



REQUEST FOR TENDER

GENERAL INFORMATION

N.B. NO TENDER DOCUMENTS TRANSMITTED PER FAX WILL BE ADMISSIBLE

Tender Advertised	15 January 2025
Estimated CIDB Grading	Tenderers should have a CIDB Contractor Grading Designation of 4CE or higher Tenderers who satisfy criteria stated in the Tender Data may submit tender offers.
Clarification Meeting	10H00, 29 January 2025
Venue for Clarification Meeting	A clarification meeting with representatives of the Employer will take place at Midvaal Engineering Services (Opposite Randvaal Clinic), 56 Rooibok Street, Highbury, Randvaal. USE GPS Coordinates: -26.515083, 28.044598 on 29 January 2025 starting at 10h00.
Closing Date	17 February 2025
Closing Time	10H00
Closing Venue	Ground floor Tender Box at Block A, Midvaal Municipality Offices, No. 25 Mitchell Street, Meyerton, 1860
Point scoring system	The 80/20-point scoring system will be applicable to this tender, i.e. 80 points for Price and 20 points for Specific Goals
Late tenders	Tender documents received after the closing time and date will be late and will not be accepted under any circumstances.

8/2/2/425 – SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

CLOSING DATE: 17 FEBRUARY 2025 at 10:00

Name of tenderer:		CIDB CRS Number	
Contact person:		CIDB Grading	
Telephone no:		Fax no:	
Cellular telephone no:		Email address:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (i)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures



CONTRACT 8/2/2/425

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

VOLUME 1

TENDER AND CONTRACT

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

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Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (iii)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures



VOLUME 1

PART T1: TENDERING PROCEDURES

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (iv)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

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Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

T1 TENDERING PROCEDURES

T1.1 TENDER NOTICE AND INVITATION TO TENDER

BID 8/2/2/425 (4CE OR HIGHER) BID TO APPOINT A SERVICE PROVIDER FOR THE SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENT (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS.

Employer Tender Number: 8/2/2/425 (4CE OR HIGHER)

cidb Reference Number: 100100798

MIDVAAL LOCAL MUNICIPALITY INVITES TENDERS FOR THE SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENT (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS.

It is estimated that tenderers should have a cidb contractor grading of 4CE or higher.

Preferences are offered to tenderers who have suitable experience and suitably qualified employees and resources to render the services. The council reserves the right to accept any bid or part thereof and does not bind itself to accept the lowest or any bid and not to consider any bid not suitably endorsed or comprehensively completed.

Only tenderers who have read and signed the provisions of the rules and specifications which are included in the bid documents are eligible to submit tenders. are eligible to submit tenders.

SPECIFIC GOALS & POINTS:

Local Enterprise:10 Points

B-BBEE: 05 Points

WOMEN: 05 Points

Bids will be evaluated and adjudicated according to the following criteria:

- relevant specifications and technical proposals,
- value for money,
- capability to execute the contract,
- Midvaal SCM policy, PPPFA, PPPFA regulations and any other relevant legislation's,
- As well as any supporting documents where required and local content (if applicable)
- Details of the specific goals' allocation are demonstrated in the bid document.

A non-refundable tender deposit of R630.70 payable by proof of deposit or cash is required on collection of the Tender documents.

Bidding documents containing the specifications and details of the deliverables will be available from, 28th of August 2024 @12H00. A hard copy may be purchased at the Supply Chain Municipal Offices, 25 Mitchell Street, Meyerton, 1960, at a non-refundable amount of:

R 314.80 VAT inclusive for a document with pages 0 – 100

R 442.00 VAT inclusive for a document with pages 101 – 200

R 630.70 VAT inclusive for a document with pages 201 – 300

R 946.60 VAT inclusive for a document with pages 301 and more

These prices are applicable to formal bids only, and purchases are to be made at the rates and taxes hall during office hours Monday – Friday, 07:30 – 15:00 or alternatively direct deposits (no cheques accepted) to:

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

Midvaal Local Municipality,
Bank: Nedbank,
Account Number: 1224797469,
Branch: Public Sector -Central Gauteng

NB: Please use the bid/tender number as reference and remember to bring proof of payment for collection of bid documents. Alternatively, bidding documents may be requested via tenders@midvaal.gov.za. The bidding document will be sent to the requesting bidder free of charge. The bid document will also be made available for download on the National Treasury e-Tenders portal. Bidders using this option are hereby advised to monitor the portal regularly for updates and uploaded addendum documents during the time the bid is advertised. It is the responsibility of the bidder to ensure that they are up to date with all issued documents.

Bids are to be sealed in an envelope marked with the relevant bid number and description as indicated on the bidding documents and are to be placed in the tender box situated at:

Block A – Ground Floor,
25 Mitchell Street,
Meyerton,
1961

Bids are to be submitted between 07:30 and 16:00, Mondays to Fridays, prior to the closing date and time. No late submissions will be considered. are eligible to submit tenders.

The Physical Address for collection of Tender documents is:

25 Mitchel Street
Meyerton
Johannesburg
1960

Documents may be collected during work hours after 12h00 on 17 January 2025

A non-refundable tender deposit of R630.70 payable by proof of deposit or cash is required on collection of the Tender documents.

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

Technical enquiry
Tel No. 0163605895
E-mail. tenders@midvaal.gov.za

Or

SCM
Tel No. 0104962919
E-mail. tenders@midvaal.gov.za

A clarification meeting with representatives of the Employer will take place at Midvaal Engineering Services (Opposite Randvaal Clinic), 56 Rooibok Street, Highbury, Randvaal. USE GPS Coordinates: -26.515083, 28.044598 on 29 January 2025 starting at 10h00.

The closing time for receipt of Tenders is 10h00 on Monday, February 17, 2025.

Emailed and Late Tenders will not be accepted.

Tenders may only be submitted on the tender documentation that is issued.

Requirements for sealing, addressing, delivering, opening and assessment of Tenders are stated in the Tender Data.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (7)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

**PART A
INVITATION TO BID**

MBD 1

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF MIDVAAL LOCAL MUNICIPALITY					
BID NUMBER:	8/2/2/421	CLOSING DATE:		CLOSING TIME:	
DESCRIPTION					
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX
SITUATED AT (STREET ADDRESS

25 MITCHELL STREET					
MEYERTON					
1961					
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	☐ YES ☐ NO		B-BBEE STATUS LEVEL SWORN AFFIDAVIT		☐ YES ☐ NO
[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]					
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ YES ☐ NO [IF YES ENCLOSE PROOF]		ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?		☐ YES ☐ NO [IF YES ENCLOSE PROOF B:3]
TOTAL NUMBER OF ITEMS OFFERED			TOTAL BID PRICE		R
SIGNATURE OF BIDDER			DATE		
CAPACITY UNDER WHICH THIS BID IS SIGNED					

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (8)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		TECHNICAL INFORMATION MAY BE DIRECTED TO:	
DEPARTMENT	SUPPLY CHAIN MANAGEMENT	DEPARTMENT	ENGINEERING SERVICES
CONTACT PERSON	FINANCE:SCM OFFICE	CONTACT PERSON	TECHNICAL SUPPORT SERVICES
TELEPHONE NUMBER	016 360 7481	TELEPHONE NUMBER	016 360 5812
FACSIMILE NUMBER	N/A	FACSIMILE NUMBER	N/A
E-MAIL ADDRESS	tenders@midvaal.gov.za	E-MAIL ADDRESS	tenders@midvaal.gov.za

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

T1.2 TENDER DATA

T1.2.1 CONDITIONS OF TENDER

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (January 2009) as published in Government Gazette No 38960, Board Notice 136 of 2015 of 10 July 2015. (See www.cidb.org.za).

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

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

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

T1.2.2 TENDER DATA

The clause numbers in the Tender Data refer to the corresponding clause numbers in the Conditions of Tender (see Annex).

The additional Conditions of Tender are:

Clause number	Tender Data
F.1.1	The Employer is, Midvaal Local Municipality
F.1.2	The tender documents issued by the Employer comprise: Volume 1: Tendering Procedures T1.1 Tender Notice and Invitation to Tender T1.2 Tender Data Returnable Documents T2.1 List of Returnable Documents Part 1: Agreement and Contract Data C1.1 Form of Offer and Acceptance C1.2 Contract Data C1.3 Forms of Securities Part 2: Pricing Data C2.1 Pricing Instructions C2.2 Schedule of Rates Part 3: Scope of Work C3.1 Scope of Work C3.2 Particular Specifications C3.4 Occupational Health, Safety and Environmental Specification and Environmental Management Plan Part 4: Site Information C4 Site Information Volume 2: Drawings
F.1.4	The Employer's agent is: Contact person : Director: Technical Support Services Telephone : 016 360 5812 Facsimile : 086 502 0523 E-mail address : <u>tenders@midvaal.gov.za</u>

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

Clause number	Tender Data
F1.5.2	Replace the existing clause with the following: 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 or where in his opinion all received tenders are found to be non-responsive.
F.2.1.1	Eligibility criteria and requirements. TO ADEQUATELY SUBSTANTIATE ANY ELIGIBILITY CLAIM FOR CRITERIA BELOW THE TENDERER SHALL SUBMIT INFORMATION OR COMPLETE RETURNABLE SCHEDULES: CIDB registration and grading: 1) Only tenderers who are registered with the CIDB or have a sub-contractor registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined as follows: 4CE or HIGHER Certificate of Registration with CIDB to be submitted. 2) Joint ventures are eligible to submit tenders provided that: i) every member of the joint venture is registered with the CIDB. ii) the lead partner has a contractor grading designation in the applicable class of construction work; and iii) the combined contractor grading designation calculated in accordance with the CIDB Regulations is equal to or higher than a contractor grading designation as indicated above. Certificates of Registration with CIDB to be submitted.
F.2.7	The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.
F.2.13.1	Replace the existing clause with the following: The Tenderer is required to make an offer for all the services as defined in the scope of work and Bill of Quantities.
F.2.13.3	Each tender offer shall be submitted as an original, plus 0 copy.
F.2.13.5	The Employer's address for delivery of tender offers and identification details to be shown on the Tenderer's offer package are: Location of tender box: Ground Floor Tender Box

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

Clause number	Tender Data
	Physical address: Block A, Midvaal Municipality Offices, No. 25 Mitchell Street, Meyerton, 1860 Identification details: Tender reference number, Title of Tender and the closing date and time of the tender, <i>as well as the Tenderer's name, his Authorised Representative's name, postal address and telephonic contact numbers.</i>
F.2.13.6 & F.3.5	A two-envelope procedure will not be followed.
F.2.15.1	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.
F.2.16	The tender offer validity period is 90 days .
F.2.23	The Tenderer is required to submit with his tender a letter of intent from an approved insurer undertaking to provide the Performance Guarantee
F.2.23	The Tenderer is required to submit with his tender: 1) Valid SARS Compliance status Pin for Tenders issued by the South African Revenue Services. 2) Proof of CSD registration 3) Certificates of Contractor Registration issued by the CIDB 4) A Certified copy of Unemployment Insurance Certificate, Act 4 of 2002. 5) where the tendered amount inclusive of VAT exceeds R 10 million: i) audited annual financial statement for 3 years, or for the period since establishment if established during the last 3 years, if required by law to prepare annual financial statements for auditing; ii) a certificate certifying that the tenderer 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; iii) particulars of any contracts awarded to the tenderer 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; iv) a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment is expected to be transferred out of the Republic. Where a tenderer satisfies CIDB contractor grading designation requirements through joint venture formation, such tenderers must submit the Certificates of Contractor Registration in respect of each partner.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

Clause number	Tender Data
F.2.27	Add the following new clause: Tax Compliance In the case of a Joint Venture/Consortium the tax Compliance Status Pin must be submitted for each member of the Joint Venture/Consortium.”
F.3.1.1	Replace the contents of the clause with the following: “Respond to a request for clarification received up to seven calendar days before the tender closing time stated in the tender data and notify all Tenderers who drew procurement documents”
F.3.4.2	Tenders will be opened in public soon after closing time and recording of received documents at Midvaal Local Municipality Civic Centre, No. 25 Mitchell Street, Meyerton
F.3.11.1	The procedure for the evaluation of responsive tenders is: POTENTIAL SERVICE PROVIDERS WILL HAVE TO ACHIEVE ALL THE MINIMUM REQUIREMENTS. IT SHOULD BE NOTED THAT THE PREFERENCE PROCUREMENT WILL BE IN LINE WITH THE PREFERENTIAL PROCUREMENT REGULATIONS
F.3.11.3	EVALUATION CRITERIA/MINIMUM REQUIREMENTS This is required so that there is a level of comfort that the potential service provider can deliver the project with the required professionalism and quality. Only bidders who meet all the minimum requirements will be further evaluated. Company Experience (Bidders are required to attach Appointment letter and corresponding completion certificate for projects completed or Satisfactory letter as per annexure A, B and C) Tenderer has successfully completed a minimum of 3 or more projects in construction or installation of bulk water meters and domestic water meters within the last 10 years from the date of tender closing. Bidder must submit a minimum of three signed and dated appointment letters and corresponding completion certificates or a minimum of three satisfactory letters (as per annexure A, B and C) indicating construction or installation of bulk water meters and domestic water meters. Failure to comply to the company experience minimum requirements will result in the bid not evaluated further.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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Clause number	Tender Data
	Key Personnel (Bidders are required to Attach CV and Qualification for each key personnel) Contract Manager – With a minimum of 4 years of relevant experience and a minimum of NQF level 6 in Civil Engineering. Foreman- With a minimum of 5 years of relevant experience and a minimum of NQF level 4 in Civil Engineering. Plumber – With a minimum of 3 years of relevant experience and Trade Test/Red Seal in plumbing. Failure to comply to the key personnel minimum requirements will result in the bid not evaluated further. Plant and Equipment (Annexure D) The bidder must sign a certificate of undertaking to guarantee the availability of the plant and equipment as per Annexure D Failure to comply to the plant and equipment minimum requirements will result in the bid not evaluated further.
F.3.13	Tender offers will only be accepted if: - the tenderer has in his or her possession an original valid Tax Clearance Certificate or has provided a valid Tax Pin Code issued by the South African Revenue Services or has decided to meet outstanding tax obligations. - the tenderer is registered with the CIDB with an appropriate category of registration; - the tenderer or any of its directors is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector; - the tenderer has not: - abused the Employer's Supply Chain Management System; or - failed to pay municipal rates and taxes or service charges and such rates, taxes and charges are in arrears for more than three months; - failed to perform on any previous contract and has been given a written notice to this effect; - the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process.
F.3.18	The number of paper copies of the signed contract to be provided by the Employer is one.
Remove (The following clauses are not applicable)	

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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Clause number	Tender Data
F3.19.3	The transparency model must identify the criteria for selection of projects, project information template and the threshold value of the projects to be disclosed in the public domain at various intervals of delivery of infrastructure projects.
F3.19.4	The client must publish the information on a quarterly basis which contains the following information: • Procurement planning process • Procurement method and evaluation process • Contract type • Contract status • Number of firms tendering • Cost estimate • Contract title • Contract firm(s) • Contract price • Contract scope of work • Contract start date and duration • Contract evaluation reports
F3.19.5	The employer must establish a Consultative Forum which will conduct a random audit in the implementation of the transparency requirements in the procurement process.
F3.19.6	Consultative Forum must be an independent structure from the bid committees.
Additions (add the following clauses)	
F.3.20.1	Imbalance in Tendered Rates In the event of tendered rates or lump sums being declared by the Employer to be unacceptable to it because they are either excessively low or high or not in proper balance with other rates or lump sums, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the tendered rates or lump sums objected to, it may request the tenderer to amend these rates and lump sums along the lines indicated by it. The Tenderer will then have the option to alter and/or amend the rates and lump sums objected to and such other related amounts as are agreed on by the Employer, but this shall be done without altering the Contract Price. Should the Tenderer fail to amend the Tender in a manner acceptable to the Employer, the Employer may reject the Tender.
F3.20.2	Invalid Tenders Tenders shall be considered invalid and shall be endorsed and recorded as such in the tender opening record, by the responsible official who opened the tender, in the following circumstances: a. if the tender offer is not submitted on the Form of Offer and Acceptance bound into this tender document (form C1.1 Form of Offer and Acceptance);

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

Clause number	Tender Data
	b. if the tender is not completed in non-erasable ink; c. if the offer has not been signed; d. if the offer is signed, but the name of the tenderer is not stated or is indecipherable. e. if the tenderer has failed to submit supporting documentation for the evaluation of quality.
F3.20.3	Negotiations with Preferred Tenderers The Employer may negotiate the final terms of a contract with tenderers identified through a competitive tendering process as preferred tenderer provided that such negotiation: a. does not allow any preferred tenderer a second or unfair opportunity; b. is not to the detriment of any other tenderer; and c. does not lead to a higher price than the tender as submitted. Minutes of any such negotiations shall be kept for record purposes.
F3.20.4	General Supply Chain Management Conditions Applicable to Tenders The Supply Chain Management Policy is available from Midvaal Local Municipality's website.
F3.20.5	UIF The Tenderer shall submit to the Employer a letter from the Department of Labour indicating his/her good standing with regard to UIF payments upon being requested to do so.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

T1.2.3 AWARD STRATEGY

Bidders who comply with all the minimum requirements will be evaluated further for price and specific goals. The objective of Midvaal Local Municipality is to appoint 1(one) contractor whereby the highest procurement scorer will be appointed for the **SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS**. The Council reserves the right to accept any bid or part thereof and does not bind itself to accept the lowest or any bid.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

ANNEXURE: STANDARD CONDITIONS OF TENDER

As published in Annexure F of the CIDB Standard for Uniformity for construction Procurement, Board Notice 136 Government Gazette No 38960 of 10 July 2015

F.1 General

F.1.1 Actions

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

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

Note: 1) A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.

2) Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.

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

F.1.2 Tender Documents

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

F.1.3 Interpretation

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

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

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

- a) **conflict of interest** means any situation in which:
 - i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

- 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 price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;
- c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;
- 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) **functionality** means the measurement according to the predetermined norms of a service or commodity designed to be practical and useful, working or operating, taking into account quality, reliability, viability and durability of a service and technical capacity and ability of a tenderer.

F.1.4 Communication and employer's agent

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

F.1.5 Cancellation and Re-Invitation of Tenders

F1.5.1 An organ of state may, prior to the award of the tender, cancel a tender if-

- (a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or
- (b) funds are no longer available to cover the total envisaged expenditure; or
- (c) no acceptable tenders are received.

F1.5.2 The decision to cancel a tender must be published on the cidb as well as on the etender Portal in which the original tender invitation was advertised.

F.1.6 Procurement procedures

F.1.6.1 General

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

F.1.6.2 Competitive negotiation procedure

F.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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Notwithstanding the requirements of F.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of F.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

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

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

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

F.1.6.3 Proposal procedure using the two stage-system

F.1.6.3.1 Option 1

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

F.1.6.3.2 Option 2

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

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

F.2 Tenderer's obligations

F.2.1 Eligibility

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

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

F.2.2 Cost of tendering

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

F2.2.1 Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

F2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

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:

A compulsory clarification meeting will be held and communicated through the tender advert

F.2.8 Seek clarification

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

F.2.9 Insurance

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

F.2.10 Pricing the tender offer

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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Tendering Procedures

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

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

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

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

F.2.11 Alterations to documents

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

F.2.12 Alternative tender offers

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

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

F.2.12.3 An alternative tender offer may only be considered in the event that the main tender offer is the winning tender.

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.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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

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

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

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

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

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

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

F.2.15 Closing time

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

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

F.2.16 Tender offer validity

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

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

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

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

F.2.17 Clarification of tender offer after submission

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

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

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

F.2.18 Provide other material

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

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

F.2.19 Inspections, tests and analysis

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

F.2.20 Submit securities, bonds and policies

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

F.2.21 Check final draft

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

F.2.22 Return of other tender documents

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

F.2.23 Certificates

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

F.3 The employer's undertakings

F.3.1 Respond to requests from the tenderer

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

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

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

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

F.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three 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, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.

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

F.3.5 Two-envelope system

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

F.3.5.2 Evaluate functionality 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 functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

F.3.6 Non-disclosure

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

F.3.7 Grounds for rejection and disqualification

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

F.3.8 Test for responsiveness

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

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

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

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

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

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

F.3.9 Arithmetical errors, omissions and discrepancies

F.3.9.1 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with F.3.11 for:

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

F3.9.2 The employer must correct the arithmetical errors in the following manner:

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

Consider the rejection of a tender offer if the tenderer does not correct or accept the correction of the arithmetical error in the manner described above.

F.3.10 Clarification of a tender offer

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

F.3.11 Evaluation of tender offers

F.3.11.1 General

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

F.3.11.2 Method 1: Price and Preference

In the case of a price and preference:

- 1) Meet all minimum requirements
- 2) Score points for Specific goals
- 3) Add the points scored for price and Specific Goals

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

F.3.11.3 Method 2: Functionality, Price and Preference

In the case of a functionality, price and preference:

- 1) Score functionality, rejecting all tender offers that fail to achieve the minimum number of points for functionality as stated in the Tender Data.
- 2) No tender must be regarded as an acceptable tender if it fails to achieve the minimum qualifying score for functionality as indicated in the tender invitation.
- 3) Tenders that have achieved the minimum qualification score for functionality must be evaluated further in terms of the preference points system as described the preferential procurement regulations 2022

F.3.11.4 Scoring points functionality

Score each of the criteria and sub criteria for quality in accordance with the provisions of the Tender Data. Only tenderers achieving the minimum requirements as described will proceed to further evaluation, ie Price and Specific Goals

F3.11.5 Scoring points for Price

All eligible tenders will be allocated points for price as per the point scoring system described in the preferential procurement regulations, 2022 with the lowest priced tender scoring the highest and the remaining tenders scoring lower as determined through the calculation based on the formula provided.

F3.11.6 Scoring points preferences

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

Calculate the total number of tender evaluation points for preferences claimed in accordance with the provisions of the tender data.

F.3.12 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 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, under Business Rescue as provided for in chapter 6 of the Companies Act, 2008, bankrupt or being wound up, has his affairs administered by a court or a

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Tendering Procedures

- judicial officer, has suspended his business activities, or is subject to legal proceedings in respect of any of the foregoing,
- e) complies with the legal requirements, if any, stated in the tender data, and
 - f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

F.3.14 Prepare contract documents

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

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

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

F.3.15 Complete adjudicator's contract

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

F.3.16 Notice to unsuccessful tenderers

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

F.3.17 Provide copies of the contracts

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

F.3.18 Provide written reasons for actions taken

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

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2					
Part	T1	T2	C1	C2	C3	C4	

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VOLUME 1

PART T2: RETURNABLE DOCUMENTS

Employer:		Contractor	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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Returnable Schedules.....	33

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

T2 RETURNABLE DOCUMENTS

T2.1 SCHEDULE OF CONTRACT DOCUMENTS

THE TENDERER MUST COMPLETE AND RETURN THE DOCUMENTS LISTED BELOW AS PART OF HIS/HER TENDER SUBMISSION:

SCHEDULE	DESCRIPTION
	Returnable documents required for tender evaluation purposes
Schedule A	Documents incorporated in this tender document that must be completed and signed by all tenderers
MBD1	Invitation to Bid
A1	Authority To Sign Documents
A2	Clarification Meeting Certificate
A3	Certificate Of Authority For Joint Ventures
A4	Schedule Of Work Experience Of Tenderer
A5	Schedule Of Construction Plant
A6	Schedule Of Subcontractors
A7	Details Of Experience Of Project Team
A8	Alterations / Amendments By Tenderer
A9	Compulsory Enterprise Questionnaire
A10	General Information (Procurement)
A11	Equity Of Ownership
A12	Bidder's Attachments Checklist
A13	Record Of Addenda To Tender Documents
A14	Performance Management System
A15	Joint Venture Disclosure Form
A16	Midvaal Local Municipality Indemnity
A17	Municipal Services, Rates And Taxes Clearance Certificate For Supply Chain Purpose
A18	Declaration Of Interest (Mbd 4)
A19	Declaration For Procurement Above R10 Million (Vat Included) (Mbd 5)
A20	Points Claim Form In Terms Of The Preferential Procurement Regulations 2022 (Purchases) (Mbd 6.1)
A21	Declaration Of Bidder's Past Supply Chain Management Practices (Mbd 8) Preference
A22	Certificate Of Independent Bid Determination (Mbd 9)
A23	Specific Details Of Tenderer
A24	Form Concerning Fulfilment Of The Construction Regulations 2003
A25	Consent And Acknowledgments In Terms Of The Protection Of Personal Information Act 2013 (Popi)
Schedule B	Additional Documents to be provided by the Tenderer
B1	B1 CERTIFICATE OF REGISTRATION OF CONTRACTOR
B2	B2 TAX CLEARANCE CERTIFICATE
B3	B3 HEALTH AND SAFETY PLAN

NB: TENDERERS MUST COMPLETE THESE DOCUMENTS / DATA SHEETS / FORMS IN BLACK INK

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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T2.2 RETURNABLE SCHEDULES

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

A1. AUTHORITY TO SIGN DOCUMENTS

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

A Company	B Partnership	C Joint Venture	D Sole Proprietor	E Close Corporation

A. Certificate for Company

I,, chairperson of the board of directors of, hereby confirm that by resolution of the board (copy attached) taken on 20.....,

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

As witnesses:

- Chairman:
- Date :

B. Certificate of Partnership

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

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

NAME	ADDRESS	SIGNATURE	DATE

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

C. Certificate for Joint Venture

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

This authorization is evidence by the attached power of attorney signed by legally authorized signatories of all the partners to the Joint Venture.

NAME OF FIRM	ADDRESS	AUTHORISING SIGNATURE, NAME & CAPACITY
Lead partner		

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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D. Certificate for sole proprietor

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

As witnesses:

1..... Chairman:.....
 2. Date :

E. Certificate for Close Corporation

We, the undersigned, being key members in the business trading as
 hereby authorize Mr/Ms. acting in the capacity of
, to sign all documents in connection with the tender for Contract
 and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

A2. CLARIFICATION MEETING CERTIFICATE

This is to certify that I/We*

of (tenderer)

of (address)

Telephone number

Fax number

Email

on (date)

have examined the Site of the Works and its surroundings for which I/we* am/are* submitting this Tender and have, so far as is practicable, familiarised myself/ourselves* with all information, risks, contingencies and other circumstances which may influence or affect my/our* tender.

*Delete whichever is inapplicable

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

A3. CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

This Returnable Schedule is to be completed only if Tenderer is a joint venture.

We, the undersigned, are submitting this tender offer in joint venture and hereby authorise

Mr/Ms, authorised signatory of the company, close corporation or partnership..... acting in the capacity of lead partner, to sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

NAME OF FIRM	ADDRESS	DULY AUTHORISED SIGNATORY
Lead partner		Signature : Name : Designation :
		Signature :..... Name :..... Designation :.....
		Signature :..... Name :..... Designation :.....

Note: A copy of the Joint Venture Agreement showing clearly the percentage contribution of each partner to the Joint Venture shall be appended to this Schedule.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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A4. SCHEDULE OF WORK EXPERIENCE OF TENDERER

Tenderers shall insert in the Schedule hereunder details of work successfully carried out by them of the same nature to that for which their tender is submitted. Failure to complete this Schedule will be taken to indicate that the Tenderer has no experience in this class of work.

COMPLETED CONTRACTS				
Employer (Name, Tel, Fax, Email)	Consulting Engineer (Name, Tel, Fax, Email)	Nature Of Work	Value of Work R(M)	Date Comple ted
Name:				
Tel :				
Fax :				
Email :				
Name:				
Tel :				
Fax :				
Email :				
Name:				
Tel :				
Fax :				
Email :				
Name:				
Tel :				
Fax :				
Email :				

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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CURRENT CONTRACTS				
Employer (Name, Tel, Fax, Email)	Consulting Engineer (Name, Tel, Fax, Email)	Nature Of Work	Value of Work R(M)	Anticipated Completion Date
Name:				
Tel :				
Fax :				
Email :				
Name:				
Tel :				
Fax :				
Email :				
Name:				
Tel :				
Fax :				
Email :				
Name:				
Tel :				
Fax :				
Email :				

If there is insufficient space above, the tenderer may append additional sheets.

Number of additional sheets appended by the tenderer to this Schedule (If nil, enter NIL)

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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A5. SCHEDULE OF CONSTRUCTION PLANT

The bidder must sign a certificate of undertaking to guarantee the availability of the plant and equipment as per **Annexure D**

CONSTRUCTION PLANT AVAILABLE				
Description	Size	Capacity	Number	When Available

CONSTRUCTION PLANT THAT WILL BE ACQUIRED / HIRED					
Description	Arrangements Made	Delivery Date	Size	Capacity	Number

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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If there is insufficient space above, the tenderer may append additional sheets.

Number of additional sheets appended by the tenderer to this Schedule (If nil, enter NIL)

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

A6. SCHEDULE OF SUBCONTRACTORS

We notify you that it is our intention to employ the following Subcontractors for work in this contract.

SUBCONTRACTORS			
Category/type	Subcontractor Name/Address/Contact Person/Phone/Fax/Details of Organisation/Firm/ Experience	Items of work (pay items) to be undertaken by the Subcontractor	Estimated Cost of Work (Rand)
TOTAL (Excluding VAT)			

If there is insufficient space above, the tenderer may append additional sheets.

Number of additional sheets appended by the tenderer to this Schedule (If nil, enter NIL)

Acceptance of this tender shall not be construed as approval of all or any of the listed subcontractors. Should any of the subcontractors not be approved subsequent to acceptance of the tender, this shall in no way invalidate this tender, and the tendered unit rates for the various items of work shall remain final and binding, even in the event of a subcontractor not listed above being approved by the Engineer.

Tenderers must ensure that the amount of sub-contractor work correlates with the percentage provided in Schedule 0 and will be subject to the conditions contained therein

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

A7. DETAILS OF EXPERIENCE OF PROJECT TEAM

Tenderers shall set out in the Schedule hereunder details of the experience of the Project Team in work of a same nature to that for which this Tender is submitted. **Should the actual members of the Project Team be changed prior or during construction, the client reserves the right to insist on the replacements having a similar amount of experience to the persons they are replacing.** Failure to complete this Schedule may result in the Tender not being considered

CONTRACTS MANAGER				
NAME			NQF LEVEL (Minimum Req. 6)	
Contract and Client	Nature Of Work	Position Held	Value Of Work	Year Completed
FOREMAN				
NAME			NQF LEVEL (Minimum Req. 4)	
Contract and Client	Nature Of Work	Position Held	Value Of Work	Year Completed
PLUMBER				
NAME			NQF LEVEL (Minimum Req. REDSEAL/ TRADE TEST)	
Contract and Client	Nature Of Work	Position Held	Value Of Work	Year Completed

If there is insufficient space above, the tenderer may append additional sheets.

Number of additional sheets appended by the tenderer to this Schedule (If nil, enter NIL)

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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A8. ALTERATIONS / AMENDMENTS BY TENDERER

Should the Tenderer desire to offer any alternatives and/or alterations with economic or technical advantages to the Employer or to qualify his Tender in any way, he shall set out his proposals clearly hereunder, or alternatively state them in a covering letter attached to his Tender and referred to hereunder, failing which the Tender will be deemed to be unqualified.

If no departure or modification is desired, the schedule hereunder is to be marked "NIL", and signed by the Tenderer.

PAGE	CLAUSE OF ITEM	REMARKS

Signed Date

Name Position

Tenderer

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

A9. COMPULSORY ENTERPRISE QUESTIONNAIRE

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

Section 1: Name of enterprise
Address of enterprise

Section 2: VAT registration number, if any

Section 3: CIDB registration number, if any

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record of service of the state

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

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

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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☐	a member of an accounting authority of any national or provincial public entity
☐	
☐	an employee of Parliament or a provincial legislature
☐	

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

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

*insert separate page if necessary

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

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

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

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

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

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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*insert separate page if necessary

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

- i) authorises the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that neither the name of the enterprise nor the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I/we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

SIGNED:

ENTERPRISE NAME

DATE

SIGNATURE

NAME

POSITION

SIGNATURE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

A10. GENERAL INFORMATION (PROCUREMENT)

1. Name of tendering entity:

2. Contact details:

Contact name and number:.....

Address of tendering entity:

Postal code:

Tel no: ()..... Fax no: ().....

E-mail address:

3. Legal entity: Mark with an X.

Sole proprietor	
Partnership	
Close corporation	
Company (Pty) Ltd	
Joint venture	

In the case of a Joint venture, provide details on joint venture members:

Joint venture member	Type of entity (as defined above)

4. Income tax reference number: **(COMPULSORY)**

(In the case of a joint venture, provide for all joint venture members)

.....

.....

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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5. VAT registration number (COMPULSORY):

(In the case of a joint venture, provide for all joint venture members)

.....
.....

6. Company or closed corporation registration number (COMPULSORY):

(In the case of a joint venture, provide for all joint venture members)

.....
.....

7. Construction Industry Development Board (CIDB) registration number (COMPULSORY)

(In the case of a joint venture, provide for all joint venture members)

.....
.....

8. Municipal rates and taxes or service charges accounts of tendering entities and its directors / members (COMPULSORY)

(In the case of a joint venture, provide for all joint venture members)

ATTACH COPIES OF ALL LATEST MUNICIPAL ACCOUNTS (SEE "NOTICE TO TENDERERS: VERY IMPORTANT NOTICE ON DISQUALIFICATIONS" PARAGRAPH No. 13)

9. Details of proprietor, partners, closed corporation members, or company directors, indicating technical qualifications where applicable (Form on the next page).

10. For joint ventures the following must be attached:

- Written authority **of each JV partner**, for authorized signatory.
- The joint venture agreement.

SIGNED BY/ON BEHALF OF TENDERER:

NAME		SIGNATURE		DATE

DETAILS OF PROPRIETOR, PARTNERS, CLOSED CORPORATION MEMBERS OR COMPANY DIRECTORS

(In the event of a joint venture, to be completed by all joint venture partners)

Name and Surname	Identity Number	Relevant qualifications and experience	Years of relevant experience

A11. EQUITY OF OWNERSHIP

List all partners, shareholders or members of tendering entity by name, identity number, citizenship, gender, race, B-BBEE status and ownership.

In the case of a JV, complete an Equity ownership for each JV member.

Name and Surname	Position Occupied in Enterprise	Identity Number	Date RSA Citizen-ship obtained	Gender Male / Female	Race	B-BBEE Status (Yes/No)	Date of Ownership	% B-BBEE Owned	% Owned by Women	% Owned by Disabled
TOTAL								A	B	C

Note: Where owners are themselves a company or partnership, identify the ownership of the holding firm.

In the case of joint ventures equity ownership for each of the JV members are determined as above, and the combined B-BBEE ownership is then calculated as follows:

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Joint venture members	a % Contribution to the JV	b %BBBEE	c = a * b ÷ 100 % BBBEE contribution
Total BBBEE contribution			

A COPY OF A VALID SIGNED JOINT VENTURE AGREEMENT MUST BE ATTACHED TO THE TENDER DOCUMENT.
FAILURE TO COMPLY WITH ABOVE-MENTIONED WILL RESULT IN REJECTION OF THIS TENDER

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

1. SMME Status

Provide details on the following

Sector/Sub-Sector in accordance with the Standard Industrial Classification	
Total Full-time Equivalent of paid Employees	
Total Annual Turnover	
Total Gross Asset Value	
Size or Class (Medium, Small, Very Small, Micro)	

NOTE: If all of the above does not adhere to the definition of a single class, use the total Annual Turnover only to decide on the class.

SIGNED BY/ON BEHALF OF TENDERER:

NAME		SIGNATURE		DATE

Volume	1	2					
Part	T1	T2	C1	C2	C3	C4	

A12. BIDDER'S ATTACHMENTS CHECKLIST

ADMINISTRATIVE COMPLIANCE:

DESCRIPTION			BIDDER'S CHECKLIST	
1	Certified copy of the signed resolution by all directors authorising a director/ other official of the company to sign the documents on behalf of the company.		YES NO	
2	Current Water and Lights / Rates and Taxes obtainable from the local or metropolitan municipality.		YES NO	
3	In a case of a Joint Venture (JV)/ Consortium, the JV agreement.		YES NO	
4	Valid B-BBEE certificate or Completed or signed Sworn Affidavit The municipality only considers B-BBEE certificates from SANAS accredited agencies as well as certificates and sworn affidavits from the DTI.		YES NO	
SPECIFIC GOALS – POINTS CLAIM				
Goal	Weight	Required Proof	Bidder's Checklist	
Local Enterprise (<i>5 Points</i>)	5 Points, if the business operates within the jurisdiction of Midvaal Local Municipality	- Rates and Taxes statement in the name of the business, or that of its director(s); OR - Confirmation of the company's director(s) ward and voting district as per the IEC (Independent Electoral Commission of South Africa)	YES NO	
	3 Points, if the business operates outside Midvaal but within the Sedibeng District jurisdiction			
	1 Points, if the business operates outside the Sedibeng jurisdiction			
	0 points for non-submission			
Women Owned (must be South African) (<i>5 points</i>)	5 Points if 100% ownership by Black/Indian/Coloured	ID Copies of directors or Company registration documents with shareholder's certificate	YES NO	
	3 Points if 51% ownership by Black/Indian/Coloured			
	1 Points if less than 51% ownership by Black/Indian/Coloured			
	0 Points for Non-Submission			
B-BBEE Status (<i>10 Points</i>)	Status Contributor	B-BBEE certificate: - issued by the DTIC (The Department of Trade and Industry and Competition) through CIPC; OR - from an accredited institution registered with SANAS; OR - a valid sworn affidavit, as issued by the DTIC	YES NO	
	1			10
	2			8
	3			6
	4			5
	5			4
	6			3
	7			2
	8			1
	Non-Compliant Contributor			0

NAME

SIGNATURE

DATE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

A13. RECORD OF ADDENDA TO TENDER DOCUMENTS

We confirm that the following communications received from the Employer before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer:		
No.	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		

If there is insufficient space above, the tenderer may append additional sheets.

Number of additional sheets appended by the tenderer to this Schedule (If nil, enter NIL)

SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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 SUPPLY, INSTALLATION AND REPLACEMENT OF
 BULK AND DOMESTIC WATER METERS AND RELATED
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 BASIS FOR A PERIOD OF 36 MONTHS

Returnable Documents

A14. PERFORMANCE MANAGEMENT SYSTEM

The Municipal Finance Management Act (No. 56 of 2003) Section 116 (2) (d) determines that a Municipality must enter into a Performance Management System (PMS) with all service providers.

An assignment specific PMS has been drafted and needs to be signed by the appointed signatory as part of this tender document and the costing for this project will run for 36 months from the date of appointment.

ACCEPTANCE OF PMS AGREEMENT

You are hereby requested to sign this document as acceptance of the agreement. Failure to sign this document will lead to disqualification.

CONTRACTOR

SIGNATURE

NAME

DESIGNATION

DATE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (57)
 SUPPLY, INSTALLATION AND REPLACEMENT OF
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 BASIS FOR A PERIOD OF 36 MONTHS
Returnable Documents

**PERFORMANCE MANAGEMENT SYSTEM
 EXTERNAL SERVICE PROVIDERS**

ANNEXURE "B"

(in terms of Section 116 of the Municipal Finance Management Act, Act 56 of 2003)

CONTRACT		SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS				
COMPANY						
TENDER NO		BID 8/2/2/425		DATE APPROVED		
TERM OF CONTRACT		36 MONTHS				
RESPONSIBLE PERSON FOR ASSESSMENT & COMPLETION OF PERFORMANCE REPORT						
KEY PERFORMANCE AREA	KEY PERFORMANCE INDICATOR		RESPONSIBLE PERSON & TARGET DATE	COMPLIANCE & DATE	DEVIATIONS, IF ANY, PROVIDE REASONS	AGREED RECTIFICATION MEASURES TO COMPLY
A. OPERATIONAL KPI's (TO BE COMPLETED BY RELEVANT DEPARTMENT ACCORDING TO APPROVED TENDER SPECIFICATIONS)						
Project Initiation	1. Submit and obtain approval for Health & Safety file. 2. Inform department of labour about the project. 3. Submit construction programme and obtain approval from the Engineer. 4. Provide construction guarantees and proof of insurance as required.		Service Provider Within 14 days of award.			
Contract Administration	1. Provide Monthly progress report. 2. Provide monthly labour reports as required for both WSIG and EPWP reporting. 3. Provide an updated construction programme monthly. 4. Submit invoices on or before 25 th of each month. 5. Attend site meetings as arranged by the Engineer.		Service Provider Monthly.			
Construction	1. Compliance with health and safety requirements. 2. Comply with quality requirements.		Service Provider Monthly or as required.			

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (58)
 SUPPLY, INSTALLATION AND REPLACEMENT OF
 BULK AND DOMESTIC WATER METERS AND RELATED
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 BASIS FOR A PERIOD OF 36 MONTHS

Returnable Documents

	3. Maintain progress in accordance with approved construction programme. 4. Provide required testing and design certificates.				
Indemnity Clause	Indemnification of Midvaal Local Municipality of any in-juries or losses that may occur during the execution of work	Service Provider Annually			
Occupational Health & Safety Act	Compliance to Occupational Health & Safety Act at all times	Service Provider Ongoing			

Accepted and agreed upon:

 ON BEHALF OF SERVICE PROVIDER

 SIGNATURE: MIDVAAL LOCAL MUNICIPALITY

 DATE

 DATE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (lix)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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A15. JOINT VENTURE DISCLOSURE FORM

GENERAL

- i) All the information requested must be filled in the spaces provided. If additional space is required, additional sheets may be used and attached to the original documents.
- ii) A copy of the joint venture agreement must be attached to this form, in order to demonstrate the Affirmable, Joint Venture Partner's share in the ownership, control, management responsibilities, risks and profits of the joint venture, the proposed joint venture agreement must include specific details relating to:
 - a. the contributions of capital and equipment
 - b. work items to be performed by the Affirmable Joint Venture Partner's own forces
 - c. work items to be performed under the supervision of the Affirmable Joint Venture Partner.
- iii) Copies of all written agreements between partners concerning the contract must be attached to this form including those, which relate to ownership options and to restrictions/limits regarding ownership and control.
- iv) ABE partners must complete ABE Declaration Affidavits.
- v) The joint venture must be formalised. All pages of the joint venture agreement must be signed by all the parties concerned. A letter/ notice of intention to formalise a joint venture once the contract has been awarded will not be considered.
- vi) Should any of the above not be complied with, the joint venture will be deemed null and void and will be considered non-responsive.

1. JOINT VENTURE PARTICULARS

- a) Name.....
- b) Postal address.....
.....
.....
- c) Physical address
.....
.....
- d) Telephone
- e) Fax

2. IDENTITY OF EACH NON-AFFIRMABLE JOINT VENTURE PARTNER

- 2.1(a) Name of Firm.....
Postal Address.....
Physical Address
Telephone.....
Fax.....

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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Contact person for matters pertaining to Joint Venture Participation Goal requirements:

.....

2.2(a) Name of Firm

Postal Address.....

Physical Address

Telephone.....

Fax.....

Contact person for matters pertaining to Joint Venture Participation Goal requirements:

.....

(Continue as required for further non-Affirmable Joint Venture Partners)

3. IDENTITY OF EACH AFFIRMABLE JOINT VENTURE PARTNER

3.1(a) Name of Firm

Postal Address.....

Physical Address

Telephone.....

Fax.....

Contact person for matters pertaining to Joint Venture Participation Goal requirements:

.....

3.2(a) Name of Firm

Postal Address.....

Physical Address

Telephone.....

Fax.....

Contact person for matters pertaining to Joint Venture Participation Goal requirements:

.....

3.3(a) Name of Firm

Postal Address.....

Physical Address

Telephone

Fax.....

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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Contact person for matters pertaining to Joint Venture Participation Goal requirements:

.....

4. BRIEF DESCRIPTION OF THE ROLES OF THE AFFIRMABLE JOINT VENTURE PARTNERS IN THE JOINT VENTURE

.....

.....

.....

5. OWNERSHIP OF THE JOINT VENTURE

a) Affirmable Joint Venture Partner ownership percentage(s)
%

b) Non-Affirmable Joint Venture Partner ownership percentage(s)
%

c) Affirmable Joint Venture Partner percentages in respect of : *

i) Profit and loss sharing

ii) Initial capital contribution in Rands

(*Brief descriptions and further particulars should be provided to clarify percentages).

iii) Anticipated on-going capital contributions in Rands

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

.....

.....

.....

6. RECENT CONTRACTS EXECUTED BY PARTNERS IN THEIR OWN RIGHT AS PRIME CONTRACTORS OR AS PARTNERS IN OTHER JOINT VENTURES

	NON-AFFIRMABLE JOINT VENTURE PARTNERS	PARTNER NAME
a)		
b)		
c)		
d)		
e)		

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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	AFFIRMABLE JOINT VENTURE PARTNERS	PARTNER NAME
a)		
b)		
c)		
d)		
e)		

7. CONTROL AND PARTICIPATION IN THE JOINT VENTURE

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

a) Joint Venture cheque signing

.....

.....

.....

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

.....

.....

.....

c) Signing, co-signing and/or collateralising of loans

.....

.....

.....

d) Acquisition of lines of credit

.....

.....

.....

e) Acquisition of performance bonds

.....

.....

.....

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data

- f) Negotiating and signing labour agreements

.....

.....

.....

8. MANAGEMENT OF CONTRACT PERFORMANCE

(Fill in the name and firm of the responsible person).

- a) Supervision of field operations

.....

purchasing

- b) Estimating

.....

- c) Technical management

.....

9. MANAGEMENT AND CONTROL OF JOINT VENTURE

- a) Identify the "managing partner", if any,

.....

.....

.....

.....

- b) What authority does each partner have to commit or obligate the other to financial institutions, insurance companies, suppliers, subcontractors and/or other parties participating in the execution of the contemplated works?

.....

.....

.....

.....

- c) Describe the management structure for the Joint Venture's work under the contract

MANAGEMENT FUNCTION / DESIGNATION	NAME	PARTNER*

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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(Fill in "ex Affirmable Joint Venture Partner" or "ex non-Affirmable Joint Venture Partner".

10. PERSONNEL

- a) State the approximate number of operative personnel (by trade/function/discipline) needed to perform the Joint Venture work under the Contract.

TRADE/FUNCTION/ DISCIPLINE	NUMBER EX AFFIRMABLE JOINT VENTURE PARTNERS	NUMBER EX NON- AFFIRMABLE JOINT VENTURE PARTNERS

(Fill in "ex Affirmable Joint Venture Partner" or "ex non-Affirmable Joint Venture Partner").

