance (1980)
SANS 1200 D	:	Earthworks (1988)
SANS 1200 DB	:	Earthworks (pipe trenches) (1989)
SANS 1200 GA	:	Concrete (Small Works) (1982)
SANS 1200 G	:	Concrete (Structural) (1982)
SANS 1200 L	:	Medium-pressure pipelines (1983)
SANS 1200 LB	:	Bedding (pipes) (1983)
SANS 1200 LD	:	Sewers (1982)
SANS 1200 LF	:	Erf connections (water) (1983)

Variations and additions to the following SABS 1200 Standardized Specifications are given in portion 2 of the project specifications:

SANS 1200 A	:	General
SANS 1200 C	:	Site clearance
SANS 1200 D	:	Earthworks

SANS 1200 DB	:	Earthworks (pipe trenches)
SANS 1200 GA	:	Concrete (Small Works) (1982)
SANS 1200 G	:	Concrete (Structural) (1982)
SANS 1200 LB	:	Bedding (pipes)
SANS 1200 LD	:	Sewers
SANS 1200 LF	:	Erf connections (water)
SANS 1200 PA	:	Site Finishing
SANS 1200 PLIS	:	Labour Intensive Specifications

C3.3 LIST OF DRAWINGS

Drawings for construction and project implementation will have the following information

- 1. GENERAL LAYOUT DRAWING NO. JM939-GL-1-01**
- 2. TYPICAL DETAILS DRAWING NO. JM939-D-01.**



METSIMAHOLO LOCAL MUNICIPALITY

BID NO: MLM 22/2021/22

**CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC PIPES
IN ZAMDELA TOWNSHIP**

C3.4 PROJECT SPECIFICATIONS

C3.4.1 PROJECT SPECIFICATIONS: CIVIL AND STRUCTURAL WORK

C3.4.1.1 GENERAL

PS1.1 CONSTRUCTION PROGRAMME

It is a prerequisite of this contract that minimal disruption of the public is ensured during construction.

Construction methods must be of such a nature that no property or life is endangered. The Municipality accepts no responsibility for any work done outside the site boundaries without the Engineer's approval. The Contractor himself is responsible for liaison and arrangements with the Engineer in connection with the finalization and approval of the construction programme.

The Contractor is responsible for liaison with residents and house owners via the CLO and Project Steering Committee in respect of the programming of construction through private erven and the crossing of driveways to erven. No additional payment will be made in this regard and it shall be deemed to be covered by the relevant items.

Sufficient digital photographs of all existing structures and obstructions in the pipe line routes must be taken by the Contractor, compiled electronically, indexed and handed over to the Engineer before construction commences. A special payment item is included for a digital photo record in the Schedule of Quantities under other fixed-charge obligations.

The Contractor shall submit a programme of work to the Engineer not later than 14 (fourteen) days after the Contractor has been notified of the acceptance of his tender. This programme must take into account, and allow for phased completion of the work.

The Engineer may instruct the Contractor to stop construction work at any stage and time, as may be dictated by financial constraints highlighted by the Clients *Cost Control Programme*.

If necessary, the Engineer may instruct the Contractor to adjust his programme to suit other activities.

The programme shall not be in the form of a bar chart only, but shall clearly show the anticipated quantities, the production rates and value of work to be performed each month.

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

Failure to comply with these requirements will entitle the Engineer to use a programme based on his own assumptions for the purpose of evaluating claims for extension of time or additional payments.

If the programme submitted by the Contractor in terms of the General Conditions of Contract, has to be revised because the Contractor is falling behind in his programme, he shall submit a revised programme of how he intends to regain lost time to ensure completion of the Works within the period defined in the General Conditions of Contract or within a granted extension of time. A proposal to increase the tempo of work must incorporate positive steps to increase production either by more labour and plant on the site, or by using the available labour and plant in a more efficient manner.

Failure on the part of the Contractor to submit or to work according to the programme or revised programmes shall be sufficient reason for the Engineer to take steps as set out in the General Conditions of Contract.

The approval by the Engineer of a programme shall have no contractual significance other than the Engineer will be satisfied if the work is carried out according to the programme. The said approval shall not limit the right of the Engineer to instruct the Contractor to vary the programme if necessary. The Contractor shall allow for the effect of normal rainfall and special non-working days in his programme.

PS1.2 ASPECTS REQUIRING SPECIAL ATTENTION

PS1.2.1 Survey Pegs

All survey and site pegs must be protected against damage. The contractor must check all the pegs and report all missing pegs to the Engineer.

Any survey or site peg disturbed by the contractor must be replaced by a Land Surveyor at the cost of the contractor.

PS1.2.2 Existing services

There are underground existing services on site. The contractor must verify all existing services with the municipality and plant operators before any excavations are done. All indicated services must be protected against damage and any damaged caused to such services will be repaired at the cost of the contractor.

PS1.2.3 Surveying

The Contractor must use the services of, or employ a competent engineering surveyor to set out of the Works to ensure that the specified tolerances are adhered to.

Payment for the setting out will be deemed inclusive in the rates and no additional payment will be made in that regard.

No beacons, reference pegs, corner pegs, etc may be disturbed or removed without the prior consent of the Engineer.

PS1.2.4 Source of Materials

The Contractor will be responsible for locating of all materials complying with the relevant minimum requirements to be used in this contract. No separate payments shall be made for this as all costs related thereto shall be deemed to be covered by the tendered rates. All materials must comply with the relevant SANS specifications where applicable.

PS1.2.5 Setting out and approval for excavation

The contractor must set out the works in accordance with the plans and dimensions provided. After setting out the layout must be approved in writing in the site book by the engineer before any excavations are done. No excavations will be allowed without a Permission to Excavate notice signed by the Engineer's Representative and Client.

PS1.2.6 Quality Management Plan

The contractor must submit his own QMP to the engineer for approval. The engineer will issue QMP schedules that must be kept to date at all times.

PS1.2.7 Closing down documentation

The following documentation must be submitted to the engineer and approved by him:

- as-built drawings
- safety file
- quality management file

PS1.2.8 Disruption of existing services

The WWTW Plants must remain in operation at all times. Any disruption of service required for the Works under this contract must be approved in writing by the Client and Engineer's Representative.

PS1.3 ITEMS NOT COVERED IN THE SPECIFICATIONS

Some of the items in the Schedule of Quantities may not be covered by the Standard Specifications. These items are detailed on the drawings or described in the Schedule of Quantities. The rates tendered must include all labour, material, etc and no additional payments will be considered.

PS1.4 ABNORMAL RAINFALL

The source for rainfall statistics shall be taken as shown in Table 2 of WB 42 of the Weather Bureau, Department of Environment Affairs, for the determination of Rn and Nn as specified in SCC 42.3.2.

The Contractor shall keep daily rainfall records and submit them to the Engineer at every site meeting. No additional payment shall be made for the supply and installation of the rain gauge or for the keeping of the rainfall records and all costs must be included in the appropriate items.

PS1.5 LOCAL LABOUR AND LOCAL SUB-CONTRACTORS

PS1.5.1 Introduction

It is envisaged that the works at Zamdela Ward 11 will be constructed by one Contractor employing local labour to construct the work applying the principles of the Expanded Public Works Programme (EPWP) as far as practical.

PS1.5.2 Workload

The Contractor is required to execute certain components of this contract with labour-based construction methods as described in paragraph PS1.5.6.

PS1.5.3 Assisting ABE's

The Contractor is required to assist ABE's in accordance with the Contractor's proposal included in his/her tender.

PS1.5.4 Local Labour

It is the intention that this Contract should make maximum use of the local labour force that is presently under-employed. To this end the Contractor is expected to limit non-local employees to key personnel only and to employ and train local labour on this Contract.

The Contractor shall complete the form: Annexure as indicated in the document and state how many non-local key personnel he intends to employ in the various categories. The numbers stated on the above-mentioned form will be strictly controlled during the Contract period and any increase in numbers is subject to the approval of the Employer.

A Project Steering Committee (PSC) will be formed and will consist of representatives of the affected community, METSIMAHOLO MUNICIPALITY. The PSC is up to date with the details of the project and appointment of all local labour must be through the CLO and PSC.

The Contractor will be required to arrange his own documentation regarding a contract for locally employed labour and must include provisions for the Occupational Health and Safety Act (1993) and the Compensation for Occupational Injuries and Diseases Act. The minimum daily wage to be paid in accordance with the Wage Bill for the Free State geographical area shall be as stated in the Government Gazette in terms of Wage Determination for the Civil Engineering Industry.

PS1.5.5 **Contractors Obligations**

The Contractor is to supply the Engineer with copies of the agreements between himself/herself and his/her subcontractors within twenty-one (21) days of the contract being awarded.

Should the Contractor be unable to or unwilling to?

- i) Subcontract the required Works as detailed in his/her tender document;
- ii) Submit the necessary documentation to prove that he/she is subcontracting the work as specified in paragraph PS1.5.6.
- iii) Implement his/her proposed training scheme or any other scheme agreed to by the relevant parties;

the Municipality reserves the right to:

- a) nullify the said contract and re-issue it to tender;
- b) nominate available local subcontractors for the required Works;
- c) deduct payment from the monthly certificates, the value of which will be calculated as follows:

X	=	Y - Z
X	=	Amount of deduction from the monthly certificate
Y	=	Value of the work that should have been undertaken by the subcontractor during the month
Z	=	Value of the work actually undertaken by the Subcontractor during the month;
- d) nominate agents to undertake the proposed training at the expense of the Contractor.

PS1.5.6 **Work Considered to be Labour Based**

It is a condition of this contract that the following components of work must be executed using labour-based construction methods.

- 1) Excavation of soft/ intermediate / hard material in pipe trenches not deeper than 1,2 m if the uninterrupted trench length of soft material is not greater than 50 m, and the total depth of the trench consists of soft material.
- 2) Excavation of soft/ intermediate/ hard material in all pipe trenches for erf connections with no limitations.
- 3) Preparation of pipe bedding.
- 4) Laying and jointing of all pipes with a nominal diameter smaller than 300 mm:
- 5) Backfilling of all trenches with compaction excluded.
- 6) Placing of concrete for anchor blocks and toilet foundations.

- 7) Brickwork in manholes.
- 8) Basic plumbing installation in toilets.
- 9) Location of existing services.

Note:

The abovementioned work must either be done by local labourers employed by the Contractor or by local subcontractors.

In the Schedule of Quantities, as an alternative to machine excavation, the cost of a compulsory labour-based construction activity is covered by using the standard SANS 1200 payment item (where applicable). Site conditions and material present will dictate the application of labour-based trench excavation or machine excavation. A prerequisite for payment of these labour-based excavation items, is that the Contractor keeps daily written records with names of labourers, tasks completed, man-hours spent and payments made.

Items excluded from labour-based items:

- 1) Excavation in Boulders and rock material - Mechanical excavators and blasting allowed.
- 2) Compaction of bedding and backfilling - Rollers and plate compactors allowed.
- 3) Transport of materials LDV, dumpers and other transport equipment allowed.
- 4) Mixing of concrete - Mechanical mixers allowed.
- 5) Vibration of concrete - Vibrators compulsory.
- 6) Precast concrete manholes.

PS1.6 TRAINING SCHEMES

Certain members of the Contractor's staff will be selected from the locally recruited employees, to be subjected to training in tasks related to the execution of the contract. An item with a provisional sum to cover the cost of training, is included in the Schedule of Quantities.

The PSC will select the trainees and decide upon the specific training for each of them. The Contractor must guide the PSC in this regard and make all the necessary arrangements with the training institution and the trainees, to ensure that the process runs smoothly. This training must be completed before the Contractor will receive any payments. The provisional sum in the Schedule of Quantities is to cover the fees of the training institution and a R120 per day allowance for each trainee during training. All other costs, including transport of trainees, will be borne by the Contractor and should be included in the percentage handling fee of the Contractor.

PS1.7 APPLICABLE STANDARDISED SPECIFICATIONS

Although not bound in nor issued with this document, the following standardised specifications shall form part of the contract.

SANS 1200 A	- 1986	GENERAL
SANS 1200 AB	- 1986	ENGINEERS OFFICE
SANS 1200 C	- 1982	SITE CLEARANCE
SANS 1200 DB	- 1989	EARTHWORKS (PIPE TRENCHES)
SANS 1200 L	- 1983	MEDIUM-PRESSURE PIPELINES
SANS 1200 LB	- 1983	BEDDING (PIPES)
SANS 1200 LD	- 1982	SEWERS
SANS 1200 LF	- 1983	ERF CONNECTIONS (WATER)

Where in the above-standardised specifications reference is made to other standardised specifications, the latter shall also apply for the purpose of this contract.

PS1.8 STATUS

Should any discrepancies exist between the different Specifications and/or Drawings and/or Schedule of Quantities the different sections will have the following relative status in declining order:

1. Project Specifications
2. Special Conditions of Contract
3. General Conditions of Contract
4. Standard Specifications
5. Conditions of Tender
6. Contract Drawings
7. Schedule of Quantities

C3.4.2 VARIATIONS AND ADDITIONS: CIVIL AND STRUCTURAL WORK

PSAA GENERAL

All material must, where applicable, carry the SANS mark.

PSAB ENGINEERS OFFICE

Notice Board

A notice board in accordance with CESA guidelines must be erected on the Site of Works. Details of the board are provided on a drawing to be issued. The existing offices at the Works can be utilized by the Engineer.

PSD1 EARTHWORKS (Free haul)

The following free haul distances will be applicable:

Dispose material	5 km
Borrow pit – Import of material (if required)	15 km

PSD2 CONTRACTOR TO ALLOW FOR THE HANDLING OF SEEPAGE WATER IN HIS TENDER RATES

PSD3 TESTING OF PIPELINES

3.1 All pipes after completion and before scouring and disinfecting shall be tested to 1,25 x rated working pressure of pipes.

3.2 All tests must be carried out in the presence of the Engineer.

3.3 Backfilling of Pipelines

Backfilling of pipelines should be carried out in two phases:

- (a) Phase 1 involves partial backfilling to 300 mm above the pipeline before pressure testing.
- (b) Partial backfilling should leave the joints totally exposed and rise at least 300 mm above pipes.
- (c) Mechanical shovels may not be used for placing the partial backfilling in the trench.
- (d) Phase 2 involves completion of backfilling after pressure testing.
- (e) Backfilling should be compacted at their optimum moisture content to give the maximum density.
- (f) The pipeline should not be left partially exposed for longer than 1 week. Pipes should either be fully exposed or have a minimum cover of 300 mm.

3.4 Payment for pipelines

(a) Excavation

80 % of excavation tender rate will be paid after excavation and before completion of backfill and finishing-off.

(b) Pipes and fittings

80 % of tender rates will be paid after installation, but before successful testing.

