



Nkomazi
Local Municipality

CONTRACT NO: NKO:44/2026

**EXTENSION OF BULK LINE, WATER RETICULATION AND
ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURT STANDS)**

CIDB GRADING: 7CE OR HIGHER

NAME OF TENDERER	
CIDB NUMBER	
TENDER AMOUNT (FIGURES)	
TENDER AMOUNT (WORDS)	



EXPANDED PUBLIC WORKS PROGRAMME

MIG

Municipal
Infrastructure
Grant

Prepared for:



Nkomazi Local Municipality

Private Bag x X101

Malelane

1320

Tel.: (013) 790 0245

Fax.: (013) 790 0886

Prepared by:



Tshashu Consulting and Project Managers

Office No. F5-02, 37 Brown Street Arbor Park

Nelspruit

1201

Tel.: (015) 291 4365

Fax.: (015) 291 5392

Closing Date & Time: 07 October 2026 @ 12:00

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

TENDER NO: NKO: 44/2026 EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURT STANDS) FOR NKOMAZI LOCAL MUNICIPALITY

The Nkomazi Local Municipality invites interested parties who are registered as CIDB 7CE or higher for Extension of bulk line, water reticulation and elevated tank at Aniva (Boschfontein court stands). Tender documentation with complete details is available upon the payment of a non-refundable amount of **R1 851.38** on each tender document or can be downloaded for free on the e-Tender portal. Tender document(s) will be available as from **31/08/2026** and to be obtained at Nkomazi Local Municipality: Budget and Treasury office (Old Malalane Taxi Rank), 22 Impala Street from the Cashiers Desk from **07h45 to 15H30** (Monday-Friday).

A non-compulsory tenderer briefing session will be held on **04/09/2026 at 10h00** at the Municipal Town Hall (Kobwa Hall) at Fish Eagle. Bidders are advised not to commit fraudulent activities or forgery to document. All abusers of the SCM system, including or faking of returnable documents, may be reported to SAPS and restricted from doing business with any public institution for a period not exceeding 10 years in line with section 28 and 29 of the prevention and combating of corrupt activities Act 12 of 2004.

A preferential system shall apply whereby this contract will be allocated to a bidder in accordance with the Preferential Procurement Policy Framework Act, no 5 of 2000 and as defined in the bid document, read in conjunction with the Preferential Procurement Regulation, 2022 where 90 points will be allocated in respect of price and 10 points in respect of targeted goals.

Completed bid documentation must be deposited on/before **12h00 on 07/10/2026** in the Tender Box situated at the main entrance of the municipality (Civic Centre), 9 Park Street, Malalane.

Tenders/Bids must be submitted in a sealed envelope or container on which the tender/bid number and addressee is clearly marked. No bids transmitted by fax or e-mail will be accepted. It must be noted that the municipality is not bound to accept the lowest on any other tender. Tender/bid documentation which is incomplete or filled incorrectly, not filled in the official bid documentation or which is received after the closing of the bids, will be ignored. It must also be noted the tender submitted in a wrong tender box will not be considered.

For Supply Chain enquiries contact Mr. R. Mabuza at 013 790 0386, and for technical enquiries contact Ms. Gift Mbatsane at 013 790 0145, between 07H15 – 16H00 on working weekdays.


M. N. NKOSI
MUNICIPAL MANAGER

21/08/26
Date

1

2

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

NKOMAZI LOCAL MUNICIPALITY

EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURT STANDS)

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE NKOMAZI LOCAL MUNICIPALITY					
BID NUMBER:	NKO 44/2026	CLOSING DATE:	07 OCTOBER 2026	CLOSING TIME:	12H00
DESCRIPTION	EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURT STANDS)				
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT (STREET ADDRESS)					
NKOMAZI Local Municipality Offices, 9 Park Street, Malelane					
9 Park Street					
Malalane					
1320					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Mr M.R. Mabuza		CONTACT PERSON	Ms. G Mbatsane	
TELEPHONE NUMBER	013 790 0386		TELEPHONE NUMBER	013 790 0145	
FACSIMILE NUMBER	013 790 0245		FACSIMILE NUMBER	013 790 0245	
E-MAIL ADDRESS	Richard.mabuza@nkomazi.gov.za		E-MAIL ADDRESS	Gift.Mbatsane@nkomazi.gov.za	
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					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAAA
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE	TICK APPLICABLE BOX] ☐ Yes ☐ No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT		[TICK APPLICABLE BOX] ☐ Yes ☐ No

 Contractor

 Witness 1

 Witness 2

 Employer

 Witness 1

 Witness 2

[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]

I. ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]	II. ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES, ANSWER PART B:3]
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QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? ☐ NO ☐ YES

DOES THE ENTITY HAVE A BRANCH IN THE RSA? ☐ NO ☐ YES

DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? ☐ YES ☐ NO

DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? ☐ YES ☐ NO

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 BELOW.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

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 IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.**
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC 2015 3RD EDITION) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
- 1.4. **THE SUCCESSFUL BIDDER WILL BE ENGAGED WITH NEGOTIATIONS BY THE CSIR THAT MIGHT RESULT IN THE ISSUING OF A PURCHASE ORDER.**

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 CSIR TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
- 2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
- 2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
- 2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
- 2.6 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
- 2.7 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:.....
(Proof of authority must be submitted e.g. company resolution)

DATE :/...../2026.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T1.2 TENDER SUBMISSION, TERMS AND CONDITIONS

General

- Bids must be in South African rands, fixed price basis including VAT;
- The Nkomazi Local Municipality reserves the right to call interviews with short-listed bidder before final selection;
- The Nkomazi Local Municipality reserves the right to negotiate price with preferred bidder in terms of Clause F.1.6.2;
- Bidders must provide details of physical address and contact numbers to enable the Nkomazi Local Municipality to assess the ability of the bidder to deliver on the submission made;
- A bidder must submit a comprehensive tender and cannot tender for portions of the scope;
- The Nkomazi Local Municipality is not compelled to accept the lowest price offer or any other tender.

Bid Instructions

1. The tender document(s) have been drafted to ensure that essential information is furnished upon the correct completion of the document(s). Where there is insufficient space, or additional particulars are required to be furnished, such must be provided on a separate annexure, clearly indicated.
2. Tender document(s) may not be retyped or redrafted. Also, no photocopies of the original document(s) may be used.
3. Tender document(s) may be completed by mechanical devices such as typewriters; alternatively black ink must be used to fill in the document(s).
4. Tenderer must ensure that no pages are missing from the bid document(s), and that the pages of the bid are numbered consecutively. Nkomazi Local Municipality shall not be held liable with regard to claims arising from the fact that pages are missing or duplicated.
5. Firm tender prices (rates) and delivery periods are preferred, and tenders must clearly state whether prices and delivery periods will remain firm for the duration of the contract or not.
6. Tenderer must be strictly to specification. In cases where items are not to specification, deviations must be clearly indicated. It must also be noted that supplier/tenderer may quote for other items other than the one indicated on the schedule of quantity on a separate sheet, but it would not form part of items to be evaluated for.
7. Tender prices must be quoted in South African currency and in the specified units, unless the contrary is clearly indicated.
8. All the documents herewith form part of the bid and failure to comply with any part thereof may invalidate a bid.
9. Nkomazi Local Municipality may issue Briefing Notes during the briefing session which may contain amendments or information that may assist bidders in articulating their bids.
10. Nkomazi Local Municipality require as a condition of the bid that the compulsory explanatory meeting be attended by prospective bidders. This requirement will be clearly stated in the tender advertisement as well as in the documentation.
11. Nkomazi Local Municipality requires the furnishing of a non-refundable bid deposit together with the drawing of bid documentation (if applicable). Where such a non-refundable bid deposit is requested in the bid documentation, no bid will be accepted unless such a deposit (or cash) is submitted in the form of a bank cheque payable to Nkomazi Local Municipality before submission of the bid.
12. Tenders must be submitted to the addressee before closing time. Bids submitted after the closing time shall be considered late and will not be admitted for consideration.
13. The contractor/Service provider shall not abandon, transfer, assign or sublet a contract or part thereof without prior written consent of the council.
14. It is an irrefutable condition of this contract that the successful tenderer will have to negotiate and conclude a service level agreement with the council.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Bidders will be evaluated on the following administrative compliance. Therefore, the undermentioned documents must be complied with, and where an attachment is required, it should be attached.

PART A

The following conditions must be complied with failure to adhere to any of these conditions will lead to immediate disqualification:

- a. All pages must be submitted, and all pages that require completion must be completed in the tender document. Therefore, no page removal is allowed.
- b. Painting over rates/use of correcting fluid is not allowed.
- c. Failure to submit documents required in this tender documentation.
- d. Form of offer not filled (it should be completed in words and numbers).
- e. Certified COIDA
- f. Initial or sign all pages of the tender documents.
- g. Certified copies of documentation must not be older than three (3) months to be regarded as valid. Copies of "certified copies" will not be accepted as true copies of original documents.
- h. All declarations and authorisation forms must be duly signed.
- i. Price amendment without initials or signature of authorised personnel in the bills of quantity is not allowed.
- j. Original certified copy of company registration certificate (CK) and all pages certified.
- k. Original certified copies of ID's all Directors/members/board members.
- l. Copy of the SARS Tax PIN or tax clearance certificate.
- m. Original certified copy of current municipal account for addresses that appears on the CSD report (not older than 3 months and not in arrears for more than three months) or copy of valid Lease Agreement of the business. If the rates and taxes account are not in the names of the company, the attached municipal rates and taxes statement must be submitted together with an original affidavit from the property owner whose names are reflected on the municipal rates and taxes statement to confirm that the business/ company operates from their property. If the business is situated in an area where the respective municipality does not bill, attach proof of residence issued by the municipality stating that the area in question is not billed.
- n. Original certified copies of current municipal account not older than 3 months and not in arrears for more than three months or copy of valid Lease Agreement for ALL directors and or board members of the company. If the rates and taxes account are not in the names of the directors/members of the company, the attached municipal rates and taxes statement must be submitted together with an original affidavit from the property owner whose name is reflected on the municipal rates and taxes statement. If the directors and/or board members reside in an area where the respective municipality does not bill, attach proof of residence issued by the municipality stating that the area in question is not billed.
- o. Signed Letter of Authority on the company letterhead
- p. CSD detailed report (printed after the tender advert and on or before tender closing date)
- q. Joint Venture Agreement (In case of a Joint Venture) must be submitted
- r. Joint Ventures must be registered on CSD as Joint Venture.
- s. Sign all applicable pages.
- t. Full completed bill of quantity.
- u. Alterations to the bid document or submission of a copy of the original bid document is not allowed.
- v. Completion of the bid document using pencil is not allowed
- w. Minimum Bank rating of code C.
- x. The bid must be submitted on the closing date and time.
- y. Certified Copy of CIDB grading
- z. Complete form of offer

Any contract awarded on false information furnished by the bidder, may, without derogating from other remedies available to Nkomazi Local Municipality, be cancelled at the sole discretion of Nkomazi Local Municipality

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T1.4 RETURNABLE DOCUMENTS

The Tenderer must complete the following returnable documents and submit with the complete tender document.

NO	DOCUMENT NAME	RETURNABLE / INCLUDED IN THE BID DOCUMENT (Mark)		
		Included in Bid Doc	Returnable	Required Documents from Supplier
1.	All declarations and authorization forms must be duly signed	NO		Yes
2.	Failure to submit documents required in this tender documentation.	No		Yes
3.	The bid has been submitted after the closing date and time	No		Yes
4.	Initial or sign all pages of the tender documents.	No		Yes
5.	Certified copies of documentation must not be older than three (3) months to be regarded as valid. Copies of "certified copies" will not be accepted as true copies of original documents	No		Yes
6	Original certified copy of company registration certificate (CK) and all pages certified.	No		Yes
7	Original certified copies of ID's all Directors/members/board members.	No		Yes
8	Copy of the SARS Tax PIN or tax clearance certificate.	No		Yes
9	Joint Venture Agreement (In case of a Joint Venture) must be submitted	No		Yes
10	Joint Ventures must be registered on CSD as Joint Venture.	No		Yes
11	Alterations to the bid document or submission of a copy of the original bid document is not allowed.	No		Yes
12	Completion of the bid document using pencil is not allowed	Yes		No
13	Proof of professional Indemnity Insurance	No		Yes
14	Certified Municipality Rates and Taxes – Business (Must not be in arrears for over 90 days)	No		Yes
15	Certified Municipality Rates and Taxes – Company Directors (Must not be in arrears for over 90 days)	No		Yes
16	Comprehensive Methodology on how the tenderer is planning to invest back to the community of Nkomazi Local Municipality, refer to specific goals on MBD 6.1	No		Yes
17	Proof of municipal account/lease agreement or proof of residential address by Traditional Authority, not older than 3 months	No		Yes
18	Central Supplier Database (CSD) Report not older than 3 months	No		Yes
19	Signed Letter of Authority on the company letterhead	No		Yes
20	Bill of quantity	Yes		Yes

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T1.5 TENDER DATA

1.5.1 GENERAL

The Conditions of Tender reproduced are the Standard Conditions of Tender as contained in Annex F of SANS 294 – Construction Procurement Processes, Methods and Procedures which contain references to the Tender Data for details that apply specifically to this tender.

The Tender Data shall be read with the Standard Conditions of Tender in order to expand on the Tenderer's obligations and the Employer's undertakings in administering the tender process in respect of the project under consideration.

The Tender Data contained hereafter shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

Each item of Tender Data given below is cross-referenced to the relevant clause in the standard Conditions of Tender.

1.5.2 TENDER DATA APPLICABLE TO THIS TENDER

F.1.1 The Employer for this Contract is: **NKOMAZI LOCAL MUNICIPALITY**

F.1.2 Tender Documents

(a) **The Tender Document** consists of the following:

TENDER

T1: Tendering Procedures

T1.1: Tender Notice and Invitation to Tender

T1.2: Tender Data

T2: Returnable Documents

T2.1: List of Returnable Documents

T2.2: Returnable schedules and forms

CONTRACT

Part 1: Agreements and Contract Data

C1.1: Form of Offer and Acceptance

C1.2: Contract Data

Part 2: Pricing Data

C2.1: Pricing Instructions

C2.2: Bill of Quantities

Part 3: Scope of Work

C3: Scope of Work

Part 4: Site Information

C4: Site information

The Tender Document shall be obtained from the Employer or his authorized representative at the physical addresses stated in the Tender Notice, upon payment of the deposit stated in the Tender Notice.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

F.1.4 The Employer's Agent is:

Name : **Tshashu Consulting and Project Managers**
Address : Office No. F5-02, 37 Brown Street
Code : 1201
Telephone : 015 291 4365
Fax : 015 291 5392
E-Mail : admin@tsconsulting.co.za

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

The Employer is not obliged to accept the lowest or any tender offer.

F.2.1 Eligibility

A Tenderer will not be eligible to submit a tender if:

- (a) the contractor submitting the tender is under restrictions or has principals who are under restriction to participate in the Employer's procurement due to corrupt or fraudulent practices;
- (b) the Tenderer does not have the legal capacity to enter into the contract;
- (c) the contractor submitting the tender is 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 the foregoing;
- (d) The Tenderer does not comply with the legal requirements stated in the Employer's procurement policy;
- (e) The Tenderer who cannot demonstrate that he possesses the necessary technical qualifications and competencies, financial resources, equipment and other physical facilities, managerial capability, personnel, experience and reputation to perform the contract; or

TENDERERS TO TAKE PARTICULAR NOTICE OF THIS CLAUSE AS TENDERERS WHO DO NOT COMPLY HEREWITH WILL NOT BE CONSIDERED ELIGIBLE.

- (f) The Tenderer who cannot provide proof that he is in good standing with respect to duties, taxes, levies and contributions required in terms of legislation applicable to the work in the contract.

F.2.7 Site visit and clarification meeting

The arrangements for the non compulsory site inspection visit and clarification meeting are as follows:

Location: Kobwa Hall, MALELANE Nkomazi Local Municipality

Date : 04 September 2026

Starting time: 12: 00AM

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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F.2.12 Alternative tenders

If a Tenderer wishes to submit an alternative tender offer, the only criteria permitted for such an alternative tender offer are:

(a) Individual items

Individual items offered as alternatives to items in the Bill of Quantities will only be considered if listed and priced in Form G: *Amendments, Qualifications and Alternatives* in Part 2 of the Contract Document, accompanied by a detailed statement as necessary.

(b) Alternative designs

Where a Tenderer desires to submit an alternative tender involving modifications to the design or method of construction that would alter the character of the tender, the following procedure must be observed:

- (i) The alternative offer must be accompanied by supporting information, drawings, calculations and a priced alternative Bill of Quantities to enable its technical acceptability, construction time and price to be fully assessed. Such information, drawings and Bill of Quantities must be sufficient for the proper evaluation of the tendered alternative, otherwise the offer will not be considered;
- (ii) Any alternative tender involving modifications to the design will be assessed on its merits and may be accepted. An accepted alternative design will become the design for the purpose of the contract.
- (iii) If an alternative design with its priced Bill of Quantities has been accepted, the sum thus tendered for the alternative will not be subject to re-measurement and will be the final amount payable to the Contractor, except only for variations arising from:
 - Changes in design parameters ordered by the Engineer;
 - Changes not arising from any failure or fault of the Contractor, but from modifications requested by the Engineer.
- (iv) A decision whether or not to adopt a technically acceptable modified design will be governed by the amount of the overall saving and the advantages to the Employer which the modified design can be reliably expected to achieve. Matters to be considered in arriving at the overall saving will include the effect of any deferment in starting date arising from extra time needed for the preparation of an amended contract for signature.
- (v) The priced alternative Bill of Quantities must include an amount equal to 5% of the amount tendered therein to cover the Employer's costs of checking the alternative design offered.

F.2.13 Submitting a Tender Offer

F.2.13.5 Tender offers shall be submitted as an original only.

Under no circumstances whatsoever may the tender forms be retyped or redrafted. Photocopies of the original tender documentation may be used, but an original signature must appear on such photocopies.

F.2.13.6 A two-envelope procedure will not be followed.

F.2.15 Closing Time

The closing time for submission of Tender Offers is as per the Tender Bulletin. Telephonic, telegraphic, facsimile, telex, electronic or e-mailed tenders will **not** be accepted.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

F.2.16 Tender Validity

All tenders shall remain valid for a period of ninety (90) days after the time and date set for the opening of tenders, or until the Tenderer is relieved of this obligation by the Employer, in writing, at an earlier date. However, the Tenderer may be requested in writing, not later than fourteen (14) days before this validity period will lapse, to extend the validity of this tender for a specific period. The written approval of the Tenderer must then be received before the lapsing of the original validity period, in order to remain valid.

Should a Tenderer –

- Withdraw his tender during the period of its validity; or
- give notice of his inability to execute the contract or fail to execute the contract; or
- fail to sign the contract agreement or furnish the required security within the period fixed in the Contract Data or any extended time agreed to by the Employer;

then he shall be liable for and pay to the Employer –

- all expenses incurred in calling for fresh tenders, if it should be necessary;
- the difference between his tender and any less favorable tender accepted either by fresh tenders being called or by another tender being accepted from those already received;
- any escalation of the final contract price resulting from any delay caused in calling for fresh tenders:

Provided always that the Employer may exempt a Tenderer from the provisions hereof, if it is of the opinion that the circumstances justify such exemption.

F.2.19 Access

Access shall be provided for inspections and testing by personnel acting on behalf of the Employer.

F.2.22 Return of Tender Documents

Not applicable.

F.2.23 Certificates

The following certified certificates must be provided with the tender (Compulsory):

- Joint Venture Agreement and Power of Attorney in case of Joint Ventures;
- Workman's Compensation Registration Certificate (or proof of payment of contributions in terms of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993);
- Company/CC/Trust/Partnership registration certificates; and
- Certified Copies of Identity Document of company owner/directors.

F.3.5 The two-envelope system **will not** apply to this tender.

F.3.11 Evaluation of Tender Offers

The Mpumalanga Department of Public Works, Roads & Transport has adopted a policy in the legislation applicable to procurement of tenders and management of Construction Contracts. To achieve the Government's community empowerment policies, an environment conducive to emerging and SMME's Contractors has to be created. Therefor the procurement policy adopted by Mpumalanga Department of Public Works, Roads and Transport will be implemented in this contract to give effect to Section 217(2) of the Constitution and as published in Government Gazette no 16085, dated 23 November 1994.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

F.3.11.2 Tenders will be evaluated in a single stage in accordance with the standard tender evaluation Method 2: Financial Offer and preference:

STAGE 1: TEST FOR RESPONSIVENESS/ELIGIBILITY

In order for a tender to be considered responsive, it must comply with **ALL** of the following criteria:

- a) The tender documentation must be completed and signed in all respects;
- b) The Contractor must have the required CIDB grading;
- c) The tender documentation must include all necessary and applicable documentation as listed in F.2.23 above; and
- d) The tender must comply with the eligibility criteria noted in F.2.1.

The responsiveness of a tender will be assessed by scoring the bid according to the criteria detailed in the table overleaf.

It is incumbent on the Tenderer to ensure that the returnable documents in T2 are completed in sufficient detail to enable the score to be properly assessed. If the information provided renders a specific criterion not being fully complied with, then the bid will be scored on the next criterion down.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

STAGE 2: FINANCIAL OFFER AND PREFERENCES

All tenders that meet the stage 1 criteria for responsiveness will progress through to the evaluation phase as set out in this tender document.

F.3.11.4 Points scored for price (Contract Value above than R 50 000 000)

The 90/10 preference point system will be used to allocate points for tenders in this category.

It is estimated that tenders on this contract will be evaluated on the 90/10 preference point system.

Annex F: Standard Conditions of Tender

(As contained in Annexure F of Board Notice 12 of 2009: Standards for Uniformity in Construction Procurement)

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.

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F.1.3 Interpretation

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

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

F.1.3.3 For the purposes of these conditions for the calling for expressions of interest, the following definitions apply:

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

F.1.4 Communication and employer's agent

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

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

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

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

F.1.6 Procurement procedures

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F.1.6.1 General

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

F.1.6.2 Competitive negotiation procedure

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

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

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

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

F.1.6.3 Proposal procedure using the two stage-system

F.1.6.3.1 Option 1

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

F.1.6.3.2 Option 2

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

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

F.2 Tenderer's obligations

F.2.1 Eligibility

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

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

F.2.2 Cost of tendering

Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with 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 all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

F.2.5 Reference documents

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

F.2.6 Acknowledge addenda

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

F.2.7 Clarification meeting

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

F.2.8 Seek clarification

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

F.2.9 Insurance

Insurance for this contract is to be supplied by contractor as per the contract data. The tenderer is advised to seek qualified advice regarding insurance.

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F.2.10 Pricing the tender offer

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

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

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

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

F.2.11 Alterations to documents

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

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

F.2.13 Submitting a tender offer

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

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

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

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

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

F.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall

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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 shall 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 withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted.

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

F.2.17 Clarification of tender offer after submission

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

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

F.2.18 Provide other material

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

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

F.2.19 Inspections, tests and analysis

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

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

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

F.2.21 Check final draft

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

F.2.22 Return of other tender documents

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

F.2.23 Certificates

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

F.2.24 Contract Price Adjustment.

The tender price given is fixed and will not be adjusted for escalation, unless provided for in the contract data. Fluctuations in the foreign currency exchange rate, however, shall be dealt with in the following manner:

1. No change in the tendered rates shall be allowed if the foreign currency (Rand versus US dollar) exchange rate on the date of letter of acceptance, by the client, of this contract has fluctuated up or down by less than or equal to 5% of the base exchange rate. (Refer to note 3 below)

2. Should the foreign currency (Rand versus US Dollar) exchange rate on the date of letter of acceptance, by the client, of this contract have fluctuated up or down by more than 5% of the base exchange rate (See note 3 below), the tendered rates for Section 2 in the Schedule of Quantities shall be adjusted up or down by an amount equal to the difference between the exchange rate on the date of letter of acceptance and the base exchange rate plus or minus 5 %, whichever is applicable.

3. The base foreign currency (Rand versus US dollar) exchange rate shall be the exchange rate determined by the Johannesburg Stock Exchange (JSE) at **4h00 pm** on the Monday before the tender closing date.

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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 procurement documents.

F.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to pre-qualify 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 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 pre-qualified 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 of the Tender Notice until three days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who drew documents.

F.3.3 Return late tender offers

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

F.3.4 Opening of tender submissions

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

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

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

F.3.5 Two-envelope system

F.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the

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time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

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

F.3.6 Non-disclosure

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

F.3.7 Grounds for rejection and disqualification

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

F.3.8 Test for responsiveness

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

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

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

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

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

F.3.9 Arithmetical errors, omissions or discrepancies

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

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

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

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

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

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

F.3.10 Clarification of a tender offer

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

F.3.11 Evaluation of tender offers

F.3.11.1 General

Appoint an evaluation 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 the 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:

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

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 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 the 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 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 the 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 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:

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

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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 preference 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 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 the 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	$A = (1 + \frac{(P - P_m)}{P_m})$	$A = P / P_m$
2	Lowest price or percentage commission / fee	$A = (1 - \frac{(P - P_m)}{P_m})$	$A = P_m / P$
^a P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration.			

F.3.11.8 Scoring preferences

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

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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.
 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

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

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

F.3.15 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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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 offer and 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 sated 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.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

T2 Returnable Documents

T2.1 List of Returnable Documents

The Tenderer must complete the following returnable documents and submit with the complete tender document.

DOCUMENT REF.	DESCRIPTION	ACTION
RETURNABLE SCHEDULES AND CERTIFICATES		
A	Proof of Registration on the National Treasury Centralised Supplier Database (CSD)	Attach
B	Proof of tax compliance status and a valid SARS PIN	Complete/ Attach
C	Bank Rating Letter	Complete/ Attach
D	BBBEE Verification Certificate. In case of Joint Venture (JV); B-BBEE must be SANAS approved	Attach
FAILURE TO SUBMIT/FULLY COMPLETE THE BELOW DOCUMENTS WILL RENDER THE TENDER SUBMISSION NON-RESPONSIVE (COMPULSORY RETURNABLES)		
E	Certificate of Attendance at a Tender Site Meeting	Non compulsory
F	Record of Addenda to Tender Documents (If applicable)	Complete
G	Amendments, Qualifications and Alternatives (If applicable)	Attach
H	Certificate of Authority for Signature	Complete
I	Copy Workmen's Compensation Registration Certificate (or proof of payment of contributions in terms of the Compensation for Occupational Injuries and Disease Act No. 130 of 1993)	Attach
J	Fully Completed MBD Forms: MBD2, MBD3.2, MBD3.3, MBD4, MBD5, MBD6.1, MBD7.1, MBD7.2, MBD7.3, MBD8, MBD9	Complete
K	Municipal Declaration	Complete
INFORMATION REQUIRED FOR EVALUATION PURPOSES		
L	Key Personnel	Attach

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

DOCUMENT REF.	DESCRIPTION	ACTION
M	Qualifications and Relevant Experience of the Contracts Manager (Curriculum Vitae Format)	Attach
N	Qualifications and Relevant Experience of the Site Agent (Curriculum Vitae Format)	Attach
O	Qualifications and Relevant Experience of the Foreman (Curriculum Vitae Format)	Attach
P	Relevant Experience of the Safety Officer (Curriculum Vitae Format)	Attach
Q	Relevant Experience of the Plant Operator (Curriculum Vitae Format)	Attach
R	Summary of Tendering Firms Experience (Similar Work and Environment)	Attach
S	Provisional Programme	Attach
T	Schedule of Plant and Equipment/Letter of Intent to Hire	Attach
U	Occupational Health & Safety Plan	Attach
V	Certified CIDB Grading Certificate	Attach

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

A: CENTRAL SUPPLIER DATABASE REGISTRATION NUMBER

IMPORTANT NOTES:

1. The following is an abstract from the Preferential Procurement Regulations 2001 promulgated with the Preferential Policy Framework Act No 5 of 2000:

Central Supplier Database Registration Number

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

VALID CSD REPORT:

[Valid CSD report to be attached to this page]

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

B: PROOF OF TAX COMPLIANCE STATUS AND A VALID SARS PIN

IMPORTANT NOTES:

1. The following is an abstract from the Preferential Procurement Regulations 2001 promulgated with the Preferential Policy Framework Act No 5 of 2000:

"Valid Tax clearance certificate / Central Supplier Database Registration Number

16. No contract may be awarded to a person who has failed to submit an original Tax Clearance Certificate from the South African Revenue Service ("SARS") certifying the taxes of that person to be in order or that suitable arrangement have been made with SARS."

2. The ST 5.1 form, Application for Tax Clearance Certificate (in respect of tenders), must be **completed by the tenderer in every detail and submitted to the Receiver of Revenue** where the tenderer is registered for income tax purposes. The Receiver of Revenue will then furnish the tenderer with a Tax Clearance Certificate that will be valid for 6 months from date of issue.

Each party to a Consortium/Joint Venture/Sub-contractors must complete a separate Tax Clearance Certificate.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

TAX CLEARANCE CERTIFICATE / SARS PIN

[Tax Clearance Certificate obtained/ PIN from SARS to be attached to this page]

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C: BANK RATING AND CONFIRMATION OF BANKING DETAILS

Tenderers' financial capacity to finance and undertake a contract of this nature will also be checked and consequently it is a requirement that the details below be provided.

NAME OF TENDERER					
NAME OF ACCOUNT HOLDER AT BANK					
TYPE OF ACCOUNT (Please tick)	CURRENT/CHEQUE	☐	SAVINGS	☐	TRANSMISSION
BANK					
BRANCH NAME					
ACCOUNT NUMBER					
BRANCH CODE					
BANK RANKING CODE					
BANK TELEPHONE NO					
BANK ADDRESS					
NAME OF BANK MANAGER					
TELEPHONE NUMBER					
FAX NUMBER					
NO OF YEARS ABOVE ACCOUNT HAS BEEN WITH BANK					
CREDIT FACILITIES AVAILABLE (State Amount)					

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

--

Contractor

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Witness 1

--

Witness 2

--

Employer

--

Witness 1

--

Witness 2

D: REGISTRATION CERTIFICATES OF AN ENTITY

ENTITY REGISTRATION:

[Important note to Tenderer: Registration Certificates for Companies, Close Corporations and Partnerships and ID documents for Sole Proprietors, must be inserted here. In the case of a Joint Venture, a copy of a duly signed Joint Venture Agreement clearly setting out the roles and responsibilities of the parties must be included with particular reference to the guarantees required in terms of the Contract Data. The Joint Venture Agreement must also clearly indicate how payment is to be effected to the entity and distributed to the parties]

CIDB REGISTRATION:

Tenderer's must also indicate their CIDB registration details in the space provided.
(If not registered, attach proof that the enterprise can be registered with the CIDB within 10 days)

Registered Name	Registration Number

BBBEE CERTIFICATION:

The Tenderer must also attach hereto a certified copy of their B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS).

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

E: CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING

This is to certify that (*Tenderer*)

of (*address*).....

..... was represented by the person(s) named below at the non compulsory meeting held for tenderers on 04 September 2026.

We acknowledge that the purpose of the meeting was to acquaint myself / ourselves with the site of the works and / or matters incidental to doing the work specified in the tender documents in order for me / us to take account of everything necessary when compiling our rates and prices included in the tender.

Particulars of person(s) attending the meeting:

Name: Signature:

Capacity:

Name: Signature:

Capacity:

Attendance of the above person(s) at the meeting is confirmed by the Employer's representative, namely:

Name: Signature:

Capacity:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

F: RECORD OF ADDENDA TO TENDER DOCUMENTS

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

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

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

G: AMENDMENTS, QUALIFICATIONS AND ALTERNATIVES

(This is not an invitation for amendments, deviations or alternatives but should the Tenderer desire to make any departures from the provisions of this contract he shall set out his proposals clearly hereunder. The Employer will not consider any amendment, alternative offers or discounts unless forms (a), (b) and (c) have been completed to the satisfaction of the Employer).

I / We herewith propose the amendments, alternatives and discounts as set out in the tables below:

(a) AMENDMENTS

PAGE, CLAUSE OR ITEM NO	PROPOSED AMENDMENT

Notes: (1) Amendments to the General and Special Conditions of Contract are not acceptable;

(2) The Tenderer must give full details of all the financial implications of the amendments and qualifications in a covering letter attached to his tender.

(b) ALTERNATIVES

PROPOSED ALTERNATIVE	DESCRIPTION OF ALTERNATIVE

Notes:

(1) Individual alternative items that do not justify an alternative tender, and an alternative offer for time for completion should be listed here.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- (2) In the case of a major alternative to any part of the work, a separate Bill of Quantities, programme, etc, and a detailed statement setting out the salient features of the proposed alternatives must accompany the tender.
- (3) Alternative tenders involving technical modifications to the design of the works and methods of construction shall be treated separately from the main tender offer.

(c) DISCOUNTS

ITEM ON WHICH DISCOUNT IS OFFERED	DESCRIPTION OF DISCOUNT OFFERED

Note: The tenderer must give full details of the discounts offered in a covering letter attached to his tender, failing which, the offer will be prejudiced

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

H: CERTIFICATE OF AUTHORITY FOR SIGNATURE OF AN ENTITY

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, chairperson of the Board of Directors of
....., hereby confirm by resolution of the Board
(copy attached) taken on 20....., that

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

Signature of Chairman:

Signature of Signatory:

As Witnesses:

1..... Name in Block Letters.....

2..... Name in Block Letters.....

Date:

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

(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 the tender for Contract No and any contract resulting from it on our behalf.

Signature of Signatory:

As Witnesses:

1..... Name in Block Letters.....

2..... Name in Block Letters.....

Date:

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.*

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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 favoritism, 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 authorized 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.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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.

.....

.....

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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:

.....
.....

4. Full details of directors / trustees / members / shareholders.

Full Name	Position filled in the “state”	ID Number	State Employee Number

.....
Signature

.....
Date

.....
Capacity

.....
Name of Bidder

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (VAT INCLUDED)

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

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

YES / NO

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

.....

.....

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

YES / NO

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

2.2 If yes, provide particulars.

.....

.....

.....

.....

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

YES / NO

3.1 If yes, furnish particulars

.....

.....

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

YES / NO

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

4.1 If yes, furnish particulars

.....

.....

CERTIFICATION

I, THE UNDERSIGNED (NAME)

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

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

.....

Signature

.....

Date

.....

Position

.....

Name of Bidder

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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

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

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

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

1. GENERAL CONDITIONS

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

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

1.2 The applicable preference point system for this tender is the 90/10 preference point system.

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

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

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

	POINTS
PRICE	90
SPECIFIC GOALS	10
Total points for Price and SPECIFIC GOALS	100

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

1.6 Nkomazi Local Municipality reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by Nkomazi Local Municipality.

2. DEFINITIONS

- (a) **“tender”** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1 POINTS AWARDED FOR PRICE

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

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

$$\begin{array}{ccc} 80/20 & \text{or} & 90/10 \\ P_s = 80 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right) & \text{or} & P_s = 90 \left(1 - \frac{P_t - P_{min}}{P_{min}} \right) \end{array}$$

Where

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

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

3.1.1. POINTS AWARDED FOR PRICE

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

$$\begin{array}{ccc} 80/20 & \text{or} & 90/10 \\ P_s = 80 \left(1 + \frac{P_t - P_{max}}{P_{max}} \right) & \text{or} & P_s = 90 \left(1 + \frac{P_t - P_{max}}{P_{max}} \right) \end{array}$$

Where

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

4. POINTS AWARDED FOR SPECIFIC GOALS

- 4.1 In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

4.2 In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

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

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

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

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

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

POINTS FOR CONTRACTING AN ENTERPRISE OWNED BY HISTORICALLY DISADVANTAGED PERSONS OR INDIVIDUALS		
A total of 4 preference points shall be allocated on a proportional or pro rata basis for contracting an enterprise owned by historically disadvantaged persons or individuals who meet the following requirements -		
HISTORICALLY DISADVANTAGED PERSONS OR INDIVIDUALS	POINTS ALLOCATION	SOURCE DOCUMENTS REQUIRED TO CLAIM POINTS
100% black person or people owned enterprise	1	A copy of a Full CSD report not older than 3 months
More than 30% woman or women shareholding or owned enterprise	1	
more than 30% youth shareholding or owned enterprise	1	
More than 30% people living with disability shareholding or owned enterprise	1	A copy of a Medical Certificate to confirm disability
POINTS FOR IMPLEMENTING OF RDP PROGRAMMES		
A total of 06 preference points shall be allocated on a proportional or pro rata basis for implementing of programmes for RDP -		
Enterprises regarded as *EMEs located within the Ehlanzeni District Municipality area of jurisdiction	1	A copy of a Full CSD report not older than 3 months NB: Points will only be awarded if the CSD physical address is the same as the address for the proof of residence required in 1.9 above.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Enterprise who will sub-contract minimum of 30% of the contract value to EMEs in the ward of local communities where the services to be rendered or works to be undertaken.	1	Joint venture requirements as per the tender document and all relevant legislations pertaining to joint ventures.
Points for Corporate Social Investment (CSI) or Social Labour Plan proposition	3	Comprehensive Methodology on how the tenderer is planning to invest back to the community of Nkomazi Local Municipality: - Community development grounded on the principles of empowerment, social justice, collective action to mention but a few. - These undertakings shall form part of the service level agreements SLA and be managed as such.
Points for valid B-BBEE level 1 contribution (SANAS accredited B-BBEE certificate for generic enterprise, and for EME and SME a sworn affidavit or CIPC issued certificate confirming annual turnover and level of Black Ownership).	1	➤ Certified Valid BBBEE certificate ➤ or Certified Valid EME and SME a sworn affidavit ➤ or Certified Valid CIPC issued certificate confirming annual turnover and level of Black Ownership
TOTAL PREFERENCE POINTS TO BE CLAIMED	10	

***All certified copies must not be older than three months.**

The points obtained on functionality must be at least 70 out of a maximum of 100 points. Prospective bidders/tenderers who obtained less than 70 points will not be considered in second round of the evaluation.

