



**DEPARTMENT**  
**TECHNICAL SERVICES**  
**DIRECTORATE**  
**EThekweni Water Services**  
**DIVISION**  
**Technical Customer Services**

**PROCUREMENT DOCUMENT : [Infrastructure \(GCC 2015\)](#)**

Documents can be obtained, free of charge, in electronic format, from the [National Treasury's eTenders website](#) or the [eThekweni Municipality website](#)

**Contract No:** **33292-5W**

**Contract Title:** [The Upgrade to Bulk, Domestic, Industrial and Commercial Meters in the Northern Regions](#)

**Estimated CIDB:** Grade: **8** Class: **CE**

**CLARIFICATION MEETING AND QUERIES**

**Clarification Meeting:** [Compulsory Clarification Meeting](#)

**Meeting Location:** [Boardroom 101,2nd floor, Old building 14 Scot Rd, Pinetown, Durban](#)

**Date, Time:** [4001 On \[23 February 2026\] at \[10:00\]](#)

**Queries can be addressed to:** Name: [Fisaphile Buthelezi](#)

**The Employer's Agent's:** Tel: [031-311-8493](#)

**Representative:** eMail: [Fisaphile.Buthelezi@durban.gov.za](mailto:Fisaphile.Buthelezi@durban.gov.za)

Bidders are requested to submit email queries related to the bid. All email queries are to be submitted by 2026-03-05 and Email questions and answers will be consolidated and posted on eTenders/Municipal website/SSS for the benefit of all Tenderers by 2026-03-12.

**TENDER SUBMISSION**

**Tender Submission:** The Tender Offer (hard copy) shall be delivered to:

**Delivery location:** [The Tender Box in the foyer of the Municipal Building,166 KE Masinga Road, Durban](#)

**Closing Date/ Time:** [20/03/2026](#) at [11h00](#)

**JDE Submission:** An **electronic submission** is also to be made via the eThekweni Municipality **JDE System (SSS Module)**

**JDE Queries**  
**Contact:**

Lindo Dlamini: Tel: [031-322-7133 / 031-322-7153](#)  
Email: [supplier.selfservice@durban.gov.za](mailto:supplier.selfservice@durban.gov.za)

**Tender Offers submitted via any means other than that stated in the Tender Data will be deemed invalid**

**Issued by:**

**ETHEKWINI MUNICIPALITY**

**Deputy Director: [Technical Customer Services](#)**

**Date of Issue:** [13/02/2026](#)

Version: 01/12/2025

**FOR OFFICIAL USE ONLY**

Tenderer Name:			VAT Registered: Yes No
	Price (excl)	VAT	Price (incl)
Submitted:	R	R	R
Corrected:	R	R	R

## INDEX to PROCUREMENT DOCUMENT

<b>TENDER PART</b>	<b>Part T1</b>	<b>TENDERING PROCEDURES</b>		<b>Page</b>
		<b>T1.1 Tender Notice and Invitation to Tender</b>		
		T1.1.1 Tender Notice and Invitation to Tender .....		<b>2</b>
		T1.1.2 Notes to Tenderers .....		<b>5</b>
		T1.1.3 Information Regarding the eThekweni JDE System .....		<b>3</b>
		<b>T1.2 Tender Data</b>		
	T1.2.1 Standard Conditions of Tender .....		<b>7</b>	
	T1.2.2 Tender Data ( <i>applicable to this tender</i> ) .....		<b>16</b>	
	T1.2.3 Additional Conditions of Tender .....		<b>31</b>	
	<b>Part T2</b>	<b>RETURNABLE DOCUMENTS</b>		<b>Page</b>
<b>T2.1 List of Returnable Documents .....</b>			<b>32</b>	
<b>T2.2 Returnable Schedules, Forms and Certificates .....</b>			<b>33</b>	
<b>CONTRACT PART</b>	<b>Part C1</b>	<b>AGREEMENT AND CONTRACT DATA</b>		<b>Page</b>
		<b>C1.1 Form of Offer and Acceptance</b>		
		C1.1.1 Offer .....		<b>56</b>
		C1.1.2 Acceptance .....		<b>57</b>
		C1.1.3 Schedule of Deviations .....		<b>Error!</b>
		<b>C1.2 Contract Data</b>		
		C1.2.1 Standard Conditions of Contract.....		<b>59</b>
	C1.2.2 Contract Data.....		<b>59</b>	
	C1.2.3 Additional Conditions of Contract .....		<b>65</b>	
	<b>Part C2</b>	<b>PRICING DATA</b>		<b>Page</b>
		<b>C2.1 Pricing Assumptions / Instructions.....</b>		<b>68</b>
		<b>C2.2 Bill of Quantities (separate page numbering system).....</b>		<b>72</b>
	<b>Part C3</b>	<b>SCOPE OF WORK</b>		<b>Page</b>
		<b>C3.1 Project Description and Scope of Contract.....</b>		<b>94</b>
		<b>C3.2 Project Specifications.....</b>		<b>109</b>
		<b>C3.3 Standard Specifications .....</b>		<b>122</b>
		<b>C3.4 Particular Specifications .....</b>		<b>124</b>
		<b>C3.5 Contract and Standard Drawings .....</b>		<b>134</b>
		<b>C3.6 Annexures .....</b>		<b>135</b>
	<b>Part C4</b>	<b>SITE INFORMATION</b>		<b>Page</b>
<b>C4.1 Locality Plan .....</b>			<b>142</b>	
<b>C4.2 Conditions on Site.....</b>			<b>Error!</b>	
<b>C4.3 Test Results .....</b>			<b>Error!</b>	

## PART T1: TENDERING PROCEDURES

### T1.1.1: TENDER NOTICE AND INVITATION TO TENDER

Tenders are hereby invited for the works to [The Upgrade to Bulk, Domestic, Industrial and Commercial Meters at eThekweni municipality Regions for the period of 36 months ]

Subject	Description	Tender Data
<b>Employer</b>	The Employer is the eThekweni Municipality as represented by: <b>Deputy Director: Technical Customer Services</b>	C.1.1.1
<b>Tender Documents</b>	Documentation is to be downloaded from the <b>National Treasury's eTenders website</b> or the <b>eThekweni Municipality Website</b> : <ul style="list-style-type: none"> <li>• <a href="https://www.etenders.gov.za/">https://www.etenders.gov.za/</a></li> <li>• <a href="https://www.durban.gov.za/pages/business/procurement">https://www.durban.gov.za/pages/business/procurement</a></li> </ul>	C.1.2
<b>CIDB Eligibility</b>	It is <u>estimated</u> that Tenderers should have a CIDB contractor grading designation of <b>8 CE</b> (or higher).	C.2.1.2
<b>Meeting Type</b>	<b>Compulsory Clarification Meeting</b>	C.2.7
<b>Meeting Details</b>	<b>Boardroom 101,2nd floor, Old building 14 Scot Rd, Pinetown, Durban 4001 On [23 February 2026] at [10:00]</b>	C.2.7
<b>Seek Clarification</b>	Queries relating to these documents are to be addressed to the Employer's Agent's Representative whose contact details are: <b>Name: Fisaphile Buthelezi</b> <b>Tel: 031-311-8493</b> <b>eMail: Fisaphile.Buthelezi@durban.gov.za</b> Bidders are requested to submit email queries related to the bid. All email queries are to be submitted by 2026-03-05 and Email questions and answers will be consolidated and posted on eTenders/Municipal website/SSS for the benefit of all Tenderers by 2026-03-12.	C.1.4
<b>Submitting a Tender Offer</b>	The Tender Offer (hard copy) shall be delivered to:  <b>The Tender Box in the foyer of the Municipal Building,166 KE Masinga Road, Durban</b>  An <b>electronic submission</b> , via the eThekweni Municipality <b>JDE System (SSS Module)</b> , is also to be made. Refer to Part T1.1.2 and Tender Data: C.2.13. Notwithstanding the <b>electronic submission</b> , a tender offer will only be deemed valid if the "hard copy" submission has been made.	C.2.13
<b>Closing Time</b>	The Tender Offer (hard copy) shall be delivered, and the electronic submission completed, both on or before <b>20/03/2026</b> , at or before <b>11h00</b> .	C.2.15
<b>Evaluation of Tender Offers</b>	<b>The 90/10 Price Preference Point System</b> , as specified in the <b>SCM Policy: Section 52: Preferential Procurement</b> will be applied in the evaluation of tenders. <b>Tender Data: C.3.11: Evaluation of Tender Offers</b> details the awarding of Preference Points, and other related evaluation requirements.	C.3.11

Requirements for sealing, addressing, delivery, opening, and assessment of tenders are stated in the Tender Data

#### CIDB B.U.I.L.D. Programme Standards

Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts	<b>Applicable</b>
Standard for Developing Skills through Infrastructure Contracts	<b>Applicable</b>

## **T1.1.2: NOTES TO TENDERERS**

**These “Notes to Tenderers” are intended to provide guidance regarding tendering obligations and requirements.**

**Compliance requirements are stated in the relevant parts of the Tender Data: T1.2.**

### **GENERAL**

- 1) The words BID, TENDER, QUOTATION, and REQUEST FOR QUOTATION (RFQ) are interchangeable throughout this procurement document.
- 2) **JDE-SSS Module** refers to the Supplier Self Service module on the eThekwini Municipality JDE System. Refer to Part T1.1.2.

### **eThekwini Supply Chain Management Policy (SCMP)**

The requirements as stated in the Employer’s SCM Policy include, but are not limited to, the following:

#### **1) Section 14(4): ETM Supplier Database**

The eThekwini Supply Chain Management Policy requires suppliers/ service providers/ contractors to be registered on the **eThekwini Municipality’s Supplier Portal**.

In the event of the Tenderer not being registered on the eThekwini Municipality’s Supplier Portal, the Tenderer must register on the internet at [www.durban.gov.za](http://www.durban.gov.za) by following these links:

- Business
  - Supply Chain Management (SCM)
    - Accredited Supplier and Contractor Database.

The following is to be noted:

- The information for registration as in the possession of the eThekwini Municipality will apply.
- It is the Tenderer’s responsibility to ensure that the details submitted to the Municipality are correct.
- Tenderers are to register prior to the submission of tenders.

#### **2) Section 20(1)(d)(i): Audited Financial Statements**

Audited Financial Statements are required to be submitted if the value of the tender offer exceeds R10 million (incl. VAT). See **Returnable Form: MBD 5** and **Returnable Form: Contracts awarded by Organs of State** in the past 5 years.

#### **3) Section 20(1)(d)(iii): Contracts Awarded during the past 5 Years**

Tenderers are to include with their submission a listing of any contracts awarded to the Tenderer during the past 5 years, including particulars of any material non-compliance or dispute concerning the execution of the contracts. Tenderers are referred to **Returnable Form: MBD 5**

#### **4) Section 13.1(b)(vii), 20(1)(d)(ii), 28.2(d), 29.6(a), 38.1(d), and 29.14: Municipal Rates and Taxes (Fees)**

Tenderers are to refer to **Returnable Form: Declaration of Municipal Fees** to certify that they have no undisputed commitments for municipal services towards any municipality. Prior to an award, a Tenderer’s municipal rates and taxes cannot be in arrears. Should a Tenderer be in arrears with respect to municipal services and has formalised an agreement with the respective municipality to offset the arrears, the agreement must be in place at time of tender closing.

**5) Section 21.2: Tender Validity**

Tenders are to remain valid for twelve (12) months after the expiry of the **original tender validity period** as stated in the **Tender Data**, unless the Municipality is notified, in writing, of anything to the contrary.

The eThekweni Municipality reserves the right to request confirmation from Tenderers of tender validity at any time during the twelve (12) month period.

**6) Section 28(2)(d), Section 28(2)(h) and Section use 29(12): Certifications and Registrations**

CIDB Registration and Status, B-BBEE Certificates, and Tax Compliance Status PINs must be valid at the time of tender closing, and before final award.

The Tenderer's Tax Compliance Status, CIDB Registration and Status (if required), and B-BBEE Level Status (if required), will be verified using the National Treasury Central Supplier Database (CSD). Tenderers are referred to **Returnable Form: Compulsory Enterprise Questionnaire**.

It is the Tenderer's responsibility to ensure that their data on the CSD is kept updated and correctly reflects the status of the tendering entity.

**7) Section 28(2)(f), and 52.5.13: Joint Ventures (JV)**

Each party of a JV must submit separate Tax Compliance Status PINs. Unless otherwise stated, the requirements for a single entity submission in terms of documentation requirements, will apply to each member of a JV making a submission.

As proof that a JV has been formalised, or that the parties to the JV agree to formalise the JV should they be successful in being recommended for the award of this tender, Tenderers are referred to **Returnable Form: Joint Venture Agreements**.

**8) Section 49.1.2: Complaints and Objections (Appeals)**

A non-refundable tariff, as per the approved Council tariffs, is payable by the Complainant to the Municipality. Proof of the payment of the Fee must be attached to the complaint.

**CIDB****Regulation 25(8)**

- 9) It should be noted that this contract, unless otherwise stated, is not part of a **Targeted Development Programme (TDP)**. The CIDB provisions in relation to a Contractor's **Potentially Emerging (PE) status** do not apply.

Tenderers are referred to **CIDB Inform Practice Note #32: "Application of the Potentially Emerging (PE) Status"**.

**B.U.I.L.D. Programme**

- 10) A programme to accelerate transformation in the construction industry, increase the capacity of the construction industry to deliver infrastructure and support the growth of emerging contractors, was launched on 14 March 2024 by the Deputy Minister of Public Works and Infrastructure and the Construction Industry Development Board.

Details of the B.U.I.L.D. Programme were published in a Government Gazette in 2020 (GG 43726) and B.U.I.L.D. has gradually been phased in at various levels of government and the private sector. The CIDB, a public entity with the mandate to promote improved performance in construction, oversees the programme and manages the B.U.I.L.D Fund.

The B.U.I.L.D programme determines that public sector entities which implement construction projects, that meet certain minimum requirements, must include developmental goals to the deliverables defined in the tenders. If applicable, Contractors are required to include these goals in the plans and pricing when they submit their tender bids.



## 5) **Tender documentation**

By accessing the **JDE System** (using <https://rfq.durban.gov.za/>) and viewing any available Tenders, prospective Service Providers will be able to download the relevant Tender documentation.

The Tender documentation consists of the **TENDER** and **CONTRACT Parts**, as described in the INDEX, and will include any drawings and other information (if applicable). Referred to, or included in the documentation, are the **Standard Conditions of Tender (and associated Tender Data)**, and the **Conditions of Contract (and associated Contract Data)** which will govern the tendering and contract processes respectively.

## 6) **Submission of tender offers**

Reference is to be made to the **Tender Data: C.2.13** that specifies compliance requirements.

Should the **Tender Offer** be required in “**hard copy**” format, the submission is to be delivered to the Delivery Location as stated in the **Tender Data**.

In addition to the above, **Tender Offers are also to be SUBMITTED ELECTRONICALLY** (uploaded) on the eThekweni Municipality JDE System (Supplier Self Service (JDE-SSS) Module). Notwithstanding the **electronic submission**, a tender offer will only be deemed valid if the “hard copy” submission has been made. The “hard copy” submission will be deemed to be the ruling version.

Bidders are responsible for resolving all access rights and submission queries on the JDE System before the tender closing date/ time, as stated in the **Tender Data: C.2.15**.

## 7) **Viewing the Tender opening schedule**

Users on the **JDE System** will be able to view the **Tender Opening Schedule** for each closed Tender. The tender opening schedule will also be made available on the eThekweni Municipal website at URL: <https://www.durban.gov.za/pages/business/publication-of-received-bids>



## PART T1: TENDERING PROCEDURES

### T1.2: TENDER DATA

#### T1.2.1 STANDARD CONDITIONS OF TENDER

The conditions of tender are the **Standard Conditions of Tender** as contained in **Annex C** of the CIDB Standard for Uniformity in Construction Procurement as published in Government Gazette No 42622, Board Notice 423 of 8 August 2019, as duplicated below.

The Standard Conditions of Tender make several references to the **Tender Data** for details that apply specifically to this tender. The **Tender Data** (T1.2.2) shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

### Annex C

## Standard Conditions of Tender

C.1	<b>General</b>	
C.1.1	<b>Actions</b>	
C.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 C.2 and C.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.	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.
C.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.	C.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.
		<b>C.1.2 Tender Documents</b>
		The documents issued by the employer for the purpose of a tender offer are listed in the <b>Tender Data</b> .
		<b>C.1.3 Interpretation</b>
		C.1.3.1 The <b>Tender Data</b> 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.
		C.1.3.2 These conditions of tender, the <b>Tender Data</b> and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.
	<p><i>Note:</i></p> <p>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.</p>	



<p>C.1.3.3 For the purposes of these conditions of tender, the following definitions apply:</p> <p>a) <b>conflict of interest</b> means any situation in which:</p> <p>i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;</p> <p>ii) an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or</p> <p>iii) incompatibility or contradictory interests exist between an employee and the tenderer who employs that employee.</p> <p>b) <b>comparative offer</b> means the price after the factors of a non-firm price and all unconditional <b>discounts</b> it can be utilised to have been taken into consideration;</p> <p>c) <b>corrupt practice</b> 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;</p> <p>d) <b>fraudulent practice</b> 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;</p>	<p>c) no acceptable tenders are received;</p> <p>d) there is a material irregularity in the tender process.</p>
<p><b>C.1.4 Communication and employer's agent</b></p> <p>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 <b>Tender Data</b>.</p>	<p>C.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the <i>original</i> tender invitation was advertised.</p>
<p><b>C.1.5 Cancellation and Re-Invitation of Tenders</b></p> <p>C.1.5.1 An employer may, prior to the award of the tender, cancel a tender if-</p> <p>a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;</p> <p>b) funds are no longer available to cover the total envisaged expenditure;</p>	<p>C.1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.</p> <p><b>C.1.6 Procurement procedures</b></p> <p><b>C.1.6.1 General</b></p> <p>Unless otherwise stated in the <b>Tender Data</b>, a contract will, subject to C.3.13, be concluded with the tenderer who in terms of C.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.</p> <p><b>C.1.6.2 Competitive negotiation procedure</b></p> <p>C.1.6.2.1 Where the <b>Tender Data</b> require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of C.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.</p> <p>C.1.6.2.2 All responsive tenderers or at least a minimum of not less than three responsive tenderers that are highest ranked in terms of the evaluation criteria stated in the <b>Tender Data</b> shall be invited to enter into competitive negotiations based on the principle of equal treatment, keeping confidential the proposed solutions and associated information.</p> <p>Notwithstanding the provisions of C.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.</p>

C.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to revise their 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.	submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.
C.1.6.2.4 The contract shall be awarded in accordance with the provisions of C.3.11 and C.3.13 after tenderers have been requested to submit their best and final offer.	<b>C.2.2 Cost of tendering</b>
<b>C.1.6.3 Proposal procedure using the two stage-system</b>	C.2.2.1 Accept that, unless otherwise stated in the <b>Tender Data</b> , 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.
<b>C.1.6.3.1 Option 1</b>	C.2.2.2 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.
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 <b>Tender Data</b> , 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.	<b>C.2.3 Check documents</b>
<b>C.1.6.3.2 Option 2</b>	Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.
C.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.	<b>C.2.4 Confidentiality and copyright of documents</b>
C.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 <b>Tender Data</b> , and award the contract in terms of these conditions of tender.	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.
<b>C.2 Tenderer's obligations</b>	<b>C.2.5 Reference documents</b>
<b>C.2.1 Eligibility</b>	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.
C.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the <b>Tender Data</b> and the tenderer, or any of his principals, is not under any restriction to do business with employer.	<b>C.2.6 Acknowledge addenda</b>
C.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	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 <b>Tender Data</b> , in order to take the addenda into account.
	<b>C.2.7 Clarification meeting</b>
	Attend, where required, a clarification meeting at which tenderers may familiarize themselves

<p>with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the <b>Tender Data</b>.</p>	<p><b>C.2.12 Alternative tender offers</b></p>
<p><b>C.2.8 Seek clarification</b></p> <p>Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in the <b>Tender Data</b>.</p>	<p>C.2.12.1 Unless otherwise stated in the <b>Tender Data</b>, 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.</p>
<p><b>C.2.9 Insurance</b></p> <p>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 <b>Contract Data</b>. The tenderer is advised to seek qualified advice regarding insurance.</p>	<p>C.2.12.2 Accept that an alternative tender offer must be based only on the criteria stated in the <b>Tender Data</b> or criteria otherwise acceptable to the employer.</p> <p>C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.</p>
<p><b>C.2.10 Pricing the tender offer</b></p>	<p><b>C.2.13 Submitting a tender offer</b></p>
<p>C.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 fourteen (14) days before the closing time stated in the <b>Tender Data</b>.</p>	<p>C.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 identified in the <b>Contract Data</b> and described in the scope of works, unless stated otherwise in the <b>Tender Data</b>.</p>
<p>C.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.</p>	<p>C.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.</p>
<p>C.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 <b>Contract Data</b>.</p>	<p>C.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the <b>Tender Data</b>, 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.</p>
<p>C.2.10.4 State the rates and prices in Rand unless instructed otherwise in the <b>Tender Data</b>. The conditions of contract identified in the <b>Contract Data</b> may provide for part payment in other currencies.</p>	<p>C.2.13.4 Sign the original and all copies of the tender offer where required in terms of the <b>Tender Data</b>. 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.</p>
<p><b>C.2.11 Alterations to documents</b></p> <p>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.</p>	<p>C.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</p>

<p>employer's address and identification details stated in the <b>Tender Data</b>, as well as the tenderer's name and contact address.</p>	<p>C.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the <b>Tender Data</b> after the closing time stated in the <b>Tender Data</b>.</p>
<p>C.2.13.6 Where a two-envelope system is required in terms of the <b>Tender Data</b>, place and seal the returnable documents listed in the <b>Tender Data</b> 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 <b>Tender Data</b>, as well as the tenderer's name and contact address.</p>	<p>C.2.16.2 If requested by the employer, consider extending the validity period stated in the <b>Tender Data</b> for an agreed additional period with or without any conditions attached to such extension.</p>
<p>C.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 <b>Tender Data</b>.</p>	<p>C.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. If the validity period stated in C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).</p>
<p>C.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.</p>	<p>C.2.16.4 Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with the requirements of C.2.13 with the packages clearly marked as "SUBSTITUTE".</p>
<p>C.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the <b>Tender Data</b>.</p>	<p><b>C.2.17 Clarification of tender offer after submission</b></p> <p>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.</p> <p><i>Note: Sub-clause C.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.</i></p>
<p><b>C.2.14 Information and data to be completed in all respects</b></p> <p>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.</p>	<p><b>C.2.18 Provide other material</b></p>
<p><b>C.2.15 Closing time</b></p>	<p>C.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.</p>
<p>C.2.15.1 Ensure that the employer receives the tender offer at the address specified in the <b>Tender Data</b> not later than the closing time stated in the <b>Tender Data</b>. Accept that proof of posting shall not be accepted as proof of delivery.</p>	<p>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</p>
<p>C.2.15.2 Accept that, if the employer extends the closing time stated in the <b>Tender Data</b> for any reason, the requirements of these conditions of tender apply equally to the extended deadline.</p>	
<p><b>C.2.16 Tender offer validity</b></p>	

<p>the employer's request, the employer may regard the tender offer as non-responsive.</p> <p>C.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.</p> <p><b>C.2.19 Inspections, tests and analysis</b></p> <p>Provide access during working hours to premises for inspections, tests and analysis as provided for in the <b>Tender Data</b>.</p> <p><b>C.2.20 Submit securities, bonds and policies</b></p> <p>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 <b>Contract Data</b>.</p> <p><b>C.2.21 Check final draft</b></p> <p>Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.</p> <p><b>C.2.22 Return of other tender documents</b></p> <p>If so instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the <b>Tender Data</b>.</p> <p><b>C.2.23 Certificates</b></p> <p>Include in the tender submission or provide the employer with any certificates as stated in the <b>Tender Data</b>.</p> <p><b>C.3 The employer's undertakings</b></p> <p><b>C.3.1 Respond to requests from the tenderer</b></p> <p>C.3.1.1 Unless otherwise stated in the <b>Tender Data</b>, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the <b>Tender Data</b> and notify all tenderers who collected tender documents.</p> <p>C.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:</p>	<p>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;</p> <p>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</p> <p>c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.</p> <p><b>C.3.2 Issue Addenda</b></p> <p>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 (3) working days before the tender closing time stated in the <b>Tender Data</b>. If, as a result a tenderer applies for an extension to the closing time stated in the <b>Tender Data</b>, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.</p> <p><b>C.3.3 Return late tender offers</b></p> <p>Return tender offers received after the closing time stated in the <b>Tender Data</b>, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.</p> <p><b>C.3.4 Opening of tender submissions</b></p> <p>C.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 <b>Tender Data</b>. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.</p> <p>C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the <b>Tender Data</b>, 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.</p> <p>C.3.4.3 Make available the record outlined in C.3.4.2 to all interested persons upon request.</p>
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<p><b>C.3.5 Two-envelope system</b></p> <p>C.3.5.1 Where stated in the <b>Tender Data</b> 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 <b>Tender Data</b> and announce the name of each tenderer whose technical proposal is opened.</p> <p>C.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 <b>Tender Data</b>, and announce the score obtained for the technical proposals and the total price and any points claimed on BBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.</p>	<p>C.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:</p> <ol style="list-style-type: none"> <li>detrimentally affect the scope, quality, or performance of the works, services or supply identified in the Scope of Work,</li> <li>significantly change the Employer's or the tenderer's risks and responsibilities under the contract, or</li> <li>affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified.</li> </ol> <p>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.</p>
<p><b>C.3.6 Non-disclosure</b></p> <p>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.</p>	<p><b>C.3.9 Arithmetical errors, omissions and discrepancies</b></p> <p>C.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.</p> <p>C.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:</p> <ol style="list-style-type: none"> <li>the gross misplacement of the decimal point in any unit rate;</li> <li>omissions made in completing the pricing schedule or bills of quantities; or</li> <li>arithmetic errors in: <ol style="list-style-type: none"> <li>line-item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or</li> <li>the summation of the prices.</li> </ol> </li> </ol>
<p><b>C.3.7 Grounds for rejection and disqualification</b></p> <p>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.</p>	
<p><b>C.3.8 Test for responsiveness</b></p> <p>C.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:</p> <ol style="list-style-type: none"> <li>complies with the requirements of these Conditions of Tender,</li> <li>has been properly and fully completed and signed, and</li> <li>is responsive to the other requirements of the tender documents.</li> </ol>	<p>C.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.</p> <p>C.3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:</p> <ol style="list-style-type: none"> <li>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</li> </ol>



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.

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

**C.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.

**C.3.11 Evaluation of tender offers**

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the **Tender Data** associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer’s obligations in submitting a tender and the employer’s undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:	
Requirement	Qualitative interpretation of goal
Fair	The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.
Equitable	Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.
Transparent	The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest.
Competitive	The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.
Cost effective	The processes, procedures and methods are standardized with sufficient flexibility to attain best value outcomes in respect of quality, timing and price, and least resources to effectively manage and control procurement processes.

**The activities associated with evaluating tender offers are as follows:**

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) Confirm the recommendation contained in the tender evaluation report .



**C.3.11.1 General**

The employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the **Tender Data**.

**C.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.

**C.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 No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her 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.

**C.3.14 Prepare contract documents**

C.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.

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

**C.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.

**C.3.16 Registration of the award**

An employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the cidb Register of Projects.

**C.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.

**C.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.

**T1.2.2 TENDER DATA**

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

**C.1: GENERAL****C.1.1 The employer:**

The Employer for this Contract is the **eThekwini Municipality** as represented by:  
**Deputy Director: Technical Customer Services**

**C.1.2 Tender documents:**

The Tender Documents issued by the Employer comprise:

- 1) The Procurement Document comprising of the PARTS as listed in the "INDEX" on page 1.
- 2) **Drawings** bound in Section C3.4: "Particular Specifications".

Electronically downloaded documentation is obtainable from the National Treasury's **eTenders Website** and/ or the **eThekwini Municipality Website** at URL:

- <https://www.etenders.gov.za/>
- <https://www.durban.gov.za/pages/business/procurement>

Tenderers are to regularly check both web sites for the downloadable documentation.

**C.1.4 Communication and employer's agent:**

The Employer's Agent is:

Name: Lindokuhle Mnguni  
Tel: 031-311-8056  
eMail: [Lindokuhle.Mnguni@durban.gov.za](mailto:Lindokuhle.Mnguni@durban.gov.za)

The Employer's Agent's Representative is:

Name: [Fisaphile Buthelezi](#)  
Tel: 031-311-8493  
eMail: [Fisaphile.Buthelezi@durban.gov.za](mailto:Fisaphile.Buthelezi@durban.gov.za)

The Tenderer's contact details, as indicated on **Returnable Document "Compulsory Enterprise Questionnaire"**, shall be deemed as the only valid contact details for the Tenderer for use in communications between the Employer's Agent and the Tenderer during tender evaluation.

**C.1.6 Procurement procedures:**

The following Sections of the **Standard Conditions of Tender** are not applicable to this tender:

- **C.1.6.2: Competitive negotiation procedure**, and
- **C.1.6.3: Proposal procedure using the two-stage system**.

**C.2: TENDERER'S OBLIGATIONS****C.2.1 Eligibility:**

Entities may only submit one (1) tender offer, either as a single tendering entity or as a partner of a joint venture. Should a tendering entity submit more than one (1) tender, **all** submissions by that tendering entity, including submissions where the entity is a partner of a joint venture, will be deemed not to be eligible.

### C.2.1.1 Eligibility: General

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

- (a) In the event of a Compulsory Clarification Meeting:
  - i) the Tenderer fails to attend the Compulsory Clarification Meeting, or
  - ii) the Tenderer fails to have **Returnable Document “Certificate of Attendance at Clarification Meeting / Site Inspection”** signed by the Employer’s Agent or their representative at the meeting.
- (b) At the time of tender closing, the Tenderer is not registered on the **National Treasury Central Supplier Database (CSD)** and the **eThekweni Municipality Supplier Portal**. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture. Tenderers are to reference **Returnable Document “Compulsory Enterprise Questionnaire”** (section 1.5) and **Returnable Document “CSD Registration Report”**.
- (c) In the case of Joint Venture (JV) submissions, two or more JV entities have common directors/ shareholders or common entities tendering for the same works.
- (d) The following documentation is not completed in full, signed, and returned with the tender submission. **Failure to comply will result in the tender offer being deemed non-responsive.**
  - T2.2.1: Compulsory Enterprise Questionnaire.
  - T2.2.5: MBD 4: Declaration of Interest.
  - T2.2.6: MBD 5: Declaration for Procurement Above R10 Million.
  - T2.2.8: MBD 8: Declaration of Bidder’s Past SCM Practices.
  - T2.2.9: MBD 9: Certificate of Independent Bid Determination.
  - T2.2.10: Declaration of Municipal Fees
- (e) The certificates listed in the **Tender Data: C.2.23: Certificates** are to be included with the tender submission. **Failure to comply will result in the tender offer being deemed non-responsive.**
  - T2.2.1: SARS Tax Compliance Status - PIN Issued (submitted with the Compulsory Enterprise Questionnaire).
  - T2.2.12: Central Supplier Database (CSD) Report.
  - T2.2.13: CIDB Registration and Status.

### C.2.1.2 Eligibility: CIDB

Tenderers are to reference the provisions of **Tender Data: C.2.23 “Certificates**, and **Returnable Document “Verification of CIDB Registration and Status”** with respect to CIDB registration.

Only those Tenderers who are registered (as “Active”) with the CIDB (at time of tender closing), in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations, for a **CE** class of construction work, are eligible to have their tenders evaluated.

Joint ventures are eligible to submit tenders provided that:

- (a) Every member of the joint venture is registered (as “Active”) with the CIDB (at time of tender closing),
- (b) The lead partner has a contractor grading designation in the **CE** class of construction work and has a grading designation of not lower than one level below the required grading designation, and
- (c) The combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations (2013) is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a **CE** class of construction

work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

### C.2.1.3 Eligibility: Tenderer's Experience

Only those Tenderers that can provide proof of verifiable experience, in works of a similar nature, within the past 10 years, will be eligible to have their tenders evaluated in terms of Clause C.3.11.

Tenderers are to complete and sign the submission forms for each experience submission, as included in **Returnable Form: "Eligibility: Experience of Tenderer"**.

**Failure to comply will invalidate the associated experience submission.**

- **Table 1:** The **Experience Requirement** is specified on this table.
- **Table 2:** The experience is to be **Similar in Nature** to that specified on this table. Tenderers are to note the exclusions (if any) stated on this table.
- **Table 3:** The **Documentation/ Information** that may be used for verification of the experience submission is specified on this table (which includes the Notes below the table).  
The non-submission of this **Documentation/ Information** may jeopardise the verification of the experience submission and render the submission invalid.
- Tenderers may submit experience gained as **Sub-Contractors or Main Contractors**.
- **Guidance** on the completion of the **Experience Submission Form** is provided on the first page of **Returnable Document "Eligibility: Experience of Tenderer"**.

Tenderers are to indicate the documentation/ information that has been included in the tender submission, in support of each experience submission, in the shaded column on Page **55**.

Should there be insufficient verified evidence for any specific submission that experience submission may be deemed invalid.

<b>Table 1: Experience Requirement</b>
A minimum of <b>4 contracts</b> , with works of a similar nature, within the past 10 years, <u>each</u> with a value of <b>50%</b> of the tender value submitted for this tender on the <b>Form of Offer (C1.1.1)</b> .