PSL MEDIUM PRESSURE PIPELINE

PSL1 TRANSPORT, HANDLING AND STORAGE OF PIPES, SPECIALS AND FITTINGS

The Contractor shall be responsible for the receipt, off-loading, safe storage and/or stringing and safeguarding of **all materials** delivered to Site. The Engineer shall be afforded every opportunity of inspecting such materials on their arrival at Site prior to them being off-loaded. If their condition is unacceptable to the Engineer on arrival, the Contractor shall remove them forthwith from the Site and replace such materials at this own cost and to the satisfaction of the Engineer.

Material supplied by the Employer for incorporation into the Works shall be inspected by the Contractor on arrival and any damage to these items shall be immediately reported to the Engineer. Once these items have been offloaded on Site, the Contractor accepts liability for their safeguarding. Subsequent damage to these items will be the Contractors fault and any costs incurred in the replacement of such items will be for the Contractors account.

Pipes, specials and fittings shall not be subjected to rough handling at any time. Under no circumstances shall they be dropped during loading or off-loading or be allowed to collide with each other.

Where pipes, specials and fittings are to be stockpiled to bulk storage yards, the Contractor shall make his own arrangements for suitable area that shall meet with the approval of the Engineer. All PVC pipes, specials and fittings shall be adequately protected from UV radiation (sunlight) at all times, the costs of which shall be included in the tendered rates.

PSL2 SPECIAL PROTECTION TO BURIED STEEL PIPEWORK AND FITTINGS

Notwithstanding the requirements of Particular Specification PA Pipes, Specials and Fittings, all buried components of steel pipes and specials shall be protected by wrapping with "Denso" tape (inner and outer wrap). The rates for buried steel pipe fittings and specials shall include for wrapping with "Denso" tape.

For the purpose of this specification, "Denso Protection" and / or "Denso Wrapping" and / or "Wrap with Denso Tape" is understood to be a three-component system made up as follows:

PSL2.1 Surface Preparation

Light commercial blast or wire brush the item to be wrapped to remove all mill scale and loose rust. All weld areas must be free of slag, weld spatter and burnt coating. Remove the grit mud and dust before priming the Denso Priming Solution or similar at a nominal coverage rate of 10 m²/litre. In presence of continuous moisture or for under water application, Denso S105 Paste should be used instead, at a nominal coverage of 3 m²/kg. Immediately after priming, the wrapping procedure should commence.

PSL2.2 Denso Petrolatum Tape Wrapping

Wrap the buried item to be protected with Denso Petrolatum Tape Wrapping, ensuring intimate contact with the buried item, sufficient overlap and the absence of air pockets between the buried item and the Denso Tape.

PSL2.3 Another Wrap

Denso PVC self-adhesive outer wrap should be wrapped around the Denso Petrolatum Wrapping, ensuring identical overlaps, which do not coincide with the overlaps on the Denso Petrolatum Tape Wrapping.

The rates for buried steel pipe fittings, valves and specials shall include for “Denso Protection” or “Denso Wrapping” or “Wrap with Denso Tape” as specified above.

PSL3 THRUST BLOCKS AND PIPE PEDESTALS

Before any thrust block or pedestal is cast, the pipe special of fitting shall be supported and secured in its correct alignment and shall be jointed to the adjacent pipework.

Concrete faces of thrust blocks, unless otherwise shown on the drawings or specified, shall be a minimum of 225 mm from flanges and 300 mm from flexible couplings centres.

The bearing face of the thrust blocks shall be cast against undisturbed soil or rock.

PSL4 TESTING

Standard testing required as per applicable SANS specification.

PSL5 STEEL PIPES (Sub clause 3.4)

PSL5.1 All steel pipes shall be in accordance with SANS 719 Grade A with a minimum wall thickness of 6.0 mm. All flanges shall be drilled according to SANS 1123 Table 1000/3 except flanges which have no holes or if otherwise specified on the drawings or in the Schedule of Quantities.

Before leaving the factory, the pipes shall be hydraulically tested in accordance with SANS 719 and a test certificate shall be provided.

Where plain ends are specified the external welds of the pipe shall be ground flush for a distance of 150 mm from the end. The pipes shall be sufficiently round to ensure that flexible coupling can fit onto the ends.

PSL5.2 Jointing Materials (Sub clause 3.8)

All flanges and couplings underground surface must be protected with denso mastic and tape. The cost of this protection must be included in the coupling / pipe rates.

i. Flexible couplings

Flexible couplings shall be Viking Johnson or approved equivalent without centre registers.

Rubber rings shall be wedge-shaped and manufactured from natural and / or synthetic rubber. Reclaimed rubber shall not be used in their manufacture.

ii. Flanges and accessories

Flanges shall be drilled to Table 1000/3 of SANS 1123. Bolts and nuts installed in an exposed (above ground) flange connection shall be hot galvanised and painted to the same finish as associated pipework.

Pipe flanges connected to proprietary items including pumps, meters, special valves, etc shall be drilled to suit the specific proprietary item.

PSG CONCRETE (STRUCTURAL) (SANS 1200 G)

PSG1 CONCRETE FINISHES

Concrete surfaces must have the following finishes:

- All visible concrete : Grade I accuracy with smooth homogeneous surface
- Inside of structures : Grade II accuracy with smooth surfaces
- Rest of concrete : Grade III accuracy

All edges to be chamfered.

PSG2 SPECIAL FOR WATER RETAINING STRUCTURE

(a) Concrete mix design

The concrete mix must be designed by an approved laboratory for water retaining structures. The aggregates used must also be approved by the laboratory. The design mix with the report from the laboratory must be submitted to the engineer. Polypropylene fibres @ 2.0 kg/m³ must be added to the concrete mix (contact BASF, Tel (011) 203 2400 / 2405 or e-mail at quotes-za@basf.com). The concrete must also comply with the following:

- Cement/Water ratio of < 2
- Sand content 40 – 45 % to obtain maximum water tightness
- Natural sands with low water demand
- Must be designed for low shrinkage
- Approved add mixtures may be used to obtain workability
- Concrete may not be pumped

(b) Pipe and bolts and ties through concrete

Only pipes indicated on the drawings may go through the concrete and must be placed in position before the concrete is cast. Shutter ties to be fitted with an approved centre stop.

(c) Water tightness test

The structures must be tested for water tightness as follows:

- Structure to be filled @ ± 1 m/day.
- After the structure has been full for 14 days the full water level must be restored and marked.
- If the water level falls less than 5 mm in 96 hours and there are no visible leaks, the structure will be taken as watertight.

Should the structure be found not to be watertight the contractor will empty it and seal the leak(s). The structure must then be tested again, all at the cost of the contractor.

(d) Water permeability test

The design mix must be tested with regard to permeability by the NAI of the CSIR. The maximum permeability coefficient may not be more than 1×10^{-7} /second. One set of six samples must be tested for the 30 Mpa design mix. The contractor is responsible for the tests and the costs thereof.

(e) Strength tests

Two sets of three test cubes per 50 m³ concrete placed are required to be tested at 7 and 28 days. The contractor is responsible for the tests and the costs thereof.

(f) Welding of reinforcing

Reinforcing may not be welded.

(g) Curing

Curing compounds may not be used on floors. Floor curing must be done by constant wetting.

(h) Plums

Plums may not be used.



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IN ZAMDELA TOWNSHIP**

C3.5 PARTICULAR SPECIFICATIONS

C3.5 PARTICULAR SPECIFICATIONS

SABS 1200 A: GENERAL

PSA 4.2 CONTRACTOR'S OFFICE, STORES AND SERVICES

The Contractor's camp shall be in an approved position subject to the approval of all authorities concerned.

The costs, including rent, if any, of establishing, operating, and maintaining and removing the camp shall be covered by the schedule rate.

The camp shall be adequately guarded during or outside working hours as required.

PSA 6 DAYWORKS

Add the following new clause:

PSA 6.1 Scope

This section covers the method of measurement and payment for work carried out on a day work basis.

PSA 6.2 General Requirements

Work will be classified as day work only if the Engineer considers no other rate in the Bill of Quantities appropriate for payment purposes.

An instruction regarding all work to be carried out under day work in terms of Clause 37(2) of the General Conditions of Contract will be issued at the discretion of the Engineer. Some or all of the items priced under day work in the Bill of Quantities may possibly not be required for this Contract.

Before ordering any material, the Contractor shall submit quotations to the Engineer for his approval and shall submit such receipts or vouchers to the Engineer as may be necessary for proving the amount claimed.

PSA 6.3 Measurement and Payment

The day work rates submitted for vehicles and construction equipment, in the Bill of Quantities shall be a hire charge for the use of the vehicle and driver or constructional plant/equipment and operator (excluding VAT) and shall apply only to vehicles and construction equipment approved in writing by the Engineer. The rate shall include for maintenance, fuels and oils and other operating costs, establishment, insurance and other contingency costs relating to the running of the vehicle, plant or equipment.

Where there is ambiguity between the power developed at the flywheel and mass of a machine, the power shall govern the measurement category.

The Contractor and the Engineer will agree on the method of recording the working hours prior to the commencement of the work. Any long period of idling at any one time which in the opinion of the Engineer or his representative is beyond that required for normal operating conditions will not be paid for as working time. Non-working hours for any reason shall not be measured for payment.

SABS 1200 AB: ENGINEER'S OFFICE

PSAB 3.1 CONTRACT NAME BOARD

Delete the entire clause and replace with:

The name board shall be of either tempered hardboard at least 12mm thick or steel sheeting so braced on the reverse side as to prevent warping or buckling and shall be mounted on two or more firmly planted poles as necessary. The quality of the paint shall conform to SABS Standard Specification CKS 193. The colour of the paint shall conform to SABS 1091-1975 colour F11, strong blue. The Sasolburg Local Municipality logo shall be in colour. Logos of the Engineer, the South African Association of Consulting Engineers and the South African Federation of Civil Engineering Contractors shall, if applicable, be displayed.

The height of the larger name board shall be 2400mm and the width 4800mm, whilst the height of the smaller name board shall be 800mm and the width 1600mm.

PSAB 4.1 TELEPHONE

Two cellular telephones shall be provided for the duration of the contract for the use of the Engineer and the Engineer's representative. The Contractor at the tendered rates under the relevant scheduled item shall recover the associated charges and telephone calls connected with the contract.

PSAB 4.2 COMPLIANCE WITH HEALTH & SAFETY REGULATIONS

The Contractor at the tendered rates under the relevant scheduled item shall recover the costs associated with providing adequate means to ensure full compliance with the Health & Safety Specifications as included in the Project Specifications.

PSAB 5.6 PHOTOGRAPHIC RECORD OF WORK

The Contractor shall, if scheduled, supply and maintain in working order a suitable digital camera for the purpose of recording the successive stages of construction of the works. The Contractor shall on completion of the works, provide the Engineer with two full sets of photographs in electronic format as well as two full sets of the same in paper copies.

PSAB 6 CLOSED CIRCUIT TELEVISION (CCTV) INSPECTION

Add the following new clause:

PSAB 6.1 Equipment

The contractor shall be responsible for providing all the equipment necessary to undertake a successful CCTV inspection and have a joint viewing of the recording with the Engineer.

The CCTV camera shall have a reliable means of propulsion through the pipe and an accurate means of determining chainages along the pipe shall be provided. No "push-pull" camera system will be deemed acceptable, as the recorded image is "jerky" and difficult to interpret. The camera shall be capable of producing sharp wide-angle colour images of all the physical characteristics of the pipe to be inspected such as the condition of the pipe wall and lateral connections, if any, shall have an adequate depth of field. A facility to record the information on the screen image at any point along the pipeline shall be provided.

The camera system must be capable of measuring the slope of the pipe being inspected. The instantaneous angle must be filtered and is to be displayed on the screen and recorded on the VCR. Raw inclinometer data is also to be stored for downloading to the database for the purpose of pipe profiling. The camera system must be capable of downloading to the database, no less than three readings per meter of pipe inspected.

Where specifically called for, the Contractor shall supply a CCTV camera with a swivel head or similar arrangement suitable for inspecting branch connections. If the Contractor is unable to offer this facility, he should indicate whether his camera can do an in-line inspection of a 100mm dia. branch connection.

The images shall be recorded on standard format VHS videotape.

A large format TV colour monitor shall be provided for the viewing of the inspection tapes.

PSAB 6.2 Inspection Procedure

At the start of the contract, the Contractor shall obtain confirmation of the extent of the pipeline to be CCTV inspected and plan the work accordingly.

After completion of the new pipeline, the Contractor shall perform a CCTV inspection to record the condition of the newly installed pipeline and submit the original video tape recording to the Engineer for the Employer's records.

PSAB 6.3 Measurement and Payment - General

The Contractor shall supply all the necessary equipment and labour required to effectively undertake the CCTV inspection of the existing pipeline as detailed in the preceding clauses. No additional payment shall be due to the Contractor if the inspection must be repeated due to the previous inspection record being unacceptable. The rate shall be based on a daily charge irrespective of the length of pipeline to be inspected.

Refer to PSAB 6

Supply or hire of CCTV inspection equipment..... Unit: day

SABS 1200 D: EARTHWORKS

PSD 5.1.1.1 Barricading and Lighting

Replace sub-paragraph (a) and (b) of Clause 5.1.1.1 with the following:

The Engineer on site shall determine the maximum lengths of trench in one place to be opened ahead of the completed and backfilled pipeline.

1. Adequately protected by a barrier comprising a diamond mesh fence and fluorescent orange plastic netting of height at least 1 000mm and as close to the excavation as practicable; and
2. Provided with notice boards marked "CLOSED - GESLUIT" at each end of closed or partially closed roads where encountered,
3. The barrier or fence shall be suitably wrapped with reflective red and white danger tape or provided with flashing orange lights, placed at 15m intervals along the barricading at night.

No separate scheduled rate has been allowed for this item and the contractor shall adequately allow for this cost in the rates allowed for excavation.

Should the Contractor fail to provide adequate lighting, signing and barricading, access to properties, or leave the site in a dangerous condition, the Engineer shall be entitled to suspend all work under the Contractor until in the Engineer's opinion the Contractor's obligation in these respects have been fulfilled and/or arrange for any emergency work to be carried out by some other agency and to deduct the cost of this work from any monies due to the Contractor.

PSD 5.1.1.2 Safeguarding of Excavations

Add the following to this sub clause:

Loose ground, materials, tools and appliances shall be kept clear of the edge of the excavations and a pathway at least 0,30m shall be left clear along the edge of the excavation. All excavations greater than 1.5m deep must be adequately horizontally shored.

Prior to the commencement of any excavations the Contractor shall establish the position of all underground services, whether shown on any drawings or not, by means of suitable equipment. He shall then excavate by hand to expose the services in areas and in a manner and at a time agreed to with the Engineer. The Engineer or Johannesburg Water takes no responsibility for the accuracy of the information shown on any drawings in respect of underground services, nor for any omission.

At least 7 (seven) days before commencing to excavate to locate services the Contractor shall:

- a) Arrange a site meeting with the authorities concerned and the Engineer to ascertain required precautionary measures.
- b) Give written notice to the department/authority concerned and the Engineer of his intention to excavate.