TENDERER'S MUST SCORE A MINIMUM OF 70 POINTS IN ORDER FOR THE BID TO BE ELIGIBLE IN TERMS OF F.2.1 (e).

TECHNICAL EVALUATION CRITERIA

Criterion	Assessment	Points Awarded	Max Score
Construction Team Key Personnel (Forms L, M, N, O) Certification of all credentials for critical personnel is mandatory. An uncertified copy of the qualifications will not be accepted, and a copy of the CV must be included.	Contract manager has Certified BEng/B-Tech in Civil Engineering NQF 7 or higher (4); NQF 7 (Labour Intensive) Qualification (2); Minimum of Ten years' experience managed 6 bulk water and water reticulation projects (4).	10	30
	Site Agent has Certified BEng/B-Tech in Civil Engineering NQF 7 or higher (4); NQF 5 (Labour Intensive) Qualification (1); Minimum of 6 years' experience managed 4 bulk water and water reticulation projects (3)	08	
	General Foreman has Certified ND in Civil Engineering NQF 6 or higher (2); Minimum of 5 years' experience managed 3 bulk water and water reticulation projects (2).	04	
	Health and Safety Officer with a Certified relevant NQF 5 safety qualification (2); Registered with the SACMP as a construction health and safety officer (1) and Minimum of 3 years' experience managing projects (1)	04	
	Plant Operator with a Certified relevant trade certificate (2); Three years' experience (2). DISCLAIMER: The key personnel proposed by the Contractor in the completed tender submission shall be deemed committed to the Contract. No substitution or replacement of such personnel shall be made without	04	

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

	prior written notification to and approval by the Engineer. The Contractor shall provide full motivation for the proposed change together with the qualifications and experience of the proposed replacement. Replacement personnel shall have qualifications, experience and competency equal to or greater than those originally tendered.		
Experience of similar work and environment (Form P)	Company Experience of similar work in the past 7 years; (12,5 point for each similar successfully completed project with value of R30 million and above). 6,5 points for each similar completed project with value of R15 Million to R29 million) 4 points for each similar completed with value of R7 to R14 million) 0 points for each similar completed project with value of R0 to R 6,9 million) Tenderers are required to attach certified appointment letters and their corresponding completion certificates. Failure to attach both appointment letter and completion certificate will result in zero points being awarded	12.5 8.5 04 0	50
Company financial Capacity (Form C)	Bank Rating of: C or better - 5; D - 3; E or Lower - 0;		05
Plant and Equipment (Form R)	2X TLB (Own/Hired) – 3 2X Excavators - (Own/Hired) – 8 Water Tanker (Own/Hired) – 2 Plate Compactor - (Own/Hired) – 2		15
MAXIMUM SCORE:			100

5. DECLARATION WITH REGARD TO COMPANY/FIRM

5.1 Name of company/firm.....

5.2 Company registration number:

5.3 TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

- ☐ (Pty) Limited
 - ☐ Non-Profit Company
 - ☐ State Owned Company
- [TICK APPLICABLE BOX]

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

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

.....

SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME:

DATE:

ADDRESS:

.....

.....

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

CONTRACT FORM - PURCHASE OF GOODS/WORKS

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

PART 1 (TO BE FILLED IN BY THE BIDDER)

1. I hereby undertake to supply all or any of the goods and/or works described in the attached bidding documents to (name of institution)..... in accordance with the requirements and specifications stipulated in bid number..... at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the purchaser during the validity period indicated and calculated from the closing time of bid.

2. The following documents shall be deemed to form and be read and construed as part of this agreement:

- (i) Bidding documents, viz
 - Invitation to bid;
 - Tax clearance certificate;
 - Pricing schedule(s);
 - Technical Specification(s);
 - Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2011;
 - Declaration of interest;
 - Declaration of bidder's past SCM practices;
 - Certificate of Independent Bid Determination;
 - Special Conditions of Contract;
- (ii) General Conditions of Contract; and
- (iii) Other (specify)

3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the goods and/or works specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.

5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

PACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES

1

2.

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

CONTRACT FORM - PURCHASE OF GOODS/WORKS**PART 2 (TO BE FILLED IN BY THE PURCHASER)**

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

ITEM NO.	PRICE (ALL APPLICABLE TAXES INCLUDED)	BRAND	DELIVERY PERIOD	B-BBEE STATUS LEVEL OF CONTRIBUTION	MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT (if applicable)

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

SIGNED ATON.....

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

1.

2.

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

CONTRACT FORM - RENDERING OF SERVICES

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

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

1. I hereby undertake to render services described in the attached bidding documents to (name of the institution)..... in accordance with the requirements and task directives / proposals specifications stipulated in Bid Number..... at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the Purchaser during the validity period indicated and calculated from the closing date of the bid.

2. The following documents shall be deemed to form and be read and construed as part of this agreement:

- (iv) Bidding documents, viz
- Invitation to bid;
 - Tax clearance certificate;
 - Pricing schedule(s);
 - Filled in task directive/proposal;
 - Preference claims for Broad Based Black Economic Empowerment Status Level of Contribution in terms of the Preferential Procurement Regulations 2011;
 - Declaration of interest;
 - Declaration of Bidder's past SCM practices;
 - Certificate of Independent Bid Determination;
 - Special Conditions of Contract;
- (v) General Conditions of Contract; and
- (vi) Other (specify)

3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) and rate(s) quoted cover all the services specified in the bidding documents; that the price(s) and rate(s) cover all my obligations and I accept that any mistakes regarding price(s) and rate(s) and calculations will be at my own risk.

4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.

5. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

6. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES

1

2

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

CONTRACT FORM - RENDERING OF SERVICES**PART 2 (TO BE FILLED IN BY THE PURCHASER)**

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

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

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

SIGNED AT ON

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

1

2

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

CONTRACT FORM - SALE OF GOODS/WORKS

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

PART 1 (TO BE FILLED IN BY THE BIDDER)

1. I hereby undertake to purchase all or any of the goods and/or works described in the attached bidding documents from (name of institution)..... in accordance with the requirements stipulated in (bid number)..... at the price/s quoted. My offer/s remain binding upon me and open for acceptance by the seller during the validity period indicated and calculated from the closing time of bid.

2. The following documents shall be deemed to form and be read and construed as part of this agreement:

- (vii) Bidding documents, viz
 - Invitation to bid;
 - Tax clearance certificate;
 - Pricing schedule(s);
 - Declaration of interest;
 - Declaration of Bidder's past SCM practices;
 - Special Conditions of Contract;
- (viii) General Conditions of Contract; and
- (ix) Other (specify)

3. I confirm that I have satisfied myself as to the correctness and validity of my bid; that the price(s) quoted cover all the goods and/or works specified in the bidding documents; that the price(s) cover all my obligations and I accept that any mistakes regarding price(s) and calculations will be at my own risk.

4. I accept full responsibility for the proper execution and fulfilment of all obligations and conditions devolving on me under this agreement as the principal liable for the due fulfillment of this contract.

5. I undertake to make payment for the goods/works as specified in the bidding documents.

6. I declare that I have no participation in any collusive practices with any bidder or any other person regarding this or any other bid.

7. I confirm that I am duly authorised to sign this contract.

NAME (PRINT)

CAPACITY

SIGNATURE

NAME OF FIRM

DATE

WITNESSES

1.

2.

DATE:.....

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

CONTRACT FORM - SALE OF GOODS/WORKS

PART 2 (TO BE FILLED IN BY THE SELLER)

4. I..... in my capacity as.....
accept your bid under reference numberdated.....for the purchase of goods/works
indicated hereunder and/or further specified in the annexure(s).
5. I undertake to make the goods/works available in accordance with the terms and conditions of the contract.

ITEM NO.	DESCRIPTION	PRICE (ALL APPLICABLE TAXES INCLUDED)		

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

NAME (PRINT)

SIGNATURE

OFFICIAL STAMP

WITNESSES

3.

4.

DATE

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

- 1 This Nkomazi Local Municipality Bidding Document must form part of all bids invited.
- 2 It serves as a declaration to be used by the municipality 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 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).

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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 as a company or person prohibited from doing business with the public sector? (Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the <i>audi alteram partem</i> rule was applied).	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)? (To access this Register enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445).	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:		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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: _____

(Name of Bidder) that:

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - a. has been requested to submit a bid in response to this bid invitation;
 - b. could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - c. provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - a. prices;
 - b. geographical area where product or service will be rendered (market allocation)
 - c. methods, factors or formulas used to calculate prices;
 - d. the intention or decision to submit or not to submit, a bid;
 - e. the submission of a bid which does not meet the specifications and conditions of the bid; or
 - f. bidding with the intention not to win the bid.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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.
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

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.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

K: MUNICIPAL DECLARATION AND RETURNABLE DOCUMENTS

The following particulars must be furnished in relation to tenders for municipalities and municipal entities where:

- a) consultancy services are required; and
- b) goods, services or a combination thereof where the estimated total of the prices exceeds R 10 million including VAT.

In the case of a joint venture, separate municipal declarations and returnable documents shall be submitted in respect of each partner.

Section 1: Enterprise Details

Name of enterprise:	
Contact person:	
Email:	
Telephone:	
Cell no	
Fax:	
Physical address	
Postal address	

Section 2: Declaration for consultancy services:

The enterprise has been awarded the following consultancy services by an organ of state during the last five years.

Name of organ of state	Estimated number of contracts	Nature of service, e.g, quantity surveying	Service similar to required service (yes / no) ?

Attach separate page as necessary

Section 3 Goods, services or a combination thereof where the estimated total of the prices exceeds R 10 million including VAT

I / we certify that

--

Contractor

--

Witness 1

--

Witness 2

--

Employer

--

Witness 1

--

Witness 2

1) (tick one of the boxes):

- ☐ the enterprise **is not** required by law to prepare annual financial statements for auditing
- ☐ the enterprise **is** required by law to have audited annual financial statements and attached the audited financial statements for the past three financial years, or since the establishment as the enterprise was established within the past three years.

2) the enterprise and its directors has / have no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days (ie: all municipal accounts are paid up to date);

3) source of goods and / or services :

(tick one of the boxes and insert percentages if applicable):

- ☐ goods and / or services are sourced only from within the Republic of South Africa
- ☐ % of the total cost of goods and / or services will be sourced from outside the Republic of South Africa and the percentage of payment from the municipality or municipal entity which is expected to be transferred out of the Republic is %

I furthermore confirm that the following contracts were awarded to the enterprise by an organ of state during the last five years and attached particulars of any material non-compliance or dispute concerning the execution of such contracts:

Name of organ of state	Estimated number of contracts	Nature of contracts

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Attach separate page as necessary

I, the undersigned who warrants that I am duly authorised on behalf of the tendering entity, hereby declare that the contents of this Declaration are within my personal knowledge, and save where stated otherwise are to the best of my belief both true and correct

Signed

Date

Name

Position

Enterprise name

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

L: KEY PERSONNEL

In terms of the Project Specification, all unskilled workers are to be locally sourced.

The Tenderer shall list below the personnel which he intends to utilize on the Works, including key personnel which may have to be brought in from outside if not available locally.

Category of Employee	Number of Persons					
	Key Personnel, Part of the Contractor's Organisation		Key Personnel to be imported if not available locally		Unskilled Personnel to be recruited from local community	
	PDI	NON-PDI	PDI	NON-PDI	PDI	NON-PDI

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

M: CURRICULUM VITAE OF KEY PERSONNEL –CONTRACTS MANAGER

The success of this project will largely depend on the ability of the **Key Personnel** to manage local resources that are largely unskilled. The Tenderer must indicate who they intend using for this function and must list the incumbent’s experience.

Failure to provide proof of a suitable candidate to manage the work on a permanent basis on site during the currency of the contract will result in dis-qualification in terms of Clause F.2.1.

CONTRACTS MANAGER:	Years with firm:
Qualifications:	
<u>Employment Record:</u>	
<u>Experience Record Pertinent to Required Service:</u>	
(Indicate no of years’ experience)	

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

N: CURRICULUM VITAE OF KEY PERSONNEL – SITE AGENT/ MANAGER

The success of this project will largely depend on the ability of the **Key Personnel** to manage local resources that are largely unskilled. The Tenderer must indicate who they intend using for this function and must list the incumbent's experience.

Failure to provide proof of a suitable candidate to manage the work on a permanent basis on site during the currency of the contract will result in dis-qualification in terms of Clause F.2.1.

SITE AGENT/ MANAGER:	Years with firm:
Qualifications:	
<u>Employment Record:</u>	
<u>Experience Record Pertinent to Required Service:</u>	
(Indicate no of years' experience)	

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

O: CURRICULUM VITAE OF KEY PERSONNEL – FOREMAN

Site Agent:	Years with firm:
Qualifications:	
<u>Employment Record:</u>	
<u>Experience Record Pertinent to Required Service:</u>	
(Indicate no of years' experience)	

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

P: CURRICULUM VITAE OF KEY PERSONNEL – SAFETY OCFFICER

Foreman:	Years with firm:
Qualifications:	
<u>Employment Record:</u>	
<u>Experience Record Pertinent to Required Service:</u>	
(Indicate no of years' experience)	

Q: CURRICULUM VITAE OF KEY PERSONNEL – PLANT OPERATOR

[illegible]

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

R: SCHEDULE OF TENDERING FIRM'S EXPERIENCE (SIMILAR WORK AND ENVIRONMENT)

[REFER TO THE TENDER DATA FOR THE SCOPE OF WORK]

PROJECT NAME	DESCRIPTION	VALUE	REFERENCE

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

S: PROVISIONAL PROGRAMME

The Tenderer shall detail below or attach a preliminary programme reflecting the proposed sequence and tempo of execution of the various activities comprising the work for this tender.

The programme must indicate all key activities, time frames and must clearly demonstrate the Tenderer's understanding of the scope of works.

The competency and clarity of the programme will help to inform the Employer's assessment of the Tenderer's eligibility to execute the contract.

PROGRAMME

WEEKS / MONTHS

ACTIVITY

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

T: SCHEDULE OF PLANT AND EQUIPMENT

It is important that the Tenderer be able to demonstrate that he/she has adequate plant and equipment to efficiently execute the proposed scope of works.

The Tenderer's response to this section will be used in assessing the eligibility of the tender offer.

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

Quantity	Description	Size	Capacity

Attach additional pages if more space is required.

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

Quantity	Description	Size	Capacity

Attach additional pages if more space is required.

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

U: CONTRACTOR/SERVICE PROVIDER'S HEALTH AND SAFETY DECLARATION

In terms of the Occupational Health and Safety Act No 85 of 1993 a Contractor may only be appointed to perform key services if the *Purchaser* is satisfied that the Contractor has the necessary competencies and resources to carry out the work safely in accordance with the provisions of the Act.

To that effect a person duly authorised by the tenderer must complete and sign the declaration hereafter in detail.

Declaration by Tenderer

1. I the undersigned hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993) herein after referred to as the "Act"
2. I hereby declare that my company has the competence and the necessary resources to safely carry out the services specified under this contract in compliance with the Employer's Health and Safety Specifications.
3. I propose to achieve compliance with the Regulations by one of the following:

(a)	From my own competent resources	*Yes / No
(b)	From my own resources still to be appointed or trained until competency is achieved	*Yes / No
(c)	From outside sources by appointment of competent specialist subcontractors	*Yes / No

(* = delete whatever is not applicable)

4. I confirm that copies of my company's approved Health and Safety Plan, will at all times be available for inspection by the *Purchaser's* personnel, Nkomazi Local Municipality officials and inspectors of the Department of Labour.
5. I hereby confirm that adequate provision has been made in my tendered rates and prices in the schedule of quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the Act and that I will be liable for any penalties that may be applied for failure to comply with the provisions of the Act.
6. I agree that my failure to complete and execute this declaration to the satisfaction of the *Purchaser* will mean that I am unable to comply with the requirements of the Act and accept that my tender will be prejudiced and may as a result be rejected at the discretion of the *Purchaser*.

SIGNATURE:
(of person authorised to sign on behalf of the Tenderer)

DATE:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

V: CERTIFIED CIDB GRADING CERTIFICATE

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

CONTRACT

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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

NKOMAZI LOCAL MUNICIPALITY

EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURT STANDS)

C1.1 Form of Offer and Acceptance

Offer

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

CONTRACT No. SCM BID NO. NKO:44/2026, EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURT STANDS)

The tenderer, identified in the offer signature block, 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:

.....

Rand (in words); R (in figures)

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the 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 Date

Name

Capacity

for the tenderer

(Name and)

address of)

organization)

Name and

Signature

of witness)

Acceptance

By signing this part of this form of offer and acceptance, the employer identified below accepts the tenderer's offer. In consideration thereof, the employer shall pay the contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the tenderer's offer shall form an agreement between the employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

The terms of the contract, are contained in:

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

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

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

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

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

Signature Date

Name

Capacity

Employer Nkomazi Local Municipality
9 Park Street, Malelane, 1320

Name and
signature
of witness

Date

Schedule of Deviations

Notes:

1. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
2. A tenderer's covering letter shall not be included in the final contract document. Should any matter in such, letter, which constitutes a deviation as aforesaid become the subject of agreements reached during the process of, offer and acceptance, the outcome of such agreement shall be recorded here.
3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the parties becomes an obligation of the contract shall also be recorded here.
4. Any change or addition to the tender documents arising from the above agreements and recorded here shall also be incorporated into the final draft of the Contract.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

1 Subject

Details

.....

.....

.....

2 Subject

Details

.....

.....

.....

3 Subject

Details

.....

.....

.....

4 Subject

Details

.....

.....

.....

By the duly authorized representatives signing this agreement, 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 changes 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.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Confirmation of Receipt

The tenderer, (now Contractor), identified in the Offer part of this Agreement hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) today:

the (day)
of (month)
20..... (year)
at (place)

For the Contractor:

.....
Signature

.....
Name

.....
Capacity

Signature and name of witness:

.....
Signature

.....
Name

EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURT STANDS)

C1.2 Contract Data

Section 1.01 The General Conditions of Contract for Construction Works (2015) published by the South African Institution of Civil Engineering, is applicable to this Contract. Copies of these conditions of Contract may be obtained from the South African Institution of Civil Engineering (Tel: 011-805 5947).

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

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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURT STANDS)

BID NO: NKO: 44/2026

C1.2.1: CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT

SPECIAL CONDITIONS OF CONTRACT

GENERAL

2. APPENDIX A: TRANSFER OF RIGHTS

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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", issued by the South African Institution of Civil Engineering (Short title: "General Conditions of Contract 2015") and can be obtained from:

SAICE
Waterfall Park
Howick Gardens
Vorna Valley Halfway House
Becker Street
MIDRAND
1685
Gauteng Province
Tel: (011) 805-5947/8
Fax: (011) 805-5971.

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

SPECIAL CONDITIONS OF CONTRACT

GENERAL

These Special Conditions of Contract (SCC) form an integral part of the Contract. The Special 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 "SCC" followed in each case by the number of the applicable clause or sub clause in the General Conditions of Conditions 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.

Clause no.	Description
SCC 6.11	Replace the Heading with "VARIATIONS EXCEEDING 20 PERCENT"
SCC 6.11.1.3	Replace the wording: "greater than 15 percent" with "greater than 20 percent".

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

APPENDIX A: TRANSFER OF RIGHTS

TRANSFER OF RIGHTS AND INDEMNITY (To be completed during construction by successful Tenderer only)

Claim for materials on site, Payment Certificate No. Date:

Contract No: for (contract title)

I, the undersigned (name of signatory) in my capacity as
..... of (name of Contractor)

duly authorized hereto on behalf of the Contractor hereby transfer, cede and assign all the Contractor's rights, title and interest in and to the materials and goods, for which evidence of bona fide ownership is attached hereto, unto and in favour of (name of Employer)
..... insofar as the Contractor retains actual control of the materials and goods, the right of ownership thereof passes to the Employer by constitutum possessorium.

I herewith indemnify the Employer against any claim to and in respect of said materials by reason of the Contractor's sequestration or liquidation or of any defect in the Contractor's title to the materials and agree that no payment for materials on site will be made by the Employer until such time as I have submitted documentary proof of bona fide ownership of the said materials and goods.

This transfer shall become effective upon conclusion of the Contractor receiving payment from the Employer or from any other person on behalf of the Employer for the materials and goods as materials on site, payment of retention money thereon excluded.

I further confirm that I am fully responsible for all materials and goods listed under this Transfer of Rights and that they have been insured adequately against all risks and will remain insured until they are built into or used in the Permanent Works and taken over by the Employer.

This certificate of Transfer of Rights applies only to the materials and goods as listed in the following table:

Description of Item	Unit	Quantity	Rate	Amount	Supplier
Total Value of Materials and goods					

Signed by: Date:
for and on behalf of the Contractor.

Witnessed by: Date:

NOTE: This form, together with the documentary proof of ownership or proof of payment by the Contractor to the supplier, shall accompany the Contractor's claim for payment for materials on site in terms of Clause 6.10.1.5 of the General Conditions of Contract 2015.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C1.2.2 PART A: CONTRACT DATA PROVIDED BY THE EMPLOYER

The following Contract specific data are applicable to this Contract.

REFERENCE CONTRACT SPECIFIC DATA BY THE EMPLOYER

Clause

1.1.1.13 The Defects Liability Period is 12 months (measured from the date of the Certificate of Completion).

The time for achieving Practical Completion will be 18 months
(measured from the Commencement Date).

1.1.1.15 The name of the Employer is: Nkomazi Local Municipality

1.1.1.16 The Employers Agent is: Tshashu Consulting and Project Managers represented by a Director duly authorized thereto in writing.

1.1.1.26 The Pricing Strategy is: Re-measurement Contract

1.2.1.2 The Employer's address for receipt of communications is:

Physical address:

Telephone: 013 790 0245

Facsimile: 013 790 0886

Address (physical): 9 Park Street, Malelane, 1320

Address (postal): Private Bag X101, Malelane, 1320

1.2.1.2 The Employers Agent address for receipt of communications is:

Office No. F5-02,

37 Brown Street

Nelspruit

1201

Telephone: 015 291 4365

5.3.1 The documentation required before commencement with Works execution are:

Health and Safety Plan (Refer to Clause 4.3)

Initial programme (Refer to Clause 5.6)

Security (Refer to Clause 6.2)

Insurance (Refer to Clause 8.6)

3.1.3 The Engineer is required to obtain the specific approval of the Employer before executing any of the following: The Engineer requires the Clients approval in order to authorize any expenditure in excess of the tender sum excluding contingencies as per Clause 6.4.

5.3.2 The time to submit the documentation required before commencement with Works execution is fourteen (14) days after appointment.

5.4.2 The access and possession of site shall not be exclusive to the Contractor but as set out in the Site Information.

5.8.1 The non-working days are Sundays.

The special non-working days are:

1 Public holidays and voting days if published prior to the tender closing date.

2 The year end break commencing and ending on dates as specified by SAFCEC.

5.13.1 The penalty for failing to complete the Works within the abovementioned time limit, plus approved extensions of time or condonation thereof is R 5000.00 per calendar day.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

5.14.1: Practical Completion will be considered when:
The pipelines are successfully pressure tested and all earthworks are complete.

5.16.3 The latent defect period is ten (10) years for civil engineering works

6.5.1.2.3 The percentage allowance to cover overhead charges is 10%.

6.8.2 Contract Price Adjustment: The Contract shall be subject to Contract Price Adjustment.

The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule included in the General Conditions of Contract.

The value of "x" is 0.15

The values of the coefficients are:

a = 0.2 Labour

b = 0.35 Contractor's equipment

c = 0.35 Material

d = 0.1 Fuel

Clause:

The Province wherein the larger part of the site is located is: Mpumalanga.

The applicable industry for the Producer Price Index for material is Diesel

The area for the Producer Price Index for fuel is: Mbombela, Mpumalanga. (or closest listed location)

The base month is: the month prior to the closing of the tender.

6.8.3 Price adjustments for variations in the cost of special materials is not allowed.

6.10.1.5 The percentage advance on materials not yet built into the Permanent Work is 80%.

6.10.3 The limit of retention money is 10% of the Contract Sum.

8.2.2 The safekeeping of all material paid as material on site not yet built into the works remains the responsibility of the contractor, although ownership rest with the client as per clause 6.10.1.5.

8.6.1.1.2 The value of Plant and materials supplied by the Employer to be included in the insurance sum is R Nil.

8.6.1.1.3 The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is R 5,000,000.

8.6.1.3 The limit of indemnity for liability insurance is R 10 000 000 for any single claim, the number of claims to be unlimited during construction and Defects Liability Period.

8.6.1.5 No additional insurance is required

10.5.2 Dispute resolution is to be by means of ad-hoc adjudication

The number of ad-hoc Adjudication Board Members to be appointed is three.

10.7.1 Disputes to be referred for final settlement to arbitration.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PART B: DATA PROVIDED BY THE CONTRACTOR

Clause

1.1.1.9 Name of Contractor:

1.2.1.2 The Contractor's address for receipt of communications is:

Physical address: Postal address:

.....

.....

.....

.....

Telephone:

Fax:

E-mail:

The security to be provided by the Contractor shall be:

Performance guarantee of 10% of the Contract Sum plus retention of 10% of the value of the Works

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

NKOMAZI LOCAL MUNICIPALITY

**EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA
(BOSCHFONTEIN COURT STANDS)**

C1.3 Form of Guarantee

Contract No.: NKO 44/2026

Appendix C:

General Conditions of Contract for Construction Works, Third Edition (2015)

PRO FORMA
PERFORMANCE GUARANTEE

For use with the General Conditions of Contract for Construction Works, Third Edition (2015)).

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:

Physical address:

"Employer" means:

"Contractor" means:

"Employer's Agent" means:

.....

"Works" means:

"Site" means:

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

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

Amount in words:

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

Amount in words:

Type of Performance Guarantee: (Insert Variable or Fixed)

"Expiry Date" means: (Give date) or any other later date set by the Contractor and/or Employer provided such instruction is received prior to the Expiry Date as indicated here.

CONTRACT DETAILS

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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

VARIABLE PERFORMANCE GUARANTEE

Where a Variable Performance Guarantee has been selected, the Guarantor's liability shall be limited during the following periods to diminishing amounts of the Guaranteed Sum as follows:

From and including the date of signing the Performance Guarantee up to and including the date of the interim payment certificate certifying, for the first time, more than 50% of the Contract Sum:

R.....

(Amount in words)

From the day following the date of the said interim payment certificate up to and including the Expiry Date, or the date of issue by the Employer's Agent of the Certificate of Completion of the Works, whichever occurs first:

R.....

(Amount in words)

The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the interim payment certificate certifying, for the first time, more than 50% of the Contract Sum, has been issued and the date on which the Certificate of Completion of the Works has been issued.

FIXED PERFORMANCE GUARANTEE

Where a Fixed Performance Guarantee has been selected, the Guarantor's liability shall be limited to the amount of the Guaranteed Sum.

The Guarantor's period of liability shall be from and including the date on which the Performance Guarantee is signed, up to and including the Expiry Date, or the date of issue by the Employer's Agent of the Certificate of Completion of the Works, or the date of payment in full of the Guaranteed Sum, whichever occurs first.

The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.

CONDITIONS APPLICABLE TO VARIABLE AND FIXED PERFORMANCE GUARANTEES

The Guarantor hereby acknowledges that:

Any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship.

Its obligation under this Performance Guarantee is restricted to the payment of money.

Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 3.2.1 to 3.2.3:

A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Employer's Agent in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 3.2.2;

A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) Days has elapsed since the first written demand in terms of 3.2.1 and the sum certified has still not been paid;

A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 3.2.

Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the

Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:

the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 3.3; or

a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 3.3; and

the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 3.2 and 3.3 shall not exceed the Guarantor's maximum liability in terms of 1.1 or 2.1.

Where the Guarantor has made payment in terms of 3.3, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.

Payment by the Guarantor in terms of 3.2 or 3.3 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.

Payment by the Guarantor in terms of 3.3 will only be made against the return of the original Performance Guarantee by the Employer.

The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may consider fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.

The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.

This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 1.1.2 or 2.2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.

This Performance Guarantee, with the required demand notices in terms of 3.2 or 3.3, shall be regarded as a liquid document for the purposes of obtaining a court order.

Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrates' Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity.....

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C1.4: Agreement with Adjudicator/s:

This agreement is made on the.....day of 20.....between: the Employer
(name of company / organisation).....
of (address).....
.....and the Contractor
(name of company / organisation)
of (address).....
..... (hereinafter called the
Parties)

and
(name).....
of (address)
..... (hereinafter called the
Adjudicator)

Disputes or differences may arise/have arisen* between the Parties under a Contract dated.....
and known as (Insert Contract number)
(Contract title).....

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

(* Delete as necessary)

IT IS NOW AGREED as follows:

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

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

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

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.

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

SIGNED by:

(Signature): (Signature): (Signature):
Name: Name: Name:

who warrants that he/ she is who warrants that he/ she is the Adjudicator in the
duly authorised to sign for and duly authorised to sign for presence of
on behalf of the First Party in and on behalf of the Second
the presence of Party in the presence of

Witness: Witness: Witness:

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

Name: Name: Name:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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

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

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

Date:
.....
.....

Date:
.....
.....

Date:
.....
.....

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C1.5: Agreement in terms of Section 37(2) of the Occupational Health and Safety Act No 85 of 1993

THIS AGREEMENT is made between the Nkomazi Local Municipality

(hereinafter called the EMPLOYER of the one part, herein represented by:

in his capacity as: _____ ;

AND:

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

in his capacity as:

duly authorised to sign on behalf of the Contractor.

WHEREAS:

The Municipality and the mandatory entered into a written, alternatively oral agreement on the.....Day of20..... in terms of which the Mandatory undertook to carry out the following work for the Municipality, viz. (give a short description of the type of contract work to be done as well as the address where work will be done)

(The said contract work is hereinafter referred to as the Work)

The Occupational Health and Safety Act, Act 85 of 1993 as amended (hereinafter referred to as the Act) contains amongst others certain provisions with regard to the health and safety of people at work and in connection with the usage of plant and machinery, as well as the protection of other persons than persons at work against hazards to health and safety that originates from or in connection with the activities of persons at work.

Section 37(2) of the Act makes provision for the exclusion by the parties, by way of a written agreement, of supposition and accompanying liability of the Municipality as stipulated in section 37(1) of the Act.

The parties have reached consensus with regard to the terms and conditions to which they agree in terms of the provisions of section 37(2) of the Act.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

THE PARTIES AGREE AS FOLLOWS

WRITTEN AGREEMENT

The parties herewith agree in terms of section 37(2) of the Act on the arrangements and procedures that must be followed to ensure compliance with the provisions of the Act by the Mandatory.

ACKNOWLEDGEMENT BY THE MANDATORY

The mandatory acknowledge herewith that he is fully acquainted with the contents of the Act, as well as with all regulations and SABS codes of practice that have been made in terms of section 43 of the Act.

UNDERTAKING BY MANDATORY

The Mandatory hereby undertakes and binds himself to the Municipality to ensure prompt and strict compliance with the provisions of the Act and the said regulations as well as with the provisions included in this Safety Agreement at all times during the execution of the Works

It is hereby recorded that the provisions of this Safety Agreement as set out hereinafter are in no way intended to restrict the duties of the Mandatory, nor to exempt the Mandatory from his obligation in accordance with the Act and the said regulations

PERSONAL PROTECTIVE EQUIPMENT

It is compulsory to wear equipment for eye protection when working in an eye protection zone or where the Work requires eye protection.

It is compulsory to wear safety helmets when working in a safety helmet zone or where the Work requires safety helmets.

It is compulsory to wear hearing protection when working in a noise zone or where the Work requires hearing protection.

The wearing of other protective clothing and equipment as prescribed by the Occupational Health and Safety Officer of Nkomazi Municipality is compulsory.

The Mandatory shall ensure that the statutory requirements are complied with at all times.

FENCING AND GENERAL MACHINERY PROTECTION

No shield or fencing may be removed from or be moved at any machinery or installation without written permission.

SCAFFOLDING, LADDERS, TOOLS, ET CETERA

The Mandatory without the written permission of the Municipality may use no equipment or tools that belong to the Municipality.

Except where agreed beforehand the Mandatory shall provide enough tools and equipment to enable him to complete the Works and the Mandatory shall provide all storerooms, offices and eating halls that he may need. The Mandatory will be responsible for all his material on site.

In special case where the Municipality may lend equipment, tools, or materials to the Mandatory, the Mandatory will use such equipment, tools and/or materials at his own risk and the Mandatory herewith indemnifies the Municipality against any liability of whichever nature or from any cause whatsoever, whether direct or indirect, that may arise from such usage.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SERVICES AND WORKING METHODS

The written permission of the Chief Executive/Town Clerk of the Municipality shall be obtained where any work which must be undertaken by the Mandatory is connected with a working process or machinery or any other service in connection therewith, or may possibly affect it, before he commences with such work.

Approval shall be obtained from the City Electrical Engineer of the Municipality before any equipment is connected to the electrical supply of the Municipality. All equipment shall be isolated before any equipment is connected to the electrical supply of the Municipality. It shall be isolated and be provided with earth leakage protection. Electrical machinery, portable electrical tools, and portable lights must comply with the requirements of the applicable regulations.

Work permits must be issued in terms of the Occupational Health and Safety Act and Regulations when the nature of the work requires it. Permits must be issued by the relevant departmental head where necessary.

EXCAVATIONS

Written permission for excavations shall be obtained from the City Engineer of the Municipality and the Mandatory shall make sure of the existence and position of electrical cables, discharge pipes, gas lines, water conduits, et cetera before he commences with any excavation work.

All excavations and obstructions and/or any openings in platforms or floors shall be enclosed in a safe way and warning notices shall be erected to ensure absolute safety. An adequate number of red or orange caution lights shall be provided when it is dark or should bad light prevail.

The area surrounding excavations shall be kept in a safe, orderly, and tidy condition. No loose material of whatever nature may be left in walkways or workplaces or be allowed to block walkways or workplaces.

Nobody may enter into any restricted area in which hazardous fumes or a shortage of oxygen exists without a permit giving permission to do so, issued by the head of the relevant department of the Municipality and until it has been certified safe for entrance by the Occupational Health and Safety Officer and the Health Inspector of the Municipality.

RESTRICTION TO WORKPLACE

Employees of the Mandatory shall be restricted to their workplaces except when they have to leave their area for work purposes or when they visit toilets.

SUBCONTRACTORS

The Mandatory shall ensure that all subcontractors receive a copy of this safety agreement and must ensure they comply with it.

OCCUPATIONAL HEALTH AND SAFETY OFFICER AND THE REPORTING OF ALL ACCIDENTS

The Occupational Health and Safety Officer of the Municipality is available for consultation and he will make periodical visits to the workplace of the Mandatory. Any hazardous occurrence or incident to the employees of the Mandatory that results in absence from work for a period longer than three days shall be reported in writing to the Occupational Health and Safety Officer of the Municipality within forty eight hours as well as to the Department of Labour as specified by the Act. Every user, employer, occupier, builder, or excavator must, under this Act, keep record of all accidents that occur.

In the case of an accident that results in loss of life, nobody may disturb the scene of the accident or any articles involved in the accident prior to the arrival of the Occupational Health and Safety Officer and the Inspector, unless it is to prevent another accident from happening or the prevention of loss of life or to remove corpses.