<b>Table 2: Works of a Similar Nature</b>	
<b>Provision of Water Meters and Ancillary Works</b>	
<ul style="list-style-type: none"> <li>• Projects of a similar nature that will be considered will be a combination of, the following types of projects primarily in water sector:               <ul style="list-style-type: none"> <li>○ Site investigation &amp; documentation</li> <li>○ Pipework and fittings linked to water meters installations</li> <li>○ Reinstatement and site restoration of pipework</li> <li>○ Traffic &amp; pedestrian Management during water pipework installation and meter replacement</li> <li>○ Health Safety &amp; Environment Compliance</li> <li>○ Material Management &amp; reporting regarding water meter replacement and pipework installation</li> <li>○ Earthworks &amp; Trenching regarding water mains installation</li> <li>○ Water meter installation &amp; consolidation</li> <li>○ Consumer liaison &amp; notifications linked to water meters replacement</li> <li>○ Quality Assurance &amp; Testing</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• Each project must consist of <u>at least Six</u> of the following elements:               <ul style="list-style-type: none"> <li>○ Locating existing infrastructure</li> <li>○ Pipe fabrication &amp; jointing, cutting &amp; connections linked to meter replacement</li> <li>○ Pressure testing</li> <li>○ Meter Installation &amp; chamber construction</li> <li>○ Redundant meter removal</li> <li>○ Community engagement</li> <li>○ Material handling</li> <li>○ Service proving</li> <li>○ dealing with underground services (watermains, sewers, electricity, communication infrastructure)</li> <li>○ Surface reinstatement</li> <li>○ Water meter replacements</li> <li>○ Retrofitting of water meters</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• Projects that will be <u>excluded</u> are:               <ul style="list-style-type: none"> <li>○ Construction of houses &amp; buildings</li> <li>○ Multi storey structural engineering</li> <li>○ Road construction projects</li> <li>○ Stormwater drainage construction</li> <li>○ Sewer Projects</li> </ul> </li> </ul>	

**NOTES** (for Table 2)

The following outlines the specific experience required for each key component of the scope, ensuring alignment with the contractor's responsibilities and the project's technical and operational demands.

**1. Site Investigation and Documentation**

- a. **Locating Existing Infrastructure:** Experience in identifying and verifying the location of water meters and reticulation pipes using client-provided records and physical inspections, particularly in areas with undocumented or aging infrastructure.

- b. **Service Proving:** Proven ability to prove underground services (e.g., watermains, sewers, electrical cables) through hand excavation, minimizing damage in dense urban environments.
- c. **Documentation:** Proficiency in producing detailed site investigation reports, including GPS coordinates for GIS integration, and capturing digital photographs to document pre- and post-installation conditions.

## 2. Earthworks and Trenching

- a. **Hand Excavation:** Extensive experience in hand excavation for trenches in various soil types (e.g., sandy loams, clayey soils, backfill) to depths of 0.6–1.2 m, ensuring compliance with SANS 1200 DB.
- b. **Shoring and Safety:** Demonstrated ability to implement shoring for excavations deeper than 1.0 m in loose soils, adhering to OHSA 1993 Construction Regulations.
- c. **Bedding and Backfilling:** Expertise in providing and compacting bedding materials (e.g., granular fill) and backfilling trenches to 90% Mod AASHTO density, preventing settlement.
- d. **Surface Preparation:** Experience in breaking and removing hard surfaces (e.g., concrete, asphalt, paving) using breakers or saws, and stockpiling reusable materials.

## 3. Pipework and Fittings

- a. **Pipe Fabrication and Jointing:** Proficiency in fabricating, laying, and jointing pipes of various materials (AC, PVC, HDPE, UPVC, steel, copper) in compliance with SANS 1200 PF and manufacturer specifications.
- b. **Cutting and Connections:** Experience in cutting into live pipelines, preparing pipe edges, and installing fittings (e.g., couplings, tees) to ensure water-tight connections.
- c. **Pressure Testing:** Demonstrated ability to conduct pressure and water tightness tests on pipework, as per SANS 1899, with a track record of achieving zero leaks or prompt rectification.

## 4. Water Meter Installation and Consolidation

- a. **Meter Installation:** Extensive experience in installing mechanical water meters (15mm to 250mm), positioning them above ground and outside property boundaries, adhering to municipal design standards (e.g., NRW branch standards).
- b. **Meter Consolidation:** Proven ability to consolidate multiple billing meters into single upstream meters, capping non-used lines, and rerouting downstream connections, particularly in commercial or institutional settings.
- c. **Chamber Construction:** Expertise in constructing or upgrading meter chambers using precast concrete or in-situ materials, as per standard drawings (e.g., 045483, 045484).
- d. **Redundant Infrastructure Removal:** Experience in removing or backfilling non-used meter chambers, returning reusable materials to stores, and compacting sites.

## 5. Reinstatement and Site Restoration

- a. **Surface Reinstatement:** Proficiency in reinstating excavated areas to match original surfaces (e.g., asphalt, concrete, block paving, grassed verges), complying with SANS 1200 S and achieving high aesthetic and functional standards.

- b. **Material Reuse:** Experience in reusing stockpiled materials (e.g., block paving) and sourcing matching materials for repairs, minimizing waste.
- c. **Site Clean-up:** Demonstrated ability to remove debris and surplus materials, disposing of waste at approved sites in compliance with environmental management plans.

## 6. Consumer Liaison and Notifications

- a. **Community Engagement:** Extensive experience in liaising with property owners, tenants, ward councillors, and Community Mobilizers, particularly in diverse socio-economic settings (e.g., informal settlements, traditional areas).
- b. **Notification Management:** Proven ability to issue formal notification letters and erect shutdown notice boards 48 hours prior to water supply interruptions, ensuring clear communication.
- c. **Conflict Resolution:** Experience in addressing consumer concerns and securing community buy-in, especially in sensitive areas like informal settlements or traditional lands.

## 7. Traffic and Pedestrian Management

- a. **Traffic Control:** Expertise in implementing traffic accommodation measures (e.g., road signs, flagmen, speed restrictions) in compliance with SANS 1921-2 and the South African Road Traffic Signs Manual, particularly in high-traffic urban corridors.
- b. **Pedestrian Access:** Demonstrated ability to maintain pedestrian pathways and property access, providing temporary walkways where sidewalks are affected.
- c. **Off-Peak Scheduling:** Experience in scheduling works outside business hours in commercial zones to minimize disruption.

## 8. Quality Assurance and Testing

- a. **Quality Control Plans:** Proven ability to develop and implement Quality Assurance and Control Plans, including material tracking, installation checks, and compliance with municipal checklists.
- b. **Testing Proficiency:** Extensive experience in conducting water tightness tests and line flushing, ensuring uninterrupted flow and adequate pressure, as per SANS 1899.
- c. **Rectification:** Track record of promptly repairing leaks or faults identified during testing or within one month of completion, at no additional cost.

## 9. Health, Safety, and Environmental Compliance

- a. **Safety Management:** Extensive experience in complying with OHSA 1993 Construction Regulations, including submission of Health and Safety Plans and appointment of Construction Safety Officers.
- b. **Risk Mitigation:** Proven ability to manage risks associated with deep excavations, service proximity, and traffic hazards, achieving zero reportable incidents.
- c. **Environmental Compliance:** Experience in adhering to environmental management plans, minimizing disturbance to natural vegetation, and preventing fires, particularly in semi-rural or ecologically sensitive areas.

## 10. Security and Site Management



- a. **Site Security:** Experience in providing security personnel to protect staff, materials, and equipment in high-crime areas or informal settlements, coordinating with SAPS where necessary.
- b. **Site Management:** Proven ability to appoint qualified personnel (e.g., Contracts Manager, Civil Engineering Technician, Lead Artisan Plumber) to oversee operations and ensure programme adherence.

<b>Table 3: Documentation / Information Requirements</b>				
Note: an "X" in this table indicates that the associated documentation should be provided, if applicable.	Works as Sub-Contractor		Works as Main Contractor	
	Current Contracts	Completed Contracts	Current Contracts	Completed Contracts
Proof of Sub-Contract Agreement <b>See Note 1.</b>	X	X	-	-
Letter of Award OR Form of Offer & Acceptance <b>See Note 2.</b>	-	-	X	X
Most recent Payment Certificate (with Quantities <u>summary</u> ), OR Invoice (with Quantities summary). <b>See Note 3.</b>	X	-	X	-
Final Payment Certificate (with Quantities <u>summary</u> ), OR Invoice (with Quantities summary). <b>See Note 4.</b>	-	X	-	X
Completion Certificate. <b>See Note 5.</b>	-	-	-	X
Scope of Work <b>See Note 6.</b>	To be indicated on individual experience submission form			

#### **NOTES** (for Table 3)

11. To include the names of the parties, the managing entity's name, the effective dates, and the signature(s) page, all pertaining to the agreement.
12. Issued by the Client / Employer.
13. Proof of the most recent payment received from the Main Contractor or Client/ Employer, OR the most recent submitted INVOICE. Whichever of these documents is submitted, a summary breakdown of quantities is to accompany that document.
14. Proof of the final payment received from the Main Contractor or Client/ Employer, OR the most recent submitted INVOICE. Whichever of these documents is submitted, a summary breakdown of quantities is to accompany that document.
15. Issued by the Client/ Employer.
16. If executed as a Sub-Contractor, the Scope-of-Work should be indicative of only the works carried out by the Sub-Contractor, and not the overall Scope-of-Work of the main contract.  
If executed as a Main Contractor, the overall contract Scope-of-Work is to be indicated.

#### **C.2.2.2 The cost of the tender documents:**

Replace this paragraph with the following:

"Documents are to be downloaded, free of charge, from the **National Treasury's eTenders website** or the **eThekweni Municipality's Website**."

#### **C.2.5 Reference documents:**

Tenderers are to obtain their own copies of:

- 1) The **Conditions of Contract** identified in Section C1.2.1.1.  
Tenderers/ Contractors are required to obtain their own copies.
- 2) The **Specifications** identified in Section C3.3.1.  
Tenderers/ Contractors are required to obtain their own copies.
- 3) The following acts, regulations, policies, and standards referred to in this document, including but not limited to:
  - The Employer's Supply Chain Management Policy (as at advertising date).
  - The Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the Construction Regulations (2014).
  - The Construction Industry Development Board Act No 38 of 2000 and the Regulations issued in terms of the Act (July 2013 as amended).
  - The Preferential Procurement Policy Framework Act (PPPFA), and the PPPFA Regulations (November 2022).
  - The Amended Construction Sector Code (Government Gazette No.41287) applicable to B-BBEE compliance measurement.
  - SANS 1921:2004 – Construction and Management Requirements for Works Contract, Parts 1-3.
  - South African Road Traffic Signs Manual - Vol 2: Chapter 13: Roadworks Signing.
  - Any other eThekweni Policy documents referenced in the Tender Documents.

#### C.2.6 **Acknowledge addenda:**

Add the following paragraphs:

"Addenda will be published on the **eThekweni Municipality website** as stated in **Tender Data: C.1.2**. Tenderers are to ensure that this website is consulted for any published addenda pertaining to this tender up to three days before the tender closing time as stated in the **Tender Data**."

"Acknowledgement of receipt of the addenda will be by the return of the relevant completed, dated, and signed portion of the addenda, to the physical or email address as specified on the addenda."

**Failure of the Tenderer to comply with the requirements of the addenda will result in the tender submission being made non-responsive.**

#### C.2.7 **Clarification meeting:**

Clarification Meeting Type: [Compulsory Clarification Meeting](#)

**14 Scott Road, Pinetown, 101 Boardroom, Old building  
On [23 February 2026] at [10:00am]**

In the event of a Compulsory Clarification Meeting the Tenderer's representative(s) must be able to clearly convey the discussions at the meeting to the person(s) responsible for compiling the entity's tender offer.

If an attendance register is applicable, Tenderers must sign the attendance register and provide the name of the tendering entity.

Tenderers are referred to Clause C.2.1.1(a).

#### C.2.10.2 **Pricing the tender offer:**

The following is to be noted in terms of Tenderers being **VAT Registered**, or being a **Non-VAT Vendor** (ie. not VAT registered).

If the Tenderer is **VAT registered**, the Tenderer's Rates in the Bill of Quantities (BoQ) are to exclude VAT. VAT is to be shown separately on the BoQ summary page, and on the Form of Offer (Part C1.1.1).

If the Tenderer is a **Non-VAT Vendor**, the Tenderer's Rates in the Bill of Quantities are to include VAT. VAT is not to be shown separately on the BoQ summary page, or on the Form of Offer (Part C1.1.1). VAT will not be added to, or deducted from, rates or prices submitted from **Non-VAT Vendors**. The tendered priced will be deemed to include all VAT, taxes, and any applicable excise duties.

Tenderers are to refer to Part C2.1: PRICING ASSUMPTIONS / INSTRUCTIONS prior to pricing the tender offer.

#### **C.2.12 Alternative tender offers:**

No alternative tender offers will be considered.

#### **C.2.13 Submitting a tender offer:**

The signed Tender Offer ("hard copy") is to be sealed in an envelope, addressed to the City Manager, marked with the **identification details** and be delivered to the **delivery address**, both as stated below.

The **Tender Offer** (hard copy) is to be delivered to the following **delivery address**:

[the Tender Box in the foyer of the Municipal Building, 166 KE Masinga Road, Durban](#)

**Identification details** to be shown on the hard copy package are:

- Contract No. : **5W-33292**
- Contract Title : **The Upgrade to Bulk, Domestic, Industrial and Commercial Meters at eThekweni municipality Regions for the period of 36 months**

Tender Offers are also to be **SUBMITTED ELECTRONICALLY** (uploaded) on the eThekweni Municipality **JDE System** (Supplier Self Service (SSS Module)). For information pertaining to the JDE System, Tenderers are referred to **Section T1.1.2**.

Notwithstanding the **electronic submission**, a tender offer will only be deemed valid if the "hard copy" submission has been made. The "hard copy" submission will be the governing submission.

The Tender documentation, issued by the eThekweni Municipality (refer to **Tender Data: C.1.2**), is to be printed in its entirety. Printing should be done on white A4 paper, with printing on only one side of the paper. (It is suggested that the Tender documentation is not stapled, or punched for filing, prior to scanning, as this could affect the scanning process.)

After completion and signature (using **BLACK INK**), the entire Tender document is to be scanned to a single PDF (**P**ortable **D**ocument **F**ormat) document, at a resolution of 300 DPI (dots per inch). The PDF document is to be uploaded via the (Tender specific) upload option on the JDE System (SSS Module). Tenderers are responsible for resolving all access rights and submission queries on the JDE System before the tender closing date/ time (**Tender Data: C.2.15**).

Tender Offer delivery, and the electronic submission on the JDE System, are both to be completed on or before the closing date/ time stated in the **Tender Data: C.2.15**.

The submission of Tender Offers via any means other than that stated above will not be accepted, and those that are will be deemed invalid.

**C.2.15 Closing date and time:**

The closing time is:

- **Date** : **Friday, 20 March 2026**
- **Time** : **11h00**

The **delivery of the hard copy AND** the completion of the requirements on the **JDE System (SSS Module)** are to be completed prior to the Tender **closing date and time** as stated above. Any Tender Offer submitted thereafter will not be considered.

**C.2.16 Tender offer validity:**

The Tender Offer validity period is **120 Days** (original validity period) from the closing date for submission of tenders.

In terms of the SCM Policy (CI.21.2) tenders must remain valid for acceptance for a period of twelve (12) months after the expiry of the original validity period, unless the Municipality is notified in writing of anything to the contrary by the tenderer.

The eThekweni Municipality reserves the right to request confirmation from Tenderers of tender validity at any time during the twelve (12) month period.

**C.2.20 Submit securities, bonds, policies:**

The Tenderer is required to submit with their tender offer a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in T2.2 of this procurement document.

**C.2.23 Certificates:**

Refer to **T2.1: “List of Returnable Documents”** for a listing of certificates that must be provided with the tender. All certificates must be valid at the time of tender closing.

**Tenderers are to include a printout of the required documents/ certificates at the back of their tender submission.**

**1) SARS Tax Compliance Status – PIN Issued**

Reference is to be made to **Returnable Document “Compulsory Enterprise Questionnaire”** which requires the “SARS Tax Compliance Status – PIN Issued” to be included with this returnable document.

**2) Central Supplier Database (CSD)**

Reference is to be made to **Returnable Document “CSD Registration Report”**.

The entities **CSD Registration Report**, obtained from the National Treasury Central Supplier Database (CSD), is to be included in the tender submission ( <https://secure.csd.gov.za> ).

Separate **CSD Registration Reports** are required for each party to a Joint Venture.

**The date of obtaining the CSD printout is to be indicated on the printout and should be on or after the date of advertising of this tender.**

**3) CIDB Registration (if applicable)**

Reference is to be made to **Returnable Document “Verification of CIDB Registration and**

**Status”.**

Tenderers are to include with their submission a printout of their **CIDB Registration**, obtained from the CIDB website ( <https://portal.cidb.org.za/RegisterOfContractors/> ).

Separate **CIDB Registration printouts** are required for each party to a Joint Venture. The **Joint Venture Grading Designation Calculator** printout should be included when making a submission as a Joint Venture:

( <https://registers.cidb.org.za/PublicContractors/JVGradingDesignationCalc> )

The date of obtaining the CIDB printout(s) is to be indicated on the printout and should be on or after the date of advertising of this tender. The Tenderer’s registration with the CIDB must be reflected as “Active” as at the date of tender closing.

**Failure to comply with 1), 2), and 3) above will result in the tender offer being deemed non-responsive.**

**4) B-BBEE Status Level of Contribution Certificate**

Tenderers are referred to **Returnable Document “MBD 6.1: Preference Points Claim”** for the B-BBEE Certificate requirements. Notwithstanding the completion of **Returnable Document “MBD 6.1: Preference Points Claim”**, should a B-BBEE Status Level of Contribution Certificate not be returned no points for Preferential Procurement will be deemed to have been claimed.

The Amended Construction Sector Code (Government Gazette No.41287) is applicable to the B-BBEE compliance measurement of all entities that fall within the Construction Sector (Built Environment Professionals (BEP) and Contractors). The requirements for measurement and verification of entities are contained in the “Amended Code Series CSC000: Framework for Measuring Broad Based Black Economic Empowerment in the Construction Sector”, as published in Notice 931 of 2017, Government Gazette No.41287 of 01/12/2017.

An EME Contractor with a Total Annual Revenue of less than R3 million, or a BEP with a total annual revenue of less than R1.8 million, may present an affidavit OR a certificate issued by the CIPC, OR an authorised B-BBEE verification certificate by a SANAS accredited Verification Agency.

Any B-BBEE Certificate where the entity has been assessed using **Generic Codes** will not be accepted.

**C.3: THE EMPLOYER’S UNDERTAKINGS****C.3.1.1 Respond to requests from the tenderer:**

Replace the words “five working days” with “three working days”.

**C.3.2 Issue addenda:**

Add the following paragraph:

“Addenda will be published on the National Treasury’s **eTenders-Website** and/ or the **eThekwini Municipality Website.**” (Refer to **Tender Data: C.1.2**).

**C.3.4 Opening of Tender Submissions:**

Tenders will be opened immediately after the closing time for tenders. The public reading of tenders will take place in the P&SCM Boardroom, 6<sup>th</sup> Floor, (Municipal Building), 166 KE Masinga Road, Durban.

The tender opening schedule will also be made available on the eThekwini Municipal website at URL:

<https://www.durban.gov.za/pages/business/publication-of-received-bids>

### **C.3.9 Arithmetical errors, omissions and discrepancies:**

Add the following Clause:

“C.3.9.5 Reject a tender offer if the Tenderer does not accept the correction of the arithmetical error in the manner described in C.3.9.4.”

Any interactions between the Tenderer and the Employer in terms of this clause will be conducted through the Employer’s Agent (or Representative) as identified in **Tender Data C.1.4**.

### **C.3.11 Evaluation of Tender Offers:**

#### **Eligibility**

Tenders will be checked for compliance with the ELIGIBILITY requirements, as specified in the **Tender Data: C.2.1**. Tenders not in compliance will be deemed non-responsive.

#### **Mandatory Requirements**

Responsive tenders are those deemed to have complied with the technical specification, which include all the required declarations and certificates and include signed Form of Offer.

Before tenders are scored and ranked, they will be evaluated for compliance with the mandatory requirements, any tenders failing to meet mandatory requirements will be deemed nonresponsive and cannot be evaluated further. Mandatory requirements are specified below:

**The following requirements are mandatory:**

**The Municipality reserves the right to award this tender to a minimum of 2 and maximum of 4 service providers. Services and value to be shared fairly and section 24 of the supply chain management policy to be invoked.**

**Samples must submitted upon request only.**

**Letter of intent or letter of support by Original Equipment Manufacture (OEM) The tenderer (Company) is required to submit a letter from their manufacturer confirming that they will be supporting them with meters for the duration of the contract (36 months).**

**The letter of support will be considered valid when it is structured as follows:**

- Is on the manufacturers/principal letterhead
- Should be signed by the manufacturer/principal
- Should not be older than 1 year from the closing date of this tender

Note : in an event whereby the OEM will be tendering, then the OEM must submit a letter confirming that they are the OEM and the letter must meet the requirements listed above.

**Legal Compliance of meters The OEM supporting the tenderer’s offered items for meters must submit the following certificates;**

#### **Domestic Meters (from 15mm up to and including 25mm nominal bore)**

- A valid SANAS accreditation certification for manufactures laboratory and a scope of accreditation with SANS 1529-1

- A valid NRCS certificate of designation for manufactures laboratory

#### **Bulk Meters (from 40mm up to and including 100mm nominal bore)**

- A valid SANAS accreditation certification for manufactures laboratory and a scope of accreditation with SANS 1529-1
- A valid NRCS certificate of designation for manufactures laboratory

A certificate and scope of Accreditation for the manufacturer's Calibration Laboratory shall be in English

All meters supplied must comply with NRCS, bidder to submit proof of Letter of Authorisation for the sale of Unapproved water meters (issued by NRCS) in terms of SANS 1529-1:2019 or the latest standards.

Note: Tenderer must submit legal compliance certificates for both domestic and bulk meters from OEMs

#### **Eligibility**

Tenders will be checked for compliance with the ELIGIBILITY requirements, as specified in Clause C.2.1. Tenderers not in compliance will be deemed non-responsive.

#### **Preference Point System**

The financial offer will be reduced to a comparative basis using the **Tender Assessment Schedule**.

The procedure for the evaluation of responsive tenders is **PRICE AND PREFERENCE**, in accordance with the Employer's **SCM Policy: Section 52: Preferential Procurement**.

The provisions of the SCM Policy: **Section 52.5: Broad-Based Black Economic Empowerment** shall apply.

#### **Price Points**

The **90/10** preference points system, for requirements with a Rand value above R50,000,000 (all applicable taxes included), will be applied. The Formula used to calculate the **Price Points (max. 90)** will be according to that specified below.

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

#### **90/10 Procurement System**

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

Where:  $P_s$  = Points scored for comparative price of bid under consideration  
 $P_t$  = Comparative price of bid under consideration  
 $P_{\min}$  = Comparative price of lowest acceptable bid

#### **Preference Points**

Reference is also to be made to T2.2.7: "MBD 6.1: Preference Points Claim".

The Preference Points (10) will be derived from points allocated/ claimed for **Specific Goals** as indicated in the table(s) below, according to the specified **Goal/ Category Weightings**.



Broad-Based Black Economic Empowerment (SCM Policy Section 52.5)

A maximum of 10 tender evaluation Preference Points will be derived from points claimed for their B-BBEE Status Level of Contributor, as indicated on their B-BBEE Status Level Verification Certificates, on **Returnable Form: T2.2.6: MBD 6.1**, in accordance with the table below.

90/10 Preference Points System	
B-BBEE Level Contributor	Preference Points
1	10
2	9
3	7
4	6
5	4
6	3
7	2
8	1
Non-Compliant	0

**C.3.13 Acceptance of tender offer:**

In addition to the requirements of **Tender Data: C.3.13** of the **Standard Conditions of Tender**, tender offers will only be accepted if:

- (a) The Tenderer's municipal rates and taxes are not in arrears, or they have made arrangements to meet outstanding municipal fee obligations.
- (b) The Tenderer's tax compliance status has been verified, or they have made arrangements to meet outstanding tax obligations.
- (c) If applicable, the Tenderer is **registered**, and "**Active**", with the **Construction Industry Development Board** in an appropriate contractor grading designation.
- (d) The Tenderer or any of its directors/ shareholders are **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.
- (e) The Tenderer has not:
  - i) Abused the Employer's Supply Chain Management System; or
  - ii) Failed to perform on any previous contract and has been given a written notice to this effect.
- (f) The Employer is reasonably satisfied that the Tenderer has in terms of the Construction Regulations (2014), issued in terms of the Occupational Health and Safety Act (1993), the **necessary competencies and resources to carry out the work safely**.

The Municipality does not bind itself to accept the lowest or any tender. It reserves the right to accept the whole or any part of a tender to place orders. Bidders shall not bind the Municipality to any

minimum quantity per order. The successful Tenderer(s) shall be bound to provide any quantities stipulated in the specification.

The municipality has a firm intention to proceed with the work, subject to funding being identified. Notwithstanding the **Standard Conditions of Tender: C.1.1.3** of, the municipality reserves the right to award or not award the tender based on the municipalities available budget.

**C.3.15 Complete adjudicator's contract:**

Refer to the **Conditions of Contract** and the **Contract Data**.

**C.3.17 Copies of contract:**

The number of paper copies of the signed contract to be provided by the Employer is **ONE (1)**. **Tenderers are referred to the requirements as stated in the Tender Data: C.2.13.**

### T1.2.3 ADDITIONAL CONDITIONS OF TENDER

#### T1.2.3.1 Complaints and Objections (Appeals)

Reference is to be made to Clause 49 of the eThekweni Supply Chain Management Policy.

In terms of Section 49 of the EtheKwini SCM Policy any person aggrieved by decisions taken in the implementation of the SCM System may lodge, within 14 days of notification thereof, a written objection against the decision. The objection with regard to the decision is to be directed to:

The City Manager  
Attention Ms S. Pillay    eMail: [Simone.Pillay@durban.gov.za](mailto:Simone.Pillay@durban.gov.za)  
P O Box 1394  
DURBAN  
4000

Any objection will only be processed upon receipt of a non-refundable administration fee of **R1,814.00** (including VAT), as stipulated in the Municipality's current SCM Policy. An objection will only be considered upon receipt of proof of payment of this fee which must be paid into the following bank account as a real-time payment:

EThekweni Metropolitan Municipality  
First National Bank (FNB)  
Account Number: 631-6574-6331  
Reference Number: **33292-5W**

#### T1.2.3.2 Prohibition on awards to persons in the service of the state

Clause 44 of the Supply Chain Management Regulations states that the Municipality or Municipal Entity may not make any award to a person:

- (a) Who is in the service of the State;
- (b) If that person is not a natural person, of which a director, manager, principal shareholder or stakeholder is a person in the service of the state; or
- (c) Who is an advisor or consultant contracted with the municipality or a municipal entity.

Should a contract be awarded, and it is subsequently established that Clause 44 has been breached, the Employer shall have the right to terminate the contract with immediate effect.

#### T1.2.3.3 Code of Conduct and Local Labour

The Tenderers shall make themselves familiar with the requirements of the following policies:

- Code of Conduct;
- The Use of CLOs and Local Labour.

#### T1.2.3.4 Functionality Specification

Functionality Evaluation is not applicable to this tender.

## **PART T2: RETURNABLE DOCUMENTS**

### **T2.1 LIST OF RETURNABLE DOCUMENTS**

#### **T2.1.1 General**

The Tender Submission Documentation must be submitted in its entirety. All forms must be properly completed and signed as required.

The Tenderer is required to complete and sign each and every Schedule and Form listed below to the best of their ability as the evaluation of tenders and the eventual contract will be based on the information provided by the Tenderer.

Failure of a Tenderer to complete the Schedules and Forms to the satisfaction of the Employer will inevitably prejudice the tender and may lead to rejection on the grounds that the tender is non-responsive.

#### **T2.1.2 Returnable Schedules, Forms and Certificates**

##### **Entity Specific**

T2.2.1	Compulsory Enterprise Questionnaire .....	33
T2.2.2	Certificate of Attendance at Clarification Meeting/ Site Inspection .....	34
T2.2.3	MBD 4: Declaration of Interest .....	35
T2.2.4	MBD 5: Declaration for Procurement Above R10 Million .....	37
T2.2.5	Contracts Awarded by Organs of State in the past 5 years .....	38
T2.2.6	MBD 6.1: Preference Points Claim Form (SCM Policy Section 52.5) .....	39
T2.2.6	MBD 6.1: Preference Points Claim Form (SCM Policy Section 52.7) .....	40
T2.2.8	MBD 8: Declaration of Bidder's Past SCM Practices .....	42
T2.2.9	MBD 9: Certificate of Independent Bid Determination .....	44
T2.2.10	Declaration of Municipal Fees .....	46
T2.2.11	Contractor's Health and Safety Declaration .....	47
T2.2.12	CSD Registration Report .....	49
T2.2.13	CIDB Registration and Status .....	50
T2.2.14	Joint Venture Agreements (if applicable) .....	51
T2.2.15	Record of Addenda to Tender Documents .....	53
T2.2.16	Experience of Tenderer .....	54
<b>Contract Part: The Tenderer is required to complete following forms:</b>		
C1.1.1	Form of Offer .....	56
C1.2.2.2	Data to be Provided by Contractor .....	59
C2.2	Bill of Quantities .....	68

**T2.2.1 COMPULSORY ENTERPRISE QUESTIONNAIRE**

Ref	Description	Tenderer to Complete	
1.1	Name of enterprise		
1.2	Name of enterprise's representative		
1.3	Email address of representative		
1.4	Contact numbers of representative	Tel:	Cell:
1.5	National Treasury Central Supplier Database Registration number	MAAA	
1.6	VAT registration number, if any:		
1.7	CIDB registration number, if any:		
1.8	Department of Labour: Registration number		
1.9	Department of Labour: Letter of Good Standing Certificate number		

2.0 Particulars of sole proprietors and partners in partnerships (attach separate pages if more than 4 partners)			
	Full Name	Identity No.	Personal income tax No. *
2.1			
2.2			
2.3			

3.0 Particulars of companies and close corporations	
3.1	Company registration number, if applicable:
3.2	Close corporation number, if applicable:
3.3	Tax Reference number, if any:
3.4	* South African Revenue Service: Tax Compliance Status PIN:

4.0	<b>MBD 4, MBD 6, MBD 8, and MBD 9</b> issued by National Treasury <u>must be completed for each tender and be included as a tender requirement.</u>
-----	---

\* Tenderers are to include, at the back of their tender submission, a printout of their SARS **"Tax Compliance Status – PIN Issued"** certificate, failing which the tender submission will be deemed non-responsive.

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

- authorizes the Employer to verify the Tenderer's tax clearance status from the South African Revenue Services that it is in order.
- confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004.
- confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption.
- 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.
- confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

NAME (Block Capitals): \_\_\_\_\_

Date \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

**T2.2.2 CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING / SITE INSPECTION**

Reference is to be made to the **Tender Data: C.2.1.1(a) and C.2.7.**

This is to certify that:

(entity name):

of (address):

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

was represented by the person(s) named below at the Clarification Meeting for Contract **33292-5W** held for all Tenderers, the details of which are stated in the **Tender Data: C.2.7.**

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

**Particulars of person(s) attending the meeting:**

Name: .....

Name: .....

Signature: .....

Signature: .....

Capacity: .....

Capacity: .....

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

Name: .....

Signature: .....

Date: .....

**T2.2.3 MBD 4: DECLARATION OF INTEREST**

MSCM Regulations: **“in the service of the state”** means to be:

- (a) a member of:
  - (i) any municipal council.
  - (ii) any provincial legislature.
  - (iii) the national Assembly or the national Council of provinces.
- (b) a member of the board of directors of any municipal enterprise.
- (c) an official of any municipality or municipal enterprise.
- (d) an employee of any national or provincial department, national or provincial public enterprise 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 enterprise.
- (f) an employee of Parliament or a provincial legislature.

**“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.

- 1 No bid will be accepted from persons **in the service of the state**<sup>1</sup>.
- 2 Any person, having a kinship with persons **in the service of the state**, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to **persons in service of the state**, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest.
- 3 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Name of enterprise	
Name of enterprise’s representative	
3.2 ID Number of enterprise’s representative	
3.3 Position enterprise’s representative occupies in the enterprise	
3.4 Company Registration number	
3.5 Tax Reference number	
3.6 VAT registration number	

3.7 The names of all directors / trustees / shareholders / members / sole proprietors / partners in partnerships, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below. In the case of a joint venture, information in respect of each partnering enterprise must be completed and submitted.

3.8 Are you presently in the service of the state?	Circle Applicable <table style="margin: auto; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px 10px;">YES</td> <td style="border: 1px solid black; padding: 2px 10px;">NO</td> </tr> </table>	YES	NO
YES	NO		

If yes, furnish particulars: .....

.....



3.9 Have you been in the service of the state for the past twelve months? YES NO  
 If yes, furnish particulars: .....

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? YES NO  
 If yes, furnish particulars: .....

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

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? YES NO  
 If yes, furnish particulars: .....

3.13 Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? YES NO  
 If yes, furnish particulars: .....

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract ? YES NO  
 If yes, furnish particulars: .....

4 The names of all directors / trustees / shareholders / members / sole proprietors / partners in partnerships, their individual identity numbers and state employee numbers must be indicated below. In the case of a joint venture, information in respect of each partnering enterprise must be completed and submitted

Full Name	Identity No.	State Employee No.	Personal income tax No.
Use additional pages if necessary			

**Failure to complete this form in full, sign, and return with the tender submission will result in the tender offer being deemed non-responsive.**

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.*

**NAME (Block Capitals):** .....

**Date**

**SIGNATURE:** .....

**T2.2.4 MBD 5: DECLARATION FOR PROCUREMENT ABOVE R10 MILLION  
(ALL APPLICABLE TAXES INCLUDED)**

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

	Circle Applicable	
1.0 Are you by law required to prepare annual financial statements for auditing?	YES	NO
1.1 <b>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. The audited annual financial statements are to be included at the back of the tender submission.</b>		
2.0 Do you have any outstanding undisputed commitments for municipal services towards any municipality for more than three months or any other service provider in respect of which payment is overdue for more than 30 days?	YES	NO
2.1 If NO, this serves to certify that the bidder has no undisputed commitments for municipal services towards any municipality for more than three months or other service provider in respect of which payment is overdue for more than 30 days.		
2.2 If YES, provide particulars. ..... .....		
3.0 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, provide particulars.  SEE Returnable Document "Contracts Awarded by Organs of State in the Past 5 Years"		
4.0 Will any portion of goods or services be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality / municipal entity is expected to be transferred out of the Republic?	YES	NO
4.1 If YES, provide particulars. ..... .....		