- b) Number of operative personnel to be employed on the Contract who are currently in the employ of partners.

- (i) Number currently employed by Affirmable Joint Venture Partners

.....

- (ii) Number currently employed by the Joint Venture

.....

- c) Number of operative personnel who are not currently in the employ of the respective partner and will be engaged on the project by the Joint Venture

.....

- d) Name of individual(s) who will be responsible for hiring Joint Venture employees

.....

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK
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e) Name of partner who will be responsible for the preparation of Joint Venture payrolls

11. CONTROL AND STRUCTURE OF THE JOINT VENTURE

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

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

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

Signature

Duly authorised to sign on behalf of

Name

Address

Telephone

Date

Signature

Duly authorised to sign on behalf of

Name

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (lxvi)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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Address

Telephone.....

Date

Signature

Duly authorised to sign on behalf of

Name.....

Address

Telephone.....

Date

Signature

Duly authorised to sign on behalf of

Name.....

Address

Telephone.....

Date

(Continue as necessary)

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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A16. MIDVAAL LOCAL MUNICIPALITY INDEMNITY

1. The Contractor hereby agrees to indemnify, hold harmless and defend Midvaal Local Municipality and their officers, employees, agents and representatives, from and against the following liabilities arising as a result of the execution of the work:
 - 1.1 Any liability with regard to claims by governmental authorities or others for non-compliance by Contractor of any Act of Parliament, law, ordinance, regulation or by-law made by a lawful authority provided that such compliance therewith was required for the execution of the Contract or at Law.
 - 1.2 Any liability arising from actual or alleged public or private nuisance arising out of negligent acts or omissions to act of Contractor or its Subcontractors, or of their employees.
 - 1.3 Any liability arising from loss or damage to Contractor and/or Subcontractor's equipment and their other property on site.
 - 1.4 Any liability arising from claims with regard to the death of/or injury or sickness or disease to Contractor' employees or the death of/or injury or sickness or disease to third parties.
 - 1.5 Any liability arising from any loss of/or damage to property belonging to a third party.
 - 1.6 Any liability arising from actual or asserted infringement or improper appropriation or use of patents, copyrights, proprietary information or know- how in respect of the work designed by/or under the responsibility of the Contractor.
 - 1.7 Any liability arising from the death or injury or loss or damage to property of third parties or Midvaal Local Municipality's property as a result of the negligent acts or omissions of contractors or its subcontractor's employees.
 - 1.8 Contractor shall indemnify Midvaal Local Municipality against all claims, proceedings, damages and costs of whatsoever nature arising out of contravention of environmental legislation.

I, _____ the undersigned (duly authorised to sign) hereby declare that I have read and understood the abovementioned and agree to all the above.

COMPANY:	
ADDRESS:	
TEL:	
CELL:	

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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SIGNED BY/ON BEHALF OF TENDERER:

NAME

SIGNATURE

DATE

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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A17. MUNICIPAL SERVICES, RATES AND TAXES CLEARANCE CERTIFICATE FOR SUPPLY CHAIN PURPOSE

The purpose of this form is to obtain proof that municipal services, rates and taxes of the service provider are not more than three months in arrears with the relevant municipality / landlord in the municipal area where the service provider conduct his / her business. **This form is to be completed only if the service provider's rates and taxes are not in arrears for more than three months.**

PART A – to be completed by the relevant municipality in the case where the service provider is the registered owner of the site / owner pays for municipal services / tenant pays for municipal services

OR

PART B – to be completed by the landlord in the case where the service provider is renting the premises / rental paid by tenant include municipal services.

PART A (TO BE COMPLETED BY THE LOCAL AUTHORITY)	
Name of the Municipality:	
Property Physical Address:	
Registered Name:	
Official's Name: _____ Signature : _____ Date: _____	Municipality Stamp Here
Please indicate whether company/owner in arrears or up-to-date Rates and taxes : Up-to-date/in arrears for more than 3 months Water: Up-to-date/in arrears for more than 3 months Electricity: Up-to-date/in arrears for more than 3 months Refuse : Up-to-date/in arrears for more than 3 months Other services: Up-to-date/in arrears for more than 3 months	
PART B (TO BE COMPLETED BY THE LANDLORD)	
Name of the Landlord:	
Property Physical Address:	
Landlord Signature:	
Date: _____ Landlord's business stamp here Or an Affidavit from SAPS in the event the landlord does not have a business stamp) Please tick whether up-to-date or in arrears Rental: Up-to-date/ in arrears for more than 3 months Municipal services: Up-to-date/ in arrears for more than 3 months	

SIGNED BY/ON BEHALF OF TENDERER:

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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NAME

SIGNATURE

DATE

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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A18. DECLARATION OF INTEREST (MBD 4)

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

4.1 Full Name of bidder or his or her representative:

4.2

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Identity Number:

4.3 Position occupied in the Company (director, trustee, shareholder²):

4.4 Company Registration Number:

4.5 Tax Reference Number:

4.6 VAT Registration Number:

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

4.8 Are you presently in the service of the state?

YES

NO

--	--

If so, furnish particulars.

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

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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- (a) A member of –
- any municipal council;
 - any provincial legislature; or
 - 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.

4.9 Have you been in the service of the state for the past twelve months?

YES NO

--	--

If so, furnish particulars.

4.10 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

--	--

If so, furnish particulars.

4.11 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?

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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YES NO

--	--

If so, furnish particulars.

4.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state?

YES NO

--	--

If so, furnish particulars.

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

YES NO

--	--

If so, furnish particulars.

4.14 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

--	--

If so, furnish particulars.

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

FULL NAME	IDENTITY NUMBER	STATE EMPLOYEE NUMBER

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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Please note that The Federal Executive of the DA resolved as follows:

"That no office-bearer or member of the professional staff of the Party, or any company, partnership, close corporation or similar juristic entity in which such office-bearer or member of the professional staff has an interest, may tender for or contract to provide any goods or services to any DA controlled government.

For the purposes of this resolution:

"office-bearer" means any public representative or member of the Federal Executive, a provincial executive, a provincial management committee, a regional executive or a constituency executive;

"an interest" means that the office bearer or member of the professional staff has a 5% of more stake; and

"member of the professional staff" means any person who has an employment contract with the Party, and includes any person who is employed by the Party but who is paid by an organ of state, but does not include any person paid a gratuity or honorarium for services rendered to the Party."

- 6.1 Are you or your company an office-bearer by means of any public representative or member of the Federal Executive, a provincial executive, a provincial management committee, a regional executive or a constituency executive?

YES NO

--	--

If so, furnish particulars.

- 6.2 Do you or your company have an interest by means that the office bearer or member of the professional staff has a 5% of more stakes?

YES NO

--	--

If so, furnish particulars.

- 6.3 Are you or your company a member of the professional staff by means any person who has an employment contract with the Party, and includes any person who is employed by the Party but who is paid by an organ of state, but does not include any person paid a gratuity or honorarium for

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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services rendered to the Party?

YES NO

--	--

If so, furnish particulars.

CERTIFICATION

I, THE UNDERSIGNED (NAME) _____

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

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

SIGNATURE DATE

POSITION NAME OF BIDDER

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK
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A19. DECLARATION FOR PROCUREMENT ABOVE R10 MILLION (VAT INCLUDED)-MBD5

TENDERERS MUST COMPLETE THE FOLLOWING QUESTIONNAIRE:

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

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

.....
.....

1.2. If no, un-audited financial statements must be submitted with your tender.

.....
.....

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 Tenderer 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.

.....
.....

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (lxxvii)

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CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)

.....

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS 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.

POSITION		SIGNATURE		DATE

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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A20.PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022 (PURCHASES) (MBD 6.1)

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

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

1. GENERAL CONDITIONS

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

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

1.2 **To be completed by the organ of state**

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

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

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

1.4 **To be completed by the organ of state**

The maximum points for this tender are allocated as follows:

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

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

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

2. DEFINITIONS

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

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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any other method envisaged in legislation;

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

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

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

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

Where

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

4. POINTS AWARDED FOR SPECIFIC GOALS

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

- 4.2 If it is unclear whether the 80/20 or 90/10 preference point system applies, the following will apply:—

- (a) an invitation for tender for income-generating contracts, either the 80/20 or 90/10 preference point system will apply and the highest acceptable tender will be used to determine the applicable preference point system; or
- (b) any other invitation for tender, either the 80/20 or 90/10 preference point system will apply and 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 tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system)	Number of points allocated (80/20 system)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
---	---	---	---	---

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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	(To be completed by the organ of state)	(To be completed by the organ of state)		
Local Enterprise	N/A	5	N/A	
B-BBEE	N/A	10	N/A	
Woman Enterprise	N/A	5	N/A	

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3 Name of company/firm _____

4.4 Company registration number _____

4.5 TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

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

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

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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A21. DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES (MBD 8)

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

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

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME) _____

CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM TRUE AND CORRECT.

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

SIGNATURE

DATE

POSITION

NAME OF BIDDER

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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A22. CERTIFICATE OF INDEPENDENT BID DETERMINATION (MBD 9)

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).²² 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:

¹Includes 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.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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I, the undersigned, in submitting the accompanying bid:

Contract No: 8/2/2/425: SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

(Bid Number and Description)

in response to the invitation for the bid made by:
(Name of Municipality / Municipal Entity)

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

I certify, on behalf of: _____ that: (Name of Bidder)

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

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

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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1. 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.
2. 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

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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A23. SPECIFIC DETAILS OF TENDERER

Tenderer:

Address:

.....

.....

.....

Contact Person:

Telephone Number:

Fax Number:

Bank:

Branch:

Name of Cheque Account:

Cheque Account Number:

Contact Person:

Telephone Number:

Guarantee:

Branch:

Contact Person:

Telephone Number:

VAT Registration No:

.....

Signed Date

Name Position

.....

Tenderer

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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A24. FORM CONCERNING FULFILMENT OF THE CONSTRUCTION REGULATIONS 2003

In terms of regulation 4(3) of the Construction Regulations, 2003 (hereinafter referred to as the Regulations), promulgated on 18 July 2003 in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) the Employer shall not appoint a contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender for the due fulfilment of all the applicable requirements of the Act and the Regulations.

- I confirm that I am fully conversant with the Regulations and that my company has (or will acquire/procure) the necessary competencies and resources to timeously, safely and successfully comply with all of the requirements of the Regulations. (Tick)

YES	
NO	

- Proposed approach to achieve compliance with the Regulations (Tick)

Own resources, competent in terms of the Regulations (refer to 3 below)	
Own resources, still to be hired and/or trained (until competency is achieved)	
Specialist subcontract resources (competent) - specify:	

- Provide details of proposed key persons, competent in terms of the Regulations, who will form part of the Contract team as specified in the Regulations (CVs to be attached):

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

- Provide details of proposed training (if any) that will be undergone:

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

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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5. Potential key risks identified and measures for addressing risks:

.....

.....

.....

.....

6. I have fully included in my tendered rates and prices (in the appropriate payment items provided in the Schedule of Quantities) for all resources, actions, training and any other costs required for the due fulfilment of the Regulations for the duration of the construction and defects repair period. (Tick)

YES	
NO	

SIGNED BY/ON BEHALF OF TENDERER:

NAME		SIGNATURE	DATE

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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A25. CONSENT AND ACKNOWLEDGMENTS IN TERMS OF THE PROTECTION OF PERSONAL INFORMATION ACT 2013 (POPI)

This section sets out how personal information will be collected, used and protected by Midvaal Local Municipality hereinafter referred to as "MLM", as required by the Protection of Personal Information Act. The use of the words "the individual" for the purposes of this document shall be a reference to any individual (bidder) communicating with MLM and/or concluding any agreement, registration or application, with the inclusion of each of those individuals referred to or included in terms of such agreement, registration or application.

1. What is personal information?

The personal information that MLM requires relate to names and surnames, birth dates, identity numbers, passport numbers, demographic information, education information, occupation information, health information, addresses, memberships, and personal and work email and contact details.

2. What is the purpose of the collection, use and disclosure (the processing) of personal information?

MLM is legally obligated to collect, use and disclose personal information for the purposes of:

- reporting MLM initiatives to the Gauteng Provincial Treasury and Sedibeng District Municipality;
- reporting to National Treasury all contracts awarded;
- obtaining information related to Tax Compliance information from SARS;
- Verifying information on the National Treasury database of defaulters;
- evaluating and processing applications for registration on the database;
- compiling statistics and other reports;
- providing personalised communications;
- complying with the law; and/or
- for a purpose that is ancillary to the above. Personal information will not be processed for a purpose other than what is identified (the purpose) above without obtaining consent beforehand.

3. How will MLM process personal information?

MLM will only collect personal information for the purpose as stated above. Information will be collected in the following manner:

- directly from the individual;
- from service providers who provided with services or goods to MLM;
- from MLM's own records relating to previous supply of services or goods; and/or
- from a relevant public or equivalent entity.

4. To whom will personal information be disclosed?

The personal information may be disclosed to other relevant public or other entities on whose behalf we act as intermediaries, other third parties referred to above in relation to the purpose or who are sources of personal information, service providers such as professional bodies who operate across the borders of this country (transborder flow of information) where personal information must be sent in order to provide the information and/or services and/or benefits requested or applied for. In the event of another party/ies acquiring all of or a portion of MLM's mandate or functions, personal information will be disclosed to that party but they will equally be obliged as we are, to protect personal information in terms of this policy and the law.

5. Consent and Permission to process personal information:

I hereby agree with the policy and provide authorisation to MLM to process the personal information provided for the purpose stated.

- I understand that withholding of or failure to disclose personal information will result in MLM being unable to perform its functions and/or any services or benefits I may require from MLM.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data

- Where I shared personal information of individuals other than myself with MLM I hereby provide consent on their behalf to the collection, use and disclosure of their personal information in terms of this personal information policy and I warrant that I am authorised to give this consent on their behalf.
- To this end, I indemnify and hold MLM not responsible in respect of any claims by any other person on whose behalf I have consented, against MLM should they claim that I was not so authorised.
- I understand that in terms of POPI and other laws of the country, there are instances where my express consent is not necessary in order to permit the processing of personal information, which may be related to police investigations, litigation or when personal information is publicly available.
- I will not hold MLM responsible for any improper or unauthorised use of personal information that is beyond its reasonable control.

6. Rights regarding the processing of personal information:

- The individual may withdraw consent to the processing of personal information at any time, and should they wish to do so, must provide MLM with reasonable notice to this effect. Please note that withdrawal of consent is still subject to the terms and conditions of any contract that is in place. Should the withdrawal of consent result in the interference of legal obligations, then such withdrawal will only be effective if MLM agrees to same in writing. MLM specifically draws to the attention that the withdrawal of consent may result in it being unable to provide the requested information and/or services and/or financial or other benefits.
- In order to withdraw consent, please contact the Information Officer at Johannesm@midvaal.gov.za
- A copy of the full MLM policy is available at our offices, situated at Head Office, 25 Mitchell Street, Meyerton, 1961, South Africa.
- Individuals are encouraged to ensure that where personal information has changed in any respect to notify MLM so that our records may be updated. MLM will largely rely on the individual to ensure that personal information is correct and accurate.
- The individual has the right to access their personal information that MLM may have in its possession and are entitled to request the identity of which third parties have received and/or processed personal information for the purpose. Please note however, that any request in this regard may be declined if:
 - the information comes under legal privilege in the course of litigation,
 - the disclosure of personal information in the form that it is processed may result in the disclosure of confidential or proprietary information,
 - giving access may cause a third party to refuse to provide similar information to MLM,
 - the information was collected in furtherance of an investigation or legal dispute, instituted or being contemplated,
 - the information as it is disclosed may result in the disclosure of another person's information,
 - the information contains an opinion about another person and that person has not consented, and/or
 - the disclosure is prohibited by law.

7. Requesting access and lodging of complaints:

- Please submit any requests for access to personal information in writing to MLM's information officer at Johannesm@midvaal.gov.za
- With any request for access to personal information, MLM will require the individual to provide personal information in order to verify identification and therefore the right to access the information.
- There may be a reasonable charge for providing copies of the information requested.
- If any request has not been addressed to satisfaction a complaint may be lodged at the office of the Information Regulator.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data

SIGNED BY/ON BEHALF OF TENDERER:

NAME		SIGNATURE		DATE

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (xcii)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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B1 CERTIFICATE OF REGISTRATION OF CONTRACTOR

CIDB Contractor Registration Certificate

A Certificate of Contractor's Registration issued by the Construction Industry Development Board (CIDB) shall be attached.

Where a tenderer satisfies CIDB Contractor grading designation requirements through joint venture formation, such tenderers must submit the Certificates of Contractor Registration in respect of each partner.

SIGNED BY/ON BEHALF OF TENDERER:

--

NAME

--

SIGNATURE

--

DATE

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (xciii)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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B2 TAX CLEARANCE CERTIFICATE AND FINANCIAL STATEMENTS

An **original** valid Tax Clearance Certificate from the South African Revenue Service (SARS) or proof shall be attached (or proof that the tenderer has made arrangements with SARS to meet his or her outstanding tax obligations).

Each party to a Consortium/Joint Venture shall submit a separate Tax Clearance Certificate, or proof that he or she has made the necessary arrangements with SARS.

SIGNED BY/ON BEHALF OF TENDERER:

--

NAME

--

SIGNATURE

--

DATE

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (xciv)
SUPPLY, INSTALLATION AND REPLACEMENT OF BULK
AND DOMESTIC WATER METERS AND RELATED
EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL
MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS
FOR A PERIOD OF 36 MONTHS

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B3 HEALTH AND SAFETY PLAN

Tenderers are to note the requirements of the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 issued in terms of Section 43 of the Act. The tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the tenderer shall prepare and attach a Health and Safety Plan in respect of the Works in order to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act and Regulations. Such Health and Safety Plan shall cover inter-alia the following details:

- 1) Management Structure, Site Supervision and Responsible Persons including a succession plan.
- 2) Contractor's induction training programme for employees, sub-contractors and visitors to the Site.
- 3) Health and safety precautions and procedures to be adhered to in order to ensure compliance with the Act, Regulations and Safety Specifications.
- 4) Regular monitoring procedures to be performed.
- 5) Regular liaison, consultation and review meetings with all parties.
- 6) Site security, welfare facilities and first aid.
- 7) Site rules and fire and emergency procedures.

Tenderers are to note that the Contractor is required to ensure that all sub-contractors or others engaged in the performance of the contract also comply with the above requirements.

The tenderer shall also take into account the additional requirements stated in the Scope of Work when drawing up the Health and Safety Plan for the contract.

Details of the Health and Safety Plan shall be appended to this Schedule.

Number of sheets appended by the tenderer to this Schedule (If nil, enter NIL)

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (xcv)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data



VOLUME 1

PART C1: AGREEMENT AND CONTRACT DATA

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (xcvi)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data

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Employer:		Contractor:	
Witness:		Witness:	

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data

C1 AGREEMENT AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE (AGREEMENT)

C1.1.1 FORM OF OFFER: 8/2/2/425 – SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS.

THE TENDERER IS TO COMPLETE AND SIGN THE FORM OF OFFER

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

8/2/2/425 – SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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

By the representative of the Tenderer, deemed to be duly authorized, signing this part of this Form of Offer and Acceptance, the Tenderer offers to perform all of the obligations and liabilities of the Contractor/Service Provider 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 and Pricing data.

THE OFFERED RATES TO PROVIDE THE WORKS, EXCLUSIVE OF VALUE ADDED TAX, ARE AS SET OUT IN THE PRICING DATA

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

Signature(s)

Name(s)

Capacity

For the Tenderer

(Name and address of organisation)

**Name and
signature of
witness**

Date _____

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data

C1.1.2 FORM OF ACCEPTANCE: 8/2/2/425 – SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

THE EMPLOYER IS TO COMPLETE AND SIGN THE FORM OF ACCEPTANCE

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

The terms of the contract are contained in

- Part 1 Agreement and Contract Data, (which includes this Agreement)
- Part 2 Pricing Data
- Part 3 Scope of Work
- Part 4 Site Information
- Part 5 Drawings

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

The Tenderer shall within 28 days after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data at, or just after, the date of this Agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now the Contractor) within five days after 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 binding contract between the parties,

FOR EMPLOYER OFFICIAL USE ONLY

Signature(s)

Name(s)

Capacity

**For the
Employer**

(Name and address of organisation)

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2					
Part	T1	T2	C1	C2	C3	C4	

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data

Name and
signature of
witness

Date

C1.1.3 SCHEDULE OF DEVIATIONS: 8/2/2/425 – SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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

1 Subject

Details

2 Subject

Details

3 Subject

Details

4 Subject

Details

5 Subject

Details

6 Subject

Details

7 Subject

Details

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2					
Part	T1	T2	C1	C2	C3	C4	

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data

8 Subject _____

Details _____

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Tenderer and the Employer during the 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 and signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this Agreement.

For the Tenderer:

Signature(s)

Name(s)

Capacity

(Name and address of organisation)

**Name and
signature of
witness**

Date _____

For the Employer:

Signature(s)

Name(s)

Capacity

(Name and address of organisation)

**Name and
signature of
witness**

Date _____

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

C1.2 CONTRACT DATA

The General Conditions of Contract for Construction Works (2015) published by the South African Institution of Civil Engineering, are applicable to this contract.

Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering (Telephone number: 011-805 5947)

C1.2.1 PART 1: DATA PROVIDED BY THE EMPLOYER

GCC Clause	Information
1.1.1.15	The name of the Employer is Director: Technical Support Services of Midvaal Local Municipality
1.2.1	The address of the Employer is: Address Tel: 016 360 5813 25 Mitchell Street, Fax: 086 502 0523 Meyerton, 1961 Email: tenders@midvaal.gov.za Midvaal
1.1.1.16	The name of the Engineer is Director: Technical Support Services of Midvaal Local Municipality
1.2.1.2	The address of the Engineer is: Address Tel: 016 360 5813 25 Mitchell Street, Fax: 086 502 0523 Meyerton, 1961 Email: tenders@midvaal.gov.za Midvaal
5.8.1	The special non-working days are All Public Holidays in terms of the Public Holidays Act as amended.
5.8.1	The year-end break commences on 16 December until the first working Monday of January of the succeeding year.
6.2.1	Not Applicable
1.1.1.14	The time for achieving Practical Completion is per time frame specified as per purchase order.
5.3.1	The documentation required before commencement with works executed are: • Health and Safety Plan (Clause 4.3) • Guarantee from Bank or Insurance Company (Clause 6.2) • Insurance of Construction Machinery Plant (Clause 8.6) • Insurance of Motor Vehicle liability (Clause 8.6) • Commissioner of COID (Clause 8.6) • Signed Notification to the Department of labour • Construction Permit where applicable
6.8.2	This Contract Price shall be a FIXED for the first 12 months of the contract and escalated in accordance to CPI on the anniversary of the appointment.
6.8.3	Price adjustments for variations in the costs of special materials are NOT allowed.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data

GCC Clause	Information
6.10.1.5	No percentage advancement on materials is permitted.
6.10.6	Delete this clause 6.10.3 and replace with this: A Retention will not be applicable
1.1.1.13	N/A
10.4.2	Dispute resolution shall be by arbitration if amicable settlement has failed.
10.5.3	The adjudication board shall be as per Midvaal Local Municipality Supply Chain Policy

C1.2.2 Variations

The variations to the General Conditions of Contract are:

GCC Clause	Information
8.6	Notwithstanding anything elsewhere contained in the Contract and without limiting the obligations, liabilities or responsibilities of the Contractor in any way whatsoever (including but not limited to any requirement for the provision by the Contractor of any other insurances) the Employer shall effect and maintain as appropriate in the joint names of the Employer and the Contractor and where relevant Sub-Contractors the following insurances which are subject to the terms, limits, exceptions and conditions of the Policy :
8.6.1.1	Contract Works Insurance – which will provide cover against accidental and physical loss of or damage to the Works, Temporary Works and Materials intended for incorporation in the Works from whatsoever cause arising other than causes set out in Clause 8.3.1
8.6.1.1	for which the Contractor is responsible for the Works in terms of Clause 8.2.1, and
8.6.1.1	for a sum insured which shall, unless otherwise specified in the Contract, be the aggregate of :
8.6.1.1.1	the Contract Price,
8.6.1.1.2	a sum to cover the value (specified at the time of delivery to the Contractor) of materials supplied by the Employer for incorporation in the Works and not included in the Contract Price, and
8.6.1.1.3	N/A
8.6.1.3	Public Liability Insurance which will provide indemnity against legal liability in the event of accidental death of or injury to third party persons and/or loss or damage to third party property arising directly from the execution of the Contract and occurring during the period of Insurance with a limit of indemnity of R2million in respect of all claims arising from any one occurrence or series of occurrences consequent on or attributable to one source or original cause.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data

GCC Clause	Information
8.6.1.2	Following the introduction of legislation affecting the articles of the South African Special Risks Insurance Association (SASRIA) , insurance cover for loss or damage to the Works caused by any event defined as a risk in terms of the insurance offered by SASRIA, will be provided under a certificate issued by SASRIA.
8.6.1.4	Full details of the Contract Works and Public Liability insurances effected by the Employer may be obtained from the Employer and the Contractor/Subcontractors are deemed to be aware of the terms, exclusions and conditions of these insurances.
8.6.1.5	The Employer shall pay the premium in connection with the insurances effected by the Employer in 8.6.1.1, 8.6.1.2 and 8.6.1.3 above.
8.6.2	The Employer/Contractor/Sub-contractors and/or any other party who obtains indemnity under the policies effected under 35.1.1, 35.1.2 and 35.1.3 above shall become liable for the deductibles (first amount payable) which are applicable in respect of each and every occurrence or series of occurrences attributable to one source or cause giving rise to loss or damage or indemnifiable liability.
8.6.3	In the event of an occurrence which is likely to give rise to a claim under the insurance effected by the Employer, the following procedure shall be adhered to:
8.6.3.1	In addition to any statutory requirements and/or other requirements contained in the Conditions of Contract, the Contractor shall immediately notify the Employer's Insurance Brokers, giving the circumstances, nature and an estimate of the loss or damage.
8.6.3.2	The Contractor shall, when required, complete a claims advice form, available from the Employer's Insurance Brokers, to whom the form shall be returned without delay.
8.6.3.3	The Contractor shall afford all access to the representatives of the Insurers for the purpose of the assessment of any loss or damage.
8.6.3.4	Negotiations on the settlement of claims shall be conducted by the Contractor/Sub-Contractor with the Insurers through the Employer's Insurance Brokers
8.6.4	Any amount which becomes payable to the Contractor or any of his Sub-Contractors as a result of claim under the Contract Works Insurance shall if required by the Employer be paid net of the deductible to the Employer who shall pay the Contractor from the proceeds of such payment upon rectification repair or reinstatement of the loss or damage but this provision shall not in any way affect the Contractor's obligations liabilities or responsibilities in terms of the Contract.
8.6.5	The Contractor shall insure all Constructional Machinery and Plant (including tools, offices and other temporary structures and content) and other items, other than those intended for incorporation into the works, owned, leased or hired brought on to the Site against all risks of physical loss or damage for the period such Plant shall be on the Site to the full value thereof. In respect of Plant brought on to the Site by or on behalf of Sub-Contractors the Contractor shall be deemed to have complied with the provisions of this Sub-Clause by ensuring that such Sub-Contractors have similarly insured such Plant and Machinery. Such insurance shall be effected with an Insurer and in terms approved by the Employer (which approval shall not be unreasonably withheld) and the Contractor shall, when required, submit to the Employer's Insurance Brokers, the policy or policies of insurance and receipts for payment of the current premiums.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data

GCC Clause	Information
8.6.6	The Contractor and the Sub-contractors shall effect and maintain at their cost insurance under the provision of the Compensation for Occupational Injuries and Diseases Act (COID), 1993 (Act No. 130 of 1993).
8.6.7	The Contractor and the Sub-Contractors shall effect and maintain at their own cost motor vehicle liability insurance with at least indemnification for "balance of third party" risks, including passenger liability with a limit of indemnity of not less than R2,5million.
8.6.8	The Contractor and the Sub-Contractors shall effect and maintain at their own cost any additional insurance, which they deem necessary to cover damage or loss or injury not insured in terms of the insurance effected by the Employer. Such insurance shall be effected with an Insurer and in terms approved by the Employer (which approval shall not be unreasonably withheld) and the Contractor shall, when required, submit to the Employer's Insurance Brokers the policy or policies of insurance and the receipts for payment of the current premiums. If the Contract entails manufacture and or assembly of the Works or part thereof on a site other than the Contract site, the Contractor must satisfy the Employer that all materials and equipment intended for incorporation into the Works are adequately insured during manufacture and assembly. If the Employer has an insurable interest in such works during manufacture or assembly, such interest shall be recorded by way of endorsement on the policies concerned. The Contractor shall furnish the appropriate insurance policies to the Employer within 14 days from the Commencement Date.
8.6.9	Submission of the Tender will be construed by the Employer as acceptance by the Contractor that he is satisfied with the insurance effected by the Employer supplemented by any additional insurance which he shall specify in the manner provided for in the Schedule of Assessment.
8.6.10	The Contractor shall give all notices and observe all conditions and requirements imposed by any and all relevant insurance policies which shall be read as being part of the General Conditions of Contract and which shall be binding on the Contractor.
8.6.11	In addition to any statutory obligations, or other requirements contained in the Conditions of Contract, the Contractor shall report in writing to both the Engineer and the Employer's Insurance Brokers every accident within 48 hours of its occurrence, whether such accident is in respect of damage to persons or property. The report shall contain full details of the accident. The Engineer and/or the Employer's Insurers shall have the right to make all and any enquiries either on the Site or elsewhere as to the cause and results of any such accident and the Contractor shall give the Engineer and/or the Employer's Insurers full facilities for carrying out such enquiries.
8.6.12	Negotiations on the settlement of claims under the insurance effected by the Employer shall be conducted by the Contractor/Sub-Contractor with the Insurers through the Employer's Insurance Brokers.
8.6.13	Any claims against the insurance effected by the Employer shall be subject to the Contractor being responsible for the payment of the amount stated in the Policy as being the Deductible (First Amount Payable) as defined in the Policy.

Employer:		Contractor:	
Witness:		Witness:	

Volume	1	2				
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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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GCC Clause	Information
8.6.14	The Employer shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workman or other person in the employ of the Contractor or any Sub-Contractor save and except an accident or injury resulting from any act or default of the Employer, its agents or servants and the Contractor shall be deemed to have indemnified and shall keep indemnified the Employer against all such damages and compensation (save and except as aforesaid) and against all claims, demands, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.
8.6.15	The Contractor shall insure in the joint names of the Employer, the Contractor and all Sub-Contractors (whether nominated or otherwise) for an amount of R2million per occurrence against the liability stated in Sub-Clause 35.1.18 with an Insurer approved by the Employer (which approval shall not be unreasonably withheld) and shall continue such insurance during the whole of the time that any persons are employed by him on the Works and shall submit to the Engineer such policy of insurance and the receipt of payment of the current premium. Provided always that in respect of any persons employed by any Sub-Contractor, the Contractor's obligation to insure as aforesaid under this Sub-Clause shall be satisfied if the Sub-Contractor shall have insured against the liability in respect of such persons in such manner that the Employer is indemnified under the policy of insurance but the Contractor shall require such Sub-Contractor to produce to the Engineer such policy and the receipt for payment of the current premium.
8.6.16	If the Contractor shall fail to effect and keep in force the insurances referred to in this Clause or for any other insurance which he may be required to effect in terms of the Contract, then and in any such case the Employer may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the Employer as aforesaid from any monies due or which may become due to the Contractor or recover the same as a debt due from the Contractor.
8.6.17	The Contractor shall ensure that all proposed and appointed sub-contractors are fully aware of the contents of Clause 8.6.14
8.6.1.1.2	The value of the materials supplied by the Employer to be included in the insurance sum is nil.
8.6.1.1.3	N/A

Employer:		Contractor:	
Witness:		Witness:	

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C1.2.3 Additions

The additional Conditions of Contract are:

GCC Clause	Information
2.4	Ambiguity in documents Add clause 2.4 The Employer or the Contractor shall notify the other as soon as either becomes aware of an ambiguity or inconsistency in or between the documents, which are part of this Contract. Governed by the spirit and intention of the Contract, the Employer shall give a binding instruction resolving the ambiguity or inconsistency.
5.9.1	Instructions and drawings Add clause 5.9.1 5.9.1 Source of instructions The Contractor shall neither seek nor accept instructions from any authority external to the Employer, the Engineer or their authorized representatives in connection with the performance of his services under this Contract. The Contractor shall refrain from any action which may adversely affect the Employer and shall fulfill his commitments with fullest regard for the interest of the Employer.
5.9.1	Instructions and drawings Add clause 5.9.1 5.9.1.1 Instructions The Engineer may issue contract instructions to the Contractor regarding: 5.9.1.2 Alteration to design, quality or quantity of the works provided that such contract instructions shall not substantially change the scope of the works. 5.9.1.3 Rectification of discrepancies, errors in description or omissions in contract documents other than this document. 5.9.1.4 Removal of any materials and goods from the site and the substitution of any other materials and goods therefor. 5.9.1.5 Removal or re-execution of any work. 5.9.1.6 Opening up of work for inspection. 5.9.1.7 Provision and testing of samples of materials and goods, specimens of finished and assemblies of elements of the works. 5.9.1.8 Protection of the works. 5.9.1.9 Making good physical loss and repairing damage to the works. 5.9.1.10 Removal from the site of any party employed on the works. 5.9.1.11 Removal from the site of any persons not engaged on or connected with the works. 5.9.1.12 The appointment of nominated subcontractors, the nominated subcontract amounts and the work to be executed thereunder. 5.9.1.13 Proof of payment to nominated subcontractors. 5.9.1.14 Notices to nominated subcontractors. 5.9.1.15 Prime cost amounts and the purchase of materials and goods included therein. 5.9.1.16 Budgetary allowances and work executed by the contractor thereunder.
5.9.13	Instructions and drawings Add clause 5.9.1 5.9.1.17 Default of Contractor in carrying out Engineer's or his duly authorized representative Instructions In case of default on the part of the Contractor in carrying out an instruction of the Engineer or his duly authorized representative, the Employer shall be entitled to employ and pay other persons to carry out the same and all expenses consequent

Employer:		Contractor:	
Witness:		Witness:	

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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GCC Clause	Information
	thereon or incidental thereto shall be borne by the Contractor and shall be recoverable from him by the Employer and may be deducted by the Employer from any monies due or which may become due to the Contractor.
8.6	Insurances Add clause 8.6 35.9 Special Insurances The Contractor shall provide temporary lateral support insurance where the Employer considers that the execution of the works could cause the weakening of or interference with the support of land adjacent to the site and the consequences thereof.
5.13	Penalties Add clause 5.13 During the Contract Period should the Contractor: 5.13.1.1 Fail to comply with the specifications a) The Employer shall levy a penalty on the Contractor, should the latter fail to perform any ordered Works that complies at minimum with the specification as highlighted per the Scope of Work. b) The value of the penalty shall be determined cumulative as R1,000.00 per day late, but not exceeding a total amount of R10,000.00. Should the penalty reach the maximum specified limit the Employer shall reserve the right to: 1) terminate the Contract; 2) perform the Works internally or through another Contractor; and 3) deduct additional costs incurred by the Employer from monies owed to the Contractor or from the Contractor's Guarantee. Additional costs incurred by the Employer shall include all claims from Contract affected parties, claims such as but not be limited to claims from customers, any costs associated with the loss of water, and all costs associated with the procurement of an alternative Contractor. No liability in terms of this clause shall be attached to the Contractor if he can prove to the satisfaction of the Employer that the nature of the failure is due to fire, war, riot, strikes, act of God, lockout, accident or other unforeseen occurrence or circumstances beyond the Contractor's control, provided, however, that in all cases the Contractor has notified the Employer in writing within 24 hours of it first coming to his notice, that delivery shall be delayed or become impossible for the above-mentioned reasons. 5.13.1.2 Fail to provide support, management and coordination a) The Employer shall levy a penalty on the Contractor, should the latter fail to provide the undertaken management, coordination and support. b) The value of the penalty shall be determined cumulative as R1,000.00 per day, but not exceeding a total amount of R10,000. Should the penalty reach the maximum specified limit the Employer shall reserve the right to: 1) terminate the Contract; 2) perform the Works internally or through another Contractor; and 3) deduct additional costs incurred by the Employer from monies owed to the Contractor or from the Contractor's Guarantee. Additional costs incurred by the Employer shall include all claims from Contract affected parties, claims such as but not be limited to claims from customers, any

Employer:		Contractor:	
Witness:		Witness:	

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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GCC Clause	Information
	costs associated with the loss of water, and all costs associated with the procurement of an alternative Contractor. No liability in terms of this clause shall be attached to the Contractor if he can prove to the satisfaction of the Employer that the nature of the failure is due to fire, war, riot, strikes, act of God, lockout, accident or other unforeseen occurrence or circumstances beyond the Contractor's control, provided, however, that in all cases the Contractor has notified the Employer in writing within 24 hours of it first coming to his notice, that delivery shall be delayed or become impossible for the above-mentioned reasons. 5.13.1.3 Fail to complete a Works Order The Employer shall levy a penalty on the Contractor, should they fail to execute the works order within the specified approved period. The value of the penalty shall be determined cumulative as R1,000.00 per day, but not exceeding a total amount of R50,000. Should the penalty reach the maximum specified limit the Employer shall reserve the right to: 1) terminate the Contract; 2) perform the Works internally or through another Contractor; and 3) deduct additional costs incurred by the Employer from monies owed to the Contractor or from the Contractor's Guarantee. Additional costs incurred by the Employer shall include all claims from Contract affected parties, claims such as but not be limited to claims from customers, any costs associated with the loss of water, and all costs associated with the procurement of an alternative Contractor. No liability in terms of this clause shall be attached to the Contractor if he can prove to the satisfaction of the Employer that the nature of the failure is due to fire, war, riot, strikes, act of God, lockout, accident or other unforeseen occurrence or circumstances beyond the Contractor's control, provided, however, that in all cases the Contractor has notified the Employer in writing within 24 hours of it first coming to his notice, that delivery shall be delayed or become impossible for the above-mentioned reasons. 5.13.1.4 Fail to pay SMME's and Labourers on time The Employer shall levy a penalty on the Contractor, should the latter fail to pay SMME's (subcontractors) or labourers on time as per their contract agreements. The value of the penalty shall be determined cumulative as R1 000.00 per day late, but not exceeding a total amount of R10, 000.00. Should the penalty reach the maximum specified limit the Employer shall reserve the right to: 1) terminate the Contract; 2) pay the SMME's or labourers through another Contractor; and 3) deduct additional costs incurred by the Employer from monies owed to the Contractor or from the Contractor's Guarantee. Additional costs incurred by the Employer shall include all claims from Contract affected parties. 5.13.1.5 Penalties irreversible The Contractor shall note that all penalties once imposed shall be non-recoverable or reversible, even if the default is remedied.

Employer:		Contractor:	
Witness:		Witness:	

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GCC Clause	Information
New	Add clause 11: 11 Confidential nature of documents All maps, drawings, photographs, mosaics, plans, reports, recommendations, estimates, documents and all other data compiled by or received by the Contractor under the Contract shall be the property of the Employer and Engineer, shall be treated as confidential and shall be delivered only to the Engineer or his duly authorized representative on completion of the Works; their contents shall not be made known by the Contractor to any person other than the personnel of the Contractor performing services under this Contract without the prior written consent of the Employer.
New	Add clause 12: 12 Officials not to benefit The Contractor warrants that no official of the Employer has been or shall be admitted by the Contractor to any direct or indirect benefit arising from this Contract or the award thereof. The Contractor agrees that breach of this provision is a breach of the Contract.
New	Add clause 13: 13 Prevention of corruption The Employer shall be entitled to cancel the Contract and to recover from the Contractor the amount of any loss resulting from such cancellation, if the Contractor has offered or given any person any gift or consideration of any kind as an inducement or reward for doing or intending to do any action in relation to the obtaining or the execution of the Contract or any other contract with the Employer or for showing or intending to show favour or disfavour to any person in relation to the Contract or any other contract with the Employer, if the like acts shall have been done by any persons employed by him or acting on his behalf whether with or without the knowledge of the Contractor in relation to this or any other Contract with the Employer.
New	Add clause 14: 14 False claims by the Contractor 14.1 Failure, by the Contractor, to demonstrate or present any feature declared during the procurement stage shall constitute grounds for Contract termination or the market related equivalent price discount, if no market related value is available, the Employer shall give a final ruling on the amount. This shall be at the discretion of the Employer based on the implication of such omission. Should the Contractor refuse to accept the Employer's price, the Contract shall be terminated. 14.2 Any false claims, by the Contractor or his staff (with or without his knowledge), based on Works to be performed or completed shall constitute grounds for Contract termination and result in blacklisting on the Employer's database. 14.3 The Contractor shall note that any of the above shall constitute non-performance on the part of the Contractor, further resulting in him forfeiting his full Contract Guarantee.
New	Add clause 15: In terms of EPWP requirements, the Contractor is to ensure compliance with the following:

Employer:		Contractor:	
Witness:		Witness:	

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GCC Clause	Information
	• Provide a certified ID copy (13 digit) for each local labourer (Once off) • Provide a certified and legible contract of employment for each local labourer (Once off) • Provide proof of payment of wages (Monthly) • Provide log sheets / timesheets for each local labourer (Monthly) • Provide proof of UIF deduction & contributions (Monthly) • Provide proof of good standing with COIDA (Monthly) Should the contractor fail to comply with the EPWP requirements, the penalties stipulated above for failure to provide support, management and coordination will apply.
New	Add clause 16: In terms of subcontracting / SMME's requirements, the Contractor is to ensure compliance with the following: • Provide a contract agreement indicating the value of the appointment, scope of works and duration of the contract • Provide EPWP required documentation for the subcontractors / SMME's as per Clause 15 Should the contractor fail to comply with the subcontracting / SMME requirements, the penalties stipulated in Penalty clauses above failure to provide support, management and coordination will apply.

Employer:		Contractor:	
Witness:		Witness:	

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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VOLUME 1

C1.3: FORMS AND SECURITIES

Employer:		Contractor:	
Witness:		Witness:	

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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Witness:		Witness:	

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C1.3 FORMS AND SECURITIES

FORMS FOR COMPLETION BY THE CONTRACTOR

THE FOLLOWING FORMS ARE TO BE COMPLETED BY THE CONTRACTOR AFTER THE TENDER HAS BEEN AWARDED TO THE SUCCESSFUL TENDERER

- a) Form of Guarantee
- b) Agreement in terms of the Occupational Health and Safety Act
- c) Occupational Health and Safety Indemnity Undertaking

The forms will be completed by the Contractor who will be instructed to do so in the Form of Acceptance. The completed forms will become part of the Contract.

The Form of Guarantee is a pro forma document. The Contractor will provide an original document, from a financial institution, with the same text within the time stated in the Contract Data. Only a Bank or approved Insurance Company or Guarantee Corporation is acceptable as Guarantor.

Employer:		Contractor:	
Witness:		Witness:	

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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C1.3.1 FORM OF GUARANTEE

TO BE PRINTED ON THE OFFICIAL LETTERHEAD OF THE GUARANTOR.

PERFORMANCE GUARANTEE

Contract No. 8/2/2/425

WHEREAS Midvaal Local Municipality (hereinafter referred to as "the Employer" or "beneficiary") entered into a Contract with

_____ (hereinafter called "the Contactor")

on the _____ day of _____, 20____, for the construction of

at _____

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

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

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

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

Employer:		Contractor:	
Witness:		Witness:	

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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6. The Guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon our liability hereunder shall cease.

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

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

As witnesses:

1. _____ Signature _____

2. _____ Signature _____

Duly authorized to sign on behalf of _____

Address _____

Employer:		Contractor:	
Witness:		Witness:	

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Agreement and Contract Data

C1.3.2 Health and Safety Contract Between Employer and Contractor In Terms of Section 37(2) Of The Occupational Health and Safety Act No 85 Of 1993

Written agreement between Midvaal Local Municipality (hereinafter referred to as "the

Employer) and _____ (hereinafter referred to as "the mandatory") as envisaged by Section 37(2) of the Occupational Health and Safety Act, No. 85, of 1993 as amended.

I _____ representing

_____ (mandatory) do hereby acknowledge that

_____ (mandatory) is an employer in its own right and shall be regarded as the employer for purposes of the contract work specified in the body of the principal agreement with duties as prescribed in the Occupational Health and Safety Act, No. 85 of 1993 as amended so as to ensure that all work will be performed or machinery and plant used in accordance with the provisions of the said Act. I furthermore agree to comply with the requirements of the Employer as contained in the Occupational Health and Safety Specification included with the principal agreement and to liaise with the employer should I, for whatever reason, be unable to perform in terms of this agreement.

Signed this _____ day of _____ at _____

Signature on behalf of mandatory _____

Signature on behalf of Employer _____

Compensation Fund Registration No. of mandatory _____

Good Standing Certificate : ☐ yes ☐ no (tick one box)

Employer:		Contractor:	
Witness:		Witness:	

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

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C1.3.3 Health and Safety Contract: General Information

1. The Occupational Health and Safety Act comprises Sections 1 to 50 and all un-repealed regulations promulgated in terms of the former Machinery and Occupational Safety Act No 6 of 1983 as amended, as well as other regulations which may be promulgated in terms of the OHS Act.
2. 'Mandatory' is defined as including an agent, a contractor or a subcontractor for work, but without derogating from his status in his own right as an employer or user of plant and machinery
3. Section 37 of the Occupational Health and Safety Act potentially punishes employers (principals) for the unlawful acts or omissions of mandataries (contractors) save where a written agreement between the parties has been concluded containing arrangements and procedures to ensure compliance with the said Act by the mandatory.
4. All documents attached or referred to in the above agreement form an integral part of the agreement.
5. To perform in terms of this agreement mandataries must be familiar with the relevant provisions of the Act.
6. Mandataries who utilise the services of their own mandataries (subcontractors) are advised to conclude a similar written agreement.
7. Be advised that this agreement places the onus on the mandatory to contact the Employer in the event of inability to perform as per this agreement. The Employer, however, reserves the right to unilaterally take any steps as may be necessary to enforce this agreement.
8. The contractor shall be responsible for the full and proper implementation of the terms and provisions of the Act and its regulations in the area in which the work is to be undertaken by the Contractor.
9. The Contractor shall be responsible for the well-being, in relation to health and safety, of all persons coming upon or into such area in accordance with that legislation, including the implementation of any directives issued by management of the Employer in this respect.
10. The work to be done is _____
11. The area in which the work is to be conducted is _____
12. The Contractor shall familiarise himself with such area and all risks existing thereon and undertakes to report to the representative of the Employer any hazard or risk to health and safety which arises during the contract work in the area concerned and over which the Contractor may have no control. All necessary and appropriate safety / health equipment shall be issued by the Contractor to all persons working on or coming into the area.