PSD 5.1.1.3 Explosives

Where blasting is resorted to, it shall be carried out strictly according to Explosives Act and Regulations 1956 (Act No. 26 of 1956, as amended). However, in no case will blasting be allowed if a reasonable possibility exists of injury to any foundation, wall, pipe, cable or any structure, complete or partly complete. Where the Engineer considers blasting to be dangerous, the same shall not be permitted and his decision shall be final and binding.

Wherever blasting is permitted and resorted to in the vicinity or within the limits of existing Townships, roads, etc., it shall only be executed under the cover of sufficient earth backfill, heavy wire mesh screens or rubber matting of adequate weight and area to prevent the blasted material from being ejected from the trench. If any damage should occur, the Contractor shall carry out remedial work arising from such damage and will be held to have allowed therefore in his price.

The Contractor shall undertake such blasting so that the Peak Particle Velocity (PPV) as measured at the closest point to the existing outfall sewer and or building structure shall not exceed 25mm/s. Each blast shall be monitored, and the findings recorded by an appropriately qualified explosives expert using a suitably calibrated apparatus. The Contractor shall also timeously inform the relevant inspectorate and obtain the required blasting permit from the South African Police Services, Division of Explosives before proceeding with any blasting on site. If in the opinion of the Engineer, the Contractor makes careless use of explosives, he may forbid the Contractor the use of explosives.

It is a condition that should blasting result in the disturbing of material outside the trench, the Engineer will require the Contractor to remove the disturbed material and backfill it to a compaction standard of the natural in-situ material. All this work for correcting areas of disturbed material will be done at the Contractor's cost.

The schedule rate for hard rock excavation shall cover all costs incurred in connection with supply, transportation, storage and handling of explosives, the related blasting costs and any remedial work should this be required.

PSD 5.1.1.4 Hard rock excavation without using explosives

Add the following sub clause:

It is a condition that should blasting result in the disturbing of structures outside the trench, the Engineer will require the Contractor to remove the rock material by means of pneumatic or hydraulic breakers, e.g. jackhammers or woodpeckers.

The schedule rate for hard rock excavation without using explosives shall cover all costs incurred in connection with supply of specialist equipment, the transportation to and from the site as well as the removal and disposal of the hard material should this be required.

PSD 5.1.4 Nuisance – Maximum Length of Open Trench

Add the following new sub clause:

Unless otherwise permitted and where relevant, not more than the 100m of trench in one place shall be opened ahead of the completed and backfilled pipeline.

PSD 5.1.4.3 Excavated Material Not to Endanger or Interfere

Add the following to this sub clause:

A safe, clear path shall always be kept open for pedestrians. Equipment, materials and waste shall be stored, stockpiled or removed in such a manner that pedestrians are not endangered and that the nuisance level is kept to a minimum. If construction activities occupy the whole footway and verge area so that pedestrians are forced to walk in the traffic lane, adequate protection from traffic shall be provided.

Where instructed by the Engineer or where the Works impose a danger to traffic or pedestrians, the Contractor shall at his own cost remove off Site excavated material to temporary stockpiles (approved by the Engineer) and the return to Site, excavated material for use as backfill or bedding.

PSD 5.2.5.1 Free Haul

Delete the existing clause and replace with:

The free haul distances, within which material shall be moved, irrespective of the method of transportation adopted, without separate payment, shall be

- (1) Material obtained from and to be used in the construction of the Works
- the limits of the works (no overhaul)
- (2) Material to be disposed of as surplus material to the Contractor's tipping site.
- the full distance (no overhaul).
- (3) Surplus material to be tipped and spread at any site directed
- 5km free haul
- (4) Imported material from the Contractor's source of supply
- the full distance (no overhaul)
- (5) Imported material from the Council's source of supply where directed
- no free haul.
- (6) Selected granular bedding material from trench excavations
- 0,5km free haul

The haul distances shall be along the shortest possible approved route between the point of loading and the point of placing.

SABS 1200 DB: EARTHWORKS - PIPE TRENCHES

PSDB 5.2 Minimum Base Widths

Add the following new sub clause:

Should the excavated trench width exceed the specified width to and for 300mm above the barrel of the pipe by a value greater than 300mm, remedial measures shall be as directed and shall be provided at the Contractor's cost unless it can be shown that such excess width is due to factors beyond the Contractor's control.

Trench widths should be as near vertical as possible in order to minimise the quantity of selected fill material to be provided.

PSDB 5.4 Excavation

PSDB 5.4.1 Hand Excavatability

Hand excavatable material is:

(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
- (i) where the material is a gravel having a maximum particle size of 10 mm and contains no cobbles or isolated boulders, no more than 15 blows of a dynamic cone penetrometer is required to penetrate 100 mm.

(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 10 mm and contains no cobbles or isolated boulders, no more than 8 blows of a dynamic cone penetrometer is required to penetrate 100 mm;

Note: (1) A boulder, a cobble and gravel are material with a particle size greater than 200 mm, between 60 and 200 mm.

(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 400 mm and drives a cone having a maximum diameter of 20 mm (cone angle of 60° with respect to the horizontal) into the material being used.

Table 1: 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 upto 10 mm; very difficult to mould with fingers; can just be penetrated with an ordinary hand spade.
Dense	Very high resistance to penetration by the sharp end of geological pick; requires many blows for excavation.	Stiff	Can be indented by 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.

Trench excavation

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

PSDB 5.4.2 Removal of Designated Obstacles

Asphalt Surfaces

Add the following new sub clause:

The existing asphalt road surfacing shall be saw-cut prior to excavation commencing for the full width of the trench as specified on the construction drawings and in accordance with PS10.10 to ensure a neat finish to the reinstated surfacing.

PSDB 5.6.1 Backfilling - General

Add the following new sub clause:

Backfilling should not lag more than 50m behind the laying operation.

PSDB 5.6.3 Disposal of Soft Excavation Material

Delete the existing clause and replace with:

The Contractor shall locate and negotiate for tipping sites for the disposal of surplus material and bear all costs in connection therewith. Arrangements for the consent of the owner of a property to deposit spoil and or temporary spoil thereon shall be confirmed in writing. Such arrangements shall be approved

before being implemented. All spoil sites shall be neatly finished off and compacted to 90% of MOD.AASHTO density.

PSDB 5.7.2 Areas Subject to Traffic Loads

Delete this sub clause and replace with the following:

In areas subject to traffic loading compaction shall be done in accordance with PS10.10

PSDB 5.9.2 Private Property and Commonage

Add the following new sub clause:

The ground and paved surface of servitudes, parks, driveways, roadways and sidewalks shall be reinstated to at least the standard and conditions as existed previously.

Grass sods shall be cut out from the grassed areas to be excavated and shall be set aside, preserved and kept damp until used for reinstatement. All other material to be used for reinstatement shall be suitably stored for such purpose.

The rate for reinstatement of block paved surfacing shall include all costs for the supplying and laying of the surfacing. The rate shall also cover for taking brick paving out carefully, stockpiling and replacement with new if bricks are broken or damaged. The rate must furthermore provide for all plant, labour and material costs associated with the work.

The rate for reinstatement of asphalt or concrete paved surfacing shall include all costs for the saw cutting, supplying and laying of the surfacing. The rate shall also cover for removal and spoiling of the material. The rate must furthermore provide for all plant, labour and material costs associated with the work.

The width of any trench through an area paved with bricks or precast concrete units shall be the minimum practicable width that, in the opinion of the Engineer, can be removed without cutting bricks or precast units.

PSDB 5.9.4 Bitumen roads: Sub-base and Base

Delete this sub clause and replace with the following:

Metsimaholo Local Municipality will reinstate all asphalt surfaces. Refer to PS10.10.

PSDB 5.9.7 Construction of layers for footways

Add the following new sub clause:

The reinstatement of the paving blocks shall be the responsibility of the contractor. The reinstatement and backfilling of pavement layers shall be done in accordance with PS10.10.

PSDB 5.9.8 Existing Kerbs and Channels

Add the following new sub clause:

Where excavations must cross existing kerbs and channels, then:

- a) In the case of a precast kerb and channel the kerb, segmented paving blocks and channel shall be carefully removed and stored to avoid any damage to or theft of the kerb and channel and replaced after the excavation has been backfilled. Any damage to or theft of the kerb and channel shall be made good by the Contractor at his expense.
- b) In the case of cast insitu or extruded insitu kerb and channel the kerb and channel shall be cut with a diamond tipped saw and carefully removed so as to avoid any damage to the remaining

kerbs and channels. After the excavation has been backfilled the portion of kerb and channel removed shall be replaced with a cast insitu kerb and channel of the same profile as the existing kerb and channel.

PSDB 8 MEASUREMENT AND PAYMENT

PSDB 8.3.1(b) Clear designated obstacles

i) Asphalt Surfacing

The rate shall cover the saw cutting, removal and safe disposal of up to 150mm thick asphalt surfacing for the width of the trench as detailed on the project drawings.

Refer PSDB 5.4Unit: m

PSDB 8.3.1(b) Clear and reinstate designated obstacles

ii) Reinforced Concrete Palisade Fence

The rate shall cover the demolishing and/or removal and reinstating, to original condition, a concrete fence and their associated components.

Refer Clause 8.3.2Unit: m

iii) Kerbs and channels

Reinstatement of kerbs and channels.....Unit: m

The rate for reinstatement of kerbs and channels shall include all costs for removing kerbs and channels, stockpiling, disposal of all unsuitable material and replacing with new if broken or damaged and laying. The rate must furthermore provide for all plant, labour and material costs associated with the work.

iv) Steel Palisade Fence

The rate shall cover the demolishing and or removal and reinstate to original condition, a steel palisade fence and their associated components.

Refer Clause 8.3.2Unit: m

v) Grass and lawn areas

Refer Clause PSDB 5.9.2Unit: m2

vi) Block paved surfacing

Refer Clause PSDB 5.9.2Unit: m2

vii) Asphalt paved surfacing

Refer Clause PSDB 5.9.2Unit: m2

viii) Concrete paved surfacing

Refer Clause PSDB 5.9.2Unit: m2

SABS 1200 L: MEDIUM-PRESSURE PIPELINES

PSL 3.9.3 Protection against Electrolytic Corrosion.

Replace this sub clause with the following:

All joints and fittings, where instructed by the Engineer, shall be fully wrapped with approved protective tapes. Protective tape shall, comply with Specification B as detailed below.

Specification B

This tape shall be made up of a non-woven synthetic fibre carrier impregnated and coated both sides with a compound incorporating high melting point bitumen (Densotherm or similar approved). During application the tape shall be correctly heated, and laps adequately sealed all in accordance with the instructions and recommendations of the supplier.

Before the application of any protective material, the surface of the pipe shall be thoroughly cleaned, and all loose or damaged pipe coating removed. All ridges depressions and steps in the surface shall be filled with approved filler so as to present a smooth uniform surface. After the filler has hardened, the entire surface to be wrapped shall be primed with a primer or otherwise treated as recommended by the supplier of the tape.

The protective tape shall be applied as a spiral wrap with not less than 50% overlap. The width of the tape shall be appropriate for the section to be wrapped.

The protective wrapping shall be carried over the pipe coating to the extent that the double protective layer formed by the 50% overlap covers not less than 100mm of the pipe coating.

PSL 3.10 Valves

Delete the existing clause and replace with the following: Where scheduled:

1) Pressure reducing valve to be used shall be constructed from grade 17 high duty cast iron body and cover-stainless steel trim-16bar rated- control circuit consist of brass fittings and copper tubing, bronze pressure reducing pilot- fusion bonded epoxy coated- flanged and drilled to BS 4504 Table25.

2) Isolating gate valve to be used shall be of the wedge gate type-cast iron body and cover- gunmetal trim-16bar rated-manufactured to SABS 665 specification-non rising spindle-anti clockwise closing-gearbox operated-copon coated flanged and drilled to BS 4504 Table25.

3) Air valves must operate both ways as specified and when applicable, shall be manufactured to the same standards of quality and finish laid down in SABS 664 for gate valves. All valves shall be flanged in accordance with SABS1123. Separate built in isolating valves is required.

4) Butterfly valves shall be constructed from Ductile iron to EN 1563 for the body whilst the disc shall be manufactured from stainless steel to BS 3100 316 C16. The spindle, seat ring and clamp ring shall be manufactured from stainless steel to BS 970. The resilient seal and rubber liner shall be manufactured from EPDM. The valves shall be of the concentric disc design type with a full rubber lined body rated for minimum 16 bar working pressure. The closing mechanism shall be of hand wheel gear operated type with ratio of at least 1:4. The butterfly valves shall be supplied by Messrs. Premier Valves (Pty) Ltd or similar approved.

All material must resist corrosion or be coated with a protective layer, which is highly resistant to corrosion, such as an epoxy coating of excellent quality. Floats must not loose their shape or leak and shall be able to resist wear as to ensure long life.

Air valves must withstand twice the maximum rated working pressure and ensure a positive drop-tight seal from a minimum pressure of 50kPa to the maximum working pressure. The large orifice diameter shall be the same as the nominal diameter of the valve. The small opening must function through the whole range of pressures up to the rated pressure.

All valves shall be to a standard acceptable to Metsimaholo Local Municipality.

All valves must have designed useful life of 45 years under operating conditions and valves shall be guaranteed for a period of five years from date of delivery.

Where a valve is abnormally deep under the final finished ground level, an extension shall be fitted to the valve stem to ensure that a normal length valve key can be used to operate the valve.

All valves shall be supplied complete with bolts, nuts, and gaskets.

PSL 3.11 Hydrants

Hydrants shall be of the underground screw down type with an overall maximum height of 320 mm and rising spindle. The hydrant shall be opened by rotating the spindle in an anti-clockwise direction. The outlet connection shall be of the London Round Thread type. The hydrant must conform to SABS 1128: Part 1-1977.

PSL 5.1 Laying

PSL 5.1.4.2 Cover

Add the following to this sub clause:

The minimum cover to finished surface over the pipeline shall be 1.0m. At the connections and, when going through culverts etc. the depth of the pipeline shall be increased to allow for the pipeline to go through the culvert and for proper connection to the existing pipe work.

The cover shall be maintained as close as possible to the minimum without local sags or humps and shall not be decreased above the minimum.

PSL 5.8 Brickwork in Chambers and Manholes

Add the following to this sub clause:

The joints of exposed faces shall be flush-trowelled, hard and smooth and shall be rubbed for the full width of the joint as the work proceeds to give a hard-polished finish.

PSL 5.11 Connections

Work on existing mains and components of the reticulation system shall be carefully planned in consultation with the Engineer. The new pipe work, including sections up to stand water meters shall be laid and made ready for the cross-over prior to the existing pipeline being shut down. The work shall be carried out expeditiously to ensure that the disruption of services and inconvenience to the local residents is kept to a minimum. All tie-ins shall be completed within a maximum of 10 hours.