**Failure to complete this form in full, sign, and return with the tender submission will result in the tender offer being deemed non-responsive.**

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, and, if required, that the requested documentation has been included in the tender submission.*

**NAME (Block Capitals):** \_\_\_\_\_ **Date** \_\_\_\_\_

**SIGNATURE:** \_\_\_\_\_



**T2.2.6 MBD 6.1: PREFERENCE POINTS CLAIM)** (SCMP 52.5: Broad-Based Black Economic Empowerment)

This form serves as a claim form for preference points for **Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution**. **Reference is to be made to the Tender Data: C.3.11.**

**1.0 GENERAL CONDITIONS**

1.1 The relevant **Preference Points System (80/20 or 90/10)** applicable to this bid is stated in the **Tender Data: C.3.11.**

1.2 **Failure on the part of a bidder to fill in and/ or sign this form, and submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS), or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA), or sworn affidavits in the case of Exempted Mico Enterprises or Qualifying Small Enterprises, together with the bid, will be interpreted to mean that preference points for B-BBEE Status Level Of Contribution are not claimed.**

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

**2.0 ADJUDICATION USING A POINT SYSTEM**

2.1 The bidder obtaining the highest number of total points will be recommended for the award of the contract.

2.2 Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts.

2.3 Points scored will be rounded off to the nearest 2 decimal places.

2.4 In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of preference points for B-BBEE.

2.5 However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for B-BBEE, the successful bid must be the one scoring the highest score for functionality.

2.6 Should two or more bids be equal in all respects the award shall be decided by the drawing of lots.

**3.0 POINTS AWARDED FOR PRICE**

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

**80/20 Procurement System**

**or**

**90/10 Procurement System**

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

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

Where: Ps = Points scored for comparative price of bid under consideration  
 Pt = Comparative price of bid under consideration  
 Pmin = Comparative price of lowest acceptable bid

**T2.2.6 MBD 6.1: PREFERENCE POINTS CLAIM**

(SCMP 52.7: Basket of Preference Goals)

This form serves as a claim form for preference points according to **The Basket of Preference Goals**. **Reference is to be made to the Tender Data: C.3.11.**

**1.0 GENERAL CONDITIONS**

- 1.1 The relevant **Preference Points System (80/20 or 90/10)** applicable to this bid is stated in the **Tender Data: C.3.11**.
- 1.2 Failure on the part of the Tenderer to submit the required proof or documentation, in terms of the requirements in the Tender Data for claiming specific goal preference points, will be interpreted that **Preference Points for Specific Goals** are not claimed.
- 1.3 The purchaser reserves the right to require of a bidder, either before a bid is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the purchaser.

**2.0 ADJUDICATION USING A POINT SYSTEM**

- 2.1 The bidder obtaining the highest number of total points will be recommended for the award of the contract.
- 2.2 Preference points shall be calculated after prices have been brought to a comparative basis taking into account all factors of non-firm prices and all unconditional discounts.
- 2.3 Points scored will be rounded off to the nearest 2 decimal places.
- 2.4 In the event that two or more bids have scored equal total points, the successful bid must be the one scoring the highest number of preference points for B-BBEE.
- 2.5 However, when functionality is part of the evaluation process and two or more bids have scored equal points including equal preference points for B-BBEE, the successful bid must be the one scoring the highest score for functionality.
- 2.6 Should two or more bids be equal in all respects the award shall be decided by the drawing of lots.

**3.0 POINTS AWARDED FOR PRICE**

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

**80/20 Procurement System****or****90/10 Procurement System**

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

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

Where:

Ps	=	Points scored for comparative price of bid under consideration
Pt	=	Comparative price of bid under consideration
Pmin	=	Comparative price of lowest acceptable bid

#### 4.0 POINTS ALLOCATED FOR THE BASKET OF PREFERENCE GOALS

4.1 Preference points may be claimed for the **Specific Goals** stated in the **Tender Data: C.3.11**.

For the purposes of this tender, the Tenderer may claim points based on the goal(s) stated in the table below, as supported by proof/ documentation specified in the Tender Data.

<b>90/10 Preference Points System</b> The Specific Goals to be allocated points in terms of this tender:	<b>Maximum Number of points ALLOCATED</b>	<b>Tenderer's Number of points CLAIMED</b>
<b>Ownership Goal:</b> Race (black)	1	
<b>Ownership Goal:</b> Gender (female)	1	
<b>Ownership Goal:</b> Disabilities	1	
<b>RDP Goal:</b> The promotion of South African owned enterprises.	1	
<b>RDP Goal:</b> The promotion of export-oriented production to create jobs.	1	
<b>RDP Goal:</b> The Creation of new jobs to address black youth unemployment	1	
<b>RDP Goal:</b> The promotion of enterprises located in a specific municipal area.	1	
<b>RDP Goal:</b> Social upliftment of communities	1	
<b>RDP Goal:</b> The promotion of SMMEs owned by Black People (contracts >R5m)	1	
<b>Total CLAIMED Points (maximum 10)</b>	<b>10</b>	

#### 5.0 REMEDIES FOR THE SUBMISSION OF FALSE INFORMATION

5.1 The remedies for the submission of false information regarding claims for specific goals are stated in the **SCM Policy: Section 52.9**.

**Tenderers are to include, at the back of their tender submission, the required proof/ documentation in support of their Preference Goal claims (reference is to be made to the Specific Goals stated in the Tender Data: C.3.11).**

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and, if required, that the requested documentation has been included in the tender submission.***

**NAME (Block Capitals):** .....

**Date**

**SIGNATURE:** .....

**T2.2.8 MBD 8: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES**

- 1.0 This Municipal Bidding Document must form part of all bids invited.
- 2.0 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.
- 3.0 The bid of any bidder may be rejected if that bidder, or any of its directors have:
  - a) abused the 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) wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years.
  - 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).
- 4.0 In order to give effect to the above, the following questions must be completed and submitted with the bid.

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](http://www.treasury.gov.za)) and can be accessed by clicking on its link at the bottom of the home page.

Circle Applicable	
YES	NO

4.1.1 If YES, provide 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](http://www.treasury.gov.za)) by clicking on its link at the bottom of the home page.

YES	NO
-----	----

4.2.1 If YES, provide 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 YES, provide particulars.

.....

.....

	Circle Applicable	
<p>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?</p> <p>4.4.1 If YES, provide particulars.</p> <p>.....</p> <p>.....</p>	YES	NO
<p>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?</p> <p>4.5.1 If YES, provide particulars.</p> <p>.....</p> <p>.....</p>	YES	NO

**Failure to complete this form in full, sign, and return with the tender submission will result in the tender offer being deemed non-responsive.**

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both 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.*

**NAME (Block Capitals):** \_\_\_\_\_ **Date** \_\_\_\_\_

**SIGNATURE:** \_\_\_\_\_



**T2.2.9 MBD 9: CERTIFICATE OF INDEPENDENT BID DETERMINATION**

**NOTES**

- <sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.
- <sup>2</sup> 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.
- <sup>3</sup> 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.

- 1.0 This Municipal Bidding Document (MBD) must form part of all **bids**<sup>1</sup> invited.
- 2.0 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**).<sup>2</sup> Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3.0 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.
- 4.0 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.
- 5.0 In order to give effect to the above, the below **Certificate of Independent Bid Determination** must be completed and submitted with the bid.

**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying bid for: Contract **5W-33292**  
**The Upgrade to Bulk, Domestic, Industrial and Commercial Meters at eThekweni municipality Regions for the period of 36 months**

in response to the invitation for the bid made by: **ETHEKWINI MUNICIPALITY**

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

I certify, on behalf of: .....

that:

(continued on next page)

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.
  - (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 consortium<sup>3</sup> 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.
  - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements, or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

**Failure to complete this form in full, sign, and return with the tender submission will result in the tender offer being deemed non-responsive.**

**NAME (Block Capitals):** \_\_\_\_\_

**Date**

**SIGNATURE:** \_\_\_\_\_

**T2.2.10 DECLARATION OF MUNICIPAL FEES**

Reference is to be made to the **Tender Data: C.2.23 and C.3.13(a)**.

I, the undersigned, do hereby declare that the Municipal fees of:

.....  
 (full name of Company / Close Corporation / partnership / sole proprietary/Joint Venture)

(hereinafter referred to as the TENDERER) are, as at the date hereunder, fully paid or an Acknowledgement of Debt has been concluded with the Municipality to pay the said charges in instalments.

The following account details relate to property of the said TENDERER:

<u>Account</u>	<u>Account Number: to be completed by Tenderer</u>											
Consolidated Account												
Electricity												
Water												
Rates												
JSB Levies												
Other												

- If applicable, a copy of a recent (within the past 3 months) Metro Bill is to be provided.

I acknowledge that should the aforesaid Municipal charges fall into arrears, the Municipality may take such remedial action as is required, including termination of any contract, and any payments due to the Contractor by the Municipality shall be first set off against such arrears.

- Where the Tenderer’s place of business or business interests are outside the jurisdiction of eThekweni municipality, a copy of the accounts/ agreements from the relevant municipality are to be provided.
- Where the Tenderer’s Municipal Accounts are part of their lease agreement, then a copy of the agreement, or an official letter to that effect, is to be provided.
- Where a Tenderer’s place of business or business interests are carried out from premises as part of any other agreement, then a copy of the agreement, or an official letter to that effect, is to be provided.

**Tenderers are to include, at the back of their tender submission, copies of the above-mentioned account’s, agreements signed with the municipality, lease agreements, or official letters.**

**Failure to complete this form in full, sign, and return the required documents with the tender submission will result in the tender offer being deemed non-responsive.**

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

**NAME (Block Capitals):** \_\_\_\_\_

**Date**

**SIGNATURE:** \_\_\_\_\_

**T2.2.11 CONTRACTOR'S HEALTH AND SAFETY DECLARATION**

Reference is to be made to Clauses C.2.1(e) and C.2.23 of the Tender Data.

In terms of Clause 5(1)(h) of the OHS Act 1993 Construction Regulations 2014 (referred to as "the Regulations" hereafter), a Principal Contractor may only be appointed to perform construction work if the Client is satisfied that the Principal Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993 and the OHS Act 1993 Construction Regulations 2014.

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

**Declaration by Tenderer**

- 1 I, the undersigned, hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and the OHS Act 1993 Construction Regulations 2014.
- 2 I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.
- 3 I propose to achieve compliance with the Regulations by one of the following **(Tenderers are to Circle Applicable - Yes or No)**:

Circle Applicable	
Yes	No

- (a) From my own competent resources as detailed in 4(a) hereafter.
- (b) From my own resources still to be appointed or trained until competency is achieved, as detailed in 4(b) hereafter:
- (c) From outside sources by appointment of competent specialist Subcontractors as detailed in 4(c) hereafter:

4 Details of resources I propose:  
*(Note: Competent resources shall include safety personnel such as a construction supervisor and construction safety officer as defined in Regulation 8, and competent persons as defined in Regulations 9, 10, 11, 12, 13, 14, 16, 17, 20, 21, 22, 23(1), 24, 25, 26, 27, 28 and 29, as applicable).*

- (a) Details of the competent and qualified key persons from my company's own resources, who will form part of the contract team:

NAMES OF COMPETENT PERSONS	POSITIONS TO BE FILLED BY COMPETENT PERSONS

(b) Details of training of persons from my company's own resources (or to be hired) who still have to be trained to achieve the necessary competency:

(i) By whom will training be provided?

(ii) When will training be undertaken?

(iii) Positions to be filled by persons to be trained or hired:


(c) Details of competent resources to be appointed as subcontractors if competent persons cannot be supplied from own company:

Name of proposed subcontractor:

Qualifications or details of competency of the subcontractor:


5 I, the undersigned, hereby undertake, if this tender is accepted, to provide, before commencement of the works under the contract, a suitable and sufficiently documented Health and Safety Plan in accordance with Regulation 7(1) of the Construction Regulations, which plan shall be subject to approval by the Client.

6 I, the undersigned, confirm that copies of this company's approved Health and Safety Plan, the Client's Safety Specifications as well as the OHSa 1993 Construction Regulations 2014 will be provided on site and will at all times be available for inspection by the Principal Contractor's personnel, the Client's personnel, the Employer's Agent, visitors, and officials and inspectors of the Department of Labour.

7 I, the undersigned, hereby confirm that adequate provision has been made in the tendered rates and prices in the Bill of Quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSa 1993 Construction Regulations 2014, and that I will be liable for any penalties that may be applied by the Client in terms of the said Regulations (Regulation 33) for failure on the Principal Contractor's part to comply with the provisions of the Act and the Regulations.

8 I, the undersigned, agree that failure to complete and execute this declaration to the satisfaction of the Client will mean that this company is unable to comply with the requirements of the OHSa 1993 Construction Regulations (2014) and accept that this tender will be prejudiced and may be rejected at the discretion of the Client.

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.*

**NAME (Block Capitals):** \_\_\_\_\_

**Date**

**SIGNATURE:** \_\_\_\_\_

**T2.2.12 CSD REGISTRATION REPORT**

Reference is to be made to **Tender Data: C.2.1.1(b) and C.2.23.**

The **Tender Data: C.2.1: Eligibility**, requires a Tenderer to be registered, at the time of tender closing, on the **National Treasury Central Supplier Database (CSD)** as a service provider.

CSD Registration Reports can be obtained from the National Treasury’s CSD website at <https://secure.csd.gov.za/Account/Login>.

The following is an example of the printout obtained from the above website.  
 Note: the printout will contain more than one page.

The screenshot shows the CSD Registration Report interface. At the top left is the logo for the Central Supplier Database for Government. To the right are two input fields: 'Report Date:' and 'Report Ran By:'. Below this is a green banner with the text 'CSD REGISTRATION REPORT'. The main content is a table titled 'SUPPLIER IDENTIFICATION' with the following fields:

Supplier number		Have Bank Account	
Is supplier active?		Total annual turnover	
Supplier type		Financial year start date	
Supplier sub-type		Registration date	
Legal name		Created by	
Trading name		Created date	
Identification type		Edit by	
Government breakdown		Edit date	
Business status		Restricted Supplier	
Country of origin		Restriction Last Verification Date	
South African company/CC registration number			

**Tenderers are to include, at the back of their tender submission, a printout of their CSD Registration Report. The date of obtaining the CSD printout is to be indicated on the printout and should be on or after the date of advertising of this tender.**

**Failure to comply will result in the tender offer being deemed non-responsive.**

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

**NAME (Block Capitals):** \_\_\_\_\_

**Date**

**SIGNATURE:** \_\_\_\_\_

**T2.2.13 CIDB REGISTRATION AND STATUS**

Reference is to be made to the **Tender Data: C.2.1.2, C.2.23, and C.3.13(c)**.

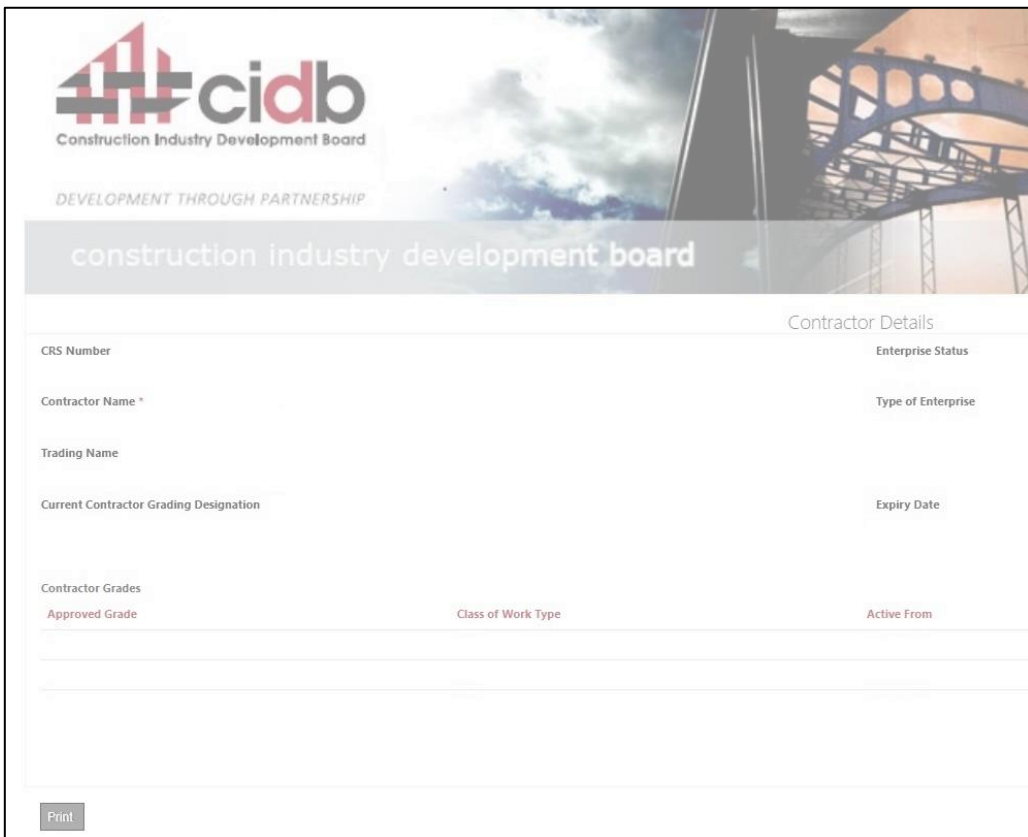
The **Tender Data: C.2.1.1: Eligibility**, requires a Tenderer to be registered, as “Active”, with the CIDB (at time of tender closing), in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.

The required class of construction work is specified in the **Tender Data: C.2.1.2**.

CIDB Registrations can be obtained from the CIDB website at:

<https://portal.cidb.org.za/RegisterOfContractors/>

The following is an example of the printout obtained from the above website using the provided “Print” button.  
 Note: the printout may contain more than one page.



**Tenderers are to include, at the back of their tender submission, a printout of their CIDB Registration and Status. The date of obtaining the CIDB Registration and Status printout is to be indicated on the printout and should be on or after the date of advertising of this tender.**

**Failure to comply will result in the tender offer being deemed non-responsive.**

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

**NAME (Block Capitals):**

**Date**

\_\_\_\_\_

**SIGNATURE:**

-----

-----

**T2.2.14 JOINT VENTURES AGREEMENTS**

If this tender submission is to be made by an established Joint Venture, the Joint Venture Agreements and Power of Attorney Agreements are to be attached here.

Should the Joint Venture, at the time of submission, not yet be formalised, this form is to be completed in full and signed by all parties to the proposed Joint Venture.

The Lead Partner of the Joint Venture is to sign the **Form of Offer** in Section **C1.1.1**.

**INTENT TO FORM A JOINT VENTURE**

Should our submission for CONTRACT: **33292-5W** be successful, a Joint Venture will be established by the parties as listed below, as an unincorporated association, with the purposes of securing and executing the Contract, for the benefit of the Members.

**Proposed Joint Venture**

Joint Venture Title (name):

Represented by (name):

Tel:

**Lead Partner/ Member 1**

Entity Name:

Ownership Interest in JV %:

CSD Registration:

CIDB #:

Represented by (name):

Signature:

**Partner/ Member 2**

Entity Name:

Ownership Interest in JV %:

CSD Registration:

CIDB #:

Represented by (name):

Signature:

**Partner/ Member 3**

Entity Name:

Ownership Interest in JV %:

CSD Registration:

CIDB #:

Represented by (name):

Signature:

**Note:** All requirements for Joint Ventures, as stated elsewhere in this procurement document, must be complied with in full.





**T2.2.15 RECORD OF ADDENDA TO TENDER DOCUMENTS**

Reference is to be made to the **Tender Data: C.2.6**.

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

ADD.No	DATE	TITLE OR DETAILS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct.*

***It is also confirmed that the requirements, as stated on the Addenda, have been complied with.***

**NAME (Block Capitals):** \_\_\_\_\_

**Date**

**SIGNATURE:** \_\_\_\_\_

## **T2.2.16 ELIGIBILITY: EXPERIENCE OF TENDERER**

Reference is to be made to the **Tender Data: C.2.1.3**.

Only those Tenderers that can demonstrate verifiable experience, in works of a similar nature, within the past 10 years, will be eligible to have their tenders evaluated in terms of **Tender Data: C.3.11**.

- The **Eligibility Criteria Requirement** is as stated on **Table 1: “Experience Requirement”**.
- The experience is to be **“Similar in Nature”** to that specified on **Table 2: “Works of a Similar Nature”**. Tenderers are to note the exclusions (if any) stated on this table.
- The **Documentation/ Information** that may be used for verification of the experience submission is specified on **Table 3: “Documentation/ Information Requirements”** (which includes the Notes below the table). The non-submission of this Documentation/ Information may jeopardise the verification of the experience submission and render the submission invalid.
- Tenderers may submit experience gained as **Sub-Contractors or Main Contractors**.

**It is the responsibility of the Tenderer to ensure that the experience submissions comply with the requirements as stated in the Tender Data: C.2.1.3.**

### **Guidance to Tenderers: Experience Submission Form**

#### **Client / Employer Details**

- Provide details for whom the works were carried out (works owner).
- Provide **Contact details of the Client or Main Contractor** (if experience was gained as a sub-contractor) is required to be provided.

The contact details may be used by the Employer to verify the information, pertaining to the experience submission. Should the Employer’s reasonable attempts to make contact with the Client or Main Contractor fail (for whatever reason), that specific experience submission may be considered invalid.

#### **Contract Details**

- Provide the **Contract Reference Number** and **Contract Title**.
- Indicate if this contract has been completed or is still in progress.
- Provide **Contract Dates**.
- Provide **Contract Values** - Where works are still in progress, provide the value of works that have been completed as detailed on the most recent payment to the Contractor / Sub-Contractor. If the works are complete, provide the Final Value of the sub-contract or Final Contract Price.

#### **Scope of Works**

- Indicate the **Works Type(s)** that best describe the works included in the project.  
Select the most applicable option (only 1).
- Indicate the **Works Elements(s)** that were included in the project.  
Select any elements that were included in the contract.

#### **Joint Ventures**

In the event of a Joint Venture (JV) tendering for this contract, experience gained by the separate entities making up the JV may be used as experience, provided that the experience complies with the requirements, as stipulated in **Table 1**, and that the required documentation/ information is provided.

(T2.2.16 is continued on the next page)

**Confirmation of submission of Information/ Documentation**

The Tenderer is to indicate (by marking with an “X” in the shaded column) the documentation that has been included in this tender submission, in support of each experience submission.

		If submitted, mark with an “X”
<b>SUBMISSION #1</b>	Experience Submission Form (completed and signed)	
	Proof of Sub-Contract Agreement (if experience was gained as a sub-contractor)	
	Letter of Award <b>OR</b> Form of Offer & Acceptance	
	Most recent Payment Certificate (with Quantities <u>summary</u> ), <b>OR</b> most recent INVOICE (with Quantities <u>summary</u> )	
	Final Payment Certificate (with Quantities <u>summary</u> ), <b>OR</b> most recent INVOICE (with Quantities <u>summary</u> )	
	Completion Certificate	
<b>SUBMISSION #2</b>	Experience Submission Form (completed and signed)	
	Proof of Sub-Contract Agreement (if experience was gained as a sub-contractor)	
	Letter of Award <b>OR</b> Form of Offer & Acceptance	
	Most recent Payment Certificate (with Quantities <u>summary</u> ), <b>OR</b> most recent INVOICE (with Quantities <u>summary</u> )	
	Final Payment Certificate (with Quantities <u>summary</u> ), <b>OR</b> most recent INVOICE (with Quantities <u>summary</u> )	
	Completion Certificate	
<b>SUBMISSION #3</b>	Experience Submission Form (completed and signed)	
	Proof of Sub-Contract Agreement (if experience was gained as a sub-contractor)	
	Letter of Award <b>OR</b> Form of Offer & Acceptance	
	Most recent Payment Certificate (with Quantities <u>summary</u> ), <b>OR</b> most recent INVOICE (with Quantities <u>summary</u> )	
	Final Payment Certificate (with Quantities <u>summary</u> ), <b>OR</b> most recent INVOICE (with Quantities <u>summary</u> )	
	Completion Certificate	

**Note: Should there be insufficient evidence for verification of the information submitted for any specific experience submission, that experience submission will be deemed invalid.**

*I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, confirms that the information contained in this form is within my personal knowledge and is to the best of my belief both true and correct, **and that the requested documentation has been included in the tender submission.***

**NAME (Block Capitals):** \_\_\_\_\_

**Date**

**SIGNATURE:** \_\_\_\_\_

**PART C1: AGREEMENT AND CONTRACT DATA**

**C1.1: FORM OF OFFER AND ACCEPTANCE**

**C1.1.1: OFFER**

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

Contract No: **5W-33292**

Contract Title: **The Upgrade to Bulk, Domestic, Industrial and Commercial Meters in the Northern Regions**

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

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

R..... (In words .....  
.....)

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

**For the Tenderer:**

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

**\* Signature** (of person authorized to sign the tender) : .....

**\* Name** (of signatory in capitals) : .....

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

**Address** : .....  
: .....

**Telephone** : .....

**Witness:**

**Signature** : ..... **Date** : .....

**Name** (in capitals) : : .....

**Notes:**

**\* Indicates what information is mandatory.**

**Failure to complete the mandatory information and sign this form will invalidate the tender.**

**C1.1: FORM OF OFFER AND ACCEPTANCE**

**C1.1.2: FORM OF ACCEPTANCE**

**This Form will be completed by the Employer**

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 C1 : Agreement and Contract Data, (which includes this Agreement)
- Part C2 : Pricing Data, including the Bill of Quantities
- Part C3 : Scope of Work
- Part C4 : Site Information

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

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

The Tenderer shall within two weeks after receiving a completed copy of this Agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data at, or just after, the date 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 Contractor) within five days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

**Signature** (*person authorized to sign the acceptance*) : .....

**Name** (*of signatory in capitals*) : .....

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

**Name of Employer** (*organisation*) : .....

**Address** : .....

: .....

**Witness:**

**Signature** : ..... **Date** : .....

**Name**(*in capitals*) : : .....



## C1.2: CONTRACT DATA

### C1.2.1 CONDITIONS OF CONTRACT

#### C1.2.1.1 GENERAL CONDITIONS OF CONTRACT

The Conditions of Contract are the **General Conditions of Contract for Construction Works (2015 3<sup>rd</sup> Edition) (GCC 2015)** published by the South African Institution of Civil Engineering. Copies of these conditions of contract may be obtained from the South African Institution of Civil Engineering (Tel: 011-805-5947, Fax: 011-805-5971, E-mail: [civilinfo@saice.org.za](mailto:civilinfo@saice.org.za)).

The Contract Data (including variations and additions) shall amplify, modify, or supersede, the GCC 2015 to the extent specified below, and shall take precedence and shall govern.

Each item of data given below is cross-referenced to the clause in the GCC 2015 to which it mainly applies.

### C1.2.2 CONTRACT DATA

#### C1.2.2.1 DATA TO BE PROVIDED BY THE EMPLOYER

1.1.1.13 The **Defects Liability Period**, from the date of the Certificate of Completion, is **1 Year**.

1.1.1.14 The **time for achieving Practical Completion**, from the Commencement Date is **146 Weeks**. The period as stated in 5.3.2, and the 7 days referred to in 5.3.3, are included in the above time for achieving Practical Completion. The special non-working days as stated in 5.8.1 are excluded from the above time for achieving Practical Completion.

1.1.1.15 The Employer is the eThekweni Municipality as represented by:  
Deputy Head: **Technical Customer Services**

1.2.1.2 The address of the Employer is:  
Physical: eThekweni Water and Sanitation Unit, 3 Prior Road, DURBAN, 4001  
Postal: eThekweni Water and Sanitation Unit, P O Box 1038, DURBAN, 4000  
Telephone: 031 311 86 03  
E-Mail: [Aaron.Mfunda@durban.gov.za](mailto:Aaron.Mfunda@durban.gov.za)

1.1.1.16 The **name of the Employer's Agent** is Fisaphile Buthelezi

1.2.1.2 The address of the Employer' Agent is:  
Physical: eThekweni Water and Sanitation Unit, 3 Prior Road, DURBAN, 4001  
Postal: eThekweni Water and Sanitation Unit, P O Box 1038, DURBAN, 4000  
Telephone: 031 311 86 03  
E-Mail: [Fisaphile.Buthelezi@durban.gov.za](mailto:Fisaphile.Buthelezi@durban.gov.za)

1.1.1.26 The **Pricing Strategy** is by **Re-measurement Contract**.

3.2.3 The Employer's Agent shall obtain the **specific approval of the Employer** before executing any of his functions or duties according to the following Clauses of the General Conditions of Contract:

- **6.3: Council approval in order to authorise any expenditure in excess of the Tender Sum plus 15% contingencies.**

4.11.1 To carry out and complete the works, the Contractor shall employ a competent Site Agent and Foreman as part of the key staff. It is a requirement for the Contractor's Site Agent and Foreman to each have a minimum of 3 years relevant experience including experience on projects of a



similar nature. The CV's of the Site Agent and the Foreman should be submitted to the Employer's Agent's Representative for acceptance by the Division (reference is made to Cl.5.3.1 of the Contract Data).

Note:

- i) "similar nature" implies projects that were of a value of at least 70% of this tender's value, and had a comparable Scope of Work in terms of technical requirements and operations.
- ii) "experience" implies experience on projects of a similar nature.
- iii) "accredited degree / diploma" implies a minimum 3-year qualification within the built environment, from a registered University or Institute of Technology.

5.3.1 The **documentation required** before commencement with Works execution are:

- Health and Safety Plan (refer to Clause 4.3)
- Initial Programme (refer to Clause 5.6)
- Security (refer to Clause 6.2)
- Insurance (refer to Clause 8.6)
- CV(s) of Key Site Staff (refer to Clause 4.11.1)
- Sub-Contracting (CPG) Implementation Plan (if applicable)
- If required to be registered, in terms of the Occupational Injuries and Diseases Act (130 of 1993 as amended), the Contractor is to supply proof of being registered and in good standing with the compensation fund by submitting a valid Letter of Good Standing from the Compensation Commissioner. Should the Contractor's Letter of Good Standing be expired, but an application for renewal has been made, the Contractor is to submit the expired Letter of Good Standing AND proof of an application for renewal.

5.3.2 The **time to submit the documentation** required before commencement with Works is **14 Days**.

5.3.3 Add the following paragraph:

"If a construction work permit, in terms of Clause 3(1) of the Construction Regulations (2014), is applicable, the instruction to commence carrying out of the works may only be issued once the construction work permit has been obtained by the Employer's Agent. If a construction work permit is applicable, the contractor shall allow for a minimum period of 37 days, after the submission (or re-submission) of the documentation referred to in Clause 5.3.1., for the issuing of the construction work permit."

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

5.8.1 The **non-working days** are **Saturdays and** Sundays.

(5.1.1) The **special non-working** days are:

- All statutory holidays as declared by National or Regional Government.
- The year-end break:
  - Commencing on the first working day after 15 December.
  - Work resumes on the first working day after 5 January of the next year.

5.8.1 Delete the words "sunset and sunrise" and replace with "17:00 and 07:00".

5.12.2.2 **Abnormal Climatic Conditions (Rain Delays)** - The numbers of days per month, on which work is expected not to be possible as a result of rainfall, for which the Contractor shall make provision, is given in the table below. During the execution of the Works, the Employer's Agent's Representative will certify a day lost due to rainfall only if at least 75% of the work force and plant on site could not work during that specific working day.

Extension of time as a result of rainfall shall be calculated monthly being equal to the number days certified by the Employer's Agent's Representative as lost due to rainfall, less the number of days allowed for as in table below, which could result in a negative figure for certain months. The total extension of time for which the Contractor may apply, shall be the cumulative algebraic sum of the monthly extensions. Should the sum thus obtained be negative, the extension of time shall be taken as NIL.

<u>Month</u>	<u>Days Lost</u>	<u>Average Rainfall</u>	<u>Month</u>	<u>Days Lost</u>	<u>Average Rainfall</u>
January	4*	134	July	1	39
February	3	113	August	2	62
March	3	120	September	2	73
April	2	73	October	3	98
May	2	59	November	3	108
June	1	28	December	1*	102
TOTAL	27	1009mm	* = The number of working days lost allows for the annual statutory Construction holiday in December and January of each year.		

5.13.1 The **penalty for delay** in failing to complete the Works is **R5000** (per Day).

5.14.1 The **requirements for achieving Practical Completion** will be determined by the Employer's Agent (in consultation with the Contractor) and recorded in the minutes of the first Site Meeting / Handover Meeting. (Refer to 1.1.1.24 for a generic definition.) The requirements are to be regularly reviewed with respect to any variations to the Contract.

5.16.3 The **latent defect liability** period is **1 Year**.

6.2.1 **Security (Performance Guarantee)**: Delete the word "selected" and replace it with "stated".

The liability of the Performance Guarantee shall be as per the following table:

<b>Value of Contract (incl. VAT)</b>	<b>Performance Guarantee Required</b>
Less than or equal to R 1m	Nil
Greater than R 1m and less than or equal to R 10m	5% of the Contract Sum
Greater than R 10m	10% of the Contract Sum

6.5.1.2.3 The **percentage allowance** to cover overhead charges for daywork are as follows:

- **80%** of the gross remuneration of workmen and foremen actually engaged in the daywork;
- **20%** on the net cost of materials actually used in the completed work.

No allowance will be made for work done, or for materials and equipment for which daywork rates have been quoted at tender stage.

6.8.2 **Contract Price Adjustment Factor**: The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule (GCC 2015 - page 86) with the following Indices / Descriptions / Coefficients:

- The proportion not subject to adjustment: **x = 0.10**.
- The base month will be the month prior to the month in which tenders close.
- The Index for, **Plant, Materials, and Fuel** shall be based on **2023 = 100**.
- The Index for **Labour** shall be based on **2024 = 100**.

	STATS SA Statistical Release	Table	Description	Coefficient
• “L” is the “Labour Index”	P0141	Table A	Geographic Indices; CPI per Province; Kwa-Zulu Natal	<b>a = 0.28</b>
• “P” is the • “Contractor’s Equipment Index”	P0151.1	Table 4	Plant and Equipment	<b>b = 0.28</b>
• “M” is the “Materials Index”	P0151.1	Table 6	Civil Engineering Material (excluding bitumen)	<b>c = 0.38</b>
• “F” is the “Fuel Index”	P0142.1	Table 1	Coke, petroleum, chemical, rubber and plastic products; Coal and petroleum products; Diesel	<b>d = 0.06</b>

6.8.3 Price adjustments for **variation in the cost of the special material(s)** listed below, will be allowed.

**Bitumen** - escalation will be calculated using the “Rise and Fall” method as determined by the Employer. The base price for bitumen on this contract shall be the ruling price of 50/70 grade bitumen based on the **RUBIS Asphalt South Africa List Selling Price** for Penetration Grade Bitumen, seven (7) days prior to the closing date of tenders.