Employer:		Contractor:	
Witness:		Witness:	

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C1.3.3.1 Occupational Health and Safety Indemnity Undertaking

I, the undersigned _____
in my capacity as _____
of the firm _____

1.0 hereby undertake to ensure that I/my firm and/or employees and/or subcontractors and/or his employees -

1.1 comply strictly with the provisions of the Occupational Health and Safety Act of 1993 (as amended) and/or the regulations promulgated in terms thereof, with specific reference to section 37(2) of the said act, as well as any relevant legislation, in the course of the performance/execution of any service and/or work in, to or on any of the Employer's buildings, construction sites and/or premises;

1.2 ensure that consultants and/or visitors comply with any instructions and measures relating to occupational health and safety, as prescribed by the Employer; and

1.3 comply strictly with the statutorily prescribed work systems, operational equipment, machinery and occupational health and safety conditions;

2.0 and as an independent employer and contractor, hereby indemnify, in terms of the above undertakings, the Employer -

2.1 in respect of any costs that I/my firm and/or employees and/or subcontractors and their employees may incur of necessity in compliance with the above undertakings; and

2.2 against any claims that may be instituted against the Employer and/or any liability that the Employer may incur, whether instituted and/or caused by me/my firm's employees, agents, consultants, subcontractors and/or their employees and visitors or the Employer's clients or neighbours in respect of any incidents related to my/my firm's activities and as a result of which the occupational health and safety of the persons involved have been detrimentally affected; and

2.3 against similar claims that I, managers or directors of my firm may have against the Employer and any damages for which I, managers or directors of my firm hold the Employer liable.

3.0 My firm's compensation commissioner number is _____
and I confirm that my firm and its subcontractors' fees have been paid up and obligations in respect of the compensation commissioner have been complied with and further that I shall furnish proof thereof in writing on request.

Employer:		Contractor:	
Witness:		Witness:	

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4.0 I hereby confirm that I have the authority to sign this indemnity undertaking and that the Employer is not obliged to confirm such confirmation.

Signed at _____ this _____ day
Of _____

Signature

Capacity

As witnesses:

1 _____
2 _____

Employer:		Contractor:	
Witness:		Witness:	

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Pricing Data



VOLUME 1

PART C2: PRICING DATA

Employer:		Contractor:	
Witness:		Witness:	

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PRICING

Employer:		Contractor:	
Witness:		Witness:	

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C2 PRICING DATA

C2.1 PRICING INSTRUCTIONS

- Measurement and payment shall be in accordance with the relevant provisions of Clause 8 of each of the SANS 1200 Specifications for Civil Engineering Construction referred to in the Scope of Work. The Preliminary and General items shall be measures in accordance with the provisions of SANS 1200-A, General.
- The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

%	=	per cent	m ² .pass	=	square metre-pass
h	=	hour	m ³	=	cubic metre
ha	=	hectare	m ³ .km	=	cubic metre-kilometre
kg	=	kilogram	MN	=	meganewton
kℓ	=	kilolitre	MN.m	=	meganewton-metre
km	=	kilometre	MPa	=	megapascal
km-pass	=	kilometre-pass	No.	=	number
kPa	=	kilopascal	Prov sum	=	Provisional sum
kW	=	kilowatt	P C sum	=	Prime Cost sum
ℓ	=	litre	sum	=	lump sum
m	=	metre	t	=	ton (1 000 kg)
mm	=	millimetre	W/day	=	Work day
m ²	=	square metre			

- Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
- The prices and rates to be inserted in the Bill of Quantities are fully inclusive prices for the work described under the items. Such prices and rates shall cover all costs and expenses that may be required in accordance with the provisions of the Scope of Work, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. These prices shall 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 the Bill of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to **www.SANS.co.za** 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 for such items.
- An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill of Quantities. A single lump sum will apply should a number of items be grouped together for pricing purposes.
- The quantities set out in the Bill of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for payment will be used for determining payments due and not the quantities given in the Bills of Quantities.
- Reasonable compensation will be received where no pay item appears in respect of work required in the Bills of Quantities in terms of the Contract and which is not covered in any other pay item.
- The short descriptions of the items of payment given in the Bill of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
- Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the SANS 1200 Standardised Specifications.
- The item numbers appearing in the Bill of Quantities refer to the corresponding item numbers in the SANS 1200 applicable specification. The work scheduled payment should be referred to the applicable payment items in SANS 1200, which must receive preference to the reference given in the Bill of Quantities or if any such reference is not indicated.
- Those parts of the contract to be constructed using labour-intensive methods have been marked in the Bill of Quantities with the letters L in a separate column filled in against every item so designated. The works, or parts of the Works so designated are to be constructed using labour-intensive methods only. The use of plant to provide such Works, other

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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than plant specifically provided for in the Scope of Work, is a variation to the contract. The items marked with the letters L are not necessarily an exhaustive list of all the activities which must be done by hand, and this clause does not override any of the requirements in the generic labour intensive specification in the Scope of Works.

14. Payment for items, which are designated to be constructed labour-intensively (either in this schedule with an L or in the Scope of Works), will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.
15. Tender rates should be treated as rate only as the actual quantities will be determined on site and may vary considerably from those given in the Bill of Quantities

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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C2.2 BILL OF QUANTITIES

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Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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SCHEDULE 1 PRELIMINARY AND GENERAL

ITEM	PAYMENT REF	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1.1	SABS 1200A	PRELIMINARY AND GENERAL				
1.1.1	8.3	A1. Fixed Charges				
	PSA 8	Contractual Requirements, facilities required by Contractor, general responsibilities, site on completion for projects up to the following values: (before establishment and removal thereof adding P&G's)				
1.1.1.1		Project value up to R 50 000:	%	R 50 000,00		
1.1.1.2		Project value above R 50 000 and up to R 100 000:	%	R 100 000,00		
1.1.1.3		Project value above R 100 000 and up to R 500 000:	%	R 500 000,00		
1.1.1.4		Project value above R 500 000 and up to R1 000 000:	%	R 1 000 000,00		
1.1.1.5		Project value above R 1 000 000 and up to R 3 000 000:	%	R 3 000 000,00		
1.1.1.6	PSA 8.11	Dealing with Water based on Work Order Amount Determined above (Fixed Costs)	%	R 2 000 000,00		
1.1.1.7		Provision of Sanitation for Workers on site in the form of Chemical Toilets (Fixed Cost)	Sum	1		
1.1.2	8.4	A2. Time Related Items (for duration of contract, unless otherwise stated)				
1.1.2.1	PSA 8.4.1	Contractual Requirements, general responsibilities and other time related obligations as a percentage of project value (determined above):	%	R 2 000 000,00		
1.1.2.2	PSA 8.11	Dealing with Water based on Work Order Amount Determined above (Time Related Cost)	%	R 2 000 000,00		
1.1.2.3		Time related costs for Chemical Toilets based on Work Order amount determined above (Time Related Cost)	%	R 2 000 000,00		
1.1.2.4		Accommodation of Traffic (only where required)	%	R 1 000 000,00		
TOTAL CARRIED FORWARD						

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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Pricing Data

SCHEDULE 1 PRELIMINARY AND GENERAL

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
1.1.2.5		Locate and protect services (LI)	m³	1		
1.1.2.6		Standing time due to riots and defined in Clause 42.3 of the General Conditions of Contract: Charges for delay due to riots and other	Day	1		
1.1.2.7		Allow for Payment of CLO	Prov. Sum	1	R 50 000,00	
1.1.2.8		Extra over item 1.1.2.7 above for Contractors overheads & profit	%	R 50 000,00		
1.1.2.9		Allow for accredited training (PC)	Sum	1	R 20 000,00	
1.1.2.10		Extra over item 1.1.2.9 above for Contractors overheads & profit	%	R 20 000,00		
1.1.2.11	PSA 8.4.6.	Quality Control Plan & Compliance thereafter	Sum	1		
1.1.2.12	PSA 8.4.7	Liason with property owner to confirm water interruption	No.	1		
1.1.2.13	PSA 8.12	Allow for compliance with OHS Act by submitting an overall, general safety plan for the duration of the Contract	Sum	1		
1.1.2.14	PSA 8.12	Allow for addendum to general safety plan for each specific project	%	R 2 000 000,00		
1.1.2.15		Allow for safety officer	Month	1		
1.1.2.16		Allow for Safety Audits	Month	1	R 40 000,00	
1.1.2.17	PSA 8.13	Allow for Compliance with Environmental Management Plan (Based on Work Order Amount determined above)	%	R 2 000 000,00		
1.1.2.18		Compilation of meter data sheets, inclusive of photos, coordinates and meter serial no's and details. Refer to the attached copy of the data sheet in this document.	Sum	1		
1.1.2.19		Transportation of old meter materials to municipal depot. Rate to be inclusive of loading, unloading, photos of materials and proof of delivery to and receipt by depot storeman.	Sum	1		
1.12.20		Const to setting up gateway for Smart Meter	Per Gateway	1		
1.12.21		Cost for A meter Mangament Gateway-Smart Metering	Per Meter	1		
1.12.22		Costing for Data Hosting and Managaement	Per Meter	1		
TOTAL FOR SECTION 1 CARRIED FORWARD TO SUMMARY						

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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Pricing Data

SCHEDULE 3 EARTHWORKS (PIPE TRENCHES)

ITEM	PAYMENT REF	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
3.1	SABS	EARTHWORKS - PIPE TRENCHES				
	1200DB					
	PSDB 8.3.2	Excavation: (By hand or other means)				
		Excavate in all materials for trenches and use for backfill and or dispose as ordered,				
		The rate also to include for sloping and finishing the final surfaces to the				
		satisfaction of the Engineer. All rates to include for transport, barricading handling,				
		dumping fees, safeguarding, traffic signs to the SA Road Traffic Signs Manual and all				
		signs, barricades and lights as ordered by the local authority, dealing with traffic and				
		all other related costs. (LI)				
		Trench for 150mm pipe				
3.1.1		(i) 0m to 1m deep	m	1		
3.1.2		(ii) 1m to 2m deep	m	1		
		Backfill, compact 93% Mod AASHTO, and dispose of surplus/unsuitable material,				
		finish to a smooth surface: Backfill or dispose as ordered. Compaction to 93%				
		MOD-AASHTO density at OMC in layers not exceeding 150mm in thickness.				
		Trench for 150mm pipe				
3.1.3		(i) 0m to 1m deep	m	1		
3.1.4		(ii) 1m to 2m deep	m	1		
	PSDB	Extra-over items 3.1.1 to 3.1.2 for				
	8.3.2.b	(Provisional) :				
3.1.5		Hard rock excavation, including concrete (thicker than 150 mm)	m³	1		
		Extra-over items 3.1.3 to 3.1.4 for				
		(Provisional) :				
3.1.6		Soilcrete (5%) under sealed roads (paved) that are - subject to traffic load(motor vehicles), or where ordered by the Engineer	m³	1		
	8.3.6	Extra Over 8.3.2: Finishing				
		Reinstate surfaces complete with all courses:				
3.1.7		Gravel on shoulders (G7 Min, 75 mm thick)	m²	1		
3.1.8		Asphalt 35mm thick or more (match existing).	m²	1		
3.1.9		Paving to match existing	m²	1		
3.1.10		Kerbing	m²	1		
TOTAL FOR SECTION 3 CARRIED FORWARD TO SUMMARY						

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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Pricing Data

SCHEDULE 6 MEDIUM PRESSURE PIPELINES

ITEM	PAYMENT REF	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
6.1	SABS 1200L	MEDIUM-PRESSURE PIPELINES				
		<u>Note:</u>				
6.1		All materials shall be obtained from the client unless specifically stated otherwise for the item in question.				
6.2		Lay and Bed Pipes Complete with Couplings Mild Steel Galvanize and Flanged piping (Rate includes Supply and Installation)				
6.3		DN 40	m	1		
6.4		DN 65	m	1		
6.5		DN 80	m	1		
6.6		DN 100	m	1		
6.7		DN 125	m	1		
6.8		DN 150	m	1		
6.9		DN 200	m	1		
6.10		DN 250	m	1		
6.11		DN 300	m	1		
6.12		DN350	m	1		
6.13		DN450	m	1		
	PSL 8.2.1	Supply, Lay and Bed Pipes complete with couplings Mild Steel Galvanised pipes with Table 1600/3 flanges for the following diameters (Rate includes Supply and Installation)				
6.14		DN 40	m	1		
6.15		DN 65	m	1		
6.16		DN 80	m	1		
6.17		DN 100	m	1		
6.18		DN 125	m	1		
6.19		DN 150	m	1		
6.20		DN 200	m	1		
6.21		DN 250	m	1		
6.22		DN 300	m	1		
6.23		DN350	m	1		
6.24		DN450	m	1		
	PSL 8.2.2	Extra-over Item PSL 8.2.1 for cutting of the pipe and the fixing of :	no.	1		
	PSL 8.2.2	Flange adaptor to suit AC pipe (VJ or similar approved by the Engineer in writing). Include for painting bolts with bituminous corrosion resisting paint (Rate includes Supply and Installation)				
6.25		DN 50				
6.26		DN 63	no.	1		
6.27		DN 75	no.	1		
6.28		DN 90	no.	1		
6.29		DN 110	no.	1		
6.30		DN 125	no.	1		
6.31		DN 160	no.	1		
6.32		DN 200	no.	1		
6.33		DN 250	no.	1		
6.34		DN 300	no.	1		
6.35		DN 350	no.	1		
6.36		DN 400	no.	1		
TOTAL CARRIED FORWARD						

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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ITEM	PAYMENT REF	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
	PSL 8,2,5	Mild Steel Galvanised Short Radius Bends Flanged (Rate includes Supply and Installation)				
		90° Elbow				
6.37		DN 40	no.	1		
3.38		DN 65	no.	1		
3.39		DN 80	no.	1		
3.40		DN 100	no.	1		
3.41		DN 125	no.	1		
3.42		DN 150	no.	1		
3.43		DN 200	no.	1		
3.44		DN 250	no.	1		
3.45		DN 300	no.	1		
3.46		DN 350	no.	1		
3.47		DN 400	no.	1		
		Flanged Gate Valve with Valve Box. Include for painting of bolts with bituminous corrosion resisting paint. (Rate includes Supply and Installation)				
6.48		DN 40	no.	1		
6.49		DN 65	no.	1		
6.50		DN 80	no.	1		
6.51		DN 100	no.	1		
6.52		DN 125	no.	1		
6.53		DN 150	no.	1		
6.54		DN 200	no.	1		
6.55		DN 250	no.	1		
6.56		DN 300	no.	1		
6.57		DN 350	no.	1		
6.58		DN 400	no.	1		
		Flanged Strainer (AVK or similar approved). Include for painting of bolts with bituminous corrosion resiting paint. (Rate includes Supply and Installation)				
6.59		DN 40	no.	1		
6.60		DN 65	no.	1		
6.61		DN 80	no.	1		
6.62		DN 100	no.	1		
6.63		DN 125	no.	1		
6.64		DN 150	no.	1		
6.65		DN 200	no.	1		
6.66		DN 250	no.	1		
6.67		DN 300	no.	1		
6.68		DN 350	no.	1		
6.69		DN 400	no.	1		
		Flanged Water Meter (Elster Kent H5000 or Sensus Meistream). Include for painting of bolts with bituminous corrosion resiting paint. (Rate includes Supply and Installation)				
6.70		DN 40	no.	1		
6.71		DN 65	no.	1		
6.72		DN 80	no.	1		
6.73		DN 100	no.	1		
6.74		DN 125	no.	1		
6.75		DN 150	no.	1		
6.76		DN 200	no.	1		
6.77		DN 250	no.	1		
6.78		DN 300	no.	1		
6.79		DN 350	no.	1		
6.80		DN 400	no.	1		
TOTAL CARRIED FORWARD						

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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ITEM	PAYMENT REF	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
		Flanged Non-Return Valve (AVK or similar approved). Include for painting of bolts with bituminous corrosion resiting paint. (Rate includes Supply and Installation)				
6.81		DN 65	no.	1		
6.82		DN 80	no.	1		
6.83		DN 100	no.	1		
6.84		DN 125	no.	1		
6.85		DN 150	no.	1		
6.86		DN 200	no.	1		
6.87		DN 250	no.	1		
6.88		DN 300	no.	1		
6.89		DN 350	no.	1		
6.90		DN 400	no.	1		
	PSL 8.2.2	Extra-over Item PSL 8.2.1 for cutting of the pipe and the fixing of:				
	PSI 8.2.5	Mild Steel Galvanized Short Radius Bends Flanged to Table 1600/3 (Rate includes Supply and Installation) 90° Bend:				
6.91		DN 40	no.	1		
6.92		DN 65	no.	1		
6.93		DN 80	no.	1		
6.94		DN 100	no.	1		
6.95		DN 125	no.	1		
6.96		DN 150	no.	1		
6.97		DN 200	no.	1		
6.98		DN 250	no.	1		
6.99		DN 300	no.	1		
6.100		DN 350	no.	1		
6.101		DN 400	no.	1		
	8.2.15	Special Wrapping in Corrosive Soils: 2 layers of Denso wrapping around pipe below ground for (Rate includes Supply and Installation) :				
6.102		DN 40	no.	1		
6.103		DN 65	no.	1		
6.104		DN 80	no.	1		
6.105		DN 100	no.	1		
6.106		DN 125	no.	1		
6.107		DN 150	no.	1		
6.108		DN 200	no.	1		
6.109		DN 250	no.	1		
6.110		DN 300	no.	1		
6.111		DN 350	no.	1		
6.112		DN 400	no.	1		
		Install New Water Domestic Smart Meter Including Fittings (Rate includes Supply and Installation) :				
6.113		DN 15	no.	1		
6.114		DN 20	no.	1		
6.115		DN 25	no.	1		
6.116		DN 32	no.	1		
		Install New Water Domestic Meter Including Fittings (Rate includes Supply and Installation) :				
6.117		DN 15	no.	1		
6.118		DN 20	no.	1		
6.119		DN 25	no.	1		
6.120		DN 32	no.	1		
TOTAL CARRIED FORWARD						

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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ITEM	PAYMENT REF	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
		Install New Smart Bulk Water Meter Assembly above ground for (Rate includes Supply and Installation) :				
6.121		DN 40	no.	1		
6.122		DN 65	no.	1		
6.123		DN 80	no.	1		
6.124		DN 100	no.	1		
6.125		DN 125	no.	1		
6.126		DN 150	no.	1		
6.127		DN 200	no.	1		
6.128		DN 250	no.	1		
6.129		DN 300	no.	1		
6.130		DN 350	no.	1		
6.131		DN 400	no.	1		
	PSL8.2.16.1	Install New Water Meter Assembly above ground for (Rate includes Supply and Installation) :				
6.132		DN 40	no.	1		
6.133		DN 65	no.	1		
6.134		DN 80	no.	1		
6.135		DN 100	no.	1		
6.136		DN 125	no.	1		
6.137		DN 150	no.	1		
6.138		DN 200	no.	1		
6.139		DN 250	no.	1		
6.140		DN 300	no.	1		
6.141		DN 350	no.	1		
6.142		DN 400	no.	1		
	PSL8.2.16.2	Replacement of Internal Mechanism for Meter (Rate includes Supply and Installation) for: Elster Kent H5000 bulk meters for the following diameter:				
6.143		DN 40	no.	1		
6.144		DN 65	no.	1		
6.145		DN 80	no.	1		
6.146		DN 100	no.	1		
6.147		DN 125	no.	1		
6.148		DN 150	no.	1		
6.149		DN 200	no.	1		
6.150		DN 250	no.	1		
6.151		DN 300	no.	1		
6.152		DN 350	no.	1		
6.153		DN 400	no.	1		
TOTAL CARRIED FORWARD						

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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ITEM	PAYMENT REF	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
		Sensus Meistream Bulk Water Meters for the following diameters:				
6.154		DN 40	no.	1		
6.155		DN 65	no.	1		
6.156		DN 80	no.	1		
6.157		DN 100	no.	1		
6.158		DN 125	no.	1		
6.159		DN 150	no.	1		
6.160		DN 200	no.	1		
6.161		DN 250	no.	1		
6.162		DN 300	no.	1		
6.163		DN 350	no.	1		
6.164		DN 400	no.	1		
	PSL8.2.16.3	Replace Water Meter Alone: As instructed by the Engineer				
		Elster Kent H5000 Bulk Water Meter				
6.165		DN 40	no.	1		
6.166		DN 65	no.	1		
6.167		DN 80	no.	1		
6.168		DN 100	no.	1		
6.169		DN 125	no.	1		
6.170		DN 150	no.	1		
6.171		DN 200	no.	1		
6.172		DN 250	no.	1		
6.173		DN 300	no.	1		
6.174		DN 350	no.	1		
6.175		DN 400	no.	1		
		Sensus Meistream Bulk Water Meter				
6.176		DN 40	no.	1		
6.177		DN 65	no.	1		
6.178		DN 80	no.	1		
6.179		DN 100	no.	1		
6.180		DN 125	no.	1		
6.181		DN 150	no.	1		
6.182		DN 200	no.	1		
6.183		DN 250	no.	1		
6.184		DN 300	no.	1		
6.185		DN 350	no.	1		
6.186		DN 400	no.	1		
	PSL8.2.16.4	Install/Replace Isolation Valve Only				
		for:				
6.187		DN 40	no.	1		
6.188		DN 65	no.	1		
6.189		DN 80	no.	1		
6.190		DN 100	no.	1		
6.191		DN 125	no.	1		
6.192		DN 150	no.	1		
6.193		DN 200	no.	1		
6.194		DN 250	no.	1		
6.195		DN 300	no.	1		
6.196		DN 350	no.	1		
6.197		DN 400	no.	1		
TOTAL CARRIED FORWARD						

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (137)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Pricing Data

ITEM	PAYMENT REF	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
	PSL8.2.16.5	Install/Replace Non-Return Valve Only				
		for:				
6.198		DN 40	no.	1		
6.199		DN 65	no.	1		
6.200		DN 80	no.	1		
6.201		DN 100	no.	1		
6.202		DN 125	no.	1		
6.203		DN 150	no.	1		
6.204		DN 200	no.	1		
6.205		DN 250	no.	1		
6.206		DN 300	no.	1		
6.207		DN 350	no.	1		
6.208		DN 400	no.	1		
	PSL8.2.18	Raise Water Meter Assembly (above ground level) for:				
6.209		DN 40	no.	1		
6.210		DN 65	no.	1		
6.211		DN 80	no.	1		
6.212		DN 100	no.	1		
6.213		DN 125	no.	1		
6.214		DN 150	no.	1		
6.215		DN 200	no.	1		
6.216	PSL8.2.20	Uncover and Clean Meter Box: As instructed by the Engineer Irrespective of Diameter	no.	1		
	PSL8.2.21	Dismantle Inspect and Clean Water Meter Installation :				
		As instructed by the Engineer				
		Below Ground Existing Meters Above	no.	1		
		Ground meter installations	no.	1		
6.217	PSL8.2.27	Remove of Bees and Clean the Inside of the meter box				
		Of Meter Assembly: As instructed by the Engineer	no.	1		
6.218	PSL8.2.20	Locate and Uncover Covered Meter or Connection as	no.	1		
		directed by the Engineer.				
TOTAL FOR SECTION 6 CARRIED FORWARD TO SUMMARY						

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (143)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Pricing Data

SCHEDULE 12 DAYWORKS

C	PAYMENT REF	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PSA 8.7	DAY WORKS				
		(On written instruction by the Engineer only)				
		Day works Labour				
12.1		Qualified artisan (Brick layer, Carpenter, Plumber)	hr	1		
12.2		Charge hand	hr	1		
12.3		Labourer	hr	1		
		Plant Hire : Work Rates on Site				
		Tipper truck (specify capacity)				
12.4		5 m³ (or Specify)	hr	1		
		Flat bed truck (specify capacity)				
		5 t (or Specify)				
12.5		LDV (1 Ton Bakkie)	km	1		
		TLB (Tractor Loader Backhoe)				
12.6		(.....m³ bucket) (specify type.....)	hr	1		
		Compactor				
12.7		Walk behind Vibrating Roller (..... kg)	hr	1		
12.8		Wacker (model / type.....)	hr	1		
		Concrete mixer (specify dry/wet capacity)				
12.9		 m³/hr (Small towable)	hr	1		
		Miscellaneous				
12.10		Compressor with capacity m³ / min	hr	1		
		Dewatering pump with 40mm and over outlet				
12.11		Complete with hoses and fittings.	hr	1		
12.12		Pave breakers with hoses, moils, etc.	hr	1		
		Materials :				
		Clay bricks :To SABS 227-1986	hr	1		
12.13		(1) Engineering brick : FBSE25				
12.14		(2) Face brick : FBS30	hr	1		
		Concrete : To SABS 1200 G				
12.15		(1) Class 25/19 concrete	m³	1		
		Small working unit scheduled :				
		Complete with all hand tools such as picks shovels, gwalas, protective clothing, etc, to				
		work under the auspices of a designated representative				
		from the Employer:				
		Charge hand, Labourer x 2, LDV (1 Ton Bakkie) -				
		maximum 250 km/day, excess at day rates				
12.16		above.	day	1		
TOTAL CARRIED FORWARD						

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Pricing Data

ITEM	PAYMENT REF	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
		Small working unit scheduled :				
		Complete with all hand tools such as picks shovels, gwalas/crow bar, protective clothing, etc, to work under the				
		auspices of a designated representative from the Employer:				
	C3.4.2.5(S)	Charge hand, Labourer x 2, LDV (1 Ton Bakkie) - maximum 250 km/day, excess at day rates				
12.17		above.	week	1		
12.18		Providing Standby Services:				
		Maintaining or Repairing any Section of Work				
		Coverd by this Contract				
		Complete with qualified staff with all necessary				
		transport, tools, materials on 24-hour standby to				
		rectify any problem that may occur inside or outside the				
		normal working hours.				
12.19		Mondays to Fridays of any week: normal hours	p/h	1		
12.20		Mondays to Fridays: outside normal working hours	p/h	1		
12.21		Special non-working days: Saturday	p/h	1		
12.22		Special non-working days: Sunday	p/h	1		
12.23		Special non-working days: Public holiday	p/h	1		
		Material:				
		The Tenderer shall state here the percentage "On-costs" that should be added to the nett cost of materials				
12.24		Percentage Mark Up on material procured(not exceeding 15%) - A minimum of three Quotations are required for the procurement of material	%	R150 000,00		
TOTAL FOR SECTION 12 CARRIED FORWARD TO SUMMARY						

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Pricing Data

SUMMARY

SECTION	DESCRIPTION	AMOUNT
1	PRELIMINARY AND GENERAL	
2	SITE CLEARANCE	
3	EARTHWORKS (PIPE TRENCHES)	
4	EARTHWORKS (ROADS AND SUBGRADE)	
5	CONCRETE (STRUCTURAL)	
6	MEDIUM PRESSURE PIPELINES	
7	BEDDING (PIPES)	
8	SUBBASE	
9	ASPHALT BASE AND SURFACING	
10	SEGMENTED PAVING	
11	KERBING & CHANNELLING	
12	DAYWORKS	
A	NETT TOTAL OF TENDER	
C	TENDER AMOUNT	
D	ALLOWANCE FOR VAT AT 15.0%	
E	TOTAL TENDER SUM	

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Summary of Bill of Quantities

BILL OF QUANTITIES	AMOUNT
TOTAL FOR SCHEDULE 1 : PRELIMINARY AND GENERAL	R
TOTAL FOR SCHEDULE 2 : SITE CLEARANCE	R
TOTAL FOR SCHEDULE 3 : EARTHWORKS (PIPE TRENCHES)	R
TOTAL FOR SCHEDULE 4 : EARTHWORKS (ROADS AND SUBGRADE)	R
TOTAL FOR SCHEDULE 5 : CONCRETE (STRUCTURAL).....	R
TOTAL FOR SCHEDULE 6 : MEDIUM PRESSURE PIPELINES	R
TOTAL FOR SCHEDULE 7 : BEDDING (PIPES).....	R
TOTAL FOR SCHEDULE 8 : SUBBASE	R
TOTAL FOR SCHEDULE 9 : ASPHALT BASE AND SURFACING.....	R
TOTAL FOR SCHEDULE 10 : SEGMENTED PAVING	R
TOTAL FOR SCHEDULE 11 : KERBING AND CHANNELLING	R
TOTAL FOR SCHEDULE 12 : DAYWORKS	R
NETT TOTAL OF TENDER	R

ALLOWANCE FOR VAT 15% R

CARRIED TO PART C1.1 Form Of Offer And Acceptance R

**TIME FOR COMPLETION OF CONTRACT:
AS STATED IN THE FORM OF OFFER AND ACCEPTANCE**

SIGNED BY/ON BEHALF OF TENDERER

NAME

SIGNATURE

DATE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Pricing Data

MIDVAAL LOCAL MUNICIPALITY

CONTRACT NO: 8/2/2/425

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Declaration

(In respect of completeness of Tender)

Midvaal Local Municipality

25 Mitchell Street,

Meyerton, 1961

Midvaal

I/we, the undersigned, do hereby declare that these are the properly priced Bill of Quantities forming Part C2.2 of this Contract Document comprising 242 pages (including the Bill of Quantities comprising 19 pages) in consecutive order upon which my/our tender for the has been based.

CONTRACT NO: 8/2/2/425 SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

SIGNED BY/ON BEHALF OF TENDERER

NAME

SIGNATURE

DATE

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Part C3: Scope of Work

	<u>Page</u>
C3.1 Description Of The Works	149
C3.2 Engineering	154
C3.3 Procurement	157
C3.4 Construction	158
C3.5 Management	165
C3.6 Annexes	169

Status

Should any requirement or provision in the parts of the Scope of Work conflict with any requirement of any Specification(s) forming part of this contract or any drawings, the order of precedence, unless otherwise specified, is:

1. Contract Drawings
2. Scope of Work (which includes the Project Specifications)
3. Standard Specifications
4. Bill of Quantities

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

C3.1. Description of the Works

C3.1.1 Employer's Objectives

The Employer's objectives are to deliver public infrastructure using labor-intensive methods.

The Contractor will be required to execute the work as described in C3.1.2 and C3.1.3, below, on an as-and- when-required basis. Specific repair, installation and maintenance activities will become necessary and the Employer will request action and the Engineer will instruct the contractor to execute the work under tendered items:

- all industrial properties are metered,
- all water consumption (Domestic and Fire) on the property is metered,
- water meters are accessible (i.e. outside properties, not covered, etc.). In particular, wherever possible water meters should be positioned above ground and water meter installations should run parallel to and as close to the property boundary as practicable,
- water meters are appropriately sized for accurate measurement,
- water meters are in good working order, including clear meter faces,
- water meter database correctly records meter installation details, and
- water meters are to be suitable for automatic meter reading (AMR).

The Contractor will be required to execute the work as described in C3.1.2 and C3.1.3, below, on an as-and- when-required basis. Specific repair, installation and maintenance activities will become necessary and the Employer will request action and the Engineer will instruct the contractor to execute the work under tendered items.

The lowest or any bid will not necessarily be accepted and the Council reserves the right to accept a bid in whole or part thereof and to negotiate fair and equal tender rates for each contractor appointed.

C3.1.2 Overview of the Works

The work to be executed under this contract comprises the following:

- checking & where necessary repairing or replacing isolating valves in the network which is necessary to allow work on supply lines to individual stands to be carried out,
- excavating pilot trenches and pits to determine the location of services on both public and private property,
- the installation of new and existing bulk water meters, as far as possible above ground level, for sizes ranging between 40mm up to and including 450mm. This implies working on the existing water infrastructure by installing / constructing, repairing, altering, demolishing, etc. construction of bulk water meter infrastructure components or related items
- the installation of new and existing domestic water meters, as far as possible, for sizes ranging between 15mm up to and including 32mm. This implies working on the existing water infrastructure by installing / constructing, repairing, altering, demolishing, etc. construction of domestic water meter infrastructure components or related items
- Installation and connection of new rerouted piping and fittings on private property, which are required to be carried out prior to switching over to a consolidated meter connection to each stand.
- The disconnection and blanking off of all redundant connections.
- The reinstatement of all affected areas such as paving, roads etc. affected by excavations

The work under this contract is to be carried out within MIDVAAL LOCAL MUNICIPALITY within a fixed period as specified in the Contract Data as required by the MIDVAAL LOCAL MUNICIPALITY.

The following components shall be can either be supplied (free of charge) by the Employer at the relevant Municipal Stores for incorporation in the proposed water meter installation or an instruction can be issues to the contractor to procure and invoice the Employer inclusive of the handling fee:

- I. Water Meter (Bulk and Domestic)
- II. Strainer
- III. Valves (Isolation and Non-return)
- IV. Dials for Bulk Meters
- V. Internal Mechanism for Bulk Meters (Inserts)
- VI. Valve Boxes
- VII. Associated fittings

All other appurtenant items shall be supplied by the Contractor, e.g. Flanges, specials, pipes, bolts & nuts, etc.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

C3.1.3 Extent of the Works

The work will be on the existing, live, water network and therefore all reasonable effort will be required to keep the disruption of supply to a minimum. The Contractor will be required to maintain good relations with the affected customers and communities through proper and timeous communication, execution and completion of the work.

The Works to be carried out by the Contractor under this Contract comprise mainly of, but not exclusive the following:

- a. Excavating pilot trenches and pits to determine the location of services on both public and private property
- b. Construct new bulk/domestic water meters complete with all necessary appurtenances and according to detail.
- c. Removal of existing bulk/domestic water meter components complete with appurtenances (where required).
- d. Repairs and maintenance to existing bulk/domestic water meter components complete with appurtenances as scheduled in the Bill.
- e. Construct new bulk/domestic water pipelines complete with all necessary appurtenances and according to the Engineer \ Employers details where required on private property.
- f. Installation of smart water meter including establishing communication with management station.
- g. Establishing a smart water meter management platform linked to billing platform for automatic billing
- h. Traversing roads and other infrastructure by means of trenchless technology methods, and/or normal cut and cover.
- i. Corrosion protection of pipes and specials (where / if required).
- j. Exercising the necessary care and superintendence to assure safety to the Contractor's staff, the Engineer \ Employer's staff, property owners and the public.
- k. Backfilling and compaction of excavated trenches / holes.
- l. Restore asphalt surfacing, kerbs, paving, surfaces and structures caused by work under this contract.
- m. Finishing and clearing areas neatly.
- n. Conducting all necessary administrative actions as required, i.e. works orders, way leaves, contacting the necessary officials, liaison with other departments such as the Traffic Department, Telkom, etc.
- o. Correction of defects in the Works in accordance with the requirements specified in the Contract Documents.

This description of the Works is not necessarily complete and shall not limit the work to be carried out by the Contractor under this Contract.

Approximate quantities of each type of work are given in the Bills of Quantities.

C3.1.4 Location of the Works

The works is located in Midvaal, Gauteng. Refer to the locality plan included in the tender drawings.

C3.1.5 Basis of the work

The Contractor shall provide the Engineer with an effective means of contacting his nominated (in writing) responsible person(s) for the duration of the contract. A computer with email access shall be available in his office with a dedicated direct Post Office line, which must be available, for the duration of the Contract. A Mobile phone shall be provided to this nominated responsible person with adequate battery capacity to ensure that a continuous service will be available on a 24 (twenty four) hour basis for the duration of the Contract.

- **(i) Instruction to Commence:**

The Contractor will be instructed to proceed with work. This instruction will be in writing. However, the Contractor shall obtain a standard Works Order and Project Order Number (note that Project Order Numbers are not issued after hours) as soon as possible on the first working day after the instruction was issued. Attached to each work order there will be a drawing illustrating the work required related to the private property whose meters are being consolidated.

- **(b) Work:**

The Contractor is to respond. The Contractor shall arrange construction way leaves (when required) with the relevant service owner and/or local authority. The Contractor & the Engineer shall meet with the property owner to discuss all aspects of the job including making arrangements to have any required Health & Safety inductions. "Notice to Engineer and property owners to be given in writing (2 days beforehand) that work will commence in their immediate area. In case of water disruption at least 24 hours and when the media is required to inform affected parties or consumers, then 14 days". Physical work to commence immediately or as soon as possible. In case of unavoidable delays or problems causing the works not to be completed, the Contractor shall agree an arrangement with the Engineer or his authorized staff for temporary measures until the work can be completed to the required standard and quality. Please note the penalty on open trenches longer than Turn Around Time will be applicable. If trenches are to be open longer than Turn Around Time the Contractor shall backfill the trench and excavate and backfill to complete the work at his own cost. It is important to note that the Contractor shall maintain good communication with the Engineer or his authorized staff members at all times to aid in avoiding problems, frustrations, damage,

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Contract 8/2/2/425(4CE or Higher) Page (151)

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Scope of Work

danger, etc. At all times the Contractor shall have a competent person in charge of work. Specials to be arranged timeously to avoid unnecessary open trenches.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

I. Procedure:

1. Instruction for work to commence (Work Order).
2. Contractor to arrange construction way leaves with the relevant service owner and local authority.
3. Contractor to arrange meeting with the relevant property owner and the Engineer to obtain permission and conditions to working on the said property.
4. Contractor to timeously arrange attendance of any necessary health & safety inductions at premises of private property owner
5. Written advice (delivered and signed for) to water consumer of water disruption (24 hour advance notice).
6. The relevant authority (depot) to receive advance notice (24 hours) of water to be closed off (by the local authority).

II. Methodology (All Completed Within turnaround time (C3.5.3.1))

- The Contractor to check and audit & where necessary repair or replace isolating valves in the network affecting the property involved in the Work order.
- The Contractor to expose the water infrastructure as required both on public land and on the private property included in the work order, where necessary pilot trenches may be required.
- The Contractor shall assess and measure components required and shall close trenches as soon as possible and not leave trenches open for longer than required.
- The Contractor shall provide where necessary 3 quotes to the satisfaction of the Engineer, for items not described in the Bill of Quantities and to be paid for as a provisional sum or as dayworks, for the approval of the Engineer
- Components shall be ordered for installation. The Engineer's authorized representative to be afforded the opportunity to inspect specials once manufactured and corrosion protection completed before dispatch to site. To be noted: Only approved subcontractors to be utilized for manufacture of specials as well as for corrosion protection.
- Contractor to install all internal plumbing on affected property
- Contractor to install the water meter and all related pipework and specials to affect consolidation of meters where necessary prior to installation of new meters
- Contractor to backfill, compact, reinstate surfaces to the satisfaction of the Engineer or his authorized representative. The Contractor to maintain a photographic record of before and after work.
- Inspection by the Engineer's authorized representative within Turn Around Time

(c) Commissioning and Testing:

Contractor to prove his work to the Engineer or his authorized staff. Upon successful completion and approval of work by the Engineer or his authorized staff, the Contractor may submit a claim for work done, the claim will be assessed, due payment will be certified for work done to rates and amounts in the contract.

(d) Workmanship Guarantee:

The Contractor shall guarantee his workmanship of each work order for a period of twelve (12) months from the date of the completion and acceptance by the Engineer or his authorized staff.

(e) Job Cards (Work orders):

The Contractor must complete a Job Card for each job he is required to do. This Job Card is presently used by the Midvaal Local Municipality but may be amended from time to time. The Job Cards must be completed correctly and in full detail. Incomplete or incorrectly completed Job Cards will not be accepted, and will be treated as an incomplete Job Card and rejected as non-received Job Cards. No payment will be made until such time as the Job Cards have been corrected/revised and resubmitted, and accepted by the Engineer as correctly completed. The Job Card consists primarily of technical information of the actual work activity and this information is required by the Council. A "Material List", etc., which must be attached to each Job Card irrespective of whether materials were used or not.

In addition to the above the Contractor shall on satisfactory completion of a scheduled meter installation or fault be responsible to complete a Job Card for each meter assignment, by recording on the Job Card, the time spent, all materials utilized, meter reading, meter number of the existing meter and of the new meter, date of existing meter removed, date of new installation street address, stand number, location of meter and township.

Further to the above the contractor must with all meter related work ordered attach to the Job Card a digital colour photo taken of the meter, with the meter's number and reading clearly visible. The Contractor MUST use a camera that has a BUILT-IN GPS function which records the South and East Co-Ordinates for meter positions in the metadata of each photograph taken.

(f) Allocation of Work:

No work shall be done by the Contractor until such time as the Engineer or his authorized staff has notified the Contractor and a Project Order Number, Location and description of the envisaged work has been given. The Project Order Number is a unique reference number and constitutes authority for the Contractor to proceed with the work. No payment will be made for work done without first obtaining the necessary Project Order Number. The Project Order Number must appear on each Job Card.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

(g) Invoices:

All invoices submitted for payment are to indicate the following:

- No. of item from schedule of prices, which payment is to be made.
- Date of work done.
- Date of invoice.
- Job card no.'s relevant to invoice.
- Project Order Number.

(h) Work not up to Standard:

Should the work be deemed unsatisfactory, the Engineer, or any one of his authorized representatives reserves the right to hold back payment until the work is deemed satisfactory. The Engineer or his authorized staff shall inform the contractor of the problem and the contractor shall rectify work immediately. Should the work not be re-done or is of an unacceptable standard, the cost to re-do the work shall be deducted from money due to the Contractor or paid by the Contractor.

(i) Penalty for delayed / late completion:

Should the work ordered not be completed within the time prescribed in clause C3.5.1.6 and no reasons beyond the control of the Contractor can be motivated, the Engineer will impose penalties as scheduled in clause C3.5.1.7.

At all times the Contractor shall liaise with the affected communities and authorities regarding disruption to services. Ample written notice shall be given by the Contractor to affected communities and authorities prior to disruption.

C3.1.6 Re-Instatement of Work Done on Private Properties

The Contractor shall be responsible for re-instating all areas in the private properties where they have worked (gardens / grass / driveways / paved areas / roadways / structures / etc.) to a satisfactory condition once they have completed their work. Once the Contractor has completed their work on each property, and has ensured that all re-instatement work has been satisfactorily completed, the Contractor is to contact the Engineer to inspect the completed works. Should the Engineer be satisfied with the work, a property sign-off form will be completed and signed by the Contractor, the Engineer and, by the property owner. Only once the signatures have been obtained, will the claim for payment for work done on that property be entertained by the Engineer.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

C3.2. Engineering

C3.2.1 Design

- The Employer is responsible for the design of the permanent Works as reflected in the Contract Documents unless otherwise stated.
- The Contractor is responsible for the design of the temporary Works and their compatibility with the permanent Works.

C3.2.2 Contractor's Design

Where the Contractor is to supply the design of designated parts of the permanent Works or temporary Works he shall supply full working drawings supported by a professional engineer's design certificate.

The Contractor is required to interpret the design for the proper and complete functioning of all pipelines following completion.

C3.2.3 Alternatives

The Contractor is at liberty to put forward alternatives for items of plant or methods of construction for which he claims advantages to that indicated in the Specification and Drawings, providing the mode of operation and method of construction is fully detailed and is at least equal to that shown on the Drawings or implied in this Specification. The Engineer's decision on whether to accept or reject any such alternative offered shall be final.

C3.2.4 Drawings

The Contractor shall use only the dimensions stated in figures on the Drawings in setting out the Works, and dimensions shall not be scaled from the Drawings, unless required by the Engineer. The Engineer will, on the request of the Contractor in accordance with the provisions of the Conditions of Contract, provide such dimensions as may have been omitted from the Drawings.

The Drawings prepared by the Employer for the permanent Works are listed and bound in the back of this volume. The Employer reserves the right to issue amended and/or additional drawings during the Contract.

C3.2.5 As-built Drawings

The Contractor shall record any variation from the drawings issued under the Contract. The actual location, invert and cover levels of all new pipework and other services installed and of any variations from the structural details shown on the drawings must be recorded on a set of "As Built" drawings compiled by the Contractor to be recorded on Job Cards.

Payment for the compilation of the "As Built" drawings will be deemed to be covered in the tendered rates.

C3.2.6 Meter Information

The Contractor shall ensure that accurate as-built records are kept of all infrastructure installed or relocated during the contract. The position of pipe bends, junction boxes, duct ends and all other underground infrastructure shall be given by either co-ordinates, or stake value and offset on a sketch attached to each Job Card. Where necessary, levels shall also be given. A marked-up set of drawings shall also be kept and updated by the Contractor. This information shall be supplied to the Engineer \ Employer's Representative on a regular basis.

Any information in the possession of the Contractor, which is necessary for the Engineer \ Employer to complete the as built drawings / updating meter data base / process of job cards, shall be supplied to the Engineer \ Employer within Turn Around Time for the Specific Task (refer to C3.5.3.1) of completion of work ordered. In all cases where the Contractor is required to work on a meter, even when the meter is only being cleaned, the Contractor must record the reading of the meter, number, date meter removed, date of new installation, street address, stand number, location of meter and township.

Further to the above the contractor must with all meter related work ordered attach to the Job Card a digital colour photo taken of the meter, with the meter's number and reading clearly visible. The Contractor MUST use a camera that has a BUILT-IN GPS function which records the South and East Co-Ordinates for meter positions in the metadata of each photograph taken.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

C3.2.7 Water Meter Installation/Replacement

Water meters shall, where possible, always be installed immediately outside the stand boundary, as indicated on the relevant drawings.

C3.2.8 Trenchless Tunnelling / Cut and Cover when Traversing Roads

All busy streets shall be traversed with trenchless means; i.e. directional drilling. The Contractor shall obtain the directive on method of road crossing from the Engineer or his authorized representative.

C3.2.9 Reinstate Surfaces**(a) Interlocking Block and Paving Slabs**

Footways (interlocking block or paving slabs) shall be reinstated by the Contractor. Wherever possible, the existing blocks/slabs shall be cleaned and re-used. Prior to final reinstatement, blocks/slabs which have been taken up shall be stacked in a safe manner without restriction to vehicular or pedestrian traffic. Blocks/slabs around meter boxes shall be finished level with the meter box top. The method of placement of blocks/slabs shall be as described in the SABS 1200MJ.

(b) Grassed Areas

Grassed areas shall be reinstated by the Contractor.

(c) On Private Property

The Contractor shall, as far as possible to the satisfaction of the Property Owner, but to the complete satisfaction of the Engineer match existing surfaces on private property. Likely surfaces are concrete, brick paving, block paving, ceramic tiles, paving slabs or stone surfaces. Envisaged surfaces.