The Contractor under strict supervision by the Engineer or Metsimaholo Local Municipality will do all these connections.

Hand excavation must be used to expose the existing mains and Erf connections where required. While every effort has been made to ensure that the information relating to these connections is correct the Engineer or Metsimaholo Local Municipality takes no responsibility for the accuracy, or for the completeness of the information.

PSL 8 MEASUREMENT AND PAYMENT

PSL 8.2.16 Connections

- (1) (a) The rate shall cover the extra necessary excavations, exposing of the existing pipeline, time allowed during construction to finalise the new connection design, the connection of the new pipe work to the existing pipe work.

Refer to PSL 5.11Unit: Sum

SABS 1200 LB: BEDDING (PIPES)

PSLB 8.1 PRINCIPLES

PSLB 8.1.3 Volume of bedding materials

Add the following to this sub-clause:

The volume of bedding material shall be measured net i.e. the volume of the pipe is to be deducted.

PSLB 8.1.5 Disposal of Displaced Material

Delete this sub-clause and refer to Clause PSDB 5.6.3:

PSLB 8.1.6 Free haul

Delete this sub-clause and refer to Clause PSDB 5.6.3:

PSLB 8.2 SCHEDULED ITEMS

PSLB 8.2.1 Provision of bedding from trench excavations

Delete this sub-clause and replace with the following:

Without the need for screening or other treatments:

- | | |
|-------------------------------------|----------|
| (a) Selected granular material..... | Unit: m3 |
| (b) Selected fill material..... | Unit: m3 |

The rates shall cover the cost of acquiring, from any point along the trench excavation as be Selected by the Engineer within 5,0 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 5,0 km.

Including for screening and/or other treatment:

- | | |
|-------------------------------------|----------|
| (a) Selected granular material..... | Unit: m3 |
| (b) Selected fill material..... | Unit: m3 |

The rates shall cover the cost of screening by means of mesh sieves or otherwise treating excavated material, at any point along the trench excavation as may be selected by the Engineer, in order to produce bedding that complies with the relevant specification, delivering it to points along the trench, within 5,0 km, spaced to suit the Contractor's methods of working, of making good any backfill deficiency there may be from points where screened backfill material has been acquired, and of disposing of displace material within a free haul distance of 5,0 km.

PSLB 8.2.6 Supply and place 19 mm stone

Add the following new sub-clause:

Supply and place 19 mm stone.....	Unit: m3
-----------------------------------	----------

The rate shall include the cost of acquiring from commercial sources, transporting regardless of distance, offloading and placing in the trench bottom clean 19 mm stone where Ordered by the Engineer.

TRENCHLESS ROAD CROSSINGS

PSLG 1.0 SCOPE OF THE WORK

Add the following new sub-clause:

The scope of work to be performed under this section includes the supply of all equipment, materials, labour and plant for TRENCHLESS work by the contractor.

PSLG 2.1 CONSTRUCTION PROGRAMME

The Contractor's construction programme to be submitted to the Engineer for approval in terms of this contract shall indicate the proposed construction periods for all trenchless crossing activities separately, in bar chart form, for each area point. The work will include some or all of the following:

- Site establishment. (Including Mobilization and demobilization)
- Locating of all existing services, whether shown on the construction drawings or not.
- Supply and install HDPE pipes as scheduled in the Bills of Quantities by trenchless method with excavations of access and reception pits and carting surplus excavation material to spoil off site.
- Stabilization of unsuitable areas or grouting of voids where ordered.
- Construction of manholes where necessary

The use of Trenchless methods shall apply only when crossing heavily trafficked roads as required by the Metsimaholo Local Municipality.

C3.6 OCCUPATIONAL HEALTH AND SAFETY**D1001 GENERAL****a) Tender Document**

This document is the pre-contract Health and Safety Specification which must be used by the Principal Contractor and Sub Contractors appointed by the Principal Contractor to compile Health and Safety Plans for this project and forms part of the tender documentation.

The Principal Contractor and Sub Contractors' particular attention is drawn to paragraph 2 of this specification whereby

"Upon award of the contract, the contractor is to assume and adopt the function and duties of the Principal Contractor as set out in the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003."

The health and safety specifications outlined herein must be taken into account and due allowance made within the pricing of appropriate items contained within the specification. Where the Tenderer is of the opinion that a requirement is missing or is not adequately specified then this shall be drawn to the Client / Client's Agent's attention during the tender period. In the absence of any direction to the contrary, the Tenderer shall as part of the tender submission, set out the details of such discrepancy together with the costs associated therewith, separately identified and included within the tender figure.

b) Principal Contractor

The successful Tenderer will on signing of the contract for: **CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC PIPES IN ZAMDELA TOWNSHIP**; be required to fulfil the function and duties of the Principal Contractor as set out in the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003.

c) Start of Construction Phase

The construction phase shall not commence until the Principal Contractor's Health and Safety Plan was considered and approved by the Client / Client's Agent and Design Team. The Client / Client's Agent shall discuss and negotiate with the Principal Contractor the contents of the Health and Safety Plan submitted by the Principal Contractor before finally approving it for implementation.

The construction phase shall not commence until written permission is received from the Client / Client's Agent. In this respect the Client / Client's Agent may rely on the advice of the Design Team as to the adequacy and comprehensiveness of the Plan offered by the Principal Contractor.

In preparing their detailed Health and Safety Plan based on the relevant sections of this Health and safety Specifications supplied to them by the Client, Client's Agent, contractors must allow for the adoption of safe working procedures and co-ordinate and rationalize activities to avoid controllable hazards arising due to clashes of activities.

d) Sub-Contractors, Suppliers & Designers

The Principal Contractor shall ensure that all direct appointments in connection with this project include provisions for the compliance of his sub-contractors, suppliers and designers, etc, with the relevant provision of the Occupational Health and Safety Act (Act 85 of 1993) and its Regulations, in particular the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003.

e) **Liaison**

The Principal Contractor shall together with all his appointees, liaison with the Client / Client's Agent as required under the Regulations and agree procedures for the transfer of relevant Information in respect of designs and in connection with the preparation of the Health and Safety File.

f) **Advice**

The Tenderer shall, as part of the tender submission, indicate where advice will or may be required of the Client / Client's Agent in respect of the competence of the Tenderer's designers and the adequacy of resources allocated or to be allocated by them.

g) **Undertaking by Principal Contractor and Sub-Contractors appointed by the Principal Contractor**

The Principal Contractor as well as Sub-Contractors appointed by him / her shall undertake in writing to ensure that the provisions of the Occupational Health and Safety Act (Act 85 of 1993) and its Regulations, in particular the Construction Regulation of 2003 No. R 1010 and any amendments or re-enactments thereto are complied with. The attached Occupational Health and Safety provisions undertaking form for the Principal Contractor in Appendix 1 shall be completed and signed by the Managing Director of the company / firm awarded the tender.

h) **Client's Occupational Health and Safety Agent:**

Name: Successful Tenderer will be informed.

Address:

Tel:

Fax:

Mobile:

D1002 INFORMATION REQUIREMENTS

The contractor must provide the following information.

a) **General**

- The Principal Contractor / Sub-Contractor shall have an OHS Policy in accordance with the OHS (Occupational Health and Safety Act, Act 85 of 1993) and include a copy of the Policy in the Health and Safety Plan to be submitted by the Principal Contractor / Sub-Contractor.
- The Principal Contractor / Sub-Contractor shall promptly display a copy of the Company's OHS Policy on the OHS Notice Board for the duration of the contract and include it into information provided to persons at the contract OHS induction.
- The Principal Contractor shall develop a Contract specific OHS Management Commitment Statement based on the Company's OHS Policy.
- The Principal Contractor's Managing Director shall sign the Commitment Statement and prominently display a copy on the OHS Notice Board for the duration of the contract. A copy of the Commitment Statement shall be included in information provided to persons at the Contract OHS induction and a copy shall also be supplied to each sub-contractor.

b) Management

- Details of the personnel and management systems to be put in place to prepare, manage, implement, conduct and monitor the Health and Safety Plan for the project. Broadly speaking your:
 - Organisation's internal structure that establishes SHE (Safety, Health and Environmental) ROLES, RESPONSIBILITIES, ACCOUNTABILITIES, and REPORTING RELATIONSHIPS,
 - SHE (Safety, Health and Environmental) PLANS, POLICIES, PROCEDURES, DIRECTIVES and STANDARDS that provide instructions as to how activities and functions are to be carried out,
 - SHE (Safety, Health and Environmental) CONTROLS, INSPECTIONS, REVIEWS, etc. built into construction operations to ensure that performance is consistent with SHE (Safety, Health and Environmental) objectives and requirements,
 - SHE (Safety, Health and Environmental) COMMUNICATION MECHANISMS for collecting, handling and reporting information.

In other words, Management Systems that specifies WHO is going to do WHAT, WHERE, WHEN, Why and HOW.

- Details of relevant qualifications and experience held by the persons nominated above, including recent health and safety education and training undertaken.
- Procedures for determining the competence of contractors engaged on the project, whether employed by the contractor directly or by others, to fulfil their duties under the Construction Regulations 2003 (No. R. 1010 Promulgated 18 July 2003).

c) Hazard Identification, Risk Assessment and control

- The Principal Contractor / Sub-Contractor shall detail and implement procedures that will identify hazards, assess risks and determine suitable control measures as they arise throughout term of the contract. These procedures shall both comply with and be implemented and managed in accordance with the specification.
- The Principal Contractor / Sub-Contractor shall detail and implement procedures that ensure control measures are evaluated for effectiveness and modified as necessary. The evaluation procedure shall detail the responsibilities, timelines and records that will be kept as part of the process.
- Where Risk is controlled through administrative control measures, the Principal Contractor / Sub-Contractor shall ensure that the administrative measures are:
 - Clearly documented and those personnel responsible for implementation and management are explicitly defined;
 - Understood by all relevant personnel through training and assessment;
 - Implemented as documented and promptly reviewed for effectiveness following initial implementation;
 - Amended and authorized as required;
 - Adequately supervised, managed and audited to ensure continuing compliance;
 - Available at all times wherever the measures are being implemented.

- Any piece of plant or equipment not complying with the specification shall cease operation until the Principal Contractor / Sub-Contractor can demonstrate to the satisfaction of the Client / Client's Agent that the piece of non-conforming plant or equipment conforms to these requirements.

d) **Health and Safety Plan**

The Principal Contractor / Sub-Contractor shall develop a Health & Safety Plan to reflect variations in design or changes in site conditions and liaise with the Client /Client's Agent.

The Principal Contractor shall develop this Health and Safety Plan so that it:

- Incorporates the contractor's approach to managing the construction work to ensure the health and safety of all persons carrying out the construction work and all persons who may be affected by their work.
- Includes the risk assessments prepared by all Contractors under their duties set out in the Construction Regulations 2003 and any other relevant legislation (i.e. the OHS Act and Regulations, etc).
- Includes the arrangements for ensuring that, where appropriate or specifically requested, all Contractors / Sub-Contractors prepare suitable and sufficient method statements for their construction works which incorporate adequate measures for ensuring the health and safety of all persons who may be affected by these works.
- Incorporates the common arrangements for site safety, statutory notices and registers etc.
- Includes the site rules to be adopted for controlling the risks to health and safety during the construction phase(s) or the project.
- Includes reasonable arrangements for monitoring compliance with health and safety legislation and site rules.
- Includes reasonable measures to ensure co-operation between all Contractors and Sub-Contractors in respect of health and safety provisions and prohibitions.
- Includes the steps to be taken to ensure that only authorised persons are allowed into any premises or parts of the site / premises where construction work is being carried out.
- Includes arrangements for emergency procedures.
- Includes arrangements for ensuring that, so far as is reasonably practicable, every Contractor and Sub-Contractor is provided with comprehensible information about the risks to health and safety of that Contractor / Sub-Contractor, or of any employees or other persons under their control, arising out of the construction works, including the emergency procedures
- Includes details of the arrangements for ensuring, so far as is reasonably practicable, that the employees or other persons under the control of any Contractor / Sub-Contractor, and any visitors to the site, receive adequate information about the risks to their health and safety arising out of the construction works and, where necessary, adequate training to carry out their work in a safe and healthy manner.
- Includes arrangements for providing all persons at work on the site and visitors to the site with the opportunity and means of discussing and offering advice on health and safety issues relating to the construction works.

- Includes arrangements for the reporting of any accidents, injuries or dangerous occurrences, including conforming to the statutory requirements.
- Can be modified as the work proceeds to take account of any information received from Contractors / Sub-Contractors, any experience gained during the course of the project or any changes necessary as a result of unforeseen circumstances or alterations to the design.

e) **Programme**

A time estimate required by the contractor to implement the Health & Safety Plan sufficiently for works to commence on site.

f) **Cost**

A detailed breakdown of costs allowed in the contractor's tender for preparing, managing, implementing and monitoring the Health and Safety Plan, and for complying with the requirements imposed on the Principal Contractors under the Construction Regulations of 2003(No. R. 1010 Promulgated 18 July 2003).

D1003 GENERAL SITE SAFETY

a) **Safety training & education**

The Principal Contractor shall detail the OHS competencies and training received by its contract management personnel.

The Principal Contractor's Health and Safety Plan shall have a detailed register of the skills and competencies for all personnel for the activities that the personnel will undertake under the contract. (E.g. Mobile plant operators, crane operators etc.)

The Principal Contractor shall demonstrate and maintain documentary evidence of competencies on site for the duration of the contract.

b) **Induction Training**

The Principal Contractor / Sub-Contractor shall develop and detail a Site Induction Training Programme as part of the Occupational Health and Safety Plan to be submitted to the Client / Client's Agent prior to commencement of construction that includes as a minimum:

- i) Training related to hazards likely to be encountered on Site and control measures that have been developed in response to these hazards;
- ii) Roles and Responsibilities;
- iii) The requirements of the Health and Safety Plan submitted and approved;
- iv) Address the identified issues in the Fire Safety, Emergency, Evacuation and Rescue Plan to ensure that all Site personnel are aware of procedures in the event of an incident or emergency occurring;

The Principal Contractor / Sub-Contractor shall evaluate all persons undertaking the site Induction Training through a written test to ensure that inductees have an understanding of the OHS (Occupational Health and Safety) requirements for the contract. The written tests shall be signed and dated by the person undertaking the induction training to attest to their understanding and be retained by the Principal Contractor / Sub-Contractor as a record that the training has been completed.

c) **Induction training for specified work**

The Principal Contractor/Sub-Contractor shall conduct Site Specific Occupational Health and Safety Induction Training for all personnel, the Client/Client's Agent and all visitors not escorted on Site by inducted persons.