The Occupational Health and Safety Officer will issue contravention notices to the Mandatory or a sub-contractor when there is a non-compliance and will specify the time in which it must be rectified.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

The Occupational Health and Safety Officer will issue work stop notices to the Mandatory or sub-contractor whenever he is of the opinion that the health and safety of any person at work is threatened or that the contravention notices are not adhered to.

FIRST AID

Where five or more persons are employed at a workplace, the Mandatory shall provide and maintain an adequately equipped first-aid box that meets the following requirements.

Every first-aid box shall contain the minimum contents as prescribed by the Occupational Health and Safety Act.

Nothing except articles and equipment required for first-aid purposes may be kept in the first-aid box.

Each first-aid box shall be kept in a place readily accessible in case of an accident.

All first-aid boxes shall be placed under control of a responsible person except where five or less persons are at work. The responsible person must be in the possession of a valid first-aid certificate issued by one of the following organisations:

- A South-African Red Cross Society
- B St. John's Ambulance Foundation
- C South-African First-Aid League

A notice indicating where the first-aid box is kept as well as the name of the person in charge, shall be affixed in a conspicuous place. The first-aid facilities of the Municipality may be used during emergencies.

FIRE PREVENTION MEASURES AND STORAGE OF FLAMMABLE MATERIAL

The Fire department of the Municipality shall be notified before any welding, oxyacetylene welding, cutting, burning of paint or tar from floors or roofs is undertaken so that the necessary fire prevention measures can be arranged. All "NO SMOKING AND OPEN SURFACE FIRES/LIGHTS PROHIBITED" notices shall be adhered to. The Mandatory and his senior employee shall acquaint themselves and their fellow workers with the fire prevention measures of the Municipality, which will also include fire alarm notices and exits in case of fire, and they shall ensure that these rules are strictly complied with.

COMPLETION OF WORK

Before the mandatory or his sub-contractors leaves the site they shall inform the Head of the relevant Department of the Municipality and obtain his/her written approval that the work has been completed satisfactory and that the site of the work is left in a good condition.

SALVAGED MATERIAL AND EQUIPMENT

Any building demolished or equipment or materials that are salvaged whilst carrying out the work shall remain the property of the Municipality, unless the contract specifically provides otherwise.

BREAKING OF THESE RULES AND POOR CONDUCT

The Mandatory is warned that no behaviour that causes danger to their own employees, to the employees of the Municipality or general public will be tolerated. The Occupational Health and Safety Officer of the Municipality reserves the right of the withdrawal of any employees of the Mandatory or Municipality from the premises in the case of any default or breach of the agreement and to order that the completion of the work be stayed, pending compliance with this agreement; alternatively to cancel the agreement referred to in par.2 in which event the Municipality will be entitled to appoint an alternative contractor to complete the work and recover the costs thereof from the mandatory, without prejudice to any alternative or additional right or action or remedy to the Municipality, to recover from the mandatory damages for the default or breach and the cancellation.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

The senior employees of the Mandatory shall sign a note of acknowledgement of this safety agreement to certify that they have received the regulations as included herein and that they understand the regulations

INTOXICATION

Nobody that is in a state of intoxication or that is in any other condition that causes or may cause his/her incapability to control him/herself or persons under his control may and shall not be permitted on the premises of the Municipality. The Occupational Health and Safety Officer of the Municipality reserves the right to the withdrawal of any employees of the Mandatory or Municipality from the premises in the case of any transgression of this nature.

CONFIDENTIALLY

The Mandatory shall at all times treat data and information that have been made known to him or that he requires in connection with his work from the Municipality as confidential and he may not make unauthorized use thereof. He must also ensure that such data and information are not communicated to anybody else that is not an employee of the Mandatory without obtaining prior written approval from the Municipality and he must further ensure that such persons do in fact know that the said information is confidential and that they are obliged to treat it as such.

The Mandatory shall provide for adequate physical protection for any confidential documents, sketches, et cetera that he receives from the Municipality in connection with the work as well as for any copies thereof that he makes. He shall hand back all documents sketches and copies thereof to the Municipality upon completion of the work, or earlier, if so requested by the Municipality. The Mandatory shall inform the Municipality immediately should any such documents or sketches become lost.

INDEMNIFICATION BY THE MANDATORY

The following conditions will be applicable to the Mandatory:

The Mandatory is liable and herewith indemnifies the Municipality irrevocably and in full against any claim for loss or damage to property or arising from death or injury of any person and any associated loss or damage suffered, and against all lawsuits, claims, demands, costs, expenses, and charges that may arise when the said occurrences are caused on purpose or through the negligence, violation of legal obligations or failure by the Mandatory or its employees.

Whenever any of the employees of the Municipality is busy with work to, or with the supply of material that will be used during the execution of the work by the Mandatory, or otherwise busy with work under the instruction and supervision of the Mandatory, in as far as they may be negligent or fail to do their duty, they will be regarded as employees of the mandatory

All installations, equipment, hoisting-apparatus and other implements, scaffolding, ladders, material, et cetera that are borrowed from the Municipality by the Mandatory for usage during the execution of the work, will be used entirely at the risk of the Mandatory or employees of the Mandatory and the Mandatory herewith indemnifies the Municipality irrevocably and in full against any liability that may arise from such usage.

AMENDMENTS MUST BE IN WRITING

The parties agree herewith that this safety agreement is the only safety agreement between them and that no amendment thereof will be valid unless it is in writing and signed by both parties.

JURISDICTION AND LEGAL COSTS

In the event of any legal action being instituted pertaining to this agreement the party in default or breach will be liable for the other party's legal costs on the scale as between attorney and own client and the parties consent to the jurisdiction of the magistrate's court for purpose of any legal action being instituted.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PARTICULARS OF THE MANDATORY

Name (Mandatory) _____

C.E.O. (Section 16(1)) _____

ID NO _____

Designation _____

Name of Business _____

Address of Business _____

Tel number (h) _____ (w) _____ e-mail _____

Number of employees employed _____

Registration number as allocated to the Mandatory by the Workman's Compensation Commissioner

Date allocated _____

Thus done and signed on this _____ day of _____ 20 _____

As witnesses:

_____ (Signature) _____ (Name in print)

_____ (Signature) _____ (Name in print)

_____ (Signature) _____ (Name in print)

THE MANDATORY

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Thus done and signed on this day of 20

As witnesses
_____ (Signature) _____ (Name in print)

_____ (Signature) _____ (Name in print)

_____ (Signature) _____ (Name in print)
THE MUNICIPALITY

Acknowledgement of receipt of the agreement:

THE MANDATORY

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C2 PRICING DATA

C2.1 Pricing Instructions

1. Measurement and payment shall be in accordance with the relevant provisions of the SANS1200 Specification as amended in the Scope of Works. subject to the variations and amendments contained in the Section C3.5 Project Specifications.

Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each Standardised Specification, read together with the relevant clauses of Part C3: Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified.

Should any requirements of the measurement and payment clause of the applicable Standardised Specification, or the Scope of Work, conflict with the terms of the Bill of Quantities, the Employer's Agent shall direct the applicable requirements.

The clauses in a specification in which further information regarding the listed items in the Bill of Quantities can be obtained appear under "Payment Reference" column.

The reference clauses indicated are not necessarily the only sources of information in respect of billed items. Further information and set specifications may be found in Section C3.5 Project Specifications. Standardised Specifications are identified by the letter or letters which follow "SANS" in the SANS 1200 series of specifications, e.g. G for SABS 1200 G.

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

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

It will be assumed that prices included in these 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 or www.iso.org for information on standards).

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 amount tendered such items

A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill of Quantities and recorded as zero. A single lump sum will apply should a number of items be grouped together for pricing purposes.

Except where rates only are required, the Tenderer shall insert all amounts to be included in his total tendered price in the "Amount" column and show the corresponding total tendered price.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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

Ha	=	hectare
h	=	hour
kℓ	=	kilolitre
kg	=	kilogram
km	=	kilometre
kW	=	kilowatt
km-pass	=	kilometre pass
MN	=	Mega Newton
kPa	=	kilopascal
MN.m	=	Mega Newton- metre
ℓ	=	litre
%	=	percentage
m	=	metre
PC Sum	=	Prime Cost Sum
mm	=	millimetre
P Sum	=	Provisional Sum
PS/m	=	Provisional Sum per month
PS/d	=	Provisional Sum per day
Sum/wd	=	Sum per working day
m ²	=	square metre
No.	=	number
m ² .pass	=	square metre-pass
R/Only	=	Rate Only
m ³	=	cubic metre
Sum	=	lump sum
m ³ .km	=	cubic metre-kilometre
t	=	ton (1 000 kg)
MPa	=	Mega Pascal
W/day	=	Work day
%	=	percentage
mth	=	month

NOTE: The schedule of quantities shall be completed in BLACK INK.

3. For the purpose of these Bills 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 Standard Specification.
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 Bills 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.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURT STANDS)

BID: NKO:44/2026

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

C2.2 Bill of Quantities

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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

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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCHEDULE A: PRELIMINARY AND GENERAL OBLIGATIONS
SECTION 2: PRELIMINARY AND GENERAL - TIME RELATED OBLIGATIONS

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
A.2		TIME RELATED ITEMS: <i>(As specified in SABS 1200 A, SABS 1200 AB and the Project Specifications.)</i>				
2.1	8.4	Scheduled Tie-Related Items:				
2.1.1	8.4.1	Contractual Requirements	Month	18		
2.2		Facilities for Engineer:				
2.2.1	PS A 8.4.2.1 a	Furnished offices	Month	18		
2.2.2	PS A 8.4.2.1 c	Name boards (1 No)	Month	18		
2.3		Facilities for Contractor:				
2.3.1	PS A 8.4.2.2 a	Offices and storage sheds.	Month	18		
2.3.2	PS A 8.4.2.2 b	Workshops.	Month	18		
2.3.4	PS A 8.4.2.2 d	Living accommodation.	Month	18		
2.3.5	PS A 8.4.2.2 e	Ablution and latrine facilities.	Month	18		
2.3.6	PS A 8.4.2.2 f	Tools and equipment.	Month	18		
2.3.7	PS A 8.4.2.2 g	Water supplies, electric power and communications.	Month	18		
2.3.8	PS A 8.4.2.2 h	Dealing with water.	Month	18		
2.3.9	PS A 8.4.2.2 i	Access.	Month	18		
2.3.10	PS A 8.4.2.2 j	Plant.	Month	18		
2.4	PS A 8.4.3	Supervision for Duration of the Contract:	Month	18		
2.5	PS A 8.4.4	Company and Head Office Overhead Costs's for the Duration of the Contract:	Month	18		
2.7	PSA 8.5	Environmental Management:	Month	18		
2.8	PSA 8.5	Occupational Health and Safety	Month	18		
TOTAL SCHEDULE A - SECTION 2 CARRIED TO SUMMARY:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

NKOMAZI LOCAL MUNICIPALITY - MPUMALANGA PROVINCE

SCHEDULE OF QUANTITIES:

EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURT STANDS)

SCHEDULE A: PRELIMINARY AND GENERAL OBLIGATIONS

SECTION 3: PRELIMINARY AND GENERAL - PROVISIONAL SUMS

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
A.3		PROVISIONAL SUMS: (As specified in SABS 1200 A and the Project Specifications.)				
3.1	PS A 8.5 (a)1	Community Liaison Officer:				
3.1.1	PS A 8.5 (a)1	Provision for the employment of CLO	Prov. Sum			R 142 500.00
3.1.2		Overheads, charges and profit on item 3.1.1.	%	142500.00		
3.2		Social Facilitation				
3.2.1	PS A 8.5 (a) 2.	Provision for social facilitation	Prov. Sum			R 540 000.00
3.2.2	PS A 8.5 (a) 2.	Overheads, charges and profit on item 3.2.1.	%	540 000.00		
3.3	PS A 8.5 b.1	Basic Skills and Construction Training:				
3.3.1	PS A 8.5 b.1	Provision for basic skills and construction site safety training.	Prov Sum			R 350 000.00
3.3.2	PS A 8.5 b.2	Overheads, charges and profit on item 3.3.1.	%	350000.00		
3.3.3	PS A 8.5 b.3	Payment for labourers undergoing training	Prov Sum			R 15 000.00
3.3.4	PS A 8.5 b.4	Overheads, charges and profit on item 3.3.3.	%	15000.00		
3.4	8.8	Temporary Works				
	PS A 8.8.2	Accommodation of Traffic				
3.4.1	PS A 8.8.2	a) Provision for relocation/protection of existing services.	Prov. Sum			R 60 000.00
3.4.2	PS A 8.8.2	b)Overheads, charges and profit on item 3.4.1.	%	60000.00		
3.5	8.5 b	Routine Tests required by Engineer:				
3.5.1	PSA 14.5 i	Provision for routine tests.	Prov. Sum			R 77 410.00
3.5.2	PSA 14.5 j	Overheads, charges and profit on item 3.5.1.	%	77410.00		
3.6	PSA 8.12	PAYMENTS TO SERVICE AUTHORITIES				
3.6.1	a	Payment to Road Authorities for reinstatement of Asphalt	Prov. Sum			R 20 000.00
3.6.2	b	Overheads, charges and profit on item 3.6.1	%	20 000		
3.6.3	c	Application for Wayleave (Road crossings)	Prov. Sum			R100 000.00
3.6.4	d	Overheads, charges and profit on item 3.6.3	%	100 000		
TOTAL SCHEDULE A - SECTION 3 CARRIED TO SUMMARY:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCHEDULE A: PRELIMINARY AND GENERAL OBLIGATIONS
SECTION 4: PRELIMINARY AND GENERAL - PRIME COST SUMS

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
A.4		PRIME COST ITEMS: <i>(As specified in SABS 1200 A and the Project Specifications.)</i>				
4.1		Phone for Engineer's Site Staff:				
4.1.1	PSA 8.6 a	Provision for a phone and call charges.	PC Sum			R 35 000.00
4.1.2	PSA 8.6 b	Overheads, charges and profit on item 4.1.1.	%	35000.00		
4.2		Protective Clothing:				
4.2.1	PSA 8.6 a	Provision for PPE	PC Sum			R 25 000.00
4.2.2	PSA 8.6 b	Overheads, charges and profit on item 4.2.1.	%	25000		
4.3		Paper Shredder:				
4.3.1	PSA 8.6 a	Provision for Paper Shredder	PC Sum			R 15 000.00
4.3.2	PSA 8.6 b	Overheads, charges and profit on item 4.3.1.	%	15000		
4.4		Drawing hanger:				
4.4.1	PSA 8.6 a	Provision for PPE	PC Sum			R 10 000.00
4.4.2	PSA 8.6 b	Overheads, charges and profit on item 4.4.1.	%	10000		
TOTAL SCHEDULE A - SECTION 4 CARRIED TO SUMMARY:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCHEDULE A: PRELIMINARY AND GENERAL
OBLIGATIONS
SECTION 5: PRELIMINARY AND GENERAL -
DAYWORKS

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
A.5		DAYWORK: <i>(As specified in SABS 1200 A and the Project Specifications.)</i>				
5.1	PS A8.7	Labour - Normal Working Hours: [Provisional]				
5.1.1		Skilled Labour (Artisan).	hr	1.00		
5.1.2		Semi-skilled Labour.	hr	1.00		
5.1.3		Unskilled Labour.	hr	1.00		
5.1.4		Foreman.	hr	1.00		
5.1.5		Extra-over rate for items 5.1.1 to 5.1.4 for work during non-working hours.	%	445.00		
5.2	8.7	Materials: [Provisional]				
5.2.1		Allowance for Materials used under Dayworks.	Prov Sum			R 700.00
5.2.2		Overheads, Handling and all Charges on Item 5.2.1.	%	700.00		
5.3	8.7	Plant - Heavy Equipment: [Provisional] <i>(Plant shall not be more than 3 years old or have more than 3000 hrs logged. Operator to be qualified and competency certified.)</i>				
5.3.1		Excavator - Size Cat 225.	hr	1.00		
5.3.2		Excavator - TLB.	hr	1.00		
5.3.3		Grader 140G or similar.	hr	1.00		
5.3.4		Front end loader - bucket capacity ≤ 1.5 m ³ .	hr	1.00		
5.3.5		Front end loader - bucket capacity ≤ 1.5 m ³ .	hr	1.00		
5.3.6		Tip truck - 5 m ³ capacity.	hr	1.00		
5.3.7		Tip truck - 10 m ³ capacity.	hr	1.00		
5.3.8		Vibratory compaction roller - 13.5 ton.	hr	1.00		
		-	hr	1.00		
5.4	8.7	Plant - Small Equipment: [Provisional]	hr	1.00		
5.4.1		Pedestrian roller - BW90 or similar.	Sum			
5.4.2		Vibratory plate compactor.				
5.4.3		Vibratory rammer.				
5.4.4		Transport cost per any unit of plant to deliver to site and remove from site for items 5.4.1 to 5.4.3.	hr	1.00		
			hr	1.00		
			hr	1.00		
			Sum			
TOTAL SCHEDULE A - SECTION 5 CARRIED TO SUMMARY:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCHEDULE C: BULK SUPPLY AND NETWORK DISTRIBUTION
WORKS

SECTION 1: EARTHWORKS FOR PIPE TRENCHES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
C.1		SITE CLEARANCE <i>(As specified in SABS 1200 C and the Project Specifications.)</i>				
1.1		Site Clearance:				
1.1.1	PSC 8.2.1	Clear vegetation, 800 mm wide. (Provisional)	m	25095		
1.1.2	PSC 8.2.2	Clear trees of girth over 1.0 m.	No.	9		
1.1.3	PSC 8.2.5	Take down existing fence and reinstate to original position	m	19		
SUB-TOTAL SCHEDULE C - SECTION 1 CARRIED SUMMARY:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

NKOMAZI LOCAL MUNICIPALITY - MPUMALANGA PROVINCE						
SCHEDULE DB: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS						
SECTION 1: EARTHWORKS FOR PIPE TRENCHES						
ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
DB.1		EARTHWORKS: PIPE TRANCHES <i>(As specified in SABS 1200 DB and the Project Specifications.)</i>				
1.1	PSDB 8.3.2	Excavation				
1.1.1		a) Excavate in all materials for trenches, backfill, compact and dispose of surplus material.	m	37063		
1.1.2		b) 1. Extra-over items (a) for excavation in intermediate material.	m ³	5930		
1.1.3		c) 2. Extra-over items (a) for hard rock excavation.	m ³	5930		
1.1.4		d) 3. Extra-over items (a) for hand excavation and backfill where ordered by engineer.	m ³	100		
1.1.5		e) Soilcrete backfilling where ordered by Engineer.	m ³	30		
TOTAL SCHEDULE DB - SECTION 1 CARRIED FORWARD:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCHEDULE DB: BULK SUPPLY AND NETWORK DISTRIBUTION
WORKS
SECTION 1: EARTHWORKS FOR PIPE TRENCHES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SUB-TOTAL SCHEDULE DB - SECTION 1 BROUGHT FORWARD:						
DB.1		EARTHWORKS: (Continues) <i>(As specified in SABS 1200 DB and the Project Specifications.)</i>				
1.2	DB 8.3.2.(a)	Backfill and Compaction:				
1.2.1.1		Backfill and Compaction trenches	m ³	35580		
1.2.1.2		Dispose of surplus material	m ³	3558		
1.3	PSDB 8.3.3	Excavation Ancillaries;				
	PSDB 8.3.3.1	Make up deficiency in backfill material (Provisional)				
1.3.1.1		a) from other necessary excavations on site	m ³	3558		
1.3.1.2		(b) importing from commercial or off site source selected by the contractor.	m ³	120		
1.3.2	DB 8.3.3.3	Compaction within road reserve to 90 % of Modified AASHTO density clause 5.7.1.	m ³	10		
1.4	DB 8.3.3.4	Overhaul:				
1.4.1		b) Overhaul in excess of the free-haul of 3.0 km.	m ³	3558		
1.5	PSDB 8.3.5	Existing Services:				
1.5.1		a) Services that intersect a trench.	No.	60		
TOTAL SCHEDULE DB - SECTION 1 CARRIED TO SUMMARY:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCHEDULE L: BULK SUPPLY AND NETWORK DISTRIBUTION
WORKS
SECTION 1: MEDIUM PRESSURE PIPELINES AND
ANCILLARIES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
L 1		MEDIUM PRESSURE PIPES: (As specified in SABS 1200 L, SABS 1200 GA and the Project Specifications.)				
1.1	PSL 8.2.1	Supply, Lay and Bed uPVC Pipes Complete with Couplings (The rates shall include disinfecting of pipes after completion of hydraulic pipe test.)				
1.1.1		250 mm uPVC medium pressure pipes - Class 16.	m	223		
1.1.2		200 mm uPVC medium pressure pipes - Class 16.	m	2400		
1.1.3		200 mm uPVC medium pressure pipes - Class 12.	m	1300		
1.1.4		110 mm uPVC medium pressure pipes - Class 12.	m	2316		
1.1.5		160 mm uPVC medium pressure pipes - Class 09.	m	1632		
1.1.6		110 mm uPVC medium pressure pipes - Class 09.	m	2498		
1.1.7		75 mm uPVC medium pressure pipes - Class 09.	m	28238		
	SANS 1200	HORIZONTAL DIRECTIONAL DRILLING (The rates shall include disinfecting of pipes after completion of hydraulic pipe test.)				
1.1.8	PSPC 8.2 4.1	200mm HDPE sleeve Class 16. Soil Conditions Normal by horizontal drilling	m	14		
1.2	PSL 8.2.2	Fittings and Specials - uPVC Laying Bends: (Extra-over rate to Items 3.1.1 to 3.1.6.)				
1.2.1		75 mm uPVC:				
1.2.1.1		uPVC bends less than 90 degree angle.	No.	65		
1.2.1.2		uPVC bends less than 45 degree angle.	No.	29		
1.2.1.3		uPVC bends with 22,5 degree angle.	No.	30		
1.2.1.4		uPVC bends with 11,5 degree angle.	No.	30		
1.2.2		110 mm uPVC:				
1.2.2.1		uPVC bends less than 90 degree angle.	No.	10		
1.2.2.2		uPVC bends less than 45 degree angle.	No.	8		
1.2.2.3		uPVC bends with 22,5 degree angle.	No.	10		
1.2.2.4		uPVC bends with 11,5 degree angle.	No.	3		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

1.2.3		160 mm uPVC:				
1.2.3.1		uPVC bends less than 90 degree angle.	No.	16		
1.2.3.2		uPVC bends less than 45 degree angle.	No.	13		
1.2.3.3		uPVC bends with 22,5 degree angle.	No.	10		
1.2.3.4		uPVC bends with 11,5 degree angle.	No.	5		
1.2.4		200 mm uPVC:				
1.2.4.1		uPVC bends less than 90 degree angle.	No.	9		
1.2.4.2		uPVC bends less than 45 degree angle.	No.	5		
1.2.4.3		uPVC bends with 22,5 degree angle.	No.	4		
1.2.4.4		uPVC bends with 11,5 degree angle.	No.	2		
1.2.5		250 mm uPVC:				
1.2.5.1		uPVC bends less than 90 degree angle.	No.	2		
1.2.5.2		uPVC bends less than 45 degree angle.	No.	3		
1.2.5.3		uPVC bends with 22,5 degree angle.	No.	1		
1.2.5.4		uPVC bends with 11,5 degree angle.	No.	2		
1.2.6	8.2.2	Specials and Fittings - uPVC Equal Tees: <i>(Bitumen dipped and LAYING sockets on all sides all to SABS 546 and SABS 966.)</i>				
1.2.6.1		75 mm dia.	No.	35		
1.2.6.2		110 mm dia.	No.	55		
1.2.6.3		160 mm dia.	No.	16		
1.2.6.4		200 mm dia.	No.	16		
1.2.6.5		250 mm dia.	No.	20		
1.2.7	PSL 8.2.2	Specials and Fittings - uPVC End Caps:				
1.2.7.1		75 mm dia.	No.	15		
1.2.7.2		110 mm dia.	No.	1		
1.2.7.3		160 mm dia.	No.	1		
1.2.7.4		200 mm dia.	No.	1		
1.2.7.5		250 mm dia.	No.	1		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

1.2.8	PSL 8.2.2	Specials and Fittings - uPVC Reducers: (Bitumen dipped, spigot and socket and socketed cast iron reducers all to SABS 546 and SABS 966.)				
1.2.8.1		250 mm x 160mm dia. [S]	No.	10		
1.2.8.2		200 mm x 110mm dia. [S]	No.	15		
1.2.8.3		110 mm x 75mm dia. [S]	No.	13		
1.2.9	8.2.2	Specials and Fittings - uPVC Equal Crosses: (Bitumen dipped and LAYING sockets on all sides all to SABS 546 and SABS 966.)				
1.2.9.1		75 mm x 75 mm	No	50		
1.2.9.2		110 mm x 110 mm	No	5		
1.2.9.3		200 mm x 200 mm	No	2		
SUB-TOTAL SCHEDULE L - SECTION 1 CARRIED FORWARD:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCHEDULE L: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS

SECTION 1: MEDIUM PRESSURE PIPELINES AND ANCILLARIES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
SUB-TOTAL SCHEDULE L - SECTION 1 BROUGHT FORWARD:						
L 2		MEDIUM PRESSURE PIPES: (continues) <i>(As specified in SABS 1200 L, SABS 1200 GA and the Project Specifications.)</i>				
1.3.0	8.2.4	Specials and Fittings - uPVC Reducing Tee: <i>(Bitumen dipped, spigot and socket and socketed cast iron reducers all to SABS 546 and SABS 966.)</i>				
1.3.0.1		200 mm x 75 mm dia. [S]	No.	35		
1.3.0.2		160 mm x 75 mm dia. [S]	No.	11		
1.3.0.3		110 mm x 75 mm dia. [S]	No.	12		
1.3.1	PSL 8.2.3	Specials and Fittings -Gate valve: <i>(Vent O' Mat SERIES RBX with screwed BSP male inlet, or similar. Complete with flange, barrel nipple, and gate valves)</i>				
1.3.1.1		75 mm Gate Valve	No.	76		
1.3.1.2		110 mm Gate Valve	No.	4		
1.3.1.3		160 mm Gate Valve	No.	1		
1.3.1.4		200 mm Gate Valve	No.	8		
1.3.1.5		250 mm Gate Valve	No.	1		
1.3.2	PSL 8.2.3	Specials and Fittings -Scour valve: <i>(Vent O' Mat SERIES RBX with screwed BSP male inlet, or similar. Complete with flange, barrel nipple, and gate valves)</i>				
1.3.2.1		75mm scour Valve	No.	3		
1.3.2.2		110mm scour Valve	No.	2		
1.3.2.2		200mm scour Valve	No.	2		
1.3.3	PSL 8.2.4	Specials and Fittings - Air Valve: All air valves to be Double orifice type. Rate shall include all accessories required as per tender drawing.				
1.3.3.1		50 mm Air Valve	No.	7		

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

1.3.4	PSL 8.2.5	Specials and Fittings -Bulk Water Meter: (Kent or Similar approved,flanged and Drilled to SABS 1123,Table 16.)				
1.3.4.1		250 mm dia.In Line Bulk Water Meter	No.	1		
1.3.4.2		200 mm dia.In Line Bulk Water Meter	No.	3		
1.3.4.3		110mm dia.In Line Bulk Water Meter	No.	1		
1.3.5	PSL 8.2.11	Thrust Blocks:				
1.3.5.1		Concrete volume < 0,5m³	No.	102		
1.3.6	PSL 8.2.13	Valve Chambers:				
1.3.6.1		Valve chamber - As per detail complete including excavation, materials, plant, labour and incidentals, as per detail drawings.	No.	102		
1.3.6.2		Extra-over Item 8.2.13 for depth increments of 250 mm.	No.	10		
1.3.7	PSL 8.2.1	Manholes as per Drawings				
1.3.7.1		a) 550 mm x 550 mm Fabricated manhole not exceeding 1.5m with cover and frame, galvanised	No	102		
1.3.7.2		b) Extra -over for manhole of the depth exceeding 1.5m	No	5		
SUB-TOTAL SCHEDULE L - SECTION 1 CARRIED FORWARD:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCHEDULE LB: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS

SECTION 1: PIPE BEDDING

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
LB 1		BEDDING: <i>(As specified in SABS 1200 LB and the Project Specifications.)</i>				
1.1	PSLB 8.1.1	Provision of Bedding and Blanket from Trench Excavations: <i>(Bedding to be Class C for flexible pipes as indicated in the contract drawings)</i>				
1.1.1		b) Provision of bedding from pipe trench excavation within 1.0 km, using selected fill material.	m ³	18531		
1.2	PSLB 8.2.5	Overhaul				
1.2.1		a) Limited overhaul (0,5 km to 1,0 km)	m ³ .km	50		
1.2.2		b) Long overhaul	m ³ .km	50		
TOTAL SCHEDULE LB - SECTION 1 CARRIED TO SUMMARY:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

NKOMAZI LOCAL MUNICIPALITY - MPUMALANGA PROVINCE**SCHEDULE B: BULK SUPPLY AND NETWORK DISTRIBUTION****WORKS****SECTION 1: MEDIUM PRESSURE PIPELINES AND
ANCILLARIES**

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
LF 1		ERF CONNECTIONS (WATER): <i>(As specified in SABS 1200 L, SABS 1200 LF.)</i>				
1.1	PSLF 8.2.1	Provide yard connections complete as per drawing				
1.1.1		Metered yard connections(Short and long connections)				
		a. Metered yard connections (long connections)	No.	665		
		b. Metered yard connections(Short connections)	No.	444		
TOTAL SCHEDULE LF - SECTION 1 CARRIED TO SUMMARY:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCHEDULE B: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS
SECTION 1: EARTHWORKS FOR PIPE TRENCHES

ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
GA 1		CONCRETE (SMALL WORKS) <i>(As specified in SABS 1200 GA and the Project Specifications.)</i>				
	8.2	SCHEDULED FORMWORK ITEMS				
	8.2.1	Rough surface finish (vertical)	m ²	90		
	8.2.2	Smooth surface finish (vertical)	m ²	4.8		
	8.3	SCHEDULED REINFORCEMENT ITEMS				
	PSGA 8.3.1	a) Mild steel bars	kg	100		
		b) High-tensile steel bars	t	1.5		
	PSGA 8.4	SCHEDULED CONCRETE ITEMS				
	8.4.1	Reinforced Strength concrete, 30MPa/19mm	m ³	37		
	8.4.2	Blinding layer in 20 Mpa concrete, with 100mm thickness	m ³	7		
TOTAL SCHEDULE GA - SECTION 3 CARRIED TO SUMMARY:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SCHEDULE H: BULK SUPPLY AND NETWORK DISTRIBUTION WORKS SECTION 1: ANCILLARY WATER SUPPLY WORKS						
ITEM NUMBER	PAYMENT CLAUSE	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
H 1		STRUCTURAL STEELWORK <i>(As specified in the Project Specifications.)</i>				
1.1	PSH 8.3.1	Elevated Pressed Steel Reservoir: (Steel Tank shall be a Braithwaite type, or similar, pressed steel. All manufacturing to SABS standards with hot dip galvanising to SANS 121(ISO 1461), installation to be performed by the supplier)				
1.1.1		1) Supply and erect 136.2 kl capacity elevated pressed steel reservoir with Stand of 12 m above natural ground level including excavations and foundations.	Prov Sum			R 1 930 000.00
1.1.2		a) Contractor's handling costs, profit and all other charges in respect of subitems 1.1.1	%	1930000.00		
1.1.3		1) Supply and erect 719.1 kl capacity elevated pressed steel reservoir with Stand of 12 m above natural ground level including excavations and foundations.	Prov Sum			R 4 710 726.37
1.1.4		a) Contractor's handling costs, profit and all other charges in respect of subitems 1.1.3	%	4710726.37		
PCB	PCB	FENCING				
2,1	PCB-4,1	- Clearing line of fence 2m wide Supply and erection of 2.4m high welded mesh see-through fence inclusive of ancillaries	m	459		
2,2	PCB-4,2		m	459		
2,3	PCB-4,5	New gate (4m double leave)	No	2		
TOTAL SCHEDULE H - SECTION 7 CARRIED TO SUMMARY:						

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

		SUMMARY SCHEDULE OF QUANTITIES	TENDER NO.
		EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURT STANDS)	
SCHEDULE	SECTION	DESCRIPTION	AMOUNT
A	1	PRELIMINARY AND GENERAL - FIXED CHARGE AND VALUE RELATED OBLIGATIONS	
	2	PRELIMINARY AND GENERAL - TIME RELATED OBLIGATIONS	
	3	PRELIMINARY AND GENERAL - PROVISIONAL SUMS	
	4	PRELIMINARY AND GENERAL - PRIME COST SUMS	
	5	PRELIMINARY AND GENERAL - DAYWORK	
C	1	SITE CLEARANCE	
DB	1	EARTHWORKS FOR PIPE TRENCHES	
L	1	MEDIUM PRESSURE PIPELINES	
LB	1	PIPE BEDDING	
LF	1	ERF CONNECTIONS (WATER)	
GA	1	CONCRETE (SMALL WORKS)	
H	1	CONSTRUCTION OF ELEVATED STEEL TANKS	
TOTAL SCHEDULE OF QUANTITIES AMOUNT:			
CALCULATION OF TENDER SUM			
TOTAL SCHEDULE OF QUANTITIES AMOUNT BROUGHT FORWARD:			
CONTINGENCIES@10%:			
CONTRACT PRICE ADJUSTMENT @ 4.5%			
SUB-TOTAL:			
ADD 15% VAT:			
TOTAL TENDER AMOUNT CARRIED TO FORM OF OFFER:			

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA
(BOSCHFONTEIN COURT STANDS)

BID NO: 28/2021

C3: SCOPE OF WORK

Table of Contents:

C3.1 STANDARD SPECIFICATIONS

C3.2 PROJECT SPECIFICATIONS

PART A: GENERAL

PS-1 Project Description

PS-2 Description of the Site and Access

PS-3 Details of the Works

PS-4 Construction Management Requirements

PART B: AMENDMENTS TO THE STANDARD SPECIFICATIONS

C3.3 PARTICULAR SPECIFICATIONS

SECTION EMP ENVIRONMENTAL MANAGEMENT PLAN

SECTION OHS: PRE-CONSTRUCTION HEALTH AND SAFETY SPECIFICATION

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA
(BOSCHFONTEIN COURT STANDS)

BID NO: 28/2021

C3.1 STANDARD SPECIFICATIONS

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

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

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

EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA
(BOSCHFONTEIN COURT STANDS)

C3.2: PROJECT SPECIFICATIONS

PS 1 GENERAL DESCRIPTION OF WORKS

This contract entails the construction of the following:

Court Stands Scope.

- Supply and installation of 716 Kℓ min. elevated tank with 12m stand complete with foundations and ancillary works.
- Construction of 250 mm Ø class 16 uPVC secondary distribution line for 223 m from phase 3C distribution line to elevated steel tank.
- Construction of 200 mm Ø class 16 uPVC secondary distribution line for 2.312 km.
- 75 mm Ø class 9 uPVC reticulation lines for 22.874 km.
- 110 mm Ø class 9 uPVC reticulation lines for 2.498 km.
- 200 mm Ø class 12 uPVC reticulation lines for 1.3 km.
- Supply and installation of 950-yard connections
- Pipeline ancillaries (valves, meters etc).

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Aniva Scope.

- Supply and installation of 130 kl min. elevated tank with 12m stand complete with foundations and ancillary works (Pressure tower).
- Construction of 200 mm Ø class 16 uPVC secondary distribution line for 88 m from phase 3C distribution line.
- Construction of 110 mm Ø class 12 uPVC secondary distribution line for 2.316 km.
- Construction of reticulation lines as follows;
 - 75 mm Ø class 9 uPVC reticulation reconfiguration lines for 1 km.
 - 75 mm Ø class 9 uPVC reticulation lines for 5.364 km.
 - 160 mm Ø class 9 uPVC reticulation lines for 1.632 km
- De-installation and installation of 159-yard connections to new lines.
- Pipeline ancillaries (valves, meters etc).

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

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

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

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

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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PS 2 DESCRIPTIONS OF THE SITE AND ACCESS

2.1.1 Employer's objectives

The employer's objectives are to deliver public infrastructure using labour intensive method, whereby the local community benefit throughout the entire project and also in doing so provide work place training opportunities to learners who have a Learnership Agreements with the Construction Education and Training Authority.