C3.2.10 Cover Over New Mains

The minimum cover to all new mains shall be 1000 mm except under roadways where the cover shall be 1200 mm. The minimum cover for communication pipes under roadways and in verges shall be 900 mm.

C3.2.11 Flushing of Mains**(a) Mains**

On satisfactory completion of hydrostatic checking all mains shall be flushed with potable water supplied by the Council. The quantity of water used for flushing and the duration of flushing for the various mains shall be recorded by the Contractor.

The Contractor shall ensure that the water used for flushing is disposed of in an approved manner without causing damage, nuisance or injury.

(b) Communication Pipes

When a new communication pipe is laid, the connection to the water main must be completed first and thereafter the connection to the meter box. The valve in the meter box must be closed and the water main and the new communication pipe must be recharged with water. The section of the new main must be flushed and each communication pipe must be flushed and immediately connected to the consumer's section of the communication pipe.

(c) Consumer

Before fitting the strainer the S-shaped special must be flushed with potable water supplied by the Council. The Contractor shall ensure that the water used for flushing complies with SANS 241 Class 2.

The Contractor shall be liable for the cost of cleaning pressure control valves to geysers, flush valves and similar devices and for any work of a like kind required to restore a consumer's service within 24 hours, if this work arises out of a failure to follow the aforesaid construction and flushing procedure. Any scale from old pipe work (domestic) shall be for the private owners account. The Contractor is to liaise with the land owner in this regard.

C3.2.12 Disposing of Scrap Materials**(a) Contractor's Responsibility**

The Contractor shall deliver all scrap isolating non return valves, meter dials, internal meter mechanism (inserts), meter boxes and strainers to an authorised storage facility as assigned by the Engineer or his representative to be kept for 90 days, in case of any queries. After the expiry of the 90 days the Contractor will be responsible for the disposing of unserviceable materials to scrap dealers or suppliers. The costs of disposing the above shall be borne by the Contractor and shall be deemed to be included in the tendered rates and prices for the respective items of work as listed in the Schedule of Quantities and no separate payments will be made by the Employer to the Contractor in respect of any disposing of scrap material.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Scope of Work

(b) Unserviceable Apparatuses

Before unserviceable apparatuses are disposed of, the following individual checks, in the presence of the Engineer or his representative are required:

Ensure that the contractor has with the replacement/installation of a water meter:

- Attached to the Job Card a photo taken of the meter reading and number of the old and new meters.
- The photo should be, digital, in colour and the meter's number and readings must be clearly visible.

(c) Job Cards

Job Cards that do not comply with the abovementioned requirements will not be accepted and will be treated as an incomplete Job Card and rejected as non-received Job Cards. No payment will be made until such time as the Job Cards have been corrected/revised and resubmitted, and accepted by the Engineer as correctly completed.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Scope of Work

C3.3. Procurement

C3.3.1 Preferential Procurement Procedures

The works shall be executed in accordance with the conditions attached to preferences granted in accordance with the Preference Schedules (Schedules A30 and A31 in Part T2.2, Returnable Schedules)

C3.3.2 Subcontracting

The Engineer will not liaise directly with any subcontractors and will not issue instructions (whether verbal or written) directly to any subcontractor. All matters pertaining to the particular subcontractor will be deemed to be the responsibility of the Contractor and the Engineer will not be involved.

All matters arising from the subcontract agreements shall be dealt with directly between the Contractor and the subcontractors and the Engineer will not become involved.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

C3.4. Construction

C3.4.1 Works Specifications

C3.4.1.1 Applicable SANS 1200 Standardised Specifications

The following SANS 1200 Standardised Specifications for Civil Engineering Construction are applicable:

- SANS 1200 A - 1986 General
- SANS 1200 AA - 1986 General (Small Works)
- SANS 1200 AB - 1986 Engineer's Office
- SANS 1200 C - 1980 Site Clearance (As Amended 1982)
- SANS 1200 D - 1988 Earthworks (As Amended 1990)
- SANS 1200 DA - 1988 Earthworks (Small Works) (As Amended 1990)
- SANS 1200 DB - 1989 Earthworks (Pipe Trenches)
- SANS 1200 DM - 1981 Earthworks (Roads, Sub grade)
- SANS 1200 G - 1982 Concrete (Structural)
- SANS 1200 GA - 1982 Concrete (Small Works)
- SANS 1200 L - 1983 Medium-Pressure Pipelines
- SANS 1200 LB - 1983 Bedding (Pipes)
- SANS 1200 LD - 1983 Sewers
- SANS 1200 LF - 1983 Erf Connections (Water)
- SANS 1200 M - 1996 Roads (General)
- SANS 1200 ME - 1981 Sub base
- SANS 1200 MF - 1981 Base
- SANS 1200 MFL - 1996 Base (Light Pavement Structures)
- SANS 1200 MG - 1996 Bituminous Surface Treatment
- SANS 1200 MH - 1996 Asphalt Base And Surfacing
- SANS 1200 MK - 1983 Kerbing And Channelling
- SANS 1200 MM - 1984 Ancillary Roadworks

Departures from and / or additions to the specifications listed are set out in Annexure C3.6.1 in accordance with the numbering system of the standardised specification.

C3.4.1.2 Other Applicable SANS Specifications

- SANS 546 Cast Iron Fittings for Asbestos Cement Pressure Pipes
- SANS 558 Cast Iron Surface Boxes and Manhole and Inspection Covers and Frames
- SANS 927 Pre-cast Concrete Kerbs, Edgings and Channels
- SANS 974-1 Rubber Joint Rings for use in Water, Sewer and Drainage Systems
- SANS 1936 -1 Development of dolomite land Part 1: General principles and requirements
- SANS 1936 -2 Development of dolomite land Part 2: Geotechnical investigations and determinations
- SANS 1936 -3 Development of dolomite land Part 3: Design and construction of buildings, structures and infrastructure
- SANS 1936 -4 Development of dolomite land Part 4: Risk management

C3.4.1.3 Particular Specifications (Annex C3.6)

The following Particular Specifications for work not covered by the SANS 1200 Standardised Specifications are also included hereunder:

PE	:	Excavations
PM	:	Material
PPL	:	Pipe laying, jointing and testing of pipes and pipe settings
PTT	:	Trenchless tunnelling

C3.4.1 Plant and Material

C3.4.2.1 Plant and Materials Supplied by the Employer

(a) Materials

The following components shall be supplied (free of charge) by the Employer at the relevant Municipal Stores for incorporation in the proposed water meter installation:

Water Meter (or parts thereof including internal mechanisms & replacement dials);

Strainer;

Valves (Isolation and Non-return); and Valve Boxes.

All other appurtenant items shall be supplied by the Contractor, e.g. flanges, specials, pipes, bolts and nuts, etc.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Rates tendered shall be deemed to have included therefore.

(b) Notice of Requirements

To assist the Municipality in arranging for materials to be supplied to suit the Contractor's installation program the Contractor shall submit to the Engineer lists of his requirements at least 1 week in advance of the date by which the materials are required.

(c) Contractor's Responsibility

The Contractor shall, from the time of collection, be responsible for the handling, Transportation and storage of the materials and shall at the same time accept the risk of damage to or loss of the materials.

(d) Tools/Plant

It is a specific requirement on this Contract that all tools and plant be provided by the Contractor at his own cost, and shall be deemed to be included in the rates tendered.

C3.4.2 Construction Equipment

C3.4.3.1 Requirements for Equipment

The contractor shall pose or be able to freely obtain any and all equipment or plant required to complete the works, specifically Pipe Cracking and Directional Drilling equipment.

C3.4.4 Existing Services

C3.4.4.1 Known Services

The Contractor must familiarise himself with the various standard regulations of the relevant Authorities and act accordingly, e.g. Construction way leaves, etc.

It is to be noted that work will be done adjacent to or traversing existing services. Prior to commencement of any work in the aforesaid affected area, the Contractor shall take the necessary precautions that the existing services will not be damaged.

As the above work will be done in already developed areas, special care must be taken to keep the disturbance of the functioning of the existing facilities or services to a minimum.

All excavation to be done by hand except if approved otherwise by the Engineer. The use of mechanical excavators are restricted or prohibited in the vicinity of overhead power lines. The Contractor should assume that excavation by hand will be required at these points and should allow for this in the schedule of rates for excavation.

The Contractor shall take special care when excavating the trenches, when the trenches are open, or when carrying out any work under the Contract, not to damage any existing water mains, sewers, cables or other underground services or to disturb the stability of any poles or towers supporting power lines, telegraph and telephone wires, etc. He shall be solely responsible for the protection of all such services and for any claims for damages arising there from.

The Contractor shall ascertain the exact position and type of service from the relevant authorities. Construction way leaves shall be obtained by the Contractor before any work commences.

Before any excavation is carried out within close proximity of an existing service the Contractor appointed to carry out the work shall notify the owner of the service and the Inspector that the excavation is to be done and ascertain and comply with any conditions that have been imposed. No trench excavation shall be carried out within 5m of the service until the service has been exposed and protected to the satisfaction of the owner.

Excavation work above, below and in the vicinity of the underground services shall be undertaken in accordance with the requirements of the owner of the service and whether excavated by hand or with the use of excavating machinery, shall be paid at the schedule rate for trench excavation.

The Contractor shall be liable for any damage that may occur to any pipe, sewer, cable, etc., and shall immediately notify the Engineer of any such damage. The Engineer will arrange for the damage to be repaired by the owner of the damaged services and the cost of such repairs shall be deducted from any monies due to the Contractor.

No Blasting without written approval by the Engineer. For blasting in the proximity of existing buildings, approved horizontal and vertical blasting mats are to be used to prevent flying debris. The cost of these protective measures shall be included in the rates for excavation. All approaches to the blast must be given to oncoming

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

traffic and to residents in the neighbourhood. All damage or claims due to blasting shall be for the Contractors account.

C3.4.4.2 Damage to Services

The Contractor is responsible for immediately reporting any damage to existing services or work to the relevant Authority (also in writing). The Engineer must be informed as soon as possible, but no later than 24 hours after the damage has been identified.

The Contractor shall be responsible for all damage to services, should such services be damaged due to actions and/or lack of actions, from the Contractor. These may include but may not be limited to work undertaken:

- (a) Outside the Contractor's scope of Work.
- (b) Without proper superintendence by the Contractor.
- (c) Neglecting known information.
- (d) Work by unqualified staff.
- (e) Negligence.

C3.4.4.3 Reinstatement of Services and Structures Damaged During Construction

All services and structures will be fully restored to the state before commencement of work. The Engineer will arrange for the damage to be repaired by the owner of the damaged services and the cost of such repairs shall be deducted from any monies due to the Contractor. Where agreed by the owner, the Contractor may be instructed by the Engineer to reinstate the damaged service and/or structure at the Contractor's own cost.

C3.4.5 Site Establishment

C3.4.5.1 Services and Facilities Provided by the Employer

There are no services or facilities provided on site for the Contractor by the Employer.

C3.4.5.2 Facilities Provided by the Contractor

As determined by the engineer for instances where the specific works order requires a site camp, the Contractor shall establish their camp at a location near the proposed works, approved by the Engineer.

(a) Source of Water Supply

The Contractor shall make his own arrangements to draw water for construction and drinking purposes. Clean purified water shall be provided at the campsite by the Contractor. The Contractor shall allow in his tender for all costs related to water supply for the Works. In the event that water is obtained from a local water authority, all water usage must be metered and reported at site meetings.

(b) Source of Power Supply

The Contractor shall make his own arrangements for electrical power and lighting for the Contract period. Alternatively the Contractor shall provide a separate power plant. All supply costs shall be allowed for in the tender. In the event that electricity is obtained from a local authority such usage shall be metered and reported at site meetings.

The Contractor shall comply with all prevailing legislation in respect of the generation and distribution of electricity and shall, when required by the Engineer, produce proof of such compliance.

(c) Location of Camp and Depot

The Contractor shall submit to the Engineer the proposed siting and layout of all camps, stores, offices etc. within ten (10) days after acceptance of the Tender. The requirements of the Environmental Management Plan (CEMP) must also be followed, refer Volume 5.

(d) Sanitary Facilities

The Contractor shall provide portable toilet facilities for all his employees and shall maintain them in a clean and hygienic state at all times to the satisfaction of the Medical Officer of Health. The cost of establishing, maintaining and relocating of portable toilets shall be deemed to be included in the rates tendered. Due to the nature of the work, the Contractor will be working in a variety of Sites throughout the Midvaal Municipal area, and he must ensure that his workers do not urinate or conduct their ablutions in public.

(e) Facilities for the Engineer

The Contractor is not required to provide any facilities for the Engineer.

C3.4.5.3 Vehicles and Equipment

(a) Vehicles

The Contractor shall keep his vehicles continuously insured against any loss, damage or breakage, and shall indemnify the Engineer and the Employer against any claims in this regard. The Contractor shall also maintain his vehicles in good working

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

order throughout the Contract period.

(b) Survey Equipment

The Contractor is not required to provide any survey equipment for the Engineer.

(c) Site Instructions

The Engineer shall supply his own site instruction book for specific use on the site. The Contractor shall at his own cost, supply his own triplicate book for his site correspondence and inspection requests to the Engineer's Representative. Reasonable notice time (not less than 24 hours) shall be allowed prior to inspections. All inspection requests and approval / disapproval thereof shall be recorded by the site staff in writing.

(d) Site Meetings

Site meetings will be held in the offices of the Engineer or Employer. The venue will be confirmed prior to the meetings.

C3.4.5.4 Notice Boards

Due to the nature of the work, the Contractor will be working in a variety of sites throughout the Midvaal Municipal area, for a limited duration at each Site. Therefore the erection of name boards will not be practical. No name boards will be required to be erected for this contract.

All notices, signs and barricades, as well as advertisements, may be used only if approved by the Engineer. The Contractor shall be responsible for their supply, erection, maintenance and ultimate removal and shall make provision for this in his bid rates.

The Engineer shall have the right to instruct the Contractor to move any sign, notice or advertisement to another position, or to remove it from the Site of the Works if in his opinion it is unsatisfactory, inconvenient or dangerous.

C3.4.6 Site Maintenance and Clearance

The Contractor shall be responsible, at all times, to ensure that the site is neat and that all works areas are in accordance with his approved OHS plan.

During progress of the work and upon completion thereof, the Site of the Works shall be kept and left in a clean and orderly condition. The Contractor shall store materials and equipment for which he is responsible in an orderly manner, and shall keep the Site free from debris and obstructions.

Building rubble from demolishing of structures, kerbs, paving, etc. shall be disposed of at registered dump sites. Charges for the use of such dump sites or any other costs involved with the disposal of material, including transport, will be deemed to be included in the tendered rates.

The Contractor shall plan the work in such a way that wind-blown dust is minimised.

C3.4.7 Permits and Wayleaves

No application for wayleaves have been made by the Employer on behalf of the Contractor.

It is the Contractors responsibility to ensure that all required wayleaves have been secured and/or outstanding wayleaves are issued by the relevant authority before commencement of the works.

The Contractor's tendered sums in the preliminary & general section must include full compensation for obtaining permits and wayleaves.

C3.4.8 Dealing with Water on the Works

It is required that adequate preventive measures are taken, and maintained to ensure that the works is protected from damage due to water from any source. In the event of these measures failing to protect the works, action shall be taken immediately to protect the works from further damage, the costs of which shall be carried by the Contractor. The damage caused by the water shall be made good as directed by the Engineer.

The Contractor shall be responsible for and shall repair at his expense any damage to the foundations, structures or any part of the works caused by floods, water or failure of any part of the dewatering and flood protection works.

The cost of all dewatering measures shall be included in the relevant items in the Bills of Quantities and under Preliminary and General Item 1.1.1.6, Dealing with water on the site.

C3.4.9 Survey Control and Setting Out of the Works

As this project entails the replacement of existing services, no setting out data is provided. The Contractor shall, by means of hand excavation expose the existing services to be replaced at intervals along the existing pipeline route to identify its position.

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Part	T1	T2	C1	C2	C3	C4

C3.4.10 Subcontractors

The Engineer will not liaise directly with any subcontractors nor will he issue instructions concerning the subcontract works directly to any subcontractor.

All matters arising from the subcontract agreements shall be dealt with directly between the Contractor and the subcontractors and the Engineer will not become involved.

C3.4.11 Telecommunication

It is a specific requirement of the Contract that the Contracts Manager and his Site Representative have mobilephones available and switched on 24 hours of everyday, in order for the Contractor to be reachable by the Engineer's staff. Rates and amounts tendered must include for this.

C3.4.12 Access to Properties

The Contractor shall organise the work to cause the least possible inconvenience to the public and to the property owners adjacent to or affected by the work, and except as hereunder provided, shall at all times provide and allow pedestrian and vehicular access to properties within or adjoining or affected by the area in which he is working. In this respect the Contractor's attention is drawn to Clause 7.3.1 of the Conditions of Contract.

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

Notwithstanding the foregoing, the Contractor may, with the prior approval of the Engineer (which approval shall not be unreasonably withheld), make arrangements with and obtain the acceptance of the occupiers of erven and properties to close off part of a street, road, footpath or entrance temporarily, provided that the Contractor duly notifies the occupiers of the intended closure and its probable duration, and reopens the route as punctually as possible. Where possible, such streets, roads, footpaths and entrances shall be made safe and reopened to traffic overnight. Such closure shall not absolve the Contractor from his obligations under the Contract to provide access at all times. Barricades, traffic signs, drums and other safety measures appropriate to the circumstances shall be provided by the Contractor to suit the specific conditions.

The Contractor must make all necessary arrangements with property owners regarding access to the work areas and also regarding reinstatement of ground surfaces, damage to land and property, etc.

A certificate of completion shall not be issued for a specific task until the owner of the property concerned, or an authorised representative, has signed an approval of the reinstated condition of the property.

C3.4.13 Existing Serviced Areas

Electricity and water supply interruptions in existing serviced areas shall be kept to a minimum. The Engineer's approval shall be obtained prior to such interruptions and property occupiers shall be notified in writing at least 24 hours but not more than 48 hours in advance. Supplies shall be normalised by 16:00 on the same day.

C3.4.14 Employment of Local Labour

Due to the specialist nature of the Works and the requirements of work orders being issued on an 'as and when' basis, employment of local labour will not be a requirement of this contract.

C3.4.15 Monthly Statements and Payment Certificates

The statement to be submitted by the Contractor in terms of Clause 6.10.4 of the Conditions of Contract shall be prepared by the Contractor at his own cost, strictly in accordance with the standard payment certificate prescribed by the Engineer, in digital electronic computer format. The Contractor shall, together with a copy of the digital electronic computer file of the statement, submit two (2) A4 size paper copies of the statement.

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

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

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

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Part	T1	T2	C1	C2	C3	C4

C3.4.16 Construction in Restricted Areas

Working space is sometimes restricted. The construction method used in these restricted areas largely depends on the Contractor's Plant. Notwithstanding, measurement and payment will be strictly according to the specified cross-sections and dimensions irrespective of the method used, and the rates and prices tendered will be deemed to include full compensation for any difficulties encountered by the Contractor while working in restricted areas. No extra payment or any claim for payment due to these difficulties will be considered.

C3.4.17 Workmanship and Quality Control

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

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

The Contractor's attention is drawn to the provisions of the various Standardized Specifications regarding the minimum frequency of testing required. The Contractor shall, at his own discretion, increase this frequency where necessary to ensure adequate control.

On completion and submission of every part of the work to the Engineer for examination and measurement, the Contractor shall furnish the Engineer with the results of the relevant tests, measurements and levels to demonstrate the achievement of compliance with the Specifications.

C3.4.18 Work in Servitudes

Where the Contractor is required to work within a servitude not belonging to the Midvaal Local Municipality, he shall make all necessary arrangements with the owner of such servitude to obtain permission for access and the right to work. The Contractor shall not permit his workmen and labourers to use the servitude as a temporary right-of-way and shall carry out the work expeditiously and with minimum inconvenience to the occupiers and to owners of adjacent property.

The Contractor shall take all necessary precautions for the protection of buildings and property.

C3.4.19 Free Haul, Overhaul and Dumping

No overhaul shall apply to any items in the Contract. All rates quoted shall be inclusive of all haulage costs, all transport and dumping fees. Thus all haulage shall be considered as free haul.

It is not permissible for waste material simply to be thrown away. All surplus or unsuitable material shall be disposed of on a site to be provided by the Contractor. The authority within whose boundaries the site is located, must approve such site, and the dumping must comply with all statutory and municipal regulations.

Dumping rates: Must be allowed for in the rates and amounts tendered.

C3.4.20 Facilities for other Contractors

As per the conditions of the general conditions of contract, the contractor must accommodate other contractors. This may mean that the contractor must adjust his program so as to accommodate other contractors. The Contractor must ensure that the other contractor has access to his site along predetermined routes.

C3.4.21 Advertisement in the Media and Warning to customers

When the number of consumers affected by a shutdown is such that issuing notices to individual consumers as provided hereunder is impracticable the Engineer will arrange any media advertisements necessary to warn the public of any extensive shut down of supply necessary, in his opinion, for the proper execution of the works. The Contractor must, however, give at least 14 (fourteen) days' notice to the Engineer of his requirements in this respect.

The Contractor shall give all consumers affected at least 24 hours' notice in writing of his proposals in regard to every planned interruption of water supply necessary for the execution of his work. Failure to do so will result in the suspension of work for a period as determined by the Engineer.

C3.4.22 Consumer complaints

Save in respect of the liability arising from the General Conditions, the Contractor's responsibility in respect of no water or poor pressure complaints arising out of the execution of the contract shall be limited to ensuring that an adequate cold water supply exists to the complainant's property.

The Contractor shall not be required to carry out any plumbing work within private property unless instructed by the Engineer. However should it be found that damage on private property is due to Contractor's actions or

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

lack of actions (e.g. flushing) the contractor shall do, or have remedial work done, at his own cost and to the satisfaction of property owners.

C3.4.23 Co-ordinated construction and responsibility

The Contractor shall be required to co-ordinate his work to accommodate others, especially members of the public businesses and home owners as well as other contractors for the duration of this contract.

C3.4.24 Providing a Standby Service

The Contractor's shall undertake to provide a standby service with regards any section of work covered by this contract, as and when specifically required by the Engineer. The standby service will include works to be carried out, outside the normal working hours on Mondays to Fridays of any week, or on any special non-working days(Saturday, Sundays and applicable public holidays), or during the year end break (Christmas Break) as instructed and approved by the Engineer.

Further to the above the Contractor shall for the duration of the contract provide a 24 hour standby services formaking safe, maintaining or repairing any section of work covered by this contract. The standby service shall have access to sufficient resources (transport, labour, plant and material) to effect repairs at any time during the day or night. This standby service will be deemed to be included in the billed rates and will not be paid forseparately. The billed rates shall be deemed to include all allowances and overtime payable to staff when the work is carried out and consequently no further adjustment will be applied.

The Contractor shall provide the Engineer with an effective means of contacting the standby personnel. Details of the standby services are to be forwarded to the Engineer for approval within 10 calendar days of the award of the contract.

The Engineer shall be entitled to suspend all work under the contract if in his opinion the standby service is inadequate.

C3.4.25 Completion of Work on Properties with Limited Access

Some private properties will be subject to restricted access and some work on private property such as tie-ins will have to be performed outside normal working hours. The Contractor's tendered rates must take into account the cost of any non-normal work hours required to carry out the work. The rates will be deemed to include full compensation for all work regardless of when the work is carried out.

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Part	T1	T2	C1	C2	C3	C4

C3.5. Management

C3.5.1 Management of the Works

C3.5.1.1 Applicable SANS 1921 Standards

- SANS 1921-1:2004 Part 1 General Engineering and Construction Works
- SANS 1921-2:2004 Part 2 Accommodation of Traffic on Public Roads Occupied by the Contractor
- SANS 1921-4:2004 Part 4 Third-party Management Support in Works Contracts
- SANS 1921-5:2004 Part 5 Earthworks Activities which are to be Performed by Hand
- SANS 1921-6:2004 Part 6 HIV/AIDS Awareness

C3.5.1.2 Particular Specifications (C3.6 - Annexes)

PIPE BURSTING
DIRECTIONAL DRILLING
ENVIRONMENTAL MANAGEMENT PLAN/HEALTH AND
SAFETY SPECIFICATIONS

C3.5.1.3 Time For Completion Of Ordered Work As-And-When-Ordered

Due to the as-and-when-required nature of this Contract, by tendering on this Contract, the Tenderer undertakes to:

- Respond to do work ordered within response times (Refer to Schedule below).
- Utilise qualified staff for the relevant work under consideration (e.g. a qualified plumber to do plumbing work). Proof of appropriate qualification to be submitted to the Engineer if requested.
- Utilise the correct type and quantity of resources to complete the work AS EXPEDIENTLY AS POSSIBLE.
- Maintain a high technical standard of work.
- Accept intervention by the Midvaal local Municipality if it is necessary in the opinion of the Engineer in order to expedite work, restore safety / health, correct technically unacceptable work, or complete work left incomplete or unattended by the Contractor.
- Complete work / tasks in the agreed time period. The Tenderer's / Contractor's attention is drawn to the fact that for the purpose of this contract time periods and penalties will be applicable with regards the completion of a specific task as and when required by the Engineer and is tabled in clause C3.5.1.6.

C3.5.1.4 Response Times

"Response time" - refers to the time period from the notification by the Engineer to the Contractor for work to be done, and the time taken by the Contractor to respond and be on site (work location) and be in a position to commence with the work. At the time of the notification from the Engineer, a Project Order Number and the work location will be given.

The prescribed response time on this contract will be 24 h per task / incident. The notification can be per telephone or mobile phone and confirmed in writing.

C3.5.1.5 Turn Around Time (Time to do Actual Job)

"Turn-around time" – refers to the time allowed to complete a specific job instruction, commencing 24 hours from the notification by the Engineer to the Contractor for the work to be done

Please refer to schedule below "SCHEDULE INDICATING SERVICE LEVELS AND PENALTIES %APPLICABLE FOR NON – FULFILMENT"

• C3.5.1.6 Penalties

Penalties will be enforced as a deduction in money owed to the Contractor in terms of Penalty % of tendered rate per turnaround time allocated to complete various categories of work.

Tenderer's / Contractor's should take note, the Municipality shall without prejudice to any other method of recovery deduct the amount of Such Penalty Stipulation from any monies in his hands due or which may become due to the Contractor.

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SCHEDULE INDICATING SERVICE LEVELS AND PENALTIES APPLICABLE FOR NON – FULFILMENT

Task Description As Per Tender	Time allocated	Task completion time and Penalty % of tendered rate
Repair of leak at meter unit, dismantle and clean meter installation, repair leak at isolating valve, – Consumer has no water	6 hours	7 – 13 hours 50% 14 – 24 hours 100% Over 24 hours 200%
Repair of leak at meter unit, connection to main line, dismantle and clean meter installation, repair leak at isolating valve – Consumer has water	24 hours	25 – 48 hours 50% 48 – 72 hours 100% Over 72 hours 200%
Installation/Replace Water meter assembly	5 working days	6 – 8 days 50% 8 – 10 days 100% Over 10 days 200%
Replace; internal meter mechanism; water meter alone; isolating valve; non return valve; internal dial of meter; strainer; remove bees in meter chamber	72 hours	73 – 145 hours 100% Over 145 hours 200%
Raise water meter installation; relocate water meter installation; uncover and clean meter box; disconnection of water meter	15 working days	16 – 31 days 100% Over 31 days 200%

C3.5.1.7 Poor Performance

Poor performance by the Contractor will be viewed in a very serious light. Should the Engineer be of the opinion that the Contractor is not performing to conditions as per the Contract, the Engineer may:

- Add resources from the Midvaal Local Municipality
- Order work from other Contractors
- Cease to order work from the Contractor
- Cancel the Contract and recall the Performance Guarantee to recover losses / damage and to conduct work until a new contractor is appointed.

Recovery costs due to poor performance by the Contractor will include a surcharge of 50% over and above the costs to rectify the losses / damage.

C3.5.1.8 Works Order

The Contractor shall respond to an instruction to conduct work ordered immediately. When such work is ordered verbally, it is the explicit responsibility of the Contractor to obtain a written works order within 24 hours during the working week and within 48 hours over weekends. Without a written works order, the Contractor works at his own risk. The works order must be approved by the person authorised by the Engineer. The works order will have a unique reference number, but the format may vary according to circumstances and the nature of the work."

C3.5.1.9 Methods and Procedures

The Contractor is required to produce method statements for all engineering activities in particular for the pipe cracking operation and the directional drilling.

The Engineer must approve all method statements regarding construction activities.

C3.5.1.10 Quality Control and Testing

Every completed section of Work shall be subject to check testing by the Contractor. Once the Contractor has satisfied himself with the standard of his works, the Engineer will be requested to perform acceptance testing for the particular section. When giving notice, the Contractor shall provide the Engineer with the results of his check testing indicating that the work is to specification.

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Failure by the Contractor to notify the Engineer or to provide the required information or, where specified, to perform the required test, will be grounds to exempt the Employer from payment for the associated work and for all subsequent work which would be affected by the failure of the work to be tested.

The Engineer will be under no obligation to the Contractor to perform the tests. If the Engineer elects not to perform a particular test after notification by the Contractor, he will issue the Contractor with a written instruction to proceed with the relevant works without the acceptance test being performed. Nothing contained in this clause will relieve the Contractor of his responsibilities under the specification or in any way limit the tests, which the Engineer may call for or perform in terms of the specification.

C3.5.1.11 Accommodation of Traffic on Public Roads Occupied by the Contractor

The contractor shall ensure that access to residential properties is maintained at all times.

C3.5.1.12 Completion

The Certificate of Completion shall only be issued upon the submission of all the as-built information and operating instructions as necessary.

C3.5.1.13 Daily Records

The Contractor must keep daily records of resources (people and equipment employed) and site diaries in respect of work performed on the site. A copy of the previous day's daily record must be provided to the Engineer on a daily basis.

C3.5.1.14 Payment Certificates

The Engineer's certificate will be issued only after receipt by them of a draft certificate prepared by the Contractor at their own expense in the form prescribed by the Engineer. The cost of duplicating and delivering copies of the certificate to the Contractor, the Engineer and the employer shall be borne by the Contractor. The Engineer and the employer shall require three (3) sets of A4-sized paper copies in total.

Before any payment for materials on site is certified by the Engineer, the Contractor shall submit to the Engineer for approval cessions from each of the Contractor's suppliers vesting ownership of materials delivered for use on the site or any authorised extended site to the Contractor.

C3.5.2 Health and Safety

C3.5.2.1 Health and Safety Requirements and Procedures

With regard to health and safety on the site, the Contractor is fully responsible for the safety of the site and shall comply fully with the provisions of the relevant acts. The Contractor shall be required to comply with the Occupational Health and Safety Act, 1993: Construction Regulations, 2003 (the regulations) as promulgated in Government Gazette No 25207 and Regulation Gazette No 7721 of 18 July 2003. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

The proposed type of work, materials to be used and potential hazards likely to be encountered on this Contract are detailed in the Project Specifications, Schedule of Quantity and Drawings. Also in the Employers' health and safety specifications (regulation 4(1)) of the Construction Regulations 2003, which will be issued separately by the Employer.

The Contractor shall in terms of regulation 5(1) provide a comprehensive health and safety plan detailing his proposed compliance with the regulations, for approval by the Employer.

The Contractor shall at all times be responsible for full compliance with the approved plan as well as the Construction Regulations and no extension of time will be considered for delays due to non-compliance with the abovementioned plan or regulations.

Payment items are included in the Schedule of Quantities to cover the Contractor's cost for compliance with the OHS Act and the abovementioned regulations.

Provision shall be made for the safety of the public and the contractor's employees. The onus is solely on the Contractor to provide adequate watching, barricading and lighting at excavations by day and by night in accordance with the relevant acts and specifications, no claims in this regard will be considered by the Employer.

C3.5.2.2 Security Against Personal Accident Or Injury

It is the Contractor's responsibility to ensure full security against personal accident or injury to his workforce utilised for the Works. The Contractor shall be adequately registered with the Workman's Compensation Commissioner in terms of the Workman's Compensation Act (Compensation for Occupational Injuries and Diseases Act, 1993). Proof may be obtained from the office of the Compensation Commissioner.

All rates and amounts quoted shall include for all cost associated with the Workman's Compensation Commissioner and additional risk insurance.

The Contractor shall implement and maintain temporary road markings, road signs, safety barriers, traffic cones, delineators, flagmen, lights, drums, and whatever is required according to Road Note 13 from CSRA:

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Road Traffic Signs Sub-Committee, to assure safety to road users, be it vehicles or pedestrians. All rates and amounts quoted shall include for all cost associated with temporary road markings, road signs, safety barriers, traffic cones, delineators, flagmen, lights, drums, and whatever is required according to Road Note 13 from CSRA: Road Traffic Signs Sub-Committee.

C3.5.2.3 Personal Security

The Contractor shall at all time for the duration of the Contract, be responsible for the personal safety and security of all his employees.

C3.5.2.4 General for Open Trenches and Open Manholes Left Unattended/Unsafe

At completion of each Portion of Work Ordered, the Contractor shall ensure that the site is left in a neat and safe condition. To this end all trenches shall be backfilled and all manholes/Chambers covered. At no time shall manholes/chambers be left open/unattended/unsafe, especially overnight, regardless if the work is complete or not. At no time shall trenches be left open for longer than 7 days, regardless if the work is complete or not. The provisions of the General Conditions in respect of Barricading and Lighting and Safeguarding of Excavations shall be STRICTLY enforced.

- (a) If manholes/chambers are left open unattended/unsafe for 1 day or longer, or
- (b) If trenches are left open unattended/unsafe for 1 day or longer,

A penalty shall be applicable in the amount of R500 /day/incident. Such penalty monies may be recovered from any monies due to the Contractor.

C3.5.2.5 Proof of Safeguarding the Site

The Contractor shall be required to provide proof of safe working conditions in case of an enquiry or in case of an incident. It is therefore required that the Contractor maintain a photographic record of his safeguarding of the site at all times.

C3.5.2.6 Open Trenches

The contractor shall be solely and entirely responsible for maintaining excavations in a safe condition and this responsibility shall be in no way diminished by any instruction by the Engineer to take additional or improved protective or precautionary measures. It should be noted by tenderers that plastic danger tape alone is not regarded as adequate protection around excavations and its use for that purpose shall not be approved.

The provisions of the General Conditions in respect of Barricading and Lighting and Safeguarding of Excavations shall be STRICTLY enforced.

C3.5.2.7 First Aid

The Contractor shall provide and maintain in operative condition all equipment necessary to render first aid in case of accidents, or other emergencies. This equipment shall be kept in readiness at the site of the works.

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Scope of Work

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C3.6.1 Variations and Additions to Requirements of Standardised SANS 1200 Specifications: General, Civil and Structural Works

VARIATIONS AND ADDITIONS TO THE STANDARD SANS 1200 SPECIFICATIONS

NOTE: Numbering in the Project Specifications correspond with the numbering of clauses in the Standard Specifications (SANS 1200).

Tenderers must make provision for all the relevant Project Specification requirements to be included when calculating the prices of the various items in the schedule of quantities.

In addition, the sum tendered shall cover all initial costs incurred in complying with the requirements of C1.2 Contract Specific Data

PSA GENERAL (SANS 1200 A)

PSA 2 Interpretations

PSA 2.2 Applicable edition of standards

Add at the beginning of the first sentence of Sub-clause 2.2:

"Unless a specific edition is specified (see the List of Applicable Specifications), ..."

- **PSA 2.3 Definitions**

Add the following: The Engineer shall be Director: Technical Support and/or such person or persons or their successors duly appointed by the Employer in writing.

The terms "ESCOM", "ESC" and "Electricity Supply Commission" shall mean "Eskom".GCC:

General Conditions of Contract 3rd Edition (2015)

- **PSA 2.4b**

Abbreviations

Add to Sub-clause 2.4(b):

"MAMDD: Modified AASHTO maximum dry density".

- **PSA 2.8.1 Principal**

In the fourth line of Sub-clause 2.8.1, after the word "specification", add: "or in the measurement and payment clause of the standard specification, particular specification or project specification".

- **Add the following to this clause:**

Items which are designated as provisional quantities or provisional sums in the Schedule of Quantities are intended to provide for works, the need or extent of which shall be established by the Engineer during construction. Work scheduled as such shall only be undertaken on the written instruction of the Engineer and, where applicable, shall be paid for at the tendered rate or in the absence of rates shall be valued in accordance with Clause 6.4 of the General Conditions of Contract.

The Schedule of Quantities shall not be used for ordering purposes and no liability or responsibility shall be admitted by the Engineer in respect of materials ordered or procured by the Contractor on the basis of the Schedule of Quantities.

PSA 3 Materials

PSA 3.1 Quality

Add the following to this clause:

Where a material to be used in this Contract is specified to comply with the requirements of an SANS Standard Specification, and such material is available with the official SANS mark, the material used shall bear the official mark.

The Contractor shall submit in good time, before any construction commences, to the Engineer on site samples of all materials intended to be incorporated into the works. The samples shall be accompanied by results of tests undertaken by an approved independent laboratory on the samples in question on behalf of the Contractor and at his cost, before consideration by the Engineer.

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The Engineer, during construction, will take independent samples from stockpiles of proposed construction materials on site and from the completed works. Approval will not be granted for samples delivered by the contractor directly to the Engineer's office. The Contractor shall be responsible for the cost of all failures on test samples and control testing.

All pipes, fittings and materials used in the Works, must bear the official standardisation mark of Standards South Africa where applicable. The mark on a pipe shall be visible from above after the pipe is laid.

Rubber articles, including pipe insertion or joint rings shall be stored in a suitable shed and kept away from sunlight, oil or grease.

Large items not normally stored in a building shall be neatly stacked or laid out on suitable cleared areas on the Site. Grass or vegetation shall not be allowed to grow long in the storage areas and the material shall be kept free of dust and mud and be protected from stormwater. Pipes shall be handled and stacked in accordance with the manufacturer's recommendations, special care being taken to avoid stacking to excessive heights and placing over hard objects. uPVC pipes shall be protected from direct sunlight by suitable covers.

Every precaution shall be taken to keep cement dry and prevent access of moisture to it from the time it leaves the place of manufacture until it is required for use on the Site. Cement is to be used on a first in/first out basis. Bags of cement which show any degree of hydration and setting shall be removed from the site of the Works and replaced at the Contractor's own expense. Any cement older than six weeks is to be removed from site.

Materials shall be handled with proper care at all times. Under no circumstances may materials be dropped from vehicles. Large pipes or large plant shall be lifted or lowered only by means of suitable hoisting equipment.

Where proprietary materials are specified it is to indicate the quality or type of materials or articles required, and where the terms "or other approved" or "or approved equivalent" are used in connection with proprietary materials or articles, the Contractor is to supply with their tender the name of the manufacturer and supporting documentation that show that the materials or articles comply with the relevant specifications. It is understood that the approval shall be at the sole discretion of the Client and the Engineer.

Irrespective of any approval granted/used by the Engineer or the Employer, the Contractor shall be deemed responsible for all material quality use for construction and their specified performance.

PSA 4 Plant

PSA 4.1 SILENCING OF PLANT

• Replace this clause with the following:

"The Contractor's attention is drawn to the applicable regulations pertaining to noise and hearing conservation, framed under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993) as amended.

The Contractor shall at all times and at his own cost, be responsible for implementing all necessary steps to ensure full compliance with such regulations, including but not restricted to the provision and use of suitable and effective silencing devices for pneumatic tools and other plant which would otherwise cause a noise level in excess of that specified in the said regulations.

Where appropriate, the Contractor shall further, by means of temporary barriers, effectively isolate the source of such noise in order to comply with the said regulations."

• PSA 4.2 Contractor's Offices, Stores and Services

Add the following paragraph before the existing first paragraph:

The Contractor's buildings, sheds and other facilities erected or utilised on the Site for the purposes of the Contract shall be fenced off and shall contain all offices, stores, workshops, testing laboratories, toilet facilities, etc. as may be required by the Contractor. The facilities shall always be kept in a neat and orderly condition.

No personnel may reside on the Site. Only night-watchmen may be on the Site after hours.

• After the second paragraph add the following:

The suitable first aid services required in terms of Sub-clause 4.2 of SANS 1200 A shall include, inter alia, a First Aid cabinet fully equipped and maintained with at least the minimum contents as listed in Regulation 3 of the General Safety Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), to deal with accidents and ailments which are likely to occur during the construction period.

The Contractor shall provide on the Site and in close proximity to the actual locations where the work is being executed, one toilet per 10 workmen, which toilets shall be effectively screened from public view and their use enforced. Such toilets shall be relocated from time to time as the location of the work being executed changes, so as to ensure that easy access to the toilets is maintained.

The Contractor shall, where applicable, make all necessary arrangements and pay for the removal of night soil.

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• **PSA 5 Construction**

PSA 5.1.1 Setting Out Of The Works

Add the following to this clause:

The Contractor shall be fully responsible for the setting out of the works, and where labour intensive work is specified, for the setting out of the daily construction tasks.

• **PSA 5.2 Watching,**

Barricading, LightingAdd the following to this

clause:

The Contractor shall employ competent watchmen to guard the Works both by day and night.

From the time any portion of the Works commences, until the Completion of the Works and the issue of the Certificate of Completion of the Works, the Contractor shall be responsible for protecting the property of the Employer and all persons having business on the Site from anything dangerous or likely to cause damage or injury. The Contractor shall take all practical precautions to avoid nuisance or inconvenience to the owners or occupier of properties near to the Site and to the public generally whilst carrying out the Works and shall at all times keep the Site clean and in a safety and satisfactory condition.

Temporary traffic signs shall be erected when work is being done within and adjacent to roadways. The number and layout of the traffic signs shall comply with the Site Manual entitled "Safety at Roadworks in Urban Areas", as published by the Department of Transport. Traffic signs shall have a yellow background with either a red or black border.

The Contractor shall control all access to the site, for authorised persons only, and to ensure that the approved conditions of the Health and Safety Management Plan is adhered to.

PSA 5.3 PROTECTION OF EXISTING STRUCTURES

REPLACE "Machinery and Occupational Safety Act, 1983 (Act No 6 of 1983)" WITH "Occupational Health and Safety Act, 1993 (Act No 85 of 1993), as amended," AND INSERT THE FOLLOWING AFTER "(Act No. 27 of 1956)": "as amended".

PSA 5.4 PROTECTION OF OVERHEAD AND UNDERGROUND SERVICES

Replace the heading and the contents of this clause with the following:

"PSA 5.4 LOCATION AND PROTECTION OF EXISTING SERVICES"

• **PSA 5.4.1 Location of existing services**

Before commencing with any work in an area, the Contractor shall ascertain the presence and actual position of all services that can reasonably be expected by an experienced and competent contractor to be present on, under, over or within the Site.

Without in any way limiting his liability in terms of the Conditions of Contract in relation to damage to property and interference with services, the Contractor shall, in collaboration with the Engineer, obtain the most up-to-date plans as are available, showing the positions of services existing in the area where he intends to work. Neither the Employer nor the Engineer offers any warranty as to the accuracy or completeness of such plans and because services can often not be reliably located from plans, the Contractor shall ascertain the actual location of services depicted on such plans by means of careful inspection of the Site.

Thereafter, the Contractor shall, by the use of appropriate methodologies, carefully expose the services at such positions as are agreed to by the Engineer, for the purposes of verifying the exact location and position of the services. Where the exposure of existing services involves excavation to expose underground services, the further requirements of sub clauses 4.4 and 5.1.2.2 of SABS 1200 D (as amended) shall apply.

The aforesaid procedure shall also be followed in respect of services not shown on the plans but which may reasonably be anticipated by an experienced Contractor to be present or potentially present on the site.

All services, the positions of which have been determined as aforesaid at the critical points, shall henceforth be designated as 'known services' and their positions shall be indicated by the Contractor on a separate set of drawings, a copy of which shall be furnished to the Engineer without delay.

As soon as any service which has not been identified and located as described above is encountered on, under, over or within the site, it shall henceforth be deemed to be a known service and the aforesaid provisions pertaining to locating, verifying and recording its position on the balance of the site shall apply. The Contractor shall notify the Engineer immediately when any such service is encountered or discovered on the Site.

Whilst he is in possession of the Site, the Contractor shall be liable for all loss of or damage as may occur to

(a) known services, anywhere along the entire lengths of their routes, as may reasonably be deduced from the actual locations at which their positions were verified as aforesaid, due cognizance being taken of such deviations

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in line and level which may reasonably be anticipated, and

(b) any other service which ought reasonably to have been a known service in accordance with the provisions of this clause,

The Contractor shall also be liable for consequential damage in regard to (a) and (b), whether caused directly by the Contractor's operations or by the lack of proper protection.

No separate payment will be made to the Contractor in respect of his costs of providing, holding available on the Site and utilising the said detecting and testing equipment, nor for any costs incurred in preparing and submitting to the Engineer the Drawings as aforesaid. These costs shall be deemed included in the Contractor's other tendered rates and prices included in the Contract.

Payment to the Contractor in respect of exposing services at the positions agreed by the Engineer and as described above will be made under the payment items (if any) as may be provided for in the respective sections of the specifications pertaining to the type of work involved.

- **PSA 5.4.2 Protection during construction**

The Contractor shall take all reasonable precautions and arrange its operations in such a manner as to prevent damage occurring to all known services during the period which the Contractor has occupation and/or possession of the Site.

Services left exposed shall be suitably protected from damage and in such a manner as will eliminate any danger arising therefrom to the public and/or workmen, all in accordance with the requirements of the prevailing legislation and related regulations.

Unless otherwise instructed by the Engineer, no services shall be left exposed after its exact position has been determined and all excavations carried out for the purpose of exposing underground services shall be promptly backfilled and compacted. In roadways, the requirements of subclause 5.9 of SABS 1200 DB should be observed. In other areas compaction is to be to 90% modified AASHTO density.

- **PSA 5.4.3 Alterations and repairs to existing services**

Unless the contrary is clearly specified in the Contract or ordered by the Engineer, the Contractor shall not carry out alterations to existing services. When any such alterations become necessary, the Contractor shall promptly inform the Engineer, who will either make arrangements for such work to be executed by the owner of the service, or instruct the Contractor to make such arrangements himself.

Should damage occur to any existing services, the Contractor shall immediately inform the Engineer, or when this is not possible, the relevant authority, and obtain instructions as to who should carry out repairs. In urgent cases, the Contractor shall take appropriate steps to minimise damage to and interruption of the service. The Contractor shall attempt no repairs of telecommunication cables or electric power lines and cables.