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

The **percentage advance** on Plant not yet supplied to Site: **Not Required**

6.10.3 **Retention Money:** Delete the word “selected”.

The percentage retention on the amounts due to the Contractor is 10%.

The limit of “retention money” is 5% of the Contract Sum.

Should the Contract Price exceed the Contract Sum then the limit of “retention money” is 5% of the Contract Price.

Interest will not be paid on retention withheld by the Employer.

8.6.1.1.2 The **value of Plant and materials** supplied by the Employer to be included in the insurance sum: **Not Required**

8.6.1.1.3 The **amount to cover professional fees** for repairing damage and loss to be included in the insurance sum: **Not Required**

8.6.1.2 **SASRIA Coupon Policy** for Special Risks to be issued in joint names of Council and Contractor for the full value of the works (including VAT).

8.6.1.3 The limit of indemnity for **liability insurance**: **R10M**

8.6.1.4 **Ground Support Insurance:**

- Minimum amount for any one occurrence, unlimited as to the number of occurrences, against any claim for damages or loss caused by vibration and / or removal of lateral support: **R 1,000,000**.
- Maximum first excess: **R 20,000**.

8.6.1.5 Furthermore, the insurance cover effected by the Contractor shall meet the following requirements:

**Third Party Insurance (Public Liability)**

- Minimum amount for any one occurrence, unlimited as to the number of occurrences, for the period of the contract, inclusive of the maintenance period: **R 10,000,000**.
- Consequential loss to be covered by policy: **Yes**
- Liability section of policy to be extended to cover blasting: **Nil**.
- Maximum excess per claim or series of claims arising out of any one occurrence: **R15,000.00**.

**Principal's own surrounding Property Insurance**

- Minimum amount for any one occurrence unlimited as to the number of occurrences against any claim for damage which may occur to the Council's own surrounding property: **R1,000,000**.
- Maximum first excess: **R 15,000,000**.

**Insurance of Works**

- Minimum amount for additional removal of debris (no damage): **R 500,000,000**.
- Minimum amount for temporary storage of materials off site, excluding Contractor's own premises: **R 50,000,000**.
- Minimum amount for transit of materials to site: **R 50,000,000**.

8.6.5 **Approval by Employer:** At the end of the sub-clause, add the following paragraph:

"Except where otherwise provided in the Special Conditions of Contract, the insurance cover effected by the Contractor in terms of this clause shall not carry a first loss amount greater than those set out below:

<b>Contract Price</b>	<b>First Loss</b>
Less than R 100,000	R 5,000
R 100,000 to R 500,000	R 10,000
R 500,000 to R 1,000,000	R 20,000
R 1,000,000 to R 2,000,000	R 30,000
R 2,000,000 to R 4,000,000	R 40,000
Greater than R 4,000,000	R 50,000

The insurance policy shall contain a specific provision whereby cancellation of the policy prior to the end of the period referred to in Cause 8.2.1 cannot take place without the prior written approval of the Employer. "

**C1.2.2.2 DATA TO BE PROVIDED BY CONTRACTOR**

1.1.1.9 The legal name of Contractor is:

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

1.2.1.2 The Physical address of the Contractor is:

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

The Postal address of the Contractor is:

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

The contact numbers of the Contractor are:

Telephone: .....

Fax: .....

The E-Mail address of the Contractor is:

.....

### C1.2.3 ADDITIONAL CONDITIONS OF CONTRACT

#### C1.2.3.1 COMMUNITY LIAISON OFFICER

The Ward Councillor(s) in whose ward(s) work is to be done will, collectively, identify a community liaison officer (CLO) for the project and make the person known to the Contractor within two days of being requested to do so. The Contractor will be required to enter a written contract with the CLO that specifies:

- The hours of work and the wage rate of the CLO (200% of the Civil Engineering Industry minimum wage).
- The duration of the appointment.
- The duties to be undertaken by the CLO which could include:
  - Assisting in all respects relating to the recruitment of local labour.
  - Acting as a source of information for the community and councillors on issues related to the contract.
  - Keeping the Contractor advised on community issues and issues pertaining to local security.
  - Assisting in setting up any meetings or negotiations with affected parties.
  - Keeping a written record of any labour or community issue that may arise.
  - Any other duties that may be required by the Contractor.

Responsibility for the identification of a pool of suitable labour shall rest with the CLO, although the Contractor shall have the right to choose from that pool. The Contractor shall have the right to determine the total number labourers required at any one time and this may vary during the contract.

The Contractor shall have the right to replace labour that is not performing adequately. Should such occasion arise, it must be done in conjunction with the CLO.

**Payment: The CLO will be reimbursed from the PC Sum item in the Preliminary & General Section of the Bill of Quantities.**

#### C1.2.3.2 EMPLOYMENT OF LOCAL LABOUR

It is a condition of contract that the contractor will be required to employ local labour as specified in eThekweni Council Policy “The use of CLOs and Local Labour”. The contractor will be required to ensure that a minimum of 50% of the labour force is made up of local labour. For the purposes of this contract, “Local labour” will be deemed to be any **persons persons who reside within eThekweni municipality**. The contractor will be required to provide proof of authenticity of local labour. Signed confirmation by the appointed CLO will suffice for this.

No additional costs will be entertained due to this Particular Specification. The contractor will remain responsible for providing proper supervision of all labour and will be responsible for the quality of work produced.

#### C1.2.3.3 SUB-CONTRACTING CONTRACTOR PARTICIPATION GOAL

It is a condition of contract that the contractor must allow for a minimum of **30%** of the contract value (excluding PC Sum items and Fixed Cost allowances) to be subcontracted to contractors who are **>51%** owned by Black People. Proof of payment to the subcontractors will be required to verify that the minimum has been achieved.

The penalty for not achieving the specified Sub-Contracting Goal will be 0.5% of the contract value (excluding PC Sum items and Fixed Cost allowances) for every 1% not achieved.

**C1.2.3.4 FTE (Full Time Equivalent) EMPLOYMENT INFORMATION**

It is a condition of contract that the Contractor supplies the Employer's Agent's Representative with information in respect of the employment of all foremen, artisans and Labour (skilled and unskilled) employed to work on this contract. The information required is:

- Initials (per ID doc)
- Last Name (per ID doc)
- ID Number
- Disability (y / n)
- Education Level

<b>Level 1</b> Unknown	<b>Level 2</b> No Schooling	<b>Level 3</b> Grade 1-3	<b>Level 4</b> Grade 4	<b>Level 5</b> Grade 5-6
<b>Level 6</b> Grade 7-8	<b>Level 7</b> Grade 9	<b>Level 8</b> Grade 10-11	<b>Level 9</b> Grade 12	<b>Level 10</b> Post Matric

- Category of Employment

<b>Category A:</b> Employed as Local Labour for this contract only <b>Category B:</b> Temporarily employed by the Contractor <b>Category C:</b> Permanently employed by the Contractor
--

In addition, the following information is required in respect of each person listed above, on a monthly basis:

- Number of days worked during the month;
- Daily wage rate;
- Number of training days during the month.

The information is to be forwarded in a format acceptable to the Employer's Agent's Representative, but preferably in the form of an emailed EXCEL file (an original file, to be used as a template, will be issued to the Contractor). Contractors without computer facilities will be required to submit a hard copy of the information in a format as agreed to between the Contractor and the Employer's Agent's Representative.

In addition to the tax invoice, to be submitted by the Contractor with his monthly statement, mentioned in Clause 6.10.4 of GCC 2015, the Employer reserves the right to withhold payment until the monthly FTE information has been forwarded to the Employer's Agent's Representative. No additional payment for complying with the above will be made and the Contractor is to make allowance for complying through the time related P & G items (sum) under Part AA: Preliminaries, of the Bill of Quantities.

**C1.2.3.5 PERFORMANCE MONITORING OF SERVICE PROVIDERS**

[For contract awards over R10m] The Contractor shall be subjected to "Performance Monitoring" assessments in terms of the applicable Section (S.53) of the Employer's Supply Chain Management Policy.

Key Performance Indicators (KPIs) are specified in the C3: Scope of Works, or will be discussed and agreed with the Contractor before commencement of the contract.

**C1.2.3.6 EXCEPTED RISKS (Clause 8.3)**

Pursuant to Clause 8.3 of the Conditions of Contract (GCC 2015), the Employer shall not be liable for the payment of standing time costs as a result of the occurrence of any of the "Excepted Risks" as defined under Clause 8.3.

However, the Employer shall reimburse the Contractor in respect of plant de-establishment and re-establishment costs as a result of "Excepted risks" when a written instruction to de-establish is issued to the Contractor.



### C1.2.3.7 CIDB B.U.I.L.D. PROGRAMME

#### a) CIDB Skills Standard

It will be a condition of contract that the Contractor shall, in the performance of the contract, achieve the **Contract Skills Development Goal (CSDG)** established in the below referenced standard:

- CIDB Standard for Developing Skills Through Infrastructure Contracts, published in Gazette Notice No. 48491 of 28 April 2023.

#### b) CIDB Indirect Targeting Standard

It will be a condition of contract that the Contractor shall, in the performance of the contract, achieve the **Contract Participation Goal (CPG)** relating to the engagement of targeted enterprises as established in the below referenced standard:

- CIDB Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts, published in Gazette Notice No. 36190 of 25 February 2013.

## **C2.1: PRICING ASSUMPTIONS / INSTRUCTIONS**

### **C2.1.1 GENERAL**

The Bill of Quantities forms part of the Contract Documents and must be read and priced in conjunction with all the other documents comprising the Contract Documents (refer to C.1.2 of the Tender Data).

### **C2.1.2 PRICING INSTRUCTIONS AND DESCRIPTION OF ITEMS IN THE SCHEDULE**

Measurement and payment shall be in accordance with the relevant provisions of **Clause 8 of each of the Standard Engineering Specifications** referred to in the Scope of Work. The Preliminary and General items shall be measured in accordance with the provisions of **C2.1.8**.

The descriptions of the items in the Bill of Quantities are for identification purposes only and comply generally with those in the Standard Engineering Specification.

**Clause 8 of each Standard Engineering Specification**, read together with the relevant clauses of the Scope of the works, set out what ancillary or associated work and activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standard Engineering Specification, or the Scope of the works, conflict with the Bill of Quantities, the requirements of the Standard Engineering Specification or Scope of the work, as applicable, shall prevail.

### **C2.1.3 QUANTITIES REFLECTED IN THE SCHEDULE**

The quantities given in the Bill of Quantities are estimates only, and subject to re-measuring during the execution of the work. The Contractor shall obtain the Employer's Agent's detailed instructions for all work before ordering any materials or executing work or making arrangements for it.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special Conditions of Contract, the Specifications and Project Specifications and the Drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance

has been made for waste.

The validity of the contract will in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment.

### **C2.1.5 MONTHLY PAYMENTS**

Unless otherwise specified in the Specifications and Project Specifications, progress payments in Interim Certificates, referred to in **Clause 6.10.1 of the General Conditions of Contract**, in respect of "sum" items in the Bill of Quantities shall be by means of interim progress instalments assessed by the Employer's Agent and based on the measure in which the work actually carried out relates to the extent of the work to be done by the Contractor.

### **C2.1.4 PROVISIONAL SUMS / PRIME COST SUMS**

Where Provisional Sums or Prime Cost sums (PC Sum) are provided for items in the Bill of Quantities, payment for the work done under such items will be made in accordance with **Clause 6.6 of the General Conditions of Contract**. The Employer reserves the right, during the execution of the works, to adjust the stated amounts upwards or downwards according to the work actually done under the item, or the item may be omitted altogether, without affecting the validity of the Contract.

The Tenderer shall not under any circumstances whatsoever delete or amend any of the sums inserted in the "Amount" column of the Bill of Quantities and in the Summary of the Bill of Quantities unless ordered or authorized in writing by the Employer before closure of tenders. Any unauthorized changes made by the Tenderer to provisional items in the schedule, or to the provisional percentages and sums in the Summary of the Bill of Quantities, will be treated as arithmetical errors.

### **C2.1.6 PRICING OF THE BILL OF QUANTITIES**

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under the several items, and shall include full compensation for all costs and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based.

Each item shall be priced and extended to the "Total" column by the Tenderer, with the exception of the items for which only rates are required (Rate Only), or items which already have Prime Cost or Provisional Sums affixed thereto. If the Contractor omits to price any items in the Bill of Quantities, then these items will be considered to have a nil rate or price.

All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.

All rates and amounts quoted in the Bill of Quantities shall be in Rands and Cents and shall include all levies and taxes (other than VAT). VAT will be added in the Summary of the Bill of Quantities.

#### **C2.1.7 "RATE ONLY" ITEMS**

The Tenderer shall fill in rates for all items where the words "Rate Only" appear in the "Total" column. "Rate Only" items have been included where:

- (a) an alternative item or material is contemplated;
- (b) variations of specified components in the make-up of a pay item may be expected; and
- (c) no work under the item is foreseen at tender stage but the possibility that such work may be required is not excluded.

For "Rate Only" items no quantities are given in the "Quantity" column but the quoted rate shall apply in

the event of work under this item being required. The Tenderer shall however note that in terms of the Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as unbalanced.

#### **C2.1.8 PRELIMINARY AND GENERAL**

The Preliminary and General Section is provided to cover the Contractor's expenses incurred in complying with the requirements of the tender documents and consists of the following parts:

- Part AA: Preliminaries
- Part AB: General Specifications
- Part AH: Occupational Health and Safety

**Fixed Charge Items:** Each item should be priced separately and, subject to the Engineer certifying in terms of **Clause 6.7 of the General Conditions of Contract** that the work has been done, payment will be made as follows:

- (i) the total amount due when the certified value fixed charge items in this section is less than 5% of the net contract price;
- (ii) when the certified value of fixed charge items in this section is greater than 5% of the net contract price, payment will be limited to 5% of the net contract price. The remainder will be paid when the value of the work done under the contract, excluding the value of fixed charge items in this section, is greater than 50% of the net contract price, excluding the value of fixed charge items in this section.

**Time Related Items:** Any Time Related items not priced shall be deemed to be covered by the prices of other items in the section.

Payment of Time Related items in this section will be made throughout the contract period, the amount per month being the value of the item divided by the completion in months or, if specified in weeks, the equivalent number of months, in terms of **Clause 5.5 of the General Conditions of Contract**. The final monthly increment will only be paid upon the issue of a completion certificate.

## **C2.1: PRICING ASSUMPTIONS / INSTRUCTIONS**

### **C2.1.1 GENERAL**

The Bill of Quantities forms part of the Contract Documents and must be read and priced in conjunction with all the other documents comprising the Contract Documents (refer to C.1.2 and C.2.5 of the Tender Data).

### **C2.1.2 PRICING INSTRUCTIONS AND DESCRIPTION OF ITEMS IN THE SCHEDULE**

Measurement and payment shall be in accordance with the relevant provisions of Part C of the Committee of Transport Officials (COTO) – Standard Specifications for Road and Bridge Works for South African Road Authorities – Draft Standard, referred to in the Scope of Work. The Preliminary and General items shall be measured in accordance with the provisions of C2.1.8.

The descriptions of the items in the Bill of Quantities are for identification purposes only and comply generally with those in the Standard Specification.

Part C of the Standard Specification, read together with the relevant clauses of the Scope of the works, set out what ancillary or associated work and activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standard Specification, or the Scope of the works, conflict with the Bill of Quantities, the requirements of the Standard Specification or Scope of the work, as applicable, shall prevail.

### **C2.1.3 QUANTITIES REFLECTED IN THE SCHEDULE**

The quantities given in the Bill of Quantities are estimates only, and subject to re-measuring during the execution of the work. The Contractor shall obtain the Employer's Agent's detailed instructions for all work before ordering any materials or executing work or making arrangements for it.

The Works as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special Conditions of Contract, the Specifications and Project Specifications and the Drawings. Unless otherwise stated, items are measured

net in accordance with the Drawings, and no allowance has been made for waste.

The validity of the contract will in no way be affected by differences between the quantities in the Bill of Quantities and the quantities finally certified for payment.

### **C2.1.5 MONTHLY PAYMENTS**

Unless otherwise specified in the Specifications and Project Specifications, progress payments in Interim Certificates, referred to in Clause 6.10.1 of the General Conditions of Contract, in respect of "sum" items in the Bill of Quantities shall be by means of interim progress instalments assessed by the Employer's Agent and based on the measure in which the work actually carried out relates to the extent of the work to be done by the Contractor.

### **C2.1.4 PROVISIONAL SUMS / PRIME COST SUMS**

Where Provisional Sums or Prime Cost sums (PC Sum) are provided for items in the Bill of Quantities, payment for the work done under such items will be made in accordance with Clause 6.6 of the General Conditions of Contract. The Employer reserves the right, during the execution of the works, to adjust the stated amounts upwards or downwards according to the work actually done under the item, or the item may be omitted altogether, without affecting the validity of the Contract.

The Tenderer shall not under any circumstances whatsoever delete or amend any of the sums inserted in the "Amount" column of the Bill of Quantities and in the Summary of the Bill of Quantities unless ordered or authorized in writing by the Employer before closure of tenders. Any unauthorized changes made by the Tenderer to provisional items in the schedule, or to the provisional percentages and sums in the Summary of the Bill of Quantities, will be treated as arithmetical errors.

### C2.1.6 PRICING OF THE BILL OF QUANTITIES

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclusive prices to be paid by the Employer for the work described under the several items, and shall include full compensation for all costs and expenses that may be required in and for the completion and maintenance during the defects liability period of all the work described and as shown on the drawings as well as all overheads, profits, incidentals and the cost of all general risks, liabilities and obligations set forth or implied in the documents on which the Tender is based.

Each item shall be priced and extended to the "Total" column by the Tenderer, with the exception of the items for which only rates are required (Rate Only), or items which already have Prime Cost or Provisional Sums affixed thereto. **If the Contractor omits to price any items in the Bill of Quantities, then these items will be considered to have a nil rate or price.**

**All items for which terminology such as "inclusive" or "not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during the execution of the Contract.**

All rates and amounts quoted in the Bill of Quantities shall be in Rands and Cents and shall include all levies and taxes (other than VAT). VAT will be added in the Summary of the Bill of Quantities.

### C2.1.7 "RATE ONLY" ITEMS

The Tenderer shall fill in rates for all items where the words "Rate Only" appear in the "Total" column. "Rate Only" items have been included where:

- (a) an alternative item or material is contemplated;
- (b) variations of specified components in the make-up of a pay item may be expected; and
- (c) no work under the item is foreseen at tender stage but the possibility that such work may be required is not excluded.

For "Rate Only" items no quantities are given in the "Quantity" column but the quoted rate shall apply in the event of work under this item being required. The Tenderer shall however note that in terms of the

Tender Data the Tenderer may be asked to reconsider any such rates which the Employer may regard as unbalanced.

### C2.1.8 PRELIMINARY AND GENERAL

The Preliminary and General Section is provided to cover the Contractor's expenses incurred in complying with the requirements of the tender documents and consists of the following parts:

- Part C1.2: General Requirements and Provisions
- Part C1.4: Facilities for the Engineer
- Part C1.5: Accommodation of Traffic

**Fixed Charge Items:** Each item should be priced separately and, subject to the Engineer certifying in terms of **Clause 6.7 of the General Conditions of Contract** that the work has been done, payment will be made as follows:

- (i) the total amount due when the certified value fixed charge items in this section is less than 5% of the net contract price;
- (ii) when the certified value of fixed charge items in this section is greater than 5% of the net contract price, payment will be limited to 5% of the net contract price. The remainder will be paid when the value of the work done under the contract, excluding the value of fixed charge items in this section, is greater than 50% of the net contract price, excluding the value of fixed charge items in this section.

**Time Related Items:** Any Time Related items not priced shall be deemed to be covered by the prices of other items in the section.

Payment of Time Related items in this section will be made throughout the contract period, the amount per month being the value of the item divided by the completion in months or, if specified in weeks, the equivalent number of months, in terms of **Clause 5.5 of the General Conditions of Contract**. The final monthly increment will only be paid upon the issue of a completion certificate.

**Value Related Items:** Value Related Items are not included in the Bill of Quantities. The Tenderer shall include any costs associated with Value Related Items under the relevant Fixed Charge Items or Time Related Items.

**C2.2: BILL OF QUANTITIES**

The Bill of Quantities follows and comprises of 21 pages. The pages are numbered **BoQ 81 to BoQ 103**

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>A1</b>	<b>SABS 1200 &amp; PAM &amp; C3.1</b>	<b>Fixed Charge Items:</b>				
A1.1	8.3.1	Contractual requirements	Sum	1		
A1.2	8.3.2	Facilities for Contractor	Sum	1		
A1.3	8.3.3	Other fixed charge obligations	Sum	1		
A1.4	8.3.4	Removal of site establishment	Sum	1		
A1.5	PAM	The preparation of risk assessments, safe work procedures, the Health and Safety file, the Health and Safety plan, provision of Personal Protective Equipment and Clothing and any other Health and Safety matters that the contractor deems necessary	Sum	1		
A1.6	PAM	The completion and checking of the project Health and Safety file upon completion of the works and handing it over to the Client	Sum	1		
<b>A2</b>	<b>8.4</b>	<b>Time-Related Items:</b>				
A2.1	8.4.1	Contractual requirements	Weeks	156		
A2.2	8.4.2	Operation and maintenance of facilities on the Site for the duration of construction, except where otherwise stated:	Weeks	156		
A2.3	8.4.3	Supervision during the course of the Contract	Weeks	156		
A2.4	8.4.4	Company and Head Office Overhead Costs for the duration of the Contract	Weeks	156		
A2.5	8.4.5	Other time-related obligations	Weeks	156		
A2.6	PAM	Contractor's obligations in respect of the Occupational Health and Safety Act and Construction Regulations for the duration of the contract	Weeks	156		
A2.7	PAM	Updating and amending risk assessments, safe working procedures, the project Health and Safety file, the Health and Safety plan, the provision and maintenance of Personal Safety plan, the provision and maintenance of Personal Protective Equipment and Clothing and any other Health and Safety matters the Contractor deems necessary	Weeks	156		
<b>Carried forward</b>						

## Section A: Preliminary &amp; General

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>Brought forward</b>						
A2.8		Allow for observing the requirements of the Environmental Management Plan	Weeks	156		
A2.9	C3.1.3	Supply the services of a Category A plumber who is registered as such with EWS, 2 general workers, a one-ton bakkie with a roof rack and trailer and a security team (where required)	Weeks	156		
A2.10		Contractor to ensure that all necessary equipment/plant needed is always available and in working condition e.g.: Water pump, generator, breaker, angle grinder etc.	Weeks	156		
<b>A3</b>	8.5	<b>Provisional Sums:</b>				
A3.1		Relocation of existing services and fences where ordered	Prov. Sum	1	R150 000	R150 000,00
A3.2		Proving and locating existing services, only where ordered by the engineer	Prov. Sum	1	R150 000	R150 000,00
A3.3		Inspection of Materials by Inspectors appointed by the engineer	Prov. Sum	1	R15 000	R15 000,00
A3.4		Contractor's mark-up on Item A.3.3	% Prov. Sum	50000		
A3.5		Allowance for additional fittings that may be required not specified in the BOQ	Prov. Sum	1	R150 000	R150 000,00
A3.6		Allowance for underground meter chamber (if required)	Prov. Sum	1	R120 000	R120 000,00
<b>A4</b>	8.7	<b>Dayworks</b>				
A4.1		Unskilled labour	Days	60		
A4.2		Skilled workers - Artisan / plumber	Days	30		
A4.3		Foreman	Days	25		
A4.4		Others (tenderer to specify) .....	Days	25		
A4.5		LDV - Type (.....) Capacity - 1 ton	Days	25		
<b>Total carried to Summary</b>						

Section B: 15mm Flow  
Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B1	SABS 1200 & PS & C3.1  C3.1.3	<b>Site works</b> Locating existing meter, liaison with consumers, excavation and removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures and accurate record keeping (for 15mm connection).	No	30 000		
B2	C3.1.3	<b>Meter Assembly and Installation - Collected from EWS Stores (15mm meter assembly drawing No 102):</b>  Collect valve and meter from stores, all additional fittings and piping required, assemble, and install complete as per drawing (102) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of:  25mmx90 degree bend with 3/4" threaded female offtake 2x3/4" dia plastic ezee ball valve (fused) 2x22mm dia 90 degree pp elbow 2x3/4" tail piece 1x25mm Dirt Box 1x 15mm meter  <b>TOTAL PRICE FOR 15mm ASSEMBLY</b>	No	30 000		
B3	C3.1.3	<b>Meter Assembly and Installation - Fabricated/purchased from external supplier (cost to supply each meter assembly as per drawing No. 102)</b>  In the event of unforeseen shortages of materials at eThekweni stores, supply the fittings indicated below, to EWS current Departmental Standards (cost of each item)	No	1		
B3.1		25mmx90 degree bend with 3/4" threaded female offtake	No	1		
B3.2		3/4" dia plastic ezee ball valve (fused)	No	1		
B3.3		22mm dia 90 degree pp elbow	No	1		
B3.4		3/4" tail piece	No	1		
B3.5		1x25mm Dirt Box	No	1		
B3.6		1x 15mm meter	No	1		
<b>Carried forward</b>						



Section B: 15mm Flow  
Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>Brought forward</b>						
C1	SABS 1200 & PS & C3.1 C3.1.3	<b>Site works</b> Locating existing meter, liaison with consumers, excavation and removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures and accurate record keeping (for 25mm connection).	No	2000		
C2	C3.1.3	<b>Meter Assembly and Installation - Collected from EWS Stores (25mm meter assembly as per drawing No. 104):</b> Collect valve and meter from stores, all additional fittings and piping required, assemble, and install complete as per drawing (104) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of:  25mmx90 degree bend 22mm threaded female offtake 2x3/4" dia plastic ezee ball valve (fused) 2x22mm dia 90 degree pp elbow 1x25mm Dirt Box 1x 25mm meter <b>TOTAL PRICE FOR 25mm ASSEMBLY</b>	No	2000		
B7	1200L  C3.1.3	<b>Fittings</b> In the event of unforeseen shortages of materials at eThekwini stores, supply the fittings indicated below, to EWS current Departmental Standards (cost to supply each <b>25mm meter assembly as per drawing No.104</b> )	No	1		
B7.1		<b>Adaptors, couplings and reducers</b>				
B7.1.1		25mm copper to steel	No	1		
B7.1.2		25mm steel to steel	No	1		
B7.1.3		25mm x Table D to Table 16 Adaptor Spool	No	1		
B7.1.4		25mm x 15mm Brass Reducer	No	1		
B7.1.5		22mm PVC	m	1		
B7.1.6		25mm x 25mm Screw Flange	No	1		
<b>Carried forward</b>						

Section B: 15mm Flow  
Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>Brought forward</b>						
<b>B7.2</b>		<b><i>Compression Fittings for HDPE</i></b>				
B7.2.1		25mm Flange adaptor	No	1		
B7.2.2		25mm Female adaptor	No	1		
B7.2.3		25mm Male adaptor	No	1		
B7.2.4		25mm Male Bends	No	1		
B7.2.5		25mm Elbows	No	1		
B7.2.6		25mm x 110mm Male Adaptor	No	1		
B7.2.7		25mm female bends	No	1		
<b>B7.3</b>		<b><i>Copper Fittings</i></b>				
B7.3.1		25mm Copper to Male Adaptor	No	1		
B7.3.2		25mm Copper to Steel 90-degree elbow	No	1		
B7.3.3		25mm x 15mm Copper to Steel reducer	No	1		
B7.3.4		25mm F/Male Iron Adaptor	No	1		
<b>B8</b>		<b><i>Pipe Cut to Suit on Site dimensions</i></b>				
B8.1		22mm HDPE pipe	m	1		
<b>Total carried to Summary</b>						

Section D: 40mm Flow  
Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D1	<b>SABS 1200 &amp; PS &amp; C3.1 C3.1.3</b>	<b>Site works</b>  Locating existing meter, liaison with consumers, excavation and removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures and accurate record keeping (40mm connection).	No	500		
D2	<b>C3.1.3</b>	<b>Meter Assembly and Installation - Collected from EWS Stores: (40mm connection as per drawing no. 72056)</b>  Collect valve and meter from stores, all additional fittings and piping required, assemble, and install complete as per drawing (72056, sheet 1) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of:  4x40mm Threaded flange 2x40mm stainless steel barrel nipple  2x50mm x 90 deg Flanged bend one leg extended by 70mm  2x40mm Ball O Stop valves 1x40mm Dirt Box 1x40mm Flow meter with steel meter cover <b>TOTAL PRICE FOR 40mm ASSEMBLY</b>	No	500		
D3	<b>C3.1.3</b>	<b>Meter Assembly and Installation - Fabricated/purchased from external supplier (Supply cost of each 40mm assembly as per drawing no. 72056, sheet 1)</b>  In the event of unforeseen shortages of materials at eThekwini stores, supply the fittings indicated below, to EWS current Departmental Standards (cost of each item as per drawing No. 72056, sheet 1)	No	1		
D3.1		40mm Threaded flange adaptor to suit	No	1		
D3.2		40mm stainless steel barrel nipple	No	1		
D3.3		40mm x 90 deg flanged bend one leg extended by 100mm	No	1		
D3.4		40mm Ball Stop valves	No	1		
D3.5		40mm Dirt Box	No	1		
D3.6		40mm Flow meter with steel meter cover	No	1		
D3.7		M16 nuts and Bolts	No	1		
D3.8		M16 washers	No	1		
D3.9		40mm x 90 deg flanged bend stainless steel spool piece	No	1		
<b>Carried forward</b>						

Section B: 40mm Flow  
Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>Brought forward</b>						
D4	C3.1.3	<b>Fabricate and Install 40 Meter Cover</b>  Fabricate a 3mm thick steel meter cover. Cover to be power coated and Rilsan Coated. Light grey in colour. Cover will be bolted to meter flanges upon installation. An allowance slot must be catered for meter reading. Three sides to be solid with a hinged lid to allow for meter logging. A drawing will be provided at contract award date.	No	1		
D5	PS1.3	The Contractor is to ensure that all road signs, barricades, delineators, flagmen and speed control are affected and removed on completion of different stages of the work as required.	No	20		
	1200L	<b>Pipework:</b>				
D6	C3.1.3	<b>Steel Pipes and Specials</b>  Supply API 5L Sch 40 steel pipe, manufacture, handle, lay, bed, joint, and disinfect the following (rates to include for supplying of all steel pipes, in-situ welding of joints and flanges where applicable, all cutting, flanges, jointing material, wastage and electrogalvanized bolts, nuts, and washers). All pipes and specials to be coated and lined with Rilsan to a minimum thickness of 300 microns.				
D6.1		<b>50mm ND Spool Pieces Flanged both ends</b>				
D6.1.1		0 mm - 200mm	No	1		
D6.1.2		200mm - 400mm	No	1		
D6.1.3		400mm - 600mm	No	1		
D6.1.4		600mm - 800mm	No	1		
D6.1.5		800mm - 1000mm	No	1		
B6.2		<b>50mm ND Bends</b>				
B6.2.1		90 Degree bends flanged both ends	No	1		
D7	1200L	<b>Fittings</b>				
	C3.1.3	In the event of unforeseen shortages of materials at eThekwini stores, supply the fittings indicated below, to EWS current Departmental Standards (cost of each item)				
D7.1		<b>Adaptors, couplings and reducers</b>				
D7.1.1		50mm copper to steel	No	1		
D7.1.2		50mm steel to steel	No	1		
D7.1.3		50mm x Table D to Table 16 Adaptor Spool	No	1		
D7.1.4		54mm x 42mm Brass Reducer	No	1		
D7.1.5		50mm PVC	m	1		
D7.1.6		50mm x 50mm Screw Flange	No	1		
<b>Carried forward</b>						

Section B: 40mm Flow  
Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>Brought forward</b>						
	<b>1200L</b>	<b>Fittings</b>				
	<b>C3.1.3</b>	In the event of unforeseen shortages of materials at eThekwini stores, supply the fittings indicated below, to EWS current Departmental Standards				
<b>D7.2</b>		<b>Compression Fittings for HDPE</b>				
D7.2.1		40mm Flange adaptor	No	1		
D7.2.2		40mm Female adaptor	No	1		
D7.2.3		40mm Male adaptor	No	1		
D7.2.4		40mm Male Bends	No	1		
D7.2.5		40mm Elbows	No	1		
D7.2.6		40mm x 110mm Male Adaptor	No	1		
D7.2.7		40mm female bends	No	1		
<b>D7.3</b>		<b>Copper Fittings</b>				
D7.3.1		54mm Copper to Male Adaptor	No	1		
D7.3.2		54mm Copper to Steel 90-degree elbow	No	1		
D7.3.3		54mm x 42mm Copper to Steel reducer	No	1		
D7.3.4		54mm F/Male Iron Adaptor	No	1		
<b>D8</b>		<b>Pipe Cut to Suit on Site dimensions</b>				
D8.1		50mm HDPE pipe	m	1		
<b>Total carried to Summary</b>						

Section E: 50mm Flow  
Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E1	<b>SABS 1200 &amp; PS &amp; C3.1</b>  <b>C3.1.3</b>	<b>Site works</b>  Locating existing meter, liaison with consumers, excavation and removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures and accurate record keeping (50mm assembly connection as per drawing no. 72056).	No	1000		
E2	<b>C3.1.3</b>	<b>Meter Assembly and Installation - Collected from EWS Stores (50mm meter assembly as per drawing no,72056):</b>  Collect valve and meter from stores, all additional fittings and piping required, assemble, and install complete as per drawing (72056, sheet 1) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of:  4x50mm Threaded flange 2x50mm stainless steel barrel nipple  2x50mm x 90 deg Flanged bend one leg extended by 70mm  2x50mm Ball O Stop valves 1x50mm Dirt Box 1x40/50mm Flow meter <b>TOTAL PRICE FOR 50mm ASSEMBLY</b>	No	1000		
E3	<b>C3.1.3</b>	<b>Meter Assembly and Installation - Fabricated/purchased from external supplier (Supply cost of each 50mm meter assembly as per drawing no. 72056)</b>  In the event of unforeseen shortages of materials at eThekwini stores, supply the fittings indicated below, to EWS current Departmental Standards (cost of each item as per drawing no. 72056)	No	1		
E3.1		50mm Threaded flange daptor to suit	No	1		
E3.2		50mm stainless steel barrel nipple	No	1		
E3.3		50mm x 90 deg flanged bend one leg extended by 100mm	No	1		
E3.4		50mm Ball Stop valves	No	1		
E3.5		50mm Dirt Box	No	1		
E3.6		50/40mm Flow meter	No	1		
E3.7		M16 nuts and Bolts	No	1		
E3.8		M16 washers	No	1		
E3.9		50mm x 90 deg flanged bend stainless steel spool piece	No	1		
<b>Carried forward</b>						