2.1.2 Overview of the works

On this Contract the aim is to provide a basic level of services, with regards to improve aspects of the current conditions. The Contract will entail a provision of the services as listed in the Project Specification. Also with regards to EPWP requirements, labour-intensive works comprise the activities described in SANS 1921-5, Earthworks activities which are to be performed by hand, and its associated specification data. Such works shall be constructed using local workers who are temporarily employed in terms of this Scope of Work. Time is of the essence for this contract. The Tenderer shall state the time in calendar months required by him/her to complete the Works. Tenderers offering early completion dates will generally be more favourably received, other things being equal.

2.1.3 Labour-Intensive Works

All the relevant tasks/works shall be constructed using Labour-Intensive Construction Methods only.

2.1.4 Location of the works

The project will be implemented in Aniva and Courtstands of Nkomazi Local Municipality. The project is located ± 45 km South-East of Malelane Town. The project is accessible via the N4 from Malelane to Komatipoort, turn onto the R570 to Schoemansdal/Jeppes Reef, then turn to the South-Eastern side at Schoemansdal complex to Aniva.

Ward No.	Area Name	Latitude	Longitude
Ward 24	Aniva	25°42'32.44"S	31°37'05.69"E
Ward 24	Court Stands	25°42'28.66"S	31°36'33.44"E

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

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

PS 3 DOCUMENTATION

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

PS 3.2 The drawings, for tender purposes, listed under part C4 and contained in the book of drawings are applicable to this contract

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

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

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

PS 4 NATURE OF GROUND, SUBSOIL CONDITIONS AND CLIMATIC CONDITIONS ON SITE

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

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

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

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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Aniva climate can be considered to be semi-arid with an average annual rainfall of 435mm falling mainly between October and May. The months of May to September receive very little or no rainfall. Temperatures can be reach maximum of 40° C during summer.

PS 5 DETAILS OF THE CONTRACT

PS 5.1 MAIN CONTRACTS

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

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

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

PS 6 CONSTRUCTION PROGRAM AND METHODS

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

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

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

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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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

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

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

PS 7 SITE FACILITIES AVAILABLE

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

Water for construction purposes will be for the account of the contractor at the ruling tariff and will be supplied at a suitable point, from where the contractor will be responsible to convey the water to the point of usage. Water for human consumption will from the existing network at the ruling tariff. Electrical power is available from the existing reticulation at ruling tariffs. The Contractor shall make his own arrangement for any water or power he may require. Any extension of time due to delays resulting from these facilities will not be granted.

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

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

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

PS 7.2 LOCATION OF CAMP AND DEPOT

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

PS 7.3 HOUSING FOR CONTRACTOR'S EMPLOYEES

No housing is available for the Contractor's employees, and the Contractor shall make his own arrangements for housing his employees or transporting them to and from the site. The

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Contractor is in all respects responsible for the housing and transporting of his employees, and for the arrangement thereof, and no extension of time due to any delays resulting from this, will be granted.

PS 8 SITE FACILITIES REQUIRED

No housing is required for the Engineer. Other facilities such as an office, telephone, name board, survey equipment, etc. required for the Engineer, are described under the relevant sections.

PS 9 FEATURES REQUIRING SPECIAL ATTENTION

PS 9.1 CONTROL OF WATER

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

PS 9.2 "AS BUILT" DRAWINGS

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

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

PS 9.3 FINISHING AND TIDYING

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

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PS 9.4 SURVEY BEACONS

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

PS 9.5 CONSTRUCTION MODUS OPERANDI

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

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

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

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

Percentage of labour	Description
50%	Women
15%	Youth (Above school, but under 36)
1.5%	Disabled persons

PS 9.6 LOCALLY BASED SUB-CONTRACTORS

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

PS 10 TRAINING

PS 10.1 General

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

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

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

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

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

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

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

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

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

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

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

- i) Community based contractors
 - ☐ Preparation phase – using a calculator, numeracy, using a scale ruler, reading a building plan, handling administrative tasks in the building industry.

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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- ☐ Estimating and tendering – marketing the services of a company, seeking, selecting, collecting and studying tender documents, investigating and assessing a site, developing a bill of quantities from building plants, calculating the cost of a project, finalizing tender prices, completing and submitting a tender.
- ☐ Project planning – introducing to planning techniques, pre-tender planning, planning contract activities, contract planning, executing a contract programme.
- ☐ Executing the project – managing the finances of the company, managing materials, administering record systems, managing manpower, completion and handover.

ii) Community based labour

Local labour will be taught the following skills:

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

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

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

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

PS 10.2 Construction and Materials Management

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

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

i) Community Based Contractors

- ☐ To tender on the labour-based sub contract work and enter into a contract with the Contractor.
- ☐ To carry out the work according to specification and on time using community based labour.
- ☐ To liaise and co-operate with the contractor regarding specifications, programme, progress, delivery of material, quality of work etc.
- ☐ To provide wheelbarrows, hand tools, clothing, safety equipment, etc. to enable his labourers to carry out the work. All material (pipes, fittings, valves, etc.) to be provided by the Contractor.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

- ☐ To receive material required for the task, store it and provide the necessary security until the material is built into the works.
- ☐ To provide the necessary transport for this labour force.
- ☐ To carry out a task in its entirety until final approval and acceptance. In other words there will be no split responsibility. For example a community based contractor will excavate, provide the bedding, selected backfill, backfill, lay pipes, valves and fittings, build valve boxes, manholes, anchor blocks etc. and test the pipes in conjunction with the Contractor.
- ☐ To pay his labourers. VAT etc. and finalize the final account.

ii) Contractor

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

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

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

PS 11 APPLICABLE STANDARDISED SPECIFICATIONS

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

SANS 1200 A - 1986 General

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

SANS 1200 AB	-	1986	Engineers Office
SANS 1200 C	-	1986	Site Clearance
SANS 1200 DB	-	1989	Earthworks (Pipe Trenches)
SANS 1200 L	-	1983	Medium pressure pipe lines
SANS 1200 LB	-	1983	Bedding (Pipes)

PS 10.2 Particular Specifications

PSVC : Security Fencing (Removal of Fencing)

PSW : Pumps, Tanks and Valves

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

PROJECT SPECIFICATION

PORTION 2: VARIATIONS AND ADDITIONS TO
STANDARDISED SPECIFICATIONS

SANS 1200 A: GENERAL
PS A 3 MATERIALS

PS A 3.1 QUALITY

Substitute the second sentence of the first paragraph of A 3.1 with the following:

Materials shall bear the official mark of the appropriate standard.

Substitute the second paragraph with the following:

The Contractor is responsible for the cost of all testing to ascertain that the materials do comply with the relevant minimum requirements and all such costs shall be deemed to be included in the tendered rates. The cost of control tests done by the Engineer and of which the results do not comply with the minimum requirements shall be for the Contractor's account.

The Contractor shall inform the Engineer of any control testing to be done at least 48 hours before such tests are required and must allow in his program for the time necessary for the tests and the processing of the results thereof.

The handling, storage, transport, and erection of equipment, machinery, and materials shall be strictly in accordance with the requirements of the supplier and/or manufacturer.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

All materials shall be new and of the best quality available unless otherwise specified. They must function satisfactorily under prevailing climate and weather conditions at the place of installations.

PS A 4 PLANT

PS A 4.2 Contractor's Offices, Stores and Resources

Add the following to A 4.2:

No housing is available for the contractor's employees and the contractor must make his own arrangements for accommodation and transport of his employees.

PS A 4.3 Hand Tools

The contractor shall provide and maintain all hand tools required for the execution of the Works.

PS A 5 CONSTRUCTION

PS A 5.1 SURVEY

PS A 5.1.1 Setting out of the Works

Substitute the first sentence in A 5.1.1 with the following:

Setting out of the works is the sole responsibility of the Contractor and shall be done from the layouts given to him. The proposed network pipes must be placed 2,0m away from the erf boundaries in the road reserve. Any discrepancy shall immediately be reported in writing to the Engineer. Any costs or subsequent costs arising from discrepancies, which had not been reported to the Engineer, shall be the sole responsibility of the Contractor. The exact position of the network pipes shall be determined on site in conjunction with the Engineer and must be approved before construction of the specific section starts.

The Engineer may alter any part of the works to suit local conditions. The Contractor must therefore contact the Engineer immediately after the preliminary setting out of any part of the works before starting with detail setting out, or construction. Only after the Engineer has approved a specific site or part of the works, may the detail setting out and construction commence.

PS A 5.2 WATCHING, BARRICADING, LIGHTING AND TRAFFIC CROSSINGS

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Add the following to A 5.2:

The crossing of existing tar and dirt roads must be done in half widths, while the total traffic is accommodated on the other lane.

Road traffic signs shall comply with the requirements of the "South African Road Traffic Signs Manual" and shall be approved by the Engineer before construction commences.

PSA 7 TESTING

PS A 7.4 STATISTICAL ANALYSIS OF CONTROL TESTS

Substitute A 7.4 with the following:

Test results shall not be evaluated by statistical methods. All results shall comply with the specified minimum requirements of the materials concerned.

PS A 8 MEASUREMENT AND PAYMENT

PS A 8.2 PAYMENT

PS A 8.3 Fixed-Charge and Value-Related Items

PSA 8.3.1 Contractual Requirements..... Unit: Sum

The sum shall cover the Contractor's initial costs of providing sureties, insurance of the works and plant, third party or public liability insurance and unemployment insurance to cover his compliance with the requirements of the Workmen's Compensation Act, 1941 (Act NO. 30 of 1941) and any other initial financing obligations of a preliminary and general nature, such as contributions to the CEITB..

The tendered amounts for fixed-charge and value-related items will not be increased, if extension of time for the completion of the works is awarded.

PS A 8.3.2 Establishment of Facilities on the Site

PS A 8.3.2.1 Facilities for Engineer

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

a) Furnished office (No) Unit:
Sum
b) Telephone (1 No.) Unit:
Sum
c) Name-board (1 No.) Unit:
Sum

PS A 8.3.2.2 Facilities for Contractor

(a) Offices, workshop and storage sheds
Unit: Sum
d) Workshops Unit:
Sum
c) Laboratories Unit:
Sum
d) Living accommodation Unit:
Sum
e) Ablution and latrine facilities Unit:
Sum
f) Tools and equipment Unit:
Sum
g) Water supplies, electric power and communications Unit:
Sum
h) Dealing with water Unit:
Sum
i) Access Unit:
Sum
e) Plant Unit:
Sum

PS A 8.3.3 Other Fixed-Charge Obligations.....
Unit: Sum

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

PS A 8.3.4 Removal of Site Establishment.....
Unit: Sum

The sum shall cover the cost of the demolition on and the removal from the surface of the site of all items established in terms of 8.3.2 and 8.3.3, and shall provide for the making good and the restoring of the Site to the satisfaction of the Engineer

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PS A 8.3.5 OCCUPATIONAL HEALTH AND SAFETY

PS A 8.3.5.1 Contractor's initial obligations in respect of the Occupation Health and Safety Act and Contractual Regulations..... Unit: P/Sum

The full amount will be paid on the scheduled rate on condition that:

- (a) The contractor has notified the Provincial Director of the Department of Labour in writing of the project.
- (b) The contractor has made the required initial appointment of Employees and sub-contractors
- (c) The client has approved the contractor's Health and safety plan
- (d) The contractor has set up his Health and safety File and Safety Plan.
- (e) The Contractor has appointed a Health and Safety officer.

The provincial sum shall represent full compensation for that part of the contractor's general obligations in terms of Occupational Health and Safety Act and the Construction Regulation which are mainly a function of time. The sum for the supply of all safety equipment, safety clothing, first aid kit, etc. in order to adhere to the Occupational, Health and Safety Act specifications. The Contractor must familiarise himself with the conditions as per Occupational, Health and Safety Act and adhere thereto. The rate shall cover the Contractor's overheads, changes, and profit on payments for the Service Provider. Contractor to note that this item covers the costs for the preparation and submission of Health and Safety plan and file.

Payment shall be as specified for item 1.3 in the standard specifications

PS A 8.3.5.2 Occupational, Health and Safety Act..... Unit: Sum

Handling cost in respect of sub-item 8.3.5. A percentage of the payment made to the Occupational health and safety act will be paid to the Contractor under this section. The rate shall cover the Contractor's overheads, changes, and profit on payments for the Occupational health and safety act.

(a) Provision for safety officer

The Contractor should appoint the safety officer who will be full time responsible for all safety issuers on site, and he or she should be full time on site.

The tendered rates include the full compensation for that part of the provision of safety officer in terms of the Occupational Health and Safety Act and the construction regulation which are mainly a function of time. Payment shall be made monthly.

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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(a) Handling cost in respect of sub-item 8.3.5.2 (a). A percentage of the payment made to the Safety Officer will be paid to the Contractor. The rate shall cover the Contractor's overheads, changes, and profit on payments for the Safety Officer.

PS A 8.3.5.3 Contractor's time related obligation in respect of the OH&S Act and Construction regulation

The tendered lump sum shall represent full compensation for that part of the contractor's general obligations in terms of Occupational Health and Safety Act and the Construction Regulations which are mainly a function of time. The lump sum will be paid monthly only after payment for item 1.3.3 and item 1.1.5 has been made Payment of the lump sum shall be made monthly (calculated by the division of the lump sum by the number of months remaining)

PS A 8.2.2 Time-Related Items

The tendered amount for a time-related item will be increased; if an extension of time for the completion of the works is awarded on the condition that the activity related to the item tendered for must be sustained during the extended period.

The ratio between the increased amount for a time-related item and the tendered amount must be the same as the ratio between the extension of the time period for the completion of the works and the original time period allowed for completion of the works.

If the works is completed before the end of the original time period allowed for completion of the works, the tendered amount of a time related item that is influenced by the earlier completion would be reduced similarly.

PS A 8.4 SCHEDULED TIME RELATED ITEMS

PS A 8.4.2.1 Facilities for Engineer

a) Furnished offices Unit: Month
c) Name-board.....Unit: Month

PSA 8.4.2.2 Facilities for Contractor Unit: Sum

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

The sum shall cover the Contractor's time related costs of providing sureties, insurance of the works and plant, third party or public liability insurance and unemployment insurance to cover his compliance with the requirements of the Workmen's Compensation Act, 1941 (Act NO. 30 of 1941) and any other initial financing obligations of a preliminary and general nature, such as contributions to the CEITB. Establishment of Facilities on the Site Facilities for Engineer

PS A 8.4.2.2 Facilities for Contractor

- (a) Offices, workshop and storage she..... Unit: Month
- d) Workshops Unit: Month
- c) Laboratories Unit: Month
- d) Living accommodation Unit: Month
- e) Ablution and latrine facilities Unit: Month
- f) Tools and equipment Unit: Month
- g) Water supplies, electric power and communicationsUnit: Month
- h) Dealing with waterUnit: Month
- i) AccessUnit: Month
- e) Plant Unit: Month

PSA 8.4.3 Supervision for Duration of Construction Unit: Sum

The sum shall cover the costs of on-site supervision and such local administration as the Contractor considers necessary for the proper completion of the Works, and shall cover the cost of the salaries, wages and allowances paid to the site agent, general foreman, section foremen (where applicable), site surveyors, timekeepers, assistants and other site supervisory staff, and of transport incurred in connection with such staff. Plant (designated plant or plant for designated operations or plant for use during Supervision for Duration of Construction

PSA 8.4.4 Company and Head Office Overhead Cost's for the Duration of the Contract....

Unit: month

The sum shall cover the Contractor's company and head office overhead costs.

PS A 8.5 SUMS STATED PROVISIONALLY BY ENGINEER

PS A 8.5(a)1 Community Liaison Officer

Unit : P/Sum

The Contractor must pay a salary to a person appointed as the Community Liaison Officer for the project. The amount of payment and payment dates will be determined as soon as the Community Liaison Officer is appointed.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

PSA 8.5 (a) Social Facilitation

Unit: P/Sum

Provisional sum for social facilitation services supplied by the social facilitation company. The name and contact details of the social facilitation Company, to be appointed by the Contractor, will be supplied to the Contractor by the Employer or Engineer. The Engineer should authorise payment before it is made. Proof of payment must be submitted to Engineer before claim can be certified.

PS A 8.5(a)3 Overheads, charges and profit on (1) above

Unit : %

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

PS A 8.5(b)1 Training

Unit : P/Sum

Provisional sum for training services supplied by the Training Company. The name and contact details of the Training Company, to be appointed by the Contractor, will be supplied to the Contractor by the Employer or Engineer.

PS A 8.5(b)2 Overheads, changes and profit on (1) above

Unit : %

Handling cost and profit in respect of sub-item 8.5(b)1. A percentage of the payment made to the Training Company will be paid to the Contractor. The rate shall cover the Contractor's overheads, changes, and profit on payments for the Training Company. No payment will be made under this item before any payment is made to the Training Company.

PS C 8.5 EXISTING SERVICES

The services parallel to the pipeline routes must only be removed and re-erected at the positions as indicated and approved by the Engineer and repaired where it was damaged. When the pipeline routes cross fencing or gates temporary wire gates must be provided that must be kept closed. After completion of the work these fences or gates must be repaired to the same condition as before commencement of the work.

PS A 8.5(c)2 Overheads, changes and profit on (1) above Unit : %

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Handling cost in respect of sub-item 8.5(c)1. A percentage of the payment made to the Service Provider will be paid to the Contractor. The rate shall cover the contractor's overheads, changes, and profit on payments for the Service Provider.

PS A 8.7 DAYWORK

Replace A 8.7 with the following:

Daywork will be paid according to the percentage allowance method. For calculating the total remuneration the General Conditions of Contract for Construction Works, Second Edition, 2010 shall apply, with the amendments as in the appropriate special conditions of contract, which is bound into this document. A day work schedule will be provided for filling in the necessary information.

A 8.8 TEMPORARY WORKS

PS A 8.8.2 Accommodation Of Traffic Unit: Sum

Add the following to A 8.8.2:

The rate shall cover all costs pertaining to the provision, erection, moving, re-erection and maintenance of all temporary barricades, road signs, lights, flagmen, etc. as required, for the guarding and protection of the works, for the construction, gravelling and maintenance of access roads and detours to the site of the works, borrow pits or spoil sites, as well as for the later removal or the cleaning and tidying up thereof.

PROJECT SPECIFICATION

PORITION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SANS 1200 AB: ENGINEER'S OFFICE
PS AB 3 MATERIALS

PS AB 3.1 NAME BOARDS

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

PS AB 3.2 OFFICE BUILDING

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Replace AB 3.2 with the following:

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

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

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

Internal furnishings shall include:

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

PS AB 4 PLANT

PS AB 4.1 TELEPHONE AND FAX

Replace AB 4.1 with the following:

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

PS AB 5 CONSTRUCTION

PS AB 5.1 NAME BOARDS

Add the following to AB 5.1:

The name boards shall be erected within a month of the commencement date of the contract and shall be placed at the position indicated by the Engineer. Any damage to these boards shall

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

be repaired within seven days of a written instruction issued by the Engineer. No payment shall be made in terms of the contract prior to the erection of the name boards.

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

PS AB 5.5 SURVEY ASSISTANTS

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

PS AB 5.6 SURVEY EQUIPMENT

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

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

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

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

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

PS AB 8 MEASUREMENT AND PAYMENT

PS AB 8.2 PAYMENT

PS AB 8.2.2(a) Office buildings Unit: Sum

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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

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

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

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

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

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

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

PROJECT SPECIFICATION

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SANS 1200 C: SITE CLEARANCE

PS C 3 MATERIALS

PS C 3 MATERIALS

PS C 3.1 DISPOSAL OF MATERIAL

Substitute the first sentence of C 3.1 with the following:

Material obtained from clearing and grubbing shall be disposed of at the site indicated at the site inspection. If such a site is indicated at tender stage, the cost of transporting material and debris will be included under 8.2.1.

Loading and off-loading should be done by hand and the contractor must price accordingly under item 8.2.1.

PS C 5 CONSTRUCTIONS

PS C 5.1 AREAS TO BE CLEARED AND GRUBBED

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Substitute the first sentence of C 5.1 with the following:

Unless otherwise indicated by the Engineer, clearing and grubbing are limited to a 2,5m wide strip along the pipe route. Measurement and payment for clearing and grubbing shall only occur for areas as required in writing by the Engineer.

The Contractor may proceed with clearing and grubbing after the handing over of the site.

PS C 5.2 CUTTING OF TREES

PS C 5.2.3 Preservation of Trees

PS C 5.2.3.2 Individual trees

Add the following to C 5.2.3.2:

Trees outside pipeline routes must be left standing and undamaged, except where otherwise ordered in writing by the Engineer.

A penalty of R15 000,00 per tree for trees damaged and/or removed will be charged.

PSC 5.3 EXISTING FENCING

The fencing parallel to the pipeline routes must only be removed and re-erected at the positions as indicated and approved by the Engineer and repaired where it was damaged. When the pipeline routes cross fencing or gates temporary wire gates must be provided that must be kept closed. After completion of the work these fences or gates must be repaired to the same condition as before commencement of the work.

PS C 8 MEASUREMENTS AND PAYMENT

PS C 8.2 SCHEDULED ITEMS

PS C 8.2.1 Clear and grub (0.8m wide) Unit: m

The removal of all rocks and boulders on site over 0,15 m³ will be paid under sub clause D 8.3.2(b). The removal of hard rock other than boulders will be paid under sub clause PS DB 8.3.2(b).

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PSC 8.2.2 Remove and grub large trees and tree stumps of girth

- a) over 1 m and up to and including 2 m Unit: No
b) over 2 m and up to and including 3 m Unit: No

The girth of a tree or stump will be measured at the narrowest point of the tree or stump in the first metre of its height above ground level. Trees and stumps of girth exceeding 1 m will be measured individually and classified according to site in increments of 1 m as indicated above.

The rate shall cover the cost of clearing and grubbing trees and stumps of all sizes, cutting branches, backfilling holes, and removing, transporting, and disposing of all such trees, stumps, and branches and associated material.

PSC 8.2.3 Remove and grub all trees and tree stumps regardless of girth
Unit: No

In exceptional circumstances, where construction is carried out through plantations or where the quantity of trees or girth exceeding 1 m renders individual measurement impracticable the project specification may provide that the clearing and grubbing of trees be measured in hectares. If this method of measurement is used the areas to which it is applicable will be defined clearly on the drawings and the reason for adopting the method of measurement will be stated in the project specification.

The rate shall cover the cost of all operations specified in .8...2.2.

PSC 8.2.5 Take down existing fence.....
Unit: m

The rate shall cover the cost of taking down the fences, coiling wire, sorting and stacking all material at sites indicated by the Engineer and the cost of loading, transporting and offloading such material.

PROJECT SPECIFICATION

PORTION 2: VARIATIONS AND ADDITIONS TO
STANDARDISED SPECIFICATIONS

SANS 1200 DB: EARTHWORKS (PIPE TRENCHES)

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

PSDB 1 SCOPE

This specification covers earthworks for trenches for all types and sizes of pipes. It covers excavation, the preparation of a trench bottom, backfilling and the reinstatement of surfaces.

PS DB 3 MATERIALS

PS DB 3.1 CLASSIFICATION FOR EXCAVATION PURPOSES

PS DB 3.1.1 Method of Classifying

Substitute DB 3.1.1 and DB 3.1.2(a), (b) and (c) with the following:

The Engineer shall classify excavated materials as Soft Class and Rock will be measured individually as extra-over items.

TABLE 1 : CLASSIFICATION OF MATERIALS

CLASSIFICATION	DESCRIPTION
----------------	-------------

Soft	All material other than rock
------	------------------------------

Rock	Material which cannot be economically fragmented and loosened for removal by hand implements and pneumatic tools, except by drilling and blasting or the use of rock breaking equipment.
------	--

In the first instance, the classification shall be based on the descriptions given in Table 1. In the event of disagreement between the Contractor and the Engineer, the Engineer shall reclassify the material in accordance with relevant specifications and without being unreasonable to the Contractor. The decision of the Engineer on the classification shall then, subject to the provisions of the Contract, be final and binding.

The Contractor shall notify the Engineer of the presence of what he considers to be rock immediately upon discovery thereof. The Engineer will inspect the material and decide whether or not it warrants the use of pneumatic tools or rock breaking equipment. In the case of isolated boulders set in a soil matrix, the Engineer may order the Contractor to either widen the excavation or roll the boulders sideways or lift the boulders out from the trenches.

In the event that the Engineer decides that the use of pneumatic tools, rock breaking equipment, or blasting is necessary, he will classify the material accordingly and arrange for the quantity thereof to be measured. The Construction Manager will supply necessary pneumatic equipment and arrange for others to break up rock into manageable pieces.

PS DB 3.5 BACKFILL MATERIALS

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

- a) Substitute "from trenches" in DB 3.5(a) with "from trenches and street excavations".

Add the following to DB 3.5(b):

- c) Road crossings, access to services, farms and camps and any section that fall within the road reserve shall be classified as areas subject to loads from road traffic and must be compacted accordingly to the top of the trench (natural ground level).

PS DB 3.7 SELECTION OF MATERIAL FOR REPAIR WORK

If the excavation of a pipeline damages an existing road surface, the Contractor must stockpile material from the top 200mm of such a road surface in order to reuse it as sub base for the repairing of the road crossing.

If necessary gravel material that is suitable for the reparation of road surfaces must be imported.

The Contractor must make provision in his tariffs for compaction in road reserves for the selection of excavated material as specified above.

PS DB 4 PLANT

PS DB 4.1 EXCAVATION EQUIPMENT

Add the following to DB 4.1:

An adequate number of suitable tools, including hand stampers, wheelbarrows and hosepipes shall be provided by the Contractor. The Contractor will supply mechanical compaction equipment and when required pneumatic and rock breaking equipment.

All excavations exceeding the specified widths shall be backfilled with approved selected material. No payment shall be made for this and all relevant costs shall be deemed to be included in the tendered rates.

PSDB 5 CONSTRUCTION

PSDB 5.1 PRECAUTIONS

PS DB 5.1.1.1 Water in Trenches

Water in pipe trenches may cause movement of the pipes as a result of flotation and backfilling must therefore be executed as quickly as possible. If movement of the pipes does occur the contractor must, unless otherwise instructed by the Engineer, remove the pipes from the trench and reinstall it at his own expense.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PS DB 5.4 EXCAVATION

Add the following to DB 5.4:

"Excavation and backfilling of pipe trenches on sidewalks in the residential area shall be done in such a manner as to ensure the least possible disruption to the public and access to the properties. No additional payment shall be made for this and all relevant costs shall be deemed to be included in the tendered rates.

PS DB 5.5 TRENCH BOTTOM

Substitute "90 %" in the second paragraph of DB 5.5 with "93 % ".

PS DB 5.5.1 Over Excavation of Trenches

Where pipe trenches are excavated deeper than specified or shown on the drawings, these excavations must be backfilled with suitable approved selected material in layers of not more than 150mm uncompacted thickness and must be compacted to the thickness of the adjoining in-situ material or as prescribed by the Engineer.

PS DB 5.6 BACKFILLING

PS DB 5.6.1 General

Backfilling in road reserves must be compacted in 100mm layers up to natural ground level.

Where prescribed by the Engineer all surplus material must be neatly piled over the real trench width to a height not more than 150mm higher than the adjoining level.

PS DB 5.6.3 Disposal of Soft Excavation Material

Add the following to DB 5.6.3:

All surplus and unsuitable material as described in DB 5.6.3 shall be disposed of at the spoil site, (as described in PS D 5.2.2.3) and levelled.

PS DB 5.7 COMPACTION

PS DB 5.7.2 Areas Subject To Traffic Loads

Add the following to DB 5.7.2:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

All pipe trenches within road crossings, accesses to services, farms and camps that fall within the road reserve, will be regarded as areas subject to traffic loads. Backfilling of trenches that are subject to traffic loads will be executed in layers of 100mm as follows:

Item	% mod AASHTO	Final Layer Thickness
Approved Backfill	93%	200mm
Main Backfill up to road layers	96%	200mm
Sub-base	97%	200mm
Base	98%	175mm

PS DB 5.9 REINSTATEMENT OF SURFACE

PS DB 5.9.2 Private Property and Commonage

Add the following to DB 5.9.2:

Gardens and lawns shall be repaired to the original standard where they were crossed. Grass and plants shall be taken out of the ground, temporarily stocked, watered during construction, and replanted after backfilling.

PSDB 8 MEASUREMENT AND PAYMENT

PSDB 8.2 COMPUTATION OF QUANTITIES

PS DB 8.2.4 Shoring

Add the following to DB 8.2.4:

Shoring will only be measured and paid for, if the Engineer gives written approval before it is installed.

PSDB 8.3.2 Excavation

(a) Excavation in all material for trenches, backfill, compact and dispose of surplus material..... Unit (m)

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Item will be provided for various pipe diameters in steps not greater than those specified in 5.2 and various depths in increments of 1.0 m measured to the bottom of the bedding layer (see Drawing DB 2, DB 3, and DB 4). Where measured volumetrically in terms of 8.1.2 (a), the volume of excavation will be computed in accordance with 8.2.2 and 8.2.3

The rate shall cover the cost of the same operation in heading where the Contractor elects to use such a method of excavation. The volume or length will be measured for payment on the assumption that normal trench excavation has been carried out. The volume or length in the undisturbed prism of material between the top of the tunnel and ground level will be classified as soft excavation in terms of 3.1. No additional payment will be made for such headings and no deductions will be made for reduced excavation quantities.

(b) Extra-over item (a) above for:

1. Intermediate excavation Unit: m³
2. Hard rock excavation..... Unit: m³
3. Hand excavation and backfill where ordered by the engineer. Unit: m³
4. Soil Crete backfilling where directed by the engineer. Unit: m³

Separate items will not be provided for depth increment, volume will be computed from the trench width determined in accordance with 8.2.3 and the depth from the top of the intermediate or hard rock excavation, as the case may be, either to the bottom of the same material or to the bottom of the trench as specified in (a) above, whichever is the lesser (see Drawing DB 5

The rates shall cover the additional cost of the excavation and hauling of the more difficult material of unsuitable material.

c) Excavate and dispose of unsuitable material from trench bottom (provisional)..... Unit: m³

The volume will be computed from the trench width determined in accordance with 8.2.3 and m³ the additional depth ordered.

The rate shall cover the cost of the excavation of the additional depth in any material, the disposal of the unsuitable material as specified for soft: excavation in 5.6.3 within freehaul distance and the backfilling of the additional depth with suitable material from the side of the trench.

PSDB 8.3.3 EXCAVATION ANCILLARIES

PSDB 8.3.3.1 Make up deficiency in backfill material

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

- a) from other necessary excavations on site
Unit: m³
- b) by importation from-designated borrow pits
Unit: m³
- c) by importation from commercial or off-site sources selected by the Contractor
Unit: m³

Items (b) and (c) above will not be measured for payment unless importation has been ordered in writing. The volume will be computed from the trench width determined in accordance with 8.2.3 and the depth from the top of the backfill to the top of the bedding as shown on Drawing DB-1 or the actual depth of backfill used to make up the deficiency or the depth of additional excavation ordered in terms of B.3.2(c), as applicable.

The rate for material from other necessary excavations on site shall cover the cost of selection of suitable material, the moving of the material to points alongside the trench spaced to suit the Contractor's method of working, and the disposal of the material that is replaced, all within free-haul distance.

The rate for material from designated borrow pits shall cover the cost of royalties, if applicable, excavation and selection of suitable material, the moving of the material to points alongside the trench spaced to suit the Contractor's methods of working, and the disposal of the material that becomes surplus as a result of the importation, all within free-haul distance.

The rate for material from commercial or off-site sources selected by the Contractor shall cover the cost of the acquisition of the material (including royalties, if applicable), the moving of the material to points alongside the trench spaced to suit the Contractor's methods of working, and the disposal of the material that becomes surplus as a result of the importation, all within free-haul distance (see Subclause 5.2.5.1 of SANS 1200 D or Subclause 5.2.6.1 of SANS 1200 DA, as applicable).

PSDB8.3.3.2 Opening up and closing down of designated borrow pitUnit:
Sum

This item will only be scheduled when a new borrow pit has to be established or when access to an existing borrow pit has to be established.

With the exception of the cost of the removal and spreading back of the topsoil (if scheduled), the sum shall cover the cost of opening up and of restoring the Site as specified in Subclause 5.2.2.2 of SANS 1200 D or Subclause 5.2.2(f) of SANS 1200 DA, as applicable.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

PSDB 8.3.5 Existing Services

Existing Services-that Intersect or Adjoin a Pipe Trench (see Sub-clauses 5.1.2 and 8.3.8 of SANS 1200 D or Sub-clauses 5.1.3 and 8.3.5 of SANS 1200 DA, as applicable.)
(See Subclauses 5.1.2 as applicable.)

- (i) Services that intersect a trench (angles between centre-lines in plan of 45-90°)..unit (No)

Except where water pipes are to be recovered, existing water pipes, sewers, stormwater pipes, concrete-lined channels and drains, box culverts, electric cables, ducts, kerbs, channels, erf connections and various sizes of pipes and services that intersect a trench of specified width and require various degrees of care, whether or not their presence is known before they are uncovered, will be measured separately. The unit refers to one service, but services that are so grouped that they can be contained within a horizontal dimension of 200 mm measured at right angles to the axis of the services will be measured as one unit.

- (b) Services that adjoin a trench (parallel to or at an angle between centre-lines in plan of less than 45O) Unit No)

In a case where a trench of specified width

1 runs parallel to or at an angle (in plan) of less than 45O to an existing service, and is such that the nearer side of the bottom of the trench lies at least partly between a vertical plane and a plane that lies at an angle of 45O below the horizontal, both planes passing through the axis of the service, the length of service within the minimum base width of the trench, determined in accordance with 5.2, will be measured for payment under this item and the remaining length, the side of the trench which, in the opinion of the Engineer, is rendered liable to collapse because of the existence of such service, will be measured for shoring (see 8.3.4(a)).

The rate for an item scheduled in terms of (a) and (b) above shall cover the additional cost of

- i) care in excavation necessitated by the presence of such service in or across the trench;
- ii) protecting and maintaining such service in operation by means of temporary supports or shoring, as necessary;
- iii) delays and disruption of the progress of the work due to the existence of the service¹ and
- iv) repairs necessitated by damage caused by the Contractor.

PS DB 8.3.6 Finishing

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PS DB 8.3.6.1 Reinstate road surfaces complete with all courses Unit: m2

Replace DB 8.3.6.1 with the following:

a) Gravel Unit: m2

The area will be calculated from the length of finished road or paved surfaces as applicable and with the trench width taken as 0,8m. Payment for finishing will be additional to that for excavation covered by 8.3.2.

The rate shall cover the cost, selective excavation (including the equipment that is required to break up, remove and, if necessary, stockpile the original surface material), and subsequently of reinstating and compaction and shall include the cost of delays and the cost of any risk of having to repair damage as specified in DB 5.10. Compaction to be according to PS DB 5.7.2

PROJECT SPECIFICATIONS

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SANS 1200 GA: CONCRETE (SMALL WORKS)

PSG1 SCOPE

This specification covers the requirements for concrete (plain and reinforced) for small works associated with pipelines, roads, railways, pump stations, etc. It covers the basic materials, the plant and formwork required, the quality, manufacture, and curing of concrete, tolerances in workmanship, testing, and the methods by which the finished structure is to be measured for the purposes of payment

PSGA 3 MATERIAL

PSGA 3.2.1 Applicable Specifications

Add the following to G 3.2.1:

Portland cement that conforms to SANS 471

PSGA 3.2.2 Storage of Cement

Add the following to G 3.2.2:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Consignments of cement shall be used in the same sequence as that in which they are delivered to site. No cement shall be used which has been stored on site for a longer period than 6 (six) weeks. All cement so stored for a longer period than 6 (six) weeks, all cement damaged in any way, and all cement which does not comply with the specification, shall be removed immediately and permanently from the site.

PSGA 4 PLANT

PSGA 4.4 Formwork

PSGA 4.3.3 Ties

Add the following to G 4.4.3:

No ties will be allowed in vertical walls and permanent metal ties shall have a minimum concrete cover of 40 mm. Tie holes shall be filled with an approved non-shrink epoxy grout.

PSGA 5 CONSTRUCTION

PSGA 5.1 REINFORCEMENT

PSGA 5.1.3 Cover

Substitute G 5.1.3 with the following:

The cover of concrete over reinforcement, unless otherwise indicated on the drawings, shall be not less than 40 mm.

PSGA 5.2 FORMWORK

PSGA 5.2.1 Classification of Finishes

Add the following to G 5.2.1:

The following surface conditions are required in the various portions of the finished concrete:

(a) Rough

Concealed surfaces and surfaces lower than 100 mm below finished ground level.

(b) Smooth

All surface finishes not classified as "rough" in paragraph (a) shall be classified as "smooth". All exposed edges unless otherwise indicated on the drawings, shall be chamfered 20 mm x 20 mm by means of triangular fillets fixed to the formwork.