The relevant contact person of relevant officials for different departments will be provided on the way leave approval.

- **PSA 5.7 Safety**

Add the following to this clause:

Compliance with 1) OHS Act and Regulations and 2) CEMP

Lump sums are provided in the Bill of Quantities to cover the contractor's cost for compliance with the requirements of the Construction Environmental Management Plan and the Occupational Health and Safety Act, 1993, the Construction Regulations, 2014 and the Health and Safety Specification respectively.

In addition, Sums are included under Time Related Items in the Preliminary and General Section of the Bills of Quantities. The lump sums shall include full compensation for the provision of the necessary site official, the training, PPE's, plans, audits, assessments, administration, etc. and all other costs required for compliance. Fines issued for non-compliance will be deducted from these Provisional Sums, but are not limited to the value of the Provisional Sum stated.

The Employer and the Engineer shall be entitled, although not obliged, to make such inspections on the site as they shall deem appropriate, for the purpose of verifying the Contractor's compliance with the requirements of the Act. For this purpose, the Contractor shall grant full access to the site of all parts of the site and shall co-operate fully in such inspections and shall make available for inspection all such documents and records as the Employer's and/or Engineer's representative may reasonably require.

Where any such investigations reveal, or where it comes to the Engineer's attention that the Contractor is in anyway in breach of the requirements of the Act or is failing to comply with the provisions of this clause, the Engineer shall, in accordance with the provisions of Clause 5.11 of the Conditions of Contract, be entitled to suspend progress on the works or any part thereof until such time as the Contractor has demonstrated to the satisfaction of the Engineer, that such breach has been rectified.

The Contractor shall have no grounds for a claim against the Employer for extension of time and/or additional costs if the progress on the works or any part thereof is suspended by the Engineer in terms of this clause, and the Contractor shall remain fully liable in respect of the payment of penalties for late completion in accordance with the provisions of Clause

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5.13.1 of the Conditions of Contract should the Contractor fail to complete the Work on or before the specified due completion date in consequence of the suspension.

Persistent and repeated breach by the Contractor of the requirements of the Act and/or this clause shall constitute grounds for the Engineer to act in terms of Subclause 9.2.1.3.5 of the Conditions of Contract and for the Employer to cancel the Contract in accordance with the further provisions of the said Clause 9.2.

- **Add the following clauses:**

PSA 5.9 Time-Related Items

Where extension of time is approved no payment shall be claimed against time related items unless approved by the engineer. The extension of time may only refer to the relief of penalties.

- **PSA 5.10 Existing Services**

The tendered rate shall further cover the cost of backfilling the excavation with selected material compacted to 90% AASHTO density, keeping the excavation safe and taking care that the services are not damaged in any way. The rate shall include for all negotiations with the authorities, notification to all affected parties and any other requirement to protect and complete the work. No additional direct payment will be made for the protection of such services.

- **PSA 5.11 Record Drawing Information**

As the Works are progressing, the Contractor shall mark on a special set of drawings, all as-built details and submit them to the Engineer's Representative for approval on a monthly basis. No extra payment shall be made for preparation of these as-built plans.

All service household ends, manholes, valves, hydrants and the like shall be co-ordinated together with their invert and cover/ground levels on the as-built drawings.

The Certificate of Completion shall only be issued once all the as-built information has been received and verified by the Engineer.

- **PSA 5.12 Clearance of Site On Completion**

The Contractor shall obtain, from each property owner listed in the Project Specification as being affected by the Works, a certificate to the effect that the property owner is satisfied with the standard of reinstatement of any fences, boundary walls or structures, compensation paid for loss or damage to stock, crops or property, materials spoiled on their properties or any other condition affecting their properties as a result of the operations of the Contractor. The Contractor shall further obtain a Clearance Certificate from each authority whose services have been affected or installed during the construction of the works.

All such certificates must be lodged with the Engineer before the Certificate of Completion will be issued.

- **PSA 6 Tolerances**

PSA 6.2 Degree of Accuracy

Add the following to this clause:

The degree of accuracy shall be Degree II except for:

- a) Smooth formwork which shall be Degree I.

No guarantee is given that the full specified tolerances will be available independently of each other, and the Contractor is cautioned that the liberal or full use of any one or more of the tolerances may deprive him of the full or any use of tolerances relating to other aspects of the work.

Except where the contrary is specified, or when clearly not applicable, all quantities for measurement and payments shall be determined from the 'authorised' dimensions. These are specified dimensions or those shown on the Drawings or, if changed, as finally prescribed by the Engineer, without any allowance for the specified tolerances. Except if otherwise specified, all measurements for determining quantities for payment will be based on the 'authorised' dimensions.

If the work is constructed in accordance with the 'authorised' dimensions plus or minus the tolerances allowed, the calculation of quantities will be based on the 'authorised' dimensions, regardless of the actual dimensions to which the work has been constructed.

When the work is not constructed in accordance with the 'authorised' dimensions plus or minus the tolerances allowed, the Engineer may nevertheless, at his sole discretion, accept the work for payment. In such cases no payment shall be made for quantities of work or material in excess of those calculated for the 'authorised' dimensions, and where the actual dimensions are less than the 'authorised' dimensions minus the tolerance allowed, quantities for payment shall be calculated based on the actual dimensions as constructed."

PSA 7 TESTING

- **PSA 7.1 Testing**

Principles Add the following to this

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clause:

All completed works shall be subject to check testing by the Contractor. Once the Contractor is satisfied with the standard of the works, the Engineer will be requested to perform acceptance testing for the particular works. When giving notice, the Contractor shall provide the Engineer with the results of the check testing indicating that the work is to specification. The Engineer shall be given 48 hours noticed of when testing or inspections are required.

The Engineer may from time to time carry out his own check tests on the work performed by the Contractor. Should such check tests show that the Contractor's control testing be such that the quality of the Contractor's work can be called into question, then the Engineer may order further check tests to be carried out on work already completed. All costs associated with such check tests shall be for the Contractor's account, as also the costs of any other check test whose results do not comply with the specification.

Failure by the Contractor to notify the Engineer or to provide the required information or, where specified, to perform the required test, will be grounds to exempt the Employer from payment for the associated work and for all subsequent work which would be affected by the failure of the Work to be tested.

The Engineer will be under no obligation to the Contractor to perform the tests. If the Engineer elects not to perform a particular test after notification by the Contractor, the Contractor will be issued with a written instruction to proceed with the relevant works without the acceptance test being performed.

Nothing contained in this clause will relieve the Contractor of any responsibilities under the specification or in anyway limit the tests, which the Engineer may call for or perform in terms of the specification.

Where the Engineer is called to witness certain control tests, such as the pressure testing of a pipeline, and the results of such tests do not comply with the specifications, then the Client reserves the right to recover costs for the Engineer's presence at the unsuccessful test from the Contractor.

PSA 7.2 APPROVED LABORATORIES

- **Add the following to this clause:**

Acceptance testing shall be done by a laboratory selected by the Engineer. The Engineer requires twenty-four hours' notice from the Contractor in order to perform the relevant acceptance test.

All acceptance testing by the Engineer shall be paid by the Contractor. The costs of such tests which meet the specification requirements will be reimbursed to the Contractor in the monthly payment certificate. This payment shall consist of a billed amount plus the tendered mark-up.

A Provisional Sum has been provided in the Schedule of Quantities to allow for the cost of such testing. The

Contractor shall make due allowance for testing procedures in the construction programme.

- **PSA 8 Measurement**

and payment PSA 8.4.1 Contractual

Requirements Add the following to this

clause:

The Contractor shall tender rates in the Schedule of Quantities to cover his time-related establishment costs. The amount tendered and paid shall be full compensation to the Contractor for:

- i) The maintenance of his whole organisation as established for this Contract.
- ii) The maintenance of all insurances, indemnities and guarantees required in terms of the Conditions of Contract or Tender where applicable.
- iii) Compliance with all general conditions and requirements which are not specifically measured elsewhere for payment in these Contract Documents.

Payment of the lump sum shall be made monthly in compliance with the method laid down in Sub-clause 8.2.2 of SANS 1200:A.

The Contractor will not be paid Time-Related Preliminary and General Charges for any Special Non-Working Days, which shall be deemed to have been allowed for in his rates.

Add the following:

"PSA 8.4.6 Quality Control Plan & Compliance thereof.....Unit: sum

PSA 8.4.7 Liaison with Authorities and property owners and with others on site.....Unit: No.

PSA 8.4.8 Employment of Community Liaison Officer.....Unit: Prov. sum

The sums tendered shall include for all the requirements contained in the relevant Specifications."

- **PSA 8.5 Sums stated provisionally by**

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Engineer Replace the second last sentence of Sub-clause 8.5**to read:**

"The percentage rate for (b) (2) above shall cover the Contractor's overheads, charges and profit on the work covered by the sums provisionally stated for (b) (1) above. Payment will be made on the basis of the sums actually paid for such work, exclusive of VAT."

- PSA 8.6 Prime cost items**

Replace the second last sentence of Sub-clause 8.6 to read:

"The percentage rate for (b) shall cover the Contractor's overheads, charges for taking delivery and profit on the supply of materials or goods covered by the sums stated in (a) above. Payment will be made on the basis of the sums actually paid for such materials or goods, exclusive of VAT."

- PSA 8.7 Daywork**

Add the following to this clause:

The rates submitted by the Tenderer in the relevant schedule of the Contract shall be applicable.

If a work item exists in the main tender the Engineer may decide to use it instead of resorting to Dayworks. Provisional items for Daywork are scheduled as follows:

- Labour at hourly rates for skilled, semi-skilled and unskilled labourers.
- Material as a Provisional Sum inclusive of a percentage allowance on the net cost.
- The Contractor's own plant as a Provisional Sum.

Tendered unit rates or unit rates that are agreed in terms of Sub-clause 6.5.1.3 of the General Conditions of Contract for the Contractor's own plant used for Daywork shall cover the full cost of the use of such plant and shall, in addition, cover the cost of plant operators, consumable stores, fuel and maintenance.

The Contractor will be paid the actual net cost of plant hired by him for Daywork and in addition will be paid a percentage allowance on the net cost of such hire, which allowance will cover the Contractor's own overhead costs and profit.

- PSA 8.8**

Temporary Works**Add the following to this clause:**

All scheduled items under this Sub-Clause shall be deleted, the cost thereof being deemed to be included in the rates tendered for other items of work called up in the Bill of Quantities.

- Add the following clauses:**

PSA 8.11 Miscellaneous items

Any item which is included in the payment clause column of the Schedule of Quantities, referring to this clause will be measured under the unit scheduled.

The sum or rate for such item shall cover the cost of all materials, labour and plant required to execute and complete the work as specified, described in the Schedule of Quantities or shown on the drawing(s).

- PSA 8.12 Compliance with OHS Act and Regulations**

(Including The Construction Regulations 2014

Unit: sum

The tendered sum shall include full compensation to the Contractor for compliance with all the requirements of the OHS Act and Regulations (including the Construction Regulations 2014), Health and Safety Officer/s, accommodation, transport, communication implements, consultations, meetings and any other thing necessary for the completion of the aspect, at all times for the full duration of the Contract. It should also include for preparing and submitting an overall General Safety Plan for projects over the full 3 year duration of the Contract. The successful tenderer shall provide the Engineer with a complete breakdown of this tendered sum.

This sum will be paid to the Contractor, in equal monthly amounts, subject to proper and accepted compliance by the Engineer.

A separate item is provided to allow for the cost of preparing addenda to the General Safety Plan for each specific project. The attributable amount shall be paid to the Contractor on approval of the submitted Addendum by the Engineer.

- PSA 8.13 Environmental Management Plan**

Compliance with
Unit: sum

The tendered sum shall include full compensation to the Contractor for compliance with all the requirements of the Environmental Management Plan, Environmental Control Officer/s, accommodation, transport, communication

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Scope of Work

implements, consultations, meetings and any other thing necessary for the completion of the aspect, at all times for the full duration of the Contract. The successful tenderer shall provide the Engineer with a complete breakdown of this tendered sum.

This sum will be paid to the Contractor, in equal monthly amounts, subject to proper and accepted compliance by the Engineer.

PSC SITE CLEARANCE (SANS 1200 C)

PSC 3 MATERIALS

- **PSC 3.1 Disposal**

of Materials Add the following:

Unless otherwise ordered by the Engineer, the Contractor shall dispose of material resulting from clearing and demolition operations at a site to be determined by the Contractor. Such a site shall have the approval of the Engineer, the Local Authority and the Environmental Officer. Payment for the clearing, loading, transport, dumping fees and any other requirement or costs incurred shall be included in the rate submitted.

PSC 5 CONSTRUCTION

- **PSC 5.1 Areas to be cleared**

and grubbed Add the following:

All areas to be constructed on, inclusive of a two metre strip round the perimeter of each structure shall be cleared and grubbed. A strip up to 1.5m wide on either side of the trench edges of the pipes shall be cleared and grubbed.

For the access and site roads the width of clearing shall only be sufficient for the construction of the road i.e. for the cut and fill operations and allowing for side slopes or as amended by the Engineer.

No trees with a trunk girth of more than 1 m shall be removed without the written permission of the Engineer.

- **PSC 5.6**

Conservation of topsoil

Add the following:

The topsoil up to a depth of 150 mm, if available and approved by the Engineer, shall be removed from the above specified cleared areas and stockpiled not higher than 2 m on approved sites for later reuse. Until required for spreading, the stockpiles of topsoil material shall be stabilised by watering or other approved means to limit dust pollution.

When in the opinion of the Engineer, there is an insufficient quantity of topsoil available as a result of the Contractor's failure to comply with the above, the Contractor shall import approved topsoil at his own cost.

PSC 8 MEASUREMENT AND PAYMENT

- **PSC 8.2.1**

Clear and grub

Add the following:

The rate tendered for clearing and grubbing shall cover the cost of disposal of the material off the Site by approved means. Debris should be dealt with as per [PSC 3.1](#), as amended.

The area to be cleared and grubbed will be measured by area and will include trees up to 1.0 m girth. A strip up to 1.5 m wide on either side of the trench edges of the pipes shall be cleared and grubbed. The platform construction shall be cleared and grubbed to the toe of the outside slope including the concrete block retaining wall. Clearance for workspace shall be included in the rate.

- **PSC 8.2.10 Removal and**

conservation of topsoil Add the following:-

The rate tendered for the removal of in situ topsoil shall also cover the cost of stabilising and protecting the stockpiles of topsoil.

- **Add the following clause:-**

PSC 8.2.11 Removal, Stockpiling, Maintaining or Disposal of (as applicable) of the following surfaces / structures Unit: m

Various surfaces and units of measurement will be scheduled.

The tendered rate shall include full compensation for the removal, stockpiling, maintaining or disposal (as applicable) of the surfacing stated for each item. For disposal the provisions of clause PSC 3.1 shall apply.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

PSD EARTHWORKS (SANS 1200 D)**PSD 3 MATERIALS**

- PSD 3.1.2 Classes of excavation**

Replace Sub-clauses 3.1.2 (a), (b) and (c) with the following:

All material encountered in any excavations for any purpose including restricted excavations will be classified as follows:

1. Excavation in all materials, excluding hard rock. This category of excavation includes; excavation in all sandy and disturbed material; in clay; in undisturbed and weathered Shale (clay); Sandstone; Mudstone and in all ripable rock.
2. Excavation in hard rock will require blasting or rock splitting. Areas where rock splitting is required will be indicated on site by the Engineer.

Extra-over payment will be made for hard rock excavation and boulder excavation class A and B provided the surface levels of the hard rock have been recorded on drawings signed by the Engineer before it is excavated.

Other earthworks

Non-plastic sandy material from excavations shall be used in the following order:

1. As selected granular material for pipe bedding.
2. As blanket and backfill to pipe trenches.
3. As backfill to structures.
4. As spoil stockpiled in selected areas indicated by the Engineer.

The Contractor shall employ selective methods of excavation to obtain topsoil, and material suitable for backfill, embankments, pipe bedding, selected granular material, road construction and bulk earthworks platforms.

PSD 5 CONSTRUCTION

- PSD 5.1.1.2 Safeguarding of excavations**

Replace Clause 5.1.1.2 (b) with the following:

The Contractor must note that the excavations for some manholes are deep and the concrete and brickwork walls to be constructed are vertical. The deep vertical faces of excavations could collapse during construction causing injury or death and the Contractor must either:

- a) provide a shoring system, designed by the Contractor and signed by a suitably qualified Professional Engineer,

OR

- b) reduce the slope of excavations to the safe angle as determined by a suitably qualified Professional geotechnical engineer employed by the Contractor.

- PSD 5.1.3 Stormwater and**

Groundwater Add the following to this Clause:

The Contractor shall provide, operate and maintain sufficient pumping equipment, pipes and other equipment on site as may be necessary to dispose of stormwater and groundwater for the proper execution of the Works.

- PSD 5.1.4.1 Dust nuisance**

Add the following to this Clause:

The Contractor is responsible for dust control and is liable for all claims that may result from dust nuisance on all parts of the site and surrounding areas at all times, from the date of handing over of the Site, to the completion date of the Contract.

The Contractor shall plan the Works accordingly and shall use sufficient water or other methods to keep the level of dust to a minimum. This shall be done in consultation with the Engineer and to the Engineer's approval. The contractor must make allowance for the above in the rates tendered for excavation.

- PSD 5.1.4.3 Excavated material not to endanger or interfere**

Add the following to this Clause:

All surplus material and unsuitable material not required for backfilling shall be disposed of at suitable sites to be located by the Contractor. All such sites shall require the approval of the Engineer and the Local Authority and community. No additional payment will be made for the transportation of such material

Dumping shall proceed in an orderly manner with coarse material placed at the bottom and covered with finer material, where possible. Upon completion of dumping, the material shall be shaped to provide free-draining surfaces and slopes and finished off to the satisfaction of the Engineer.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

• **PSD 5.2.2.1. (c) Excavation for general earthworks and for structures**

Add the following to this Clause:

The Contractor shall excavate to the net outlines of the structures plus an allowance for work space. Vertical concrete walls shall not be cast against excavated surfaces, except in the case of concrete encasement to pipes and footings for brick walls.

• **PSD 5.2.2.1. (e) Excavation for general earthworks and for structures**

Add the following to this Clause:

The Contractor shall inform the Engineer, in writing, at least 14 days before commencing any work which will result in a change in the topography of the site, whether such work is for the permanent works or for temporary works which the Contractor intends to execute for his own convenience. Thereupon, before commencing the work, the Contractor shall take cross-sections of the original ground profiles or another approved method to determine the ground profiles of the entire area to be worked. In addition all rock and/or foundation levels shall be recorded as the work proceeds.

The information so obtained shall be permanently recorded on a drawing or drawings which shall each be signed by both the Contractor and the Engineer. The Contractor shall then provide the Engineer with a reproducible copy of each drawing to serve as a permanent record both for the purpose of determining the quantities of excavation and earthworks carried out in the construction of the permanent works and the extent to which temporary works shall be removed or temporary excavations shall be refilled upon completion of the Works.

Where the Contractor excavates to dimensions in excess of those shown on the drawings or ordered by the Engineer or if the material in the bottom of an excavation is loosened before concrete has been cast, or if there is any over-excavation, or any loose or disturbed soil it shall be removed and the over-excavation shall be replaced by mass concrete of prescribed mix Grade 15/20 mm.

Where blinding, mass or structural concrete is to be cast or where precast elements are to be placed on surfaces established by restricted excavation, the Contractor shall, in the case of rock surfaces, over excavate to 100 mm below the bottom of the structure and use mass concrete Grade 15/20 mm for bringing the level to the bottom of the blinding.

Excavations to final level, ready to receive a blinding layer or concrete footing, shall be completed not less than 24 hours before such layer or footing is cast.

The Contractor shall arrange for the inspection by the Engineer or his Representative of all surfaces immediately before casting concrete.

• **PSD 5.2.3.1
Embankments**

Add the following to this Clause:

The areas over which earth fills are to be constructed shall, after site clearance and removal of 150 mm topsoil, be ripped to a depth of 150 mm and compacted to 90% of Mod AASHTO Density. Should the topsoil layer be in excess of 150 mm the Contractor is to notify the Engineer in writing and request a directive as to how to proceed further.

The Contractor shall plan his operations and particularly his cut and fill operations in such a manner that all cut material may be used to the best advantage of the Employer. This would mean that no material shall be unnecessarily spoiled.

The Contractor shall therefore not spoil any materials without the Engineer's approval and without satisfying the Engineer that this is necessary and that the most economical method of constructing the works is proposed.

Where the earthworks pattern is such that the selected materials cannot be placed directly in their appropriate positions the Engineer may authorise their removal to temporary stockpiles.

Wherever practical, fill shall be placed in successive layers parallel to the final level of the platform, in depths not exceeding 300mm unless otherwise approved by the Engineer.

Where filling is required on ground slopes greater than 1:10 the Contractor shall submit proposals for benching for approval by the Engineer.

The material to be used for the platform construction will be G7 minimum quality material.

Fill in other applications shall be compacted to the densities specified in Sub-clause 5.2.3.1 of SANS 1200 D and Sub-clause 5.2.4.2 of SANS 1200 DM (100% for sand). Material shall be placed in such a way that adjacent layers at any stage of the operation do not differ in height by more than 300 mm.

• **PSD 5.2.3.2 Backfilling of trenches and backfilling or filling against structures**

PSD 5.2.3.2 (a) General Backfilling

Add the following:

Backfill measured under the various items in the Schedule of Quantities shall be compacted to a density as stipulated in the scheduled item.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Material for backfilling around structures must be selected so that no clay, boulders or rock is used for backfilling within 300 mm of the structure.

• **PSD 5.2.4.2 Topsoiling**

Add the following to Clause 5.2.4.2:

"Topsoil shall not be stockpiled higher than 2.0 m. Care shall be exercised to prevent the compaction of topsoil in any way especially by vehicles travelling over such material."

Topsoil shall be placed as directed in Sub-clause 5.2.4.2 on the faces of cut slopes and embankments and other flatter areas, as shown on the drawings or ordered by the Engineer, to a nominal thickness of 100 mm after light compaction. The cut and embankment surface shall be raked or lightly scarified before laying of the topsoil to assist with adhesion between the surfaces.

PSD 7 TESTING

• **PSD 7.2 Taking and testing of samples**

Replace the contents of the subclause with the following:

The Contractor shall carry out sufficient process control checks (one test per five cubic metres of backfill) on the compaction of all backfill layers before calling the Engineer to inspect the work completed. The frequency of testing shall be such that tests shall be carried out for every lift of backfill material starting from 300 mm. The costs of testing shall be deemed to be included in the rates for backfilling of the platform.

PSD 8 MEASUREMENT AND PAYMENT

PSD 8.1 BASIC PRINCIPALS

• **Add the following Sub-clauses:**

PSD 8.1.4 Recording of original ground profiles

The tendered rate for excavation shall cover the cost of recording the original ground profiles, rock and/or foundation levels, as applicable prior to commencement of any excavation, including stripping of topsoil. This is required to allow the Engineer to check the Contractor's survey and adjust his design levels if necessary.

• **PSD 8.1.5 Backfilling of over-excavation**

Backfilling over-excavation with concrete as specified in PSD 5.2.2.1 (e) of SANS 1200D, as amended, will not be measured for payment unless the over-excavation is ordered by the Engineer to remove unsuitable material, in which case the additional excavation will be measured and paid as excavation in all materials and the concrete will be measured by volume, all to the additional dimensions ordered by the Engineer.

• **PSD 8.1.6 Benching**

The construction of benches shall be measured as "cut to fill" or cut to spoil as the case may be.

PSD 8.2 COMPUTATION OF QUANTITIES

• **Add the following to Clause 8.2.1:**

The volume of excavated material will be measured from the net outline of the structures and the average depth of excavation unless otherwise approved by the Engineer.

PSD 8.3 SCHEDULED ITEMS

• **PSD 8.3.2 Bulk**

Excavation PSD 8.3.2(b) Extra-over for

Replace the contents of this Sub-clause with the following:

No extra-over payment will be made for excavation in material classified in terms of Sub-clause 3.1.2, as amended, as intermediate excavation. The tendered rate for excavation in all materials shall include for the cost of such excavation. Refer to PSD 3.1.2, as amended.

Extra-over item will be made for:

- a) Material classified as "hard rock". Refer to PSD 3.1.2, as amended.
- b) Boulder excavation which, for the purposes of measurement, will not be differentiated into Class A and Class B.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

• **PSD 8.3.3 Restricted**

Excavation PSD 8.3.3(b) Extra-over for

Replace the contents of this Sub-clause with the following:

No extra-over payment will be made for excavation in material classified in terms of Sub-clause 3.1.2, as amended, as intermediate excavation. The tendered rate for excavation in all materials shall include for the cost of such excavation. Refer to PSD 3.1.2 as amended.

Extra-over item will be made for:

- a) Material classified as "hard rock". Refer to PSD 3.1.2, as amended.
- b) Boulder excavation which, for the purposes of measurement, will not be differentiated into Class A and Class B.

• **PSD 8.3.5 Extra Excavation in all materials to Provide Working Space around**

Structures Add the following to this Sub-clause:

Excavation for workspace will be measured to the net vertical area of the structure below ground level, except in the case of footings for brick walls where no payment will be made.

• **PSD 8.3.6 Overhaul**

Replace the contents of this Clause with the following:

All movement of cut to fill material shall be regarded as freehaul. In addition, all movement of topsoil, overburden soil or any other material within the boundary of the site and less than 10 km from the site boundary shall be regarded as freehaul.

Overhaul will only be paid in disposal of topsoil, overburden, spoil or any other material where the transportation is beyond 10 km of the boundary of the site.

• **PSD 8.3.8 Existing**

services Add the following to this

Sub-clause:

The rate shall include for the provisions specified in PSA 5.10, as amended.

• **PSD 8.3.10 Topsoiling**

Add the following to this Sub-clause:

The topsoiling will be measured by surface area covered.

The rate for topsoiling shall cover the cost of loading, hauling, spreading to a compacted thickness of 100 mm and making suitable provision to avoid the topsoil slipping down the slopes of embankments and cut-slopes, all to the approval of the Engineer.

• **Add the following Clause:**

PSD 8.3.14 ShoringUnit: m²

Trenches must be safeguarded as per clause PSD 5.1.1.2, as amended.

The area of shoring measured for payment will be the actual area of excavation side shored, calculated from the perimeter of structure plus adequate working space and the height of shoring actually used. (The maximum additional working space for shoring measurement will be 0.6 m)

The rate shall cover all the cost of the design, supply, placing, maintenance and removal of the shoring system and other support measures together with any cost that results from the inconvenience of working in the supported excavation and the cost of any risks inherent in the operation.

PSDB EARTHWORKS (PIPE TRENCHES) (SANS 1200 DB)

PSDB 3 MATERIALS

• **PSDB 3.1 Classes of excavation**

The classification of material for excavation shall be as specified in Project Specification Clause PSD 3.1.2.

PSDB 3.5 BACKFILL MATERIALS

• **Add the following paragraphs to this sub-clause:**

"(c) Cement-stabilised backfilling

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Scope of Work

Backfilling shall, where directed by the Engineer, be stabilised with 2% cement. The aggregate shall consist of approved soil or gravel containing stones not bigger than 38 mm and with a plasticity index not exceeding 10.

The soil or gravel shall be mixed with 2% cement and shall be compacted in layers of 100 mm thick to 90% of modified AASHTO density.

(d) Soilcrete backfilling

The aggregate for soilcrete shall be mixed with 2% cement and shall consist of approved soil or gravel containing stones not bigger than 38 mm and with a plasticity index not exceeding 10.

The soil or gravel shall be mixed in a concrete mixer with the cement and enough water to acquire a consistency that allows the mixture to be placed with vibrators to fill all voids between the pipe and the sides of the trench. Shuttering shall be used where necessary."

• PSDB 3.6.1 Subbase and base

Delete the contents of Clause 3.6.1 and replace with the following:

"Where trenches cross existing surfaced roads the following will apply:

- a) The service (pipe, cable etc.) shall be laid on a bedding cradle, and covered with a fill blanket, as specified in section LB (Bedding - Pipes) SANS 1200 or in the Project Specification.

The rate for placing and compacting bedding and blanket material shall be included in the items for excavation and backfilling. No additional payment will be made for placing and compacting bedding and blanket using material selected from trench excavations. Where material excavated from trenches is unsuitable for backfill bedding or blanket material and suitable material cannot be reasonably selected from adjacent trench excavations or stockpiles within free haul distance on the site, then the Engineer will order the use of material from commercial sources.

- b) The remaining portion of the trench, from the top of the fill blanket to the underside of the road wearing layer, shall be filled with soilcrete (G4 gravel with 5% cement by volume) compacted mechanically in 150 mm layers to 98% of MOD. AASHTO for a minimum total thickness of 300mm.

• PSDB 3.7 Selection

Add the following to this Sub-clause:

Notwithstanding Subclause 3.7, in terms of which the Contractor has a choice regarding methods of selection, the Contractor is required to use selective methods of excavation. The Contractor shall selectively remove and keep separate the sandy material from unsuitable material and place it adjacent to the trench for reuse as backfill, selected fill, selected granular material or for other use as ordered by the Engineer.

Material which, in terms of Subclause 6.2 of SANS 1200 D or Subclause 6.1 of SANS 1200 LB, is too wet for immediate use in the trench (but which is otherwise suitable) will not be regarded as "unsuitable" material and, if so ordered by the Engineer, the Contractor shall spread such material in a suitable area until it has dried sufficiently for later use. Should the material which is replaced in the trench become too wet again, due to the fact that the Contractor made insufficient provision for the handling and removal of groundwater in accordance with Subclause 5.5 of SANS 1200 A, the Contractor shall replace the material at his own cost with material which is, in the opinion of the Engineer, suitable.

When preparing his programme and construction methods, the Contractor shall make allowance for selective excavation and the handling and drying out of material which is too wet for immediate use.

Unless otherwise ordered by the Engineer, all excavated material shall be kept within the pipe servitude. The toe of the bank of excavated material shall be trimmed well back from the edge of the trench so as to leave a minimum 0.6 m clearance between the toe of the bank and the edge of the trench. The Contractor shall keep this strip clear of excavated material at all times.

The Contractor shall take steps to avoid burying or contaminating topsoil which shall be set aside for replacing, as far as practical, on the surface from which it was excavated.

PSDB 5 CONSTRUCTION**• PSDB 5.1.2 Stormwater, seepage and dewatering excavations**
PSDB 5.1.2.1 Throughout the works.

Add the following to this Sub-clause:

Under no circumstances will any claim be entertained for dewatering, or water logged conditions. The Contractor will control all surface and sub-surface water during construction, and the cost of such, will be deemed to be included in the rates tendered for excavations.

In addition to the Contractor's responsibilities for dealing with water, the Engineer may order the Contractor to place a crushed stone bedding layer (minimum thickness 150 mm) on the trench bottom. Should the trench bottom conditions remain unstable due to the nature of the soil and the degree of saturation, the Engineer may order the Contractor to install a filter fabric on the trench bottom prior to the provision of the stone layer. Should the material in the trench bottom or the

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Scope of Work

bedding material be of such a nature that it can penetrate the stone layer, the Engineer may instruct the Contractor to enclose the stone layer completely within a geotextile filter blanket which shall comply with the requirements below, and shall have overlaps of at least 200 mm.

The Contractor will only be paid by providing and laying the stone bedding layer and filter fabric after receipt of a written order to do so from the Engineer.

The cost of dealing with water as specified in Sub-clause DB 5.1.2.1, as amended will be held to have been included in the tendered sums.

- **Stone bedding in water-logged conditions:**

Where the use of a layer of crushed stone in the trench bottom has been authorised by the Engineer, it will be measured by volume calculated according to length multiplied by the minimum base width and specified thickness. The tendered rate shall cover the cost of preparation of the trench bottom to accommodate the layer of stone, the supply and placing of the layer of stone over at least the specified width and all related activities in order to produce a stable platform.

- **Geotextile filter fabric:**

Width of fabric: 2 x thickness of crushed stone plus 2 x base width plus 200 mm. The tendered rate shall include the cost of supply, placing and losses as a result of overlaps and over excavated trench widths.

The synthetic fibres of a geotextile blanket shall consist of at least 85% by mass of polypropylene, polyethylene, a polyester, a polyamide, or a copolymer of vinyl chloride and vinylidene-chloride, or any combination of these polymers, and shall contain such additives as are necessary to render the filaments resistant to the effects of ultra-violet radiation and heat. The amount of water absorbed by the geotextile after 24 hours soaking in water at 20°C shall be less than 1% by mass.

In addition to the requirements of Subclause 3.1.3 of SANS 1200 DK the geotextile shall comply with the following: Mass :

150 g/m² (minimum)

Strength in all directions : 6 kN/m (minimum)

Equivalent opening size (EOS) : 105 micrometres (maximum)

A non-punched, approved geotextile acceptable to the Engineer.

- **PSDB 5.2 Minimum**

Base Widths Add the following to this

Clause:

The minimum trench width shall be 650mm. A side allowance of 300 mm shall be applicable to pipes of diameter equal to or less than 160 mm OD. The minimum cover to be 1 200 mm under roads and in road reserves and 800 mm elsewhere.

- **PSDB 5.5**

Trench bottom

Add the following to this Clause:

Where the Contractor's method of working results in quagmire conditions in the trench bottom, the Contractor shall excavate and stabilise the trench at his own cost to the approval of the Engineer.

- **PSDB 5.6.3 Disposal of Soft Excavation Material**

Delete the contents of Clause 5.6.3 and replace with the following:

All surplus material and unsuitable material not required for backfilling shall be disposed of at the Municipal Dump Site. No additional payment will be made for the transportation of such material

Dumping shall proceed in an orderly manner with coarse material placed at the bottom and covered with finer material, where possible. Upon completion of dumping the material shall be shaped to provide free-draining surfaces and slopes and finished off to the satisfaction of the Engineer.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

• **PSDB 5.6.6 Completion of backfilling**

Add the following to this Subclause:

The contractor shall bring on to the site sufficient resources for pipe laying so that trenches do not remain open for longer than one week ahead or behind the pipe laying team. The length of open trenches at any time shall not exceed 200m in length per service. Should this happen, the Engineer shall have the right to intervene and stop the excavation process until such time as may be deemed necessary for the pipe laying team and backfilling team to meet the prescribed open trench lengths. The following partial payments shall apply:

- trench excavation – 80%
- backfill completed – 20%
- pipe installed before testing – 90%
- testing of pipes – 10%

• **PSDB 5.7.2 Areas**

subject to traffic loads

Add the following to this Sub-clause:

All trenches will be considered to be subject to traffic loads and the backfill material and compaction in these trenches shall comply with the requirements of Sub-clauses 3.5(b) and 5.7.2.

PSDB 8 MEASUREMENT AND PAYMENT

PSDB 8.1 BASIC PRINCIPLES

• **Amend the last sentence of Subclause 8.1.2 (c), to read:**

"The ground surface will be that existing after any bulk excavation has been carried out and before any embankment has been constructed, unless a portion of the embankment has to be constructed in order to achieve an acceptable cover over a pipe that is to be installed, in which case, measurement will be made from the level of embankment that produces an acceptable minimum cover over the pipe."

PSD 8.3 SCHEDULED ITEMS

• **PSDB 8.3.2 Excavation**

Add the following to the Sub-clause:

The rates for excavation of trenches shall also cover the cost of selection as specified in PSDB 3.7 Selection, as amended. The costs of drying out of material suitable for bedding will be measured elsewhere. See PSDB 8.3.9, as amended. Temporary stockpiling of wet material from trench excavations.

The rate tendered for excavation in all materials shall include: Extra-over payment will be made for hard rock excavation provided the surface levels of the hard rock have been recorded on drawings signed by the Engineer before it is excavated.

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

• **Add the following at the end of the existing sub-item 2:**

"No payments will be made under sub items (1) and (2) in respect of any materials measured and paid for under sub item 3 below."

• **AND ADD THE FOLLOWING NEW SUB ITEMS IN 8.3.2(b):**

"(3) Hand excavation where ordered by the Engineer in:

(a)	Soft material	Unit: m³
(b)	Intermediate material	Unit: m³
(c)	Hard material	Unit: m³

The unit of measurement shall be the cubic metre of material, measured in place according to the authorised dimensions, which was excavated by hand on the specific prior written instructions of the Engineer; provided always that the Engineer's said instruction shall have stated that measurement and payment for such hand excavation will be in accordance with this item.

The tendered rate shall include full compensation for the additional cost, effort and time resulting from excavating in the respective materials using hand methods only.

The Engineer shall not be obliged to authorise payment under this item in respect of any hand excavation carried out (whether ordered in writing or otherwise), which hand excavation was in any case necessary to achieve compliance by the Contractor with his obligations under the Contract to

(i) utilise construction appropriate to the nature of the specific parts of the works; and/or

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

- (ii) protect existing structures and/or services; and/or
 (iii) comply with all prevailing legislation and regulations.

(4) **Backfill stabilised with 5% cement where directed by the Engineer Unit: m³**

The unit of measurement shall be the cubic metre of backfill material, measured in place after compaction according to the authorised dimensions, which was stabilized on the Engineer's instructions in accordance with subclause PSDB 3.5(c).

The tendered rate shall include full compensation for supplying the cement and for selecting, mixing, backfilling and compacting the stabilised material to 90% of modified AASHTO density.

(5) **Soilcrete backfill where directed by the Engineer Unit: m³**

The unit of measurement shall be the cubic metre of soilcrete placed on the Engineer's instructions in accordance with subclause PSDB 3.5(d), measured in place according to the authorised dimensions.

The tendered rate shall include full compensation for supplying the cement and for selecting, mixing and placing the soilcrete as well as for the cost of shuttering if required."

• **Add the following sub-items in 8.3.2 after sub-item 8.3.2(c):**

"(d) Excavate in all materials for stormwater inlet and outlet structures and for manholes, catchpits, valve chambers and the like, irrespective of depth, and backfill around structures: Unit: m³

The unit of measurement shall be the cubic metre of material excavated, measured in place according to the authorised dimensions, and excluding the volume of material excavated and paid for under sub item (a).

The tendered rate shall include for the costs of excavating in all materials, backfilling, compacting, trimming and tidying the final surface around the structure, disposing of surplus and unsuitable materials within the free-haul distance and, where applicable, selecting and keeping separate, excavated material suitable for use as backfill.

(e) **Excavate open drains in all materials Unit: m³**

The tendered rates shall include full compensation for excavating in all materials within the dimensions specified or authorised by the Engineer and to the specified lines and profiles, for the disposal of surplus and unsuitable excavated material where applicable, and in the case of item (d), for backfilling with suitable approved material compacted to 90% of modified AASHTO density around the structures.

(f) Extra over sub items (d) and (e) for excavating in:

- (1) **Intermediate material Unit: m³**
 (2) **Hard rock material Unit: m³**

Measurement and payment shall be in accordance with the provisions of 8.3.2(b) of SABS 1200 D (as amended)."

• **Add the following Payment Clauses:**

PSDB 8.3.8 Crushed stone bedding layer and geofabric blanket Unit: m³/m²

Where the use of a layer of crushed stone in the trench bottom has been authorised by the Engineer, it will be measured by volume calculated according to the length multiplied by the specified thickness and specified minimum base width.

The rate shall cover the cost of all additional excavation and preparation of the trench bottom to accommodate the layer of stone, the removal of unsuitable material, the supply and placing of a layer of stone at least the specified thickness over at least the specified width and all related activities in order to produce a stable platform.

Where the Engineer has authorized the use of geotextile filter blanket, this will be measured by area as indicated on the drawings. The rate shall include the cost of supply, placing and losses as a result of overlaps and over excavated trench widths.

• **PSDB 8.3.9 Temporary stockpiling of wet material from trench excavations**

The excavation and stockpiling of material which is too wet will be measured by the volume, based on the specified trench width, depth and length, which the Engineer orders to be removed in terms of PSDB 3.7, as amended, Selection.

The rate shall cover the cost of all operations required to handle, transport to a suitable site and spread to allow the material to dry sufficiently, as well as any costs for disruptions, delays and associated overhead costs resulting from drying out the material.

• **PSDB 8.3.10 Cutting back of existing pavement layers... Unit: m**

The rate shall provide full compensation for cutting back of existing pavement layers in order to bench into road layerworks for the reinstatement of road surfaces.

The rate shall cover the cost of all operations required to cut back the existing layerworks to distance of 150mm from the edge of the trench in accordance with PSDB 5.2 for the first layerworks and a further 150mm for each subsequent

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

layerworks.

• **PSDB 8.3.11 Reinstate the following surfaces using the existing stockpiled materials** **Unit: Various**

Various surfaces shall be scheduled.

The rate shall make full compensation for reinstating various surfaces from stockpiles complete including all labour, additional materials required, etc."

PSDM EARTHWORKS (ROADS, SUBGRADE) SANS 1200 DM

PSDM 3 MATERIALS

• **PSDM 3.1 Classification for Excavation**

Purposes Replace clause 3.1 with the following:

The Contractor may use any method he chooses to excavate any class of material but the chosen method of excavation shall not determine the classification of the excavation. The Engineer will decide on the classification of the materials. The classification will be based on inspection of the material to be excavated and on the criteria given in PSD 3.1.2.

• **PSDM 3.2.3 Selected Layer**

Add the following:

The Contractor shall obtain selected subgrade material from a source of his own choice. The unit rate tendered shall include all procurement related costs, including haulage. The material quality shall comply with that of a G7 natural gravel as specified in SANS 1200 and shall be compacted to the specified of Mod AASHTO Density.

PSDM 5 CONSTRUCTION

• **PSDM 5.2 Methods and procedures**

PSDM 5.2.2.4 Temporary stockpiling of materials Add the

following paragraph:

The Contractor shall program the works in such a manner that suitable excavated material from site or imported from a commercial sources, shall be placed directly in the appropriate position in fill to ensure that temporary stockpiling is not needed. No payment shall be made for the temporary stockpiling of material where such material is to be used for backfilling of pipe trenches, except when so ordered in writing by the Engineer.

PSDM 5.2.3 Treatment of Roadbed PSDM

5.2.3.3 Treatment of Roadbed

a) Preparation and compaction of road bed

Substitute the first paragraph of DM 5.2.3.3(a) with the following:

The roadbed shall be scarified to a depth of 250 mm, watered, shaped and compacted to 93 % of AASHTO density (100 % for sand), except where otherwise ordered by the Engineer.

Where the existing subgrade material does not conform to the G9 specifications as per the TRH 20, the Contractor is to notify the Engineer and request approval for inclusion of a selected sub-grade layer. In this case the box floor shall be levelled and compacted with two passes of a vibratory roller.

• **PSDM 5.2.8 Transport for Earthworks**

PSDM 5.2.8.1 Freehaul

Replace Clause 5.2.8.1 with the following:

All movement of cut to fill and cut and spoil material shall be regarded as freehaul. In addition, all movement of topsoil, overburden soil or any other material within the boundary of the site or to a spoil site selected by the Contractor shall be regarded as freehaul.

• **PSDM 5.2.8.2 Overhaul**

Replace the contents of this clause with the following:

No payment will be allowed for overhaul. The tendered rates for all earthworks are to be included in the haulage cost of material whether imported from commercial sources or not.

PSDM 7 TESTING

• **PSDM 7.3.2 Routine inspection testing**

Replace the contents of this sub-clause with the following:

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

No density shall be less than the specified minimum density for the relevant layer.

The cost of all routine testing done by the Engineer, and of which the results do not comply with the specified minimum requirement for the material, shall be borne by the Contractor and will be subtracted from the monthly payment certificates.

PSDM 8 MEASUREMENT AND PAYMENT

PSDM 8.3 SCHEDULED ITEMS

- **PSDM 8.3.6 Extra-over Items 8.3.4 and 8.3.5 for excavating and breaking down material**

inDelete Item a) of this clause and add the following:

No payment shall be made for intermediate excavation. Excavation normally classified as Intermediate excavationshall be paid as per the rate for normal excavation (8.3.4 or 8.3.5 as appropriate).

- **PSDM 8.3.7 Cut to spoil or stockpile from Delete Item b) of this clause and add the following:**

No payment shall be made for intermediate excavation. Excavation normally classified as Intermediate excavationshall be paid as per the rate for soft excavation (8.3.7.a).

PSL MEDIUM PRESSURE PIPELINES (SANS 1200 L)

PSL 2 INTERPRETATIONS

PSL 2.4 ABBREVIATIONS

- **Add the following to Sub-clause 2.4**

GRP : Glass Reinforced Polyester

PSL 3 MATERIALS

PSL 3.1 GENERAL

Add the following to Sub-clause 3.1

The materials and construction of all pipes, fittings, valves and specials shall comply with the appropriate SANS,BS or other appropriate specification, whether stated or not, and shall be approved by the Engineer. Only full- length pipes bearing the relevant standard's mark will be acceptable. Cut pipes shall only be used at pipe junctions to position valves and specials as shown on the drawings, and at connections to structures. When laying the pipes the markings shall be visible from above.

The Contractor shall be responsible for the structural and hydraulic design of all bends and fittings where these are not standard off the shelf items designed and guaranteed by the manufacturer for the purpose intended. Acceptance of the Contractor's design will be subject to the Engineer's approval.

The Engineer shall at all reasonable times have free access to the place where the goods are manufactured for the purpose of examining and sampling the materials and goods, and if necessary for supervising the testing andmarking of goods. The manufacturer shall supply free of charge every facility and all labour required for such examination, sampling, inspection, testing and marking before delivery and shall provide and maintain in good order suitable, convenient and accurate apparatus for testing goods.

PSL 3.4 STEEL PIPES, FITTINGS AND SPECIALS

- **PSL 3.4.1 General**

Add the following to Sub-clause 3.4.1

All steel pipes and specials, irrespective of diameter, shall be fabricated from plain ended pipes. The use of screwed flanges and fittings shall not be permitted, except for use on air-valve assemblies. All fabrication shall take place in a suitable workshop prior to galvanising, and no cutting or welding of pipes on site shall be permitted.

The Contractor shall, when called upon to do so, make available to the Engineer the manufacturer's certificates covering the chemical analysis and physical properties of the steel used in the manufacture of the pipes. The pipes shall be hydraulically tested before leaving the factory to the test pressure specified in sub-clause 7.3 of SANS 1200 L. The methods of sampling and testing of the manufactured pipes shall comply with Sections 6 and 7 of SANS 719. Tests shall be carried out at the place of manufacture and at the expense of the Contractor. On delivery of the goods concerned the Contractor shall supply a signed certificate giving results of the tests and certifying that the goods have been manufactured in accordance with the Specification.