Section F: 80mm Flow  
Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
F1	<b>SABS 1200 &amp; PS &amp; C3.1</b>  <b>C3.1.3</b>	<b>Site works</b>  Locating existing meter, liaison with consumers, excavation & removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures an accurate record keeping.	No	100		
F2	<b>C3.1.3</b>	<b>Meter Assembly and Installation - Collected from EWS Stores (80 meter assembly as per drawing no.72056):</b>  Collect valve and meter from stores, all additional fittings and piping required, assemble, and install complete as per drawing (72056, sheet 2, Rev 1) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of:  1x80mm Butterfly valve supplied complete with matching flanges and jointing material  1x80mm Gate valve supplied complete with matching flanges and jointing material  1x80mm Spool Piece 250mm Flanged Distance  2x80mm x 90 deg Flanged bend one leg extended by 100mm  1x80mm dirt box  1x80mm x 240mm long flanged spool  1x80mm Flow meter with steel meter cover  <b>TOTAL PRICE FOR 80mm ASSEMBLY</b>	No	100		
F3	<b>C3.1.4</b>	<b>Meter Assembly and Installation - Fabricated/purchased from external supplier (Supply cost of each 80mm assembly as per drawing no. 72056)</b>  In the event of unforeseen shortages of materials at eThekwini stores, supply the fittings indicated below, to EWS current Departmental Standards (Cost of each fitting as per 80mm meter assembly drawing no. 72056)	No	1		
F3.1		80mm Butterfly valve supplied complete with matching flanges and jointing material	No	1		
F3.2		80mm Gate valve supplied complete with matching flanges and jointing material	No	1		
F3.3		80mm Spool Piece 250mm Flanged Distance	No	1		
F3.4		80mm x 90 deg Flanged bend one leg extended by 100mm	No	1		
F3.5		80mm dirt box	No	1		
F3.6		80mm x 240mm long flanged spool piece	No	1		
F3.7		80mm Flow meter with steel meter cover	No	1		
F3.8		M16 nut and bolt (long length)	No	1		
F3.9		M16 washers	No	1		
F3.10		80mm x 90 deg flanged bend	No	1		
F3.11		80mm steel spool piece (refer to Table 3 for dimensions)	No	1		
<b>Carried forward</b>						

Section F: 80mm Flow  
Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>Brought forward</b>						
F4	C.4.1	<b>Fabricate and Install 80mm Meter Cover</b>  Fabricate a 3mm thick steel meter cover. Cover to be power coated and Rilsan Coated. Light grey in colour. Cover will be bolted to meter flanges upon installation. An allowance slot must be catered for meter reading. Three sides to be solid with a hinged lid to allow for meter logging. A drawing will be provided at contract award date.	No	1		
F5	PS1.3	The Contractor is to ensure that all road signs, barricades, delineators, flagmen and speed control are affected and removed on completion of different stages of the work as required.	No	30		
F6	1200L  C3.1.3	<b>Pipework:</b>  <b>Steel Pipes and Specials</b>  Supply API 5L Sch 40 steel pipe, manufacture, handle, lay, bed, joint, and disinfect the following (rates to include for supplying of all steel pipes, in-situ welding of joints and flanges where applicable, all cutting, flanges, jointing material, wastage and electrogalvanized bolts, nuts, and washers). All pipes and specials to be coated and lined with Rilsan to a minimum thickness of 300 microns.				
F6.1		<b>80mm ND Spool Pieces Flanged both ends</b>				
F6.1.1		0 mm - 200mm	No	1		
F6.1.2		200mm - 400mm	No	1		
F6.1.3		400mm - 600mm	No	1		
F6.1.4		600mm - 800mm	No	1		
F6.1.5		800mm - 1000mm	No	1		
F6.2		<b>80mm ND Bends</b>				
F6.2.1		90 Degree bends flanged both ends	No	1		
<b>Carried forward</b>						



**Section F: 80mm Flow Meter Installation**

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>Brought forward</b>						
<b>F7</b>	<b>1200L</b>	<b>Fittings</b>				
	<b>C3.1.3</b>	In the event of unforeseen shortages of materials at eThekwini stores, supply the fittings indicated below, to EWS current Departmental Standards				
<b>F7.1</b>		<b>Adaptors, couplings, and reducers</b>				
F7.1.1		80mm x Table D to Table 16 Adaptor Spool	No	1		
F7.1.2		75mm Maxi Fit Flange Adaptor	No	1		
F7.1.3		75mm Maxi Fit Flange Coupling	No	1		
F7.1.4		75mm Steel Barrel adaptor	No	1		
<b>F7.2</b>		<b>Compression Fittings for HDPE</b>				
F7.2.1		63mm Flange Adaptors	No	1		
F7.2.2		63mm x 90-degree Bends	No	1		
F7.2.3		75mm Flange adaptor	No	1		
F7.2.4		75mm Female Adaptor	No	1		
F7.2.5		75mm x 90 Degree Bends	No	1		
F7.2.6		75mm x 90mm Reducer	No	1		
F7.2.7		75mm x 75mm x 75mm Flanged (Special Fitting)	No	1		
F7.2.8		75mm x 75mm Screwed flange	No	1		
F7.2.9		75mm Elbows	No	1		
<b>F8</b>		<b>Pipe Cut to Suit on Site Dimensions</b>				
F8.1		63mm HDPE pipe	m	1		
F8.2		75mm HDPE pipe	m	1		
F8.3		100mm pipe	m	1		
<b>Total carried to Summary</b>						

Section G: 100mm Flow  
Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
G1	SABS 1200 & PS & C3.1  C3.1.3	<b>Site works</b> Locating existing meter, liaison with consumers, excavation & removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures an accurate record keeping (150mm meter assembly connection as per drawing no.72056).	No	1		
G2	C3.1.3	<b>Meter Assembly and Installation - Collected from EWS Stores (Refer to 1500 drawing no.72056):</b> Collect valve and meter from stores, all additional fittings and piping required, assemble, and install complete as per drawing (72056, sheet 3, Rev A) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of:  1x 100mm Butterfly valve supplied complete with matching flanges and jointing material  1x100mm Gate valve supplied complete with matching flanges and jointing material  1x100mm Spool Piece 250mm Flanged Distance 1x 100mm dirt box 2x 100mm x 300mm long flanged spool 1x 100mm Flow meter  <b>TOTAL PRICE FOR 150mm ASSEMBLY</b>	No	rate only		----
G3	PMS5	<b>Meter Assembly and Installation - Fabricated/purchased from external supplier (150mm assembly as per drawing no. 72056)</b> In the event of unforeseen shortages of materials at eThekwini stores, supply the fittings indicated below, to EWS current Departmental Standards				
G3.1		100mm Butterfly valve supplied complete with matching flanges and jointing material	No	1		
G3.2		100mm Gate valve supplied complete with matching flanges and jointing material	No	1		
G3.3		100mm Spool Piece 250mm Flanged Distance	No	1		
G3.4		100mm x 90 deg Flanged bend one leg extended by 100mm	No	1		
G3.5		100mm dirt box	No	1		
G3.6		100mm x 300mm long flanged spool	No	1		
G3.7		100mm Flow meter with steel meter cover	No	1		
G3.8		M16 nuts and bolts (Long length)	No	1		
G3.9		M16 washer	No	1		
G3.10		100mm x 90 deg Flanged bends with spool piece	No	1		
<b>Carried forward</b>						

Section G: 100mm Flow  
Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>Brought forward</b>						
<b>G4</b>	<b>C3.1.3</b>	<b>Fabricate and Install 150mm Meter Cover</b>  Fabricate a 3mm thick steel meter cover. Cover to be power coated and Rilsan Coated. Light grey in colour. Cover will be bolted to meter flanges upon installation. An allowance slot must be catered for meter reading. Three sides to be solid with a hinged lid to allow for meter logging. A drawing will be provided at contract award date.	No	1		
<b>G5</b>	<b>PS1.3</b>	The Contractor is to ensure that all road signs, barricades, delineators, flagmen and speed control are affected and removed on completion of different stages of the work as required.	No	1		
	<b>1200L</b>	<b>Pipework:</b>				
<b>G6</b>	<b>C3.1.3</b>	<b>Steel Pipes and Specials</b>  Supply API 5L Sch 40 steel pipe, manufacture, handle, lay, bed, joint, and disinfect the following (rates to include for supplying of all steel pipes, in-situ welding of joints and flanges where applicable, all cutting, flanges, jointing material, wastage and electrogalvanized bolts, nuts, and washers). All pipes and specials to be coated and lined with Rilsan to a minimum thickness of 300 microns.				
<b>G6.1</b>		<b>150mm ND Spool Pieces Flanged both ends</b>				
G6.1.1		0 mm - 200mm	No	1		
G6.1.2		200mm - 400mm	No	1		
G6.1.3		400mm - 600mm	No	1		
G6.1.4		600mm - 800mm	No	1		
G6.1.5		800mm - 1000mm	No	1		
<b>G6.2</b>		<b>150mm ND Bends</b>				
G6.2.1		90 Degree bends flanged both ends	No	1		
<b>Carried forward</b>						

Section H: 150mm Flow Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
H1	SABS 1200 & PS & C3.1 C3.1.3	<b>Site works</b> Locating existing meter, liaison with stakeholders, excavation & removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures an accurate record keeping (200mm connection).	No	1		
H2	C3.1.3	<b>Meter Assembly and Installation - Collected from EWS Stores (200mm meter assembly as per drawing no.72056):</b> Collect valve and meter from stores, all additional fittings and piping required, assemble, and install complete as per drawing (72056, sheet 4, Rev 1) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of:  1x 150mm Butterfly valve supplied complete with matching flanges and jointing material  1x150mm Gate valve supplied complete with matching flanges and jointing material  1x150mm Spool Piece 250mm Flanged Distance 2x 150mm x 90 deg Flanged bend one leg extended by 100mm  1x 150mm dirt box with 450mm spool 2x 150mm x 450mm long flanged spool 1x 150mm Flow meter  <b>TOTAL PRICE FOR 200mm ASSEMBLY</b>	No	rate only		----
H3	PMS5	<b>Meter Assembly and Installation - Fabricated/purchased from external supplier (200mm assembly as per drawing no. 72056)</b>  In the event of unforeseen shortages of materials at eThekweni stores, supply the fittings indicated below, to EWS current Departmental Standards	No	rate only		
H3.1		200mm Butterfly valve supplied complete with matching flanges and jointing material	No	1		
H3.2		200mm Gate valve supplied complete with matching flanges and jointing material	No	1		
H3.2		200mm Spool Piece 250mm Flanged Distance	No	1		
H3.3		200mm x 90deg Flanged bend one leg extended by 100mm	No	1		
H3.4		200mm dirt box with 450mm spool	No	1		
H3.5		200mm x 450mm long flanged spool	No	1		
H3.6		200mm Flow meter with steel meter cover	No	1		
H3.7		M16 nuts and bolts (long length)	No	1		
H3.8		M16 washers	No	1		
H3.9		200mm x 90 deg short steel radius bends with spool piece	No	1		
<b>Carried forward</b>						

Section E: 150mm Flow Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>Brought forward</b>						
H4	C3.1.3	<b>Fabricate and Install 200mm Meter Cover</b>  Fabricate a 3mm thick steel meter cover. Cover to be power coated and Rilsan Coated. Light grey in colour. Cover will be bolted to meter flanges upon installation. An allowance slot must be catered for meter reading. Three sides to be solid with a hinged lid to allow for meter logging. A drawing will be provided at contract award date.	No	1		
H5	PS1.3	The Contractor is to ensure that all road signs, barricades, delineators, flagmen and speed control are affected and removed on completion of different stages of the work as required.	No	1		
H6	1200L C3.1.3	<b>Pipework: Steel Pipes and Specials</b>  Supply API 5L Sch 40 steel pipe, manufacture, handle, lay, bed, joint, and disinfect the following (rates to include for supplying of all steel pipes, in-situ welding of joints and flanges where applicable, all cutting, flanges, jointing material, wastage and electrogalvanized bolts, nuts, and washers). All pipes and specials to be coated and lined with Rilsan to a minimum thickness of 300 microns.				
H6.1		<b>200mm ND Spool Pieces Flanged both ends</b>				
H6.1.1		0 mm - 200mm	No	1		
H6.1.2		200mm - 400mm	No	1		
H6.1.3		400mm - 600mm	No	1		
H6.1.4		600mm - 800mm	No	1		
H6.1.5		800mm - 1000mm	No	1		
H6.2		<b>200mm ND Bends</b>				
H6.2.1		90 Degree bends flanged both ends	No	1		
<b>Carried forward</b>						

Section I: 200mm Flow Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
I1	SABS 1200 & PS & C3.1 C3.1.3	<b>Site works</b> Locating existing meter, liaison with consumers, excavation & removal of existing meter installation and returning material to stores. Compliance with EWS returns procedures meter exchange procedures an accurate record keeping.	No	1		
I2	C3.1.3	<b>Meter Assembly and Installation - Collected from EWS Stores (250mm assembly as per drawing no.72056):</b> Collect valve and meter from stores, all additional fittings and piping required, assemble, and install complete as per drawing (72056, sheet 5, Rev 1) including cutting into existing pipeline, preparation of both pipe edges, for new pipe work (including making good existing corrosion protection if any) consisting of: 1x 200mm Butterfly valve supplied complete with matching flanges and jointing material 1x200mm Gate valve supplied complete with matching flanges and jointing material 1x200mm Spool Piece 250mm Flanged Distance 2x 200mm x 90 deg Flanged bend one leg extended by 100mm 1x 200mm dirt box 2x 200mm x 450mm long flanged spool 1x 200mm Flow meter <b>TOTAL PRICE FOR 250mm ASSEMBLY</b>	No		Rate Only	-----
I3	PMS5	<b>Meter Assembly and Installation - Fabricated/purchased from external supplier (250mm assembly as per drawing no. 72056)</b> In the event of unforeseen shortages of materials at eThekweni stores, supply the fittings indicated below, to EWS current Departmental Standards	No	1	Rate Only	
I3.1		250mm Butterfly valve supplied complete with matching flanges and jointing material	No	1		
I3.2		250mm Gate valve supplied complete with matching flanges and jointing material	No	1		
I3.3		250mm Spool Piece 300mm Flanged Distance	No	1		
I3.4		250mm x 90deg Flanged bend one leg extended by 150mm	No	1		
I3.5		250mm dirt box 350mm long	No	1		
I3.6		250mm x 600mm long flanged spool	No	1		
I3.7		250mm Flow meter with steel meter cover	No	1		
I3.8		M16 nuts and bolts (long length)	No	1		
I3.9		M16 washers	No	1		
I3.10		250mm x 90 deg short steel radius bends with spool piece	No	1		
I3.11		250mm steel spool piece (See table 3)	No	1		
<b>Carried Forward</b>						

Section I: 200mm Flow  
Meter Installation

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>Brought forward</b>						
I4	C3.1.3	<b>Fabricate and Install 250mm Meter Cover</b>  Fabricate a 3mm thick steel meter cover. Cover to be power coated and Rilsan Coated. Light grey in colour. Cover will be bolted to meter flanges upon installation. An allowance slot must be catered for meter reading. Three sides to be solid with a hinged lid to allow for meter logging. A drawing will be provided at contract award date.	No	1		
I5	PS1.3	The Contractor is to ensure that all road signs, barricades, delineators, flagmen and speed control are affected and removed on completion of different stages of the work as required.	No	1		
I6	1200L C3.1.3	<b>Pipework: Steel Pipes and Specials</b>  Supply API 5L Sch 40 steel pipe, manufacture, handle, lay, bed, joint, and disinfect the following (rates to include for supplying of all steel pipes, in-situ welding of joints and flanges where applicable, all cutting, flanges, jointing material, wastage and electrogalvanized bolts, nuts, and washers). All pipes and specials to be coated and lined with Rilsan to a minimum thickness of 300 microns.				
I6.1		<b>250mm ND Spool Pieces Flanged both ends</b>				
I6.2.1		0 mm - 200mm	No	1		
I6.3.1		200mm - 400mm	No	1		
I6.4.1		400mm - 600mm	No	1		
I6.5.1		600mm - 800mm	No	1		
I6.6.1		800mm - 1000mm	No	1		
I6.2		<b>250mm ND Bends</b>				
I6.2.1		90 Degree bends flanged both ends	No	1		
<b>Carried Forward</b>						

## Section K: Miscellaneous

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>K1</b>	<b>SABS 1200 &amp; PS &amp; PMS1200C  1200C</b>	<b>Extra over Item 2 for Schedules B to I</b>				
K1.1		Remove existing sidewalk/road asphalt surface to offsite contractors tip	m2	100		
K1.2		Remove existing sidewalk/road block paved surface to offsite contractors tip	m2	100		
K1.3		Remove existing sidewalk/road concrete surface to offsite contractors tip	m2	25		
K1.4		Remove existing road pavement layers & stockpile for later re-use	m3	25		
K1.5		Demolish existing chamber & dispose of material (where required). Typical concrete chamber with dimensions 900mm x 600mm x 800mm deep.	No	5		
<b>K2</b>		<b>Sidewalk / road reinstatement. Extra over item 2 for schedules B to I.</b>				
K2.1		Reinstate excavated road layerworks to original specifications, compacted to a min or 95% Mod AASHTO, using materials from stockpile.	m3	25		
K2.2		Reinstate asphalt surface using cold mix collected from stores	m2	100		
K2.3		Reinstate block paving layer using pavers from stockpile	m2	20		
K2.4		Reinstate concrete surface using 25MPa concrete (wood float finish to match existing surface	No	5		
K2.5		Plant grass sprigs at 100mm centre to centre	m2	200		
<b>K3</b>		<b>Traffic accommodation - extra over item 2 for schedules B to I</b>				
K3.1		The contractor is to accommodate traffic in accordance with project specifications "Requirements for accommodation of traffic	Sum	1		
<b>Carried Forward</b>						



## Section K: Miscellaneous

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>Brought forward</b>						
<b>K4</b>		<b>Meter Assembly and Installation</b>				
K4.1		Extra over Item 2 for Item 2 in Schedules B to I for installation after hours for the following meter sizes:				
K4.1.1		15mm connection	No	2 500		
K4.1.2		25mm connection	No	60		
K4.1.3		45/50mm connection	No	50		
K4.1.4		75/80mm connection	No	10		
K4.1.5		100mm connection	No	1		
K4.1.6		150mm connection	No	1		
K4.1.7		200mm connection	No	1		
K4.1.8		250mm connection	No	1		
K5	PMS1	Erection of notification signboards for interruption of supply	No	1 000		
K6		Supply and install concrete bollards as per specification - 2m long, 200mm thick	No	5		
K7	1200GA	Grade 20 Mpa concrete with formwork for anchor and thrust blocks	m3	10		
<b>K8</b>		<b>Consolidation of sprinkler and fire connection</b>				
K8.1		Proving of fire and sprinkler lines from connection to property	m3	10		
K8.2		Pick up from EWS store, end-caps for sprinkler line, and provide plant and labour to blank off sprinkler connection from municipal side	Sum	1		
K8.2		Pick up from EWS store, end-caps for fire line, and provide plant and labour to blank off fire connection from municipal side	Sum	1		
<b>Total Carried to Summary</b>						

## Section L: Summary

THE UPGRADE TO BULK, INDUSTRIAL, COMMERCIAL, INSTITUTIONAL AND RESIDENTIAL WATER METER INSTALLATIONS IN ETHEKWINI MUNICIPALITY	
<u>Contract No.: 33292-5W</u>	
<u>SUMMARY OF WORK PERFORMED</u>	
DESCRIPTION	SCHEDULED AMOUNT
<b>Section A:</b> Preliminary & General	R
<b>Section B:</b> Installation of 15mm Diameter Water Meter (quantity of 30 000)	R
<b>Section C:</b> Installation of 25mm Diameter Water Meter (quantity of 2000)	R
<b>Section D:</b> Installation of 40mm Diameter Water Meter (quantity of 500 with steel meter cover)	R
<b>Section E:</b> Installation of 50mm Diameter Water Meter (quantity of 1000 with steel meter cover)	R
<b>Section F:</b> Installation of 80mm Diameter Water Meter (quantity of 100 with steel meter cover)	R
<b>Section G:</b> Installation of 100mm Diameter Water Meter (quantity of 50 with steel meter cover)	R
<b>Section H:</b> Installation of 150mm Diameter Water Meter (Rate of each connection)	R
<b>Section I:</b> Installation of 200mm Diameter Water Meter (Rate of each connection)	R
<b>Section J:</b> Installation of 250mm Diameter Water Meter (Rate of each connection)	R
<b>Section K:</b> Miscellaneous	R
<b>SUB TOTAL</b>	R
<b>ADD: VALUE ADDED TAX (15%)</b>	R
<b>TOTAL VALUE OF WORK</b>	R

**PART C3: SCOPE OF WORK**

	<b><u>PAGE</u></b>	
<b>C3.1</b>	<b>PROJECT DESCRIPTION AND SCOPE OF CONTRACT</b>	<b>94</b>
<b>C3.2</b>	<b>PROJECT SPECIFICATIONS</b>	<b>109</b>
	PS.1 Programme, Method of Work, and Accommodation of Traffic	
	PS.2 Services	
	PS.3 Watermains	
	PS.4 Sewers	
	PS.5 Stormwater	
	PS.6 Electrical Plant	
	PS.7 Telkom S.A. Limited / Neotel Plant	
	PS.8 CCTV Plant	
	PS.9 Management of the Environment	
	PS.10 Occupational Health and Safety	
<b>C3.3</b>	<b>STANDARD SPECIFICATIONS</b>	<b>122</b>
	C3.3.1 Listing of the Standard Specifications	
	C3.3.2 Amendments to the Standard Specifications	
<b>C3.4</b>	<b>PARTICULAR SPECIFICATIONS</b>	<b>124</b>
	C3.4.1 Part AH - OHS 1993 Safety Specification (2014)	
	C3.4.2 Standard Environmental Management Plan for Civil Engineering Construction Works	
<b>C3.5</b>	<b>CONTRACT AND STANDARD DRAWINGS</b>	<b>134</b>
	C3.5.1 Contract Drawings / Details	
	C3.5.2 Standard Drawings	
<b>C3.6</b>	<b>ANNEXURES</b>	<b>135</b>

### **C3.1: PROJECT DESCRIPTION AND SCOPE OF CONTRACT**

#### **C3.1.1 Description of Works**

##### **Employer's Objectives**

The primary objective of this contract is to upgrade and standardize water meter installations across bulk, industrial, commercial, institutional, and domestic properties within eThekweni Municipality. This initiative forms a critical component of the eThekweni Water and Sanitation Technical Customer Services Branch's 10-year Water Conservation and Water Demand Management (WCWDM) Plan, aimed at reducing non-revenue water (NRW) from current levels. By upgrading existing water meter installations to comply with the latest NRW branch design standards, the project seeks to enhance metering accuracy, streamline billing processes, and reduce maintenance costs. Specific goals include:

- **Improved Meter Accessibility:** Relocating water meters to visible, above-ground positions (where feasible) outside property boundaries to facilitate easier meter reading and maintenance, particularly in densely populated residential and commercial zones within EThekweni municipality.
- **Billing Consolidation:** Consolidating multiple billing meters into a single register per property to simplify billing, reduce errors in meter reading, and enhance operational efficiency for the municipality.
- **Cost Efficiency:** Reducing the number of meter register sites requiring regular maintenance and replacement, thereby lowering servicing costs per consumer over the meter lifecycle.
- **Water Loss Reduction:** Ensuring accurate metering to minimize apparent losses due to faulty or outdated meters, contributing to the municipality's NRW reduction targets.

The works are to be carried out across EThekweni municipality to address the unique challenges, including high-density urban developments, informal settlements, and aging water infrastructure, which contribute significantly to NRW. The project aligns with the municipality's broader strategic master plan for sustainable water management and infrastructure resilience.

##### **Overview of the Works**

The contract involves the systematic upgrade, replacement, and repositioning of water meters ranging in size from 15mm to 250mm across various property types within EThekweni region. The scope includes both new installations and the retrofitting of existing systems to meet current standards. The works are designed to minimize disruption to water supply and ensure compliance with the eThekweni Municipality's Standard Engineering Specifications, SANS 1899 (Identification and Testing of Water Meters), and the General Conditions of Contract for Construction Works (GCC 2015). Key activities include:

- **Site Investigation and Documentation:** Locating and photographing existing water meter installations to verify their condition and configuration prior to commencing work. This includes proving existing pipework to confirm connection points and capturing photographic evidence during and after installation for quality assurance and record-keeping.
- **Trenching and Earthworks:** Excavating trenches by hand for reticulation and connection pipes, including bedding, backfilling, and compaction in accordance with SANS 1200 DB (Earthworks for Pipe Trenches). Earthworks will also involve constructing meter chambers, with barricading to ensure safety in urban and pedestrian-heavy areas.
- **Pipework and Fittings:** Fabricating, supplying, laying, jointing, and testing pipes and fittings (e.g., AC, PVC, HDPE, steel, copper) to connect new or upgraded meters to existing water supply networks. This includes cutting into existing pipelines, preparing pipe edges, and

ensuring water-tight connections.

- **Meter Installation and Consolidation:** Installing new water meters or replacing outdated ones, with a focus on consolidating multiple meters into a single, upstream meter per property where applicable. Non-used meter chambers will be removed or backfilled, and all reusable materials will be returned to the municipality's stores.
- **Reinstatement:** Restoring sites to their original condition, including reinstating surfaces such as concrete, asphalt, or paving. This is critical at EThekwini, where works may occur in residential driveways, public sidewalks, or commercial precincts with high aesthetic and functional requirements.
- **Consumer Liaison and Notifications:** Engaging with property owners and tenants to coordinate meter installations and consolidations, including issuing formal notification letters and erecting shutdown notice boards 48 hours prior to planned water supply interruptions. This is particularly important at EThekwini, where community engagement is essential due to diverse socio-economic contexts.
- **Testing and Quality Control:** Conducting water tightness tests and flushing lines post-installation to ensure uninterrupted flow, adequate pressure, and no leaks or installation faults, as mandated in C4.3 (Test Results). The contractor must repair any leaks identified within one month of completion.
- **Traffic and Pedestrian Management:** Implementing traffic accommodation measures, including road signs, flagmen, and speed controls, to ensure safety during construction in busy urban corridors and residential streets of the EThekwini region, in compliance with SANS 1921-2 (Accommodation of Traffic).
- **Environmental and Safety Compliance:** Adhering to the Standard Environmental Management Plan (C3.4.2) and OHS 1993 Safety Specification (C3.4.1), with particular attention to managing risks associated with existing underground services (e.g., water mains, sewers, electrical cables) and ensuring minimal disruption to natural vegetation in semi-rural parts of EThekwini region.

### Extent of the Works

The works are estimated to cover a significant number of properties across within EThekwini region, with the exact quantity subject to confirmation based on the municipality's meter records and site investigations. The contractor will work within specific shutdown windows to minimize disruption, particularly in commercial and industrial zones where water supply reliability is critical. The project includes:

- **Meter Sizes and Types:** Installation of mechanical water meters ranging from 15mm (domestic) to 250mm (bulk), with associated fittings such as valves, strainers, and dirt boxes, as detailed in the contract drawings (C3.5.1).
- **Pipe Materials:** Handling various pipe materials prevalent at EThekwini water distribution system, including asbestos cement (AC), PVC, HDPE, UPVC, steel, and copper, requiring specialized skills for cutting, jointing, and testing.
- **Surface Types:** Excavation and reinstatement in diverse surfaces, such as concrete driveways, asphalt roads, paved sidewalks, and grassed verges, reflecting the varied urban and suburban landscapes within EThekwini.
- **Service Coordination:** Liaising with the municipality's representatives to coordinate shutdowns, verify meter sizes, and update GIS records with GPS coordinates of completed installations. The contractor will also manage the return of old fittings to stores and complete "meter change form" for new meter installations.
- **Security and Community Considerations:** Providing site security to protect staff, materials, and equipment, especially in areas with higher crime rates or informal settlements. The contractor must also address community concerns through proactive communication, given the socio-economic diversity at EThekwini region.

### Constraints and Considerations

The works are subject to confirmation of existing infrastructure, as eThekweni feature a mix of aging pipe networks and modern developments. The contractor must account for potential variations in quantities and site conditions, with no rock excavation anticipated due to the use of existing trenches (C4.2). Key constraints include:

- **Urban Density:** High-density residential and commercial areas require precise coordination to avoid disruption to traffic and pedestrian movement.
- **Informal Settlements:** In areas with informal settlements, the contractor must navigate informal infrastructure and engage with communities to ensure smooth project execution.
- **Service Proximity:** The presence of underground services (e.g., sewers, electrical cables) necessitates careful proving and hand excavation to avoid damage, as outlined in PS.2.2 (Proving Underground Services).
- **Shutdown Sensitivity:** Shutdowns must be carefully planned and communicated, as water supply interruptions can significantly impact businesses and households.

The contractor is expected to complete the works within the timeframes specified in the Contract Data, adhering to the preliminary programme submitted with the tender (PS.1.1). All activities must comply with the municipality's quality assurance requirements, including submission of a detailed Quality Assurance and Control Plan (PMS.4) and compliance with the checklist for meter installations.

### C3.1.2 Description of Site and Access

#### Site Location and Context

The works under this contract are confined to eThekweni Municipality region. This region is characterized by a diverse mix of urban, suburban, and semi-rural landscapes, including high-density residential zones, commercial hubs, industrial estates, informal settlements, and traditional authority areas. Some Operational Areas are strategically significant due to their proximity to Airport, major transport corridors (e.g., N2 and M4 highways), and key economic nodes such as Trade Port, Malls and hotels. eThekweni includes prominent localities, which collectively contribute to the municipality's economic and population growth.

The area is topographically varied, featuring hilly terrain, gorges, and ravines, coastal plains, which influences site access and construction logistics. The works will involve upgrading water meter installations across bulk, industrial, commercial, institutional, and domestic properties, requiring careful coordination to minimize disruption in this densely populated and economically active region.

#### District Demarcated Wards

The eThekweni Municipality is divided into 111 wards, as delineated by the Municipal Demarcation Board in terms of Item 5(2) of Schedule 1 of the Local Government: Municipal Structures Act, 1998 (Act No. 117 of 1998). For administrative and service delivery purposes, the municipality is organized into six regions: North, North Central, Central West, Outer West, South, and South Central. All wards encompass the key localities targeted for the water meter installation project.

**Note on Ward Verification:** The ward numbers are derived from the regional structure outlined by the eThekweni Municipality and the geographic scope of the Areas. However, tenderers are advised to consult the latest ward delimitation data from the Municipal Demarcation Board (available at [www.demarcation.org.za](http://www.demarcation.org.za)) or the eThekweni Municipality's Open GIS Data portal ([gis-ethekweni.opendata.arcgis.com](http://gis-ethekweni.opendata.arcgis.com)) to confirm the exact ward boundaries, as demarcations may have been updated post-2019. A PDF map of eThekweni wards is also available for reference,

which can assist in identifying specific ward coverage. The municipality's Sizakala Customer Service Centres, can provide additional support for ward-related queries.

### **Site Access and Logistics**

Access to sites varies significantly due to the diverse land use and infrastructure. Key considerations for site access include:

- **Urban and Commercial Zones:**
  - Some areas feature well-developed road networks, facilitating access for construction vehicles. However, high traffic volumes, especially during peak hours, necessitate robust traffic management plans, including flagmen and temporary road signs, as specified in PS.1.3 (Accommodation of Traffic).
  - Commercial precincts, such as Malls, various shopping centres and big industries, require works to be scheduled outside business hours to minimize disruption to businesses and pedestrians. Access to properties may be restricted by gated estates or security protocols, requiring prior coordination with property managers.
- **Residential and Suburban Areas:**
  - Some Suburbs have dense residential layouts with narrow streets and limited parking, complicating access for heavy machinery. The contractor must ensure that property access is maintained, as stipulated in PS.1.3.4 (Pedestrian Movement), and provide temporary pathways where sidewalks are affected.
  - Informal settlements present challenges such as unpaved roads, irregular plot layouts, and community sensitivities. The contractor must engage with ward councillors and community mobilizers, as outlined in ACT.3 (Code of Conduct and Local Labour), to secure access and address concerns.
- **Semi-Rural and Traditional Areas:**
  - Some Wards feature rural roads and scattered settlements, with potential for muddy or uneven terrain during wet seasons. Access may require all-terrain vehicles or temporary road stabilization, and the contractor must liaise with Amakhosi (traditional leaders) for permission to work in these areas.
  - Environmental considerations, such as preserving natural vegetation (PS.9.1), are critical in semi-rural wards, where works may occur near sensitive ecosystems such like Nature Reserve.
- **Infrastructure Constraints:**
  - Some Areas are traversed by critical infrastructure, including Rivers, which demarcates parts of the city limit, including major pipelines and electrical cables. The contractor must prove existing services (PS.2.2) to avoid damage, particularly in wards with aging infrastructure.
  - Shutdowns for water meter installations must be coordinated with the municipality's Water and Sanitation Unit, with notification boards erected 48 hours in advance (C3.1.4). This is especially critical in industrial zones where water supply reliability is paramount.
- **Security and Community Engagement:**
  - The contractor must provide site security to protect staff, materials, and equipment, particularly in high-crime areas or informal settlements (PS.11). Liaison with the South African Police Service (SAPS) may be required to manage disruptions, as noted in PS.11 (Site Security).
  - Community participation is a priority at EThekweni, given the presence of vulnerable groups and traditional communities. The contractor must issue formal notification letters to consumers and engage with ward-based Community Mobilizers to ensure buy-in, as per the municipality's public participation framework.