The Principal Contractor / Sub-Contractor shall evaluate all persons undertaking the Site Induction Training through a written test to ensure that inductees have an understanding of the OHS (Occupational Health and Safety) requirements for the contract. The written tests shall be signed and dated by the person undertaking the induction training to attest to their understanding and be retained by the Principal Contractor / Sub-Contractor as a record that the training has been completed.

d) **Recording & reporting of injuries**

Make arrangements for all contractors to report accidents, ill health and dangerous occurrences notifiable to the Department of Labour under Section 24 of the OHS Act (Occupational Health and Safety Act, Act 85 of 1993) (Reporting to DOL (Department of Labour) Inspector regarding certain incidents).

All lost time incidents associated with the contract works or reportable as defined by Section 24 of the OHS Act shall be immediately reported to the Client / Client's Agent.

The Principal Contractor / Sub-Contractor shall provide a detailed report of all accidents / incidents, including events that could have become lost time incidents were it not for fortuitous circumstances to the Client / Client's Agent within 5 days of the incident occurring. The Principal Contractor / Sub-Contractor shall provide copies of all reports and information associated with the incidents to the Client / Client's Agent. Copies of reports must be placed on the Health and Safety File.

Where the Principal Contractor / Sub-Contractor has been:

- Served with a prohibition, contravention or improvement notice under the OHS Act; or
- Required to comply with any order issued by an inspector for the Department of Labour;

The Principal Contractor / Sub-Contractor shall immediately supply a copy of that notice, order or notification to the Client / Client's Agent.

Where the Principal Contractor / Sub-Contractor have been served with a summons or is convicted of any offence in relation to occupational health and safety, the Principal Contractor / Sub Contractor shall immediately supply a copy of that summons to the Client / Client's Agent.

The Principal Contractor / Sub-Contractor shall detail the reporting and investigation procedures for incident investigation. The procedures shall include the investigating officer responsible and the time limits imposed for reporting and investigating the incident and to implement corrective action in a timely manner so as to prevent a recurrence.

The client / Client's Agent may participate in or undertake an investigation into the incident, injury or illness at its discretion and the Principal Contractor / Sub-Contractor shall cooperate with and provide assistance to the investigation organised and undertaken by the Client / Client's Agent.

e) **First Aid**

Establish and implement a first-aid programme to provide emergency treatment to victims of accidents, chemical substances or excessive exposure to toxic substances.

The programme shall include:

- proper first aid facilities administered by qualified personnel,
- first-aid boxes,
- first-aid room, where there are 500 or more workers on site,
- training and re-training of first-aiders,
- first-aid treatment procedures,
- standard procedures,
- special procedures, e.g. for poisoning,
- maintenance of first-aid facilities

All first-aid provisions shall comply with the OHS Act (Act 85 of 1993)

f) **Fire protection and prevention**

- Appropriate measures must be taken to avoid the risk of fire.
- Sufficient and suitable storage must be provided for flammable liquids, solids and gases.
- Smoking must be prohibited and notices in this regard must be prominently displayed in all places containing readily combustible or flammable materials;
- Combustible materials must not accumulate on the construction site.
- Welding, flame cutting and other hot work may only be done after the appropriate precautions have been taken to reduce the risk of fire.
- Suitable and sufficient fire-extinguishing equipment must be placed at strategic locations and such equipment must be maintained in good working order
- A sufficient number of workers must be trained in the use of fire-extinguishing equipment.

g) **Site Emergency Procedures**

The Principal Contractor/Sub-Contractor shall establish an Emergency Evacuation and Rescue plan.

The plan shall include the following detail:

- The role and responsibility of every individual in the work area on fire safety emergency evacuation and rescue;
- General work area precautions, fire prevention, detection, protection and warning alarm systems;
- Fire fighting and rescue equipment including types of fire extinguishers;
- Fire safety measures for Site accommodation;
- Escape and communication;
- Fire brigade access, facilities and coordination;
- Fire drills and training including the use of fire fighting equipment;
- Material storage including flammable liquids, gasses and waste;

The Principal Contractor / Sub-Contractor shall ensure that all procedures, precautionary measures and safety standards stipulated in the Plan are communicated, implemented and complied with by all workers including other interfacing contractors on Site.

The Principal Contractor / Sub-Contractor shall practise their emergency preparedness within six (6) weeks of the commencement of work and at least four (4) monthly intervals thereafter.

The Principal Contractor / Sub-Contractor shall review and ensure the adequacy of the Plan as the work progresses.

The Principal Contractor / Sub-Contractor shall conduct monthly checks on fire fighting equipment and test alarms and detection devices installed on Site and document findings in a register which shall be on site at all times for inspection.

The Principal Contractor / Sub-Contractor shall conduct weekly inspections of escape routes, fire brigade access, fire fighting facilities and working areas to ensure that the requirements stipulated in the Fire Safety, Emergency, Evacuation and Rescue Plan are complied with. All inspection records shall be documented in registers and kept in the Health and Safety file for inspection at any time.

h) **Housekeeping**

Suitable housekeeping must continuously be implemented on the construction site, including:

- proper storage of materials and equipment
- removal of scrap, waste and debris at appropriate intervals;

Loose materials shall not be placed or allowed to accumulate on the site so as to obstruct access and egress from workplaces and passageways.

i) **Stacking & Storage**

- Adequate storage areas must be provided.
- Storage areas must be kept neat and under control.

j) **Illumination**

Provide adequate artificial lighting when work is carried out after dark or inside buildings.

k) **Sanitation / Hygiene**

Provision of site hygiene facilities:

- One sanitary facility for every 30 workers.
- Adequate washing facilities.
- One shower facility for every 15 workers;

Drying sheds, huts, rooms or other accommodation for sheltering during bad weather, storing clothes and taking meals. Facilities should include tables and chairs, suitable means for boiling water and a supply of wholesome drinking water.

The contractor shall provide reasonable and suitable living accommodation for the workers at construction sites which are remote from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

l) **Personal Protective Equipment**

The Principal Contractor / Sub-Contractor shall provide and maintain suitable PPE (Personal Protective Equipment) for all employees employed on the Site.

The Principal Contractor / Sub-Contractor shall ensure that such PPE comply with the requirements of the OHS Act (Occupational Health and Safety Act, Act 85 of 1993).

The Principal Contractor / Sub-Contractor shall also ensure that all equipment is properly used by his / her employees during the course of their work.

The Principal Contractor / Sub-Contractor shall record all issues of all equipment to his / her employees in documented registers and such registers shall be kept in the Health and Safety File on site and made available for inspection at all times.

The Principal Contractor / Sub-Contractor shall provide the Client / Client's Agent with a colour code by which employees will be identified with regard to occupations, responsibilities, accountabilities, reporting relationships and access to different locations on site. (e.g. hard hats, overalls).

PPE shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards.

All personal protective equipment shall be of safe design and construction for the work to be performed.

m) **Permit to work requirements**

Institute a "hot work" permit system in respect of:

- metalwork flame cutting,
- site welding.

n) **Lock-out**

Institute a "Lock-out" procedure in respect of controlling energy so as to prevent unexpected operation or activation of machinery or equipment. This procedure must include a written policy, specific procedures, rules and supervisory follow-up, covering the positive locking of switches and valves to ensure that alterations, maintenance, set-up and or other work can be performed safely.

o) **Monthly Health and Safety Audits**

The Principal Contractor shall carry out monthly Health and Safety Audits on the measures contained within his / her Health and Safety Plan submitted to the Client / Client's Agent as well as Health and Safety Plans submitted by Sub-Contractors appointed by the Principal Contractor to demonstrate that the required level of health and safety are being achieved and maintained and compile a full report to the Client / Client's Agent on such audit.

The Client / Client's Agent will audit the Principal Contractor as well as his / her Sub-contractor's Health and Safety Plans from time to time and will advise the Principal Contractor of any matter with which he / she is not satisfied and the Principal Contractor shall take such steps as are necessary to satisfy the Client / Client's Agent.

The Client / Client's Agent will carry out such audits as he / she considers necessary but not less than monthly.

The Principal Contractor shall make available, specialist personnel as the Client / Client's Agent may consider necessary for the performance of such audits.

The Principal Contractor shall develop and maintain an Audit Schedule that details the audits planned to be undertaken by the Principal Contractor of the work under the contract,

including sub-contractors, for the duration of the contract. The Audit Schedule shall form part of the Health and Safety Plan that needs to be submitted by the Principal Contractor.

Audit reports shall detail the scope of the audit, the audit questions and the audit findings.

The Client / Client's Agent shall be promptly provided with copies of all audit reports together with other documentation to show that all matters raised have been appropriately addressed.

Unless otherwise directed by the Client / Client's Agent the Principal Contractor / Sub-Contractor shall undertake its initial OHS Audit within 4 weeks of commencement of work. The Principal Contractor / Sub-Contractor shall undertake subsequent OHS Audits at a frequency not less than once every 3 months.

All Principal Contractor's OHS Audits shall include an assessment of Sub-Contractor compliance with the approved OHS Plan.

p) Management Review

The Principal Contractor shall undertake an independent review of the Health and Safety Plan for the contract in accordance with the requirements of the OHS Act, relevant Regulations and in particular the Construction Regulations 2003.

A review shall be undertaken 3 months after commencement of the contract and every 6 months thereafter for the duration of the contract.

Following the completion of the review, the Principal Contractor shall submit a written report that details the suitability, adequacy and effectiveness of the OHS Plan and to certify that the Site procedures, practises and operations are in accordance with the contract.

q) Provision of Information

- Provide Sub-Contractors appointed by him / her with the relevant sections of the Health and Safety specifications pertaining to the construction work which has to be performed.
- Where changes are brought to the design and construction, provide sufficient information and appropriate resources to the Sub-Contractor to execute the work safely.
- Discuss and negotiate with Sub-Contractors the contents of the Health and Safety Plan / Plans submitted by them and finally approve such plans for implementation.
- Ensure that copies of Health and Safety plans compiled by the Principal Contractor and his / her Sub-Contractors are available on request to an employee, DOL Inspector, contractor, Client / Client's Agent.
- The Principal Contractor / Sub-Contractor shall detail procedures that will ensure that personnel are suitably consulted and communicated with during the planning and application of work activities associated with the contract.
- The Principal Contractor / Sub-Contractor shall detail the procedures for the identification, assessment and control of hazards associated with the day-to-day work activities. These procedures shall include requirements for consultation with personnel involved in the work activity.
- The Principal Contractor / Sub-Contractor shall have procedures for ensuring that OHS information is communicated to and from its personnel. The Principal Contractor / Sub-Contractor shall hold OHS meetings with all personnel or their representatives at the site on a weekly basis.
- Minutes shall be recorded for all OHS meetings and posted on OHS notice boards within 48 hours of the meeting.

- The Principal Contractor / Sub-Contractor shall maintain at the Site an OHS Notice Board located in a prominent position and accessible to all personnel, for the distribution of OHS information.
- The Principal Contractor / Sub-Contractor shall as a minimum, establish and implement procedures for reporting relevant and timely information with regard to OHS Performance and incidents.
- The Principal Contractor / Sub-Contractor shall establish, implement and maintain a controlled copy of all Contract OHS documentation on Site.
- Where the Principal Contractor / Sub-Contractor's Health and Safety Plan references other documentation including the contract, the Principal Contractor / Sub-Contractor shall ensure that section and clause numbers are clearly denoted in its Health and Safety Plan. All documentation referenced in the Health and Safety Plan shall be available on Site for the duration of the contract.
- Ensure that Health and Safety Files kept by Sub-Contractors appointed by the Principal Contractor is kept on site and made available to an inspector, Client / Client's Agent.
- Hand over a consolidated health and safety file to the Client / Client's Agent upon completion of construction work, including all drawings, designs, materials used and other similar information concerning the completed structure.
- In addition to the Health and Safety File compile a comprehensive and updated list of all contractors on site accountable to the Principal Contractor as well as the agreements between the parties and the type of work done by them.

r) **Stop the execution of Construction Work**

Stop any construction / construction related work conducted by any person on the construction site, which is not in accordance with the Principal Contractor's health and safety plan and or the health and safety plans of Sub-Contractors which possess a threat to the health and or safety of persons.

s) **Handing over of Project Health and Safety file**

- Hand over a consolidated health and safety file to the Client / Client's Agent upon completion of construction work, including all drawings, designs, materials used and other similar information concerning the completed structure.
- In addition to the Health and Safety File compile and hand over a comprehensive and updated list of all contractors on site accountable to the Principal Contractor as well as the agreements between the parties and the type of work done by them.

t) **Records and Records Management**

- The control of records shall be in accordance with the Principal Contractor's / Sub-Contractor's approved Health and Safety Plan for the contract.
- Records shall be registered, ordered and retained on Site in the Health and Safety File for the duration of the contract.

D1004 CHEMICAL HAZARDS

The following construction materials and substances to be used in the works have been identified as potentially posing special health and/or safety hazards during the project:

a) **Substances**

- Asphalt

- Bitumen
- RTH Tar prime
- Synthetic Polymer (Polyester / Polypropylene / Polyethylene)
- Stabilising agents
- Anionic stable grade emulsion
- Rubber
- Bitumen Rubber mix
- Hydrophilic aggregates
- Cationic emulsion
- Proprietary chemical additive
- Styrene
- Butadiene rubber (SBR latex)
- Cleaning agent
- Paint
- Oxygen
- Acetylene
- Diesel
- Petrol
- Weed killer

b) **Material**

- Cement
- Lime
- Mud rock
- Shale
- Clay
- Synthetic fibre filter fabric
- Geo-textile (synthetic polymer)
- Crushed aggregate
- Weathered dolerite gravel
- Fine slurry
- Crusher dust
- Paving blocks

Adhesives / solvents which may make personnel ill by breathing in vapours, irritation if in contact with skin and eyes and can be highly flammable.

Cement can cause ill health by:

- Skin contact, cement burns and dermatitis.
- Eye contact, irritation and inflammation.
- Inhalation of dust, irritation to nose and throat and causes difficulty with breathing. Oil based paint can cause illness by breathing in vapours.

Silicone sealant with fungicide can cause skin irritation.

Timber preservative / flame retardant which can cause irritation to the skin, eyes, nose and throat and harmful if ingested.

Paving slabs which may contain silica can, when cut, create dust which may affect the lungs.

Chemical cleaners can cause ill health mainly by:

- Skin contact, acids and alkalis are highly corrosive and destructive to body tissue causing burns.
- Inhaling fumes or mist, concentrated solutions of acids and alkalis emit toxic and corrosive fumes.

All materials contained within aerosol containers which are pressurised. Contractors are required to take appropriate measures to manage the risks arising and to provide details of their proposed measures within their tenders and to incorporate adequate method statements within the Health and Safety Plan.

This is not a definitive list of all potential harmful products. Other materials and substances commonly used during construction may also present health or safety hazards, however, it is deemed that these should be familiar to the average competent Contractor as part of routine risk and OHS (Occupational Health, Safety and Hygiene) assessments and are therefore not included here.

Adopt all precautionary measures provided by manufacturers for storage, use and application of specified materials.

Data sheets for these, and any other materials that will be used for the works, are to be obtained by the contractor from the manufacturers.