- **PSL 3.4.3 pipes of nominal bore**

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

over 150mm Add the following to Sub-clause 3.4.3

Steel pipes of nominal bore over 150 mm shall comply with the applicable requirements of SANS 719 and shall be Grade B. The minimum wall thickness of steel pipes, fittings and specials up to 660 mm external diameter shall be 8.0 mm, and above 660 mm to 914 mm external diameter shall be 8 mm. The ends of pipes, fittings and specials used with uPVC pipes shall be suitably spigotted.

Pipes shall be longitudinally and circumferentially butt-welded by the submerged arc welding process. Spirally welded pipes will also be accepted. The welding processes and materials used for the fabrication of the pipes shall conform to SANS 044. The Contractor shall, when called upon to do so, provide written confirmation that welding has been carried out by coded welders.

Plain ends shall be machined to suit the outside dimensions of connecting pipework.

The Contractor shall be responsible for the structural design of all steel bends, tees, fittings and specials, which design shall be carried out by a registered Professional Engineer. Costs for design shall be included in the rates for design, supply and laying. The Contractor shall submit certification of the designs and manufacture to the Engineer for approval prior to delivery to site.

All steel specials shall be lined and coated with Copon EP 2300 or approved equivalent to the manufacturer's specifications and to a minimum dry film thickness of 350 micron unless otherwise indicated on the drawings or scheduled.

Any damage to the coatings prior to or during placing of the pipes will be cause for the pipes to be rejected by the Engineer unless the damage is repaired to the approval of the Engineer.

PSL3.7 OTHER TYPES OF PIPES

- **PSL 3.7.2 Polyethylene Pipes**

Replace "SABS 533" in this clause with "SANS 4427".

- **Add the following sub-clauses to Clause 3.7:**

PSL3.7.3 uPVC Pipes

uPVC pipes and fittings shall be fitted with spigot and socket rubber ring joints and shall comply with the requirements of SANS 966-1.

- **PSL3.7.4 GRP Pipes**

Glass reinforced polyester pipes and fittings shall conform to ASTM D3262, ASTM3754, AWWA C950 and SANS 1748 -1: 1998 Glass Fibre Reinforced Thermosetting Plastics (GRP) pipes Part 1: Pipes for Water Supply, Sewerage or drainage. GRP pipe shall be stiffness SN 5000 jointed with Double Bell couplings. The pressure rating and diameter as detailed in the schedule of quantities and drawings.

PSL3.8 JOINTING MATERIAL

- **PSL3.8.2 Flexible couplings**

Replace Sub-clause 3.8.2.1 with the following:

Detachable couplings shall be of the "Viking - Johnson" or other similar and approved type without central register unless otherwise specified. Coupling flanges shall be designed to withstand the hydrostatic test pressures and all stresses due to tightening of the bolts, and the rubber rings shall generally comply with BS 2494 Class D. Detachable couplings shall suit the outside dimensions of pipe-work complying with either BS 2035 or the relevant SANS specification as the case may be.

Mild steel "Viking – Johnson"-type couplings shall be lined and coated with Copon EP 2300 or approved equivalent to the manufacturer's specification, and a minimum dry film thickness of 350 micron.

All cast iron pipes, specials and valves shall be given two coats of approved epoxy paint except where cast into concrete. The cost of this work shall be included in the rates tendered for supplying and fixing pipes, specials and valves.

- **PSL 3.8.3 Flanges and accessories Add the following to sub-clause 3.8.3**

All flanges shall be to SANS 1123 Table 1600/3 unless otherwise specified or shown on the drawings. The contractor shall be responsible for ensuring that the flange drillings on all pipeline components including valves, fittings, specials and fixtures etc. are compatible

Where used with mild steel pipes underground, the connections shall be bitumen mastic wrapped.

All gaskets for flanged joints shall be 3 mm thick, full face rubber insertion in accordance with the requirements of BS

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

3063.

Where services are relocated or connected to existing pipes, the dimensions of existing flanges and pipes shall be verified by the Contractor prior to ordering of materials.

All bolts and nuts for jointing of pipe flanges shall be in accordance with SANS 1700.

HDPE flange adaptors shall be PE 100 and shall have a mild steel backing ring coated Copon EP 2300 or similar approved with flange drilling in accordance with SANS 1123 Table 1600/3. All HDPE flange adaptors shall be continuously butt welded to the parent pipe.

PSL 3.9 CORROSION PROTECTION

- **PSL 3.9.1 Cast iron pipes**

Replace sub-clause 3.9.1 with the following:

All cast iron pipes, specials and valves shall be given two coats of approved epoxy paint except where cast into concrete. The cost of this work shall be included in the rates tendered for supplying and fixing pipes, specials and valves.

- **PSL3.9.5 Joints, bolts, nuts and washers**
Replace sub-clause 3.9.5 with the following:

All bolts, nuts and washers shall be hot-dip galvanised in accordance with SANS 121:2011. Under no circumstances shall electro-plating be accepted as an alternative means of corrosion protection.

PSL3.9.6 CORROSIVE SOILS

- **Replace sub-clause 3.9.6 with the following:**

All underground screwed steel joints and saddles are to be treated with a compatible primer, packed with a bitumen or tar based mastic and wrapped with "Denso Tape". The cost of this work shall be included in the rates tendered for supplying and fixing pipes and specials.

PSL 3.10 VALVES

- **Add the following sub-clauses to Clause 3.10:**

PSL 3.10.1 Gate valves

Unless otherwise scheduled, gate valves shall be double flanged with ductile iron bodies and stainless steel trim, and shall conform with all relevant sections of SANS 664 or BS 5163, specifications and subsequent amendments. Flanges shall be drilled to SANS 1123 for 16 bar working pressure as specified, and compatible with pipework flanges.

Gate valves shall be of the wedge gate type, VOSA or similar approved. Approval shall only be given for the specified or equivalent valves from well-established and well known manufacturers with a proven record of supply and service of equivalent products within the southern African region. Valves shall be Class 16 as specified or shown on the drawings, clockwise closing and shall have non-rising spindles of high quality high tensile manganese bronze. The direction of closing shall be cast into the handwheel (where specified) or valve casing with the words "OPEN" and "CLOSE" respectively. The gate shall be guided within the body of the valve to fit accurately onto the seat and to avoid possible buckling. Where extended spindles are required, they shall be suitably supported to prevent swaying and buckling, and to guarantee the intended use of the valve. All gate valves shall be drop tight when tested in accordance with the requirements of BS 5163. All gate valves of 600 mm and larger shall be fitted with an integral bypass valve.

All gate valves shall be capable of being operated manually with a maximum applied torque of 150Nm for valves with a nominal diameter of more than 450mm and 100Nm for valves with a nominal diameter less than 450 mm.

Valves shall be grit blast cleaned to S15 standard and a solvent-free sintered epoxy powder applied in one coat by the use of arc-spray machines to provide a dry film thickness of not less than 450 micron.

Flanged valves shall be complete with galvanised or titanium coated bolts and nuts, gaskets and insertion rings.

All isolating valves for air valves shall be supplied with a cast iron hand wheel. All other valves shall be provided with a cap top for use with a valve key.

- **PSL 3.10.2 Air valves**

Air release and vacuum break valves shall be double orifice with anti-shock orifice mechanism, of type "Vent-O-Mat Series RBX" or similar approved with flanged inlets and rated for a minimum of 16 or 25 bar working pressure as specified.

The valve shall have an integral surge alleviation mechanism which shall operate automatically to limit transient pressure rise or shock induced by closure due to high velocity air discharge or the subsequent rejoining of separated water columns. The limitation of pressure rise must be achieved by deceleration of approaching water prior to valve closure.

The intake/discharge orifice area shall be equal to the nominal size of the valve.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

The inlet shall be fitted with an isolating valve with vertical spindle, key operated from above.

Air valves shall be able to withstand twice the maximum rated pressure and must provide a positive drop tight closure from a minimum pressure of 50 kPa up to the maximum rated pressure.

• **PSL 3.10.3 Non-return valves**

Non-return valves shall comply with the requirements of BS 5153 or the relevant SANS specification for working pressures as specified for each application. They shall be double flanged and of general construction details as specified for gate valves with anti-shock closing characteristics. Flanges shall be drilled to SANS 1123 for 16 bar working pressure as specified, and compatible with pipework flanges.

Check valves shall be RGR axial flow, Vent-O-Mat Maxiflow or similar approved. Valves shall be fast acting with short travel and designed to minimise slamming.

Add the following Clauses:

PSL 3.12 METERS

• **PSL 3.12.1 Flow meters**

Magnetic Flow Meters specified shall be IP68 rated Endress & Hauser or similar approved magnetic flow type meters suitable for measuring flows in the ranges specified and for installation in a pipelines of diameter specified. The unit shall be capable of link up to the existing telemetry system and shall have 2 x 4 to 20 mA outputs and two relays.

Measurement accuracy shall be within 0.2%. Maximum head loss through the meter and taper sections (if any) shall not be greater than 0.3 m.

The rate tendered shall include for selection, supply and fitting of the meter with all necessary fittings and specials to fit the meter in a nominal 600 mm diameter pipe, linking up to power supply, link up to the existing telemetry system located within 50 m, including all necessary fittings and sundries to provide a complete working installation, testing and commissioning.

Mechanical flow meters, where specified, shall be able to provide pulsed output for continuous flow rate monitoring suitable for telemetry link-up. Flanged in-line strainers shall be provided with all mechanical flow meters installed. The strainers shall have removable components to allow access for cleaning and maintenance without removing the flanged strainer body."

The rate tendered shall include for selection, supply and fitting of the mechanical meter with all necessary fittings, specials and sundries to provide a complete working installation, testing and commissioning.

Supply and installation of strainers shall be measured separately.

• **PSL 3.12.2 Water meters**

The meters shall be of the semi-positive rotary piston volumetric type and be to Class C specification.

Bulk water meters shall be supplied and built into the meter chambers as detailed in the drawings. Fittings and the construction of the chambers will be measured elsewhere.

Water meters must comply with the SANS Specification No. 1529-1: 2006 and must be approved in terms of Section 18 of the Trade Metrology Act, Act No. 77 of 1973, as amended by the Trade Metrology Amendment Act, Act No. 42 of 1994.

All water meters offered must be tested and sealed by an authorised official in an SANS 17025 accredited laboratory, situated within the borders of the Republic of South Africa.

PSL 4 PLANT

PSL 4.3 TESTING

• **Add the following to PSL 4.3**

The Contractor must ensure that the test equipment is in good order and that it is calibrated and the calibration certificate should be submitted to the Engineer before any testing commence.

PSL 5 CONSTRUCTION

PSL 5.1 Laying

PSL 5.1.1 General

In addition to the provisions of Sub-clause 5.1.1 of SANS 1200 L the following shall apply:

The laying of pipelines shall be performed only by a qualified person who is registered by the company as an artisan in the plumbing or pipefitting trades or who is qualified by the reason of having attended and passed the course in pipe laying of the Civil Engineering Industry Training Board (CEITB).

1. Pipe-laying shall not be carried out in trenches which have not been approved by the Engineer.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

2. Pipes shall be handled and laid in accordance with the manufacturer's specifications.
3. Large changes in horizontal or vertical alignment of the pipeline will be accommodated by special bends as detailed on the drawings.
4. Small changes in horizontal or vertical alignment will be accommodated at the pipe joints. In no case shall the deflection exceed two thirds of the recommendations of the relevant SANS, BS or other relevant specification, or of the pipe manufacturer.
5. Except where otherwise indicated, no section of the water main shall be laid at a grade flatter than 0.50 percent. When the total length of completed water mains which have not yet been commissioned exceeds 500m, no further pipe laying shall take place without approval.

• **PSL 5.1.3 Keeping pipelines clean**

In addition to the provisions of Sub-clause 5.1.3 of SANS 1200 L the following shall apply:

Pipe laying operations and precautions taken during pipe laying shall be aimed at eliminating the necessity for cleaning of completed mains. However, should foreign matter have entered or remained in the pipelines, the Contractor shall arrange for the mains to be cleaned (at the Contractor's expense) to the satisfaction of the Engineer prior to testing.

• **PSL 5.1.4 Depth and Cover**

Add the following to sub-clause 5.1.4.1

During construction there shall be not less than 0.9 m of cover over the pipes where construction traffic is liable to cross the pipeline, Road crossings shall not be utilised until the construction of the road layers has reached the stage where 0.9 m cover over the pipe is available. Within road reserves a minimum cover of 1 000mm shall be provided, elsewhere a minimum cover of 800 mm shall be provided subject to the provision for construction traffic.

Where the actual clearance between pipe crossings or other services is less than the minimum clearance of 150mm the main shall be laid beneath the service crossed at an invert level which allows for the minimum clearance. The main shall be laid horizontally at this level for a distance of at least 3.0 m on either side of the centreline of the service crossed and then gradually revert to the minimum cover as specified above.

No decrease in cover or clear space between the pipe barrels as specified will be permitted unless otherwise instructed by the Engineer in writing.

A minimum cover of 900 mm from natural ground level and maximum of 1.2m to top of pipe shall be maintained throughout, unless otherwise specified or shown on the drawings.

• **PSL 5.1.5 Locating of existing pipes (additional clause)**

The Engineer will indicate the approximate positions of existing pipes on site where new pipelines are to be joined with existing pipelines, or where new pipelines may cross existing pipelines or services. At the indicated positions a trench shall be excavated to locate the existing pipe or services. After the pipeline has been exposed it will be regarded as a known service.

• **PSL 5.2 Jointing Methods**

PSL 5.2.2 Flanges (Steel Pipelines)

All flanges shall be installed with bolt holes off-centre and symmetrically off-set from the vertical centre line of the flange. Flanges shall be installed truly square to the axis of the pipe.

The Contractor shall ensure that the correct jointing materials, i.e. gaskets, bolts and nuts are available when required. Only correct diameters and lengths of bolts and studs shall be used. Flat washers shall be used under all nuts. The length of bolts and studs shall be such that at least two threads protrude from the nut when fully tightened. The threads of bolts, studs and nuts shall be thoroughly cleaned and then coated with a graphite/grease compound immediately prior to assembly.

Flanged fittings shall be so installed that there are no stresses induced into the pipe work, specials or fittings by forcing ill-fitting units into position or by bolting up flanges with faces not uniformly in contact with their gaskets over their whole faces.

PSL 5.10 Disinfection of Pipeline

Replace the Sub-clause with the following:

Introduction

The price for testing, flushing out and disinfecting pipelines and fittings is to be included in the rates for supply and installation of the pipes and fittings.

On completion of construction, after pressure testing and prior to commissioning the pipeline is to be flushed out and disinfected by the Contractor in accordance with this specification.

• **Definitions**

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Scope of Work

Within this document the term HYPOCHLORITE SOLUTION means a commercial solution of sodium hypochlorite containing 10 % to 15 % of available chlorine. Also, 10 % HYPOCHLORITE SOLUTION means hypochlorite solution diluted one in ten with water which thus has approximately 1 % of available chlorine.

Bulk supplies of sodium hypochlorite solution (Chloros for instance), are supplied at 10 to 15% available chlorine. This fraction declines progressively as the hypochlorite decays to chloride, chlorate and oxygen. Assume in practice that there is only 10 % available chlorine.

Within this document AVAILABLE CHLORINE and all chlorine concentrations means FREE CHLORINE available to the water environment for its disinfection.

• **Completed installation**

Ensure that all water used for disinfection purposes has a free chlorine residual of at least 20 mg/l. Refer to Tables 1 and 2 in the section on dosage of chlorinating agents.

During chlorination the pipeline shall be kept full of water.

• **New mains**

Do not connect any new main into supply until the water from designated sampling points, having stood in the main for at least 20 hrs and has met the criteria specified herein.

New mains are laid with the intention of ensuring as far as possible, the exclusion of debris and contamination, but presume at the disinfection stage that debris and contamination does exist and that this debris is resistant to disinfection, e.g. compacted soil or detritus at the joints.

The disinfection procedure, which should follow pressure testing, includes the following:

1. Swabbing and flushing of the main.
2. Soaking of the main for a minimum period of 20 hrs, using a minimum concentration of 20 mg/l of available chlorine in mains water.
3. Removal of excess chlorine by flushing the main.

• **Dosage rates of chlorination agents**

Tables 1 and 2 provide estimates of the minimum dose rates of sodium hypochlorite solution, chlorine gas or bleach powder, tables or granules to achieve chlorine levels of 20 mg per litre when added to mains water which has a zero chlorine demand.

• **Table 1 – Dosage for 1 000 m of pipeline to give 20 mg available chlorine per litre**

Pipe diameter	Volume of 1 000 m of pipeline	Weight of bleaching powder granules or tablets to 20 mg/l	Weight of chlorine to give 20mg/l	Volume of hypochlorite solution to give 20 mg/l
mm	m ³	g	g	Litres
50	1,9	80	40	0,4
75	4,4	180	90	0,8
100	7,9	320	160	1,5
150	17,7	700	350	3,5
200	31,4	1,260	630	6,2
250	49,1	2,000	980	9,7
300	70,7	2,800	1400	14,0
350	96,2	3,800	1900	19,0
400	125,6	5,000	2500	24,6
500	196,3	7,800	3900	38,4
600	282,6	11,200	5600	55,4
1 000	785,4	31,200	15,600	154,3

Table 2 – Dosing rates for 20 mg available chlorine per litre

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Flow rate in pipeline*		Hypochlorite solution injection rate for 20 mg/ℓ		Chlorine injection rate for 20mg/ℓ
litres/sec	m ³ /hr	litres/hr	ml/sec	gm/hour
1	3,6	0,7	0,2	72
2	7,2	1,4	0,4	144
3	10,9	2,2	0,6	216
4	14,4	2,9	0,8	288
5	18,0	3,6	1,0	360
6	21,6	4,3	1,2	430
7	25,2	5,0	1,4	500
8	28,8	5,8	1,6	576
9	32,4	6,5	1,8	650

* For flows greater than 9 litre/sec the dose rates can be calculated as follows: -e.g flow of 186 litres/sec = 100+ 80+ 6= 100x1 +10x8 + 6 litres/sec hypochlorite solution injection rate = 100x0.7 +10x 5.8 + 4.3 =70 + 58 +4.3 = 132,3 litres/hr

• **Disposal of chlorinated water**

When the pipeline has passed all disinfection criteria it must be drained without causing a hazard.

The following can be explored as possible methods of the disposal of the chlorinated water, and the most suitable method will be employed.

1. Foul Sewer
2. Overland
3. Watercourse

PSL 7 TESTING

PSL 7 TESTING

- **PSL 7.1**
General

Add the following:

The price for testing is included in the schedule of items for supply and installation.

PSL 8 MEASUREMENT AND PAYMENT

- **PSL 8.2 Scheduled Items**

PSL 8.2.1 Supply all material, lay, bed, joint, test and disinfect complete with couplings, test and disinfect
Unit: m

The rates for supplying, laying and bedding of the interconnecting pipes shall also cover the cost of disinfecting the pipes as specified in PSL 5.10 and of testing in accordance with Sub-clause PSL7.1, as amended. The rate shall include the cost of corrosion protection.

- **Replace clause 8.2.2 as follows:**

“PSL8.2.2 Extra-over PSL8.2.1 for supplying specials as itemised in the Bill... Unit No.

Specials itemised in the Bill will be measured in terms of the quantities of scheduled items for each diameter and type such as bends, tees, reducers, saddles, flanges, welding of flanges, adaptors & couplings including corrosion protection.

The rate shall cover the supply, transportation and handling of each item including all jointing material.”

- **PSL 8.2.3..... Extra over item 8.2.1 to 8.2.2 for the supplying, fixing and bedding of valves, flanged, left hand closing and non-rising spindle in valve box or chamber Unit: No**

Add the following to this payment clause:

The rates shall include the cost of corrosion protection.

- **PSL 8.2.5 Supply and place pipes, valves and specials (short pipe run)**

The rate shall also cover the cost for flanges and fittings as specified and corrosion protection.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

• **Replace clause 8.2.5 as follows;**

“PSL8.2.5 Supply of domestic meter installation pipe specials Unit No.

Items measured in terms of the quantities of scheduled items such as pipe lengths bends, spool pieces etc.

The rate shall cover the supply, transportation and handling of each item complete with flanges as shown on Drawing No: J37067/WAT/201 including all jointing material and corrosion protection. “

• **PSL 8.2.11 Anchor/thrust**

blocks and pedestalsAdd the following to this

payment clause:

Notwithstanding Sub-clause 8.2.11 anchor/thrust blocks and pedestals will be measured only by volume of concrete to the net dimensions shown on the drawings or ordered. The rate shall cover the cost of excavation, concrete and formwork.

• **PSL 8.2.13 Hydrant chambers, etc.**

Add the following to this payment clause:

Valve chambers for valves deeper than 1.5 m shall be measured by the length of the extension spindle, with a minimum measurement of 0.5 m per valve. The rate shall cover all the additional costs for the installation as specified.

• **Add the following new Clauses:**

PSL8.2.16 Payment for Installation & other activities as scheduled related to meters, pipes, valves & specials including new water meter assembly and the rectification (repairing) of faults on existing meter installations

The Municipality shall not be responsible for any cost or delays incurred either as a result of inaccuracies in information regarding the existing reticulation system or as a result of the corroded condition or malfunctioning of elements of the system.

The Contractor's rates for the rectification of the various scheduled meter faults shall be deemed to include for all costs or delays arising from such causes.

In addition to the above the Contractor's rates for the above works and the various scheduled meter faults, shall cover all costs to respond, travel, to obtain the fittings, either from the EMM or a supplier, excavate in all materials, disconnect, dismantle and remove the water meter assembly or part thereof as and when required and to replace

the water meter assembly complete or as defined in the appropriate item. It shall further include importing suitable backfill material, backfilling and compacting to specified densities, re-instatement of the work area, disposing of spoil to the Contractor's tipping site and disposing of scrap material (as stated C3.2.10), and the testing of the installation to the approval of the Engineer.

The Contractor shall on satisfactory completion of a scheduled meter installation or fault be responsible to complete a Job Card for each meter assignment, by recording on the Job Card, the time spent, all materials utilized, meter reading, meter number of the existing meter and of new meter, date of existing meter removed, date of new installation, street address, stand number, location of meter and township.

Further to the above the contractor must with each meter related assignment attached to the Job Card a digital colour photo taken of the meter, with the meter's number and reading clearly visible.

In addition to the above the contractor must with all meter related work ordered, supply to the Engineer the GPSSouth and East Co-Ordinates for meter position.

The completed Job Card will be returned to the responsible Area Engineer or his authorised representative and proof that the job card was returned must be obtained from the responsible Area Engineer or his authorised representative.

• **PSL8.2.16.1 The Installation of New Water Meter Assembly.....Unit: No.**

(above ground level)

The scheduled rates for the installation of new meter assembly shall cover all the costs as defined in clause PSL8.2.16, except for fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities (i.e. Items 1, 6, 7 & 9 on Drawing No. J37067/WAT/201) The Turn-Around Time for this Task is 5 working days.

In addition to the above the rate shall cover the additional cost of:

- i) Exposing the stand connection point, connecting the new meter assembly to the existing lead from the main or Tee in accordance with Drawing No. J37067/WAT/201 or as revised; and to the Engineers specification, complete with bolts, nuts seals and corrosion protection.
- ii) Importing suitable backfill material where required, backfilling and compacting to specified densities, around the new meter installation. The reinstatement of paved surfaces (if applicable) will be in accordance with Clause

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Scope of Work

PE 11, and payment will be effected as an extra over as measured elsewhere in the schedule of quantities.

iii) Disposing of spoil to the Contractor's tipping site.

iii) In-cases where a lead pipe or tee does not exist, payment for the installation of the above mentioned on the main supply line will be measured as an extra over item and payment will be effected under the appropriated item as provided in the schedule of quantities.

• **PSL8.2.16.2**
Replacement of Internal Mechanism for Meter (Insert)..... Unit: No.

(above and below ground level)

The scheduled rates for the replacement of new valve assembly shall cover all the costs as defined in clause PSL8.2.16, except for fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities (i.e. component of Item 7 on Drawing No. J37067/WAT/201). The Turn-Around Time for this Task is 5 working days.

In addition to the above, the rate shall cover the additional cost of:

- i) Exposing of the water meter (if housed in a manhole underground), prior of removing the meter "Insert", with open isolating valves, checking the meter functioning, inspecting the premises for visible water leaks.

With above checks concluded and meter malfunctioning confirmed:

- ii) Remove old insert, install (equivalent type) complete new meter insert and reassemble bulk/domestic meter protectivecover where applicable to the Suppliers and Engineers specification. With open isolating valves check the meterfunctioning.
- iii) Dispose of spoil to the Contractor's tipping site and dispose of scrap material as prescribed.

To compensate the contractor when visits to attend to meter faults prove abortive, payment will be effected in accordance with Clause PSL8.2.22.

• **PSL8.2.16.3**
Replace Water Meter Alone Unit: No.

(above and below ground level)

The scheduled rates for the replacement of meter alone shall cover all the costs as defined in clause PSL8.2.16, save for the meter and fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities (i.e. Item 7 on Drawing No. J37067/WAT/201) The Turn-Around Time for this Task is 6 hours when the consumer is without water and 24 hours if consumer has water.

In addition to the above, the rate shall cover the additional cost of:

- i) The exposing of the water meter (if housed in a manhole underground), prior of removing the meter with open isolating valves, checking the meter functioning, inspecting the premises for visible water leaks.

With above checks concluded and meter malfunctioning confirmed:

- ii) Remove the existing water meter where applicable inside the manhole or above ground and install a new equivalent sized meter complete with bolts, nuts seals and corrosion protection to the satisfaction of the Engineer.
- iii) Dispose of spoil to the Contractor's tipping site and dispose of scrap material as prescribed.

To compensate the contractor when visits to attend to meter faults prove abortive, payment will be effected in accordance with Clause PSL8.2.22.

• **PSL8.2.16.4**
Install/Replace Isolating Valve Alone..... Unit: No.

The scheduled rates for the replacement of isolating valves alone shall cover all the costs as defined in clause PSL8.2.16, except for the isolating valve and fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities (i.e. Items 1 on Drawing No. J37067/WAT/201) The Turn-Around Time for this Task is 6 hours when the consumer is without water and 24 hours if consumer has water.

In addition to the above, the rate shall cover the additional cost of:

- i) The exposing of the existing isolating valve, removing existing valve and installing a new equivalent sized isolating valve complete with bolts, nuts seals and corrosion protection to the satisfaction of the Engineer.
- ii) Importing suitable backfill material where required, backfilling and compacting to specified densities, around the new isolating valve and re-instate valve box (where applicable) to its original state. The reinstatement of paved surfaces (if applicable) will be in accordance with Clause PE 11, and payment will be effected as an extra over as measured elsewhere in the schedule of quantities.
- iii) Dispose of scrap material, as prescribed.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Scope of Work

- **PSL8.2.16.5**
Install/Replace Non Return Valve Alone..... Unit: No.

(above and below ground level)

The scheduled rates for the replacement of non-return valves alone shall cover all the costs as defined in clause PSL8.2.16, except for the non-return valve and fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities (i.e. Item 9 on Drawing No. J37067/WAT/201) The Turn Around Time for this Task is 6 hours when the consumer is without water and 24 hours if consumer has water.

In addition to the above, the rate shall cover the additional cost of:

- i) The exposing of the non-return valve (if housed in a manhole underground), prior to removing the valve with open isolating valves, checking the meter functioning, inspecting the premises for visible water leaks.

With above checks concluded and valve malfunctioning confirmed:

- ii) Remove the existing non-return valve where applicable inside the manhole or above ground and install a new equivalent sized valve complete with bolts, nuts seals and corrosion protection to the satisfaction of the Engineer.
- iii) Dispose of spoil to the Contractor's tipping site and dispose of scrap material as prescribed.

To compensate the contractor when visits to attend to non-return valves faults prove abortive, payment will be effected in accordance with Clause PSL8.2.22.

- **PSL8.2.16.7**
Install/Replace of Strainer Complete Unit: No.

(above and below ground level)

The scheduled rates for the installation-replacement of a strainer shall cover all the costs as defined in clause PSL8.2.16, except for the strainer and fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities (i.e. Item 6 on Drawing No. J37067/WAT/201). The Turn Around Time for this Task is 6 hours when the consumer is without water and 24 hours if consumer has water.

In addition to the above, the rate shall cover the additional cost of:

- i) The exposing of the strainer (if housed in a manhole underground), prior of removing the strainer with open isolating valves, checking the meter functioning, inspecting the premises for visible water leaks.

With above checks concluded and strainer malfunctioning confirmed:

- ii) Remove the existing strainer where applicable inside the manhole or above ground and install a new equivalent sized strainer complete with bolts, nuts seals and corrosion protection to the satisfaction of the Engineer.
- iii) Dispose of spoil to the Contractor's tipping site and dispose of scrap material as prescribed.

To compensate the contractor when visits to attend to a strainer faults prove abortive, payment will be effected in accordance with Clause PSL8.2.22

- **PSL8.2.17** **Repair leak at meter unit Unit: No.**

(Above and below ground level)

The scheduled rates for the repair of a leak at a meter unit shall cover all the costs as defined in clause PSL8.2.16, except for the fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities (i.e. Item 7 on Drawing No. J37067/WAT/201) The Turn-Around Time for this Task is 6 hours when the consumer is without water and 24 hours if consumer has water.

In addition to the above the rate shall cover the additional cost of:

To search for the leak, expose the water meter, (if housed in a manhole underground), do the repairs complete inside meter unit or within 1.0 m from meter unit.

- **PSL8.2.18** **Raise of the Water Meter Installation (above ground level) Unit: No.**

The scheduled rates for the raise of a water meter installation above ground shall cover all the costs as defined in clause PSL8.2.16, except for the fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities (i.e. Items 1, 6, 7 & 9 inclusive on Drawing No. J37067/WAT/201) The Turn- Around Time for this Task is 15 working days.

In addition to the above the rate shall cover the additional cost of:

- i) Pre-visit to the installation, exposing the installation in order to determine the pipe lengths to be made up and

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Scope of Work

fittings required for the alteration and raising of the installation above ground, suitable protection and making safe of the exposed service in accordance with Clause PSA 5.4.

Disconnecting the meter assembly from the existing lead connected to the main supply and the consumer's supply pipe. Breaking out and removing the existing meter assemble pipe work and manhole, by cutting and removing portions or adding additional fittings to raise the meter installation to the required height and to the Engineers specification.

- ii) Re – connect the new meter assembly to the existing lead from the main supply and the consumer's supply pipe, complete with bolts, nuts seals and corrosion protection to the satisfaction of the Engineer.
- iii) Importing suitable backfill material where required, backfilling and compacting to specified densities. The reinstatement of paved surfaces (if applicable) will be in accordance with Clause PE 11, and payment will be effected as an extra over as measured elsewhere in the schedule of quantities.
- iv) Disposing of spoil to the Contractor's tipping site and dispose of scrap material, as prescribed.

• **PSL8.2.19 Relocate The Water Meter Installation within a Radius of Two Metres..... Unit: No.**

(Above ground level)

The scheduled rates for the relocation of water meter installation shall cover all the costs as defined in clause PSL8.2.16 (i.e. Items 1 to 10 inclusive on Drawing No. J37067/WAT/201). The Turn Around Time for this Task is 15 working days.

In addition to the above the rate shall cover the additional cost of:

- i) Pre-visit to the installation, exposing the installation in order to determine the pipe lengths to be made up and fittings required for the alteration and raising of the installation above ground, suitable protection and safe making of the exposed service in accordance with Clause PSA 5.4.

Disconnect the meter assembly from the existing lead connected to the main supply and the consumer's supply pipe. Break out and remove the existing meter assembly pipe work and manhole, by cutting and removing portions or adding additional fittings to raise the meter installation to the required height and to the Engineers specification.

- ii) Re – connect the meter assembly to the existing lead from the main supply and the consumer's supply pipe, complete with bolts, nuts seals and corrosion protection to the satisfaction of the Engineer.
- iii) Importing suitable backfill material where required, backfilling and compacting to specified densities. The reinstatement of paved surfaces (if applicable) will be in accordance with Clause PE 11, and payment will be effected as an extra over as measured elsewhere in the schedule of quantities.
- iv) Disposing of spoil to the Contractor's tipping site and dispose of scrap material, as prescribed.

• **PSL8.2.20 Uncover and Clean of Existing Meter Installation (below ground level)..... Unit: No.**

The scheduled rates for the uncover and clean of meter installation shall cover all the costs as defined in clause PSL8.2.16. The Turn Around Time for this Task is 5 working days.

In addition to the above the rate shall cover the additional cost of:

- i) Uncover the meter installation, housed in a manhole underground remove all covering material placed on top and inside the manhole and reinstate exploratory excavations required to uncover the meter installation and dispose of surplus or unsuitable material.

• **PSL8.2.21 Dismantle Inspect and Clean Water Meter Installation... Unit: No.**

(Above and below ground level)

The scheduled rates for dismantle, inspect and clean water meter installation shall cover all the costs as defined in clause PSL8.2.16. The Turn Around Time for this Task is 6 hours when the consumer is without water and 24 hours if consumer has water.

In addition to the above the rate shall cover the additional cost of:

- i) The expose of the water meter, (if housed in a manhole underground), with open isolating valves, check the meter functioning, inspect the premises for visible water leaks. With above checks concluded and installation malfunctioning confirmed:
- ii) Dismantle the complete water meter assembly, inspect and clean all fittings and appurtenances, including the strainer, if applicable, re-assemble and with open isolating valves check and test the meter installation to the approval of the Engineer.

• **PSL8.2.22 Visit Meter For Inspection Only (above and below ground level)..... Unit: No.**

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Scope of Work

The scheduled rates to visit and inspect a water meter unit only shall compensate the contractor when visits to attend to meter faults prove abortive due to the following circumstances. The Turn Around Time for The Above Task is 72 hours.

i) Gate Locked – no access to meter/refused entry/access by the owner/tenant of the property (only one visit is payable for gate locked, for second visit prior arrangements must be made with occupant to gain access)

(ii) No access to meter due to road construction.

(iii) Possible illegal connection.

(iv) Incorrect stand /meter information provided by Engineers representative.

(v) Where stand/meter cannot be located.

(vi) Where correct information supplied to Engineers representative with regards queries have to be verified.

• **PSL8.2.23Repair of Leak at Connection to Main Line Unit: No.**

The scheduled rates for the repair of a leak at the connection to the main shall cover all the costs as defined in clause PSL8.2.16, save for the fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities. The Turn Around Time for this Task is 6 hours when the consumer is without water and 24 hours if consumer has water.

In addition to the above the rate shall cover the additional cost of:

i) Expose the leak, disconnect and dismantle the connection on the main line and the lead pipe to the meter installation.

ii) Where leaks occur on galvanized mains, the repair shall be affected by means of a steel saddle with 4 bolts fitted with a full face rubber insertion, use Plasson polypropylene saddle with 4 bolts for all other pipe materials.

iii) Re – connect the saddle assembly to the existing lead from the main and the lead pipe to the meter.

iv) Import suitable backfill material where required, backfill and compact to specified densities, around the saddle connection up to the surface.

The reinstatement of paved surfaces (if applicable) will be in accordance with Clause PE 11, and payment will be effected as an extra over as measured elsewhere in the schedule of quantities.

v) Dispose of spoil to the Contractor's tipping site and dispose of scrap material, as prescribed.

PSL8.2.24 Repair of Leak on Communication Pipe Unit: No.

The scheduled rates for the repair of a leak on a communication pipe shall cover all the costs as defined in clause PSL 8.2.16, save for the fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities. The Turn Around Time for this Task is 6 hours when the consumer is without water and 24 hours if consumer has water.

In addition to the above the rate shall cover the additional cost of:

i) Expose the leak, and repair the leak by means of approved compression repair coupling for HDPE Pipe and approved VJ Coupling for galvanised steel mains.

ii) Import suitable backfill material where required, backfill and compact to specified densities, around the repair up to the surface. The reinstatement of paved surfaces (if applicable) will be in accordance with Clause PE 11, and payment will be effected as an extra over as measured elsewhere in the schedule of quantities.

iii) Dispose of spoil to the Contractor's tipping site and dispose of scrap material, as prescribed.

PSL8.2.25 Under-pressure Drilling... Unit: No.

The scheduled rates for under-pressure drilling to install a service connection on a main supply line shall cover all the costs as defined in clause PSL 8.2.16, save for the fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities. The Turn Around Time for this Task is 5 working days.

In addition to the above the rate shall cover the additional cost of:

i) Expose the main supply line, connect the saddle assembly to the main, assemble the under-pressure drilling machine onto the saddle, cut the required hole, fit a 25 mm -150 mm tub with stop valve or isolating valve and complete the service connection to the Engineers specification.

ii) Import suitable backfill material where required, backfill and compact to specified densities, around the saddle connection up to the surface. The reinstatement of paved surfaces (if applicable) will be in accordance with Clause PE 11, and payment will be effected as an extra over as measured elsewhere in the schedule of quantities.

iii) Dispose of spoil to the Contractor's tipping site.

• **PSL8.2.26 Disconnection of**

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Water Meter And Install Flow Restrictor.....Unit: No.

The scheduled rates for disconnection of water meter shall cover all the costs as defined in clause PSL8.2.16, save for the fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities. The Turn Around Time for this Task is 5 working days.

In addition to the above the rate shall cover the additional cost of:

- i) The expose of the water meter, remove the water meter inside the meter unit and to replace the meter with an approved flow restrictor to the Engineer specification.
- ii) Dispose of scrap material, as prescribed.

• **PSL8.2.27 Remove Bees and Clean Inside of Meter Assembly Unit: No.**

The scheduled rates for the remove and cleaning of the inside of meter assembly shall cover all the costs as defined in clause PSL8.2.16. The removal must be done by a specialist and within acceptable environmental requirements. The Turn Around Time for this Task is 72 hours. The Contractor is to appoint and manage a specialist subcontractor to execute this task.

In addition to the above the rate shall cover the additional cost of:

- i) The expose of the water meter, (if housed in a manhole underground) physical removal of the bees alive inside of the meter box, safe keeping thereof, transport and release of it in a suitable environment.
- ii) Remove and dispose of all honeycomb deposits and cleaning of the inside of the meter assembly and box.
- iii) Appointment and management of a specialist subcontractor to execute this task.

• **PSL8.2.28 Install a Tee For a Connection On a Main Line Unit: No.**

The scheduled rates for the installation of a tee for a connection to the main line shall cover all the costs as defined in clause PSL8.2.16, save for the fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities. The Turn Around Time for this Task is 5 working days.

In addition to the above the rate shall cover the additional cost of:

- i) Expose the main supply line, cut out a section of the main line equal to the length of the tee to be installed.
- ii) Connect the new tee to the main supply complete with Viking Johnson Type Couplings, bolts, nuts seals and corrosion protection to the satisfaction of the Engineer.
- iii) Tee branches not connected directly to meter installations must be sealed of with a blank flange or isolating valve.
- iv) Secure tee with a concrete thrust block as per Drawing and to the Engineers satisfaction.
- v) Import suitable backfill material where required, backfill and compact to specified densities, around the tee connection up to the surface.

v) The reinstatement of paved surfaces (if applicable) will be in accordance with Clause PE 11, and payment will be effected as an extra over as measured elsewhere in the schedule of quantities.

• **PSL8.2.29 Repair Leak at Isolating Valve Unit: No.**

The scheduled rates for repair at isolating valve shall cover all the costs as defined in clause PSL8.2.16, except for the fittings supplied by the Municipality/Client or fittings measured elsewhere in the schedule of quantities (i.e. Items 1 on Drawing No. J37067/WAT/201) The Turn Around Time for this Task is 5 working days.

In addition to the above the rate shall cover the additional cost of:

- i) Expose the valve, (where required) to repack leaking valve glands. Gland packing shall be cut to length and wound around the valve spindle in such a way that the joints in the packing are staggered.
- ii) Importing suitable backfill material where required, backfilling and compacting to specified densities, around the isolating valve and re-instate valve box (where applicable) to its original state. The reinstatement of paved surfaces (if applicable) will be in accordance with Clause PE 11, and payment will be effected as an extra over as measured elsewhere in the schedule of quantities.

PSLB BEDDING (PIPES) (SANS 1200 LB)

PSLB 3 MATERIALS

• **PSLB 3.1 Selected granular material**

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Replace the contents of Sub-clause 3.1 with the following:

Selected bedding material shall comply with the following requirements:

- A maximum particle size of 20 mm
- A minimum grading modulus of 0,5
- A minimum CBR of 15% at 93% of modified AASHTO maximum density
- A maximum plasticity index of 10.

The Bedding shall be compacted to at least 93% of modified AASHTO maximum density (100% for sand).

- **PSLB 3.2 Selected fill material**

Replace the contents of Sub-clause 3.2 with the following:

Selected fill material shall be free from vegetation and from lumps and stones of diameter exceeding 30 mm, and shall be obtained from the trench excavations or other necessary excavations on the site, on the approval of the Engineer. The material shall have a PI < 6.

PSLB 3.4 Selection**PSLB 3.4.1 Suitable material available from trench excavation****Replace the second sentence of this sub-clause commencing with "The Contractor will be permitted" with the following:**

The Contractor will be required to preserve material excavated from trenches that is suitable for bedding for reuse as bedding.

PSLB 8 MEASUREMENT AND PAYMENT**PSLB 8.1 PRINCIPALS**

- **PSLB 8.1.2 Sources of bedding material**

Add the following to this sub-clause:

Payment for the provision of imported bedding materials will only be made where they cannot be selected from the excavation within the confines of the site or within 5 km of the point where it is required and where it is ordered in writing by the Engineer whichever is the lesser.

- **PSLB 8.1.3 Volume of bedding materials**

Replace the contents of this sub-clause with the following:

The volume of bedding material will be measured net, excluding the volume occupied by the pipe. The volume of bedding material will be computed from:

- the trench width specified or scheduled, and
- the depth of each bedding layer as shown on the drawings, and
- by deducting the volume occupied by the pipe.

- **PSLB 8.1.5 Disposal of displaced material**

Replace the contents of this sub-clause with the following:

"Material displaced by the pipeline and by imported material from sources other than trench excavation, shall be disposed of at an approved site furnished by the Contractor. No haulage is payable for such material."

PSLB 8.1.6 Freehaul

Delete the words "of 0,5km" in the first line of this sub-clause.

8.2 SCHEDULED ITEMS**PSLB 8.2.2 Supply only of bedding by importation****PSLB 8.2.2.2 From borrow pits**

Delete the following words in paragraph following b) in the last line after the word distance

"of 0,5km"

- **PSLB 8.2.2.3 From commercial sources**

Delete the following words in paragraph following b) in the last line after the word distance

"of 0,5km"

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

PARTICULAR SPECIFICATIONS**PE EXCAVATIONS****PE1 SETTING OUT**

The Contractor is responsible for the setting out of the works as well as checking and verifying the Bench Marks and reference levels. Any discrepancy must be reported to the Engineer immediately.

Water mains in townships are generally not pegged and are to be set out at the appropriate distance from stand pegs. Before excavation is commenced sight rails shall be erected at all points where existing or proposed services determine the depth and at intervals as necessary to ensure that the required depths are provided. Boning rods for use with the sight rails shall be accurately made to the various lengths required.

PE2 EXCAVATION

Boulder excavation will only be paid if it is included in the schedule of quantities. Where boulder excavation is not included in the schedule of quantities the Contractor will be paid under the Item for rock excavation. Rock will be defined as material removed by blasting or jack hammers. Before commencing excavation the Contractor shall remove from the surface of the area to be excavated all debris, rubble, rubbish, coarse vegetation and any other material not suitable for backfilling. Such material is to be disposed of by the Contractor to the approval of the Engineer.

The excavation shall be carried out in the positions and to the lines and levels shown on the drawings, or as directed by the Engineer.

In depositing spoil from the excavations care shall be taken not to damage trees, fences, buildings or property. Excavated material shall be kept trimmed up as closely as possible to the trench, but a footway 300mm wide shall be maintained between the edge of the trench and the spoil.

Across cultivated land, farmland, residential property and other similar places or where directed by the Engineer the top soil shall be removed, stacked separately and subsequently replaced at the top of the trench.

Where excavations are carried out in paved roads and footpaths or in the line of kerbs and channels, the Contractor shall remove and place on one side of the trench, apart from other spoil, all road material, paving material, kerbs and channels.

Sandy soil, fine gravel, similar material free from heavy clay and stones shall be considered to be fine material.

All fine material which is encountered in the excavations shall be kept separate from the rest of the excavated material for use in refilling around the pipes. If due to the negligence of the Contractor, such material should become contaminated with stones, clay or other material so as to render it unsuitable for refilling around the pipes, the Contractor shall replace it with approved fine material and remove the surplus excavated material from the site all at his own expense.

Trench width: Minimum 600mm, DN plus 2 x 250mm. The Contractor will not be paid for over excavation.

Backfilling – Shall be to 93% Mod AASHTO density (TRH14) if not stated otherwise in the schedule of quantities.

Maintenance - The Contractor shall be responsible for making good all effects which may arise for a period of six months from the date of completion or handing over to the Engineer. Should any subsidence occur subsequently of the replaced tarmac or other surfaces where the Contractor has excavated, the making good shall be done at the Contractor's expense.

PE3 BOTTOMS OF TRENCHES

The bottoms of trenches in loose or soft ground shall be well rammed and consolidated before pipes or bedding is laid. Should the presence of ground water make it impossible to provide a stable bottom, the Contractor, if instructed by the Engineer, shall introduce a 150mm thick layer of 20mm concrete aggregate to form a firm foundation for the bedding.

Should the Contractor excavate the trenches to greater depth than necessary he shall refill the bottom of the trench with fine material or soilcrete which shall be thoroughly consolidated and trimmed to correct grades before relaying the pipes, all at the Contractor's expense.

The bottoms of water main trenches shall be taken out true to line and the floor of the trench boned in and trimmed to even grades so as to provide an even support for the pipe along its whole length when laid directly on the trimmed trench floor.

PE4 OBSTRUCTION OF STREETS

The Contractor shall not occupy or obstruct by his operations roads or streets for a width of more than 5 metres.

When the excavations are carried across streets at least 4 metres of carriageway and 1.2 metres of the footpath on either side shall be left clear for vehicular and pedestrian traffic. The partial obstruction which is thus permitted shall not continue for more than fourteen days in any one case.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

The Contractor shall obtain the consent of the Engineer in writing before closing any road to vehicular traffic but in every case a footpath shall be left clear.