**Access Coordination**

To facilitate site access, the contractor shall:

- **Submit a Preliminary Programme (PS.1.1)** detailing access plans for each ward, including proposed shutdown schedules and traffic management measures.
- **Liaise with Regional Coordinators** at the Sizakala Centres to coordinate access and community engagement. Contact details will be provided by EThekweni Water and Sanitation.
- **Obtain Permits** for working in restricted areas, such as gated estates or traditional lands, through the municipality's administrative offices or ward councillors.
- **Maintain Records** of access agreements and community consultations, to be included in the monthly progress reports submitted to the Employer's Agent (C3.1.4).

**Constraints and Mitigation**

Key access constraints in the Operational Area include:

- **Traffic Congestion:** Major roads experience heavy traffic, particularly in developed suburbs and industrial areas. The contractor must schedule works during off-peak hours and comply with SANS 1921-2 for traffic accommodation.
- **Community Sensitivities:** Informal settlements and traditional areas may resist infrastructure changes. The contractor must conduct proactive community outreach, as mandated in ACT.3, to build trust and minimize disruptions.
- **Service Disruptions:** The presence of underground services (e.g., watermains, sewers, electrical cables) requires hand excavation and service proving (PS.2.2) to prevent damage, which may delay access in some wards.
- **Weather Impacts:** Some coastal climate Areas, with high rainfall in summer, may affect access to semi-rural wards. The contractor must include contingencies for weather delays in the programme, as per Clause 5.12.2.2 of GCC 2015.

Tenderers are advised to conduct site visits prior work execution, coordinating with the Employer's Agent (Fisaphile Buthelezi, Tel: 031 311 8493, Email: Fisaphile.Buthelezi@durban.gov.za) to arrange access to representative sites across the wards. Any trial excavations for site investigation must comply with C4.2 (Conditions on Site), with the contractor bearing liability for any claims arising from such activities.

**C3.1.3 Nature of Ground and Subsoil Conditions****General Context**

The works under this contract involve the installation, replacement, and upgrading of water meters (15mm to 250mm) across bulk, industrial, commercial, institutional, and domestic properties at eThekweni Municipality, encompassing 111 wards. The Areas diverse land use—ranging from high-density urban zones to suburban neighbourhoods, informal settlements, rural and semi-rural traditional areas—results in varied ground and subsoil conditions. The project primarily involves excavation within existing trenches for reticulation pipes and meter chambers, as noted in C4.2 (Conditions on Site). Consequently, no rock excavation is anticipated, and the works are expected to encounter previously disturbed or backfilled soils. However, the absence of a geotechnical survey for this contract necessitates that tenderers satisfy themselves as to the nature of materials to be excavated, as stipulated in C4.2.

Some Operational Area lies along the KwaZulu-Natal coastal plain, characterized by a mix of sedimentary and residual soils influenced by the subtropical climate, high rainfall (averaging 1,000 mm annually), and proximity to the Indian Ocean. The area's topography includes flat coastal plains, undulating hills, and river valleys, which contribute to variations in soil composition and stability. The following sections describe the anticipated ground and subsoil conditions across the project areas, categorized by land use and locality, and provide guidance for tenderers to mitigate associated risks.



## Anticipated Ground and Subsoil Conditions

### 1. Urban and Commercial Zones

- **Surface Conditions:** These areas feature developed infrastructure, with surfaces predominantly composed of asphalt roads, concrete driveways, and paved sidewalks. Excavation will often involve breaking through these hard surfaces, requiring equipment such as breakers or diamond saws, as noted in PS.6 (Electrical Plant). Grassed verges and landscaped areas may also be encountered near commercial precincts.
- **Subsoil Conditions:** Subsoils in urban zones are typically disturbed due to prior infrastructure development. Common materials include:
  - **Fill Material:** Backfilled soils from previous trenching (e.g., for watermains, sewers, or electrical cables), often comprising sandy loams or clayey sands with variable compaction. These may contain construction debris, such as broken concrete or gravel.
  - **Residual Soils:** Sandy clays or silty sands derived from weathered sandstone or shale. These soils are generally stable but may be prone to slumping if saturated.
  - **Coastal Sands:** loose to medium-dense Aeolian sands may be encountered, particularly in verges or undeveloped pockets. These sands have low cohesion and may require shoring for deeper excavations (>1.0 m).
- **Challenges:** The presence of existing underground services (e.g., watermains, sewers, electrical cables) necessitates hand excavation to prove services, as per PS.2.2 (Proving Underground Services). High groundwater levels, especially in low-lying areas near the Rivers, may cause water ingress into trenches, requiring dewatering measures.

### 2. Residential and Suburban Areas

- **Surface Conditions:** Surfaces include asphalt or concrete residential roads, paved driveways, and block paving on sidewalks. Some Informal settlements may have unpaved or gravel surfaces, complicating access during wet conditions.
- **Subsoil Conditions:** Subsoils are a mix of natural and disturbed materials:
  - **Clayey Soils:** Reddish-brown clayey soils, derived from weathered shale or dolerite intrusions. These soils have moderate to high plasticity and may shrink or swell with moisture changes, affecting trench stability.
  - **Sandy Loams:** Well-drained sandy loams are prevalent in suburban areas, offering good workability but requiring compaction to prevent settlement after backfilling.
  - **Backfill:** Existing trenches may contain poorly compacted backfill, including silty sands or clayey gravels, which can be unstable if not properly consolidated during reinstatement.
- **Challenges:** The high density of residential infrastructure increases the likelihood of encountering undocumented services, requiring careful proving. Clayey soils may become sticky and difficult to handle during the rainy season (November–March), necessitating temporary stockpiling and drainage measures.

### 3. Semi-Rural and Traditional Areas

- **Surface Conditions:** Surfaces are often unpaved, comprising gravel tracks, grassed areas, or compacted earth roads. Some areas may have rudimentary asphalt or concrete surfaces near community facilities.
- **Subsoil Conditions:** Subsoils are generally less disturbed, reflecting the natural geology of the region:

- **Alluvial Soils:** Near rivers or drainage lines, silty clays or sandy silts may be encountered, with high organic content and low bearing capacity. These soils are prone to saturation and erosion.
- **Residual Soils:** Weathered sandstone or shale-derived soils, such as sandy clays or silty sands, dominate higher ground. These are moderately stable but may contain cobbles or gravel lenses, requiring hand tools for excavation.
- **Colluvial Deposits:** In hilly areas, loose colluvial soils (sandy gravels or silty sands) may occur on slopes, posing a risk of slumping during excavation.
- **Challenges:** Limited road infrastructure may restrict access for heavy equipment, requiring manual excavation or lightweight machinery. High rainfall can render alluvial soils waterlogged, necessitating temporary shoring or drainage channels to maintain trench stability.

### Groundwater and Drainage Considerations

The coastal locations and subtropical climate result in a high groundwater table, particularly in low-lying urban areas and near watercourses. Groundwater levels are typically 1–3 m below surface in coastal plains, rising during the wet season. Excavations deeper than 1.0 m, as may be required for bulk meter chambers, are likely to encounter water ingress, especially in sandy or alluvial soils. The contractor must:

- Implement dewatering techniques, such as sump pumps or well points, in accordance with SANS 1200 DB (Earthworks for Pipe Trenches).
- Ensure proper drainage of trenches to prevent collapse, as mandated by the OHS Act 1993 Construction Regulations (Regulation 11).
- Monitor weather forecasts and schedule excavations to avoid peak rainfall periods, as per Clause 5.12.2.2 of GCC 2015.

Surface runoff is a concern in hilly areas, where stormwater may erode trench walls or flood work areas. The contractor must provide temporary stormwater diversions and comply with PS.5 (Stormwater) to prevent blockages in existing drainage systems.

### Specific Project Considerations

Given the project's focus on existing trenches, the following considerations apply:

- **Previously Disturbed Soils:** Most excavations will occur in backfilled trenches from prior watermain or meter installations, reducing the likelihood of encountering hard rock. However, inconsistent backfill quality may lead to variable soil stability, requiring careful compaction during reinstatement (SANS 1200 S).
- **No Rock Excavation:** As stated in C4.2, the nature of the project precludes rock excavation, with works limited to soft to intermediate materials (e.g., sands, clays, gravels). If unexpected hard materials are encountered, the contractor must notify the Employer's Agent for further instructions, as per PS.2.2.
- **Service Proximity:** The presence of underground services (e.g., watermains, sewers, electrical cables) increases the risk of encountering foreign materials (e.g., concrete encasements, cable ducts) in trenches. Hand excavation is mandatory within 800 mm of existing services, as specified in PS.3.3 (Restriction on Compactive Equipment).
- **Reinstatement Requirements:** Excavated areas must be reinstated to match existing surfaces (e.g., asphalt, concrete, paving), particularly in urban and suburban wards. The contractor must stockpile reusable materials (e.g., block paving) and dispose of surplus at approved sites, as per PS.1.3.6 (Temporary Reinstatement).

### Tenderer Responsibilities

No geotechnical survey has been undertaken for this contract due to the dispersed nature of the

works across multiple wards and the reliance on existing trenches. Tenderers must satisfy themselves as to the nature of ground and subsoil conditions through site inspections and, if necessary, trial excavations. The following guidelines apply:

- **Site Inspections:** Tenderers are encouraged to attend the compulsory clarification meeting (F.2.7) and coordinate site visits with the Employer's Agent (Fisaphile Buthelezi, Tel: 031 311 8493, Email: Fisaphile.Buthelezi@durban.gov.za) to assess conditions in representative wards.
- **Trial Excavations:** Tenderers may excavate trial holes to investigate subsoil conditions, provided they notify the Employer's Agent in advance to ensure compliance with safety requirements (C4.2). Trial holes near pedestrian or vehicular traffic must be barricaded and backfilled immediately after inspection, with the contractor bearing full liability for any claims arising from such activities.
- **Indemnity:** The contractor shall indemnify the Employer and the Engineer against any claims for losses, damage, or injuries resulting from trial excavations, as stipulated in C4.2.
- **Risk Allowance:** Tenderers must include allowances in their rates for variations in soil conditions, as quantities and conditions are subject to re-measurement during execution (C2.1.3). No additional claims will be entertained based on conclusions drawn from the information provided in this document.

### Sources of Information

Tenderers are advised to consult the following resources for additional geotechnical context:

- **eThekwini Municipality's Open GIS Data Portal** ([gis-ethekwini.opendata.arcgis.com](http://gis-ethekwini.opendata.arcgis.com)): Provides topographic and land use data for EThekwini Operational Area.
- **South African National Standards (SANS 1200):** Relevant standards, such as SANS 1200 DB and SANS 1200 S, outline requirements for earthworks and reinstatement.
- **Geological Maps:** Available from the Council for Geoscience ([www.geoscience.org.za](http://www.geoscience.org.za)), detailing the Natal Group Sandstone and dolerite intrusions in the eThekwini region.
- **Municipal Archives:** Historical infrastructure records at Sizakala Customer Service Centres may provide insights into previous trenching activities.

The ground and subsoil conditions are expected to comprise a mix of disturbed fill materials, sandy loams, clayey soils, and coastal sands, with variations driven by the urban, suburban, and semi-rural character. The absence of rock excavation and the focus on existing trenches simplify the works, but tenderers must account for potential challenges such as groundwater ingress, service proximity, and variable backfill quality. By conducting thorough site investigations and adhering to the specified standards, tenderers can mitigate risks and ensure successful execution of the water meter installation project.

## C3.1.4 Scope of Contract

### Overview

The scope of this contract encompasses the comprehensive upgrade, replacement, and repositioning of water meters ranging from 15mm to 250mm across bulk, industrial, commercial, institutional, and domestic properties within eThekwini Municipality, covering all wards. The works form a critical component of the eThekwini Water and Sanitation Technical Customer Services Branch's 10-year Water Conservation and Water Demand Management (WCWDM) Plan, aimed at reducing non-revenue water (NRW) by improving metering accuracy, consolidating billing, and enhancing operational efficiency. The contractor shall execute all activities in compliance with the eThekwini Municipality's Standard Engineering Specifications, SANS 1899 (Identification and Testing of Water Meters), SANS 1200 series (Standardized Specifications for Civil Engineering Construction), and the General Conditions of Contract for Construction Works (GCC 2015). The

scope includes excavation, pipework, meter installation, reinstatement, consumer liaison, and quality assurance, with a focus on minimizing disruption in the diverse urban, suburban, and semi-rural settings within eThekweni region.

### Detailed Scope of Work

The contractor shall undertake the following activities, ensuring adherence to the project specifications (C3.2), standard specifications (C3.3), and particular specifications (C3.4), as well as the contract drawings (C3.5). The works are subject to confirmation of existing infrastructure, and quantities are estimates, subject to re-measurement during execution, as per C2.1.3 (Quantities Reflected in the Schedule). The scope is structured into key work categories, with specific requirements tailored to the eThekweni Operational Area's unique characteristics.

#### 1. Site Investigation and Documentation

- **Locate Existing Meters:** Identify and verify the location of bulk and consumer water meters on-site, using municipality-provided meter records and physical inspection. This includes tracing reticulation pipes to confirm connection points, particularly in areas with undocumented or aging infrastructure.
- **Photographic Evidence:** Capture digital photographs of existing meter installations before, during, and after works to document condition, installation progress, and final reinstatement. Photos shall be submitted with progress reports, as specified in C3.1.4 (Contractor Responsibilities).
- **Service Proving:** Prove existing underground services (e.g., watermains, sewers, electrical cables) by hand excavation within 800 mm of known service locations, as mandated by PS.2.2 (Proving Underground Services). This is critical in urban wards with dense service networks.
- **Deliverables:** Provide a detailed site investigation report for each property, including GPS coordinates of meter locations, to facilitate updating of the municipality's GIS database (C3.1.4, Municipality Responsibilities).

#### 2. Earthworks and Trenching

- **Excavation:** Excavate trenches by hand in all materials (e.g., sandy loams, clayey soils, backfill) for reticulation pipes and meter chambers, adhering to SANS 1200 DB (Earthworks for Pipe Trenches). Excavation depths will typically range from 0.6 m to 1.2 m, with deeper excavations (>1.0 m) requiring shoring in loose soils, as per C3.1.3 (Nature of Ground and Subsoil Conditions).
- **Bedding and Backfilling:** Provide and compact bedding materials (e.g., selected granular fill) and backfill trenches to achieve 90% Mod AASHTO density, ensuring stability and preventing settlement. Surplus material shall be disposed of at approved municipal sites.
- **Barricading:** Erect temporary barricades and warning signs around open trenches, particularly in pedestrian-heavy area, in compliance with SANS 1921-2 (Accommodation of Traffic) and PS.1.3 (Requirements for Accommodation of Traffic).
- **Surface Preparation:** Break and remove existing surfaces (e.g., concrete, asphalt, paving) using appropriate equipment (e.g., breakers, saws), as per PS.6 (Electrical Plant), and stockpile reusable materials (e.g., block paving) for reinstatement.

#### 3. Pipework and Fittings

- **Fabrication and Installation:** Fabricate, supply, lay, and joint pipes and fittings to connect new or upgraded meters to existing water supply networks. Pipe materials include asbestos cement (AC), PVC, HDPE, UPVC, steel, and copper, reflecting the diverse

infrastructure at eThekweni (C3.1.3). Jointing methods shall comply with manufacturer specifications and SANS 1200 PF (Pressure Pipelines).

- **Cutting and Connection:** Cut into existing pipelines, prepare pipe edges, and install fittings (e.g., couplings, tees) to ensure water-tight connections. Connections may involve consumer pipes or bulk pipelines, depending on meter type and location.
- **Testing:** Conduct pressure and water tightness tests on all new pipework, as per SANS 1899, to verify integrity and compliance with design standards. Any leaks identified during testing or within one month of completion shall be repaired at the contractor's expense.
- **Deliverables:** Submit test certificates and installation records for each pipe segment, including material specifications and jointing details, to the Employer's Agent.

#### 4. Water Meter Installation and Consolidation

- **Meter Installation:** Install new mechanical water meters (15mm to 250mm) or replace outdated meters, ensuring compliance with NRW branch design standards (C3.5.1, Contract Drawings). Meters shall be positioned above ground (where feasible) and outside property boundaries to enhance accessibility, particularly in high-density wards.
- **Consolidation:** Consolidate multiple billing meters into a single upstream meter per property, capping non-used lines (e.g., fire sprinkler storage lines) and rerouting downstream connections as needed. This is a priority in commercial and institutional properties to streamline billing.
- **Chamber Construction:** Construct or upgrade meter chambers using precast concrete or in-situ materials, as detailed in drawings 045483 and 045484 (C3.5.2, Standard Drawings). Chambers shall include valve covers and spacer rings supplied by the municipality (PMS.3).
- **Removal of Redundant Infrastructure:** Remove or backfill non-used meter chambers, returning reusable materials (e.g., meters, fittings) to municipal stores. Sites shall be compacted and reinstated to original condition.
- **Deliverables:** Complete "meter change forms" for each new meter installation, detailing meter specifications, serial numbers, and installation dates, and submit to the Employer's Agent for processing.

#### 5. Reinstatement and Site Restoration

- **Surface Reinstatement:** Reinstatement excavated areas to match existing surfaces, including asphalt roads, concrete driveways, block paving, or grassed verges, in accordance with SANS 1200 S (Reinstatement). In urban wards, aesthetic and functional standards are critical, requiring high-quality finishes.
- **Material Reuse:** Reuse stockpiled materials (e.g., block paving) where possible, and source matching materials for repairs, as per PS.1.3.6 (Temporary Reinstatement). Asphalt reinstatement shall comply with SANS 1200 ED (Road Asphalt).
- **Site Cleanup:** Remove all debris, surplus materials, and construction waste from sites, ensuring compliance with the Standard Environmental Management Plan (C3.4.2). Waste disposal shall be at approved municipal sites.
- **Deliverables:** Provide photographic evidence of reinstated sites, demonstrating compliance with original conditions, as part of monthly progress reports.

#### 6. Consumer Liaison and Notifications

- **Engagement:** Liaise with property owners, tenants, and ward-based Community Mobilizers to coordinate meter installations and consolidations. This is particularly critical in informal settlements and traditional area, where community buy-in is essential.
- **Notifications:** Issue formal notification letters to consumers at least 48 hours prior to planned water supply interruptions, detailing shutdown times and expected durations.



Erect shutdown notice boards in visible locations, as per C3.1.4 (Contractor Responsibilities).

- **Community Coordination:** Engage with ward councillors and Amakhosi (traditional leaders) in semi-rural wards to secure access and address concerns, as mandated by ACT.3 (Code of Conduct and Local Labour).
- **Deliverables:** Submit records of consumer consultations and notification letters, including signed acknowledgments where applicable, to the Employer's Agent.

#### 7. Traffic and Pedestrian Management

- **Traffic Accommodation:** Implement traffic control measures, including road signs, flagmen, and speed restrictions, to ensure safety during works in busy urban corridors and residential streets, as per SANS 1921-2 and PS.1.3. Works in commercial zones may require off-peak scheduling to minimize disruption.
- **Pedestrian Access:** Maintain pedestrian pathways and property access during construction, providing temporary walkways where sidewalks are affected, as stipulated in PS.1.3.4 (Pedestrian Movement).
- **Deliverables:** Submit a traffic management plan as part of the preliminary programme (PS.1.1), detailing measures for each ward and compliance with South African Road Traffic Signs Manual requirements.

#### 8. Quality Assurance and Testing

- **Quality Control Plan:** Develop and implement a Quality Assurance and Control Plan, as per PMS.4 (Quality Assurance), detailing procedures for material tracking, installation checks, and compliance with the municipality's checklist for water meter installations (C3.6, Annexures). The plan shall include regular inspections by a qualified civil engineering technician.
- **Testing:** Conduct water tightness tests and flush lines post-installation to ensure uninterrupted flow, adequate pressure, and no leaks, as mandated in C4.3 (Test Results). Tests shall comply with SANS 1899 and be witnessed by the Employer's Agent or their representative.
- **Repairs:** Repair any leaks or installation faults identified during testing or within one month of completion at no additional cost to the Employer.
- **Deliverables:** Submit a Quality Assurance and Control Plan prior to commencing field activities, along with test reports and compliance certificates for each meter installation.

#### 9. Health, Safety, and Environmental Compliance

- **Safety:** Comply with the OHS Act 1993 Safety Specification (C3.4.1), including submission of a Health and Safety Plan (PS.10.2.2) and appointment of a Construction Safety Officer (PAM-7.2). Key risks include deep excavations, service proximity, and traffic hazards, as noted in PAM-1 (Scope).
- **Environmental Management:** Adhere to the Standard Environmental Management Plan (C3.4.2), minimizing disturbance to natural vegetation (PS.9.1) and preventing fires (PS.9.2). This is critical in semi-rural wards near sensitive ecosystems.
- **Deliverables:** Submit a Health and Safety Plan, environmental compliance reports, and records of safety inspections, as required by PAM-8 (Records and Registers).

#### 10. Security and Site Management

- **Site Security:** Provide sufficient security personnel to protect staff, materials, and equipment, particularly in high-crime areas or informal settlements, as per PS.11 (Site Security). Coordinate with SAPS where necessary to manage disruptions.

- **Site Management:** Appoint a qualified Contracts Manager, Civil Engineering Technician, and Lead Artisan Plumber, as specified in the evaluation criteria (F.3.11.9), to oversee site operations and ensure compliance with the preliminary programme (PS.1.1).
- **Deliverables:** Submit a security plan and monthly site management reports, including staffing details and incident logs.

### Contractor Responsibilities

The contractor shall be responsible for the following, in addition to the activities outlined above:

- **Material Management:** Request and collect materials (e.g., meters, fittings, valve covers) from eThekweni Water and Sanitation stores, following the procedure in PMS.3.1 (Procedure for the Withdrawal of Material). Provide weekly summaries of materials drawn, including requisition numbers and installation sites (PMS.3.2).
- **Progress Reporting:** Submit monthly progress reports to the Employer's Agent, including digital photographs, test results, consumer consultation records, and GIS coordinates for completed installations. Reports shall align with the preliminary programme and highlight any delays or issues.
- **Shutdown Coordination:** Liaise with the municipality's Water and Sanitation Unit to schedule shutdowns, ensuring minimal disruption to consumers. Shutdowns shall be completed within specified time limits, typically 4–8 hours, depending on the scale of the works.
- **Local Labour:** Employ local labour where feasible, in accordance with ACT.3 (Code of Conduct and Local Labour), and engage Community Liaison Officers (CLOs) to facilitate community integration, particularly in informal settlements and traditional areas.
- **Performance Monitoring:** Comply with the municipality's Performance Monitoring requirements (C1.2.3.5), agreeing on Key Performance Indicators (KPIs) with the Employer before commencement. KPIs may include installation rates, consumer satisfaction, and compliance with quality standards.
- **FTE Employment Data:** Provide monthly Full-Time Equivalent (FTE) employment information for all foremen, artisans, and labour, including days worked, wage rates, and training days, as per C1.2.3.4 (FTE Employment Information). Data shall be submitted in an Excel format or as agreed with the Employer's Agent.

### Municipality Responsibilities

The eThekweni Municipality, through its Water and Sanitation Unit, shall support the contractor by:

- Providing meter records detailing existing meter data, including sizes and locations.
- Determining the required meter sizes based on property demand and network capacity.
- Processing meter application forms and issuing water meters and associated fittings (e.g., valves, strainers), as scheduled in PMS.3.
- Verifying that materials drawn from stores comply with installation requirements.
- Closing valves to isolate sections of the water main during installations, if required.
- Monitoring contractor progress on-site and resolving queries through the Employer's Agent (Fisaphile Buthelezi, Tel: 031 311 8493, Email: Fisaphile.Buthelezi@durban.gov.za).
- Coordinating with EWS Operations for large-scale shutdowns affecting multiple consumers.
- Conducting quality control inspections and GPS mapping of completed installations.
- Updating the GIS database with finalized meter positions.
- Processing payments due to the contractor, subject to submission of compliant FTE data and progress reports.

## Constraints and Considerations

The scope of work is subject to the following constraints:

- **Variable Infrastructure:** Aging pipe networks in some wards may require additional proving and repairs, increasing time and cost. The contractor must include contingencies in their rates, as per C2.1.6 (Pricing of the Bill of Quantities).
- **Urban Density:** High-density areas demand precise scheduling to avoid disruption to businesses and traffic, as noted in PS.1.3 (Accommodation of Traffic).
- **Community Sensitivities:** Informal settlements and traditional areas require proactive community engagement to secure access and prevent resistance, as per ACT.3.
- **Groundwater and Weather:** High groundwater levels and seasonal rainfall (November–March) may affect trench stability, particularly in coastal and alluvial soils (C3.1.3). The contractor must implement dewatering and drainage measures, as per SANS 1200 DB.
- **Service Proximity:** Dense underground services in urban wards necessitate hand excavation and coordination with service providers (e.g., eThekweni Electricity, Telkom), as per PS.2.3 (New Services and Relocation of Existing).
- **Time Constraints:** Shutdowns must be completed within tight windows to minimize consumer impact, requiring efficient planning and execution, as outlined in the preliminary programme (PS.1.1).

## Deliverables and Milestones

The contractor shall deliver the following key outputs, aligned with the contract timeline:

- **Preliminary Programme:** A detailed bar chart programme, submitted with the tender, outlining all construction activities, resources, and critical path, as per PS.1.1.
- **Quality Assurance and Control Plan:** A comprehensive plan, submitted prior to field activities, detailing quality control procedures and compliance checklists (PMS.4).
- **Health and Safety Plan:** A site-specific plan, submitted post-award, addressing risks and compliance with OHSA 1993, as per PS.10.2.2.
- **Monthly Progress Reports:** Including photographs, test results, consumer records, and GIS coordinates, submitted by the 5th of each month.
- **Completion Certificates:** Signed Certificates of Completion for each property, verifying successful installation and reinstatement, as required for functionality scoring (F.3.11.9).
- **FTE Employment Data:** Monthly Excel reports detailing labour employment, submitted with payment claims (C1.2.3.4).
- **GIS Updates:** GPS coordinates for all installed meters, submitted in a format compatible with the municipality's GIS system.

Milestones shall be defined in the contractor's programme, with key targets including:

- Completion of site investigations within 4 weeks of contract commencement.
- Installation of 25% of meters within 3 months, 50% within 6 months, and 100% within the contract duration (to be specified in C1.2, Contract Data).
- Final reinstatement and handover of all sites by the contract completion date.

## Subcontracting and Empowerment

For contracts valued above R30 million, the contractor shall subcontract a minimum of 30% of the contract value to designated groups, as per ACT.5 (Subcontracting as Condition of Tender) and the 2017 PPPFA Regulations. Designated groups include EMEs or QSEs owned by black people, youth, women, or those with disabilities, among others. For contracts between R5 million and R30 million, the contractor shall comply with the eThekweni Municipal Council's empowerment



framework, prioritizing local labour and SMMEs within eThekweni Area. A subcontracting plan shall be submitted with the tender, detailing proposed subcontractors and compliance with B-BBEE requirements (F.2.23).

The scope of this contract is designed to achieve the municipality's objectives of reducing NRW, improving billing efficiency, and enhancing meter accessibility through a systematic upgrade of water meter installations at eThekweni Area. The contractor shall execute a multifaceted scope, encompassing site investigation, earthworks, pipework, meter installation, reinstatement, consumer liaison, and compliance with stringent quality, safety, and environmental standards. By addressing the unique challenges—such as urban density, community sensitivities, and variable soil conditions—the contractor will contribute to the sustainable management of eThekweni's water resources, delivering measurable benefits to the municipality and its residents.

### **PMS.3 MATERIALS SUPPLIED BY THE EMPLOYER**

The Employers Agent Representative will arrange supply the materials as stipulated in the tender document.

#### **PMS 3.1 Procedure for the withdrawal of material**

1. The Contractor shall notify the Employers Agent Representative at least one week in advance of his/her intention to withdraw materials from the Employer's stores. A list of the materials that the Contractor wishes to withdraw shall accompany such notification.
2. The Engineer shall then issue to the Contractor the necessary requisition forms to allow him to withdraw the required materials from the Employer's store. Contractors are to note that materials are to be collected between 08h00 and 15h00 Mon- Fri.

#### **PMS 3.2 Ownership of Materials once collected by the Contractor**

All materials supplied by the Employer remain the property of the Employer even after being collected by the Contractor. However, the Contractor shall become fully responsible for the materials once he has drawn them from the Employer's stores. The contractor is to supply a weekly summary of the items drawn from stores and the corresponding requisition numbers and sites in which material were used.

#### **PMS 3.3 Handling of Materials**

It shall be the responsibility of the Contractor to check on receiving, the condition of all materials supplied to by the Employer. All defects shall be recorded on the delivery forms and the Engineer shall be notified in writing. The Employers Agent Representative will then: -

1. Replace the defective materials.
2. Repair the defective materials; or
3. Instruct the Contractor to repair the material at the Employer's cost.

### **PMS.4 QUALITY ASSURANCE**

The Contractor is to submit details of his Quality Assurance Plan to the Engineer for approval prior to commencing with field activities. It is expected that the Contractor will have appropriate quality control procedures in place for the following activities:

1. Reporting requirements.
2. Communication
3. Tracking the materials used on this project; and
4. Completing the necessary change control forms correctly.

#### **PMS.5 SUPPLY OF MATERIAL FROM COMMERCIAL SOURCES**

In the event of unforeseen shortages of materials from eThekweni Stores. The contractor will be allowed to supply materials for work to proceed from an alternative source. These items are indicated in the bill of quantities for the relevant meter installations. Special attention is drawn to the following:

**The rates submitted for the items will be valid for the full duration of the contract.**

## **C3.2: PROJECT SPECIFICATION**

### **PREAMBLE**

In the event of any discrepancy between a part or parts of the Standard or Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the Specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Employer's Agent before the execution of the work under the relevant item.

### **C3.2.1 GENERAL**

#### **PS.1 PROGRAMME, METHOD OF WORK, AND ACCOMMODATION OF TRAFFIC**

This Clause is to be read in conjunction with the provisions and obligations as contained in SANS 1921-1 and SANS 1921-2.

##### **PS.1.1 Preliminary Programme**

The Contractor shall include with his tender a preliminary programme on the prescribed form (see T2.2: Preliminary Programme) to be completed by all Tenderers. The programme shall be in the form of a simplified bar chart with sufficient details to show clearly how the works will be performed within the time for completion as stated in the Contract Data.

Tenderers may submit tenders for an alternative Time for Completion in addition to a tender based on the specified Time for Completion. Each such alternative tender shall include a preliminary programme similar to the programme above for the execution of the works, and shall motivate his proposal clearly by stating all the financial implications of the alternative completion time.

The Contractor shall be deemed to have allowed fully in his tendered rates and prices as well as in his programme for all possible delays due to normal adverse weather conditions (refer to Clause 5.12.2.2) and special non-working days (refer to Clause 5.1.1.1) as specified in the in the Contract Data.

##### **PS.1.2 Programme in Terms of Clause 5.6 of the General Conditions of Contract**

It is essential that the construction programme, which shall conform in all respects to Clause 5.6 of the General Conditions of Contract, be furnished within the time stated in the Contract Data (refer to Clause 5.3.1/2).

The preliminary programme to be submitted with the tender shall be used as basis for this programme.

The Tenderer's attention is drawn to the fact that a number of factors will affect the programming of and method of carrying out the works. The more important of these are:

[Detail any factors which may affect the programming of the project]

- (1) Time required for service relocations.
- (2) Time allowances to be made for the ordering of special items.

- (3) Notification required by service organisations.
- (4) Any special sequence in which work must be carried out. Must certain areas of work be finished before work commences on others?
- (5) If delays are anticipated with service relocations the contractor should be asked to allow time.
- (6) Is work required out of normal hours? (eg. to accesses).
- (7) Vehicular access to private property is to be maintained.
- (8) Traffic restrictions.

Those known, existing services in the area of the works have been depicted on the contract drawings. It is evident, however, that the status of existing service records as far as can be ascertained might not reflect the actual situation in the field. As such, due allowance has been made in the Bill of Quantities for the proving of services where directed by the Engineer.

### **PS.1.3 Requirements for Accommodation of Traffic**

#### **PS.1.3.1 General**

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

Clause 4.10.4 of SANS 1921-2: 2004 shall be replaced with the following:

“Road signs and markings shall comply with the requirements of the “SADC Road Traffic Signs Manual - Volume 2: Roadworks Signing”.

#### **PS.1.3.2 Basic Requirements**

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

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

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

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

The Contractor shall construct and maintain all temporary drainage works necessary for temporary deviations. The Contractor shall ensure that the existing property accesses are maintained at all times. Where necessary the Contractor shall make allowance in the rates for completing the work required to the accesses out of normal hours.

#### **PS.1.3.3 Traffic Safety Officer**

Where warranted by traffic conditions on or near the site, the Contractor shall nominate a suitable member of his staff as traffic safety officer to be responsible for the arrangement and maintenance of all the measures for the accommodation of traffic for the duration of the project. Duties of the traffic safety officer shall be in compliance with the Occupational Health and Safety Act 1993 and the Construction Regulations 2014.

#### **PS.1.3.4 Payment**

The Contractor's tendered rates for the relevant items in the Bill of Quantities shall include full compensation for all possible additional costs which may arise from this, and no claims for extra payment due to inconvenience as a result of the *modus operandi* will be considered.

#### **PS.1.3.5 Pedestrian Movement**

The Contractor shall make provision for accommodating all pedestrian movements in the area of the works. Allowance shall be made in the relevant rates for any barricades and signs required.

#### **PS.1.3.6 Temporary Reinstatement**

Provided always that if in the course or for the purpose of the execution of the works or any part thereof any road or way shall have been broken up, then notwithstanding anything herein contained:

- (a) if the permanent reinstatement of such road or way is to be carried out by the appropriate authority or by some person other than the contractor (or any subcontractor to him), the contractor shall at his own cost and independently of any requirement of or notice from the Engineer be responsible for the making good of any subsidence or shrinkage or other defect, imperfection or fault in the temporary reinstatement of such road or way, and for the execution of any necessary repair or amendment thereof from whatever cause the necessity arises, until the end of the period of maintenance in respect of works beneath such road or way until the authority or other person as aforesaid shall have taken possession of the site for the purpose of carrying out permanent reinstatement (whichever is the earlier), and shall indemnify and save harmless that Council against and from any damage or injury to the Council or to third parties arising out of or in consequence of any neglect or failure of the Contractor to comply with the foregoing obligations or any of them and against and from all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.
- (b) where the authority or person as aforesaid shall take possession of the site as aforesaid in sections or lengths, the responsibility of the contractor under paragraph (a) of this sub-clause shall cease in regard to any such section or length at the time possession thereof is so taken, but shall during the continuance of the said period of maintenance continue in regard to any length of which possession has not been taken and the indemnity given by the contractor under the said paragraph shall be construed and have effect accordingly.