PSGA 5.4 CONCRETE

PSGA 5.4.1 Quality

PSGA 5.4.1.2 Consistency

Add the following to sub clause G 5.5.1.2(a):

The slump of concrete used in water retaining structures may not be less than 30mm and not more than 60mm.

PSGA 5.4.1.5 Strength concrete

Add the following to G 5.5.1.7:

The grade of strength concrete and the maximum nominal size of coarse aggregate for each portion of the works, unless otherwise indicated on the drawings, shall be as follows:

- | | | |
|-----|---------------------------------------|--------------|
| (a) | Blinding layers and encasing of pipes | 20 MPa/19 mm |
| (b) | Benching | 20 MPa/19 mm |
| (c) | Screeds | 20 MPa/10 mm |
| (d) | Reinforced concrete | 30 MPa/19 mm |

PSGA 5.4.1.7 Durability

Concrete shall be so proportioned to ensure that the water/cement ratio does not exceed 0,5 and, to ensure workability, water-reducing admixtures of approved manufacture shall be used in preference to increasing the cement content.

PSGA 5.4.8 Concrete Surfaces

Add the following to GA 5.4.8.1:

Concrete surfaces under screeds, granolithic finishes or benching shall be brought up to a plane, uniform surface with a suitable screed board.

PSGA 5.4.11 Construction Joints

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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The use of construction joints must be minimised and may only be placed as shown on the drawings or at positions as approved by the Engineer.

At all construction joints in walls a PVC water stop without a centre bulb must be placed as shown on the drawings.

Alternative materials with similar properties may be proposed but may only be installed after approval of the Engineer.

PSGA 5.5.10.4 Wood-floated finish

Where wood floating is specified or scheduled, the surface shall first be given a finish as specified in G 5.5.10.1 and after the concrete has hardened sufficiently; it shall be floated to a uniform surface free from trowel marks. The screed surface shall be wood-floated, either by hand or machine, only sufficiently to produce a uniform surface free from screed marks.

PSGA 5.5.10.5 Steel-floated finish

Where steel floating is specified or scheduled, the surface shall be treated as specified in PS G 5.5.10.4 except that, when the moisture film has disappeared and the concrete has hardened sufficiently to prevent laitance from being worked to the surface, the screed surface shall be steel-trowelled under firm pressure to produce a dense, smooth, uniform surface free from trowel marks.

PSGA 8 Measurements and Payment

PSGA 8.1.1 Formwork

Formwork, other than formwork covered by 8.1.1.2 and 8.1.4, will be measured as the net area of the face of the concrete to be supported during the deposition of concrete. No deduction will be made for fillets and splays of size up to 50 mm x 50 mm or for openings of diameter up to 0,7 m or of area up to 0.5 m².

Formwork in continuous lengths of narrow widths and of fillets or splays over 20 mm x 20 mm will be measured by length, the width or range of widths being stated in the schedule. Boxing-out, the forming of holes, and other such operations will be measured by number, basic dimensions, perimeters, or drawing references, as stated in the schedule.

The unit rate shall cover the cost of all parts of formwork in contact with the concrete, and the necessary bearers, struts, and other supports, plus the labour and plant necessary to erect and strike such formwork.

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PSGA 8.1.2 Reinforcement

Steel for normal reinforced concrete will be measured net by mass of all bars, including supporting steel detailed on the reinforcing schedules. The mass will be computed from the nominal bar size and nominal mass per unit length. No allowance will be made for cutting, waste, spacer devices (materials other than steel bars) , or binding wire.

Steel reinforcement for precast concrete units will not be measured unless so scheduled (see 8.6).

Welded mesh will be measured by area as shown on the drawings, No allowance being made for cutting, waste, laps, or deductions for end cover. The areas measured will be those of the concrete floor or slab being reinforced by means of mesh. In the case of continuous unit partly reinforced by mesh, the area will be computed from the outside dimensions of the area covered by mesh regardless of whether or not additional reinforcing steel is present in the same area. Steel off cuts resulting from the cutting and bending of reinforcement in accordance with the bending schedules shall be deemed to be the property of the Contractor.

PSGA 8.1.3 Concrete

a) Concrete will be measured net to the dimensions shown on the drawings or to the dimensions cast, whichever are the smaller. Structural elements that are undersized will be measured for payment only if they are accepted by the Engineer

b) No allowance will be made for concrete required to make up overbreak in soft excavation, but payment will be made for additional concrete or formwork, or both, ordered i n writing by the Engineer to replace unsuitable material or overbreak in hard rock or in intermediate excavation (see (d) below).

The unit rates shall cover the cost of the provision of concrete (made with ordinary portland cement unless otherwise scheduled), mixing, testing, placing, compacting, the forming of stop-ends and unforeseen construction joints, striking of for levelling as applicable, and curing and repairing where necessary, together with the cost of all parts of formwork in contact with the concrete aid the necessary bearers, struts, and other supports, plus the layout and plant necessary to erect and strike such formwork.

PROJECT SPECIFICATION

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SANS 1200 L: MEDIUM PRESSURE PIPELINES

PSL 1 SCOPE

This specification covers the supply and installation of pipelines of diameter up to 1 000 mm, Complete with ancillary works, for transporting water and sewage under working pressures of up to 2.5 MPa.

PSL 3 MATERIAL

PSL 3.1 GENERAL

Replace the first sentence of L 3.1 with the following:

uPVC pipes, where relevant, will be used in the water pipelines.

Pipes and fittings shall be of the types specified in the schedule or in the project specification and, unless otherwise required in terms of the project specification, they and their couplings shall be capable of withstanding the applicable test pressure specified in 7.3.1. All pipes and fittings shall be supplied complete with couplings and jointing material.

Satisfactory temporary end covers shall be provided for the protection of threads, flanges, and prepared ends of plain-ended pipes and fittings, and to prevent damage to internal lining during transportation and during handling on Site.

Pipeline materials shall be so transported, stored, and handled that pipes are not overstressed at any time and fittings are not damaged in any way. PVC pipes to be stored under shade for the period between delivery to site and pipe laying and backfilling. All thin-walled, flexible, and soft-coated pipes shall be handled with particular care and shall be so stored that they are not subject to concentrated pressure from stones or other objects. Pipes damaged or cracked in any way shall be removed from the Site.

PSL 3.9 CORROSION PROTECTION

PSL 3.9.2 Protection of Steel Pipes and Accessories

All the pipe items of steel with diameters from 100mm and more must, unless otherwise specified be provided of three coats of epoxy paint (KSIR 88 or similar) to provide a final film of 300 micron dried thickness. Application must be according to the suppliers' prescription and must be on the inside and outside. Steel pipe items with diameters smaller than 100mm must be protected using galvanising or epoxy paint.

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PSL 3.10 VALVES

All valves must be painted according to an approved method with epoxy paint (KSIR 88 or similar), to provide a final film of 300 micron dried thickness, after manufacturing and testing. Complete technical information of all valves must be submitted to the Engineer for approval before purchase.

PSL 3.10.1 Gate Valves

All gate valves shall be of the AVK type, shall comply with the requirements of SANS 664 and shall be suitable for a working pressure of 1,6 MPa (Class 16), or as indicated on the detail drawings. All gate valves must be supplied with a square spindle nut, suitable to be used with a valve key, or with a hand wheel as indicated on the detailed drawings. One valve key per nut size must be provided and will be included in the rate for valves.

All gate valves shall be flanged and drilled according to SANS 1123 or B.S. 4504 Table 16, unless shown differently on the drawings, and shall be right hand closing. The direction for opening and closing shall be permanently displayed on the valves. Valves shall have non-rising spindles.

Compression shut-off valves with rubber protected gate and smooth finish without recess inside, may be used.

The spindle seal shall consist of at least two O-rings located in a corrosion resistant housing. A wiper ring to prevent ingress of dirt shall be provided. The spindle nut may be loose or fixed in the gate.

The valves shall be provided with a straight, unobstructed body passage without any pocket and the gate shall be completely clear of the waterway in the fully open position. The sealing and gate guide areas shall be designed to eliminate deposits in the valve body. The gate guides shall be of substantial design to support the gate until the point of closure.

All components shall be interchangeable between valves of one size.

The rated working pressure shall be as detailed on the drawings. The valves are required to seal drop tight from zero to a test pressure of 1,1 times the rated working pressure under test and field conditions.

The valve shall be capable of being opened and closed under an unbalanced pressure equal to the rated working pressure.

Pipes shall not be tested against a closed valve. Thrust blocks for test sections shall be approved by the Engineer prior to testing of pipes.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

PSL 3.10.2 Air Valves

All air valves to be Double orifice type. Rate shall include all accessories required as per tender drawing.

PSL 5 CONSTRUCTION

PSL 5.1 LAYING

PSL 5.1.1 General

Where connecting to the existing pipeline the position of the existing pipeline must be established by excavating test holes (hand excavation) before any trench excavation to the planned connection point is undertaken. The Contractor will not be compensated for excavation and any other work that is executed and proves to be unnecessary because this specification was not followed.

PSL 5.4 CONCRETE ENCASING

Replace the first sentence of L 5.4 with the following:

Concrete encasing with concrete with strength of 20 MPa/19mm, must be provided at positions indicated by the Engineer. Provision must be made to keep the pipe in position during the placement of the concrete encasing. The length of concrete encasing will be determined by means of site instructions from the Engineer.

PSL 5.4.1 Soil Crete Encasing

Add the following:

A mixture of Portland cement and gravel of base quality that is mixed in a ratio of 1:10 must be provided at positions indicated by the Engineer. Provision must be made to keep the pipe in position during the placement of the soilcrete encasing. The length of soilcrete encasing will be determined by means of a site instruction from the Engineer.

PSL 5.5 ANCHOR BLOCKS

Delete "15 Mpa/37,5mm" in the second sentence and replace with "20Mpa/19mm"

PSL 5.6 VALVE CHAMBERS

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

PSL 5.6.1 General

Substitute the first sentence of L 5.6.1 with the following:

The drawings of valve chambers, which are bound into the document, shall supersede the corresponding drawings in the standard specification.

Valve chambers, to the relevant specified sizes and specifications, shall be installed at all the new positions as indicated on the detailed drawings.

PSL 5.10 CLEANING OF PIPE

Sub clauses (a), (b) and (c) must be adhered to.

PSL 5.11 PIPE MARKERS

Pipe markers shall be installed at 50m intervals on the pipeline route, at all the newly installed isolation and scour valves as indicated on the detailed drawings as well as at all positions where the pipeline route deviates from the horizontal.

PSL 7 TESTING

PSL 7.3 STANDARD HYDRAULIC PIPE TEST

PSL 7.3.1 Test pressure and time of test

Add the following to L 7.3.1.1:

Pipes shall not be tested against isolating valves. Special blank flanges or end caps, fully anchored, shall be provided for testing.

PSL 8 MEASUREMENT AND PAYMENT

PSL 8.2 SCHEDULED ITEMS

PSL 8.2.1 Supply, Lay and Bed Pipes complete with couplings
.....Unit: m

PSL 8.2.1.1 uPVC Class 9 Pipes

The pipes should be the type with a spigot at one end and a socket with tying rubber at the other. The Client only allows the use of uPVC. All pipes to have the class and diameter clearly marked, in addition to Manufacturer's details.

PSL 8.2.1.2 Steel Pipes

The pipes should be threaded at both ends and supplied fitted with one threaded socket. The pipes will thus be jointed using threaded sockets except on advice of Engineer or where drawings details indicate otherwise.

PSL 8.2.2 Extra-over 8.2.1 for the Supplying, Laying, and Bedding of Specials Complete with CouplingsUnit: No

These shall be measured and paid for per installation, complete with the inclusion of the cutting of pipes, couplings, extra excavation and all extra material and labour that is required, including tees, fittings complete as shown on the drawings.

PSL 8.2.2.1 Extra-over 8.2.1.1 for the Supplying, Laying, and Bedding of Specials Complete with Couplings for Steel pipes and adaptors to PVC

Bends, Tees and Reducers shall be steel, be flanged and drilled to Table 16 at all ends. End caps to be flanged at the open end. Bends to be long radius. Steel - uPVC Adaptors to be flanged at end linking to the steel pipe and spigot ended at end linking the PVC pipe. The spigot end to match the diameter of PVC piping. Separate flanges to be drilled to Table 16 with threading to match the steel pipe threading.

PSL 8.2.2.2 Extra-over 8.2.1.2 for the Supplying, Laying, and Bedding of Specials Complete with Couplings for uPVC pipes

All bends, reducers, tees, end caps etc for uPVC sections to be uPVC, unless indicated on the drawings. All bends to be long radius with one end socketed and the other spigot end. The rest of the fittings/ specials to be socketed at all ends, unless the drawings or Engineer suggests otherwise.

PSL 8.2.3 Extra-over 8.2.1 for the Supply, Fixing and Bedding of Valves Unit: No

Add the following to L 8.2.3:

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Valves are measured and paid for per installation, complete with the inclusion of the cutting of pipes, couplings, extra excavation and all extra material and labour that is required, including tees, fittings complete as shown on the drawings.

PSL 8.2.4 Cut Into and Connect To Existing Mains Unit: No

The number of each type and diameter of pipe cut into small measure the cutting into existing mains.

The Tendered rate shall include full compensation for all arrangements with the relevant authorities, isolating the main, cutting into the main to accommodate the connecting fitting, dewatering, excavating, removing of excess material, taking steps to prevent the ingress of soil, stones and other material into the main as well as all material and labour to connect the pipe.

PS L 3.10 VALVES

PS L 3.10.1 Gate Valves

(a) 200mm isolation
valve..... unit (No.)

All gate valves shall comply with the requirements of SANS 664 – Figure 2 and shall be suitable for a working pressure of 1.0 MPa. All gate valves shall be supplied with hand wheels, unless shown otherwise on the drawings.

Gate valves shall have flanged ends unless shown otherwise on the drawings and shall open clockwise. The direction for opening and closing shall be permanently displayed on the valves. Valves shall have non-rising spindles.

Spindles, spindle nuts, gate rings and body rings shall all be of bronze.

All flanged gate valves shall be drilled according to SANS 1123 Table 1600/3.

PSL8.2.10 Temporary Valves,

Payment for the supply or loan of temporary valves, end caps, blank flanges, or other isolating devices ordered by the Engineer in terms of 7.3.1.1 will be made at daywork rates or at a price to be agreed by the Engineer, unless the method of payment for the work has been dealt with in the project specification and a suitable item included in the schedule.

PSL 8.2.11 Anchor/Thrust Blocks Unit: m³

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

Substitute L 8.2.11 with the following:

Anchor and thrust blocks shall be measured per cubic metre concrete and the Tendered rate shall include for all formwork and reinforcement (where specified) for the required dimensions.

“The concrete will be measured net by volume to the specified width and depth in excess of the external volume of the pipe (i.e. the volume of the pipe will be deducted).

The rate shall cover the cost of formwork and concrete.”

PSL 8.2.13 VALVE CHAMBERS

Valve and hydrant chambers, manholes, etc., will be measured as complete units.

The rate shall cover additional excavation (see Subclauses 8.2.2 and 8.2.3 of SADS 1200 LIB), materials, plant, and labour necessary for the complete construction including the installation of the surface boxes or covers.

Valve chambers will be measured and paid for by number and the tariff must include all excavation, installation, finishing and numbering of the chamber, all materials as well as labour as described in PS L 5.12.

PSL 8.2.17 Soil Crete Casing Unit: m³

The soilcrete (1:10 ratio) is measured by volume according to the specified width and depth that exceeds the outside volume of the pipe (the volume of the pipe detracted).

The tariff includes the cost of shuttering and soilcrete mixture.

PSL 8.2.18 Pipe Markers Unit: No

Pipe markers will be measured and paid for by number and the tariff must include all excavation, installation, and paint and numbering of marker, concrete as well as labour as described in PS L 5.11.

PROJECT SPECIFICATION

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SANS 1200 LB: BEDDING (PIPES)

PS LB 1 SCOPE

PS LB 1.1 SCOPE

Add the following to LB 1.1:

This specification also covers the bedding required for sleeve pipes.

PS LB 3 MATERIALS

PS LB 3.1 SELECTED GRANULAR MATERIAL

Substitute LB 3.1 with the following:

Selected granular material shall be an aggregate, sand or granular material, all of a non-cohesive nature and free from any organic material, of which the grading analysis shows 100 % passing a 13, 2 mm sieve and not more than 5 % passing a 0,075 mm sieve.

Only if approved by the Engineer may sand from the trench excavations be used as selected material

PS LB 3.2 SELECTED FILL MATERIAL

Substitute LB 3.2 with the following:

The requirements of PS LB 3.1 shall apply mutatis mutandis.

PS LB 3.3 BEDDING

Add the following to LB 3.3:

All pipes shall be classified as flexible pipes and shall have a bedding of selected granular material and selected fill material.

PS LB 3.4 SELECTION

PS LB 3.4.1 Suitable Material from Trench Excavation Available

Replace the first sentence of LB 3.4.1 with the following:

Notwithstanding the requirements DB 3.7 and LB 3.4.1 relating selected excavation methods, the Contractor must follow selected excavation methods and provide or use plant that will prevent material that is suitable and necessary for bedding being contaminated.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

PS LB 5 CONSTRUCTION

PS LB 5.1 GENERAL

PS LB 5.1.4 Compacting

Substitute "90 % of Mod. AASHTO" in LB 5.1.4 with "93 % of Mod. AASHTO."

If sand is used the compaction grade must be 100% Mod. AASHTO

PS LB 8 MEASUREMENT AND PAYMENT

PS LB 8.1 PRINCIPLES

PSLB 8.1.1 Provision of Bedding from Trench Excavation

a) Selected granular materialUnit: m 3

b) Selected fill material Unit: m

The rates shall cover the cost of acquiring, from within 0,5 km, bedding that complies with the relevant requirements of the specification, of delivering it to points alongside the trench spaced to suit the Contractor's methods of working, and of disposing of displaced material within a freehaul distance of 0,5 km.

In terms of the standardized specifications covering pipelines, the rate for the supply and laying of pipelines covers the cost of handling bedding material from alongside the trench and placing it under and around the pipeline.

PSLB 8.1.2 Supply only of Bedding by Importation

From other necessary excavations

a) Selected granular materialUnit: m

b) Selected fill material Unit: m

PSLB 8.1.4 From commercial sources

a) Selected granular material Unit: m

b) Selected fill material Unit: m

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

The rate shall cover the cost of acquiring, regardless of distance, the required bedding from commercial sources (see Subclause 8.3.4 of SANS 1200 D or Subclause 8.3.4 of SANS 1200 DA, as relevant), of delivering it to points alongside the trench spaced to suit the Contractor's methods of working, and of delivering it to points alongside the trench spaced to suit the Contractor's methods of working, and of disposing of material displaced by such importation, within a freehaul distance of 0,5 km.

PSLB 8.1.6 Encasing of Pipes in Concrete Unit:

Separate items will be scheduled for each size of pipe and for each grade of concrete specified.

The volume will be computed from the dimensions of the concrete as given on the drawing.

The rate shall cover the cost of dealing with any excavation (in all materials including disposal of surplus) that is additional to that measured under the item for pipe trench excavation, the cost of encasing the pipe in concrete including the cost of formwork (if any), etc., and the cost of formwork to form flexible joints at 4 m centres.

PS LB 8.2.5 Overhaul of material for Bedding cradle and selected fill blanket Unit: m³.km

Substitute LB 8.2.5 with the following:

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

Except that the volume is calculated according to LB 8.1.3, the requirements of D 8.3.6 or DA 8.3.3, as applicable, shall apply for overhaul.

PROJECT SPECIFICATION

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SANS 1200 VC: FENCING

PSVC 1 SCOPE

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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

This specification covers the erection of a new 2.4m high fence with 1 x motor gate 2.4 x 2.4m.

PSVC 4.2 SECURITY FENCING

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

PSVC 4.2.1 Material

(a) Straining posts, stays, standards and droppers

Straining posts, stays, standards and droppers shall be of the type and size indicated on the drawings. Steel sections shall comply with the requirements of CKS 82 and timber posts with the requirements of SANS 457, Timber posts shall be treated with a preservative in accordance with the requirement of sub clause 5402 (b)(i)

Droppers shall be 0.56 kg/m ridgeback pattern droppers

Tubular straining posts and stays shall be galvanized in accordance with SANS 763 for class B1 articles, or shall be painted as specified in section 8400 as may be required on the drawings, and shall have a wall thickness of at least 2.95 mm. Unless otherwise shown on the drawing, all tubular posts shall be provided with a 230 mm x 230 mm footplate and a pressed steel or cast-iron cap. Tubular stays shall have a nominal bore of at least 60 mm. Rolled steel section shall be provided with a protective coating of tar or other approved material.

(b) Bolts for stays

Bolts shall be galvanized steel bolts of the required length and a diameter which shall not be less than 12 mm. All the necessary bolts, nuts and washers, shall be supplied with each post.

B 5507 Erecting fence wire

All fence wire shall be tied to the sides of standards or posts to prevent the wires from being displaced or becoming loose. The wire shall be carefully tensioned without sagging and true to line, care being exercised not to tension the wire to such an extent that it will break, or that end, corner, straining or gate posts will be pulled out or that it will be easily damaged during veld fires. Each strand of fencing wire shall be securely tied in the correct position hard up to each standard with soft galvanized tying wire. The tying wire for each strand shall pass through a hole or notch in the standard, while the ends of the tying wire shall be wound at least four times around the fencing wire to prevent it from moving in a vertical direction

B 5513 GENERAL REQUIREMENTS

The completed fence shall be plumb, taut, true to line and ground contour, with all posts, standards and stays firmly set. The height of the lower fencing wire above the ground at posts

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

and standards shall not deviate by more than 25 mm from that shown on the drawings. Other fencing wires shall not deviate by more than 10 mm from their prescribed vertical positions.

B 5514 MEASUREMENT AND PAYMENT
Item

Unit

55.01 Cleaning the fence line 2m wide strip.....
m(m)

The removal of trees and stumps with a girth exceeding 1 m shall be paid as specified in section 1700

B 55.02 Supply and erect new fencing material for new fence and for supplementing material in existing fences which are being repaired or removed:

(a) Zinc-coating barbed wire 3 mild steel grade, double stand 2.5 mm diameter unidirectional twist(SANS 675).....m (m)

(b) Zinc-coating smooth wire 2.24mm diameter. high tensile fencing wire(SANS 675).....m (m)

The unit of measurement shall be erected as specified in the drawings completely drilled with steel cap and base plate and painted. The price shall also include full compensation for the excavation of 300mm x 300mm x 800mm deep holes and the backfill with concrete.

Gate

Single motor gate (2.4 x 2.4 mm)

.....Unit (No.)

The unit of measurement shall be the number of new gate erected. The two wings of the double gates shall be considered as one gate. The tendered rate shall include full compensation for the procurement and supply of all material including gates, gate posts, hinges, bolts, mesh, binding

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Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

wire, concrete, etc., as well as the erection of the gates as specified and indicated on the drawings.

PROJECT SPECIFICATION

PORTION 2: VARIATIONS AND ADDITIONS TO STANDARDISED SPECIFICATIONS

SANS 1200 VC: WATER PUMPS, MECHANICAL & ELECTRICAL PROJECT SPECIFICATIONS

PSVC WATER PUMPS

CONTENTS

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

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

PSVC 2: GENERAL

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

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

PSVC 3: MATERIALS AND WORKMANSHIP

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

PSVC 3.1: CASINGS:

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

PSVC 3.2: BEARINGS:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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

PSVC 3.3: IMPELLERS:

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

PSVC 3.4: WEARING RINGS:

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

PSVC 3.5: SEALS:

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

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

a). Stuffing Boxes:

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

b). Mechanical Seals:

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

PSVC 3.6: MOUNTINGS AND BASEPLATE:

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

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

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

PSVC 3.7: PIPE WORK AND FITTINGS:

PSVC 3.7.1: General:

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

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

SANS 509 and 546: Cast iron and cast steel fittings.

SANS 719 and 720: Mild steel pipes and fittings.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

SANS 286, 721 and 946: Asbestos cement pipes and fittings.
 SANS 121: Galvanised iron pipes and fittings.
 SANS 966: Un-plasticised polyvinyl chloride pipes and fittings.
 SANS 533: High density Polyethylene pipes and fittings.
 BS 3605: Stainless Steel.
 SANS 664: Sluice Valves.

The pipework shall be designed by the Contractor to suit the characteristics of the pumps supplied, and in addition shall be sized so that the velocity in the suction pipework shall not exceed 1,5 m/sec whilst the velocity in the delivery pipework shall not exceed 2,5 m/sec.
 PSVC 3.7.2: Pipes:

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

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

PSVC 3.7.3: Pipe Joints:

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

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

PSVC 3.7.4: Valves:

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

PSVC 3.7.5: Gate Valves:

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

PSVC 3.7.6: Butterfly Valves:

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

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

PSVC 3.7.7: Non-return valves:

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

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

PSVC 3.8: Pressure Gauges:

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

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

PSVC 3.9: Motor-Pump Couplings and Transmissions:

Generally the pump shall run at the same speed as the prime mover and be directly coupled by means of a flexible coupling. Where such a layout is not desirable vee-belt drives are preferred, and only under exceptional circumstances will the use of a gearbox be approved.

The flexible coupling or vee-belt drive, where used, shall be designed to accept the full load torque at design speed, and also the start and stop loads, with due allowance being made for shock loading.

The couplings or drive shall also be designed to accommodate under all the above loading conditions, thermal expansion and contraction movements of the shafts, the effects of end float, vibrations and a practical amount of misalignment of the shafts.

PSVC 3.10: Shafts:

The installation shall comply with the requirements of the Machinery and Occupational Safety Act NO 6 of 1983 as amended.

All rotating or moving parts shall be enclosed by moveable guards.

PSVC 3.11: Painting and Corrosion Protection:

Where possible, materials of manufacture shall be selected for corrosion resistant properties.

Detailed requirements for painting and corrosion protection are specified in a separate section.

PSVC 3.12: Nameplates:

A corrosion resistant nameplate shall be fixed to the pump with the following information punched or engraved thereon;

- Manufacturer's name.
- Serial number of the pump.
- Model number and type.
- Impeller type/diameter installed.
- Normal operating head and flow.
- Rotational speed.
- Bearing numbers.
- Lubricant type.

PSVC 3.13: Motors:

The electric motor shall be a direct coupled 220/380 V 50 Hz 3 phase motor which is capable of operating continuously under the load requirements specified without stalling or being overloaded.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

The motor shall comply with the relevant section of BS 2613 or BS 170 where applicable. The motor shall be so sealed from the pump as to prevent the ingress of moisture and shall have a completely moisture proof terminal block into which the power supply cable is to be brought.

PSVC 4: INSTALLATION

PSVC 4.1 Pumps:

The pump and motor set, mounted on common base plate or frame, shall be fixed onto a removable trolley, to the Contractor's requirements.

PSVC 4.2 Pipework and Fittings:

Erection of pipework and position of fittings shall be carried out in such a way as to ensure the minimum of residual stress in the installation. Great care shall be taken both in the design and protection of the pipework to ensure that no undue forces are imposed on the pump itself. The Contractor shall be responsible for the positioning, design and implementation of all pipe supports. After the pumps have been in operation for about a week the foundation bolts shall be finally tested for tightness, the alignment checked, and dowel pins fitted in the pump and motor feet.

PSVC 4.3 Testing:

All pumps shall be subject to a site test, as installed, to confirm the performance of the equipment supplied against the data supplied at time of tender. Under certain circumstances, pumps may also be tested in the manufacturer's works before installation.

All performance testing shall be carried out in accordance with BS 5316 Part 1 Class C, with all instrumentation and personnel being supplied by the Contractor.

The tests shall be carried out after initial installation checks and after at least 12 hours of test running. Should any aspects of performance not fall within 5% of the stated figures supplied at time of tender, the Contractor shall take all necessary steps to correct the performance and the tests shall be performed again.

On completion of each test the results shall be made available to the Engineer.

Pumping equipment, valves and fittings shall be measured and paid for by lump sum and shall be held to include the supply, installation, testing and commissioning of all pumps including all fixing bolts and brackets and all work necessary to ensure satisfactory operation of the pumping installation.

PSB- 10 MEASUREMENTS AND PAYMENT

PSB- 10.1 Supply and delivery, installation, commissioning and maintenance (during defect liability period) of pump 1.125kw 1500rpm pump

.Unit: No

PSB- 10.2 Supply and delivery, installation, commissioning and maintenance (during defect liability period) of the complete set of pump accessories for each pump as specified 1.125kw 1500rpm pump

.Unit: No

PSB- 10.3 Compile, Supply and delivery a complete set of operation and maintenance manuals of all pumps as specified and measured in PMB-10.2

.Unit: No

PSB- 10.4 Testing of pumps

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

(a) Complete workshop testing a specified, for each pump-set as scheduled in item PMB -10.2
..... .Unit:
No

PS PME 6.2.3 ELECTRICAL SUPPLY AND EARTH CONNECTION

The supply to the existing main switchboard is 3-phase 400/230 V at 50 Hz.

The contractor shall install a circuit breaker in the main switchboard, rated for the required power supply to the new switch, as well as a power cable from the main switchboard to the new switchboard.

Once connected, the Contractor must ensure that the supply in terms of voltage and earthing is in order before switching power onto his equipment. Claims for damage arising from non-compliance will not be accepted.

PS PME 5.4 GENERAL ELECTRIC INSTALLATIONS

PS PME 5.4.1 Cables

Tenderers must allow for the supply and installation of all necessary cables of appropriate size to all the electrical equipment specified in accordance with Clause PMA 4.9 in this document.

Cables must be installed in lengths of surface mounted galvanised conduit to prevent them from sagging, or on cable trays.

ELECTRICAL EQUIPMENT

QUALITY SPECIFICATION

PS PME 4.1 GENERAL

This specification covers the general items of equipment for electrical installations. All materials and installation of such materials shall comply with the following:

1. The latest edition of the "Code of Practice for Wiring of Premises" SANS 10142-1 by the SA Bureau of Standards.
2. The Occupational Health and Safety Act (Act 85 of 1993).
3. The Local Supply Authority's Regulations and Fire Insurance Regulations.
4. Any special conditions implied in this specification.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

C3.3 PARTICULAR SPECIFICATIONS

In addition to the Standardized and Project Specifications the following Particular Specifications shall apply to this contract and are bound in hereafter.

SECTION EMP	ENVIRONMENTAL MANAGEMENT SPECIFICATION
SECTION DWK	DAY WORKS
SECTION OHS	OHS 1993 SAFETY SPECIFICATION
SECTION PCB	FENCING

SECTION EMP: ENVIRONMENTAL MANAGEMENT SPECIFICATION

EMP.1 General

In order to ensure that the construction works is carried out in an environmentally sensitive matter, strict compliance to the Environmental Management Plan (EMP) guidelines is required. The EMP is bounded to this document under Part C4: Site Information. The purpose of the EMP is to:

- ☐ Encourage good management practices through planning and commitment to environmental issues,
- ☐ Provide rational and practical environmental guidelines to:
 - i. Minimize disturbance of the natural environment,
 - ii. Prevent pollution of land, air and water,
 - iii. Prevent soil erosion and facilitate re-vegetation.
- ☐ Adopt the best practicable means available to prevent or minimize adverse environmental impact,
- ☐ Develop waste management practices based on prevention, minimization, recycling, treatment or disposal of wastes,
- ☐ Train employees and contractors with regard to environmental obligations.

EMP.2 Training and Induction of Employees

- ☐ The Contractor has a responsibility to ensure that all those people involved in the project are aware of and familiar with the environmental requirements for the project (this includes sub-contractors, casual labour, etc.). The EMP shall be part of the terms of reference for all contractors, sub-contractors and suppliers.

EMP.3 Complaints Register and Environmental Incident Book

Any complaints received by the project team from the public will be recorded. The complaint should be brought to the attention of the site manager, who will respond.

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The following information must be recorded:

- ☐ Time, date and nature of the complaint,
- ☐ Type of communication (telephone, letter etc),
- ☐ Name, contact address and telephone number of the complainant,
- ☐ Response and investigation undertaken and
- ☐ Actions taken and by whom.

All complaints received will be investigated and a response given to the complainant within 14 days.

All environmental incidents occurring on the site will be recorded. The following information will be provided:

- ☐ Time, date, location and nature of the incident,
- ☐ Actions taken and by whom.

EMP.4 Site Cleanliness and Neatness

- ☐ Location of a construction camp is to be approved by the Engineer and is to be restored to its previous condition after completion of construction.
- ☐ The construction camp should preferably be fenced with a 1.8m bonnox fence or similar approved.
- ☐ All materials, equipment, plant and vehicles must be stored within the construction camp.
- ☐ A dedicated area must be made available for construction staff to change and store their personal belongings.

EMP.5 Access

- ☐ Access to existing roads, schools, buildings, shops and residential properties must not be impeded during construction.
- ☐ Access roads utilised by the Contractor must be maintained in good condition.

EMP.6 Borrow Pits

- ☐ Mining authorizations (permits) for borrow pits must be obtained from the Department of Minerals and Energy (DME) in consultation with the Department of Water Affairs and Forestry (DWAF).
- ☐ Spoil dumps resulting from borrow pits must not interfere with any natural surface drainage.
- ☐ Borrow pits must be rehabilitated after use in accordance with the requirements of DME and DWAF.
- ☐ Borrow pits will be fenced and the necessary warning signs will be erected.

EMP.7 Dust Control / Air Quality

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- ☐ Dust suppression measures must be implemented during construction by ensuring that all surfaces prone to dust generation are kept damp (e.g. use of water tanker).
- ☐ Ensure that vehicles and equipment are in good working conditions and that emissions are not excessive.
- ☐
- ☐ Ensure that vehicles and equipment are in good working conditions and that emissions are not excessive.
- ☐ Special care must be taken in areas where the route passes close to schools and residential areas.
- ☐ The speed of construction vehicles must be reduced.

EMP.8 Fauna

- ☐ Contractor staff may not chase, catch or kill animals encountered during construction.

EMP.9 Fire Prevention and Control

- ☐ Smoking is prohibited in the vicinity of flammable substances.
- ☐ The contractor must ensure that fire-fighting equipment is available on site, particularly where flammable substances are being stored or used, and that construction staff are aware of where it is kept and how it is operated.
- ☐ Fires started for comfort (warmth) are prohibited, due to the risk of veld fires and risk to adjacent property owner's lands.

EMP.10 Grave Sites

- ☐ Gravesites in close proximity to the road must not be disturbed during construction.

EMP.11 Materials Handling and Spills Management

- ☐ Any hazardous materials to be used during construction (e.g. lime, fuel, paint, etc) are to be stored in a designated area at the campsite.
- ☐ The storage containers/facilities (including any diesel/petrol tanks) must be placed on an impermeable surface and surrounded by a bund wall, in order to ensure that accidental spillage does not pollute the environment.
- ☐ Workers must at all times be made aware of the health and safety risks associated with any hazardous substances used (e.g. smoking near fuel tanks), and must be provided with appropriate protective clothing/equipment in case of spillages or accidents.
- ☐ Ensure all staff and contractors undergo relevant training in the maintenance of equipment to prevent the accidental discharge or spill of fuel, oil, lubricants and other chemicals.
- ☐ Any spill of potentially hazardous materials must be cleaned up immediately (Potentially hazardous materials on site include paint, oil, grease, fuel, turpentine, etc).

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- ☐ The area of contaminated soil or spill must be deposited into the hazardous waste container(s).
- ☐ The contractor should keep Peat, Sorb or a similar absorbent on site to clean up any spills. The absorbent must be stored in a designated area and be available for inspection.
- ☐ All spills are to be recorded in the environmental incident book.

EMP.12 Noise

- ☐ Noise generating activities must be restricted to between 07:00 and 17:00 Wednesday to Friday, unless otherwise approved by the appropriate competent person in consultation with adjacent landowners/affected persons.
- ☐ All equipment, vehicles and machinery must be in good working condition and be equipped with sound mufflers if necessary.
- ☐ Construction staff must be trained and made aware of not creating unnecessary noise such as hooting and shouting.

EMP.13 Pollution Control

- ☐ Soil and water pollution through usage of fuel, oil, paint, bitumen or other hazardous substances must be avoided.
- ☐ All construction vehicles are to be maintained in good working order so as to prevent soil or water pollution from oil, fuel or other leaks, and to reduce noise pollution.

EMP.14 Rivers and Streams

- ☐ During construction of bridge structures, there must be no obstruction of the water flow of rivers and streams.
- ☐ Excavated material must not be stockpiled on or near riverbanks, in order to prevent sedimentation occurring.
- ☐ Erosion control measures must be employed both during and after construction.
- ☐ No impediments to natural surface water flow, other than approved erosion control measures, must occur.