Where house connections have to be laid across a street those connections located between adjacent cross- streets shall be completed before those in another block are commenced.

In order to cause minimum interference to traffic, construction in any one street shall be confirmed to a length of two blocks or 300 metres, whichever is the lesser, unless the Engineer shall give his permission to additional lengths being under construction at the same time.

PE5 EXCAVATION BY MACHINE

It is envisaged that most excavations will be carried out by hand and only in exceptional cases and where approved by the Engineer will excavations be carried out using machine excavation. Where, in the opinion of the Engineer, the use of excavation machinery may cause damage to services and improvements on public or private property, or may cause undue inconvenience to the service authorities or property owners the Contractor shall excavate by means of hand labour.

Where moving existing services or new mains at the Contractor's request to facilitate machine excavation would result in additional cost to the Council such alteration in position if agreed to by the Engineer will only be permitted on the written undertaking by the Contractor to bear the additional costs involved.

The Contractor's methods of excavation shall at all times be subject to the approval of the Engineer.

PE6 TIMBERING, SHORING AND SLOPING

The Contractor shall be responsible for the safety of all excavations, and shall, at his own cost, take all measurements required to secure this end, either by timbering and shoring. The Engineer may direct the alteration of any timbering or shoring which he considers to be impeding the work.

Where the Contractor considers that, for the protection of the new work or efficient execution of the work, it is necessary that supports or timber be left in, no extra price shall be paid to the Contractor, the cost of such leaving in being deemed to be included in the prices given in the Bill of Quantities for excavation. The removal of any support or timber will be entirely at the responsibility of the Contractor and he shall have no claim for the protection and safety of the work on the grounds that the Engineer has not directed that such material shall be left in.

Timber used in the construction, that the Engineer may direct to be left in as an integral part of the finished work, shall not be removed, but will be paid for, and a price for any such material left in must be inserted by the tenderer in the Bill of Quantities.

Trenches to be shored which is deemed dangerous. Shoring shall be deemed to be included in rates tendered unless specifically provided for in the schedule of quantities.

PE7 SLIPS, FALLS, ETC.

The Contractor shall be responsible for making good any fall of earth or rock due to careless or insufficient support, or due to rains, floods, wind or other causes, and at his own cost shall refill any cavities so formed as required by the Engineer.

PE8 BLASTING

No blasting shall be undertaken without the written consent of the Engineer. Before blasting commences all properties in the vicinity shall be inspected by the Contractor and the Engineer or his representative and a record (including photographic) shall be made of all defects in the buildings. A Photographic record shall be kept for at least 3 years after such blasting.

The Contractor shall conform to all government and other regulations respecting blasting and the handling and storage of explosives and shall make his own arrangements for the supply, transport and storage of all explosives.

All blasting shall be done under the control of persons holding blasting certificates from accredited institutions.

Only light charges shall be used for blasting. Approved hoop iron mats or other suitable means shall be used to prevent flying debris and men with red flags shall guard all approaches to the blast. Sufficient warning shall be given to oncoming traffic to enable it to pull up to a safe distance from the blast. Householders in the immediate vicinity shall be warned of the intention to blast immediately prior to the firing of the shots.

The Contractor shall in all cases be entirely responsible for any damage whatsoever caused by blasting operations and shall indemnify the Council in respect thereof and settle all claims resulting there from and make good any damage at his own expense.

PE9 SOILCRETE BACKFILLING

Where directed by the Engineer, excavations shall be backfilled with soilcrete. Soilcrete shall consist of 1 part cement to 20 parts of selected soil, with moisture content such that a handful of the mixture when squeezed tightly in the hand

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

just binds without crumbling or dripping moisture. The soilcrete shall be thoroughly mixed to ensure even distribution of cement and water throughout the mass, and compacted with power rammers in layers not exceeding 300mm uncompacted thickness.

PE10 DISPOSAL OF SURPLUS MATERIAL

During the construction of the works any material from the excavations that is not required for refilling shall be removed immediately.

As each excavation is refilled the surplus spoil, bricks and other rubble or waste matter shall be removed, the surface restored and the site left clean.

Surplus spoil, rubble and waste matter shall be deposited in borrow pits, except where the Contractor is instructed by the Engineer to stockpile surplus spoil for use by the Council. The surfaces of such dumps shall be left in a tidy condition on completion of the work.

The Contractor shall be entirely responsible for deciding whether excavated material is surplus to that required for refilling and reinstatement of the works. Should it be necessary to reclaim material previously disposed of in order to complete the works; the transport and labour required for such reclamation shall be provided by the Contractor at his own cost.

PE11 REINSTATEMENT OF SURFACES

The foundations of all roadways, pavements, dished crossings, etc., disturbed by the excavations shall before be reinstated to their original state and to correct levels and grades as soon as possible.

The Contractor shall be responsible for reinstating lawned areas. In these cases the top 300mm of the trench shall be refilled with sifted topsoil before the sods are replaced or grass planted. The surrounding lawned area shall be broomed clear of all small stones, earth and other foreign material and this together with the reinstated area shall be watered and if necessary rolled and cut so as to re-establish the lawn as soon as possible.

Leave the site in a neat state - Apart from the reinstatement of specific surfaces as defined above, the Contractor shall leave the area of the excavations and any adjoining areas disturbed or damaged by his activities in a clean and orderly state. He shall remove all traces of concrete, surplus stone, sand cement and other materials from the site of the works, remove all coarse vegetation from sidewalks and rake all sidewalks so that they are free of loose stones and provide a reasonable walking surface. The surface of refilled excavation in un-surfaced roads and sidewalks shall be neatly rounded off so that the surface along the centre line of the excavation is nowhere more than 75 mm above the surrounding ground.

Where the Contractor fails to carry out the reinstatement and general cleaning up, the Council at the Contractor's expense will undertake the work.

• PE11.1 Reinstatement of Asphalt

a. Reinstatement Of Roadway

All premix taken up in roadways shall be reinstated by the Contractor to a depth similar to the existing premix with a minimum depth of 35mm. No batch of premix shall be placed where the temperature of the mix falls below 100°C. Unless instructed by the Engineer all premix is to be reinstated by the Contractor.

b. Reinstatement of Footways / Pavements

All patches (around meter boxes, valve and hydrant boxes etc.), as well as trenches in footways, shall be reinstated by the Contractor to a depth of 35mm using cold premix. Premix patches around the boxes shall be to the correct line and slope of the surrounding surface to avoid ponding of water.

c. Testing Of Premix

The compacted density of premix in roadways and footways shall be a minimum of 93% of Marshall density.

d. Maintenance

All premix surfaces which have subsided 10mm or more within 6 months of completing the said surfaces, must be reinstated to the satisfaction of the Engineer, and shall be re-reinstated in accordance with this Specification. This shall be to the Contractor's account.

• PE11.2 Reinstatement of Concrete Paved Surfaces:

The Contractor shall reinstate footways consisting of interlocking blocks, paving slabs or bricks. Wherever possible, the existing blocks, slabs or bricks shall be cleaned and re-used. Prior to final reinstatement, blocks slabs or bricks which have been taken up shall be stacked in a safe manner without restriction to vehicular or pedestrian traffic. Blocks, slabs or bricks around meter boxes, valve boxes, and hydrant boxes shall be finished to the correct line and slope of the surrounding surface.

Where filler spaces are left between the paving blocks and boxes, these spaces must be filled with a 1:3 mixture of

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

cement-plaster sand and finished with a wooden float.

The filler spaces shall not be greater than 25% of the paving block. If the space is greater, then a paving block must be cut to fit.

The Contractor shall provide additional interlocking blocks, paving slabs or bricks required to complete the reinstatement, over and above those taken up and stacked – payment shall be made under “new” paving or in the absence of relevant rates/items in the schedule of quantities, paid as day works.

If, however, in the opinion of the Engineer, additional blocks, slabs or bricks are necessary as a result of the Contractor not having exercised due care in the recovery of blocks, slabs or bricks the cost of such additional blocks, slabs or bricks shall be for the Contractor's account.

• **PE11.3 Reinstatement of Various Surfaces**

The Contractor will be responsible for the reinstatement of the following surfaces, and no payment will be made for the following type of surfaces:

- | | | |
|-----|---------|------------------|
| (a) | Soil | No extra payment |
| (b) | Grassed | No extra payment |

• **PE11.4 Reinstatement of Kerbing**

Where kerbing has been removed, it shall be cleaned and stacked in a safe manner without restriction to vehicular or pedestrian traffic. The Contractor shall replace the kerbing to line and level. Payment will be per measured lineal metre, which will include for the removal, cleaning, re-laying and any incidentals to complete the work, including all haunching with concrete, jointing etc.

PM MATERIALS

PM1 SCOPE

This specification details the specific requirements for the Midvaal Local Municipality with regard to Materials associated with the Works.

PM2 GENERAL

All materials incorporated in the Works shall be the best of their respective kinds, new, sound and undamaged and shall conform strictly with the appropriate South African Standard Specifications (S.A.B.S.) or British Standard Specifications (B.S.) and any amendments thereto. Samples of material to be used upon the Works not drawn from the Council's stores are, when required, to be submitted to the Engineer for his approval by the Contractor at his own cost. Any material which is not of the standard of the sample so submitted and approved or in the opinion of the Engineer is unsuitable for the purpose for which it is to be used will be ordered by the Engineer to be rejected. Upon delivery to site and again before being built into the Works all material is to be examined by the Contractor and any defective or damaged material is to be set aside for inspection by the Engineer's Representative who shall, under the Engineer's direction, determine whether the material is to be rejected. The Contractor shall at his own cost, immediately remove material, which has been rejected, and replace it with material complying with the Specification.

The Tenderer shall complete the schedule giving particulars of the materials he intends to supply and shall submit any further details required to clarify or illustrate his tender.

PM3 DELAY DUE TO SUPPLY OF MATERIAL

The Contractor shall ensure that the work is not delayed, due to the lack of materials on the site of the works, by placing orders with suppliers for the materials required under this Contract as soon as possible after the acceptance of this tender. The ordering of material must be done with the approval of the Engineer.

The Contractor shall, by producing copies of written orders or written enquiries for supplies, prove to the satisfaction of the Engineer that any delay occasioned by non-availability of materials has been caused by the inability of suppliers to supply and not by his own lack of timely ordering or lack of exhaustive enquiry or supplies, before any extensions of the Contract time shall be allowed due to such delays.

PM4 STEEL PIPES AND FITTINGS

Inspection at factory - The Contractor or the Manufacturer on his behalf shall carry out the necessary inspection and testing to ensure that the materials employed and the finished product complies with the requirements of these Specifications.

The Engineer or his representative will carry out periodic inspections of pipes and fittings during manufacture and testing. The Contractor or Manufacturer shall give adequate notice of intention to test, and no pressure test carried out in the absence of the Inspector shall be recognised unless the Inspector in reply to the notice indicates that he will not witness the tests and authorises them to be carried out in his absence.

Manufacture and testing – Steel pipes and fittings of nominal bore up to 150mm shall be of medium class, shall be screwed and shall comply with the applicable requirements of SANS 62. Steel pipes of nominal bore over 150mm

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Scope of Work

shall be in accordance with SANS 719 and have a minimum wall thickness of 4.5mm. Steel pipe ends shall be plain ended and prepared for field welding except where spigot and socket, flanges or flexible couplings are specifically called for

Fittings :

Screwed Tubes and Related pipe Fittings

to be pressure rated for 16 bar or greater

All threads shall conform to SANS 1109. All fittings including threads shall be hot dipped galvanised in accordance with SANS 121/ISO 1461 and SANS 32/EN 10240.

Flanges

Unless otherwise specified, steel plate flanges for welding shall conform to SANS 1123 Table 1600/3 and shall be machined flat and steel screwed boss flanges shall conform to SANS 1123 Table 1600/4 with threads in accordance with SANS 1109. All bolt holes shall be drilled and shall be positioned off-centres. Hydrant flanges, referred to as "FH", shall comply with the dimensions and drilling specified for 3½" diameter Table D flanges (BS:10 1962), i.e. they shall be 203mm diameter with 4 No. 17,5mm diameter holes at 165,1mm P.C.D. Flange faces shall be protected from rust by an approved composition before mating.

- **PM5 uPVC PIPES AND FITTINGS**

uPVC pipes to SABS 966 Supraflo

uPVC pipes to SABS 1283/1982 Supratuff

Pressure shall be class 16

Construction

With the exception of high-impact uPVC pipes with Victaulic jointing all other pipes require anchor blocks at bends, valves and at end caps. UPVC pipes must not be used at temperatures exceeding 60 degree centigrade. Padding and bedding must be a fine selected material with no stones or pebbles larger than approximately 6mm. Backfilling adjacent to pipes must be properly compacted with hand-rammers up to the crown of the pipe. Small plate compactors may be used on the backfill of the 300 mm padding layer.

PM6 JOINTING MATERIAL

All pipes are to be supplied with one coupling per pipe of the same material as the pipe. All valves and fittings are to be supplied without couplings or jointing material, unless otherwise specified. The jointing material for valves and fittings is scheduled separately and is to comply with the following requirements:

PM6.1 Plain ended joints

All materials used in the manufacture of couplings shall comply with the relevant S.A.B.S. or B.S. specifications. Couplings shall be capable of withstanding test pressures equal to or greater than the test pressures applicable to the class of pipe for which they are intended. All couplings used shall be subject to the approval of the Engineer.

Long and short collar C.I. detachable joints, suitable for use with fibre cement pipes, shall be of robust construction and shall be protected against corrosion. C.I. detachable joints shall be supplied complete with rubber rings and galvanized bolts and nuts. Long collar C.I. joints shall be tapped to the specified B.S.P. thread. F.C. couplings shall be supplied complete with rubber rings.

Couplings of the Viking Johnson type, without central register, shall be used with steel pipes or larger diameter uPVC pipes where called for.

Where special couplings to join plain ended steel pipe to fibre cement pipe are called for, they shall be either of the following:

- (a) Couplings of the Viking Johnson type without central register with one end sized for steel pipe and the other end sized for fibre cement pipe.
- (b) Short collar C.I. couplings for use with fibre cement pipes or F.C. couplings as called for, complete with steel sleeves of suitable dimensions welded to the pipes; the rate quoted shall include for welding the sleeves to the pipes.

- **PM6.2 Flanged joints**

Insertion rings shall be of rubber to B.S. 2494 Class C or D, 3mm thick, cut to suit the flanges specified under PM4 of this specification. Bolts and nuts are to be manufactured from grade 304 stainless steel and shall comply with SANS 135. Bolts and nuts are to be hexagonally shaped and be screwed to B.S.W thread. Only correct diameters and lengths of bolts shall be used with sizes and dimensions to conform with SANS 1700. Bolts are to be of sufficient length for at least three but no more than five screw threads to protrude outside the nuts. Flat washers shall be used under all nuts.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

• **PM6.3 Screwed joints**

Ends of screwed pipe and fittings shall be to SABS 1109 male ends being screwed taper and female ends parallel thread.

PM7 CAST IRON PIPES AND FITTINGS

C.I. fittings having plain ends and flanges shall comply with S.A.B.S. 546 except that flanges shall be provided as called for in the Bill of Quantities.

PM8 PIPE SUPPORTS

All above ground pipe installations that require fixing of pipes onto walls, soffits or supported above floors shall be undertaken with approved type of supports, holderbats, clamps, U-bolts and brackets and shall conform to sound engineering practice & manufacturers guidelines for the class, material and diameter of pipework used. Pipe supports shall be installed according to the manufacturer's specifications. Supported pipes shall have enough clearance from walls or soffits for pipe maintenance and repair. Pipe supports are measured under Provisional Sum.

PM9 FIRE HYDRANTS

Fire hydrants shall be approved above ground type hydrants complying with B.S.750 as far as it is not superseded by any special requirements of this Contract.

The direction of rotation of the spindle shall be anti-clockwise for closing when viewed from above.

PM10 VALVES

For Gate valves, Air Valves and Butterfly Valves refer to relevant Particular Specifications. Only valves of proven quality manufactured by an approved manufacturer will be accepted.

Lifting Eyes - a lifting eye at the top of the valve body, where the combined mass of the valve bypasses and actuator exceeds 75 kg.

Mounting feet - Valves with a nominal bore of 450mm and greater used are to be provided with stainless steel jacking screws.

Testing Of Valves: Test Certificates - A test certificate shall be provided with each valve in which it is certified that the valve has been inspected and tested and that it complies with the specification. Where an independent inspector may be appointed by the Employer to witness the testing, the inspector must also sign the test certificate. At least three working days written notice must be given of the date and time of the test. In the event that the valve(s) to be tested are not ready the Employer reserves the right to deduct any fruitless inspection costs from moneys due to the Contractor.

General Corrosion Protection Of Valves (Unless specifically specified) - The cleaning and corrosion protection of the valves must be carried out at the factory prior to despatch to the Site. Non-ferrous metal or stainless steel surfaces must not be painted. The protection to be applied must comply with the following:

Material to be protected	Surface Preparation	Coating	Coating Thickness	Typical Product
Steel Or Cast Iron:	Shot blast to Sa3, & Chemical treatment.	3 Coats High Build Epoxy for underwater use. <i>Alternatively</i> Fusion Bonded epoxy powder coated, applied by electrostatic spray.	DFT min 250 µm. DFT max 400 µm. DFT min 300 µm. DFT max 500 µm. Full chemical cure	Chemrite Coatings: Carboline 891. Spec-coats: Cupon EP 2300WB International Paints: Valspar D 1003 LD or similar approved in writing by the Engineer.
Galvanised Steel:	Degrease & Abrade	1 Coat 2-pack epoxy primer. 1 Coat Epoxy for underwater.	DFT min 150 µm. DFT max 250 µm.	Chemrite Coatings: Carboline 891. Spec-coats: Cupon EP 2300WB or similar approved in writing by the Engineer.
Galvanised Steel:	Degrease & Abrade	1 Coat 2-pack epoxy primer.	DFT min 250 µm. DFT max 400 µm.	Primer : Plascon Gehopon Primer GW5

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

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SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Scope of Work

		1 Coat Epoxy for underwater.		Chemrite Coatings: Carboline 891. or similar approved in writing by the Engineer.
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After erection on site all valves must be cleaned and the paintwork refurbished where necessary to restore the condition to that at the time of leaving the factory.

PM11 SADDLES

Saddles are to be suitable for use with water pipes to SANS 1808-44. Saddles to be pressure rated for 16 bar or greater. They shall be of approved manufacture, complete with bolts, nuts, rubber gaskets, seals and stiffened rings and shall be suitable to fit over steel, AC, uPVC and HDPE pipes of nominal outside diameter from 50 mm up to and including 300 mm. Saddles shall have:

- (a) Threaded offtakes (BSP) suitable for the attachment of threaded pipes or
- (b) Flanged offtakes suitable for the attachment of flanged pipes

Saddle bodies shall generally be manufactured from high strength ductile iron, protected by a fusion bonded epoxy coating. Saddles to be installed over uPVC pipes shall be of type 316 stainless steel. All fasteners shall be of type 316 stainless steel and shall comply with SANS 1700-7 (as appropriate).

PM12 STOPCOCKS

Stopcocks are to conform to S.A.B.S. 226 and be screwed female B.S.P. thread. They shall be clockwise closing.

PM13 TAPS

Taps are to conform to S.A.B.S. 226 and shall be screwed male B.S.P. thread.

PM14 COVERS, FRAMES AND STEP IRONS

Circular concrete manholes covers of 560mm dia. with acceptable lifting mechanisms and 750mm dia. Frame constructed of dolomitic aggregate shall be used:

- a) Heavy duty in road reserve with a breaking strength of not less than 135kN.
- b) Medium duty elsewhere with a breaking strength of not less than 45kN.

PM15 PRESSURE GAUGES

Pressure gauges shall comply with B.S. 1780. They shall be screwed 3/8" B.S.P. thread or metric equivalent and shall have dials calibrated in Bars over the required range of head.

PM16 FERRULES

The materials and workmanship employed in the manufacture of ferrules shall be of a standard equal to that specified in S.A.B.S. 226 for stop cocks or to the appropriate British Standard Specification. Ferrules shall be manufactured of gunmetal, brass or equal. Swivelling outlets shall be screwed female B.S.P. thread and inlets shall be screwed male B.S.P. taper thread. The ferrule shall incorporate an integral isolating device.

PM17 H.D.P.E. PIPES AND FITTINGS

The SABS ISO 4427 of 2008 (All Parts) specification will be applicable and be minimum type PN 16 (SDR9) PE80.

PM18 PROTECTION AND TESTING OF STEEL PIPES

The Steel Pipes protection must be as given in PSL 3.9.2.1 and 3.9.2.2.

Testing - Radiographic Testing in the Field - 10% of all welds made in the field shall be tested radiographically by an independent specialist firm. The welds to be tested shall be selected by the Engineer or his representative. The standard of acceptance shall be in accordance with API Standard 1104. All costs of testing and retesting will be borne by the Contractor.

Joint protection on Steel Pipes - Joints on steel pipes must be protected using "Densotherm" or approved equivalent. The work must be done strictly according to the specifications of the supplier. After thoroughly cleaning the pipe, removing all loose scale and other coatings, the entire surface to be wrapped must be primed with Denso primer D and allowed to dry. Apply tape by wrapping spirally around pipe in two layers (minimum thickness 3mm and overlap 100mm).

PPL PIPE LAYING, JOINTING AND TESTING OF PIPES AND PIPE FITTINGS

PPL1 SUPPLY OF MATERIAL

The Contractor shall be responsible for stacking, handling, transporting, laying and jointing of all pipes, fittings, specials etc. In addition, the Contractor shall take delivery of certain items to be supplied by the Council, and shall

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

be responsible for their installation.

PPL2 PIPE LAYING

All pipes and fittings are to be laid true to line, level and position as indicated on the drawings or directed by the Engineer and shall be uniformly supported throughout their length except at joint holes. Every pipe and fitting is to be cleaned out before laying and at all times except when pipe laying is actually in progress the end of the last pipe laid is to be fitted with a cap or plug to prevent the entry of water or loose material. Cut pipes shall be used only where permitted by the Engineer or where required to join to fittings. Should the Engineer not be satisfied

with the care taken by the Contractor in cleaning out the pipework and excluding foreign material, the Engineer shall have the right to order the Contractor to scour out the pipelines to the satisfaction of the Engineer at the Contractor's expense.

All pipes shall be uniformly supported throughout their length either on the undisturbed trench bottom or on compacted earth bedding of uniform depth. In the case of coupled joints the trench shall be refilled to the mid- height of the pipe, except at joints, to maintain the pipework in correct alignment for inspection and approval by the Engineer or his representative. Thereafter the trench shall be refilled as specified.

Where pipes and fittings are too heavy to permit lifting by means of manual labour, fabric slings shall be used in all handling operations. Pipes, fitting and valves shall not be dragged or rolled over the ground. Care shall be taken in handling pipework so that bumping during handling is reduced to a minimum.

No metal tools or heavy objects shall be permitted unnecessarily to come into contact with pipework, and, in the case of epoxy coated pipework, the Contractor shall not permit his workmen to walk on the pipework.

Trenches shall be kept drained and free from water at all times. If any pipe should move after having been laid in the trench due to flotation because of flooding of the trench or any other cause, the pipe shall be lifted from the trench, cleaned and examined for damage. After examination all damage to the pipe shall be repaired or the pipereplaced as the Engineer may direct and to his satisfaction. Thereafter the pipe shall be relayed and jointed at no additional cost to the Council.

• **PPL3 uPVC and FIBRE CEMENT PIPES**

Where uPVC or fibre cement pipes have to be cut, the cut end shall be dressed off square and turned down to the correct external diameter for the detachable joint by means of a special turning tool made by the pipe manufacturers and to be supplied by the Contractor. Prior to joining the ends of the pipes shall be thoroughly cleaned. The pipes shall be joined by means of the approved couplings from the manufacturer or short or long collar types of coupling in accordance with the jointing instruction of the pipe manufacturer so as to leave a gap of 5mm to 10mm between the pipe ends. On completion of the joint, the metal work shall be painted with two coats of bituminous paint.

PPL4 CAST IRON PIPES AND FITTINGS

Cutting, trimming or welding of cast iron pipes will not be permitted. Jointing of such pipework by means of flanges shall be as described in these Specifications, except that the flange faces need not be painted with bituminous paint. All flexible joints shall be achieved with short collar cast iron flexible couplings unless otherwise specified.

PPL5 SCREWED STEEL PIPEWORK

Where screwed and socketed steel pipes have to be cut, the cut end shall be dressed off square, have all burrs removed and screwed B.S.P. taper thread or its metric equivalent. Prior to joining, the threads shall be cleaned and coated with approved jointing compound. The pipes and fittings shall be brought into correct alignment and the joints screwed well home. Tightness of the joints must be obtained by means of screwing only and caulking of the threads will not be allowed except where specifically permitted by the Engineer. Care is to be taken to avoid damage to the surface of pipes and fittings.

PPL6 CONCRETE BEDDING AND PROTECTION:

Where in the opinion of the Engineer the pipes are likely to be damaged due to great depth of refill, traffic loads, soil erosion and the like, the pipes shall on the instruction of the Engineer be bedded on concrete screed or partly or fully encased as shown on the drawings, or protected in such other manner as the Engineer may order.

PPL7 REINSTATEMENT OF DAMAGED PIPES, COATINGS AND LININGS

If, for any reason, pipes, coatings or linings are damaged during the tenure of this contract, the Contractor shall at his own cost and at the sole discretion of the Engineer, either replace or repair such pipes to the approval of the Engineer.

PPL8 ALTERATIONS TO EXISTING WORK

All alterations to existing work shall be carefully planned in consultation with the Engineer to minimise inconvenience to the public, and the Engineer's approval shall be obtained before commencing alterations. The Contractor shall give every consumer whose supply will be interrupted timely notice of the proposed time and probable duration of the interruption.

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Scope of Work

Where valves and/or fittings or assemblies have to be inserted into an existing main the following procedure shall be followed:

Fibre cement mains shall be exposed between the couplings on either side of the proposed alteration and the length of pipe determined. A replacement length incorporating the alteration shall be pre-assembled to the required length, allowing about 10mm clearance on either side. The terminal couplings shall then be removed, the existing main lifted and the replacement length laid, using short collar cast iron flexible couplings or couplings approved by the Engineer.

Steel mains shall be exposed over a length sufficient to install the alteration. A length corresponding to the overall length of the alteration to be inserted shall be cut out of the main, allowing about 12mm clearance on either side. Burrs shall be removed and the alteration inserted, using Viking Johnson type flexible couplings.

Where existing pipes have to be recovered, they shall be carefully exposed and disconnected to avoid damage. Damaged ends shall be reconditioned and the pipes cleaned fit for re-use. Recovered pipes shall remain the property of the Council and shall be stacked adjacent to the trench for removal by the Council.

PPL9 BUILDING IN PIPEWORK

Where pipework is to pass through or be set into concrete work, any external coating on the portion of pipe within the concrete work shall be removed, and the surface thoroughly cleaned.

The pipework shall be set into exact position in the shutters before the concrete is placed and the concrete thoroughly compacted and worked around the pipework. Alternatively, at the discretion of the Engineer and at no extra cost unless specifically provided for in the Bill of Quantities, holes may be left in the concrete into which the pipework shall be set, whereupon the space around the pipework shall be caulked with mortar having just sufficient water to ensure cohesion and water tightness and thereafter the caulking shall be properly cured. Pipework for final alignment may only be built into concrete by the alternative method.

PPL10 THRUST, ANCHOR AND SUPPORT BLOCKS

Except where plain ends are to be joined by field welding, concrete thrust blocks to the shape and where valves and/or fittings or assemblies have to be inserted into an existing main the following procedure shall be followed:

Fibre cement mains shall be exposed between the couplings on either side of the proposed alteration and the length of pipe determined. A replacement length incorporating the alteration shall be pre-assembled to the required length, allowing about 10mm clearance on either side. The terminal couplings shall then be removed, the existing main lifted and the replacement length laid, using short collar cast iron flexible couplings, or fitting approved by the Engineer.

PPL11 TESTING, DISINFECTING AND SCOURING

This clause must be read in conjunction with clause 5.10 of SABS 1200L. Before trenches are filled in over joints, all pipelines are to be hydraulically tested by the Contractor to a pressure fixed by the Engineer, but not exceeding 75% of the pipe test pressure at the factory. All such tests are to be carried out in the presence of the Engineer at such times and in such sections as the Engineer may direct. The Engineer shall be given not less than three days' notice of readiness to test.

The Contractor shall provide the force pumps, pressure gauge, all necessary tools and fittings and the labour required for testing. He shall ensure that all valves in the section under the test are properly secured and closed and that no pipe or fitting will move.

The section to be tested shall be filled with water, care being taken that all air is expelled. The test pressure shall then be applied slowly by means of the force pump and shall be maintained by continuous pumping for at least 30 minutes or such longer period as may be necessary to permit thorough examination of all joints and fittings. There shall be no perceptible leak throughout the whole length under test and the amount of water pumped into the pipeline to maintain the test pressure shall not exceed one litre per hour per 10mm diameter of pipe per kilometre of length being tested. Any defect revealed by the test shall be made good and the section shall be re-tested until a satisfactory test is obtained.

Should the Engineer not be satisfied with the care taken by the Contractor in cleaning out the pipework before laying and excluding foreign material, the Contractor shall, after completion of testing, scour out the pipelines to remove foreign matter to the satisfaction of the Engineer. Thereafter disinfect the pipelines by filling them with heavily chlorinated water containing not less than 10 p.p.m. (parts per million by weight) of available chlorine, which shall be kept in the ice for 24 hours. The Contractor shall provide the necessary chlorine (Chlorine gas, chlorinated lime, calcium hypochlorite or other approved compound), all plant equipment and labour required to introduce the chlorine into the pipelines and do everything necessary for disinfecting the pipelines and refilling them with potable water. On completion of disinfecting the pipelines shall be scoured out, using at least twice the volume of water contained in the pipe work.

Only potable water obtained from an approved source shall be used for filling, testing, disinfecting and scouring the pipelines.

PPL12 WORK ON LIVE MAINS

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Scope of Work

The Council will provide guidance and assistance of a practical nature for the Contractor in matters related to the closing down and recharging of the existing water system when it is necessary for him to work on the system.

The Contractor shall give 24 hours written notice to the Engineer of his intention to operate on the live water system, stating fully the proposed plan for isolating, draining, cutting, connecting, recharging and opening up the mains.

The Contractor shall also provide each affected consumer with at least 24 hours written notice in advance of his intention to close the system down. The total period of shut down including drainage and recharging may not

exceed 4 hours. All such work must be carried out between the hours of 8 a.m. and 4 p.m. The extent and frequency of the shutdown must be to the satisfaction of the Engineer.

Included in the reasons for a shut-down as required by the Contractor will be the cutting out or installing of a valve or fitting, the cutting and plugging of a main, the installation of temporary mains or connections, and so on.

C3.6.2 Occupational Health and Safety Specifications by the Employer

OHS OCCUPATIONAL, HEALTH AND SAFETY

OHS1 GENERAL

OHS1.1. Tender Document

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

- **The Principal Contractor and Sub Contractors' particular attention is drawn to Section 1.2 of this specification whereby**

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

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

OHS1.2. Principal Contractor

The successful tenderer will on signing of the contract for: **SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS** be required to fulfil the function and duties of the Principal Contractor as set out in the Construction Regulations 2003 No. R. 1010 promulgated 18 July 2003.

OHS1.3. Start of Construction Phase

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

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

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

OHS1.4. Sub-Contractors, Suppliers & Designers

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

OHS1.5. Liaison

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

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preparation of the Health and Safety File.

OHS1.6. Advice

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

OHS1.7. Undertaking by Principal Contractor and Sub-Contractors appointed by the Principal Contractor

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

OHS2 INFORMATION REQUIREMENTS

The contractor must provide the following information.

OHS2.1. General

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

OHS2.2. Management

- Details of the personnel and management systems to be put in place to prepare, manage, implement, conduct and monitor the Health and Safety Plan for the project. Broadly speaking your:
- Organisation's internal structure that establishes SHE (Safety, Health and Environmental) ROLES, RESPONSIBILITIES, ACCOUNTABILITIES, and REPORTING RELATIONSHIPS,
- SHE (Safety, Health and Environmental) PLANS, POLICIES, PROCEDURES, DIRECTIVES and STANDARDS that provide instructions as to how activities and functions are to be carried out,
- SHE (Safety, Health and Environmental) CONTROLS, INSPECTIONS, REVIEWS, etc. built into construction operations to ensure that performance is consistent with SHE (Safety, Health and Environmental) objectives and requirements,
- SHE (Safety, Health and Environmental) COMMUNICATION MECHANISMS for collecting, handling and reporting information.
- In other words Management Systems that specifies WHO is going to do WHAT, WHERE, WHEN, Why and HOW.
- Details of relevant qualifications and experience held by the persons nominated above, including recent health and safety education and training undertaken.
- Procedures for determining the competence of contractors engaged on the project, whether employed by the contractor directly or by others, to fulfil their duties under the Construction Regulations 2003 (No. R. 1010 Promulgated 18 July 2003).

OHS2.3. Hazard Identification, Risk Assessment and control

- The Principal Contractor / Sub-Contractor shall detail and implement procedures that will identify hazards, assess risks and determine suitable control measures as they arise throughout term of the contract. These procedures shall both comply with and be implemented and managed in accordance with the specification.
- The Principal Contractor / Sub-Contractor shall detail and implement procedures that ensure

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control measures are evaluated for effectiveness and modified as necessary. The evaluation procedure shall detail the responsibilities, timelines and records that will be kept as part of the process.

- Where Risk is controlled through administrative control measures, the Principal Contractor / Sub-Contractor shall ensure that the administrative measures are:
 - a) Clearly documented and those personnel responsible for implementation and management are explicitly defined;
 - b) Understood by all relevant personnel through training and assessment;
 - c) Implemented as documented and promptly reviewed for effectiveness following initial implementation;
 - d) Amended and authorised as required;
 - e) Adequately supervised, managed and audited to ensure continuing compliance;
 - f) Available at all times wherever the measures are being implemented.
- Any piece of plant or equipment not complying with the specification shall cease operation until the Principal Contractor / Sub-Contractor can demonstrate to the satisfaction of the Client / Client's Agent that the piece of non-conforming plant or equipment conforms to these requirements.

OHS2.4.**Health and Safety Plan**

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

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

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

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- n) Can be modified as the work proceeds to take account of any information received from Contactors / Sub-Contractors, any experience gained during the course of the project or any changes necessary as a result of unforeseen circumstances or alterations to the design.

OHS2.5. Programme

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

OHS2.6. Cost

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

OHS3 GENERAL SITE SAFETY**OHS3.1. Safety training & education**

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

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

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

OHS3.1.1. Induction Training

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

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

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

OHS3.1.2. Induction training for specified work

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

The Principal Contractor / Sub-Contractor shall evaluate all persons undertaking the Site Induction Training through a written test to ensure that inductees have an understanding of the OHS (Occupational Health and Safety) requirements for the contract.

The written tests shall be signed and dated by the person undertaking the induction training to attest to their understanding and be retained by the Principal Contractor / Sub-Contractor as a record that the training has been completed.

OHS3.2. Recording & reporting of injuries

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

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

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

Where the Principal Contractor / Sub-Contractor has been:

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

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

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

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

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

OHS3.3. First Aid

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

The programme shall include:

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

All first-aid provisions shall comply with the OHS Act (Act 85 of 1993) OHS3.4. Fire protection and prevention

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

OHS3.5. Site Emergency Procedures

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

The plan shall include the following detail:

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

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

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

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

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

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Scope of Work

The Principal Contractor / Sub-Contractor shall conduct weekly inspections of escape routes, fire brigade access, fire fighting facilities and working areas to ensure that the requirements stipulated in the Fire Safety, Emergency, Evacuation and Rescue Plan are complied with. All inspection records shall be documented in registers and kept in the Health and Safety file for inspection at any time.

OHS3.6. Housekeeping

Suitable housekeeping must continuously be implemented on the construction site, including:

- proper storage of materials and equipment
- removal of scrap, waste and debris at appropriate intervals;

Loose materials shall not be placed or allowed to accumulate on the site so as to obstruct access and egress from workplaces and passageways.

OHS3.7. Stacking & Storage

- Adequate storage areas must be provided.
- Storage areas must be kept neat and under control.

OHS3.8. Illumination

Provide adequate artificial lighting when work is carried out after dark or inside buildings.

OHS3.9. Sanitation / Hygiene

Provision of site hygiene facilities:

- One sanitary facility for every 30 workers;
- Adequate washing facilities; and
- One shower facility for every 15 workers.

Drying sheds, huts, rooms or other accommodation for sheltering during bad weather, storing clothes and taking meals. Facilities should include tables and chairs, suitable means for boiling water and a supply of wholesome drinking water.

The contractor shall provide reasonable and suitable living accommodation for the workers at construction sites which are remote from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

OHS3.10. Personal Protective Equipment

The Principal Contractor / Sub-Contractor shall provide and maintain suitable PPE (Personal Protective Equipment) for all employees employed on the Site.

The Principal Contractor / Sub-Contractor shall ensure that such PPE comply with the requirements of the OHS Act (Occupational Health and Safety Act, Act 85 of 1993).

The Principal Contractor / Sub-Contractor shall also ensure that all equipment is properly used by his / her employees during the course of their work.

The Principal Contractor / Sub-Contractor shall record all issues of all equipment to his / her employees in documented registers and such registers shall be kept in the Health and Safety File onsite and made available for inspection at all times.

The Principal Contractor / Sub-Contractor shall provide the Client / Client's Agent with a colour code by which employees will be identified with regard to occupations, responsibilities, accountabilities, reporting relationships and access to different locations on site (e.g. hard hats, overalls)

PPE shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards.

All personal protective equipment shall be of safe design and construction for the work to be performed.

OHS3.11. Permit to work requirements

Institute a "hot work" permit system in respect of:

- metalwork flame cutting,
- site welding,

OHS3.12. Lock-out

Institute a "Lock-out" procedure in respect of controlling energy so as to prevent unexpected operation or activation of machinery or equipment. This procedure must include a written policy, specific procedures, rules and supervisory follow-up, covering the positive locking of switches and valves to ensure that alterations, maintenance, set-up and or other work can be performed safely.

OHS3.13. Monthly Health and Safety Audits

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Scope of Work

The Principal Contractor shall carry out monthly Health and Safety Audits on the measures contained within his / her Health and Safety Plan submitted to the Client / Client's Agent as well as Health and Safety Plans submitted by Sub-Contractors appointed by the Principal Contractor to demonstrate that the required level of health and safety are being achieved and maintained and compile a full report to the Client / Client's Agent on such audit.

The Client / Client's Agent will audit the Principal Contractor as well as his / her Sub-contractor's Health and Safety Plans from time to time and will advise the Principal Contractor of any matter with which he / she is not satisfied and the Principal Contractor shall take such steps as are necessary to satisfy the Client / Client's Agent.

The Client / Client's Agent will carry out such audits as he / she considers necessary but not less than monthly.

The Principal Contractor shall make available, specialist personnel as the Client / Client's Agent may consider necessary for the performance of such audits.

The Principal Contractor shall develop and maintain an Audit Schedule that details the audits planned to be undertaken by the Principal Contractor of the work under the contract, including sub-contractors, for the duration of the contract. The Audit Schedule shall form part of the Health and Safety Plan that needs to be submitted by the Principal Contractor.

Audit reports shall detail the scope of the audit, the audit questions and the audit findings.

The Client / Client's Agent shall be promptly provided with copies of all audit reports together with other documentation to show that all matters raised have been appropriately addressed.

Unless otherwise directed by the Client / Client's Agent the Principal Contractor / Sub-Contractor shall undertake its initial OHS Audit within 4 weeks of commencement of work. The Principal Contractor / Sub-Contractor shall undertake subsequent OHS Audits at a frequency not less than once every 3 months.

All Principal Contractor's OHS Audits shall include an assessment of Sub-Contractor compliance with the approved OHS Plan.

OHS3.14. Management Review

The Principal Contractor shall undertake an independent review of the Health and Safety Plan for the contract in accordance with the requirements of the OHS Act, relevant Regulations and in particular the Construction Regulations 2003.

A review shall be undertaken 3 months after commencement of the contract and every 6 months thereafter for the duration of the contract.

Following the completion of the review, the Principal Contractor shall submit a written report that details the suitability, adequacy and effectiveness of the OHS Plan and to certify that the Site procedures, practices and operations are in accordance with the contract.

OHS3.15. Provision of Information

- Provide Sub-Contractors appointed by him / her with the relevant sections of the Health and Safety specifications pertaining to the construction work which has to be performed.
- Where changes are brought to the design and construction, provide sufficient information and appropriate resources to the Sub-Contractor to execute the work safely.
- Discuss and negotiate with Sub-Contractors the contents of the Health and Safety Plan / Plans submitted by them and finally approve such plans for implementation.
- Ensure that copies of Health and Safety plans compiled by the Principal Contractor and his / her Sub-Contractors are available on request to an employee, DOL Inspector, contractor, Client / Client's Agent.
- The Principal Contractor / Sub-Contractor shall detail procedures that will ensure that personnel are suitably consulted and communicated with during the planning and application of work activities associated with the contract.

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- The Principal Contractor / Sub-Contractor shall detail the procedures for the identification, assessment and control of hazards associated with the day-to-day work activities. These procedures shall include requirements for consultation with personnel involved in the work activity.
- The Principal Contractor / Sub-Contractor shall have procedures for ensuring that OHS information is communicated to and from its personnel. The Principal Contractor / Sub-Contractor shall hold OHS meetings with all personnel or their representatives at the site on a weekly basis.
- Minutes shall be recorded for all OHS meetings and posted on OHS notice boards within 48 hours of the meeting.
- The Principal Contractor / Sub-Contractor shall maintain at the Site an OHS Notice Board located in a prominent position and accessible to all personnel, for the distribution of OHS information.
- The Principal Contractor / Sub-Contractor shall as a minimum, establish and implement procedures for reporting relevant and timely information with regard to OHS Performance and incidents.
- The Principal Contractor / Sub-Contractor shall establish, implement and maintain a controlled copy of all Contract OHS documentation on Site.
- Where the Principal Contractor / Sub-Contractor's Health and Safety Plan references other documentation including the contract, the Principal Contractor / Sub-Contractor shall ensure that section and clause numbers are clearly denoted in its Health and Safety Plan. All documentation referenced in the Health and Safety Plan shall be available on Site for the duration of the contract.
- Ensure that Health and Safety Files kept by Sub-Contractors appointed by the Principal Contractor is kept on site and made available to an inspector, Client / Client's Agent.
- Hand over a consolidated health and safety file to the Client / Client's Agent upon completion of construction work, including all drawings, designs, materials used and other similar information concerning the completed structure.
- In addition to the Health and Safety File compile a comprehensive and updated list of all contractors on site accountable to the Principal Contractor as well as the agreements between the parties and the type of work done by them.

OHS3.16. Stop the execution of Construction Work

Stop any construction / construction related work conducted by any person on the construction site, which is not in accordance with the Principal Contractor's health and safety plan and or the health and safety plans of Sub-Contractors which poses a threat to the health and or safety of persons.

OHS3.17. Handing over of Project Health and Safety file

- Hand over a consolidated health and safety file to the Client / Client's Agent upon completion of construction work, including all drawings, designs, materials used and other similar information concerning the completed structure.
- In addition to the Health and Safety File compile and hand over a comprehensive and updated list of all contractors on site accountable to the Principal Contractor as well as the agreements between the parties and the type of work done by them.

OHS3.18. Records and Records Management

- The control of records shall be in accordance with the Principal Contractor's / Sub-Contractor's approved Health and Safety Plan for the contract.
- Records shall be registered, ordered and retained on Site in the Health and Safety File for the duration of the contract.

OHS4 CHEMICAL HAZARDS

The following construction materials and substances to be used in the works have been identified as potentially posing special health and/or safety hazards during the project:

- OHS4.1. Substances
- OHS4.2. Material

• Cement

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Scope of Work

- Lime
- Mud rock
- Shale
- Clay
- Synthetic fibre filter fabric
- Geo-textile (synthetic polymer)
- Crushed aggregate
- Weathered dolerite gravel
- Fine slurry
- Crusher dust
- Paving blocks

Adhesives / solvents which may make personnel ill by breathing in vapours, irritation if in contact with skin and eyes and can be highly flammable.

Cement - can cause ill health by:

- a) Skin contact, cement burns and dermatitis.
- b) Eye contact, irritation and inflammation.
- c) Inhalation of dust, irritation to nose and throat and causes difficulty with breathing.

Oil based paint can cause illness by breathing in vapours.

Silicone sealant with fungicide can cause skin irritation.

Timber preservative / flame retardant which can cause irritation to the skin, eyes, nose and throat and harmful if ingested.

Paving slabs which may contain silica can, when cut, create dust which may affect the lungs. Chemical cleaners can cause ill health mainly by:

- a) Skin contact, acids and alkalis are highly corrosive and destructive to body tissue causing burns.
- b) Inhaling fumes or mist, concentrated solutions of acids and alkalis emit toxic and corrosive fumes.

All materials contained within aerosol containers which are pressurised. Contractors are required to take appropriate measures to manage the risks arising and to provide details of their proposed measures within their tenders and to incorporate adequate method statements within the Health and Safety Plan.

This is not a definitive list of all potential harmful products. Other materials and substances commonly used during construction may also present health or safety hazards, however, it is deemed that these should be familiar to the average competent Contractor as part of routine risk and OHS (Occupational Health, Safety and Hygiene) assessments and are therefore not included here.

Adopt all precautionary measures provided by manufacturers for storage, use and application of specified materials.

Data sheets for these, and any other materials that will be used for the works, are to be obtained by the contractor from the manufacturers.

OHS5**SAFETY HAZARDS****OHS5.1.****Tools****OHS5.1.1. Hand tools**

- Employers shall not issue or permit the use of unsafe hand tools.
- Wrenches, including adjustable, pipe, end, and socket wrenches shall not be used when jaws are sprung to the point that slippage occurs.
- Impact tools, such as drift pins, wedges, and chisels, shall be kept free of mushroomed heads.
- The wooden handles of tools shall be kept free of splinters or cracks and shall be kept tight in the tool.