D1005 SAFETY HAZARDS

a) Tools

i) Hand tools

- Employers shall not issue or permit the use of unsafe hand tools.
- Wrenches, including adjustable, pipe, end, and socket wrenches shall not be used when jaws are sprung to the point that slippage occurs.
- Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.
- The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

ii) *Portable electrical Tools*

No person shall use a portable electric tool with an operating voltage which exceeds 50 to earth unless –

- it is connected to a source of electrical energy incorporating an earth leakage protection device which meets the requirements of section 36 of the OHS Act or,
- it is connected to a source of high frequency electrical energy derived from a generator which is used solely for supplying energy to such portable electric tool and which arrangement is approved by the chief inspector; or
- it is clearly marked that it is constructed with double or reinforced insulation.

Portable electric tools, together with its flexible cord and plug shall be maintained in a serviceable condition.

D1006 EXCAVATIONS

- The contractor shall ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing.
- The contractor shall evaluate the stability of the ground before excavation work begins.
- The Contractor shall take suitable and sufficient steps in order to prevent any person from being buried or trapped by a fall or dislodgement of material in an excavation;
- The contractor shall not permit any person to work in an excavation which has not been adequately shored or braced.
- Shoring and bracing may not be necessary where:
 - the sides of the excavation are sloped to at least the maximum angle of repose measured relative to the horizontal plane; or
 - such an excavation is in stable material:
 - Provided that-
 - permission being given in writing by the appointed competent person upon evaluation by him or her of the site conditions; and
 - where any uncertainty pertaining to the stability of the soil still exists, the decision from a professional engineer or a professional technologist competent in excavations shall be decisive and such a decision shall be noted in writing and signed by both the competent person and a professional engineer or technologist, as the case may be;
- Take steps to ensure that the shoring or bracing is designed and constructed in such a manner rendering it strong enough to support the sides of the excavation in question;
- Ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endangering the safety of, any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing;
- Cause convenient and safe means of access to be provided to every excavation in which persons are required to work and such access shall not be further than 6m from the point where any worker within the excavation is working;
- Cause every excavation, including all bracing and shoring, to be inspected-
 - daily, prior to each shift;
 - after every blasting operation;
 - after an unexpected fall of ground;
 - after substantial damage to supports; and
 - after rain,

by a competent person in order to pronounce the safety of the excavation to ensure the safety of persons, and those results are to be recorded in a register kept on site and made available to an inspector, client, client's agent, contractor or employee upon request;

- Cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be-
- adequately protected by a barrier or fence of at least one meter in height and as close to the excavation as is practicable; and

- provided with warning illuminants or any other clearly visible boundary indicators at night or when visibility is poor
- Cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.

D1007 FORMWORK & SUPPORT WORK

The contractor shall ensure that-

- all formwork and support work operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose;
- all formwork and support work structures, are adequately designed, erected, supported, braced and maintained so that they will be capable of supporting all anticipated vertical and lateral loads that may be applied to them and also that no loads are imposed onto the structure that the structure is not designed to withstand.
- The designs of formwork and support work structures are done with close reference to the structural design drawings and where any uncertainty exists, the structural designer should be consulted.
- All drawing pertaining to the design of formwork or support work structures are kept on the site and are available on request by an inspector, contractor, client, client's agent or employee.
- All equipment used in the formwork or support work structure are carefully examined and checked for suitability by a competent person, before being used.
- All formwork and support work structures are inspected by a competent person immediately before, during and after the placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work structure has been removed and the results have been recorded in a register and made available on site.
- If, after erection, any formwork and support work structure is found to be damaged or weakened to such a degree that its integrity is affected, it shall be safely removed or reinforced immediately.
- Adequate precautionary measures are taken in order to-
 - Secure any deck panels against displacement, and
 - Prevent any person from slipping on support work or formwork due to the application of formwork or support work release agents.
- The health of any person is not affected through the use of solvents or oils or any other similar substances.
- Upon casting concrete, the support work or formwork structure should be left in place until the concrete has acquired sufficient strength to support safely, not only its own weight but also any imposed loads and not removed until authorisation has been given by a competent person.
- Provision is made for safe access by means of secure ladders or staircases for all work to be carried out above the foundation bearing level.
- All employees required to erect, move or dismantle formwork and support work structures are provided with adequate training and instruction to perform these operations safely

- The foundation conditions are suitable to withstand the weight caused by the formwork and support work structure and any imposed loads, such that the formwork and support work structure are stable.

D1008 CONSTRUCTION VEHICLES

The contractor shall ensure that all construction vehicles and mobile plants-

- are of an acceptable design and construction;
- are maintained in a good working order;
- are used in accordance with their design and the intention for which they were designed, having due regard to safety and health;
- are operated by workers who-
 - have received appropriate training and been certified competent and been authorised to operate such machinery; and
 - are physically and psychologically fit to operate such construction vehicles and mobile plant by being in possession of a medical certificate of fitness;
- have safe and suitable means of access;
- are properly organised and controlled by providing adequate signalling or other control arrangements to guard against the dangers relating to the movement of vehicles and plant, in order to ensure their continued safe operation;
- are prevented from falling into excavations, water or any other area lower than the working surface by installing adequate edge protection, which may include guardrails and crash barriers;
- where appropriate, are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn;
- are equipped with an electrically operated acoustic signalling device and a reversing alarm;
- are on a daily basis inspected prior to use, by a competent person who has been appointed in writing and the findings of such inspection is recorded in a register.

The contractor shall furthermore ensure that-

- no person rides or be required or permitted to ride on any construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose;
- every construction site is organised in such a way that pedestrians and vehicles can move safely and without risks to health;
- the traffic routes are suitable for the persons using them, sufficient in number, in suitable positions and of sufficient size;
- every traffic route is, where necessary indicated by suitable signs.
- all construction vehicles and mobile plant left unattended at night, adjacent to a freeway in normal use or adjacent to construction areas where work is in progress, shall have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of the vehicles or plant;
- bulldozers, scrapers, loaders, and other similar mobile plant are, when being repaired or when not in use, fully lowered or blocked with controls in a neutral position, motors stopped and brakes set;

- whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation;
- tools and material are secured in order to prevent movement when transported in the same compartment with employees;
- vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried; and
- when workers are working on or adjacent to public roads, reflective indicators are provided and worn by the workers.

D1009 ELECTRICAL INSTALLATIONS

- Before construction commences and during the progress thereof, adequate steps must be taken to ascertain the 'presence of and guard against danger to workers from any electrical cable or apparatus.
- All parts of electrical installations and machinery must be of adequate strength to withstand the working conditions on construction sites;
- In working areas where the exact location of underground electric power lines is unknown, employees using jackhammers, shovels or other hand tools which may make contact with a power line, must be provided with insulated protective gloves or otherwise that the handle of the tool being used is insulated;
- All temporary electrical installations must be inspected at least once a week and electrical machinery on a daily basis before use on a construction site by competent persons and the records of these inspections must be recorded in a register to be kept on site.
- The control of all temporary electrical installations on the construction site must be designated to a competent person who has been appointed in writing.

D1010 USE & STORAGE OF FLAMMABLE LIQUIDS

- Where flammable liquids are being used, applied or stored it must be done in such a manner that would cause no fire or explosion hazard, and that the workplace is effectively ventilated:

Provided that where the workplace cannot effectively be ventilated-
 - every employee involved is provided with a respirator, mask or breathing apparatus of a type approved by the chief inspector, and
 - steps are taken to ensure that every such employee, while using or applying flammable liquid, uses the apparatus supplied to him or her;
- No person smokes in any place in which flammable liquid is used or stored, and the contractor shall affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking;
- Flammable liquids on a construction site is stored in a well-ventilated reasonably fire-resistant container, cage or room and kept locked with proper access control measures in place;
- An adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs;
- Only the quantity of flammable liquid needed for work on one day is to be taken out of the store for use;

- All containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, to be removed from the construction site and safely disposed of;
- Where flammable liquids are decanted, the metal containers are bonded or earthed;
- No flammable material such as cotton waste, paper, cleaning rags or similar material is stored together with flammable liquids.

D1011 DISPOSAL OF MATERIALS

See – Environmental Management Plan – Tender Document

D1012 WELDING & CUTTING

No contractor shall require or permit welding or flame cutting operations to be undertaken, unless –

- the person operating the equipment has been fully instructed in the safe operation and use of such equipment and in the hazards, which may arise from its use;
- effective protection is provided and used for the eyes and respiratory system and, where necessary, for the face, hands, feet, legs, body and clothing of persons performing such operations, as well as against heat, incandescent or flying particles or dangerous radiation;
- leads and electrode holders are effectively insulated; and
- the workplace is effectively partitioned off and where not practicable all other persons exposed to the hazards are warned and provided with suitable protective equipment.
- No contractor shall require or permit electric welding to be undertaken in wet or damp places, inside metal vessels or in contact with large masses of metal, unless –
- the insulation of the electrical leads is in a sound condition;
- the electrode holder is completely insulated to prevent accidental contact with current-carrying parts;
- the welder is completely insulated by means of boots, gloves or rubber mats; and
- at least one other person who has been properly instructed to assist the welder in case of an emergency is and remains in attendance during operations

No contractor shall require or permit welding, flame cutting, grinding, soldering or similar work to be undertaken in respect of any tube, tank, drum, vessel or similar object or container where such object or container –

- is completely closed, unless a rise in internal pressure cannot render it dangerous; or
- contains any substance which, under the action of heat, may –
 - ignite or explode; or
 - react to form dangerous or poisonous substances,

Where hot work involving welding, cutting, brazing or soldering operations is carried out at places, other than workplaces which have been specifically designated and equipped for

such work, the employer shall take steps to ensure that proper and adequate fire precautions are taken.

D1013 BLASTING & USE OF EXPLOSIVES

a) Safety distances

The contractor shall –

- apply the safety distances for the respective categories of explosives as stipulated in Annexure 1 of the Explosives regulations;
- where less than five kilograms of explosives is used, apply to the chief inspector of occupational health and safety for a determination of a safety distance which the employer shall enforce;

b) Supervision of explosives

In order to ensure that the provisions of the Act and its regulations in relation to explosives workplaces are complied with, the contractor shall in writing appoint a competent and certificated person in a full-time capacity to be explosives manager in respect of every workplace where explosives are being used, tested, stored or manufactured:

The contractor shall appoint one or more persons, who are suitably qualified and experienced, as authorized supervisors to assist the explosives manager.

The contractor shall ensure that –

- the explosives manager
 - approves in writing the rules, methods, materials, equipment and tools to be used in the danger area;
 - ensures that all persons under his or her control are informed of the hazards related to their tasks and are thoroughly trained in safe work procedures, in particular with respect to shock, friction risk of fire, or static electricity, and are familiar with the requirements of the Explosives regulations
 - prescribes all protective clothing and equipment to be used in the danger area
 - ensures that the processes and equipment specified in schedule licences are safe and appropriate for the manufacturing processes envisaged for the workplace.
- the supervising official
 - is at all times in a position to exercise control over the operations
 - reports without delay to the explosive's manager any plant or equipment under his or her control that has or may have posed a risk:
 - ensures that all rules implemented in the interest of health and safety are at all times complied with;
 - stops all work involving explosives if he or she becomes aware of any risk posed to the health and safety of persons.

c) Safe handling of explosives

The contractor shall ensure that –

- all explosives or ingredients thereof are at all times free of foreign material;

- all reasonable precautions are taken to prevent the spillage of explosives;
- cleaning procedures in the case of a spillage of explosives are prescribed in writing by the explosive's manager: Provided that where no cleaning procedures have been prescribed any unusual spillage of explosives shall be reported immediately to the supervising official:
- all waste, paper, timber, rags, cotton and similar materials that have been in contact with explosives or an ingredient of an explosive are disposed of in a manner prescribed in writing by the explosives manager: Provided that at the end of the working day all waste and floor sweepings from danger areas shall be deposited in the designated places;
- the explosives or partly mixed explosives are conveyed as soon and as carefully as possible and taking such precautions and in such a manner as will effectively guard against any accidental ignition or explosion
- only containers provided for the conveyance of explosives are used for transporting explosives or partly mixed explosives and that such containers are at all times kept clean, free from grit and in a good state of repair:
- vehicles containing explosives are left unattended only in designated places

The contractor shall ensure that –

- all material, equipment, tools or similar articles used in a danger area are decontaminated after such use, and that no person makes use of any such article that has not been decontaminated after use in a contaminated area;
- the certification of the decontamination process is certified and approved by the explosives manager or a person authorized by the explosive's manager.
- Unless permission has been granted by the chief inspector of occupational health and safety, no contractor shall use –
- explosives in workplaces other than explosives workplaces approved by the chief inspector of occupational health and safety;
- any explosives for which no provision is made in Explosives regulations.

No contractor shall allow unauthorized access to such explosives or bury, dump, hide or abandon any explosives.

No contractor shall use any explosive material for blasting purposes unless –

- he or she is in possession of a written permission issued by or under the authority of the chief inspector of occupational health and safety;
- he or she is undergoing training while using such blasting material under the immediate and constant supervision of a person who is in possession of permission

d) **Dangerous areas**

The contractor shall ensure that entry and exit from danger areas is only permitted

- at the permanent authorized point of entry or exit: Provided that entry or exit at any other point may be authorized by the explosives manager or a person authorized by him if the authorized gatekeeper has been informed thereof;
- for persons and vehicles authorized thereto by the explosives manager or a person authorized by him:

- to visitors under escort by an authorized person who is aware of the hazards attached to the danger area.

The contractor shall keep a register of the entries and exits and that register shall be available on the premises for inspection by an inspector.

No person shall –

- enter the danger area with –
 - tobacco;
 - matches, cigarette lighters or other devices capable of generating heat or spark sources;
 - intoxicating liquor or narcotics;
 - food, medicine or drinkable fluids: Provided that authorization to enter with such articles may be granted by the explosive's manager for purposes of consumption in licensed mess rooms and smoking areas: Provided further that special rules for the control of such consumption and smoking, approved by the chief inspector of occupational health and safety shall be made in writing and shall be enforced by the employer, self-employed person or user; or
 - radio transmitters or cellular telephones; or

The contractor shall ensure that hazard warning signs are clearly displayed at the entrance to any danger area.

D1014 VESSELS UNDER PRESSURE

a) Manufacturer's data plate

Every user of a boiler or pressure vessel shall cause a manufacturer's plate with the following minimum particulars to be securely fixed in a conspicuous place to the shell of every such a boiler or pressure vessel:

- i) Name of manufacturer;
- ii) country or origin;
- iii) year of manufacture;
- iv) manufacturer's serial number;
- v) name, number and date of the standard of design;
- vi) design gauge pressure in Pascal; (design pressure)
- vii) maximum permissible operating pressure in Pascal;
- viii) operating temperature;
- ix) capacity in cubic meters; and
- x) mark of an approved inspection authority.