EMP.15 Safety

- ☐ Safety measures, such as detour signs, must be implemented during construction to ensure the safety of workers, pedestrians and drivers/passengers in vehicles in the vicinity of construction work.
- ☐ Special care must be taken in the vicinity of schools to ensure the safety of children wishing to cross the road under construction.
- ☐ The relevant signage (e.g. speed control signs) must be erected alongside the road during the operation phase in order to control traffic.

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- ☐ Accommodation must be made for pedestrian pathways alongside the road during the construction and operation phases.

EMP.16 Soil Management

- ☐ Stormwater drainage pipes must be installed alongside the road in all areas susceptible to soil erosion.
- ☐ Erosion should be minimized by the construction of meadow drains and the planting of indigenous vegetation on the side slopes and drains to reduce flow velocity of stormwater.
- ☐ Spoil from cuts may be used in existing erosion galleys.
- ☐ Stone pitching and gabions should be constructed at pipe culvert outlets.
- ☐ Accidental spills of contaminants onto the ground e.g. oil, concrete, fuel and chemicals should be removed together with the contaminated soil.
- ☐ If necessary an absorbent such as Peat Sorb should be used the aid in cleaning up the spill. The contaminated soil should be disposed of in an appropriate container, depending on its classification.
- ☐ Servicing and re-fuelling of vehicles must only be carried out at construction camp.

EMP.17 Worker Conduct

Code of Conduct for Construction Personnel:

- ☐ Do not leave the construction site untidy and strewn with rubbish which will attract animal pests.
- ☐ Do not set fires.
- ☐ Do not cause any unnecessary, disturbing noise at the construction camp/site or at any designated worker collection/drop off points.
- ☐ Do not drive a construction-related vehicle under the influence of alcohol.
- ☐ Do not exceed the national speed limits on public roads or exceed the recommended speed limits on the site.
- ☐ Do not drive a vehicle which is generating excessive noise or gaseous pollution (noisy vehicles must be reported and repaired as soon as possible).
- ☐ Do not litter along the roadsides, including both the public and private roads.
- ☐ Do not pollute any water bodies (whether flowing or not).
- ☐ No member of the construction team is allowed to enter the areas outside the construction site.

EMP.18 Traffic Disturbances and Diversions

- ☐ Any traffic diversions must be undertaken with the approval of all relevant authorities and in accordance with all relevant legislation.
- ☐ Wherever possible, traffic diversion must only take place on existing disturbed areas and remain within the existing road reserve.
- ☐ Traffic diversion routes must be rehabilitated after use.

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EMP.19 Vegetation

- ☐ Only vegetation falling directly on the route must be removed where necessary.
- ☐ Alien vegetation within the road reserve must be eradicated, and management measures must be implemented for future control of these species.
- ☐ Vegetation that has been removed from large areas (e.g. on traffic diversion routes) during construction must be replaced with indigenous vegetation after construction has been completed.

EMP.20 Waste Management

- ☐ All general, non-hazardous waste must be placed in a skip container and disposed of at a registered waste disposal site.
- ☐ The contractor is to ensure that the portable toilet facilities at the campsite are properly maintained and in working order.
- ☐ No disposal, or leakage, of sewage must occur on or near the site.
- ☐ All hazardous waste (e.g. oil, paint, empty lime bags, contaminated wash water, etc) must be stored in leak proof containers and disposed of at a registered hazardous waste disposal site.
- ☐ The contents of waste storage containers must, under no circumstances, be emptied to the surrounding area. In general, littering, discarding or burying of any materials is not allowed on site or along the route.
- ☐ Adequate waste receptacles must be available at strategic points around the construction camp and site for all domestic refuse and to minimize the occurrence of littering.
- ☐ Concrete rubble must be collected and disposed of as directed by the Project Manager.
- ☐ Each working area must be cleared of litter and building waste (e.g. rubble, wood, concrete packets etc) on completion of the day's work.
- ☐ Any spill around the container(s) should be treated as per Section EMP11 and EMP16.

SECTION DWK: DAY WORKS

This part of the Project Specifications deals with the provision for Day works in the Schedule of Quantities. Rates for Day works shall be entered in Section 1800 of the Schedule of Quantities in accordance with the following specifications.

DWK. 1 SCOPE

According to clause 37.2 of the General Conditions of Contract for construction works (GCC) 2015 3rd edition, certain work may be carried out using rates tendered in the day work schedule. A schedule of personnel, plant and equipment which may be necessary to perform work on a day work basis is included in the schedule of quantities. The quantities used in the schedule are

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for tender evaluation purposes only and the use or not of these items shall not constitute a variation in terms of Clause 37 of the General Conditions of Contract 2015 3rd edition.

No work will be paid for as Day works without the written instruction or approval of the Engineer.

DWK. 2 TYPE OF WORK

The Engineer may order day work in certain cases where it is necessary to vary or to extend the works due to new or unforeseen circumstances to such an extent that the tendered rates for specific items of work are no longer applicable, or where no suitable combination of tendered rates can be used to pay for such work.

As a general rule, applicable rates for additional work items will be agreed between the Contractor and the Engineer. Day works will only be used in exceptional circumstances.

DWK. 3 MATERIALS

Materials for use in works carried out under Day work shall be purchased by the Contractor who shall also arrange for delivery to site, and shall be responsible for any other requirements associated with specific materials. A Provisional Sum has been allowed in Section 1800 for Day work materials. The Contractor shall enter a tendered percentage in the schedule to cover his handling costs and profit, as per other provisional and prime cost sums in this Contract.

Materials shall be paid for using the method described in the Pricing Data. No contract price adjustment will be applicable to materials.

The Contractor shall submit proof of ownership for any materials used in Day works with his day works claim to the Engineer. Further, if specific materials are required for Day works, quotations will be called for as per Clause 37.2.4 of the General Conditions of Contract 2015 3rd edition.

DWK. 4 CONSTRUCTION PLANT HIRE

Where daywork is ordered, the tendered rates for plant hire in Section 1800 shall be used in calculating the payment due for any plant required to execute the daywork. If no rate is included in the schedule for a particular piece of equipment, and where no other rate or combination of rates would provide suitable compensation, then the daywork method of payment described in Clause 37.2.3 of the General Conditions of Contract 2015 3rd edition will be used.

The tendered rates for each item of constructional plant shall include for all operating costs associated with the said item of plant. Such costs are deemed to include fuel, re-fuelling costs, lubrication and routine servicing / maintenance, breakdowns and spares, all overhead costs, site management costs and administration costs. The tendered rates shall also include the plant operator and the general supervision of the plant while it is engaged in the day works.

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DWK. 5 SALARIES AND WAGES OF WORKMEN

The salaries and wages of workmen executing daywork shall be paid for using the tendered rates in Section 1800. The tendered rates shall include for all costs associated with the employment of personnel, including salaries, wages, allowances, workmen's compensation, medical aid and pension contributions, government levies and taxes, training costs and any costs associated with living on the site. The tendered rates shall also include for the transportation of the workmen to the site of the day works.

All overhead costs, administration costs, site management costs and the Contractor's profit are deemed to be covered by the DAY WORKS rates and no additions or mark ups will be made to the tendered rates.

The tendered rates shall also include any hand tools normally associated with the workmen's job description e.g. picks, shovels, hammers, saws, spirit levels, etc. The tendered rate for labourers shall also include for the casual supervision by a gang boss or foreman. Only when specifically called for by the Engineer, will payment be made for the use of a gang boss or foreman supervising on a continuous basis.

DWK. 6 MEASUREMENT AND PAYMENT

The following principles shall also apply to the measurement and payment of day works.

The unit of measurement for plant shall be the number of vibroclock hours worked and each item of plant shall be fitted with a vibroclock, the cost of which shall be included in the rates. Excessive non-productive time when the engine is idling will not be paid for. Where there is ambiguity between the flywheel horsepower and mass of the machine, the flywheel horsepower shall govern the measurement category. Where width and mass are specified, mass shall govern the measurement category.

The Contractor's attention is drawn to the requirements of Sub-clauses 37.2.5 and 37.2.6 of the General Condition of Contract 2015 3rd edition with regard to the submission of day works claims.

SECTION OHS : OHS 1993 HEALTH AND SAFETY SPECIFICATION

OHS.1 SCOPE

This specification covers the health and safety requirements to be met by the Contractor to ensure a continued safe and healthy environment for all workers, employees and sub-contractors under his control and for all other persons entering the site of works.

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This specification shall be read with the Occupational Health and Safety Act (Act No 85 and amendment Act No 181) 1993, and the corresponding Construction Regulations 2014, and all other safety codes and specifications referred to in the said Construction Regulations.

In terms of the OHS Agreement in Section C1.2.4 of the Contract document, the status of the Contractor as mandatory to the Employer (client) is that of an employer in his own right, responsible to comply with all provisions of OHS 1993 and the Construction Regulations 2014.

This safety specification and the Contractor's own Safety Plan as well as the Construction Regulations 2014, shall be displayed on site or made available for inspection by all workers, employees, inspectors and any other persons entering the site of works.

The following are possible risks associated with this project:

- ☐ Working high above the ground on top and below the bridge, most of the time in a restricted environment with limited landings (working platforms)
- ☐ Working above a continuously flowing river and in an flood plain environment subject to flooding
- ☐ Lifting and lowering of materials and equipment from the ground to the bridge and vice versa, exposed to cross winds
- ☐ Steep and restricted access to the lower flood plain below the bridge
- ☐ Potentially dangerous existing services, i.e. gas lines, water and sewerage mains, electrical high voltage cables, on the bridge, buried and overhead
- ☐ Deep excavations in soils requiring shoring or reducing of slopes
- ☐ Blasting of hard rock or demolition of concrete
- ☐ High pressure during testing of the relocated pipe lines, which could result in potentially dangerous situations in the event of the pipeline or fittings failing
- ☐ Potentially harmful gasses when tying into the existing sewer mains
- ☐ Movement of construction vehicles on site, taking into consideration steep slopes, other traffic and existing services
- ☐ Exposure to possible injuries due to mishandling or failure of power and hand tools
- ☐ Falling debris, tools and materials from bridge
- ☐ Non-conformance to specifications with regards to fasteners and materials
- ☐ Risks related to general safety and security on site

Additional risks may arise from specific methods of construction selected by the Contractor which are not necessary covered in the above.

OHS.2 DEFINITIONS

For the purpose of this contract the following shall apply:

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(a) "Employer" where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract and it shall have the exact same meaning as "client" as defined in the Construction Regulations 2014. "Employer" and "client" is therefore interchangeable and shall be read in the context of the relevant document.

(b) "Contractor" wherever used in the contract documents and in this specification, shall have the same meaning as "Contractor" as defined in the General Conditions of Contract.

In this specification the terms "principal contractor" and "contractor" are replaced with "Contractor" and "subcontractor" respectively.

For the purpose of this contract the Contractor will, in terms of OHSA 1993, be the mandatory, without derogating from his status as an employer in his own right.

(c) "Engineer" where used in this specification, means the Engineer as defined in the General Conditions of Contract. In terms of the Construction Regulations the Engineer may act as agent on behalf of the Employer (the client as defined in the Construction Regulations).

OHS.3 TENDERS

The Contractor shall submit the following with his tender:

(a) a documented Health and Safety Plan as stipulated in Regulation 7 of the Construction Regulations. The Safety Plan must be based on the Construction Regulations 2014 and will be subject to approval by the Employer;

(b) a declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Construction Regulations 2014;

(c) a declaration to the effect that he made provision in his tender for the cost of the health and safety measures envisaged in the Construction Regulations.

(d) Failure to submit the foregoing with his tender, will lead to the conclusion that the Contractor will not be able to carry out the work under the contract safely in accordance with the Construction Regulations.

OHS.4 NOTIFICATION OF COMMENCEMENT OF CONSTRUCTION WORK

After award of the contract, but before commencement of construction work, the Contractor shall, in terms of Regulation 4, notify the Provincial Director of the Department of Labour in writing if the following work is involved:

(a) the demolition of structures and dismantling of fixed plant of height of 3,0m or more;

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- (b) the use of explosives;
- (c) construction work that will exceed 30 days or 300 person-days;
- (e) excavation work deeper than 1,0m; or
- (f) working at a height greater than 3,0m above ground or landings.

The notification must be done in the form of the pro forma included under Section 9 (Forms to be Completed by Successful Tenderer) of the tender document.

A copy of the notification form must be kept on site, available for inspection by inspectors, Employer, Engineer, employees and persons on site.

OHS.5 RISK ASSESSMENT

Before commencement of any construction work during the construction period, the Contractor shall have a risk assessment performed and recorded in writing by a competent person. (Refer Regulation 9 of the Construction Regulations 2014).

The risk assessment shall identify and evaluate the risks and hazards that may be expected during the execution of the work under the contract, and it shall include a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified.

The risk assessment shall be available on site for inspection by inspectors, Employer, Engineer, sub-contractors, employees, trade unions and health and safety committee members, and must be monitored and reviewed periodically by the Contractor.

OHS.6 APPOINTMENT OF EMPLOYEES AND SUB-CONTRACTORS

6.1 Health and Safety plan

The Contractor shall appoint his employees and any sub-contractors to be employed on the contract, in writing, and he shall provide them with a copy of his documented Health and Safety Plan, or relevant sections thereof. The Contractor shall ensure that all sub-contractors and employees are committed to the implementation of his Safety Plan.

6.2 Health and safety induction training

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The Contractor shall ensure that all employees under his control, including sub-contractors and their employees, undergo a health and safety induction training course by a competent person before commencement of construction work. No visitor or other person shall be allowed or permitted to enter the site of the works unless such person has undergone health and safety training pertaining to hazards prevalent on site.

The Contractor shall ensure that every employee on site shall at all times be in possession of proof of the health and safety induction training issued by a competent person prior to commencement of construction work.

OHS.7 APPOINTMENT OF SAFETY PERSONNEL

7.1 Construction Supervisor

The Contractor shall appoint a full-time Construction Supervisor with the duty of supervising the performance of the construction work.

He may also have to appoint one or more competent employees to assist the construction supervisor where justified by the scope and complexity of the works.

7.2 Construction safety officer

Taking into consideration the size of the project and the hazards or dangers that can be expected, the Contractor shall appoint in writing a full-time or part-time Construction Safety Officer if so decided by the Inspector of the Department of Labour. The Safety Officer shall have the necessary competence and resources to perform his duties diligently.

Provision shall be made by the Contractor in his rates, to cover the cost of this dedicated construction safety officer appointed after award of the contract.

7.3 Health and safety representatives

In terms of Section 17 and 18 of the Act (OHSA 1993) the Contractor, being the employer in terms of the Act for the execution of the contract, shall appoint a health and safety representative whenever he has more than 20 employees in his employment on the site of the works. The health and safety representative must be selected from employees who are employed in a full-time capacity at a specific workplace.

The number of health and safety representatives for a workplace shall be at least one for every 100 employees.

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The function of health and safety representative(s) will be to review the effectiveness of health and safety measures, to identify potential hazards and major incidents, to examine causes of incidents (in collaboration with his employer, the Contractor), to investigate complaints by employees relating to health and safety at work, to make representations to the employer (Contractor) or inspector on general matters affecting the health and safety of employees, to inspect the workplace, plant, machinery etc. on a regular base, to participate in consultations with inspectors and to attend meetings of the health and safety committee.

7.4 Health and safety committee

In terms of Sections 17 and 18 of the Act (OHSA 1993) the Contractor (as employer), shall establish one or more health and safety committee(s) where there are two or more health and safety representatives at a workplace. The persons selected by the Contractor to serve on the committee shall be designated in writing.

The function of the health and safety committee shall be to hold meetings at regular intervals, but at least once every three months, to review the health and safety measures on the contract, to discuss incidents related to health and safety with the Contractor and the inspector, and to make recommendations regarding health and safety to the Contractor and to keep record of recommendations and reports made by the committee.

7.5 Competent persons

In accordance with the Construction Regulations the Contractor has to appoint in writing competent persons responsible for supervising construction work on each of the following work situations that may be expected on the site of the works.

- (a) Risk assessment and induction training as described in Regulation 9 of the Construction Regulations;
- (b) Fall protection as described in Regulation 10;
- (c) Excavation work as described in Regulation 13;
- (d) Demolition work as described in Regulation 14;
- (e) Scaffolding work as described in Regulation 16;
- (f) Suspended platform operations as described in Regulation 17;
- (g) Material hoists as described in Regulation 19;
- (h) Bulk Mixing plant operations as described in Regulation 20;
- (i) Explosive actuated fastening device as described in Regulation 21;
- (j) Cranes as described in Regulation 22;
- (k) Construction vehicle and mobile plant inspections on a daily basis by a competent person as described in Regulation 23(1);

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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- (l) Control of all temporary electrical installation on the construction site as described in Regulation 24;
- (m) Stacking and storage on construction sites as described in Regulation 28; and
- (n) Fire precautions on construction sites as described in Regulation 29.

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to supervise at the same time the construction work on all the work situations for which he has been appointed.

The appointment of competent persons to supervise parts of the construction work does not relieve the Contractor from any of his responsibilities to comply with all requirements of the Construction Regulations.

OHS.8 RECORDS AND REGISTERS

In accordance with the Construction Regulations the Contractor is bound to keep records and registers related to health and safety on site for periodic inspection by inspectors, the Engineer, the Employer, trade union officials and sub-contractors and employees. The following records and registers must be kept on site and shall be available for inspection at all times.

- (a) A copy of the OHSA 1993 Construction Regulations 2014;
- (b) A copy of this Health and Safety Specification;
- (c) A copy of the Contractor's Health and Safety Plan (Regulation 7);
- (d) A copy of the Notification of Construction Work (Regulation 4);
- (e) A health and safety file in terms of Regulation 7(1b) with inputs by the Construction Safety Officer (Regulation 8(5));
- (f) A copy of the risk assessment described in Regulation 9;
- (g) A full protection plan and the corresponding records of evaluation and training of employees working from elevated positions as described in Regulation 10;
- (h) Drawings pertaining to the design of structures (Regulation 11(1c)) and temporary works (Regulation 10) must be kept on site;
- (i) Pronouncement of the safety of excavations must be recorded in a register to be kept on site (Regulation 13(2)(h));
- (j) A copy of the certificate of the system design for suspended platforms (Regulation 17(3));
- (k) A notice must be affixed around the base towers of material hoists to indicate the maximum mass load, which may be carried at any one time by material hoists (Regulation 11(2));
- (l) Maintenance records of material hoists and inspection results must be kept in a record book to be kept on site (Regulation 19(8));
- (m) A record of any repairs to or maintenance of a batch plant must be kept on site (Regulations 19(8));
- (n) A warning notice must be displayed in a conspicuous manner when and wherever an explosive powered tool is used (Regulation 21(2));

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(o) A register for recording of findings by the competent person appointed to inspect construction vehicles and mobile plant (Regulation 23(1) (k)).

OHS.9 CONTRACTORS RESPONSIBILITIES

For this contract the Contractor will be the mandatory of the Employer (Client), as defined in the Act (OHSA 1993), which means that the Contractor has the status of employer in his own right in respect of the contract. The Contractor is therefore responsible for all the duties and obligations of an employer as set out in the Act (OHSA 1993) and the Construction Regulations 2014.

Before commencement of work under the contract, the Contractor shall enter into an agreement with the Employer (Client) to confirm his status as mandatory (employer) for the contract under consideration.

The Contractor's duties and responsibilities are clearly set out in the Construction Regulations 2014, and are not repeated in detail but some important aspects are highlighted hereafter, without relieving the Contractor of any of his duties and responsibilities in terms of the Construction Regulations.

(a) Contractor's position in relation to the Employer (Client) (Regulation 5)

In accordance with Section 4 of the Regulations, the Contractor shall liaise closely with the Employer or the Engineer on behalf of the Employer, to ensure that all requirements of the Act and the Regulations are met and complied with.

(b) The Principal Contractor and Contractor (Regulation 7)

The Contractor is in terms of the definition in Regulation 2(b) the equivalent of Principle Contractor as defined in the Construction Regulations, and he shall comply with all the provisions of Regulation 7.

Any sub-contractors employed by the Contractor must be appointed in writing, setting out the terms of the appointment in respect of health and safety. An independent subcontractor shall however provide and demonstrate to the Contractor a suitable, acceptable and sufficiently documented health and safety plan before commencement of the subcontract. In the absence of such a health and safety plan the subcontractor shall undertake in writing that he will comply with the Contractor's safety plan, the health and safety specifications of the Employer and the Construction Regulations 2014.

(c) Management Supervision of construction work (Regulation 8)

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The Contractor shall appoint the safety and other personnel and employees as required in terms of Regulation 8 and as set out in paragraph 7 above. Appointment of those personnel and employees does not relieve the Contractor from any of the obligations under Regulation 8.

(d) Risk assessment for construction works (Regulation 9)

The Contractor shall have the risk assessment made as set out in paragraph 3 above before commencement of the work and it must be available on site for inspection at all times. The Contractor shall consult with the health and safety committee or health and safety representative(s) etc. on a regular basis to ensure that all employees, including sub-contractors under his control, are informed and trained by a competent person regarding health hazards and related work procedures.

No subcontractor, employee or visitor shall be allowed to enter the site of works without prior health and safety induction training, all as specified in Regulation 9.

(e) Fall protection (Regulation 10)

Fall protection, if applicable to this contract shall comply in all respects with Regulation 10 of the Construction Regulations.

(f) Structures (Regulation 11)

The Contractor will be liable for all claims arising from collapse or failure of structures if he failed to comply with all the specifications, project specifications and drawings related to the structures, unless it can be proved that such collapse or failure can be attributed to faulty design or insufficient design standards on which the specifications and the drawings are based. In addition the Contractor shall comply with all aspects of Regulation 11 of the Construction Regulations.

(g) Temporary works (Regulation 12)

The Contractor will be responsible for the adequate design of all formwork and support structures by a competent person.

All drawings pertaining to formwork shall be kept on site and all equipment and materials used in formwork, shall be carefully examined and checked for suitability by a competent person.

The provisions of Regulation 12 of the Construction Regulations shall be followed in every detail.

(h) Excavation (Regulation 13)

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It is essential that the Contractor shall follow the instructions and precautions in the Standard Specifications and Project Specifications as well as the provisions of the Construction Regulations to the letter as unsafe excavations can be a major hazard on any construction site. The Contractor shall therefore ensure that all excavation work is carried out under the supervision of a competent person, that inspections are carried out by a Professional Engineer or Technologist, and that all work is done in such a manner that no hazards are created by unsafe excavations and working conditions.

Supervision by a competent person will not relieve the Contractor from any of his duties and responsibilities under Regulation 13 of the Construction Regulations.

(i) Demolition work (Regulation 14)

Whenever demolition work is included in a contract, the Contractor shall comply with all the requirements of Regulation 14 of the Construction Regulations. The fact that a competent person has to be appointed by the Contractor does not relieve the Contractor from any of his responsibilities in respect of safety of demolition work.

(j) Tunneling (Regulation 15)

The Contractor shall comply with Regulation 15 wherever tunneling of any kind is involved.

(k) Scaffolding (Regulation 16)

The Contractor shall ensure that all the provisions of Regulation 16 of the Construction Regulations are complied with. [Note: Reference in the Regulations to "Section 44 of the Act" should read "Section 43 of the Act"].

(l) Suspended platforms (Regulation 17)

Wherever suspended platforms will be necessary on any contract, the Contractor shall ensure that copies of the system design issued by a Professional Engineer are submitted to the Engineer for inspection and approval. The Contractor shall appoint competent persons as supervisors and competent scaffold erectors, operators and inspectors and ensure that all work related to suspended platforms are done in accordance with Regulation 17 of the Construction Regulations.

(m) Rope Access (Regulation 18)

Where rope access are required on the construction site, the Contractor shall comply with Regulation 18.

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(n) Material Hoists (Regulation 19)

Wherever applicable, the Contractor shall comply with the provisions of Regulation 19 to the letter.

(o) Bulk Mixing plants (Regulation 20)

Wherever applicable, the Contractor shall ensure that all lifting machines, lifting tackle, conveyors, etc. used in the operation of a batch plant shall comply with, and that all operators, supervisors and employees are strictly held to the provisions of Regulation 20. The Contractor shall ensure that the General Safety Regulations (Government Notice R1031 of 30 May 1986), the Driven Machinery Regulations (Government Notice R295 of 26/2/1988) and the Electrical Installation Regulations (Government Notice R2271 of 11/10/1995) are adhered to by all involved.

In terms of the Regulations, records of repairs and maintenance shall be kept on site.

(p) Explosive actuated fastening devices (Regulation 21)

The Contractor shall ensure that, wherever explosive-powered tools are required to be used, all safety provisions of Regulation 21 are complied with.

It is especially important that warning notices are displayed and that the issue and return of cartridges and spent cartridges be recorded in a register to be kept on site.

(q) Cranes (Regulation 22)

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 22 shall be complied with.

(r) Construction vehicles And mobile plant (Regulation 23)

The Contractor shall ensure that all construction vehicles and plant are in good working condition and safe for use, and that they are used in accordance with their design and intended use. The vehicles and plant shall only be operated by workers or operators who have received appropriate training, all in accordance with all the requirements of Regulation 23.

All vehicles and plant must be inspected on a daily basis, prior to use, by a competent person and the findings must be recorded in a register to be kept on site.

(s) Electrical installation and machinery on construction sites (Regulation 24)

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The Contractor shall comply with the Electrical Installation Regulations (Government Notice R2920 of 23 October 1992) and the Electrical Machinery Regulations (Government Notice R1953 of 12 August 1993). Before commencement of construction, the Contractor shall take adequate steps to ascertain the presence of, and guard against dangers and hazards due to electrical cables and apparatus under, over or on the site.

All temporary electrical installations on the site shall be under the control of a competent person, without relieving the Contractor of his responsibility for the health and safety of all workers and persons on site in terms of Regulation 24.

(t) Use of temporary storage of flammable liquids on construction sites (Regulation 25)

The Contractor shall comply with the provisions of the General Safety Regulations (Government Notice R1031 of 30 May 1986) and all the provisions of Regulation 25 of the Construction Regulations to ensure a safe and hazard-free environment to all workers and other persons on site.

(u) Water environments (Regulation 26)

Where construction work is done over or in close proximity to water, the provisions of Regulation 26 shall apply.

(v) Housekeeping and general safeguarding on construction sites (Regulation 27)

Housekeeping on all construction sites shall be in accordance with the provisions of the environment Regulations for workplaces (Government Notice R2281 of 16 October 1987) and all the provisions of Regulation 27 of the Construction Regulations.

(w) Stacking and storage on construction sites (Regulation 28)

The provisions for the stacking of articles contained in the General Safety Regulations (Government Notice R1031 of 30 May 1986) as well as all the provisions Regulation 28 of the Construction Regulations shall apply.

(x) Fire precautions on construction sites (Regulation 29)

The provisions of the Environmental Regulations for Workplaces (Government Notice R2281 of 16 October 1987) shall apply.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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In addition, the necessary precautions shall be taken to prevent the incidence of fires, to provide adequate and sufficient fire protection equipment, sirens, escape routes etc. all in accordance with Regulation 29 of the Construction Regulations.

(y) Construction welfare facilities (Regulation 30)

The Contractor shall comply with the construction site provisions as in the Facilities Regulations (Government Notice R1593 of 12 August 1988) and the provisions of Regulation 30 of the Construction Regulations.

(z) Non-compliance with the Construction Regulations 2014

The foregoing is a summary of parts of the Construction Regulations applicable to all construction projects.

The Contractor, as employer for the execution of the contract, shall ensure that all provisions of the Construction Regulations applicable to the contract under consideration are complied with to the letter.

Should the Contractor fail to comply with the provisions of the Regulations 4 to 30 as listed in Regulation 33, he will be guilty of an offence and will be liable, upon conviction, to the fines or imprisonment as set out in Regulation 33.

The Contractor is advised in his own interest to make a careful study of the Act and the Construction Regulations as ignorance of the Act and the Regulations will not be accepted in any proceedings related to non-conformance to the Act and the Regulations.

OHS.10 MEASUREMENT AND PAYMENT

10.1 Principles

It is a condition of this contract that Contractors, who submit tenders for this contract, shall make provision in their tenders for the cost of all health and safety measures during the construction process. All associated activities and expenditure are deemed to be included in the Contractor's tendered rates and prices.

(a) Safety personnel

The Construction Supervisor, the Construction Safety Officer, Health and Safety Representatives, Health and Safety Committee and Competent Persons referred to in clauses

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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9.1 to 9.5 shall be members of the Contractor's personnel, and no additional payment will be made for the appointment of such safety personnel.

(b) Records and Registers

The keeping of health and safety-related records and registers as described in 8 is regarded as a normal duty of the Contractor for which no additional payment will be considered, and which is deemed to be included in the Contractor's tendered rates and prices.

SECTION PCB FENCING

PARTICULAR SPECIFICATION PCB: FENCING

CONTENTS

- PCB-1: SCOPE
- PCB-2: MATERIALS
- PCB-3: CONSTRUCTION
- PCB-4: MEASUREMENT AND PAYMENT

PARTICULAR SPECIFICATION PCB: FENCING

PCB-1 SCOPE

This Specification covers the moving of existing fences where necessary, the erection of new fences, the dismantling of existing fences and the stacking of the fencing material, and the replacing or repair of existing fences where so indicated on the drawings or as directed by the Engineer. Any deviation from this Specification will be included in the Project Specifications.

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PCB 2 MATERIALS

PCB 2.1 Posts

Posts, stays, standards and droppers shall comply with the requirements of the following standard specifications:

SANS 280: Hole Location in Fencing Posts and droppers.

SANS 457: Wooden Poles, Droppers, Guardrail Posts and Spacer Blocks
(Parts 1, 2 and 3)

SANS 1372: Prefabricated Concrete Components for Fences

CKS 82: Steel Posts, Stays, Standards, and Droppers for Strained Wire Fences.

Posts shall include gate posts, straining posts, corner posts and end posts, and shall be of the types and sizes as indicated on the drawings and as scheduled in the schedule of quantities.

Standards of 3,0 kg/m I-section or 2,5 kg/m Y-section as manufactured by Iscor will also be acceptable.

Droppers shall be 0,56 kg/m ridgeback-pattern droppers.

Unless otherwise shown on the drawings, any of the sections specified in CKS 82 for posts, standards and droppers will be acceptable except that wire droppers shall not be used. "Acceptable" shall mean "acceptable to the Engineer".

Lengths and sizes of posts, standards and droppers as well as spacing of holes shall be as shown on the drawings.

PCB 2.2 Bolts for stays

All exposed steel shall be hot-dip galvanized. Bolts shall be galvanized steel bolts of the required length and shall be at least 12 mm dia. All the necessary bolts and washers shall be supplied with each post.

PCB 2.3 Wire

All wire shall be hot-dip galvanized (class C) with a first-class zinc coating and shall comply with the requirements of SANS 675.

(a) Barbed wire shall be one of the following:

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(i) High tensile grade, 2,80 mm average dia. oval, single-strand wire for use at a height of less than 500 mm above the ground.

(ii) High tensile grade, 2,36 mm average dia. oval, single-strand wire for use at a height of more than 500 mm above the ground.

(iii) Mild steel grade, 2 x 2,50 mm dia. double-strand, unidirectional twist wire for use at any height above the ground.

Barbs shall be manufactured from 2,0 mm wire, spaced at a maximum spacing of 150 mm, with a length of at least 13 mm.

(b) Smooth wire shall be as for equivalent thicknesses of the wire specified below:

(i) Fencing wire shall be high-tensile steel wire with a minimum diameter of 2,24 mm.

(ii) Straining wire shall be mild-steel wire with a minimum diameter of 4,00 mm.

(iii) Tying wire shall be mild-steel wire with a minimum diameter of 2,50 mm for tying fencing wire to standards and droppers and 1,6 mm for tying netting and mesh wire to fencing wire.

PCB-2.4 Wire netting

Wire netting shall be fully galvanized mild-steel wire with a minimum diameter of 1,8 mm with 75 mm hexagonal mesh or as specified and shown on the drawings. The width shall be as shown on the drawings.

PCB-2.5 Diamond mesh

Diamond mesh (chain link fencing) shall comply with the requirements of SANS 1373. The width shall be as shown on the drawings and the edge finish shall be both sides clinched or barbed (diamond mesh details shown if necessary).

The nominal diameter of the wire shall be 2,5 mm and the mesh size shall be 64 mm x 64 mm. The wire shall be medium galvanized.

PCB-2.6 Welded wire mesh

The nominal diameter of the wire shall be 2,5 mm and the mesh size shall be 50 mm square.

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The wire shall be galvanized (as specified for wire.)

PCB-2.7 Razor Wire

(a) Razor wire concertina

Razor wire concertina is supplied in rolls of diameter of 200 mm up to 980 mm to be installed in lengths of respectively 8 m to 15 m. Coil diameter, installed lengths, number of spiral turns per coil, mass of coils, number of clips per spiral and coil diameter when stretched shall be as specified in the project specifications or in the schedule of quantities.

The wire shall be 2,5 mm diameter 1500 MPa high tensile steel wire.

The blades shall be 19 mm wide (before crimping), 20 mm to 25 mm long spaced at 15 mm between the ends of the blades (or maximum 40 mm centres).

Clips shall be heavy-duty steel clips 10 mm wide and 2,5 mm thick with dovetail joints.

Galvanising of all the components shall comply with SANS 763.

(b) Razor wire flatwrap coils

Flatwrap is fabricated from a high-tensile razor wire clipped into a flat panel formation. Razor wire flat wrap coils are supplied in rolled-up coils of heights from 500 mm to 900 mm in lengths of 15 m. The heights, length and mass of coils shall be as specified in the project specifications or in the schedule of quantities.

The wire, blades and clips shall be as for razor wire concertinas as specified above.

(c) Welded razor mesh

Razor mesh is made of barbed tape razor wire welded into diamond-patterned apertures. The razor mesh is supplied in 6 m lengths with heights of 1,23 m to 2,4 m as specified in the schedule of quantities.

The aperture size shall be 150 mm wide and 300 mm high.

The wires, blades and clips shall be as specified above for razor wire concertinas.

PCB 2.8 Gates

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Gates shall be manufactured to the dimensions shown on the drawings, and shall comply with CKS 145:Gates, Steel, with Tubular Frames (for Farm and Domestic use), unless otherwise detailed on the drawings.

Gates shall be complete in every respect including hinges, washers, bolts and locking chain to make it operative and shall be hot-dip galvanized.

PCB 3 CONSTRUCTION

PCB 3.1 Clearing fence line

The fence line shall be cleared over a width of at least 1 m on each side of the centre line of the fence as agreed with the Engineer prior to clearing, and surface irregularities shall be graded so that the fence will follow the general contour of the ground. Clearing shall include the removal of all scrub, stumps, trees, rock and other obstructions which will interfere with proper construction of the fence. Stumps within the cleared space shall be grubbed. No trees may be removed without the written instruction of the Engineer. The bottom of the fence shall be located a uniform distance above the ground line in accordance with the requirements shown on the drawings. All material resulting from clearing operations shall be removed from the site to authorised dumping areas.

PCB-3.2 Dismantling and removal of existing fences

Where so directed by the Engineer existing fences and gates shall be dismantled and removed from the site. Existing fences dismantled shall not be moved and re-erected elsewhere on the site unless so instructed by the Engineer.

PCB 3.3 Installing posts and standards

All posts and standards shall be firmly planted into the natural ground, be it soil, gravel or rock, at such spacing as shown on the drawings.

The lengths of all posts above ground shall be such that the correct clearance between the lowest wire and the ground can be maintained.

Straining posts shall be erected at all ends and corners or bends in the line of the fence and at all junctions with other fences, provided that straining posts shall not be spaced further apart than shown on the drawings.

Spacing of standards shall not be more than that shown on the drawings, provided that the spacing of standards between any two straining posts shall be uniform.

All posts, stays and standards consisting of wooden poles, pipes, rolled steel, angle sections or rail sections shall be set in dug holes and provided with concrete bases. Holes shall be dug to

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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the full specified depth, even in rock where blasting may prove necessary to obtain the required depth.

Unless otherwise shown on the drawings, the horizontal dimensions of grade 20 MPa/19 mm concrete bases shall be 0,5 m by 0,5 m while the concrete base shall extend at least 600 mm from the ground surface down, to 75 mm above the bottom of the post. Excavations for concrete bases shall be accurate and the whole excavation shall be refilled with concrete, unless otherwise authorised by the Engineer.