## **PS.2 SERVICES**

This Clause is to be read in conjunction with the provisions and obligations as contained in SANS 1921-1 and SANS 1921-2.

### **PS.2.1 Existing Services**

The Tenderer's attention is drawn to the numerous existing services in the area. Although every effort has been made to depict these services accurately the positions shown must be regarded as approximate.

### **PS.2.2 Proving Underground Services**

This clause must be read in conjunction with Clause DB.5.1.2, the requirements of which shall be extended to cover all earthworks operations whether for trenching or bulk earthworks, in the vicinity of underground services.

It is stressed that all services in a particular area must be proven before commencing work in that area.

Insofar as bulk earthworks are concerned, where services are indicated on the drawings or where from site observations can reasonably be expected that such services are likely to exist where excavations are to take place, the Contractor shall without instructions from the Employer's Agent carefully excavate by hand to expose and prove their positions.

The cost of the proving trenches is to be included in the work covered by Clause DA.8.3.

When a service is not located in its expected position the Contractor shall immediately report such circumstances to the Employer's Agent who will decide what further searching or other necessary action is to be carried out and shall instruct the Contractor accordingly. The cost of this additional searching shall be to the Council's cost and shall be paid for under DB.8.19 - Proving Existing Services.

Should any service be damaged by the Contractor in carrying out the works and should it be found that the procedure as laid down in this clause has not been followed then all costs in connection with the repair of the service will be to the Contractor's account.

When electrical cables are not in the positions shown on drawings of eThekweni Electricity and cannot be found after proving trenches have been put down, assistance may be obtained by calling an official of the Customer Services Branch on Telephone No. 311-1111 during office hours.

It should be noted that 33,000 Volt and 132,000 Volt cables may only be exposed by the eThekweni Electricity's personnel. The cables are usually protected by concrete covering slabs, and therefore if the slabs are inadvertently exposed, excavation work must stop, and the eThekweni Electricity shall be contacted immediately on the above telephone numbers.

Proving of services shall be completed at least two weeks in advance of the actual programmed date for commencing work in the area. The position of these services located must be co-ordinated and levelled by the Contractor, and the information given in writing to the Employer's Agent's Representative.

The requirements of this clause do not relieve the Contractor of any obligations as detailed in the

Conditions of Contract or under Clause 4.17 of SANS 1921-1.

### **PS.2.3 New Services and Relocation of Existing**

This clause shall be read in conjunction with Clause PS.1.

New services are either to be installed by the Contractor as part of the contract or by others during the contract period. In the latter case excavation and subsequent backfilling of the trench from the top of the bedding layer shall generally be carried out by the Contractor.

Relocation of services shall generally be carried out by the relevant services organisation. Generally their work shall include the excavating and bedding the service which will include backfilling to a depth of approximately 300 mm above the service. The remainder of the backfilling shall be carried out by the Contractor.

Generally work shall only commence on the installation of new services once the bulk earthworks have been completed and roughly trimmed to level along a substantial portion of the services route. In addition no sidewalk, verge, median or island shall be surfaced or top soiled until all work on the services has been completed.

Services affected by the contract are described as follows:

- PS.3: Watermains;
- PS.4: Sewers;
- PS.5: Stormwater;
- PS.6: Electrical Cables / Lighting;
- PS.7: Telkom / Neotel;
- PS.8: CCTV;

Further to the above, tenderers are referred to the services drawing and are to note that several minor cables / pipes may be encountered during excavation works which may require to be relocated to some extent. It is anticipated that the two week period required under PS.2.2 will allow sufficient time for these relocations.

### **PS.2.4 Accommodation of Services**

Further to Clauses PS.1 and PS.2 of this specification, tenderers are to note that allowance must be made under this item and / or the appropriate rates, for all costs incurred as a result of complying with these clauses. It shall also cover liaison with the services organisations and accommodation of their work gangs / contractors on site.

## **PS.3 WATERMAINS**

### **PS.3.1 General**

Tenderer's attention is drawn to the following points regarding the watermains to be installed as part of this contract.

Particular attention should be paid to tie-ins to the existing live mains which normally have to be done in conjunction by the Water Supply Branch.

### **PS.3.2 Water Main Valve Access**

Due to the dangerous situation occurring when water main valves are covered over, the Contractor shall maintain access to all water main valves at all times. During asphalt layer work, after each pass by the paving machine, the valves shall be exposed and access maintained in a safe condition.

Whatever method the Contractor chooses to use for this work, the cost of raising the valves from existing level to ultimate level shall be paid only once, irrespective of the number of times the valve is uncovered. Spacer rings required for the height adjustment of valve covers shall be supplied by the Water and Sanitation Unit. Tolerances on valve cover levels shall be as specified in clause PH.6.5. Before final setting in position of valve covers the Contractor shall liaise with the Employer's Agent regarding the direction in which covers shall be placed.

### **PS.3.3 Restriction on Compactive Equipment**

The Contractor is to note that existing watermains traverse the site of the works and special care is to be taken in close proximity to these mains and connections. The existing mains and connections shall be proved on site by the Contractor prior to any construction work commencing in the vicinity of the watermains.

Under no circumstances will heavy road-making equipment, other heavy plant or vibratory compaction equipment be permitted to operate within 800 mm vertically or horizontally of the existing mains or connections. The permissible compaction plant within this restricted area shall be the equivalent of a "Bomag 90" under static compaction, or similar approved plant. When the roadworks are far enough advanced to provide a minimum of 800 mm cover to the existing mains, the above restriction will fall away.

The Contractor is to take cognisance of the above requirements when entering rates in the Bill of Quantities and in the programming of the works. No claim for additional payment based on the inability to use plant as a result of the requirements of this clause will be accepted. The Contractor will be held liable for any costs should the watermain or electrical cables be damaged during construction of the road.

## **PS.4 SEWERS**

### **PS.4.1 Blockage of Foul Water Sewers**

The Contractor shall be responsible for ensuring that cementitious sludge, sand and rubble from the works do not enter the foul water reticulation system. The Contractor shall be liable for any costs incurred by the Council or others as a result of blockages in the reticulation system attributed to failure to comply with the above requirement.

## **PS.5 STORMWATER**

### **PS.5.1 Blockage Stormwater Sewers**

The Contractor shall be responsible for ensuring that cementitious sludge, sand and rubble from the works do not enter the stormwater reticulation system. The Contractor shall be liable for any costs incurred by the Council or others as a result of blockages in the reticulation system attributed to failure to comply with the above requirement.

## **PS.6 ELECTRICAL PLANT**



**PS.6.1 General**

Various types of electrical cables including high voltage, low voltage, street lighting and domestic connection cables are affected by the contract. The laying, relocation and jointing of all cables will be carried out by eThekweni Electricity's work gangs, or agents appointed by them. Close liaison will therefore be necessary with eThekweni Electricity throughout the contract.

**PS.6.4 Relocation of Existing Services**

Should it be necessary to adjust the line, level and / or position of any service not catered for in the contract to enable the construction to proceed the Contractor shall on no account effect such adjustment himself but shall notify the Engineer who will arrange for the work to be carried out at no cost to the Contractor.

**PS.7 TELKOM S.A. LIMITED / NEOTEL PLANT**

No work to Telkom / Neotel Plant is envisaged, but the tenderers attention is drawn to the fact that Telkom / Neotel copper cables and fibre optic cables are existing in the contract area.

Various types of Telkom SA or Neotel cables and domestic connection cables, including copper and fibre optics are affected by the contract. If required, the laying, relocation and jointing of all cables will be carried out by the relevant authority work gangs, or agents appointed by them. Close liaison will therefore be necessary with either Telkom SA or Neotel throughout the contract.

**PS.8 CCTV PLANT**

No work to CCTV Plant is envisaged, but the tenderers attention is drawn to the fact that CCTV cables and fibre optic cables are existing in the contract area

**PS.9 MANAGEMENT OF THE ENVIRONMENT**

The Contractor shall pay special attention to the following:

**PS.9.1 Natural Vegetation**

The Contractor shall confine his operation to as small an area of the site as may be practical for the purpose of constructing the works.

Only those trees and shrubs directly affected by the works and such others as the Employer's Agent may direct in writing shall be cut down and stumped. The natural vegetation, grassing and other plants shall not be disturbed other than in areas where it is essential for the execution of the work or where directed by the Engineer.

**PS.9.2 Fires**

The Contractor shall comply with the statutory and local fire regulations. He shall also take all necessary precautions to prevent any fires. In the event of fire the Contractor shall take active steps to limit and extinguish the fire and shall accept full responsibility for damages and claims resulting from such fires which may have been caused by him or his employees.

**PS.9.3 Environmental Management Plan**

In addition to the above, all requirements according to the Environmental Management Plan as detailed in C3.4: Particular Specifications, will be adhered to.

## **PS.10 OCCUPATIONAL HEALTH AND SAFETY**

### **PS.10.1 General Statement**

When considering the safety on site the Contractor's attention is drawn to the following:

It is a requirement of this contract that the Contractor shall provide a safe and healthy working environment and to direct all his activities in such a manner that his employees and any other persons, who may be directly affected by his activities, are not exposed to hazards to their health and safety. To this end the Contractor shall assume full responsibility to conform to all the provisions of the Occupational Health and Safety Act No 85 and Amendment Act No 181 of 1993, and the OHS Act 1993 Construction Regulations 2014 issued on 7 February 2014 by the Department of Labour.

For the purpose of this contract the Contractor is required to confirm his status as mandatory and employer in his own right for the execution of the contract by entering into an agreement with the Employer in terms of Section 37(2) of the Occupational Health and Safety Act.

### **PS.10.2 Health and Safety Specifications and Plans to be submitted at tender stage**

#### **PS.10.2.1 Employer's Health and Safety Specification**

The Employer's Health and Safety Specification is included in C3.4: Particular Specifications.

#### **PS.10.2.2 Tenderer's Health and Safety Plan**

At tender stage only a brief overview of the tenderers perception on the safety requirements for this contract will be adequate. This will be attached to T2.2: Contractor's Health and Safety Plan.

Only the successful Tenderer shall submit a separate Health and Safety Plan as required in terms of Regulation 7 of the Occupational Health and Safety Act 1993 Construction Regulations 2014, and referred to in T2.2: Contractor's Health and Safety Plan.

The detailed safety plan will take into consideration the site specific risks as mentioned under PS.10.1 and must cover at least the following:

- (i) A proper risk assessment of the works, risk items, work methods and procedures in terms of Regulations 9 to 29;
- (ii) Pro-active identification of potential hazards and unsafe working conditions;
- (iii) Provision of a safe working environment and equipment;
- (iv) Statements of methods to ensure the health and safety of subcontractors, employees and visitors to the site, including safety training in hazards and risk areas (*Regulation 7*);
- (v) Monitoring health and safety on the site of works on a regular basis, and keeping of records and registers as provided for in the Construction Regulations;
- (vi) Details of the Construction Supervisor, the Construction Safety Officers and other competent persons he intends to appoint for the construction works in terms of Regulation 8 and other applicable regulations; and

- (vii) Details of methods to ensure that his Health and Safety Plan is carried out effectively in accordance with the Construction Regulations 2014.

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

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

A generic plan will not be acceptable.

### **PS.10.3 Cost of compliance with the OHS Act Construction Regulations**

The rates and prices tendered by the Contractor shall be deemed to include all costs for conforming to the requirements of the Act, the Construction Regulations and the Employer's Health and Safety Specification as applicable to this contract. Should the Contractor fail to comply with the provisions of the Construction Regulations, he will be liable for penalties as provided in the Construction Regulations and in the Employer's Health and Safety Specification.

Items that may qualify for remuneration will be specified in the Employer's Health and Safety Specification.

### **PS.11 SITE SECURITY**

The Contractor shall, for the duration of the contract, provide sufficient security and watchmen to adequately ensure the safety and protection of the works, the Contractor's staff, including local labour and subcontractors, and all site plant and construction equipment required for the works.

Site Security, in conjunction with the SAPS (where necessary), shall be responsible for removal of disruptive elements, that may interrupt the progress of the contract through acts such as, but not limited to, intimidation, threats of disruption, violent disruption, or criminal and illegal activity by the local community or independent organisations or entities that may result in slowing down or partial or total stoppage of the works.

### **PS.12 PERFORMANCE MONITORING OF SERVICE PROVIDERS**

The performance of service providers that have been selected to provide assistance in the provision of a municipal service, otherwise than in circumstances where Chapter 8 of the Municipal Systems Act applies, is required, by Section 116 of the Municipal Finance Management Act, to be monitored and reported on (see Cl.53 of the SCM Policy).

In accordance with Section 116 of the Local Government: Municipal Finance Management Act (Act No. 56 of 2003), the performance of service providers selected to assist in the provision of municipal services, outside the scope of Chapter 8 of the Local Government: Municipal Systems Act (Act No. 32 of 2000), must be monitored and reported on. This requirement is further reinforced by Clause 53 of the eThekweni Municipality's Supply Chain Management (SCM) Policy, which mandates regular assessment of contractor performance to ensure the effective delivery of municipal services. For this contract, involving the upgrade, replacement, and repositioning of

water meters (15mm to 250mm) across bulk, industrial, commercial, institutional, and domestic properties at eThekweni municipality, performance monitoring is critical to achieving the objectives of the eThekweni Water and Sanitation Technical Customer Services Branch's 10-year Water Conservation and Water Demand Management (WCWDM) Plan, including reducing non-revenue water (NRW), improving billing efficiency, and enhancing meter accessibility.

The contractor's performance shall be assessed through a set of Key Performance Indicators (KPIs), which will serve as a yardstick for measuring compliance with the contract's scope (C3.1.4), quality standards (PMS.4), safety requirements (C3.4.1), and community engagement obligations (ACT.3). These KPIs will be finalized and agreed upon with the contractor prior to the commencement of work, as stipulated in C1.2.3.5 (Performance Monitoring of Service Providers). Performance evaluations will be conducted monthly by the Employer's Agent, with reports submitted to the eThekweni Water and Sanitation Unit for review. Non-compliance with KPI targets may result in corrective actions, financial penalties, or contract termination, as per Clause 9 of GCC 2015.

### Key Performance Indicators (KPIs)

The following KPIs are developed to monitor and evaluate the contractor's performance throughout the contract duration. Each KPI is aligned with the project's objectives, scope, and regional challenges, ensuring measurable outcomes that support the municipality's strategic goals. The KPIs are categorized into five key areas: **Quality of Work, Timeliness, Safety and Compliance, Community Engagement, and Administrative Efficiency**. Each KPI includes a description, performance target, measurement method, and weighting to reflect its relative importance in the overall evaluation.

No	Category	KPI	Description	Performance Target	Measurement Method	weight
1	Quality of Work	Water Meter Installation Compliance	Percentage of water meter installations meeting NRW branch design standards and passing water tightness tests, as per SANS 1899 and C4.3 (Test Results).	100% compliance for all installed meters.	Inspection by Employer's Agent, verified by test certificates and compliance checklists (C3.6, Annexures). Non-compliant installations require rectification within 5 working days.	25%
2	Quality of Work	Reinstatement Quality	Percentage of reinstated sites (e.g., asphalt, concrete, paving) matching original conditions and meeting SANS 1200 S (Reinstatement) standards.	95% of sites reinstated to original condition, with no complaints from property owners.	Photographic evidence and site inspections by Employer's Agent, with consumer feedback surveys. Defects must be rectified	15%

					within 7 working days.	
3	Timeliness	Adherence to program	Percentage of water meter installations completed as per the approved preliminary programme (PS.1.1), including milestones for 25%, 50%, and 100% completion.	90% adherence to programme milestones, with delays not exceeding 5% of contract duration without approved extensions (Clause 5.12, GCC 2015)	Monthly progress reports compared against programme, with variance analysis. Delays reported to Employer's Agent within 48 hours	10%
4	Timeliness	Shutdown Management	Percentage of water supply shutdowns completed within planned timeframes (typically 4–8 hours), with adequate consumer notification (48 hours prior).	95% of shutdowns completed within planned windows, with zero unplanned disruptions.	Records of shutdown schedules, notification letters, and consumer complaints, verified by Employer's Agent.	20%
5	Safety & Compliance	Health & Safety Incidents	Number of reportable health and safety incidents (e.g., injuries, near-misses) as per OHS 1993 Construction Regulations and C3.4.1 (OHS Safety Specification).	Zero reportable incidents. Minor non-compliances rectified within 24 hours.	Zero reportable incidents. Minor non-compliances rectified within 24 hours.	15%
6	Community Engagement	Consumer satisfaction	Percentage of consumers reporting satisfaction with communication and minimal disruption during meter installations, particularly in informal settlements and traditional areas	90% satisfaction rate, with fewer than 5% formal complaints.	90% satisfaction rate, with fewer than 5% formal complaints.	10%
7	Administrative Efficiency	Accuracy & timeliness of reporting	Percentage of monthly progress reports, FTE employment data (C1.2.3.4), and GIS coordinates submitted on time and in the correct	100% of reports submitted by the 5th of each month,	100% of reports submitted by the 5th of each month, with zero errors in format	5%

			format.	with errors format data	zero in or	or data.	
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**Total Weighting:** 100%

## KPI Implementation and Monitoring

### 1. Pre-Commencement Agreement:

- Prior to the start of works, the contractor shall meet with the Employer's Agent and the eThekweni Water and Sanitation Unit to finalize the KPIs, including any adjustments to targets or weightings based on site-specific conditions (e.g. Each ward-specific). The agreed KPIs will be incorporated into the Contract Data (C1.2) and referenced in monthly performance evaluations.
- The contractor shall submit a Performance Monitoring Plan, detailing how each KPI will be tracked, measured, and reported, including responsible personnel (e.g., Contracts Manager, Civil Engineering Technician) and data collection methods.

### 2. Monthly Performance Evaluations:

- The Employer's Agent will assess the contractor's performance against each KPI on a monthly basis, using data from progress reports, site inspections, consumer feedback, and safety records. A performance score will be calculated by multiplying the achieved percentage for each KPI by its weighting and summing the results (maximum score: 100).
- A minimum performance score of 80% is required to avoid corrective actions. Scores below 80% for two consecutive months may trigger a formal review, with potential penalties or termination as per Clause 9.2 of GCC 2015.

### 3. Reporting Requirements:

- The contractor shall include a KPI Performance Summary in each monthly progress report, detailing:
  - Achieved performance for each KPI, supported by evidence (e.g., test certificates, photographs, consumer survey results).
  - Explanations for any non-compliance, including proposed corrective actions and timelines.
  - Updates on cumulative performance trends and risks to future compliance.
- Reports shall be submitted in electronic format (e.g., PDF, Excel) to the Employer's Agent (Fisaphile Buthelezi, Tel: 031 311 8493, Email: Fisaphile.Buthelezi@durban.gov.za) by the 5th of each month, as per KPI 7.

### 4. Corrective Actions and Penalties:

- Non-compliance with KPI targets will be addressed through a tiered approach:
  - **Level 1 (Minor Non-Compliance):** Verbal warning and requirement to rectify within specified timelines (e.g., 5–7 days for quality issues).
  - **Level 2 (Moderate Non-Compliance):** Written notice and deduction of 1% of the monthly payment certificate for each KPI below target, up to a maximum of 5%, as per Clause 6.10.4 of GCC 2015.
  - **Level 3 (Severe Non-Compliance):** Suspension of works until rectified, with potential termination for repeated failures, as per Clause 9.2 of GCC 2015.
- Safety incidents (KPI 5) resulting in reportable injuries will trigger immediate investigation by the Health and Safety Committee, with possible work stoppage until compliance is restored.

### 5. Consumer and Community Feedback:

- Community Mobilizers and ward councillors will facilitate consumer surveys to measure satisfaction (KPI 6), particularly in sensitive areas like informal settlements and traditional lands. Surveys will be conducted quarterly, with results collated by the municipality's Public Participation Office.
- The contractor shall address consumer complaints within 7 working days, with resolution details included in monthly reports.

### Integration with Contract Management

- **Performance Reviews:** Quarterly performance review meetings will be held with the contractor, Employer's Agent, and municipal representatives to discuss KPI outcomes, identify trends, and agree on improvement plans. These meetings will align with the Health and Safety Committee schedule.
- **Payment Linkage:** Payment certificates will be contingent on submission of compliant KPI reports and FTE employment data (C1.2.3.4). Failure to submit accurate or timely reports (KPI 7) may result in payment withholding, as per Clause 6.10.4 of GCC 2015.
- **Performance Incentives:** Contractors achieving a performance score of 95% or higher for three consecutive months may be eligible for recognition in the municipality's Supplier Performance Database, potentially enhancing future tender evaluations, subject to SCM Policy approval.
- **Contract Closeout:** A final performance evaluation will be conducted upon contract completion, summarizing compliance with all KPIs and informing the issuance of the Completion Certificate (Clause 5.14, GCC 2015). Outstanding non-compliances may delay certificate issuance.

### Regional Considerations

The KPIs are designed to address the unique challenges at eThekweni Operational Area, including:

- **Urban Density:** High-traffic wards require stringent shutdown management (KPI 4) and reinstatement quality (KPI 2) to minimize disruption to businesses and residents.
- **Community Sensitivities:** Informal settlements and traditional areas necessitate robust consumer engagement (KPI 6) to ensure community buy-in and avoid delays, as per ACT.3 (Code of Conduct and Local Labour).
- **Infrastructure Variability:** Aging pipe networks demand high installation compliance (KPI 1) to prevent leaks and ensure NRW reduction, aligning with C3.1.1 (Employer's Objectives).
- **Safety Risks:** Dense underground services and high groundwater levels (C3.1.3) increase safety risks, making KPI 5 critical to maintaining a zero-incident record.

The performance monitoring framework outlined in PS.12 ensures that the contractor delivers the water meter installation project at eThekweni Operational Area to the highest standards of quality, timeliness, safety, and community engagement. The seven KPIs provide a balanced and measurable approach to evaluating performance, aligning with the municipality's WCWDM Plan and SCM Policy requirements. By adhering to these KPIs, the contractor will contribute to reducing NRW, enhancing billing efficiency, and improving service delivery for the residents and businesses. The Employer's Agent will work collaboratively with the contractor to implement this framework, ensuring transparency, accountability, and continuous improvement throughout the contract duration.

### **C3.3: STANDARD SPECIFICATIONS**

**C3.3.1** The Specifications on which this contract is based are the eThekweni Municipality's (City of Durban) Standard Engineering Specifications (hereafter referred to as the Standard Engineering Specifications). This document is obtainable separately, and Tenderers shall obtain their own copies of the applicable Sections.

<b>Part</b>	<b>Description</b>	<b>Date of Issue</b>	
AB	General Specifications	July	1992
B	Site Clearance	March	1990
DA	Earthworks: Bulk	January	1985
DB	Earthworks for Pipe Trenches	July	1992
ED	Road Asphalt	July	1992
EF	Kerbs and Haunches	July	1992
EG	Sidewalks, Footpaths and Median Areas	July	1992
F	Protection Works	July	1992
S	Reinstatement	March	1993
TA	Road Signs	October	1989



### C3.3.2 AMENDMENTS TO THE STANDARD SPECIFICATIONS

#### INTRODUCTION

In certain clauses the standard, standardized and particular specifications allow a choice to be specified in the project specifications between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract. Details of such alternative or additional requirements applicable to this contract are contained in this part of the project specifications. It also contains additional specifications required for this particular contract.

The number of each clause and each payment item in this part of the project specifications consists of the prefix PS followed by a number corresponding to the number of the relevant clause or payment item in the standard specifications. The number of a new clause or payment item, which does not form part of a clause or a payment item in the standard specifications and which is included here, is also prefixed by PS, but followed by a new number which follows on the last clause or item number used in the relevant section of the standard specifications.

PS AB	General Specifications	PS B	Site Clearance
PS C	Concrete Work		
PS DA	Earthworks: Bulk		
PS DB	Earthworks for Pipe Trenches	PS ED	Road Asphalt
PS EF	Kerbs and Haunches		
PS EG	Sidewalks, Footpaths and Median Areas	PS F	Protection Works
PS PF	Pressure Pipelines: other than Steel		
PS PG	Non Pressure Pipelines and Pc Culverts	PS S	Reinstatement
PS TA	Road Signs		
PS TB	Road Markings		

### **C3.4: PARTICULAR SPECIFICATIONS**

In addition to the Standardized and Project Specifications the following Particular Specifications / Policies shall apply to this contract:

C3.4.1 Part AH - OSHA 1993 Safety Specification  
(26 Pages)

C3.4.2 Standard Environmental Management Plan for Civil Engineering Construction Works  
(24 Pages)

## **PAM: OHS 1993 HEALTH AND SAFETY SPECIFICATION PAM-1: SCOPE**

This specification covers the health and safety requirements to be met by the Contractor to ensure a continued safe and healthy environment for all workers, employees and subcontractors under his control and for all other persons entering the site of works.

This specification shall be read with the Occupational Health and Safety Act (Act No 85 and amendment Act No 181) 1993, and the corresponding Construction Regulations 2003, and all other safety codes and specifications referred to in the said Construction Regulations.

In terms of the OHS Agreement included in Section T2.2.3 of the Contract document, the status of the Contractor as mandatory to the Employer (Client) is that of an Employer in his own right, responsible to comply with all provisions of OHS 1993 and the Construction Regulations 2003.

This safety specification and the Contractor's own Safety Plan as well as the Construction Regulations 2003, shall be displayed on site or made available for inspection by all workers, employees, inspectors and any other persons entering the site of works.

The following are possible risks associated with this project:

- Potentially dangerous existing services, i.e. water and sewerage mains, electrical high voltage cables buried and overhead,
- Deep excavations in soils requiring shoring or reducing of slopes,
- Movement of construction vehicles on site, taking into consideration steep slopes, other traffic and existing services,
- Exposure to possible injuries due to mishandling or failure of power and hand tools,
- Risks related to general safety and security on site.

Additional risks may arise from specific methods of construction selected by the Contractor which are not necessary covered in the above.

## **PAM-2: DEFINITIONS**

For the purpose of this Contract the following shall apply:

- (a) "Employer" where used in the contract documents and in this specification, means the Employer as defined in the General Conditions of Contract and it shall have the exact same meaning as "Client" as defined in the Construction Regulations 2003. "Employer" and "Client" is therefore interchangeable and shall be read in the context of the relevant document.
- (b) "Contractor", wherever used in the contract documents and in this specification, shall have the same meaning as "Contractor" as defined in the General Conditions of Contract.

In this specification the terms "principal contractor" and "contractor" are replaced with "Contractor" and "subcontractor" respectively.

For the purpose of this Contract the Contractor will, in terms of OHS 1993, be the mandatory, without derogating from his status as an Employer in his own right.

- (c) "Engineer" where used in this specification, means the Engineer as defined in the General Conditions of Contract. In terms of the Construction Regulations the Engineer may act as agent on behalf of the Employer (the Client as defined in the Construction Regulations).

### **PAM-3: TENDERS**

The Contractor shall submit the following with his tender:

- (a) a documented Health and Safety Plan as stipulated in Regulation 5 of the Construction Regulations. The Safety Plan must be based on the Construction Regulations 2003 and will be subject to approval by the Employer;
- (b) a declaration to the effect that he has the competence and necessary resources to carry out the work safely in compliance with the Construction Regulations 2003;
- (c) a declaration to the effect that he made provision in his tender for the cost of the health and safety measures envisaged in the Construction Regulations.
- (d) Failure to submit the foregoing with his tender, will lead to the conclusion that the Contractor will not be able to carry out the work under the Contract safely in accordance with the Construction Regulations.

### **PAM-4: NOTIFICATION OF COMMENCEMENT OF CONSTRUCTION WORK**

After award of the Contract, but before commencement of construction work, the Contractor shall, in terms of Regulation 3, notify the Provincial Director of the Department of Labour in writing if the following work is involved:

- (a) the demolition of structures and dismantling of fixed plant of height of 3,0 m or more;
- (b) the use of explosives;
- (c) construction work that will exceed 30 days or 300 person-days;
- (d) excavation work deeper than 1,0 m; or
- (e) working at a height greater than 3,0 m above ground or landings.

The notification must be done in the form of the pro forma included in "Forms to be Completed by Successful Tenderer" of the tender document.

A copy of the notification form must be kept on site, available for inspection by inspectors, Employer, Engineer, employees and persons on site.

### **PAM-5: RISK ASSESSMENT**

Before commencement of any construction work during the construction period, the Contractor shall have a risk assessment performed and recorded in writing by a competent person. (Refer Regulation 7 of the Construction Regulations 2003).

The risk assessment shall identify and evaluate the risks and hazards that may be expected during the execution of the work under the Contract, and it shall include a documented plan of safe work procedures to mitigate, reduce or control the risks and hazards identified.

The risk assessment shall be available on site for inspection by inspectors, Employer, Engineer, subcontractors, employees, trade unions and health and safety committee members, and must be monitored and reviewed periodically by the Contractor.

### **PAM-6: APPOINTMENT OF EMPLOYEES AND SUBCONTRACTORS**

#### **PAM-6.1 Health and Safety plan**

The Contractor shall appoint his employees and any subcontractors to be employed on the Contract, in writing, and he shall provide them with a copy of his documented Health and Safety Plan, or relevant sections thereof. The Contractor shall ensure that all subcontractors and employees are committed to the implementation of his Safety Plan.

#### **PAM-6.2 Health and Safety induction training**

The Contractor shall ensure that all employees under his control, including subcontractors and their employees, undergo a health and safety induction training course by a competent person before commencement of construction work. No visitor or other person shall be allowed or permitted to enter the site of the works unless such person has undergone health and safety training pertaining to hazards prevalent on site.

The Contractor shall ensure that every employee on site shall at all times be in possession of proof of the health and safety induction training issued by a competent person prior to commencement of construction work.

## **PAM-7: APPOINTMENT OF SAFETY PERSONNEL**

### **PAM-7.1: Construction Supervisor**

The Contractor shall appoint a full-time Construction Supervisor with the duty of supervising the performance of the construction work.

He may also have to appoint one or more competent employees to assist the construction supervisor where justified by the scope and complexity of the works.

### **PAM-7.2: Construction safety officer**

Taking into consideration the size of the project and the hazards or dangers that can be expected, the Contractor shall appoint in writing a full-time or part-time Construction Safety Officer if so decided by the Inspector of the Department of Labour. The Safety Officer shall have the necessary competence and resources to perform his duties diligently.

Provision shall be made by the Contractor in his rates, to cover the cost of this dedicated construction safety officer appointed after award of the contract.

### **PAM-7.3: Health and Safety representatives**

In terms of Sections 17 and 18 of the Act (OHSA 1993) the Contractor, being the Employer in terms of the Act for the execution of the contract, shall appoint a health and safety representative whenever he has more than 20 employees in his employment on the site of the works. The health and safety representative must be selected from employees who are employed in a full-time capacity at a specific workplace.

The number of health and safety representatives for a workplace shall be at least one for every 100 employees.

The function of the health and safety representative(s) will be to review the effectiveness of health and safety measures, to identify potential hazards and major incidents, to examine causes of incidents (in collaboration with his Employer, the Contractor), to investigate complaints by employees relating to health and safety at work, to make representations to the Employer (Contractor) or inspector on general matters affecting the health and safety of employees, to inspect the workplace, plant, machinery etc. on a regular base, to participate in consultations with inspectors and to attend meetings of the health and safety committee.

### **PAM-7.4: Health and Safety committee**

In terms of Sections 17 and 18 of the Act (OHSA 1993) the Contractor (as Employer), shall establish one

or more health and safety committee(s) where there are two or more health and safety representatives at a workplace. The persons selected by the Contractor to serve on the committee shall be designated in writing.

The function of the health and safety committee shall be to hold meetings at regular intervals, but at least once every three months, to review the health and safety measures on the Contract, to discuss incidents related to health and safety with the Contractor and the inspector, and to make recommendations regarding health and safety to the Contractor and to keep record of recommendations and reports made by the committee.

#### **PAM-7.5: Competent persons**

In accordance with the Construction Regulations the Contractor has to appoint in writing competent persons responsible for supervising construction work on each of the following work situations that may be expected on the site of the works.

- (a) Risk assessment and induction training as described in Regulation 7 of the Construction Regulations;
- (b) Fall protection as described in Regulation 8;
- (c) Formwork and support work as described in Regulation 10;
- (d) Excavation work as described in Regulation 11;
- (e) Demolition work as described in Regulation 12;
- (f) Scaffolding work as described in Regulation 14;
- (g) Suspended platform operations as described in Regulation 15;
- (h) Material hoists as described in Regulation 17;
- (i) Batch plant operations as described in Regulation 18;
- (j) Explosive powered tools as described in Regulation 19;
- (k) Cranes as described in Regulation 20;
- (l) Construction vehicle and mobile plant inspections on a daily basis by a competent person as described in Regulation 21(1);
- (m) Control of all temporary electrical installations on the construction site as described in Regulation 22.
- (n) Stacking and storage on construction sites as described in Regulation 26; and
- (o) Inspections of fire equipment as described in Regulation 27.

A competent person may be appointed for more than one part of the construction work with the understanding that the person must be suitably qualified and able to supervise at the same time the construction work on all the work situations for which he has been appointed.

The appointment of competent persons to supervise parts of the construction work does not relieve the Contractor from any of his responsibilities to comply with all requirements of the Construction Regulations.

#### **PAM-8: RECORDS AND REGISTERS**

In accordance with the Construction Regulations the Contractor is bound to keep records and registers related to health and safety on site for periodic inspection by inspectors, the Engineer, the Employer, trade union officials and subcontractors and employees. The following records and registers must be kept on site and shall always be available for inspection.