OHS5.1.2. Portable electrical Tools

No person shall use a portable electric tool with an operating voltage which exceeds 50 to earth unless –

- it is connected to a source of electrical energy incorporating an earth leakage protection device which meets the requirements of section 36 of the OHS Act or,
- it is connected to a source of high frequency electrical energy derived from a generator which is used solely for supplying energy to such portable electric tool and which arrangement is approved by the chief inspector; or
- it is clearly marked that it is constructed with double or reinforced insulation.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

Scope of Work

Portable electric tools, together with its flexible cord and plug shall be maintained in a serviceable condition.

OHS6**EXCAVATIONS**

- The contractor shall ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing.
- The contractor shall evaluate the stability of the ground before excavation work begins.
- The Contractor shall take suitable and sufficient steps in order to prevent any person from being buried or trapped by a fall or dislodgement of material in an excavation;
- The contractor shall not permit any person to work in an excavation which has not been adequately shored or braced.
- Shoring and bracing may not be necessary where-
 - the sides of the excavation are sloped to at least the maximum angle of repose measured relative to the horizontal plane; or
 - such an excavation is in stable material;
 - Provided that-
 - permission being given in writing by the appointed competent person upon evaluation by him or her of the site conditions; and
 - where any uncertainty pertaining to the stability of the soil still exists, the decision from a professional engineer or a professional technologist competent in excavations shall be decisive and such a decision shall be noted in writing and signed by both the competent person and a professional engineer or technologist, as the case may be;
- Take steps to ensure that the shoring or bracing is designed and constructed in such a manner rendering it strong enough to support the sides of the excavation in question;
- Ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endangering the safety of, any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing;
- Cause convenient and safe means of access to be provided to every excavation in which persons are required to work and such access shall not be further than 6m from the point where any worker within the excavation is working;
- Cause every excavation, including all bracing and shoring, to be inspected-
 - i) daily, prior to each shift;
 - ii) after every blasting operation;
 - iii) after an unexpected fall of ground;
 - iv) after substantial damage to supports; and
 - v) after rain,

by a competent person in order to pronounce the safety of the excavation to ensure the safety of persons, and those results are to be recorded in a register kept on site and made available to an inspector, client, client's agent, contractor or employee upon request;

- Cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be-
 - adequately protected by a barrier or fence of at least one meter in height and as close to the excavation as is practicable; and
 - provided with warning illuminates or any other clearly visible boundary indicators at night or when visibility is poor
- Cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.

OHS7**FORMWORK & SUPPORT WORK**

The contractor shall ensure that-

- all formwork and support work operations are carried out under the supervision of a competent person who has been appointed in writing for that purpose;
- all formwork and support work structures, are adequately designed, erected, supported, braced and maintained so that they will be capable of supporting all anticipated vertical and lateral loads that may be applied to them and also that no loads are imposed onto the structure that the structure is not designed to withstand.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

- The designs of formwork and support work structures are done with close reference to the structural design drawings and where any uncertainty exists, the structural designer should be consulted.
- All drawing pertaining to the design of formwork or support work structures are kept on the site and are available on request by an inspector, contractor, client, client's agent or employee.
- All equipment used in the formwork or support work structure are carefully examined and checked for suitability by a competent person, before being used.
- All formwork and support work structures are inspected by a competent person immediately before, during and after the placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work structure has been removed and the results have been recorded in a register and made available on site.
- If, after erection, any formwork and support work structure is found to be damaged or weakened to such a degree that its integrity is affected, it shall be safely removed or reinforced immediately.
- Adequate precautionary measures are taken in order to-
 - Secure any deck panels against displacement, and
 - Prevent any person from slipping on support work or formwork due to the application of formwork or support work release agents.
- The health of any person is not affected through the use of solvents or oils or any other similar substances.
- Upon casting concrete, the support work or formwork structure should be left in place until the concrete has acquired sufficient strength to support safely, not only its own weight but also any imposed loads and not removed until authorisation has been given by a competent person.
- Provision is made for safe access by means of secure ladders or staircases for all work to be carried out above the foundation bearing level.
- All employees required to erect, ,move or dismantle formwork and support work structures are provided with adequate training and instruction to perform these operations safely
- The foundation conditions are suitable to withstand the weight caused by the formwork and support work structure and any imposed loads, such that the formwork and support work structure are stable.

OHS8**CONSTRUCTION VEHICLES**

The contractor shall ensure that all construction vehicles and mobile plants-

- are of an acceptable design and construction;
- are maintained in a good working order;
- are used in accordance with their design and the intention for which they were designed, having due regard to safety and health;
- are operated by workers who-
 - i) have received appropriate training and been certified competent and been authorised to operate such machinery; and
 - ii) are physically and psychologically fit to operate such construction vehicles and mobile plant by being in possession of a medical certificate of fitness;
- have safe and suitable means of access;
- are properly organised and controlled by providing adequate signalling or other control arrangements to guard against the dangers. relating to the movement of vehicles and plant, in order to ensure their continued safe operation;
- are prevented from falling into excavations, water or any other area lower than the working surface by installing adequate edge protection, which may include guardrails and crash barriers;
- where appropriate, are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn;
- are equipped with an electrically operated acoustic signalling device and a reversing alarm;
- are on a daily basis inspected prior to use, by a competent person who has been appointed in writing and the findings of such inspection is recorded in a register.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

The contractor shall furthermore ensure that-

- no person rides or be required or permitted to ride on any construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose;
- every construction site is organised in such a way that pedestrians and vehicles can move safely and without risks to health;
- the traffic routes are suitable for the persons using them, sufficient in number, in suitable positions and of sufficient size;
- every traffic route is, where necessary indicated by suitable signs.
- all construction vehicles and mobile plant left unattended at night, adjacent to a freeway in normal use or adjacent to construction areas where work is in progress, shall have appropriate lights or reflectors, or barricades equipped with appropriate lights or reflectors, in order to identify the location of the vehicles or plant;
- bulldozers, scrapers, loaders, and other similar mobile plant are, when being repaired or when not in use, fully lowered or blocked with controls in a neutral position, motors stopped and brakes set;
- whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation;
- tools and material are secured in order to prevent movement when transported in the same compartment with employees;
- vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried; and
- when workers are working on or adjacent to public roads, reflective indicators are provided and worn by the workers.

OHS9

ELECTRICAL INSTALLATIONS

- Before construction commences and during the progress thereof, adequate steps must be taken to ascertain the 'presence of and guard against danger to workers from any electrical cable or apparatus.
- All parts of electrical installations and machinery must be of adequate strength to withstand the working conditions on construction sites;
- In working areas where the exact location of underground electric power lines is unknown, employees using jackhammers, shovels or other hand tools which may make contact with a power line, must be provided with insulated protective gloves or otherwise that the handle of the tool being used is insulated;
- All temporary electrical installations must be inspected at least once a week and electrical machinery on a daily basis before use on a construction site by competent persons and the records of these inspections must be recorded in a register to be kept on site.
- The control of all temporary electrical installations on the construction site must be designated to a competent person who has been appointed in writing.

OHS10

USE & STORAGE OF FLAMMABLE LIQUIDS

- Where flammable liquids are being used, applied or stored it must be done in such a manner that would cause no fire or explosion hazard, and that the workplace is effectively ventilated:

Provided that where the workplace cannot effectively be ventilated-

- every employee involved is provided with a respirator, mask or breathing apparatus of a type approved by the chief inspector, and
- steps are taken to ensure that every such employee, while using or applying flammable liquid, uses the apparatus supplied to him or her;

- No person smokes in any place in which flammable liquid is used or stored, and the contractor shall affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking;
- Flammable liquids on a construction site is stored in a well-ventilated reasonably fire resistant container, cage or room and kept locked with proper access control measures in place;
- An adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs;
- Only the quantity of flammable liquid needed for work on one day is to be taken out of the store for use;

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

- All containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, to be removed from the construction site and safely disposed of;
- Where flammable liquids are decanted, the metal containers are bonded or earthed;
- No flammable material such as cotton waste, paper, cleaning rags or similar material is stored together with flammable liquids.

OHS11 DISPOSAL OF MATERIALS

See – Environmental Management Plan – Tender Document

OHS12 WELDING & CUTTING

No contractor shall require or permit welding or flame cutting operations to be undertaken, unless –

- the person operating the equipment has been fully instructed in the safe operation and use of such equipment and in the hazards which may arise from its use;
- effective protection is provided and used for the eyes and respiratory system and, where necessary, for the face, hands, feet, legs, body and clothing of persons performing such operations, as well as against heat, incandescent or flying particles or dangerous radiation;
- leads and electrode holders are effectively insulated; and
- the workplace is effectively partitioned off and where not practicable all other persons exposed to the hazards are warned and provided with suitable protective equipment.

No contractor shall require or permit electric welding to be undertaken in wet or damp places, insidemetal vessels or in contact with large masses of metal, unless –

- the insulation of the electrical leads is in a sound condition;
- the electrode holder is completely insulated to prevent accidental contact with current-carrying parts;
- the welder is completely insulated by means of boots, gloves or rubber mats; and
- at least one other person who has been properly instructed to assist the welder in case of an emergency is and remains in attendance during operations

No contractor shall require or permit welding, flame cutting, grinding, soldering or similar work to be undertaken in respect of any tube, tank, drum, vessel or similar object or container where such object or container –

- is completely closed, unless a rise in internal pressure cannot render it dangerous; or
- contains any substance which, under the action of heat, may –
 - i) ignite or explode; or
 - ii) react to form dangerous or poisonous substances,

Where hot work involving welding, cutting, brazing or soldering operations is carried out at places, other than workplaces which have been specifically designated and equipped for such work, the employer shall take steps to ensure that proper and adequate fire precautions are taken.

OHS13 BLASTING & USE OF EXPLOSIVES

OHS13.1. Safety distances

The contractor shall –

- apply the safety distances for the respective categories of explosives as stipulated in Annexure 1 of the Explosives regulations;
- where less than five kilograms of explosives is used, apply to the chief inspector of occupational health and safety for a determination of a safety distance which the employer shall enforce;

OHS13.2. Supervision of explosives

In order to ensure that the provisions of the Act and it's regulations in relation to explosives workplaces are complied with, the contractor shall in writing appoint a competent and certificated person in a full-time capacity to be explosives manager in respect of every workplace where explosives are being used, tested, stored or manufactured:

The contractor shall appoint one or more persons, who are suitably qualified and experienced, as authorised supervisors to assist the explosives manager.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

The contractor shall ensure that –

- the explosives manager
 - i) approves in writing the rules, methods, materials, equipment and tools to be used in the danger area;
 - ii) ensures that all persons under his or her control are informed of the hazards related to their tasks and are thoroughly trained in safe work procedures, in particular with respect to shock, friction risk of fire, or static electricity, and are familiar with the requirements of the Explosives regulations
 - iii) prescribes all protective clothing and equipment to be used in the danger area
 - iv) ensures that the processes and equipment specified in schedule licences are safe and appropriate for the manufacturing processes envisaged for the workplace.
- the supervising official
 - i) is at all times in a position to exercise control over the operations;
 - ii) reports without delay to the explosives manager any plant or equipment under his or her control that has or may have posed a risk;
 - iii) ensures that all rules implemented in the interest of health and safety are at all times complied with;
 - iv) stops all work involving explosives if he or she becomes aware of any risk posed to the health and safety of persons.

OHS13.3. Safe handling of explosives

The contractor shall ensure that –

- all explosives or ingredients thereof are at all times free of foreign material;
- all reasonable precautions are taken to prevent the spillage of explosives;
- cleaning procedures in the case of a spillage of explosives are prescribed in writing by the explosives manager: Provided that where no cleaning procedures have been prescribed any unusual spillage of explosives shall be reported immediately to the supervising official:
- all waste, paper, timber, rags, cotton and similar materials that have been in contact with explosives or an ingredient of an explosive are disposed of in a manner prescribed in writing by the explosives manager: Provided that at the end of the working day all waste and floor sweepings from danger areas shall be deposited in the designated places;
- the explosives or partly mixed explosives are conveyed as soon and as carefully as possible and taking such precautions and in such a manner as will effectively guard against any accidental ignition or explosion
- only containers provided for the conveyance of explosives are used for transporting explosives or partly mixed explosives and that such containers are at all times kept clean, free from grit and in a good state of repair:
- vehicles containing explosives are left unattended only in designated places

The contractor shall ensure that –

- all material, equipment, tools or similar articles used in a danger area are decontaminated after such use, and that no person makes use of any such article that has not been decontaminated after use in a contaminated area;
- the certification of the decontamination process is certified and approved by the explosives manager or a person authorized by the explosives manager.

Unless permission has been granted by the chief inspector of occupational health and safety, no contractor shall use –

- explosives in workplaces other than explosives workplaces approved by the chief inspector of occupational health and safety;
- any explosives for which no provision is made in Explosives regulations.

No contractor shall allow unauthorized access to such explosives or bury, dump, hide or abandon any explosives.

No contractor shall use any explosive material for blasting purposes unless –

- he or she is in possession of a written permission issued by or under the authority of the chief inspector of occupational health and safety;
- he or she is undergoing training while using such blasting material under the immediate and constant supervision of a person who is in possession of permission.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

OHS13.4. Dangerous areas

The contractor shall ensure that entry and exit from danger areas is only permitted

- at the permanent authorized point of entry or exit: Provided that entry or exit at any other point may be authorized by the explosives manager or a person authorized by him if the authorized gatekeeper has been informed thereof;
- for persons and vehicles authorized thereto by the explosives manager or a person authorized by him;
- to visitors under escort by an authorized person who is aware of the hazards attached to the danger area.

The contractor shall keep a register of the entries and exits and that register shall be available on the premises for inspection by an inspector.

No person shall –

- enter the danger area with –
 - i) tobacco;
 - ii) matches, cigarette lighters or other devices capable of generating heat or spark sources;
 - i) intoxicating liquor or narcotics;
 - ii) food, medicine or drinkable fluids: Provided that authorization to enter with such articles may be granted by the explosives manager for purposes of consumption in licensed mess rooms and smoking areas: Provided further that special rules for the control of such consumption and smoking, approved by the chief inspector of occupational health and safety shall be made in writing and shall be enforced by the employer, self-employed person or user; or

v) radio transmitters or cellular telephones.

The contractor shall ensure that hazard warning signs are clearly displayed at the entrance to any danger area.

OHS14 VESSELS UNDER PRESSURE**OHS14.1. Manufacturer's data plate**

Every user of a boiler or pressure vessel shall cause a manufacturer's plate with the following minimum particulars to be securely fixed in a conspicuous place to the shell of every such a boiler or pressure vessel:

- a) Name of manufacturer;
- b) country or origin;
- c) year of manufacture;
- d) manufacturer's serial number;
- e) name, number and date of the standard of design;
- f) design gauge pressure in Pascal's; (design pressure)
- g) maximum permissible operating pressure in Pascal's;
- h) operating temperature;
- i.) capacity in cubic meters; and
- j) mark of an approved inspection authority.

No person shall remove such a manufacturer's plate or wilfully damage or alter the particulars stamped thereon.

OHS14.2. Portable Gas Containers

No user shall use or require or permit a portable gas container to be used, and no user shall fill, place in service, handle, modify, repair, inspect or test any portable gas container, other than in compliance with standards incorporated into the Vessels under Pressure regulations.

OHS14.3. Hand held Fire extinguishers

No user shall use, require or permit the use of a hand held fire extinguisher unless designed, constructed, filled, recharged, reconditioned, modified, repaired, inspected or tested in accordance with a safety standard incorporated into the Vessels under Pressure regulations.

No person shall fill, recharge, recondition, modify, repair, inspect or test any hand held fire extinguisher unless a holder of a permit issued by the South African Bureau of Standards in terms of SANS 1475.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

OHS14.4. Gas Fuel use, equipment and systems

No person shall handle, store or distribute a gas fuel in any manner, including the filling of a container, other than in accordance with a health and safety standards.

OHS14.5. Inspection and test

Any user of a boiler or pressure vessel shall cause, where reasonably practicable, such a boiler or pressure vessel, including the appurtenances and automatic controls and indicators, to be subjected to an internal and external inspection, and a hydraulic pressure test to 1.25 times the maximum permissible safe operating pressure as the case may be –

- by an approved inspection authority before commissioning after installation, re-erection or repairs;
- by a person appointed in writing by the user and who is competent to do such inspections and tests by virtue of their training, knowledge and experience in the operation, maintenance, inspection and testing of a boiler or pressure vessel within 36 months from the date of the previous internal and external inspection and hydraulic pressure test: Provided that where a pressure vessel is not subjected to corrosion, the user may dispense with the internal inspection and hydraulic pressure test subject to the written approval of an approved inspection authority: Provided further that an inspector may require a specific boiler or pressure vessel to be inspected or tested more frequently or permit a specific boiler or pressure vessel to be inspected or tested less frequently:

OHS14.6. Recordkeeping

Any user of a vessel under pressure shall keep on his premises a record which shall be open for inspection by an inspector in which the results of inspections, tests, modifications and repairs shall be recorded, dated and signed by the competent person.

OHS14.7. Maintenance

No user shall use, cause or permit a vessel under pressure or gas fuel system, including all automatic controls, indicators and appurtenances, to be used unless it is at all times maintained in a safe working condition and the efficiency thereof is proved by regular testing.

No user shall use or cause or permit a vessel under pressure to be used unless it is kept clean and free from any:

- carbonised oil or other inflammable material which may ignite under working conditions;
- material which may cause corrosion; or
- material which is liable to chemical reaction which may cause an uncontrolled rise in pressure.

OHS15 PHYSICAL HAZARDS

OHS15.1. Ergonomics

- Ensure that assigned tasks do not exceed the limits of the performance capacities of the worker.
- Prevent injury or any detrimental effects to the health of the worker
- Provide that tasks and working conditions will not lead to impairments.

OHS15.2. Noise

No contractor shall require or permit an employee to work in an environment in which he is exposed to an equivalent noise level equal to 85 dB (A) or higher. The contractor shall reduce the equivalent noise level to below 85 dB (A) or, where this is not reasonably practicable, he shall reduce the level to as low as is reasonably practicable and take all reasonable steps to isolate the source of the noise acoustically. Where the equivalent noise level in any workplace cannot be reduced to below 85 dB

(A) the contractor shall –

- prohibit any person from entering a noise zone unless such person wears hearing protectors.

The contractor shall provide, free of charge, hearing protectors to each employee who works in or, to any person who is required or permitted to enter a noise zone, and no contractor shall require or permit any person to work in or enter such noise zone, and no person shall work in or enter such noise zone, unless he wears such hearing protectors in the correct manner: Provided that where the equivalent noise level to which employees are exposed, is such that the attenuation of the hearing protectors does not reduce the said noise to below 85 dB(A) the employer concerned shall limit the time during which employees work in that noise zone in such a way that they are not exposed to an equivalent noise level equal to 85 dB(A) or higher.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

The contractor shall properly instruct any person who is required to wear hearing protectors in the use of such protectors and inform him of noise zones where the wearing thereof is compulsory.

The contractor shall –

- ensure that every employee employed in a noise zone is subjected to audiometric examinations conducted in accordance with section 7 of SANS 083, by an audiometrist approved by the chief inspector;
- keep records of the results of each audiometric examination and make such records available for inspection by an inspector if he so requires; and
- keep such records for a minimum period of 30 years after termination of employment: Provided that if the employer ceases activities all such records shall be forwarded to the regional director.

OHS15.3. Vibration

Whole-body vibration occurs when the body is supported on a surface which is vibrating (e.g., when sitting on a seat which vibrates, standing on a vibrating floor or recumbent on a vibrating surface). Whole-body vibration occurs in all forms of transport and when working near some industrial machinery.

Hand-transmitted vibration is the vibration that enters the body through the hands. It is caused by various processes where vibrating tools or work pieces are grasped or pushed by the hands or fingers. Exposure to hand-transmitted vibration can lead to the development of several disorders.

OHS16 SITE WIDE ELEMENTS

OHS16.1. Site Access and Egress

- Access to the site will involve crossing the public footpath.
- Store materials and plant away from means of access for the general public and occupants.
- Remove rubbish and demolition materials regularly. Do not allow to accumulate on flat roofs.
- Maintain free access through designated means of escape at all times
- Agree with the Client / Client's Agent delivery points for materials before commencing works.

OHS16.2. Visitors to the site

- All visitors to report to the Principal Contractor's reception area for OHS Induction training.
- All visitors to sign the visitor's registration document.
- All visitors to be provided with a Visitors Permit to enable them to access the construction site.
- All un-inducted visitors must be accompanied on the construction site by an inducted person.
- No visitors shall be allowed to access the construction site without wearing the necessary PPE.

OHS16.3. Deliveries

Access will involve crossing the public footpath.

OHS16.4. Emergencies

Ensure that there are adequate escape routes and that they are kept clear at all times.

OHS16.5. Location of Temporary Site Accommodation

See Site Lay-out Plan.

OHS16.6. Location of Materials unloading and storage

Materials are to be unloaded and stored in locations which will not in any way affect access or egress to the site nor the works.

OHS16.7. Traffic and Pedestrian Routes

The road, public footpaths and access way are to be kept open at all times. All necessary signage and barriers are to be put in place to protect pedestrians at the site entrance and access and egress points.

OHS16.8. Environment

See Environmental Management Plan

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

OHS16.9. Safety

- Ensure that all employees are aware of the Health and Safety policy and put into place arrangements to ensure that all visitors and workers new to the site are aware of the site safety provisions.
- Locate underground electricity cables, mark and take precautions to avoid.
- Ensure that cartridge operated tools are operated by trained personnel and in accordance with the maker's instructions that the gun is cleaned regularly and kept in a secure place when not in use.
- Protect people who may be exposed to health risks arising from hazardous substances.

OHS17 CONTINUING LIAISON

The procedures for consideration and evaluation of the health and safety implications of Contractor designed elements of the works must follow the recognized principles of prevention and protection and take account of the issues highlighted in this OHS Specification.

The following information is to be submitted by the Contractor to the Client / Client's Agent in sufficient time to allow adequate consideration by the Client / Client's Agent and, where appropriate, the design team, and the provision of relevant information to those persons affected by the works, prior to the commencement of the relevant works:

- Suitable and sufficient information to demonstrate that health or safety issues have been adequately considered.
- Risk assessments.
- A list of health and/or safety hazards identified which cannot be designed out.
- A list of any materials or substances which are specified or inherent in the design which is potentially hazardous to health and/or safety.

OHS17.1. Unforeseen Eventualities

The following action is to be taken in the event of unforeseen eventualities arising during the construction stage of the project which require significant design changes, or affect the resources required to carry out the work without risk to health and/or safety, or have other health or safety implications.

The Client / Client's Agent and, where possible, the Principal Contractor are to be advised as soon as possible.

Full details of the relevant health and safety issues involved are to be reviewed with the Client / Client's Agent and Principal Contractor as soon as possible.

Full details of any revised designs, risk assessments and identified hazards and/or hazardous materials and substances are to be issued to the Client / Client's Agent and Principal Contractor in sufficient time to allow for the revision of the Health and Safety Plan and notification of all persons affected by the health and/or safety implications of the changes prior to the commencement of the affected works.

OHS17.2. Site Liaison

Liaise with all other contractors and implement any agreed changes to the Health and Safety Plan arising from such liaison. Set up regular training for all operatives including induction training for all staff upon arrival to site.

OHS17.3. Health and Safety File

Provide the Planning Supervisor with any relevant information which the contractor believes should be incorporated into the Health and Safety File.

OHS17.4. Design Development

Provide the Client / Client's Agent with all design information prepared by sub-Contractors.

Arrange liaison meetings with sub-contractors to discuss and review health and safety issues arising from the sub-contractors' designs.

OHS18 CONCLUSION

The hazards listed above were identified as posing potential threats to the health and or safety of persons that will work on the contract. Although every effort was made to ensure that every possible hazard was identified OHSEC cannot guarantee this. Therefore it is imperative for the contractor to conduct a comprehensive risk identification and hazard assessment in order to make certain that all hazards are identified.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

C3.6.3 Construction Environmental Management Plan**PEM ENVIRONMENTAL MANAGEMENT PLAN****PEM.1 PURPOSE**

The purpose of the EMP is to encourage good management practices through planning and commitment with respect to environmental issues, and to provide rational and practical environmental guidelines to minimize disturbance of the natural environment.

PEM.2 RESPONSIBILITIES FOR ENVIRONMENTAL MANAGEMENT

The contractor will be responsible for environmental control on site during construction and the maintenance period. The construction activities will be monitored by an independent environmental specialist and audited against the EMP.

PEM.3 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.).

PEM.4 COMPLAINTS REGISTER AND ENVIRONMENTAL INCIDENT BOOK

Any complaints received by the project team from the community will be recorded. The complaint will be brought to the attention of the site manager.

All complaints received will be investigated and a response given to the complainant within 28 days. All environmental incidents occurring on the site will also be recorded.

PEM.5 ENVIRONMENTAL SAFETY

The management of impacts associated with various categories of concern is discussed as separate topics, indicated below.

PEM.5.1 SOIL

- (a) Topsoil should be temporarily stockpiled, separately from (clay) subsoil and rocky material, when areas are cleared. If mixed with clay sub-soil the usefulness of the topsoil for rehabilitation of the site will be lost.
- (b) Stockpiled topsoil should not be compacted and should be replaced as the final soil layer. No vehicles are allowed access onto the stockpiles after they have been placed.
- (c) Stockpiled soil should be protected by erosion-control berms if exposed for a period of greater than 14 days during the wet season. The need for such measures will be indicated in the site-specific report.
- (d) Topsoil stripped from different sites must be stockpiled separately and clearly identified as such. Topsoil obtained from sites with different soil types must not be mixed.
- (e) Topsoil stockpiles must not be contaminated with oil, diesel, petrol, waste or any other foreign matter, which may inhibit the later growth of vegetation and microorganisms in the soil.
- (f) Soil must not be stockpiled on drainage lines or near watercourses without prior consent from the Project Manager.
- (g) Soil should be exposed for the minimum time possible once cleared of invasive vegetation, that is the timing of clearing and grubbing should be coordinated as much as possible to avoid prolonged exposure of soils to wind and water erosion. Stockpiled topsoil must be either vegetated with indigenous grasses or covered with a suitable fabric to prevent erosion and invasion by weeds.
- (h) Limited vehicular access is allowed across rocky outcrops and ridges.
- (i) All cut and fill surfaces need to be stabilized with appropriate material or measures when major civil works are complete.
- (j) Erosion and donga crossings must be dealt with as river crossings. Appropriate soil erosion and control procedures must be applied to all embankments that are disturbed and de-stabilized.
- (k) All equipment must be inspected regularly for oil or fuel leaks before it is operated. Leakages must be repaired on mobile equipment or containment trays placed underneath immobile equipment until such leakage has been repaired.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

- (l) Soil contaminated with oil must be appropriately treated and disposed of at a permitted landfill site or the soil can be regenerated using bio-remediation methods.
- (m) Runoff must be reduced by channelling water into existing surface drainage system.

PEM.5.2 WATER

- (a) Adequate sedimentation control measures must be instituted at any river crossings when excavations or disturbance of a riverbanks or riverbeds takes place.
- (b) Adequate sedimentation control measures must be implemented where excavations or disturbance of drainage lines of a wetland may take place.
- (c) All fuel, chemical, oil, etc. spills must be confined to areas where the drainage of water can be controlled. Use appropriate structures and methods to confine spillages such as the construction of berms and pans, or through the application of surface treatments that neutralize the toxic effects prior to the entry into a watercourse.
- (d) Oil absorbent fibres must be used to contain oil spilt in water.
- (e) During construction through a wetland, the majority of the flow of the wetland should be allowed to pass downstream.
- (f) Vehicular traffic across wetland areas must be avoided.
- (g) No dumping of foreign material in streams, rivers and/or wetland areas is allowed.
- (h) The wetland area and/or river must not be drained, filled or altered in any way including alteration of a bed and/or, banks, without prior consent from the DWS. The necessary licenses must be obtained in terms of Section 21 and 22 of the National Water Act, 36 of 1998 from DWS.
- (i) No fires or open flames are allowed in the vicinity of the wetland, especially during the dry season.
- (j) No swimming, washing (including vehicles and equipment), fishing or related activity is permitted in a wetland or river without written permission from the Project Manager.
- (k) Disturbances to nesting, breeding and roaming sites of animals in or adjacent to wetland areas must be minimized.

PEM.5.3 AIR

- (a) Speed limits must be implemented in all areas, including public roads and private property to limit the level of dust pollution.
- (b) Dust must be suppressed on access roads and construction sites during dry periods by the regular application of water or a biodegradable soil stabilisation agent. Water used for this purpose must be used in quantities that must not result in the generation of run-off.
- (c) The site-specific investigation will quantify the impact of dust on nearby wetlands, rivers and dams in terms of sedimentation. Mitigation measures identified during the site specific study must be implemented.
- (d) The Contractor must notify the Principal of all schools within 50m of the site of proposed activities. The Principal must in turn ensure that children with allergies and respiratory ailments take the necessary precautionary measures during the construction period. The Contractor must ensure that construction activities do not disturb school activities e.g. dust clouds may reduce visibility affecting sports activities.
- (e) Waste must be disposed of, as soon as possible at a municipal transfer station, skip or on a permitted landfill site. Waste must not be allowed to stand on site to decay, resulting in malodours.
- (f) Noise control measures must be implemented. All noise levels must be controlled at the source. All employees must be given the necessary ear protection gear. IAP's must be informed of the excessive noise factors.
- (g) The Contractor must inform all adjacent landowners of any after-hour construction activities and any other activity that could cause a nuisance e.g. the application of chemicals to the work surface. Normal working hours must be clearly indicated to adjacent land owners.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

- (h) No loud music is allowed on site and in construction camps.
- (i) No fires are allowed if smoke from such fires will cause a nuisance to IAP's.

PEM.5.4 SOCIAL AND CULTURAL

- (a) Access by non-construction people onto any construction sites must be restricted. The Contractors activities and movement of staff must be restricted to designated construction areas only.
- (b) The Contractors crew must be easily identifiable due to clothing, identification cards or other methods.
- (c) Rapid migration of job seekers could lead to squatting and social conflict with resident communities and increase in social pathologies if not properly addressed. The Contractor must ensure that signs indicating

the availability of jobs are installed.

- (d) Criteria for selection and appointment (by the Contractor) of construction labour must be established to allow for preferential employment of local communities. The Local Authority must be actively involved in the process of appointing temporary labourers. The Municipality's Labour Register will be the ONLY means of labour sourcing.
- (e) Sub-Contractors and their employees must comply with all the requirements of this document and supporting documents e.g. the Contract document that applies to the Contractor. Absence of specific reference to the sub-contractor in any specification does not imply that the sub-contractor is not bound by this document.
- (f) No member of the construction workforce is allowed to wander around private property, except within the immediate surroundings of the site.
- (g) The Contractor must provide suitable sanitation facilities for site staff. Sanitation provided during the construction phase should be managed so that it does not cause environmental health problems. The use of the surrounding fields or grounds for toilet purposes is not permitted under any circumstance.
- (h) The Contractor must arrange for all his employees and those of his sub-contractors to be informed of the findings of the environmental report before the commencement of construction to ensure:
 - A basic understanding of the key environmental features of the work site and environments, and
 - Familiarity with the requirements of this document and the site-specific report.
- (i) Supervisory staff of the Contractor or his sub-contractors must not direct any person to undertake any activities which would place such person in contravention of the specifications of this document endanger his/her life or cause him/her to damage the environment.
- (j) The demand for construction materials and supplies will have an effect on the local economy. This impact can be optimized by sourcing and purchasing materials locally and regionally wherever possible, insofar as the material complies with the design specification.
- (k) The Contractor must maintain a detailed complaints register. This must be forwarded, together with solutions, to the authorities when requested.

PEM.5.5 AESTHETICS

- (a) Scenic Quality

Damage to the natural environment must be minimized.

Trees and tall woody shrubs must be protected from damage to provide a natural visual shield. Excavated material must not be placed on such plants and movement across them must not be allowed, as far as practical.

The clearing of all sites must be kept to a minimum and surrounding vegetation must, as far as possible, be left intact as a natural shield.

No painting or marking of natural features must be allowed.

- (b) All above ground structures could be treated or painted to blend in with the natural environment.
- (c) Cut and fill areas, river and stream crossings and other soil stabilisation works must be

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

constructed to blend in with the natural environment.

- (d) Natural outcrops, rocky ridges and other natural linear features, must not be bisected. Vegetation on such features must, as far as possible, not be cut unless absolutely necessary for construction.
- (e) Excavated material must be flattened (not compacted) or removed from site. No heaps of spoil material must be left on site once the Contractor has moved off site either temporarily or permanently.
- (f) Any complaints from interest groups regarding the appearance of the construction site must be recorded and addressed promptly by the Contractor.

PEM.5.6 ARCHAEOLOGY AND CULTURAL SITES

- (a) All finds of human remains must be reported to the nearest police station.
- (b) Human remains from the graves of victims of conflict, or any burial ground or part thereof which contain such graves and any other graves that are deemed to be of cultural significance may not be destroyed, damaged, altered, exhumed or removed from their original positions without a permit from the South African Heritage and Resource Agency (SAHRA).
- (c) Work in areas where artefacts are found must cease immediately.
- (d) Under no circumstances must the Contractor, his/her employees, his/her sub-contractors or his/her sub-contractors' employees remove, destroy or interfere with archaeological artefacts. Any person who causes intentional damage to archaeological or historical sites and/or artefacts could be penalized or

legally prosecuted in terms of the National Heritage Resources Act, 25 of 1999.

- (e) A fence at least 2 m outside the extremities of the site must be erected to protect archaeological sites.
- (f) All known and identified archaeological and historical sites must be left untouched.
- (g) Work in the area can only be resumed once the site has been completely investigated. The Project Manager will inform the Contractor when work can resume.

PEM.5.7 FLORA

- (a) All suitable and rare flora and seeds must be rescued and removed from the site. They must be suitably stored, for future use in rehabilitation.
- (b) The felling and/or cutting of trees and clearing of bush must be minimized.
- (c) Bush must only be cleared to provide essential access for construction purposes.
- (d) The spread of alien vegetation must be minimized.
- (e) Any incident of unauthorized removal of plant material, as well as accidental damage to priority plants, must be documented by the Contractor.
- (f) Woody vegetative matter stripped during construction must either be spread randomly throughout the surrounding fields so as to provide biomass for other microorganisms and habitats for small mammals and birds, or it may be stockpiled for later redistribution over the reinstated top soiled surface. No vegetative matter must be burnt or removed for firewood other than those removed during the grubbing and clearing phase. Such vegetation can be made available to the local inhabitants to be used as firewood.
- (g) No tree outside the footprint of the Works area must be damaged.

PEM.5.8 FAUNA

- (a) No species of animal may be poached, snared, hunted, captured or wilfully damaged or destroyed.
- (b) Snakes and other reptiles that may be encountered on the construction site must not be killed unless the animal endangers the life of an employee.
- (c) Anthills and/or termite nests that occur must not be disturbed unless it is unavoidable for construction purposes.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

Scope of Work

- (d) Disturbances to nesting sites of birds must be minimized.
- (e) The Contractor must ensure that the work site is kept clean and free from rubbish, which could attract pests.

PEM.5.9

INFRASTRUCTURE

- (a) The relevant authorities must be notified of any interruptions of services, especially the District Municipality, Local Municipality, National Road Agency, Spoornet, TELKOM and ESKOM. In addition, care must be taken to avoid damaging major and minor pipelines and other services.
- (b) The integrity of property fences must be maintained.
- (c) No telephone lines must be dropped during the construction operations, except where prior agreement by relevant parties is obtained. All crossings must be protected, raised or relocated as necessary.
- (d) All complaints and/or problems related to impacts on man-made facilities and activities must be promptly addressed by the Contractor and documented.
- (e) Storage Facilities
 - Proper storage facilities should be provided for the storage of oils, grease, fuels, chemicals and hazardous materials.
 - The Contractor must ensure that accidental spillage does not pollute soil and water resources.
 - Fuel stock reconciliation must be done on all underground tanks to ensure no loss of oil, which could pollute groundwater resources.
 - Cement must be stored and mixed on an impermeable substratum.
- (f) Traffic Control

All reasonable precautions must be taken during construction to avoid severely interrupting the traffic flow on existing roads, especially during peak periods.

Before any work can start the Local Traffic Department must be consulted about measures to be taken regarding pedestrian and vehicular traffic control.

Volume	1	2				
Part	T1	T2	C1	C2	C3	C4

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

C4 SITE INFORMATION

C4.1. GENERAL

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

C4.2. SITE LOCATION

The sites are situated throughout Midvaal's area of jurisdiction. The extent of works required for each project site shall be issued to the Contractor by means of work orders or instructions.

C4.3. ACCESS TO SITE AND RESTRICTIONS

Although the works are located on sites within the Employer's property and/or reserve, the Contractor shall have to obtain permission from various authorities in order to completed excavations to execute the works required as part of this Contract. Any other permission as may become necessary shall be the responsibility of the Contractor to obtain.

Having been granted access to works areas by the Employer, other service authorities and private owners, the Contractor shall adhere to any agreed conditions of access and ensure the works area is left in a condition similar to when it was first accessed.



VOLUME 2

DRAWINGS

Volume	1	2
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DRAWINGS

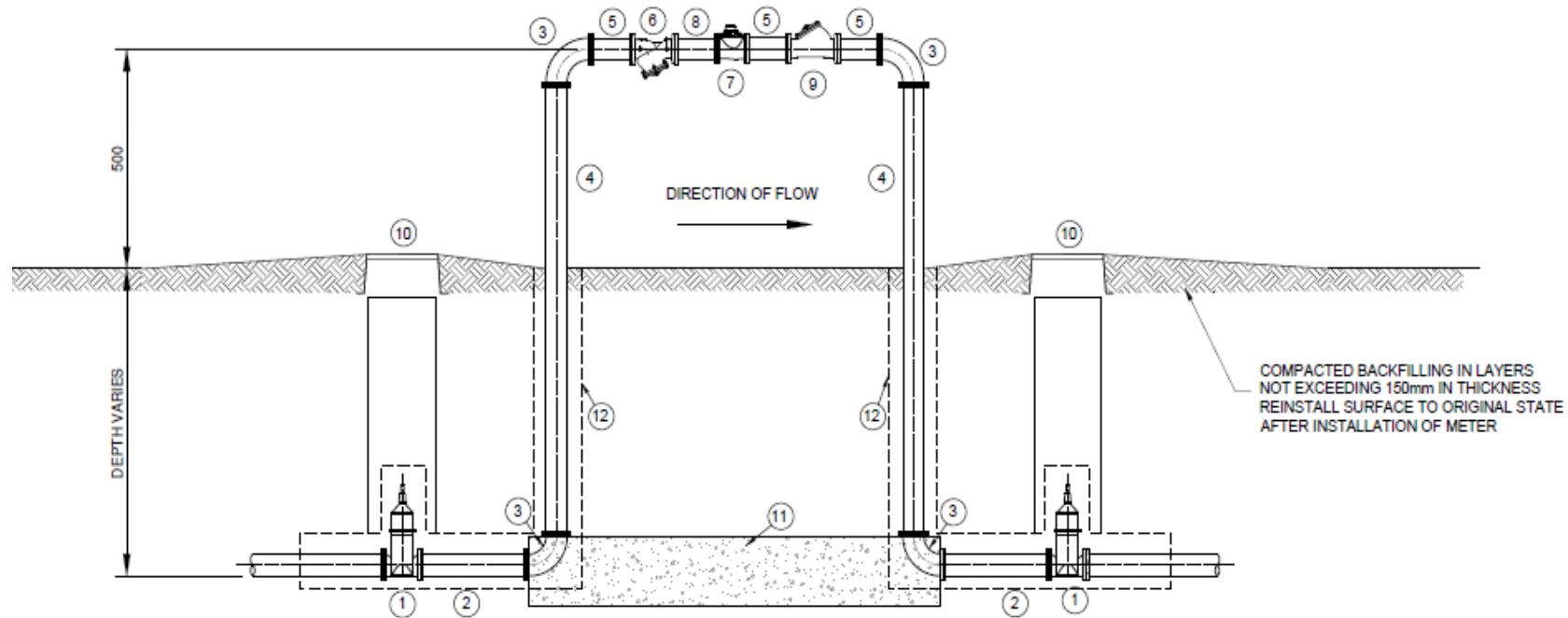
Description

Bulk Water Meter Assembly (40 mm – 150 mm DIA)

TYPICAL DETAIL FOR METER INSTALLATIONS FOR MIDVAAL LOCAL MUNICIPALITY

PIPE SCHEDULE AND FITTINGS - 40mm-150mm DIA WATER METER INSTALLATION

ITEM	DIA	No. OFF	DESCRIPTION
1	40-150	2	RSV WATERWORKS GATE VALVE, PN16 (AVK OR EQUAL APPROVED BY ENGINEER), ANTI-CLOCKWISE CLOSING WITH CAP TOP, BOTH ENDS FLANGED TO SABS 1123 TABLE 16
2	40-150	2	GALVANISED STEEL FLANGED DISTANCE PIECE
3	40-150	4	SHORT RADIUS 90 DEGREE BEND
4	40-150	2	GALVANISED STEEL FLANGED DISTANCE PIECE
5	40-150	3	GALVANISED STEEL FLANGED DISTANCE PIECE
6	40-150	1	Y-STRAINER, CAST IRON OR FABRICATED STEEL BODY, STRAINER BASKET TO BE PREFORATED STEEL PLATE WITH 5Ø HOLE SIZE, BOTH ENDS FLANGED TO SABS 1123 TABLE 16
7	40-150	1	SENSUS MEISTREAM WATER METER (OR SIMILAR APPROVED BY ENGINEER), PN16. BOTH ENDS FLANGED TO SABS 1123 TABLE 16. METER TO INCLUDE LOCKABLE FACE PLATE PROTECTOR WITH MASTER KEY.
8	40-150	1	3 X DIA. GALVANISED STEEL FLANGED DISTANCE PIECE
9	40-150	1	AVK SWING CHECK VALVE (OR EQUAL APPROVED) BOTH ENDS FLANGED TO SABS 1123 TABLE 16
10	40-150	2	VALVE BOXES WITH BLUE LID, WITH 160Ø uPVC PIPE OVER VALVE
11	-	-	ANCHOR BLOCK
12	-	-	DENSOTAPE WRAPPING



WATER METER CONNECTION FOR PIPES 40mmØ - 150mmØ
NTS

SATISFACTORY LETTER -ANNEXURE A

TO: MIDVAAL LOCAL MUNICIPALITY

I, the undersigned being duly authorized to do so, hereby furnish a reference to Midvaal Local Municipality relative to bid **8/2/2/425** for the **SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS**

Name of bidder:

Description of service provided:

.....

Project value:

Duration / time when the above was provided:

(dd/mm/yyyy – dd/mm/yyyy)

Was their performance satisfactory?

Yes / No

If No, please furnish details:

.....

Was the product offered complying with the specifications?

Yes / No

If No, please furnish details:

.....

Will you recommend this supplier to anyone without reservations?

Yes / No

Rate this supplier out of a possible score of 05, with 05 being excellent and 1 being

unacceptable:

.....

Name of authorized person: **Signature:**

Telephone: **E-mail:**

Date:

Completed on behalf of (Name of Institution)

.....
NB: This document must be completed in full by the referee and it to be included in the bid submission. Failure to adhere to this requirement will result in the bidder not being allocated points.

OFFICIAL INSTITUTION STAMP

.....

SATISFACTORY LETTER -ANNEXURE B

TO: MIDVAAL LOCAL MUNICIPALITY

I, the undersigned being duly authorized to do so, hereby furnish a reference to Midvaal Local Municipality relative to bid **8/2/2/425** for the **SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS**

Name of bidder:

Description of service provided:

.....

Project value:

Duration / time when the above was provided:
(dd/mm/yyyy – dd/mm/yyyy)

Was their performance satisfactory? **Yes / No**

If No, please furnish details:

.....

Was the product offered complying with the specifications? **Yes / No**

If No, please furnish details:

.....

Will you recommend this supplier to anyone without reservations? **Yes / No**

Rate this supplier out of a possible score of 05, with 05 being excellent and 1 being

unacceptable:

Name of authorized person: **Signature:**

Telephone: **E-mail:**

Date:

Completed on behalf of (Name of Institution)

.....
NB: *This document must be completed in full and stamped by the referee and it to be included in the bid submission. Failure to adhere to this requirement will result in the bidder not being allocated points.*

**OFFICIAL INSTITUTION
STAMP**

SATISFACTORY LETTER -ANNEXURE C

TO: MIDVAAL LOCAL MUNICIPALITY

I, the undersigned being duly authorized to do so, hereby furnish a reference to Midvaal Local Municipality relative to bid **8/2/2/425** for the **SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS**

Name of bidder:

Description of service provided:

.....

Project value:

Duration / time when the above was provided:

(dd/mm/yyyy – dd/mm/yyyy)

Was their performance satisfactory?

Yes / No

If No, please furnish details:

.....

Was the product offered complying with the specifications?

Yes / No

If No, please furnish details:

.....

Will you recommend this supplier to anyone without reservations?

Yes / No

Rate this supplier out of a possible score of 05, with 05 being excellent and 1 being

unacceptable:

Name of authorized person: **Signature:**

Telephone: **E-mail:**

Date:

Completed on behalf of (Name of Institution)

.....
NB: This document must be completed in full and stamped by the referee and it to be included in the bid submission. Failure to adhere to this requirement will result in the bidder not being allocated points.

**OFFICIAL INSTITUTION
STAMP**

CERTIFICATE OF UNDERTAKING - ANNEXURE D

CERTIFICATE OF UNDERTAKING

I, the undersigned, in submitting the accompanying bid:

SUPPLY, INSTALLATION AND REPLACEMENT OF BULK AND DOMESTIC WATER METERS AND RELATED EQUIPMENTS (SPECIALS) FOR MIDVAAL LOCAL MUNICIPALITY ON AN AS AND WHEN REQUIRED BASIS FOR A PERIOD OF 36 MONTHS

in response to the invitation for the bid made by:

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

I certify, on behalf of:

_____ that:

(Name of Bidder)

1. I will ensure that all plant and equipment indicated in the table below (list not exhaustive) will be made available by myself (the bidder) upon award of contract for the entire duration of the contract for the purpose of executing the works. In the event of not owning the plant and / or equipment I will lease the required plant and equipment.

Description
LDV
Water Pump
Generator (7.5kw)
Compactor

2. It is my (the bidder) responsibility to ensure that all plant and equipment available will be in good working condition and will not be older than 15 years (2008).

3. All rates must include 15% VAT.

.....

Signature Date

.....

Position Name of Bidder