No person shall remove such a manufacturer's plate or wilfully damage or alter the particulars stamped thereon.

b) Portable Gas Containers

No user shall use or require or permit a portable gas container to be used, and no user shall fill, place in service, handle, modify, repair, inspect or test any portable gas container, other than in compliance with standards incorporated into the Vessels under Pressure regulations.

c) **Hand held Fire extinguishers**

No user shall use, require or permit the use of a hand-held fire extinguisher unless designed, constructed, filled, recharged, reconditioned, modified, repaired, inspected or tested in accordance with a safety standard incorporated into the Vessels under Pressure regulations.

No person shall fill, recharge, recondition, modify, repair, inspect or test any hand-held fire extinguisher unless a holder of a permit issued by the South African Bureau of Standards in terms of SANS 1475.

d) **Gas Fuel use, equipment and systems**

No person shall handle, store or distribute a gas fuel in any manner, including the filling of a container, other than in accordance with a health and safety standards.

e) **Inspection and test**

Any user of a boiler or pressure vessel shall cause, where reasonably practicable, such a boiler or pressure vessel, including the appurtenances and automatic controls and indicators, to be subjected to an internal and external inspection, and

a hydraulic pressure test to 1.25 times the maximum permissible safe operating pressure as the case may be –

- by an approved inspection authority before commissioning after installation, re-erection or repairs;
- by a person appointed in writing by the user and who is competent to do such inspections and tests by virtue of their training, knowledge and experience in the operation, maintenance, inspection and testing of a boiler or pressure vessel within 36 months from the date of the previous internal and external inspection and hydraulic pressure test: Provided that where a pressure vessel is not subjected to corrosion, the user may dispense with the internal inspection and hydraulic pressure test subject to the written approval of an approved inspection authority: Provided further that an inspector may require a specific boiler or pressure vessel to be inspected or tested more frequently or permit a specific boiler or pressure vessel to be inspected or tested less frequently:

f) **Recordkeeping**

Any user of a vessel under pressure shall keep on his premises a record which shall be open for inspection by an inspector in which the results of inspections, tests, modifications and repairs shall be recorded, dated and signed by the competent person.

g) **Maintenance**

No user shall use, cause or permit a vessel under pressure or gas fuel system, including all automatic controls, indicators and appurtenances, to be used unless it is at all times maintained in a safe working condition and the efficiency thereof is proved by regular testing.

No user shall use or cause or permit a vessel under pressure to be used unless it is kept clean and free from any:

- carbonized oil or other inflammable material which may ignite under working conditions;
- material which may cause corrosion; or

- material which is liable to chemical reaction which may cause an uncontrolled rise in pressure.

D1015 PHYSICAL HAZARDS**a) Ergonomics**

- Ensure that assigned tasks do not exceed the limits of the performance capacities of the worker.
- Prevent injury or any detrimental effects to the health of the worker
- Provide that tasks and working conditions will not lead to impairments.

b) Noise

No contractor shall require or permit an employee to work in an environment in which he is exposed to an equivalent noise level equal to 85 dB(A) or higher. The contractor shall reduce the equivalent noise level to below 85 dB(A) or, where this is not reasonably practicable, he shall reduce the level to as low as is reasonably practicable and take all reasonable steps to isolate the source of the noise acoustically. Where the equivalent noise level in any workplace cannot be reduced to below 85 dB(A) the contractor shall –

- prohibit any person from entering a noise zone unless such person wears hearing protectors.

The contractor shall provide, free of charge, hearing protectors to each employee who works in or, to any person who is required or permitted to enter a noise zone, and no contractor shall require or permit any person to work in or enter such noise zone, and no person shall work in or enter such noise zone, unless he wears such hearing protectors in the correct manner: Provided that where the equivalent noise level to which employees are exposed, is such that the attenuation of the hearing protectors does not reduce the said noise to below 85 dB(A) the employer concerned shall limit the time during which employees work in that noise zone in such a way that they are not exposed to an equivalent noise level equal to 85 dB(A) or higher.

The contractor shall properly instruct any person who is required to wear hearing protectors in the use of such protectors and inform him of noise zones where the wearing thereof is compulsory.

The contractor shall –

- ensure that every employee employed in a noise zone is subjected to audiometric examinations conducted in accordance with section 7 of SANS 083, by an audiometric approved by the chief inspector;
- keep records of the results of each audiometric examination and make such records available for inspection by an inspector if he so requires; and
- keep such records for a minimum period of 30 years after termination of employment: Provided that if the employer ceases activities all such records shall be forwarded to the regional director.

c) Vibration

Whole-body vibration occurs when the body is supported on a surface which is vibrating (e.g., when sitting on a seat which vibrates, standing on a vibrating floor or recumbent on a vibrating surface). Whole-body vibration occurs in all forms of transport and when working near some industrial machinery.

Hand-transmitted vibration is the vibration that enters the body through the hands. It is caused by various processes where vibrating tools or work pieces are grasped or pushed

by the hands or fingers. Exposure to hand-transmitted vibration can lead to the development of several disorders.

D1016 SITE WIDE ELEMENTS**a) Site Access and Egress**

- Access to the site will involve crossing the public footpath.
- Store materials and plant away from means of access for the general public and occupants.
- Remove rubbish and demolition materials regularly. Do not allow to accumulate on flat roofs.
- Maintain free access through designated means of escape at all times
- Agree with the Client / Client's Agent delivery points for materials before commencing works.

b) Visitors to the site

- All visitors to report to the Principal Contractor's reception area for OHS Induction training.
- All visitors to sign the visitor's registration document.
- All visitors to be provided with a Visitors Permit to enable them to access the construction site.
- All un-inducted visitors must be accompanied on the construction site by an inducted person.
- No visitors shall be allowed to access the construction site without wearing the necessary PPE.

c) Deliveries

Access will involve crossing the public footpath.

d) Emergencies

Ensure that there are adequate escape routes and that they are kept clear at all times.

e) Location of Temporary Site Accommodation

See Site Layout Plan.

f) Location of Materials unloading and storage

Materials are to be unloaded and stored in locations which will not in any way affect access or egress to the site nor the works.

g) Traffic and Pedestrian Routes

The road, public footpaths and access way are to be kept open at all times. All necessary signage and barriers are to be put in place to protect pedestrians at the site entrance and access and egress points.

h) Environment

See Environmental Management Plan

i) **Safety**

- Ensure that all employees are aware of the Health and Safety policy and put into place arrangements to ensure that all visitors and workers new to the site are aware of the site safety provisions.
- Locate underground electricity cables, mark and take precautions to avoid.
- Ensure that cartridge operated tools are operated by trained personnel and in accordance with the maker's instructions that the gun is cleaned regularly and kept in a secure place when not in use.
- Protect people who may be exposed to health risks arising from hazardous substances.

D1017 CONTINUING LIAISON

The procedures for consideration and evaluation of the health and safety implications of Contractor designed elements of the works must follow the recognised principles of prevention and protection and take account of the issues highlighted in this OHS Specification.

The following information is to be submitted by the Contractor to the Client / Client's Agent in sufficient time to allow adequate consideration by the Client / Client's Agent and, where appropriate, the design team, and the provision of relevant information to those persons affected by the works, prior to the commencement of the relevant works:

- Suitable and sufficient information to demonstrate that health or safety issues have been adequately considered.
- Risk assessments.
- A list of health and/or safety hazards identified which cannot be designed out.
- A list of any materials or substances which are specified or inherent in the design which is potentially hazardous to health and/or safety.

a) **Unforeseen Eventualities**

The following action is to be taken in the event of unforeseen eventualities arising during the construction stage of the project which require significant design changes, or affect the resources required to carry out the work without risk to health and/or safety, or have other health or safety implications.

The Client / Client's Agent and, where possible, the Principal Contractor are to be advised as soon as possible.

Full details of the relevant health and safety issues involved are to be reviewed with the Client / Client's Agent and Principal Contractor as soon as possible.

Full details of any revised designs, risk assessments and identified hazards and/or hazardous materials and substances are to be issued to the Client / Client's Agent and Principal Contractor in sufficient time to allow for the revision of the Health and Safety Plan and notification of all persons affected by the health and/or safety implications of the changes prior to the commencement of the affected works.

b) **Site Liaison**

Liaise with all other contractors and implement any agreed changes to the Health and Safety Plan arising from such liaison. Set up regular training for all operatives including induction training for all staff upon arrival to site.

c) **Health and Safety File**

Provide the Planning Supervisor with any relevant information which the contractor believes should be incorporated into the Health and Safety File.

d) **Design Development**

Provide the Client / Client's Agent with all design information prepared by sub-Contractors.

Arrange liaison meetings with sub-contractors to discuss and review health and safety issues arising from the sub-contractors' designs.

D1018 CONCLUSION

The hazards listed above were identified posing potential threats to the health and or safety of persons that will work on the contract. Although every effort were made to ensure that every possible hazard was identified OHSEC cannot guarantee this, therefore it is imperative for the contractor to conduct a comprehensive risk identification and hazard assessment in order to make certain that all hazards are identified.

C3.7 ENVIRONMENTAL MANAGEMENT REQUIREMENTS**E1001 LEGAL REQUIREMENTS****a) General**

Construction will be according to the best industry practices, as identified in the project documents. This EMP, which forms an integral part of the contract documents, informs the contractor as to his duties in the fulfilment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by construction activities associated with the project. The contractor should note that obligations imposed by the EMP are legally binding in terms of environmental statutory legislation and in terms of the additional conditions to the general conditions of contract that pertain to this project. In the event that any rights and obligations contained in this document contradict those specified in the standard or project specifications then the latter shall prevail.

b) Statutory and other applicable legislation

The contractor is deemed to have made himself conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the contract.

E1002 ADMINISTRATION OF ENVIRONMENTAL OBLIGATIONS**a) Appointment of a Designated Environmental Officer (DEO)**

For the purposes of implementing the conditions contained herein, the contractor shall submit to the engineer for approval the appointment of a nominated representative of the contractor as the DEO for the contract. The request shall be given, in writing, at least fourteen days before the start of any work clearly setting out reasons for the nomination, and with sufficient detail to enable the engineer to make a decision. The engineer will, within seven days of receiving the request, approve, reject or call for more information on the nomination. Once a nominated representative of the contractor has been approved he/she shall be the DEO and shall be the responsible person for ensuring that the provisions of the EMP are complied with during the life of the contract. The engineer will be responsible for issuing instructions to the contractor where environmental considerations call for action to be taken. The DEO shall submit regular written reports to the engineer, but not less frequently than once a month.

The engineer shall have the authority to instruct the contractor to replace the DEO if, in the engineer's opinion, the appointed officer is not fulfilling his/her duties in terms of the requirements of the EMP or this specification. Such instruction will be in writing and shall clearly set out the reasons why a replacement is required.

There shall be an approved DEO on the site at all times. The DEO will be allowed to fulfil also other duties on the contract.

b) Administration

Before the contractor begins each construction activity the DEO shall give to the engineer a written statement setting out the following:

- The type of construction activity.
- Locality where the activity will take place.
- Identification of the environmental aspects and impacts that might result from the activity.
- Methodology for impact prevention for each activity or aspect.
- Methodology for impact containment for each activity or aspect.

- Emergency/disaster incident and reaction procedures.
- Treatment and continued maintenance of impacted environment.

The contractor may provide such information in advance of any or all construction activities provided that new submissions shall be given to the engineer whenever there is a change or variation to the original.

The engineer may provide comment on the methodology and procedures proposed by the DEO, but he shall not be responsible for the contractor's chosen measures of impact mitigation and emergency/disaster management systems. However, the contractor shall demonstrate at inception and at least once during the contract that the approved measures and procedures function properly.

c) **Good Housekeeping**

The Contractor shall undertake "good housekeeping" practices during construction as stated in the Standard Specifications for Routine Road Maintenance - October 2001 Edition (Volume 2) as prepared by South African National Roads Agency Limited and the General Conditions of Contract 2004. This will help avoid disputes on responsibility and allow for the smooth running of the contract as a whole. Good housekeeping extends beyond the wise practice of construction methods that leaves production in a safe state from the ravages of weather to include the care for and preservation of the environment within which the site is situated.

E1003 TRAINING

The designated environmental officer (DEO) must be conversant with all legislation pertaining to the environment applicable to this contract and must be appropriately trained in environmental management and must possess the skills necessary to impart environmental management skills to all personnel involved in the contract.

The contractor shall ensure that adequate environmental training takes place. All employees shall have been given an induction presentation on environmental awareness. Where possible, the presentation needs to be conducted in the language of the employees. The environmental training should, as a minimum, include the following:

- The importance of conformance with all environmental policies
- The environmental impacts, actual or potential, of their work activities;
- The environmental benefits of improved personal performance;

Their roles and responsibilities in achieving conformance to the environmental policy and procedures and with the requirement of the Agency's environmental management systems, including emergency preparedness and response requirements;

The potential consequences of departure from specified operating procedures;

The mitigation measures required to be implemented when carrying out their work activities.

In the case of permanent staff the contractor shall provide evidence that such induction courses have been presented. In the case of new staff (including contract labour) the contractor shall inform the engineer when and how he intends concluding his environmental training obligations.

E1004 ACTIVITIES/ASPECTS CAUSING IMPACTS

A list of possible causes of environmental impacts that occur during construction activities is given in the Table, which is to be found at the end of Part C. This list is not exhaustive, and shall be used for guideline purposes only.

E1005 ENVIRONMENTAL MANAGEMENT OF CONSTRUCTION ACTIVITIES**a) Site Establishment****i) Site Plan**

The contractor shall establish his construction camps, offices, workshops, staff accommodation and testing facilities on the site in a manner that does not adversely affect the environment. However, before construction can begin, the contractor shall submit to the engineer for his approval, plans of the exact location, extent and construction details of these facilities and the impact mitigation measures the contractor proposes to put in place.

The plans shall detail the locality as well as the layout of the waste treatment facilities for litter, kitchen refuse, sewage and workshop-derived effluents. The site offices should not be sited in close proximity to steep areas, as this will increase soil erosion. Preferred locations would be flat areas along the route. If the route traverses water courses, streams and rivers, it is recommended that the offices, and in particular the ablution facilities, aggregate stockpiles, spoil areas and hazardous material stockpiles are located as far away as possible from any water course as possible. Regardless of the chosen site, the contractor's intended mitigation measures shall be indicated on the plan. The site plan shall be submitted not later than the first site meeting. Detailed, electronic colour photographs shall be taken of the proposed site before any clearing may commence. These records are to be kept by the engineer for consultation during rehabilitation of the site.

ii) Vegetation

The contractor has a responsibility to inform his staff of the need to be vigilant against any practice that will have a harmful effect on vegetation.

The natural vegetation encountered on the site is to be conserved and left as intact as possible. Vegetation planted at the site shall be indigenous and in accordance with instructions issued by the engineer. Only trees and shrubs directly affected by the works, and such others as may be indicated by the engineer in writing, may be felled or cleared. In wooded areas where natural vegetation has been cleared out of necessity, the same species of indigenous trees as were occurring, shall be re-established.