Standards consisting of I-section, bulb-T, bell or Y-profile shall either be driven, or set in holes drilled into rock. The holes shall be of such size that a tight fit is obtained. When standards are driven, care shall be exercised to prevent damaging or buckling of standards. Damaged standards shall be replaced at the Contractor's expense.

Corner, end, gate and straining posts shall be braced by means of stays as shown on the drawings or as directed by the Engineer. Pipe stays shall be bolted to the posts. Gate posts shall not be used as straining posts, but at each gate post a straining post shall be placed 2 m away from the gate post and stayed to the bottom of the gate post.

All posts and standards shall be accurately aligned and set plumb. Where veranda-type security fencing is used the posts shall be planted with the overhang on the side of the Employer's property or as directed by the Engineer. After posts and standards have been firmly set in accordance with the foregoing requirements, the fence wire shall be attached thereto at the spacings shown on the drawings.

PCB 3.4 Installing wire

All fencing wire shall be attached to the sides of posts and standards to prevent the wire from displacing or becoming loose. The wire shall be carefully stretched and hung without sag, and with true alignment, care being exercised not to stretch the wire so tightly that it will break or that end, corner, straining, or gate posts will be pulled up.

The maximum force in fencing wire after it has been stretched between straining posts but before it has been secured to the standards shall be 0,9 kN.

All fencing wire shall be securely fastened in the correct position to each standard with soft galvanized binding wire. The binding wire for each horizontal fence wire shall pass through a hole or notch in the standard to prevent slipping of the fence wire in a vertical direction, while the ends of the wire shall be wound at least four times around the fencing wire to prevent movement in a horizontal direction.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

At end, corner, straining and gate posts the fencing wire shall be securely wrapped twice around the post from inside and secured against slipping by tying the ends tightly to each other by means of at least six snug tight twists.

In the case of high tensile wire two long windings may first be made before the six tight twists, to prevent the wire from breaking at the first twist. When using smooth wire the loose end shall preferably be bent over and hooked into the notch between the fencing wire and the first winding.

Splices in the fencing wire will be permitted if made in the following manner using a splice tool. The end of each wire at the splice shall be carried at least 75 mm past the splice tool and wrapped snugly around the other wire for not less than 6 complete turns, the two separate wire ends being turned in opposite directions. After the splice tool is removed the space left by it in the splice wire shall be closed by pulling the wire ends together. The unused ends of wire shall be cut close so as to leave a neat splice.

The gaps between gate posts and the adjacent straining posts shall be fenced off with short fencing wires.

Droppers shall be placed at intervals not exceeding those shown on the drawings, and shall be tied to each fence wire with soft binding wire in the required position as specified for standards to prevent slipping in a vertical direction. The spacing of droppers and standards between any two straining posts shall be constant. Droppers shall not stand on the ground but shall clear the ground by at least 25 mm.

PCB-3.5 Installing weld-mesh and diamond mesh

In the case of vermin proof, pedestrian and security fences, or where indicated by the Engineer, wire netting or weld-mesh shall be stretched against the fence and properly tied to the fencing wire as shown on the drawings. The weld mesh or wire netting shall be secured by means of 1,6 mm soft galvanized binding wire at 1,2 m centres along the top and bottom wire and at 2,4 m centres along each of the other fencing wires.

In the case of vermin proof fences the space between the ground surface and the bottom fencing wire shall be properly closed by means of a row of stones hand-packed tightly against each other on either side of the fence. The minimum dimension of stones used for this purpose shall be 200 mm.

PCB-3.6 Installing razor wire

(a) Razor wire concertina

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Razor wire rolls shall be joined together and fixed to the wire of the fence with appropriate galvanized clips spaced at three to five clips per spiral as specified by the manufacturer.

(b) Razor wire flatwrap coils

Razor wire flatwrap coils shall be installed against existing smooth wire mesh fences or on top of brick walls in accordance with the directions of the manufacturer.

(c) Welded razor mesh

The welded razor mesh shall be erected as a fence on its own as in the case of weld-mesh and diamond mesh fencing. The welded razor mesh shall be secured to the fencing wire by means of 1,6 mm soft galvanised binding wire at 1,2 m centres along the top and bottom wires and at 2,4 m centres along each of the other fencing wires.

PCB 3.7 Closing of openings under fences

At ditches, streams, drainage channels or other hollows where it is not possible to erect the fence so that it follows the general contour of the ground, the Contractor shall close the openings under the fence by means of horizontal barbed wires spaced at distances of 150 mm from each other, stretched between additional posts or straining posts and covered with weld mesh as shown on the drawings or directed by the Engineer.

PCB 3.8 Existing fences

Where the new fence joins an existing fence, the new fence shall be permanently tied to a straining post erected at the terminal of the existing fence. Existing fences that must be removed to a new location shall be dismantled. Any usable material arising from the dismantling of the fences and declared as unsuitable by the Engineer as suitable for re-use shall be neatly stacked at approved locations in accordance with the instructions of the Engineer.

Apart from material obtained from the dismantling of existing fences, the Contractor shall provide sufficient new material to ensure that moved fences are of the same standard as that required for new fences, irrespective of the quality of the material being re-used.

PCB 3.9 Installing gates

Gates shall be installed at the places indicated by the Engineer or as per drawing. The gates shall be hung on gate fittings in accordance with the requirements shown on the drawings. At pedestrian and security fences the double swing gates shall not leave a gap of more than 40 mm between them when closed and other gates shall not be further than 100 mm from the gate post when closed.

PCB-3.10 Pedestrian gates

Pedestrian open gates shall be installed at places indicated by the Engineer. The access provided by these gates shall be large enough to allow one person at a time to pass through the gate. No cattle or vehicles shall be able to pass through this gate. The gate shall be constructed with standard wooden poles and posts as shown on the drawings.

PCB 3.11 General requirements

The completed fence shall be plumb, taut, true to line and ground contour, with all posts, standards and stays firmly set. The height of the lower fencing wire above the ground at posts and standards shall not vary from that shown on the drawings by more than 25 mm. Other fencing wires shall not vary by more than 10 mm from their prescribed relative vertical positions.

The following additional requirements apply to security fencing:

- (a) The wire mesh shall be 2,5 mm dia. with 50 mm square openings.
- (b) The straining wire shall be the high tension wire equivalent or ordinary 4 mm straining wire.
- (c) After the straining wires have been tensioned, the excess piece of the tension bolts at the gates shall be sawn off and rivetted against the nut.
- (d) Straining wire shall be fixed to all posts and the mesh fence shall be fixed to all straining wires at intervals of less than one metre.
- (e) All steel posts shall be sealed at the top.
- (f) The mesh shall be fixed to the outside of the security area.
- (g) All damaged galvanizing shall be repaired in accordance with the requirements of SANS 763 at the cost of the Contractor.
- (h) The following minimum applications of zinc galvanizing shall apply:
 - i) Weld mesh and diamond mesh - SANS 675 of 1971 - 75 gm/m²
 - ii) Straining wire - SANS 935 of 1969 - 140 gm/m²
 - iii) Binding wire - SANS 935 of 1969 - 120 gm/m²
 - iv) Posts, standards and struts (if applicable) - SANS 763 of 1971 - 305 gm/m²
 - (type B2)
 - v) Tension bolts - SANS 763 of 1971 - 380 gm/m² (type C1)

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(i) All wooden components shall be properly sealed with a bitumen or similar coat.

PCB 4. MEASUREMENT AND PAYMENT

PCB 4.1 Clearing line of fence 2 m wide Unit: metre (m)

The unit of measurement shall be the metre of fence line cleared as specified.

The tendered rate shall cover the cost for the removal of all grass, shrubs, stones, trees (if necessary), structures and other obstructions, and the disposal thereof as specified. The dismantling and removal of existing fences where applicable shall be measured separately.

PCB-4.2 Supply and erection of fence (specify)
Unit: metre (m)

The unit of measurement shall be the metre of new fence erected on the fence line. Each fence line shall be measured separately.

The tendered rate shall include full compensation for the erection of the fence complete as shown on the drawings and as specified including all labour, plant, sealing of wooden components and materials except the supply of corner and straining posts with stays which are measured separately.

PCB-4.3 Corner and straining posts including the necessary staysUnit:
number (No)

All straining posts erected in accordance with the maximum specified spacing or such lesser spacing as authorised by the Engineer and all end posts shall be measured. Gate posts for new gates shall not be measured separately (Refer to PCB-4.5). The two straining posts to form the V-shape on a pedestrian gate shall not be measured as separate straining posts but form part of the pedestrian gate.

The tendered rate shall cover the cost of all labour, plant and material to supply and erect the corner and straining posts as specified. The tendered rate shall also include the cost of sealing of all wooden components as specified on the drawings.

PCB-4.4 Extra over item PCB-4.3 for posts in hard rock Unit: number (No)

The unit of measurement shall be the number of posts installed in hard rock where holes have to be made by drilling and/or blasting where excavation by hand or pneumatic tools cannot be done economically. The stays shall not be measured separately.

The rate shall cover the extra cost of forming the post hole as well as the stay hole in rock.

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PCB-4.5 New gates Unit: number (No)

The size and type shall be stated in the schedule of quantities.

The unit of measurement is the number of new gates erected.

The tendered rate shall cover the cost for the procuring and furnishing of all material, including gates, gate posts, hinges, bolts, concrete and straining wire, and the erection of the gates as specified and as shown on the drawings.

PCB-4.6 New Pedestrian Gates Unit: number (No)

The unit of measurement is the number of new pedestrian gates erected complete.

The tendered rate shall cover the cost for the provision of all materials (wood, nuts, bolts, wire, etc.) in order to construct the pedestrian gate as shown on the drawings. The rate also includes the finishing and treating of wooden components with a specified sealant.

PCB-4.7 Dismantling and removal of existing fences Unit: metre (m)

The unit of measurement shall be the metre of existing fence or gate dismantled and removed on the instruction of the Engineer. The tendered rate shall include full compensation for taking down the existing fences and gates, coiling the wires, rolling the netting into rolls, transporting the material to a designated site and stacking the material neatly.

Contractor

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Employer

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The law of contract is General Conditions of Contract for Construction Works (2015) third edition published by the South African Institution of Civil Engineering, is applicable to this Contract. Copies of these conditions of Contract may be obtained from the South African Institution of Civil Engineering (Tel: 011-805 5947).

The General Conditions of Contract for Construction (GCC) Works, Third Edition, 2015, published by the South African Institution of Civil Employer's Agenting, Private Bag X200, Halfway House, 1685, is applicable to this Contract and is obtainable from www.saice.org.za

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

C4: SITE INFORMATION

C4.1 LOCALITY PLAN

C5: ADDITIONAL RELEVANT DOCUMENTS

C5.1 TENDER DRAWINGS

C5.2 OTHER USEFUL INFORMATION

Contractor

Witness 1

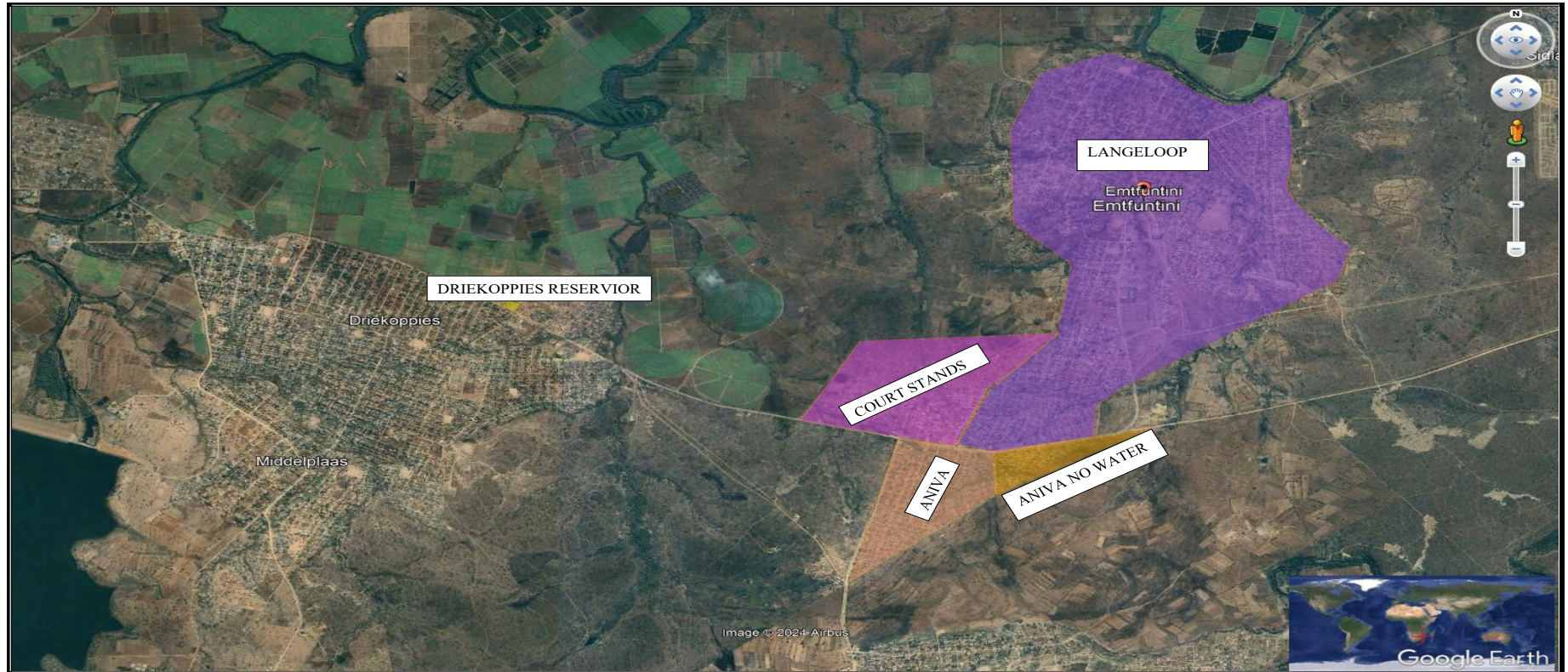
Witness 2

Employer

Witness 1

Witness 2

C4.1 LOCALITY PLAN



LAYOUT PLAN: ANIVA OF NKOMAZI LOCAL MUNICIPALITY

SOURCE: GOOGLE EARTH

TS Consulting

Tshashu Consulting & Project Managers

Email: admin@tsconsulting.co.za

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Employer

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C5.1 TENDER DRAWINGS

DRAWINGS ISSUED WITH THIS DOCUMENT

The reduced drawings bound with this document are issued as indicated for “Tender Purposes only” and shall not be used for construction purposes. Drawings will be appropriately amended before being issued for construction purposes. Additional and detailed drawings will be furnished by the Engineer as the works proceeds.

The following drawings are applicable to the contract:

Drawing Name	Drawing No.
Drawing cover sheet	
Study area Layout	TS – CIV -00
Aniva Layout	TS – CIV -02
Aniva without water Layout	TS – CIV -03
Aniva Secondary distribution Layout	TS – CIV -04
Courts stands Layout	TS – CIV -05
Single and double yard connection	TS – CIV -06
Pipe Bedding Details	TS – CIV -07
Pipe thrust block details	TS – CIV -08
Valve details	TS – CIV -09
Valve Brick Manhole Details	TS – CIV -010
Min 716 KL Tank Foundation Layout Plan	TS – CIV- A01
Min 716 Kl Steel Tank Typical Details	TS – CIV- A02
Min 130 KL Tank Foundation Layout Plan	TS – CIV- A03
Min130 KL Steel Tank Typical Details	TS – CIV- A04
Project Name board	TS – CIV -011

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Witness 2

Employer

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Witness 2

NKOMAZI LOCAL MUNICIPALITY

CONTRACT NUMBER: NKO:44/2026

EXTENSION OF BULK LINE, WATER RETICULATION AND
ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURTS STANDS)

ISSUED BY :—

NKOMAZI LOCAL MUNICIPALITY
PRIVATE BAG X101
MALELANE
1320
TEL (013) 790 0245/6/75

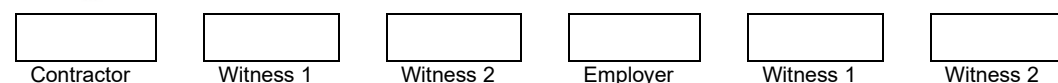
PREPARED BY :

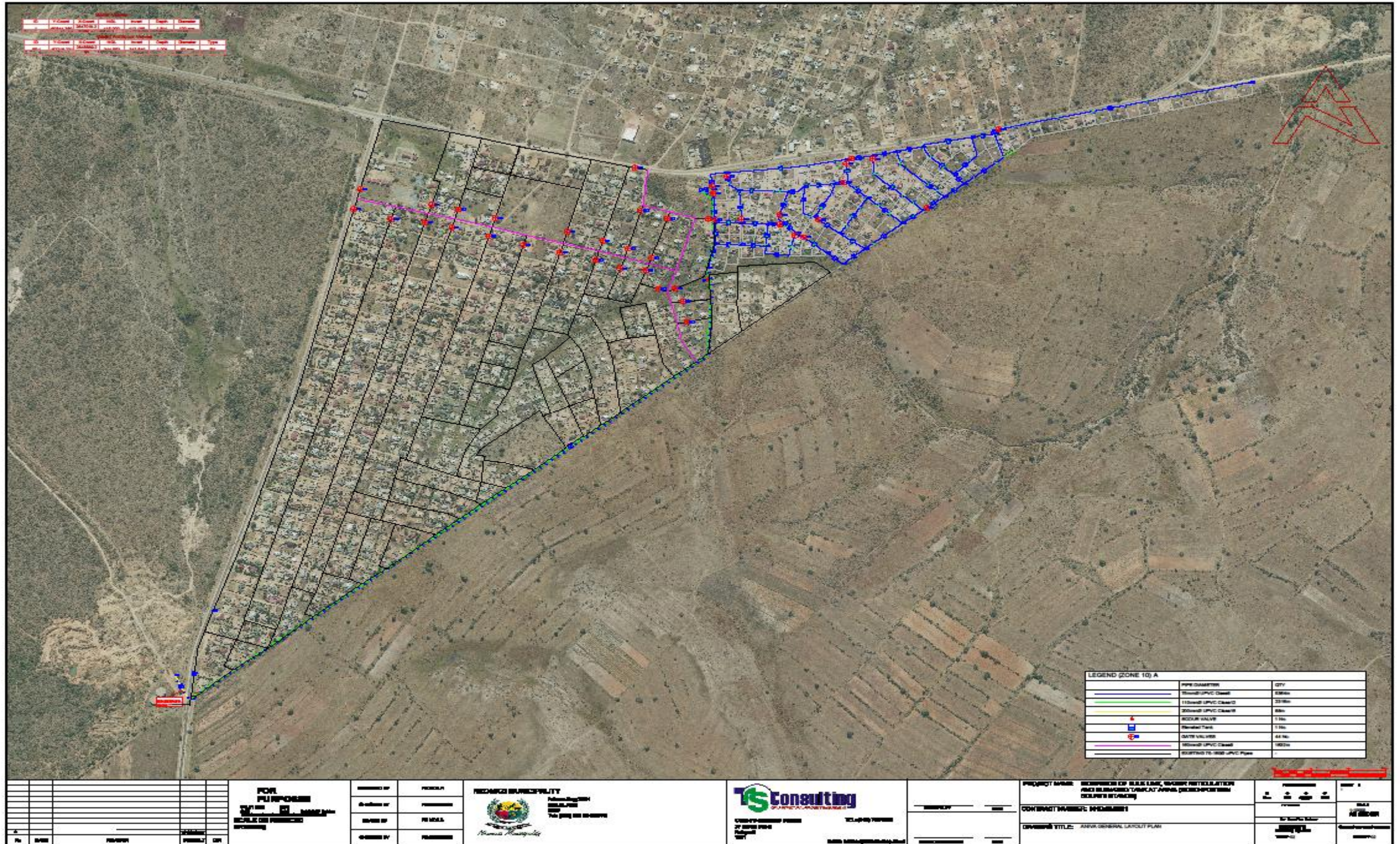


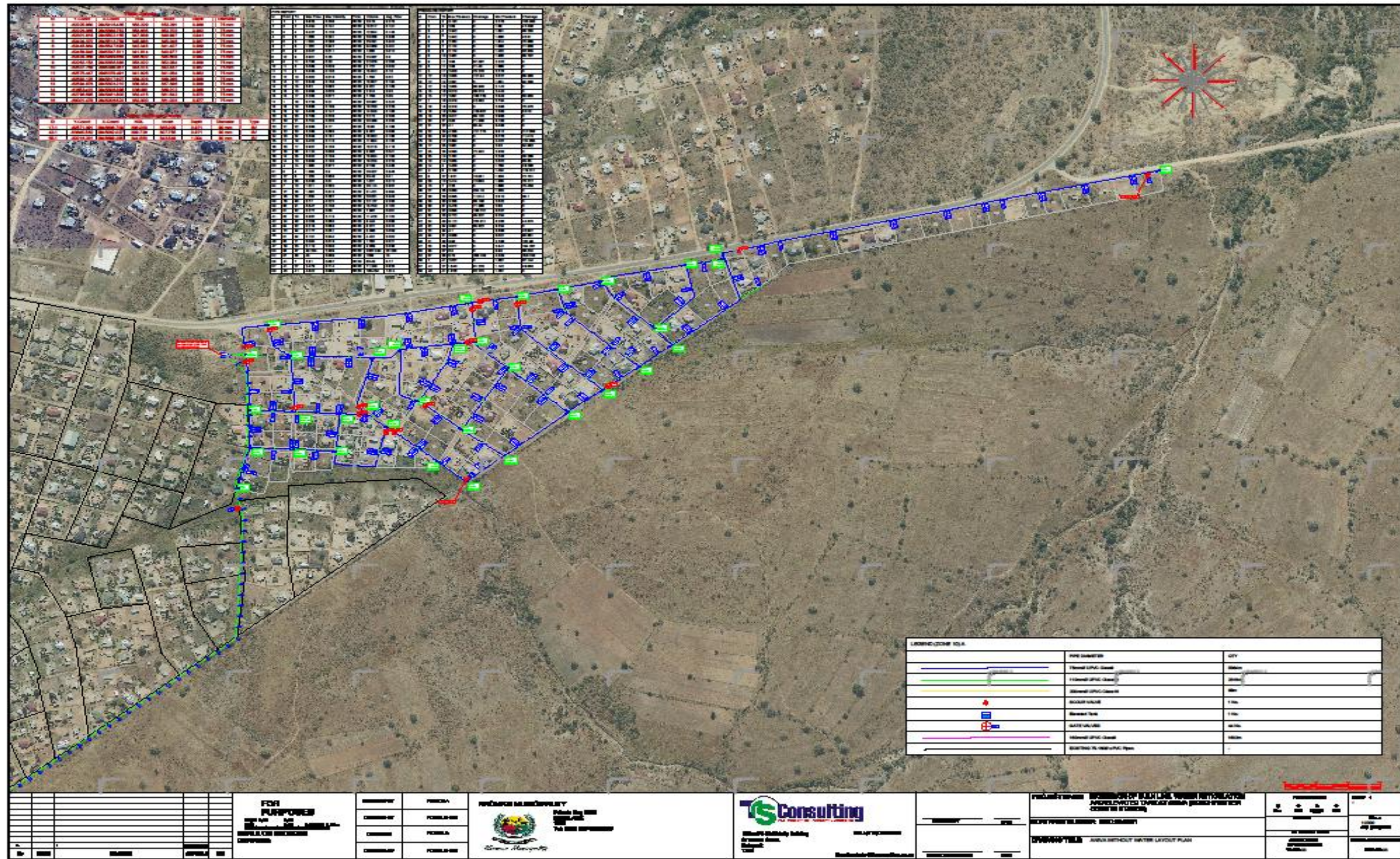
TSHASHU CONSULTING AND PROJECT MANAGERS

OFFICE F5-02
37 BROWN STREET
NELSPRUIT
1201
TEL: +27 (0)13 762 3091

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2







Contractor

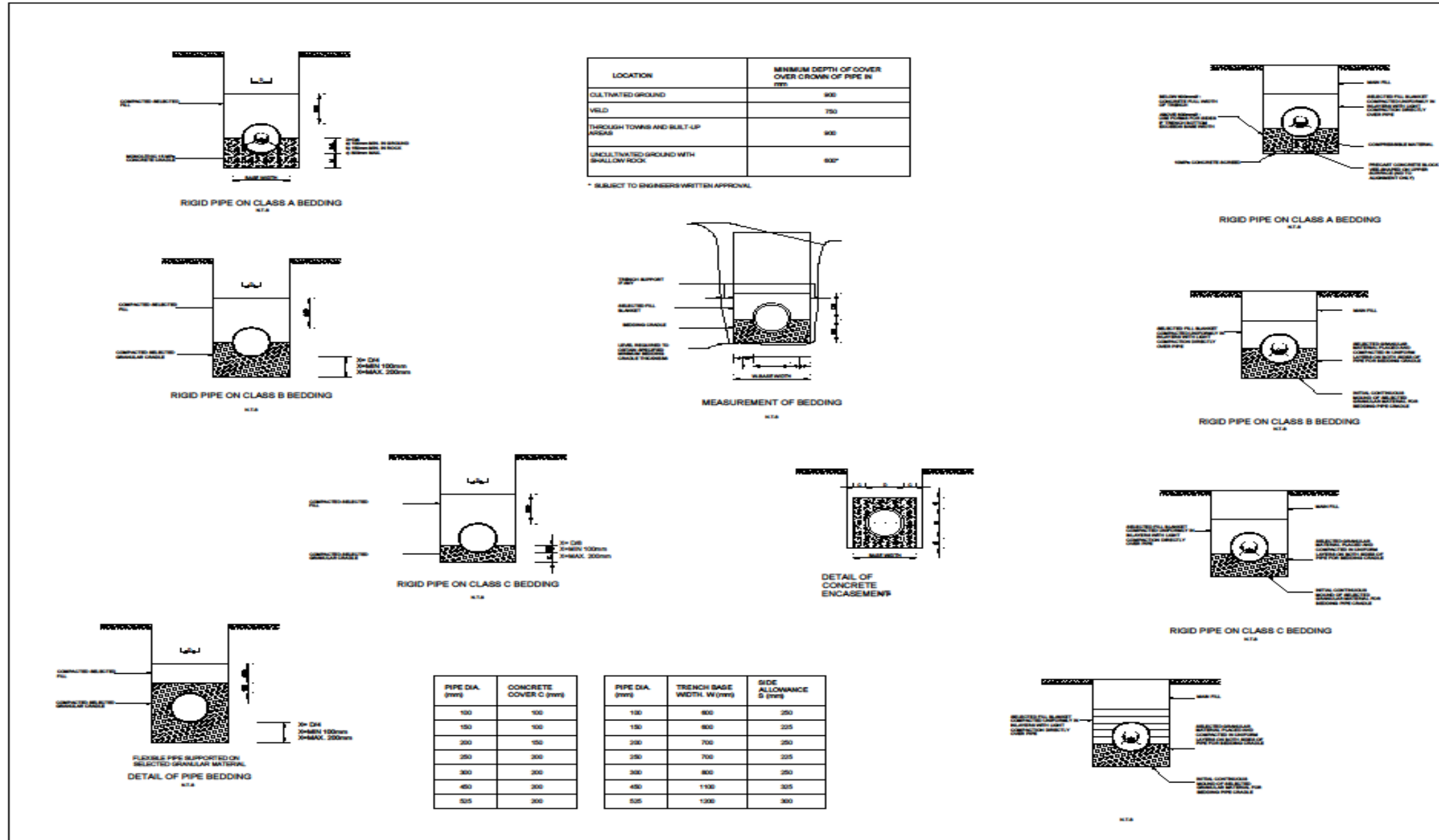
Witness 1

Witness 2

Employer

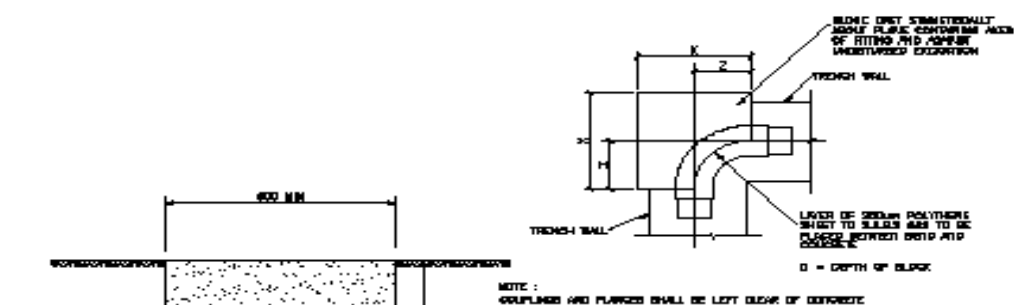
Witness 1

Witness 2



FOR DDR PURPOSES SCALE ON REDUCED DRAWING No. DATE REVISION CONSULT OR				DESIGNED BY: P. MOLA CHECKED BY: P. HELLMAN DRAWN BY: P. MOLA CHECKED BY: P. HELLMAN	NKOMAZI MUNICIPALITY Private Bag 2191 MALKLAND 1208 Tels: (012) 790 826/8275 	 Office: P.O. Box 100, Building 27, Mankweng Tel: (012) 790 8261 Email: info@scconsulting.co.za	PROJECT NAME: EXTENSION OF BULK LINE WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOGCHOPFEN COURTS STANDS) CONTRACT NUMBER: MKO-29/2021 DRAWING TITLE: PIPE BEDDING DETAILS	PREPARED BY: [Signature] CHECKED BY: [Signature] APPROVED BY: [Signature]	SHEET: 1 SCALE: AS SHOWN DATE: 2021
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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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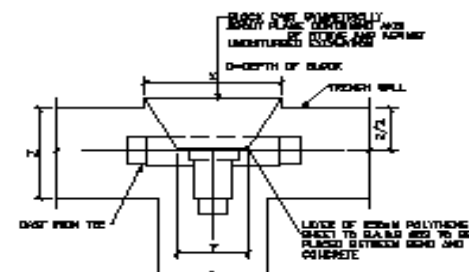


BEDDING DETAIL FOR FLEXIBLE PIPES

PIPE DIA.	X	D	Z
300	8700	700	1400
300	8700	900	1100
200	1000	600	800
150	1000	500	700
100	900	400	500
75	800	300	300

DIMENSIONS IN MILLIMETRES
CONCRETE 15Mpa/15mm

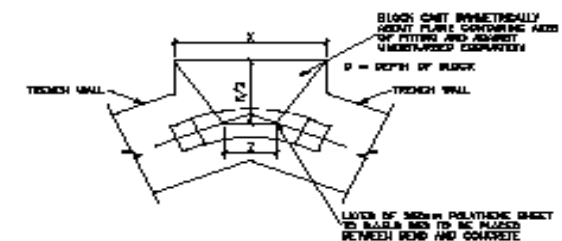
THRUST BLOCK IN PRESSURE PIPELINE FOR 90° BEND



PIPE DIA.	X	D	Z	Y
300	8700	700	1200	8000
300	8700	900	1100	1500
200	1000	600	800	1100
150	1000	500	700	900
100	900	400	500	500
75	800	300	300	300

DIMENSIONS IN MILLIMETRES
CONCRETE 15Mpa/15mm

THRUST BLOCK IN PRESSURE PIPELINE FOR TEE AND END CAP



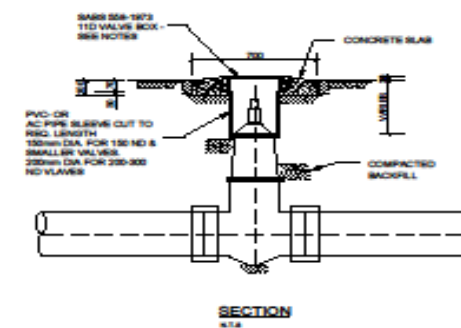
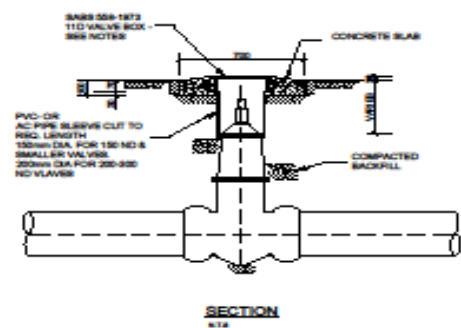
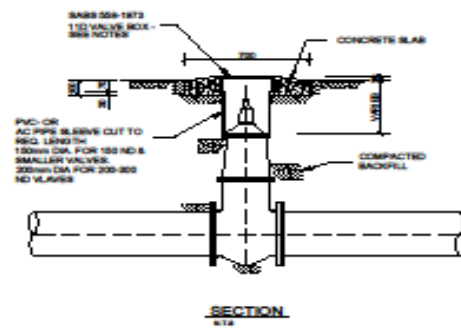
PIPE DIA.	45° BEND			22.5° BEND			11.25° BEND		
	X	D	Z	X	D	Z	X	D	Z
300	8000	700	800	1000	700	400	700	700	400
300	1000	900	800	700	900	300	700	900	300
200	1000	600	600	600	600	300	600	600	300
150	1000	500	500	500	500	200	500	500	200
100	900	400	400	400	400	150	400	400	150
75	800	300	300	300	300	100	300	300	100

DIMENSIONS IN MILLIMETRES
CONCRETE 15Mpa/15mm

THRUST BLOCK IN PRESSURE PIPELINE FOR 45°, 22.5° AND 11.25° BEND

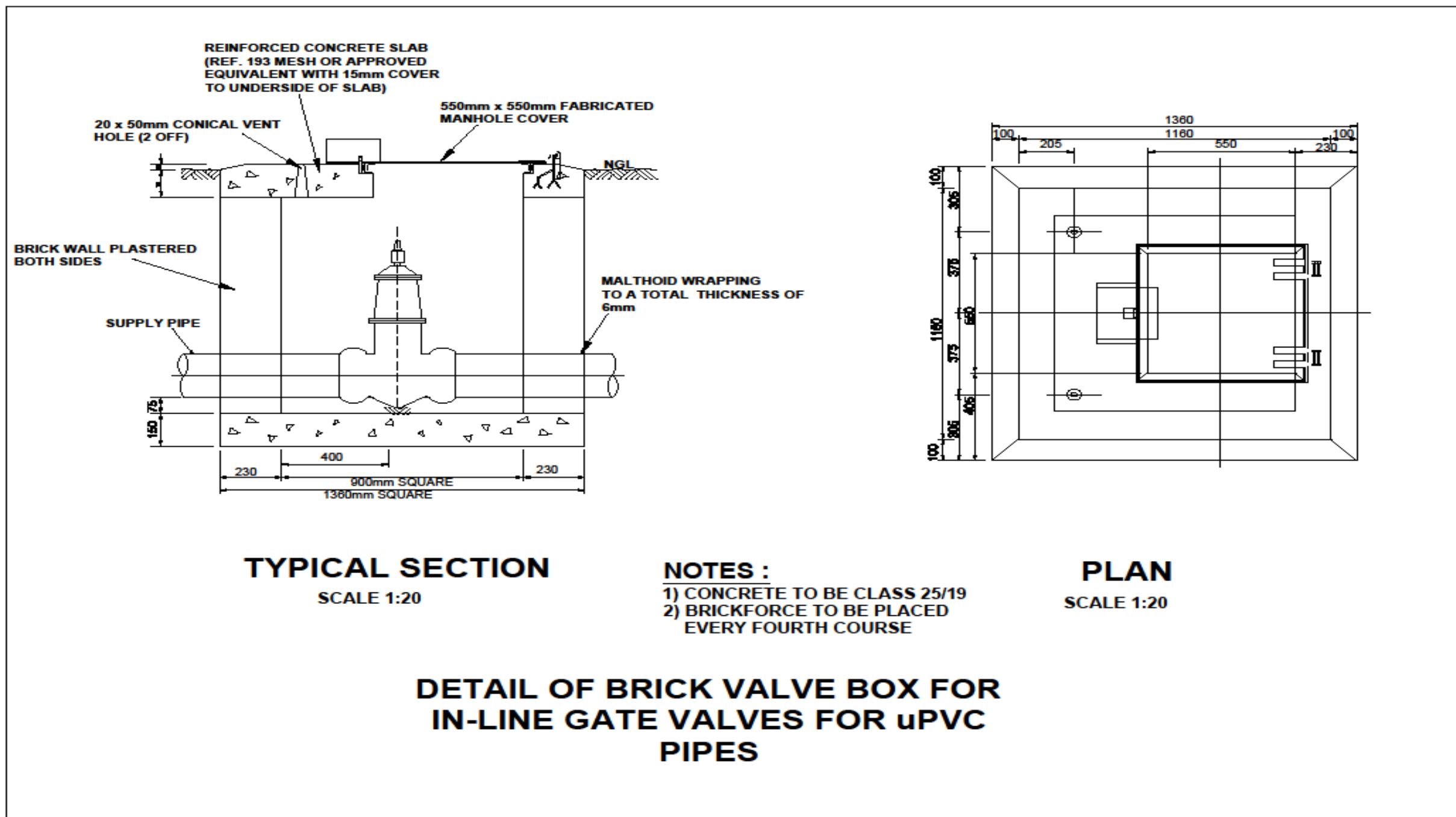
FOR PURPOSES 1:1000 1:500 1:250 1:125 1:63 1:31.5 1:15.75 1:7.875 SCALE ON REDUCED DRAWING		DESIGNED BY: PC MOLA CHECKED BY: PC MOLA DRAWN BY: PC MOLA CHECKED BY: PC MOLA	NKOMAZI MUNICIPALITY Private Bag 2101 MALLALE 1209 TEL (012) 790 026/075	 Office: PO-Box 1000, Building 27, Bona Street, Pretoria 0001 TEL: (012) 790 0261 Email: info@tscconsulting.co.za	PROJECT NAME: EXTENSION OF BUCK LINE, WATER RETENTION AND ELEVATED TANK AT AMVA (BOGCHPONTEN COURTS STANDS) CONTRACT NUMBER: MKO-20/2021 DRAWING TITLE: PIPE THRUST BLOCK DETAILS	PROJECT STATUS: PREPARED BY: CHECKED BY: DRAWN BY:	SHEET: 1 SCALE: AS SHOWN DATE: 15/01/2021
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Contractor
 Witness 1
 Witness 2
 Employer
 Witness 1
 Witness 2