The project specification for the rehabilitation of the grass cover shall be strictly adhered to. Any proclaimed weed or alien species that propagates during the contract period shall be cleared by hand before seeding. Fires shall only be allowed in facilities or equipment specially constructed for this purpose. A firebreak shall be cleared and maintained around the perimeter of the camp and office sites.

iii) Rehabilitation

The area where the site offices were erected will require rehabilitation at the end of the contract. All construction material, including concrete slabs and braai areas shall be removed from the site on completion of the contract.

iv) Water for human consumption

Water for human consumption shall be available at the site offices and at other convenient locations on site.

All effluent water from the camp / office sites shall be disposed of in a properly designed and constructed system, situated so as not to adversely affect water sources (streams, rivers, pans dams etc). Only domestic type wastewater shall be allowed to enter this drain.

v) Heating and Cooking fuel

The contractor shall provide adequate facilities for his staff so that they are not encouraged to supplement their comforts on site by accessing what can be taken from the natural surroundings. The contractor shall ensure that energy sources are available at all times for construction and supervision personnel for heating and cooking purposes.

b) **Sewage treatment**

To be drained to Works.

c) **Waste Management**

The contractor's intended methods for waste management and waste minimisation shall be implemented at the outset of the contract. All personnel shall be instructed to dispose of all waste in the proper manner.

i) Solid Waste

Solid waste shall be stored in an appointed area in covered, tip proof metal drums for collection and disposal. A refuse control system shall be established for the collection and removal of refuse to the satisfaction of the engineer. Disposal of solid waste shall be at a Department of Water and Sanitation (DWS) licensed landfill site or at a site approved by DWS in the event that an existing operating landfill site is not within reasonable distance from the site offices and staff accommodation. No waste shall be burned or buried at or near the site offices, nor anywhere else on the site, including the approved solid waste disposal site.

ii) Litter

No littering by construction workers shall be allowed. During the construction period, the facilities shall be maintained in a neat and tidy condition and the site shall be kept free of litter.

Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work the contractor shall provide litter collection facilities for later safe disposal at approved sites.

iii) Hazardous waste

Hazardous waste such as bitumen, tar, oils etc. shall be disposed of in a Department of Water Affairs and Forestry approved landfill site. Special care shall be taken to avoid spillage of tar or bitumen products such as binders or pre-coating fluid to avoid water-soluble phenols from entering the ground or contaminating water.

Under no circumstances shall the spoiling of tar or bituminous products on the site, over embankments, in borrow pits or any burying, be allowed. Unused or rejected tar or bituminous products shall be returned to the supplier's production plant. Any spillage of tar or bituminous products shall be attended to immediately and affected areas shall be promptly reinstated to the satisfaction of the engineer.

d) **Control at the workshop**

The contractor's management and maintenance of his plant and machinery will be strictly monitored according to the criteria given below, regardless whether it is serviced on the site (i.e. at the place of construction activity or at a formalised workshop).

i) Safety

All the necessary handling and safety equipment required for the safe use of petrochemicals and oils shall be provided by the contractor to, and used or worn by, the staff whose duty it is to manage and maintain the contractor's and his subcontractor's and supplier's plant, machinery and equipment.

ii) Hazardous Material Storage

Petrochemicals, oils and identified hazardous substances shall only be stored under controlled conditions. All hazardous materials e.g. tar or bitumen binders shall be stored in a secured, appointed area that is fenced and has restricted entry. Storage of tar or

bituminous products shall only take place using suitable containers to the approval of the engineer.

The contractor shall provide proof to the engineer that relevant authorisation to store such substances has been obtained from the relevant authority. In addition, hazard signs indicating the nature of the stored materials shall be displayed on the storage facility or containment structure. Before containment or storage facilities can be erected the contractor shall furnish the engineer with details of the preventative measures he proposes to install in order to mitigate against pollution of the surrounding environment from leaks or spillage. The preferred method shall be a concrete floor that is bunded. Any deviation from the method will require proof from the relevant authority that the alternative method proposed is acceptable to that authority. The proposals shall also indicate the emergency procedures in the event of misuse or spillage that will negatively affect an individual or the environment.

iii) Fuel and Gas Storage

Fuel shall be stored in a secure area in a steel tank supplied and maintained by the fuel suppliers.. An adequate bund wall, 110% of volume, shall be provided for fuel and diesel areas to accommodate any leakage spillage or overflow of these substances. The area inside the bund wall shall be lined with an impervious lining to prevent infiltration of the fuel into the soil. Any leakage, spillage or overflow of fuel shall be attended to without delay.

Gas welding cylinders and LPG cylinders shall be stored in a secure, well-ventilated area.

iv) Oil and Lubricant Waste

Used oil, lubricants and cleaning materials from the maintenance of vehicles and machinery shall be collected in a holding tank and sent back to the supplier. Water and oil should be separated in an oil trap. Oils collected in this manner, shall be retained in a safe holding tank and removed from site by a specialist oil recycling company for disposal at approved waste disposal sites for toxic/hazardous materials. Oil collected by a mobile servicing unit shall be stored in the service unit's sludge tank and discharged into the safe holding tank for collection by the specialist oil recycling company.

All used filter materials shall be stored in a secure bin for disposal off site. Any contaminated soil shall be removed and replaced. Soils contaminated by oils and lubricants shall be collected and disposed of at a facility designated by the local authority to accept contaminated materials.

v) **Spillages**

Streams, rivers and dams shall be protected from direct or indirect spillage of pollutants such as refuse, garbage, cement, concrete, sewage, chemicals, fuels, oils, aggregate, tailings, wash water, organic materials and tar or bituminous products. In the event of a spillage, the contractor shall be liable to arrange for professional service providers to clear the affected area.

Responsibility for spill treatment lies with the contractor. The individual responsible for, or who discovers a hazardous waste spill must report the incident to his/her DEO or to the engineer. The Designated Environmental Officer will assess the situation in consultation with the engineer and act as required. In all cases, the immediate response shall be to contain the spill. The exact treatment of polluted soil / water shall be determined by the contractor in consultation with the DEO and the engineer. Areas cleared of hazardous waste shall be re-vegetated according to the engineer's instructions

Should water downstream of the spill be polluted, and fauna and flora show signs of deterioration or death, specialist hydrological or ecological advice will be sought for appropriate treatment and remedial procedures to be followed. The requirement for such input shall be agreed with the engineer. The costs of containment and rehabilitation shall be for the contractor's account, including the costs of specialist input.

vi) **Noise Control**

The contractor shall endeavour to keep noise generating activities to a minimum. Noises that could cause a major disturbance, for instance blasting and crushing activities, should only be carried out during daylight hours. Compliance with the appropriate legislation with respect to noise, shall be mandatory.

Should noise generating activities have to occur at night the people in the vicinity of the drilling shall be warned about the noise well in advance and the activities kept to a minimum.

vii) **Dust Control**

Dust caused by strong winds shall be controlled by means of water spray vehicles. Dust omission from batching plants shall be subject to the relevant legislation and shall be the subject of inspection by the relevant office of the Department of Minerals and Energy.

E1006 RECORD KEEPING

The engineer and the DEO will continuously monitor the contractor's adherence to the approved impact prevention procedures and the engineer shall issue to the contractor a notice of non-compliance whenever transgressions are observed. The DEO should document the nature and magnitude of the non-compliance in a designated register, the action taken to discontinue the non-compliance, the action taken to mitigate its effects and the results of the actions. The non-compliance shall be documented and reported to the engineer in the monthly report.

Copies of any record of decision or EMP's for specific borrow pits or quarries used on the project shall be kept on site and made available for inspection by visiting officials from the employer or relevant environmental departments.

E1007 COMPLIANCE AND PENALTIES

The contractor shall act immediately when such notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. This record shall be submitted with the monthly reports and a verbal report given at the monthly site meetings.

Any avoidable non-compliance with the above-mentioned measures shall be considered sufficient ground for the imposition of a penalty

CONTENTS	ENVIRONMENTAL IMPACTS				
	POLLUTION TYPE	DEFORMATION OF LANDSCAPE	SOIL EROSION	ALIEN VEGETATION	SENSITIVE AREAS
Camp Establishment	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Housing, Offices and laboratories	Waste treatment Hazardous waste Water supply Spillage Storage Noise/lights	Selection of site Preserve indigenous vegetation Preserve topsoil Demarcate sensitive areas	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	
Drainage	Waste treatment Hazardous waste Water supply Spillage Storage	Selection of site Preserve indigenous vegetation Preserve topsoil	Selection of site Preserve indigenous vegetation Preserve topsoil	Preserve indigenous vegetation Preserve topsoil Management of weeds	



METSIMAHOLO LOCAL MUNICIPALITY

BID NO: MLM 22/2021/22

**CONSTRUCTION OF THE REFURBISHMENT OF GALVANISED PIPES TO UPVC PIPES
IN ZAMDELA TOWNSHIP**

PART C4: SITE INFORMATION

C4.1 INTRODUCTION

C4.1.1 Disclaimer

Amongst others, this document sets out the results and conclusions derived from various investigations and tests done on natural materials encountered along and in the general vicinity of, as well as the project areas.

The results of these investigations are given in good faith and there is no guarantee that these results are entirely representative of all the materials and conditions that may be encountered, the intention being to give an indication of the materials and conditions most likely to be encountered.

The results of various tests carried out on materials taken from possible sources are given in good faith and there is no guarantee that the results are entirely representative of all the materials available nor that the estimated quantities of materials are correct, the intention being to give an indication of the materials most likely to be obtained from each source.

No responsibility for any consequence arising from variations between the actual material properties and those indicated in this document will be accepted.

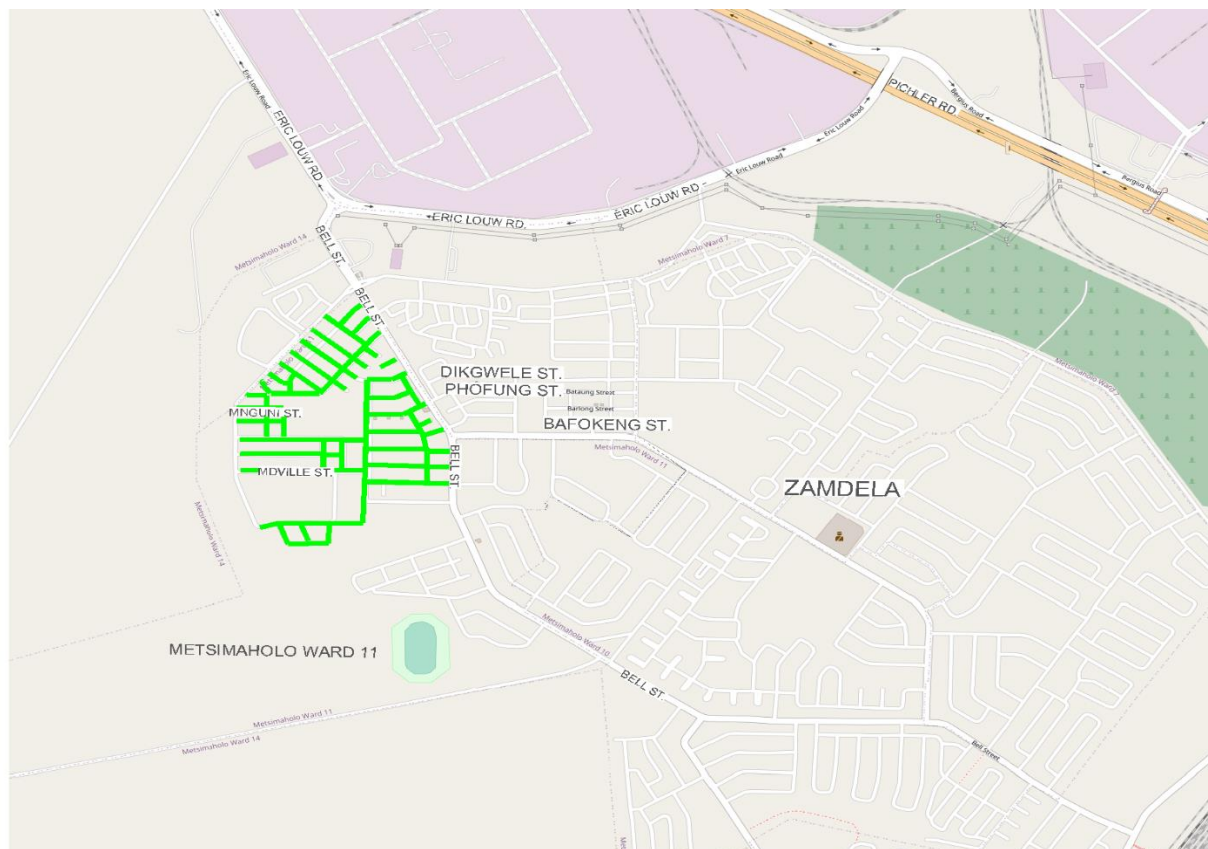
The specifications and contract drawings shall always overrule this section of the contract document.

C4.2 GENERAL DESCRIPTION

C4.2.1 Location description

The project site is situated in the vicinity of ward 11 of Zamdela Township. The locality plan is indicated in Figure C4.2.1

FIGURE C4.2.1 – LOCALITY PLAN OF ZAMDELA WARD 11



C4.2.2 Programme approach

A short completion time will receive preference.

C4.3 PHYSIOGRAPHY

C4.3.1 Topography and Drainage

The topography of the area is in general flat to rolling terrain.

C4.3.2 Rainfall

This area is regarded as a summer rainfall region with the highest monthly rainfall recorded from November to January. Total rainfall $\pm 600 - 700$ mm / year with the maximum average month in November – January i.e. ± 100 mm / month.

C4.3.3 Temperature

Average temperatures vary between 25°C in Summer and 10°C in Winter.

The low temperatures from April to September will have an influence on construction activities such as stabilization and concrete work.

C4.3.4 Vegetation

The natural vegetation is grasslands and shrubs with trees.

C4.3 SURVEYS BEACONS AND SERVICES

C4.4.1 Survey beacons

- a. Local reference beacons will be indicated to the Contractor.
- b. The Contractor must employ a competent qualified surveyor to set the work out in accordance with the drawings.

C4.4.2 Services

Municipal

Prior to commencement of any work, contractor is obliged to obtain an excavation permit from METSIMAHOLO LOCAL MUNICIPALITY's infrastructure department.

C4.4 GEOTECHNICAL INFORMATION

There is no geotechnical report required to be submitted which would provide insight into the resistance to excavation that is going to be encountered during the excavation for the pipeline. Any special measures which may need to be taken during project execution and project functionality pertaining to the soil will be dealt with during construction as and when required.

C4.5 ACCESS TO SITE

Access to the site is along existing gravel and dirt roads.