- NOTES:**
1. CONCRETE CLASS 20/10
 2. VALVE BOX ALTERNATIVE :
THERMOPLASTIC AS SUPPLIED
BY DAVIS AND DEALE
(SPRINKLER),
RECTANGULAR BOX 400mm x 300mm
 3. VALVE BOX LID TO BE PAINTED
(OR COLOURED) GOLDEN YELLOW
ACCORDING TO SABS 1081,
COLOUR 846,
(OR 226, COLOUR 226)

FOR PURPOSES 0.001:0.02 0.04 0.02:0.04 0.08 0.04:0.08 0.16 0.16:0.32 0.32 0.32:0.64 0.64 0.64:1.28 1.28 1.28:2.56 2.56 2.56:5.12 5.12 5.12:10.24 10.24 10.24:20.48 20.48 20.48:40.96 40.96 40.96:81.92 81.92 81.92:163.84 163.84 163.84:327.68 327.68 327.68:655.36 655.36 655.36:1310.72 1310.72 1310.72:2621.44 2621.44 2621.44:5242.88 5242.88 5242.88:10485.76 10485.76 10485.76:20971.52 20971.52 20971.52:41943.04 41943.04 41943.04:83886.08 83886.08 83886.08:167772.16 167772.16 167772.16:335544.32 335544.32 335544.32:671088.64 671088.64 671088.64:1342177.28 1342177.28 1342177.28:2684354.56 2684354.56 2684354.56:5368709.12 5368709.12 5368709.12:10737418.24 10737418.24 10737418.24:21474836.48 21474836.48 21474836.48:42949672.96 42949672.96 42949672.96:85899345.92 85899345.92 85899345.92:171798691.84 171798691.84 171798691.84:343597383.68 343597383.68 343597383.68:687194767.36 687194767.36 687194767.36:1374389534.72 1374389534.72 1374389534.72:2748779069.44 2748779069.44 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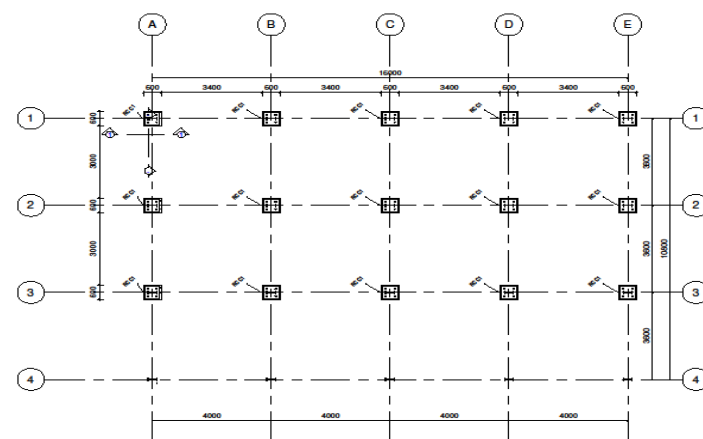


NOTES :

- 1) CONCRETE TO BE CLASS 25/19
- 2) BRICKFORCE TO BE PLACED EVERY FOURTH COURSE

				FOR PURPOSES		DESIGNED BY		PC MOA		NKOMAZI MUNICIPALITY Private Bag 2191 MALLALENS 1200 Tel: (012) 790 6245/6  Nkomazi Municipality		 Office: P.O. Box 100, Midway Building 27 Brown Street Johannesburg 2001 Tel: (011) 710 3001 Email: admin@tsconsulting.co.za		PROJECT NAME: EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHPORTEN COURTS STANDS)		PROJECT NUMBER: 100		SHEET 1			
				SCALE ON REDUCED DRAWING		CHECKED BY		PC HELDEN						CONTRACT NUMBER: MKO-28/2021		DATE: 10/01/2021		DRAWING TITLE: VALVE BRICK MANHOLE DETAILS		DATE: 10/01/2021	
						DRAWN BY		PC MOA													
						CHECKED BY		PC HELDEN													

Contractor
 Witness 1
 Witness 2
 Employer
 Witness 1
 Witness 2



3 COLUMN PLAN
1 : 100

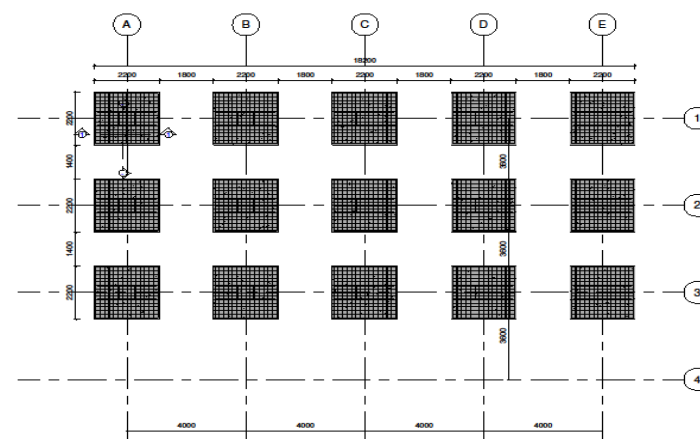
BENDING SCHEDULE									
MEMBER	NUMBER OF MEMBER	BARS PER MEMBER	DIA.	LENGTH OF EACH BARS - mm	TOTAL NUMBER	BAR MARK	SC	A' mm	Total Weight (kg)
	15	60	Y12	2540	900	02	38	400	2289.35 kg
	15	12	R8	2421	180	04	80	550	171.38 kg
	15	4	Y16	2351	60	05	37	733	222.55 kg
Grand total: 135					1140				2683.68 kg

FOUNDATION SCHEDULE-TEMPLATE			
TYPE MARK	COUNT	SIZE	VOLUME
BASE 1	15	2200X2200X500	2.42 m³

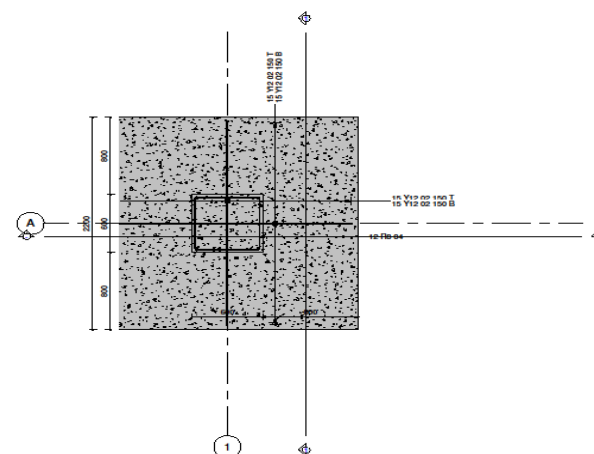
COLUMN SCHEDULE FOR CONCRETE-TEMPLATE			
TYPE MARK	TYPE	QUANTITY	VOLUME
C1	RC C1	15	0.45 m³

NOTES:

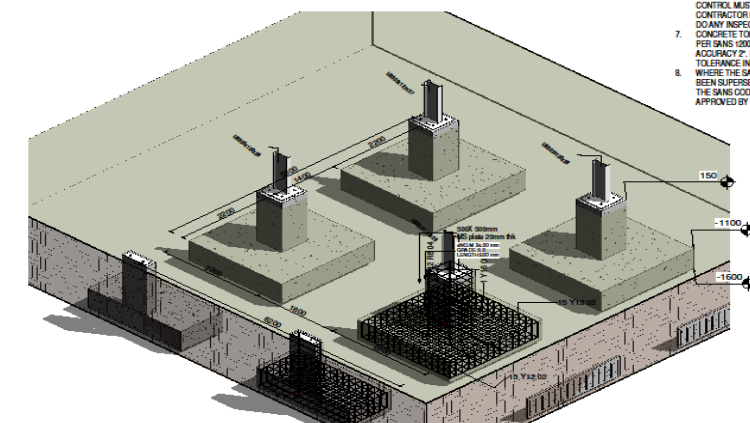
- ENGINEER TO INSPECT FOUNDATION SETTING OUT AND REINFORCEMENT PLACEMENT BEFORE CASTING OF CONCRETE
- CONCRETE STRENGTH FOR BASE AND COLUMN TO BE 25/19MPa
- STEEL OF HIGH TENSILE (Y) WITH 450MPa STRENGTH AND MILD (R) TO BE 250MPa
- ERECTION OF BASE PLATE AND STEEL FRAMES TO BE DONE BY SUPPLIER
- SUPPLIER TO INSPECT ANCHOR BOLTS PRIOR INSTALLATION IF IT SUITS THEIR FRAME DESIGN



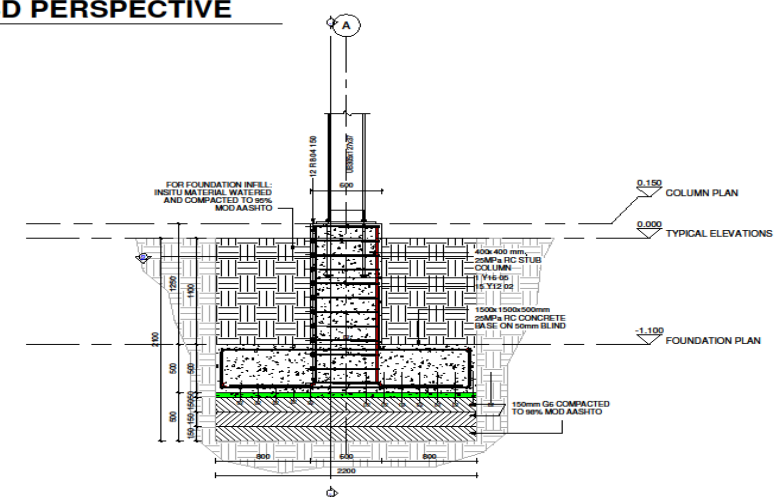
4 FOUNDATION PLAN
1 : 100



2 BASE DETAIL 4xOFF
1 : 25



5 3D PERSPECTIVE



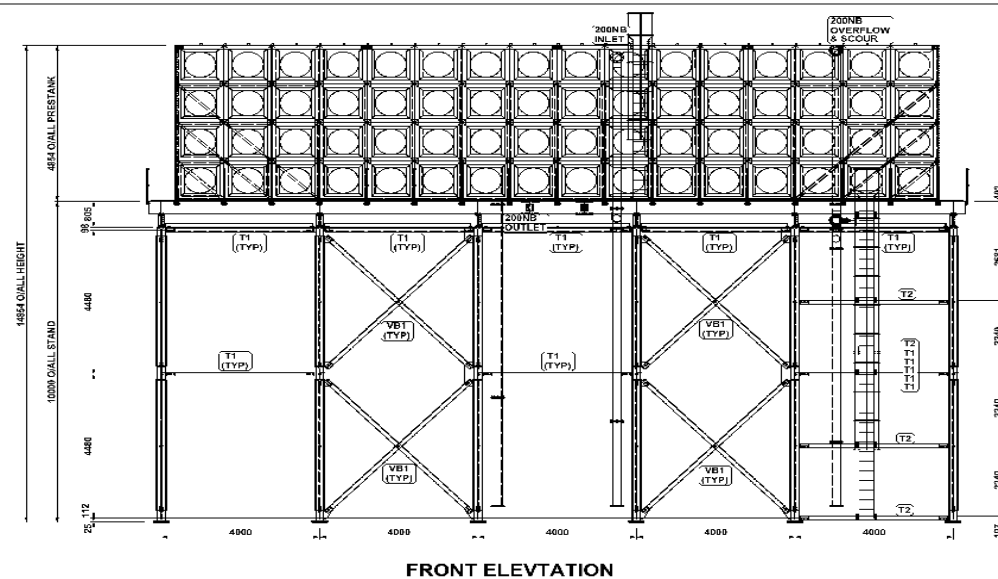
1 BASE SECTION
1 : 25

GENERAL NOTES:

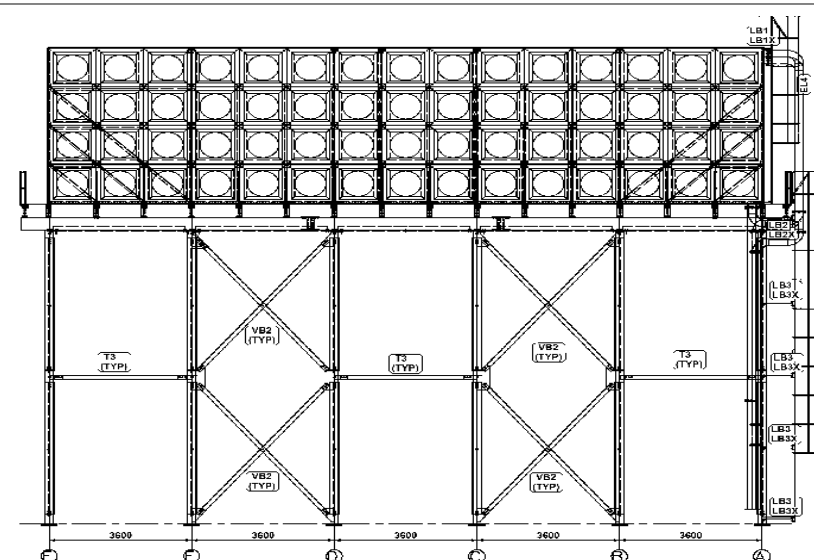
- THE CONTRACTOR SHALL CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION OF ANY PORTION OF THE WORK. ANY DISCREPANCIES SHALL IMMEDIATELY BE REPORTED TO THE ENGINEER.
- ALL INSTRUCTIONS FROM THE ENGINEER SHALL BE WRITTEN IN THE SITE INSTRUCTION BOOK. VERBAL INSTRUCTIONS MUST BE RECORDED AND SIGNED BY THE ENGINEER. PRODUCTS DIFFERENT TO THOSE SPECIFIED MAY BE USED ONLY WITH THE ENGINEER'S PRIOR WRITTEN APPROVAL.
- ALL PRODUCTS MUST BE APPLIED AND THEIR SUBSTITUTES PREPARED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
- THESE NOTES MUST BE READ IN CONJUNCTION WITH THE DRAWINGS AND PROJECT SPECIFICATIONS, INCLUDING THE SANS 1000 STANDARDIZED SPECIFICATIONS. THE CONTRACTOR MUST IMPLEMENT A QUALITY CONTROL SYSTEM. QUALITY CONTROL MUST BE DONE BY THE CONTRACTOR BEFORE THE ENGINEER WILL DO ANY INSPECTIONS.
- CONCRETE TOLERANCES ARE GENERALLY AS PER SANS 1000 AND GE 'DEGREE OF ACCURACY' 2. FOR SURFACE BEDS THE TOLERANCE IN SECTION 7 APPLIES.
- WHERE THE SANS CODES GIVEN BELOW HAVE BEEN SUPERSEDED BY THE NEW SANS CODE THE SANS CODE SHALL BE APPLIED AS APPROVED BY THE ENGINEER.

FOR PURPOSES 0.01 0.02 0.04 0.06 0.07 0.08m 0.00 SCALE ON REDUCED DRAWING				DESIGNED BY: PK MOLE CHECKED BY: PO NELUMENI DRAWN BY: PK MOLE CHECKED BY: PO NELUMENI	NKOMAZI MUNICIPALITY Private Bag X101 MALZLANE 1320 Tel: (013) 790 0245/6/7/5 	 Office: F5-02, Midcity Building 37 Brown Street Johannesburg 1201 TEL: (013) 762-3091 Email: admin@tsconsulting.co.za	PROJECT NAME: EXTENSION OF BULK LINE WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFOONTEIN COURTS STANDS) CONTRACT NUMBER: NKO-28/2021 DRAWING TITLE: 719.076KL TANK FOUNDATION LAYOUT PLAN	PROJECT STATUS: AS SHOWN CLIENTS DRAWING NUMBER: MKN-CW-A01
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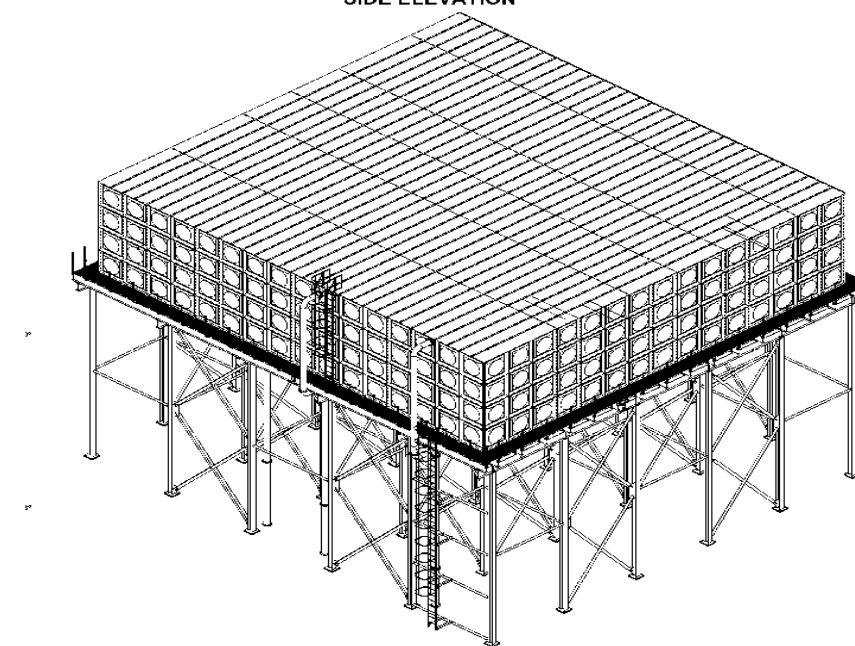
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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FRONT ELEVATION



SIDE ELEVATION



ISO VIEW

- GENERAL NOTES:**
1. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS BEFORE COMMENCEMENT OF CONSTRUCTION OF ANY PORTION OF THE WORK. ANY DISCREPANCIES SHALL IMMEDIATELY BE REPORTED TO THE ENGINEER.
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 6. WHERE THE SANS CODES GIVEN BELOW HAVE BEEN SUPERSEDED BY THE NEW SANS CODE THE SANS CODE SHALL BE APPLIED AS APPROVED BY THE ENGINEER.

1 TYPICAL ELEVATIONS

NOTES:

1. ENGINEER TO INSPECT FOUNDATION SETTING OUT AND REINFORCEMENT PLACEMENT BEFORE CASTING OF CONCRETE
2. CONCRETE STRENGTH FOR BASE AND COLUMN TO BE 25/19MPa
3. STEEL OF HIGH TENSILE (Y) WITH 450MPa STRENGTH AND MILD (R) TO BE 250MPa
4. ERECTION OF BASE PLATE AND STEEL FRAMES TO BE DONE BY SUPPLIER
5. SUPPLIER TO INSPECT ANCHOR BOLTS PRIOR INSTALLATION IF IT SUITS THEIR FRAME DESIGN

No	DATE	REVISION	CONSULT	DIR

FOR PURPOSES
SCALE ON REDUCED
DRAWING

DESIGNED BY	PK MOLE
CHECKED BY	PD NELLEN
DRAWN BY	PK MOLE
CHECKED BY	PD NELLEN



2 TYPICAL ISOMETRIC

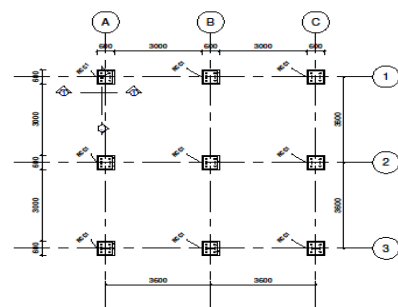
TS Consulting Office: F5-02, Midcity building 37 Steyn Street Nelspruit 1201	TEL: (013) 762-3091 Email: admin@tsconsulting.co.za
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MUNICIPALITY	DATE
CONSULTING ENGINEER	DATE

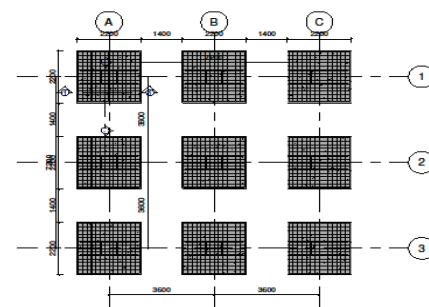
PROJECT NAME: EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURTS STANDS)	PROJECT STATUS
CONTRACT NUMBER: NKO-28/2021	SCALE: AS SHOWN
DRAWING TITLE: 718.016KL STEEL TANK TYPICAL DETAILS	CLIENTS DRAWING NUMBER: TS-01-001

CLIENTS DRAWING NUMBER: TS-01-001	CLIENTS DRAWING NAME: 718.016KL
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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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3 COLUMN PLAN
1 : 100



4 FOUNDATION PLAN
1 : 100

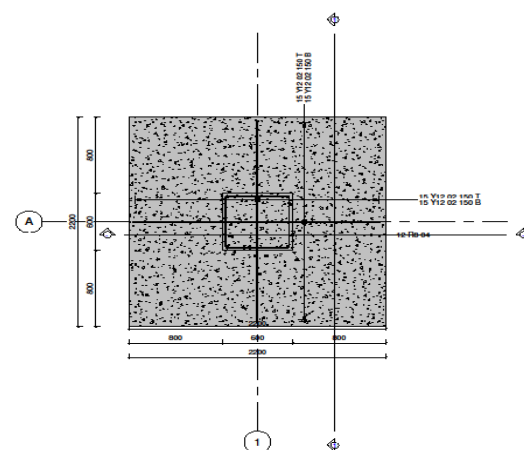
BENDING SCHEDULE										
MEMBER	NUMBER OF MEMBER	BARS PER MEMBER	DIA.	LENGTH OF EACH BAR+ mm	TOTAL NUMBER	BAR MARK	SC	A' mm	B' mm	Total Weight (Kg)
	9	60	Y12	2840	540	02	38	400	2100	1361.56 kg
	9	12	R8	2421	108	04	60	550	1550	103.13 kg
	9	4	Y16	2351	36	05	37	733	1656	133.23 kg
Grand total: 81					684					1598.21 kg

FOUNDATION SCHEDULE-TEMPLATE			
TYPE MARK	COUNT	SIZE	VOLUME
BASE 1	9	2200X2200X500	2.42 m³

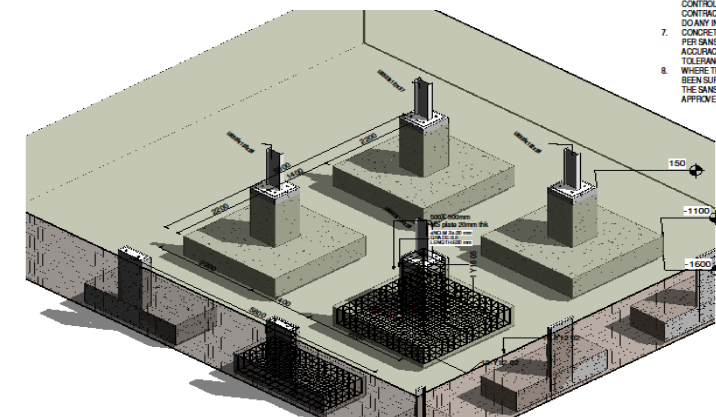
COLUMN SCHEDULE FOR CONCRETE-TEMPLATE			
TYPE MARK	TYPE	QUANTITY	VOLUME
C1	RC C1	9	0.45 m³

NOTES:

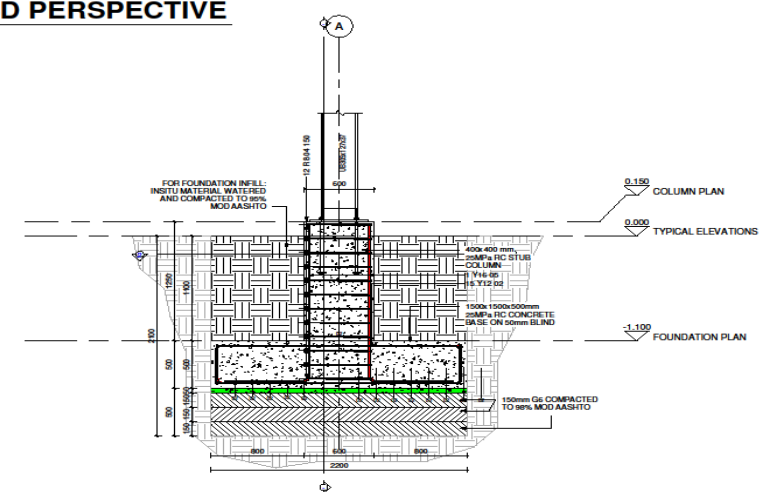
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2 BASE DETAIL 4xOFF
1 : 25



5 3D PERSPECTIVE



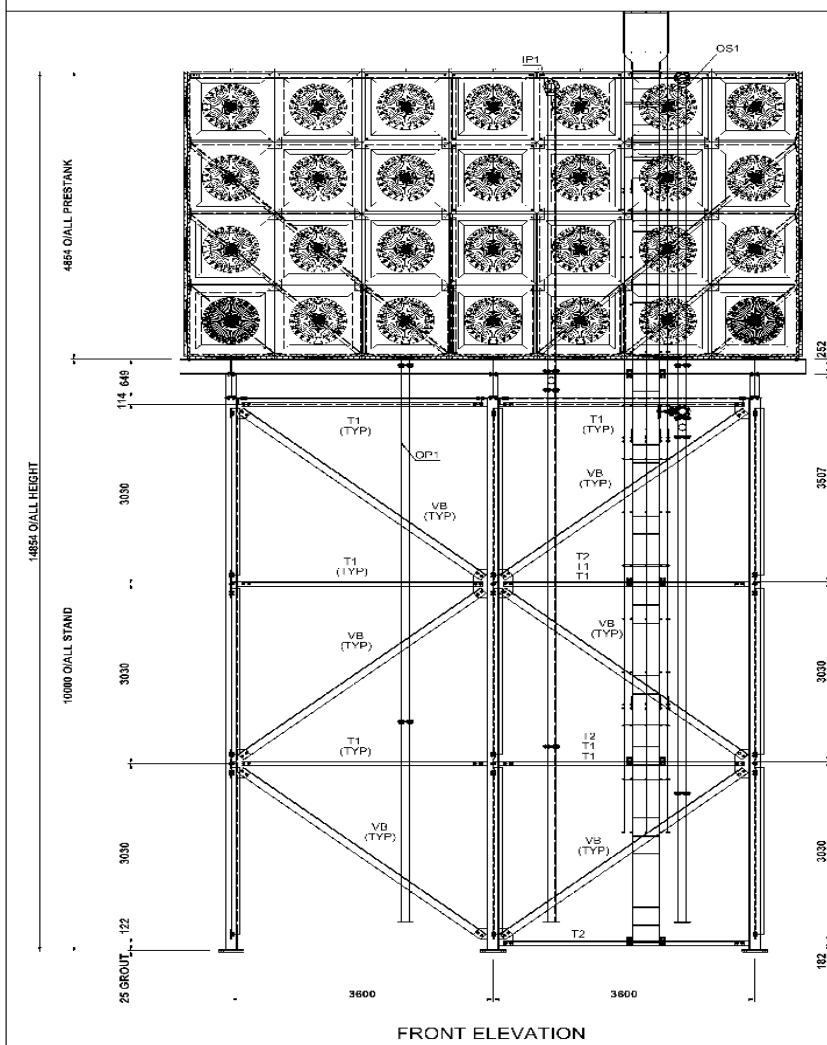
1 BASE SECTION
1 : 25

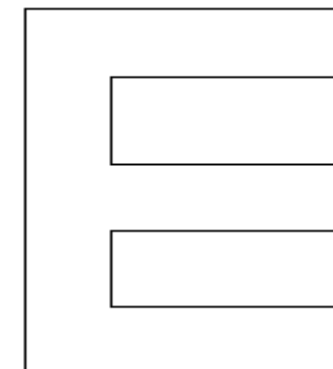
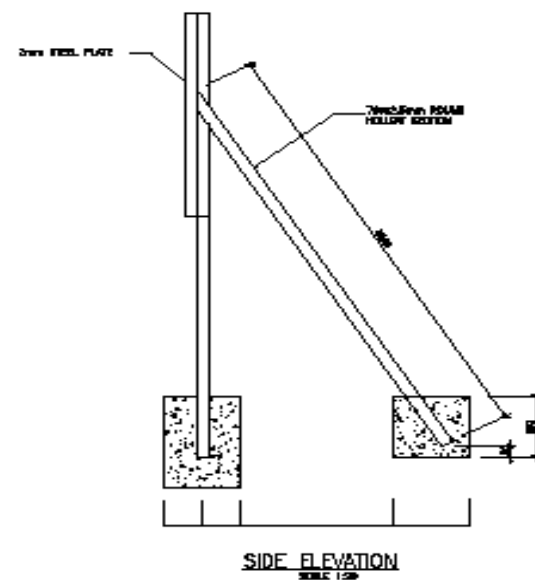
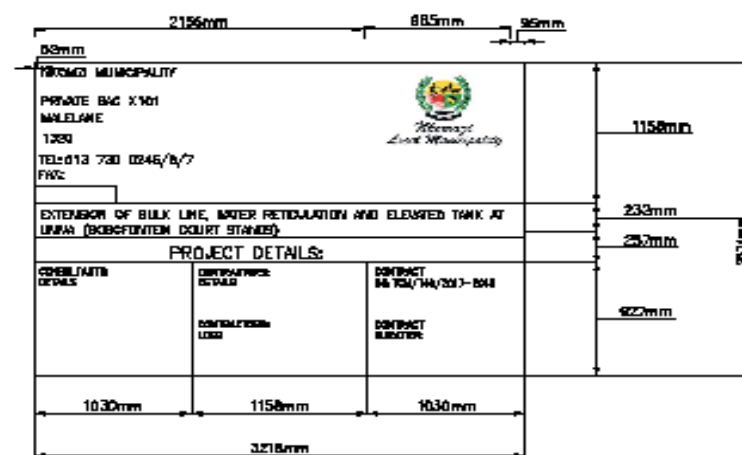
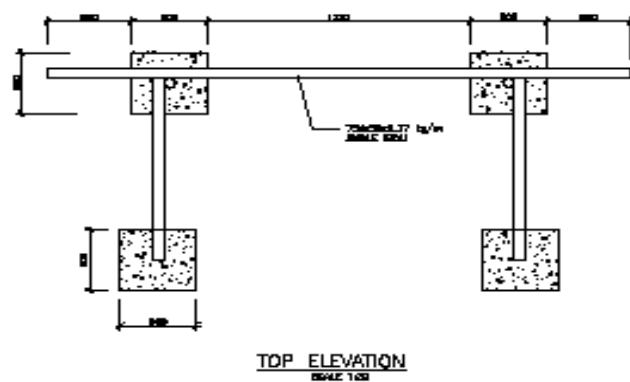
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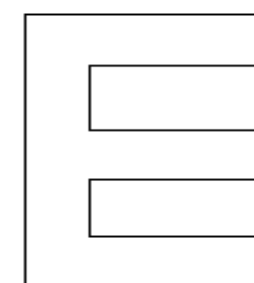
FOR PURPOSES 0.01 0.02 0.04 0.06 0.08 0.10 SCALE ON REDUCED DRAWING				DESIGNED BY: PK MOILA CHECKED BY: PD NELUMENI DRAWN BY: PK MOILA CHECKED BY: PD NELUMENI	NKOMAZI MUNICIPALITY Private Bag X101 MAALJOLANE 1201 Tel: (013) 790 0245/6/7/5	TS Consulting CIVIL/STRUCTURAL/PROJECT MANAGEMENT Office: FS-02, Midcity Building 27 Simen Street Nelspruit 1201 TEL: (013) 762-3091 Email: admin@tsconsulting.co.za	PROJECT NAME: EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOSCHFONTEIN COURTS STANDS) CONTRACT NUMBER: NKO28/2021 DRAWING TITLE: 13K SKL TANK FOUNDATION LAYOUT PLAN	PROJECT STATUS AS SHOWN CUSTOMER NUMBER 19-01-001	SHEET 1 SCALE AS SHOWN CUSTOMER NUMBER 19-01-001
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Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
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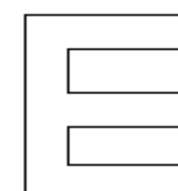




HICKORY LEAF IS 1 INCH WIDE, WHITE, ENCLOSED SMALL LETTERS MUST BE USED FOR PROJECT AND OWNER'S NAME



SELECTION BOARD: Officers WHITE CAPTAINS ONLY.
LETTERS MUST BE LATE FOR PROMOTION AND ORDER NO.



ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN
OTHERWISE

RULES:

1. Typeface to be used shall be Helvetica medium.
2. Size of lettering and dimensions are indicated on the diagram and shall be strictly adhered to.
3. Height of Board depends on number of professional services displayed. Write all professional services to be shown.
4. Project name and owner shall be white lettering on middle blue background
5. Surrounding border shall be in middle blue.
6. Professional crests and company names shall be in black on white.
7. The board shall conform to the diagram subject to rule 4

NOTE

Paint colours are based on
plascon-evans. White via Itequilla
via 10 (Velvagio polyurethane velvet
onomet) black ref.266, middle
blue ref 290 (acrylic road sign paints).

FOR PURPOSES 0.5m 1:500 0.5m 1:1000 0.5m 1:2000 SCALE ON REDUCED DRAWING										DESIGNED BY: PN NGOLA CHECKED BY: PC NELLOHENE DRAWN BY: PN NGOLA CHECKED BY: PC NELLOHENE										NKOMAZI MUNICIPALITY Private Bag 2101 MALL LEASE 1229 Tel: (013) 796 0248/6075  Office: P.O. 22, Midway Building 37 Brown Street Tlokweng 1201 Tel: (013) 796 0248/6075										 Office: P.O. 22, Midway Building 37 Brown Street Tlokweng 1201 Tel: (013) 796 0248/6075										PROJECT NAME: EXTENSION OF BULK LINE, WATER RETICULATION AND ELEVATED TANK AT ANIVA (BOGCHOFTEIN COURTS STANDS) CONTRACT NUMBER: NKO-28/2021 DRAWING TITLE: NAME BOARD										PROJECT STATUS:  BY:  FOR:  DATE: 15/05/2021										ISSUED BY: AS SHOWN DATE: 15/05/2021									
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Contractor
 Witness 1
 Witness 2
 Employer
 Witness 1
 Witness 2

C5.2 GOVERNING CONDITIONS OF CONTRACT

This Contract shall be governed by the General Conditions of Contract for Construction Works, Third Edition (2015), issued by the South African Institution of Civil Engineering (SAICE), hereinafter referred to as GCC 2015.

GCC 2015 shall be read together with the Contract Data and the Special Conditions of Contract contained in this tender document. In the event of any ambiguity, discrepancy or inconsistency, the Special Conditions of Contract and Contract Data shall take precedence over the General Conditions of Contract, but only to the extent of the applicable amendment or inconsistency.

Any reference in this tender document to the General Conditions of Contract 2010 or any other edition shall be deemed to refer to the General Conditions of Contract for Construction Works, Third Edition (2015), unless expressly stated otherwise.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2