- (a) A copy of the OHSA 1993 Construction Regulations 2003;
- (b) A copy of this Health and Safety Specification;
- (c) A copy of the Contractor's Health and Safety Plan (Regulation 4);
- (d) A copy of the Notification of Construction Work (Regulation 3);

- (e) A health and safety file in terms of Regulation 5(7) with inputs by the Construction Safety Officer [Regulation 6(7)];
- (f) A copy of the risk assessment described in Regulation 7;
- (g) A full protection plan and the corresponding records of evaluation and training of employees working from elevated positions as described in Regulation 8;
- (h) Drawings pertaining to the design of structures [Regulation 9(3)] and formwork and support work structures [Regulation 10(d)] must be kept on site;
- (i) Pronouncement of the safety of excavations must be recorded in a register to be kept on site [Regulation 11(3)(h)];
- (j) A copy of the certificate of the system design for suspended platforms [Regulation 15(3)];
- (k) A notice must be affixed around the base towers of material hoists to indicate the maximum mass load, which may be carried at any one time by material hoists [Regulation 7(5)].
- (l) Maintenance records of material hoists and inspection results must be kept in a record book to be kept on site [Regulation 17(8)];
- (m) A record of any repairs to or maintenance of a batch plant must be kept on site [Regulation 18(9)];
- (n) A warning notice must be displayed in a conspicuous manner when and wherever an explosive powered tool is used [Regulation 19(2)];
- (o) A register for recording of findings by the competent person appointed to inspect construction vehicles and mobile plant [Regulation 21(1)(j)].

#### **PAM-9: CONTRACTOR'S RESPONSIBILITIES**

For this Contract the Contractor will be the mandatory of the Employer (Client), as defined in the Act (OHSA 1993), which means that the Contractor has the status of Employer in his own right in respect of the Contract. The Contractor is therefore responsible for all the duties and obligations of an Employer as set out in the Act (OHSA 1993) and the Construction Regulations 2003.

Before commencement of work under the Contract, the Contractor shall enter into an agreement with the Employer (Client) to confirm his status as mandatory (Employer) for the Contract under consideration.

The Contractor's duties and responsibilities are clearly set out in the Construction Regulations 2003 and are not repeated in detail but some important aspects are highlighted hereafter, without relieving the Contractor of any of his duties and responsibilities in terms of the Construction Regulations.

##### (a) Contractor's position in relation to the Employer (Client) (Regulation 4)

In accordance with Section 4 of the Regulations, the Contractor shall liaise closely with the Employer or the Engineer on behalf of the Employer, to ensure that all requirements of the Act and the Regulations are met and complied with.

##### (b) The Principal Contractor and Contractor (Regulation 5)

The Contractor is in terms of the definition in Regulation 2(b) the equivalent of Principal Contractor as defined in the Construction Regulations, and he shall comply with all the provisions of Regulation 5.

Any subcontractors employed by the Contractor must be appointed in writing, setting out the terms of the appointment in respect of health and safety. An independent subcontractor shall however provide and demonstrate to the Contractor a suitable, acceptable and sufficiently documented health and safety plan before commencement of the subcontract. In the absence of such a health and safety plan the subcontractor shall undertake in writing that he will comply with the Contractor's safety plan, the health and safety specifications of the Employer and the Construction Regulations 2003.

(c) Supervision of construction work (Regulation 6)

The Contractor shall appoint the safety and other personnel and employees as required in terms of Regulation 6 and as set out in PAM-7 above. Appointment of those personnel and employees does not relieve the Contractor from any of the obligations under Regulation 6.

(d) Risk assessment (Regulation 7)

The Contractor shall have the risk assessment made as set out in PAM-7 above before commencement of the work, and it must be available on site for inspection at all times. The Contractor shall consult with the health and safety committee or health and safety representative(s) etc. on a regular basis to ensure that all employees, including subcontractors under his control, are informed and trained by a competent person regarding health hazards and related work procedures.

No subcontractor, employee or visitor shall be allowed to enter the site of works without prior health and safety induction training, all as specified in Regulation 7.

(e) Fall protection (Regulation 8)

Fall protection, if applicable to this Contract shall comply in all respects with Regulation 8 of the Construction Regulations.

(f) Structures (Regulation 9)

The Contractor will be liable for all claims arising from collapse or failure of structures if he failed to comply with all the specifications, project specifications and drawings related to the structures, unless it can be proved that such collapse or failure can be attributed to faulty design or insufficient design standards on which the specifications and the drawings are based.

In addition the Contractor shall comply with all aspects of Regulation 9 of the Construction Regulations.

(g) Formwork and support work (Regulation 10)

The Contractor will be responsible for the adequate design of all formwork and support structures by a competent person.

All drawings pertaining to formwork shall be kept on site and all equipment and materials used in formwork, shall be carefully examined and checked for suitability by a competent person.

The provisions of Regulation 10 of the Construction Regulations shall be followed in every detail.

(h) Excavation work (Regulation 11)

It is essential that the Contractor shall follow the instructions and precautions in the Standard Specifications and Project Specifications as well as the provisions of the Construction Regulations to the letter as unsafe excavations can be a major hazard on any construction site. The Contractor shall therefore ensure that all excavation work is carried out under the supervision of a competent person, that inspections are carried out by a Professional Engineer or Technologist, and that all work is done in such a manner that no hazards are created by unsafe excavations and working conditions.

Supervision by a competent person will not relieve the Contractor from any of his duties and responsibilities under Regulation 11 of the Construction Regulations.



(i) Demolition work (Regulation 12)

Whenever demolition work is included in a Contract, the Contractor shall comply with all the requirements of Regulation 12 of the Construction Regulations. The fact that a competent person has to be appointed by the Contractor, does not relieve the Contractor from any of his responsibilities in respect of safety of demolition work.

(j) Tunnelling (Regulation 13)

The Contractor shall comply with Regulation 13 wherever tunnelling of any kind is involved.

(k) Scaffolding (Regulation 14)

The Contractor shall ensure that all the provisions of Regulation 14 of the Construction Regulations are complied with. [Note : Reference in the Regulations to “Section 44 of the Act” should read “Section 43 of the Act”]

(l) Suspended platforms (Regulation 15)

Wherever suspended platforms will be necessary on any Contract, the Contractor shall ensure that copies of the system design issued by a Professional Engineer are submitted to the Engineer for inspection and approval. The Contractor shall appoint competent persons as supervisors and competent scaffold erectors, operators and inspectors and ensure that all work related to suspended platforms are done in accordance with Regulation 15 of the Construction Regulations.

(m) Boatswain's chairs (Regulation 16)

Where boatswain's chairs are required on the construction site, the Contractor shall comply with Regulation 16.

(n) Material Hoists (Regulation 17)

Wherever applicable, the Contractor shall comply with the provisions of Regulation 17 to the letter.

(o) Batch plants (Regulation 18)

Wherever applicable, the Contractor shall ensure that all lifting machines, lifting tackle, conveyors, etc. used in the operation of a batch plant shall comply with, and that all operators, supervisors and employees are strictly held to the provisions of Regulation 18. The Contractor shall ensure that the General Safety Regulations (Government Notice R1031 of 30 May 1986), the Driven Machinery Regulations (Government Notice R295 of 26/2/1988) and the Electrical Installation Regulations (Government Notice R2271 of 11/10/1995) are adhered to by all involved.

In terms of the Regulations, records of repairs and maintenance shall be kept on site.

(p) Explosive powered tools (Regulation 19)

The Contractor shall ensure that, wherever explosive-powered tools are required to be used, all safety provisions of Regulation 19 are complied with.

It is especially important that warning notices are displayed and that the issue and return of cartridges and

spent cartridges be recorded in a register to be kept on site.

(q) Cranes (Regulation 20)

Wherever the use of tower cranes becomes necessary, the provisions of Regulation 20 shall be complied with.

(r) Construction vehicles and mobile plant (Regulation 21)

The Contractor shall ensure that all construction vehicles and plant are in good working condition and safe for use, and that they are used in accordance with their design and intended use. The vehicles and plant shall only be operated by workers or operators who have received appropriate training, all in accordance with all the requirements of Regulation 21.

All vehicles and plant must be inspected on a daily basis, prior to use, by a competent person and the findings must be recorded in a register to be kept on site.

(s) Electrical installation and machinery on construction sites (Regulation 22)

The Contractor shall comply with the Electrical Installation Regulations (Government Notice R2920 of 23 October 1992) and the Electrical Machinery Regulations (Government Notice R1953 of 12 August 1993). Before commencement of construction, the Contractor shall take adequate steps to ascertain the presence of, and guard against dangers and hazards due to electrical cables and apparatus under, over or on the site.

All temporary electrical installations on the site shall be under the control of a competent person, without relieving the Contractor of his responsibility for the health and safety of all workers and persons on site in terms of Regulation 22.

(t) Use of temporary storage of flammable liquids on construction sites (Regulation 23)

The Contractor shall comply with the provisions of the General Safety Regulations (Government Notice R1031 of 30 May 1986) and all the provisions of Regulation 23 of the Construction Regulations to ensure a safe and hazard-free environment to all workers and other persons on site.

(u) Water environments (Regulation 24)

Where construction work is done over or in close proximity to water, the provisions of Regulation 24 shall apply.

(v) Housekeeping on Construction sites (Regulation 25)

Housekeeping on all construction sites shall be in accordance with the provisions of the environmental Regulations for workplaces (Government Notice R2281 of 16 October 1987) and all the provisions of Regulation 25 of the Construction Regulations.

(w) Stacking and storage on construction sites (Regulation 26)

The provisions for the stacking of articles contained in the General Safety Regulations (Government Notice R1031 of 30 May 1986) as well as all the provisions of Regulation 26 of the Construction Regulations shall apply.

(x) Fire precautions on construction sites (Regulation 27)

The provisions of the Environmental Regulations for Workplaces (Government Notice R2281 of 16 October 1987) shall apply.

In addition the necessary precautions shall be taken to prevent the incidence of fires, to provide adequate and sufficient fire protection equipment, sirens, escape routes etc. all in accordance with Regulation 27 of the Construction Regulations.

(y) Construction welfare facilities (Regulation 28)

The Contractor shall comply with the construction site provisions as in the Facilities Regulations (Government Notice R1593 of 12 August 1988) and the provisions of Regulation 28 of the Construction Regulations.

(z) Non-compliance with the Construction Regulations 2003

The foregoing is a summary of parts of the Construction Regulations applicable to all construction projects.

The Contractor, as Employer for the execution of the Contract, shall ensure that all provisions of the Construction Regulations applicable to the Contract under consideration are complied with to the letter.

Should the Contractor fail to comply with the provisions of the Regulations 3 to 28 as listed in Regulation 30, he will be guilty of an offence and will be liable, upon conviction, to the fines or imprisonment as set out in Regulation 30.

The Contractor is advised in his own interest to make a careful study of the Act and the Construction Regulations as ignorance of the Act and the Regulations will not be accepted in any proceedings related to non-conformance to the Act and the Regulations.

#### **PAM-10: MEASUREMENT AND PAYMENT**

PAM-10.1: These items have been included in the Bill of Quantities to comply with the above mentioned specifications

### C3.5: CONTRACT AND STANDARD DRAWINGS

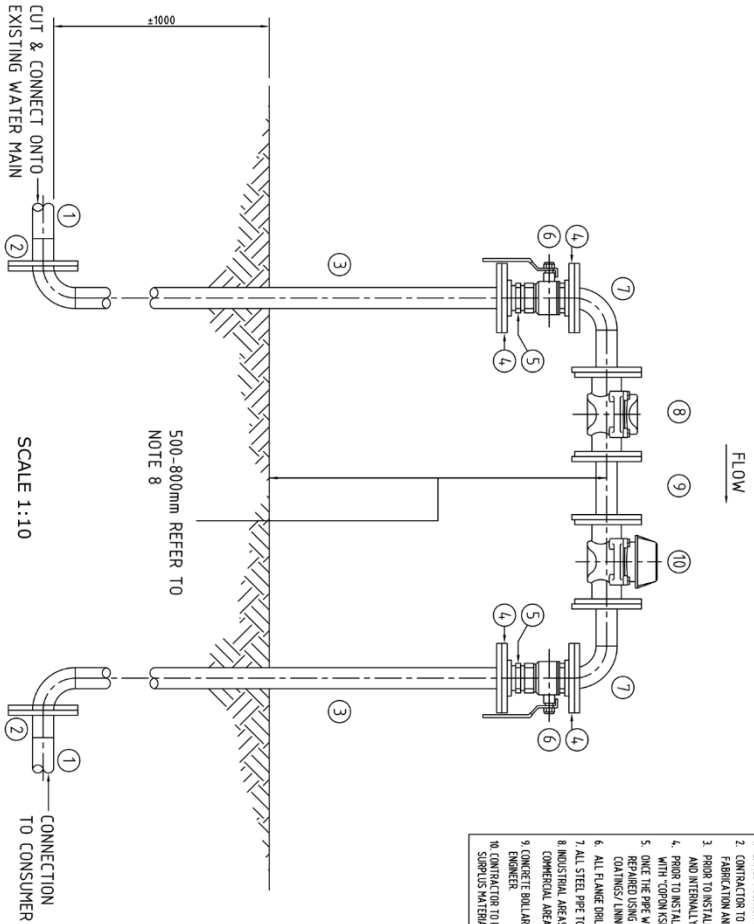
#### C3.5.1 CONTRACT DRAWINGS / DETAILS

#### C3.5.2 STANDARD DRAWINGS

The Standard Drawings to which these Standard Engineering Specifications refer are listed below.

<b>Dwg No</b>	<b>Description</b>	<b>Date of Issue</b>	
	<b>072056 Sheet1 Consumer Meter Connection</b>	<b>February</b>	<b>2015</b>
	<b>072056 Sheet2 Rev1 Consumer Meter Connection</b>	<b>February</b>	<b>2015</b>
	<b>072056 Sheet3 Rev1 Consumer Meter Connection</b>	<b>February</b>	<b>2015</b>
	<b>072056 Sheet4 Rev1 Consumer Meter Connection</b>	<b>February</b>	<b>2015</b>
	<b>072056 Sheet5 Rev1 Consumer Meter Connection</b>	<b>February</b>	<b>2015</b>
	<b>045483 50 - 150 Dirt Box Detail Rev4</b>	<b>August</b>	<b>2003</b>
	<b>045484 200 – 400 Dirt Box Detail Rev5</b>	<b>August</b>	<b>2003</b>
<b>28</b>	<b>No 5 Valve Cover</b>	<b>July</b>	<b>2007</b>
<b>6</b>	<b>Precast Concrete Valve Spacer rings</b>	<b>June</b>	<b>2007</b>

**C3.6: ANNEXURES**



- NOTES**
1. EXACT POSITION OF METER INSTALLATION TO BE INDICATED BY ENGINEER.
  2. CONTRACTOR TO CONFIRM DIMENSIONS OF ALL NEW STEEL PIPE WORK PRIOR TO FABRICATION AND INSTALLATION.
  3. PRIOR TO INSTALLATION ALL FABRICATED PIPE WORK TO BE EXTERNALLY COATED AND INTERNALLY LINED WITH 'RILSAM' TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS.
  4. PRIOR TO INSTALLATION AND ASSEMBLY ANY UNCOATED FLANGE FACES TO BE COATED WITH 'CORON KS888' TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS.
  5. ONCE THE PIPE WORK HAS BEEN INSTALLED ALL DAMAGED STEEL PIPE WORK IS TO BE REPAIRED USING AN APPROVED PROCEDURE AS PER TABLE 'REPAIR OF PIPE COATINGS/LININGS'.
  6. ALL FLANGE DRILLING TO BE TO SABS 1023 (P/N 8).
  7. ALL STEEL PIPE TO BE IN ACCORDANCE WITH SABS 719 - 'MEDIUM BLACK - 6mm THICK'.
  8. INDUSTRIAL AREAS - METER INSTALLATIONS TO BE 800mm INCL. (CL) AND COMMERCIAL AREAS - METER INSTALLATIONS TO BE 500mm INCL. (CL) AT ENGINEER'S DISCRETION.
  9. CONCRETE BOLLARDS TO BE INSTALLED TO PROTECT INSTALLATION FROM TRAFFIC AS REQUIRED BY ENGINEER.
  10. CONTRACTOR TO REINSTATE EXCAVATED AREA TO ORIGINAL CONDITION & DISPOSAL OF UNSUITABLE SURPLUS MATERIAL OFF SITE.

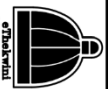
**TABLE :1**

REPAIR OF PIPE COATINGS/LININGS		
COATING/LINING	COLOR	REPAIR MEDIUM
COPON KSR 88	RED/BLUE	COPON HYCOTE 151
FUSION BONDED EPOXY (F.B.E.)	GREEN	COPON HYCOTE 151
FUSION BONDED MEDIUM DENSITY POLYETHYLENE (F.B.M.D.P.E.)	BLACK	COPON HYCOTE 151
COPON	RED	COPON HYCOTE 151
SOLVENT FREE/BOND EPOXY (S.F.E./S.B.E.)	BLUE/RED / GREY	EPIDURINX 338
CEMENT MORTAR	GREY	EPIDURINX 338
RILSAM	BLACK	RILSAM REPAIR KIT

**TABLE :2**

ITEM No.	DESCRIPTION	DIMENSIONS	QUANTITY
1	EXISTING SHIMM WATER MAIN		2
2	Shimmø FLANGE ADAPTOR TO SUIT		2
3	Shimmø 4"SPR BRND WITH STEEL SPOOL, PREFER F&L SPOOL, PREFER LENGTH VARIAS-REFER TO NOTE 8I		2
4	Shimmø THREADED LOOSE FLANGE (TABLE 800)		4
5	Shimmø STAINLESS STEEL NUTS		2
6	Shimmø BALL VALVE (M/F)		2
7	Shimmø 4"SPR BRND WITH STEEL SPOOL, PREFER 300mm LONG F&L	100	2
8	Shimmø STRAINER (CONCRETE STRAINER TYPE WITH BOLLNER)	200	1
9	Shimmø STAINLESS STEEL SPOOL, PREFER F&L	150	1
10	Shimmø BOLLWATER (F&L)	200	1

ETHERKINT WATER SERVICES



WATER DESIGN BRANCH  
**REDUCED FLOW USE SCALE BELOW**  
 0 10 20 30 40 50  
 60mm ON ORIGINAL PLAN

**LEGEND**  
 EXISTING UNDERGROUND SERVICES  
 NEW UNDERGROUND SERVICES  
 SENSORS AND METERS  
 STORM WATER DRAINS AND METERS  
 WATER MAINS AND VALVES  
 ELECTRIFICITY CABLES  
 TELECOM CABLES  
 OTHER CABLES  
 PIPE PERIPHERIES

Revision A  
 Date OCT 08  
 Issued For Signature

Date 12/09/2008  
 Drawn By  
 Checked By  
 Approved By

Project No.  
 Planning Unit  
 Ward No.  
 Project Title: NEW STANDARD CONSUMER METER CONNECTION  
 Drawing Title  
**Sommø CONSUMER METER CONNECTION**  
 Scales : 1:10  
 Designed : K.E.X  
 Date : OCT 2008  
 Checked : S.S./N  
 Drawn : A.F.K  
 Manager : RON REVENUE WATER  
 Director: HEAD WATER & SANITATION  
 N.A.MacLeod Executive Director  
 Drawing No. **72056** Sheet **1/7** Rev **A**

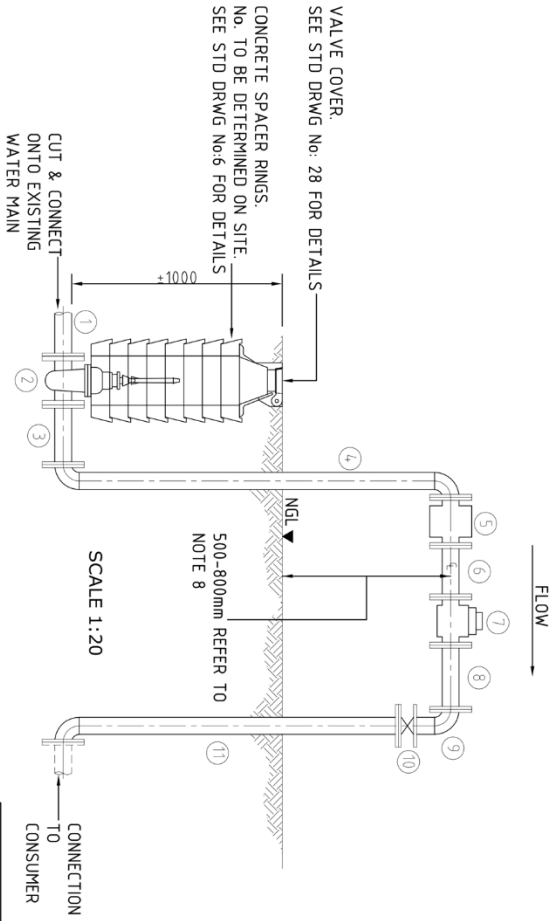


TABLE :1

COATING/LINING	COLOR	REPAIR MEDIUM
COPON KSR 88	RED/BLUE	COPON HYCOTE 151
FUSION BONDED EPOXY (F.B.E)	GREEN	COPON HYCOTE 151
FUSION BONDED MEDIUM DENSITY POLYETHYLENE (F.B.H.D.P.E.)	BLACK	COPON HYCOTE 151
COPON	RED	COPON HYCOTE 151
SOLVENT FREE/DRONE EPOXY (S.F.E./S.B.E.)	BLUE/RED/ GREY	COPON HYCOTE 151
CEMENT MORTAR	GREY	EPIDORIX 338
RIL SAN	BLACK	RIL SAN REPAIR KIT

TABLE :2

ITEM No.	DESCRIPTION	QUANTITY
1	EXISTING 80mm WATER MAIN	
2	80mm GATE VALVE	1
3	80mm STEEL SPOOL PIECE 25mm FLANGED DISTANCE	1
4	2 No 80mmø, 90° STEEL SHORT RADIUS BENDS WITH STEEL SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8(F.B.E)	1
5	80mm STRAINER 255mm LONG, CONE/STR STRAINER TYPE WITH ENGINEER	1
6	80mm STEEL SPOOL PIECE 240mm LONG (F.B.E)	1
7	80mm BULK METER 225mm LONG (F.B.E)	1
8	80mm STEEL SPOOL PIECE (F.B.E) REFER TO TABLE 3 FOR DIMENSIONS.	1
9	80mmø 90° STEEL SHORT RADIUS BEND WITH 80mm LONG SPOOL PIECE (F.B.E)	1
10	80mm BUTTERFLY VALVE WATERED WITH FLANGES (P/N/6)	1
11	80mmø 90° STEEL SHORT RADIUS BEND WITH SPOOL PIECE SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8(F.B.E)	1

- NOTES**
1. EXACT POSITION OF METER INSTALLATION TO BE INDICATED BY ENGINEER.
  2. CONNECTION TO CONSUMER DIMENSIONS OF ALL NEW STEEL PIPE WORK PRIOR TO FABRICATION AND INSTALLATION.
  3. PRIOR TO INSTALLATION ALL FABRICATED PIPE WORK TO BE EXTERNALLY COATED OR INTERNALLY LINED WITH RIL SAN TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS (OR SIMILAR APPROVED OSAL).
  4. PRIOR TO INSTALLATION AND ASSEMBLY ANY UNCOATED FLANGE FACES TO BE COATED WITH COPON KSR88 TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS (OSAL). ONCE THE PIPE WORK HAS BEEN INSTALLED ALL DAMAGED STEEL PIPE WORK IS TO BE REPAIRED USING AN APPROVED PROCEDURE AS PER TABLE - REPAIR OF PIPE COATINGS/LININGS.
  5. ALL FLANGE DRILLING TO BE TO SABS 1023 (M 8).
  7. ALL STEEL PIPE TO BE IN ACCORDANCE WITH SABS 719 - MEDIUM BLACK - 4mm THICK.
  8. INDUSTRIAL AREAS - METER INSTALLATIONS TO BE 80mm INCL - (C/I) AND ENGINEER'S DISCRETION.
  9. CONCRETE BOLLARDS TO BE INSTALLED TO PROTECT INSTALLATION FROM TRAFFIC AS REQUIRED BY ENGINEER.
  10. CONSTRUCTION TO BE IN STATE EXCAVATED AREA, TO ORIGINAL CONDITION & DISPOSE OF UNSUITABLE SURPLUS MATERIAL OFF SITE.

TABLE :3

INSTALLATION REQUIREMENT FOR DIMENSIONS IN TABLE 2	ITEM 6	ITEM 8
METER TYPE	240mm	---
SENSUS	---	---
ELSTER KENT	240mm	300

ETTERKWINI  
WATER & SANITATION

WATER DESIGN BRANCH  
REDUCED PLAN USE SCALE BELOW

50mm ON ORIGINAL PLAN

**LEGEND**  
EXISTING UNDERGROUND SERVICES ARE AS SHOWN BELOW

SEWERS AND M.F.S  
STORM WATER BRANS AND M.F.S  
WATER MAINS AND VALVES  
ELECTRICITY CABLES  
TELECOM CABLES  
OIL PIPELINES

CHANGES TO FITTINGS ON 90-200mm METERS ISSUED FOR SIGNATURE

Revision	Date	Description
1	FEB/2016	90-200mm METERS ISSUED FOR SIGNATURE

Notes: No connection with lead and the meter shall be installed.

Approved by: *Aquidoloma*

Date	Engineer	NORTH	POINT
UNDERGROUND SERVICES CHECKED	DATE		
S.M. BRANS			
SEWERS			
WATERMANS	JUNE 02		
TELECOM CABLES			
STORM WATER BRANS			
S.F.E. CABLES			
E.S.C. CABLES			

**PREPARED BY:** PIPE LINE

**NOTE:** Only underground services affected by this work shall be shown. Any other underground services shall be shown as per the existing drawings. Any damage to underground services such as connections, wherever possible these must be located before work begins.

Contract No. \_\_\_\_\_

Project No. \_\_\_\_\_

Planning Unit \_\_\_\_\_

Word No. \_\_\_\_\_

Project Title: NRY STANDARD CONSUMER METER CONNECTION

Drawing Title: **80mmø CONSUMER METER CONNECTION**

Manager: NON REVENUE WATER

BS SONI DEPUTY HEAD ENGINEERING

E. MSWELL: HEAD WATER & SANITATION

Drawing No: **72056** Sheet **27** of **1** Rev

Scales : 1:20  
Designed : K.E.X Date : 16/01/08  
Checked : S.S./N Drawn : A.F.K



ETHERWINI  
WATER & SANITATION



WATER DESIGN BRANCH

REDUCED PLAN USE SCALE BELOW



LEGEND

REGAIN UNDERGROUND SERVICES

ASSETS SHOWN BELOW

SERVICES AND FITS

STORM WATER DRAINS AND FITS

WATER MAINS AND VALVES

ELECTRICITY CABLES

TELECOM CABLES

OIL PIPELINES

CHANGES TO FITTINGS ON  
1 JAN 09 ISSUED FOR SIGNATURE

Revision | Date | Description

1 FEBR09  
1 JAN 09

Revision | Date | Description

DATE

ENGINEER

CHECKED

SERVICES

DATE

SIGNATURE

WATERMANS

TELECOM CABLES

ELECTRICITY CABLES

OIL PIPELINES

DATE

ENGINEER

CHECKED

SERVICES

DATE

SIGNATURE

WATERMANS

TELECOM CABLES

ELECTRICITY CABLES

OIL PIPELINES

DATE

ENGINEER

CHECKED

SERVICES

DATE

SIGNATURE

WATERMANS

TELECOM CABLES

ELECTRICITY CABLES

ETHERWINI  
WATER & SANITATION



WATER DESIGN BRANCH

REDUCED PLAN USE SCALE BELOW



LEGEND

REGAIN UNDERGROUND SERVICES

ASSETS SHOWN BELOW

SERVICES AND FITS

STORM WATER DRAINS AND FITS

WATER MAINS AND VALVES

ELECTRICITY CABLES

TELECOM CABLES

OIL PIPELINES

CHANGES TO FITTINGS ON  
1 JAN 09 ISSUED FOR SIGNATURE

Revision | Date | Description

1 FEBR09  
1 JAN 09

Revision | Date | Description

DATE

ENGINEER

CHECKED

SERVICES

DATE

SIGNATURE

WATERMANS

TELECOM CABLES

ELECTRICITY CABLES

OIL PIPELINES

DATE

ENGINEER

CHECKED

SERVICES

DATE

SIGNATURE

WATERMANS

TELECOM CABLES

ELECTRICITY CABLES

OIL PIPELINES

DATE

ENGINEER

CHECKED

SERVICES

DATE

SIGNATURE

WATERMANS

TELECOM CABLES

ELECTRICITY CABLES

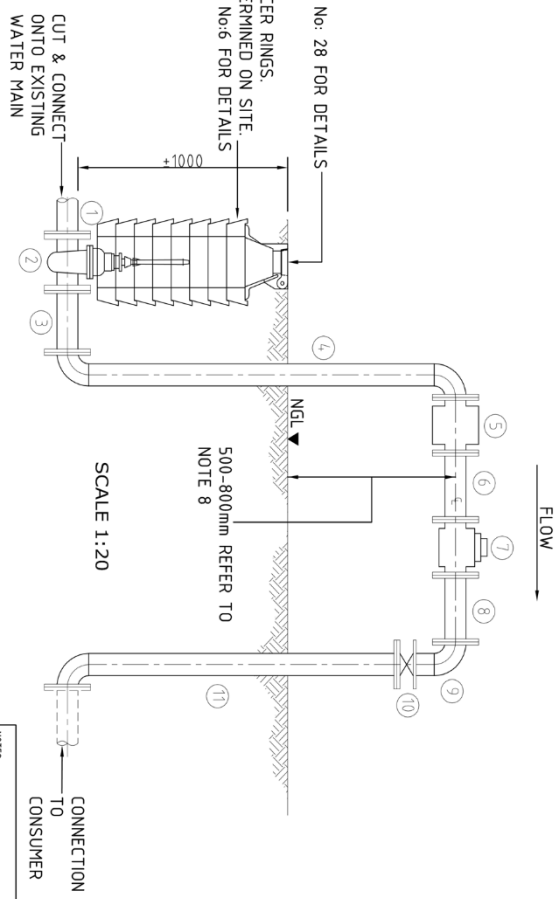


TABLE :1

REPAIR OF PIPE COATINGS/LININGS

COATING/LINING	COLOR	REPAIR MEDIUM
COPON KSR 88	RED/BLUE	COPON HYCOTE 151
FUSION BONDED EPOXY (F.B.E.)	GREEN	COPON HYCOTE 151
FUSION BONDED MEDIUM DENSITY POLYETHYLENE (F.B.M.D.P.E.)	BLACK	COPON HYCOTE 151
COPON	RED	COPON HYCOTE 151
SOLVENT FREE/BONDING EPOXY (S.F.F./S.B.E.)	BLUE/RED/ GREY	COPON HYCOTE 151
CEMENT MORTAR	GREY	EPIDERMIX 338
RILSAN	BLACK	RILSAN REPAIR KIT

TABLE :2

ITEM NO.	DESCRIPTION	QUANTITY
1	EXISTING 100mm WATER MAIN	1
2	100mm GATE VALVE	1
3	100mm STEEL SPOOL PIECE 250mm FLANGED DISTANCE	1
4	2 No 100mm 90° STEEL SHORT RADIUS BENDS WITH STEEL SPOOL PIECE (SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8) F.B.E.	1
5	100mm STRAINER 250mm LONG, CONCRETE STRAINER TYPE WITH ENGINEER	1
6	100mm STEEL SPOOL PIECE 300mm LONG (F.B.E.)	1
7	100mm BULK METER 250mm LONG (F.B.E.)	1
8	100mm 90° STEEL SHORT RADIUS BEND WITH 100mm LONG SPOOL PIECE (F.B.E.)	1
9	100mm BUTTERFLY VALVE WATERED WITH FLANGES (P.N.B)	1
10	100mm 90° STEEL SHORT RADIUS BEND WITH SPOOL PIECE (SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8) F.B.E.	1
11	100mm 90° STEEL SHORT RADIUS BEND WITH SPOOL PIECE (SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8) F.B.E.	1

- NOTES
- EXACT POSITION OF METER INSTALLATION TO BE INDICATED BY ENGINEER.
  - CONTRACTOR TO OBTAIN DIMENSIONS OF ALL NEW STEEL PIPE WORK PRIOR TO FABRICATION AND INSTALLATION.
  - PRIOR TO INSTALLATION ALL FABRICATED PIPE WORK TO BE EXTERNALLY COATED AND INTERNALLY LINED WITH "RILSAN" TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS, OR SIMILAR APPROVED (OS).  
4. PRIOR TO INSTALLATION AND ASSEMBLY ANY UNCOATED FLANGED FITTINGS TO BE COATED WITH "TOPKOP KASBER" TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS, (OS).  
5. ONCE THE PIPE WORK HAS BEEN INSTALLED ALL DAMAGED STEEL PIPE WORK IS TO BE REPAIRED USING AN APPROVED PROCEDURE AS PER TABLE "REPAIR OF PIPE COATINGS/LININGS".
  - ALL FLANGE DRILLING TO BE TO SABS 1023 P.N.B.
  - ALL STEEL PIPE TO BE IN ACCORDANCE WITH SABS 719 - MEDIUM BLACK - 6mm THICK.
  - INDUSTRIAL AREAS - METER INSTALLATIONS TO BE 800mm INCL - (U) AND COMMERCIAL AREAS - METER INSTALLATIONS TO BE 500mm INCL - (U) AT ENGINEER'S DISCRETION.
  - CONCRETE BOLLARDS TO BE INSTALLED TO PROTECT INSTALLATION FROM TRAFFIC AS REQUIRED BY ENGINEER.
  - CONTRACTOR TO REMAIN AT EXCAVATED AREA TO ORIGINAL CONDITION & DISPOSE OF UNSUITABLE SURPLUS MATERIAL OFF SITE.

TABLE :3

INSTALLATION REQUIREMENT FOR DIMENSIONS IN TABLE 2

METER TYPE	ITEM 6	ITEM 8
SENSUS	300mm	---
ELSTER KENT	300mm	300

Contract No. \_\_\_\_\_

Project No. \_\_\_\_\_

Planning Unit \_\_\_\_\_

Ward No. \_\_\_\_\_

Project Title: NRW STANDARD CONSUMER METER CONNECTION

Drawing Title: 100mm CONSUMER METER CONNECTION

Scales: 1:20

Designed: K.E.X. Date: 16/01/08

Checked: S.N./N. Drawn: A.F.K.

Manager: NON REVENUE WATER

PERSON DEPUTY HEAD ENGINEERING

E.MSWELL HEAD WATER & SANITATION

Drawing No. 72056

Sheet 3/7

Rev 1



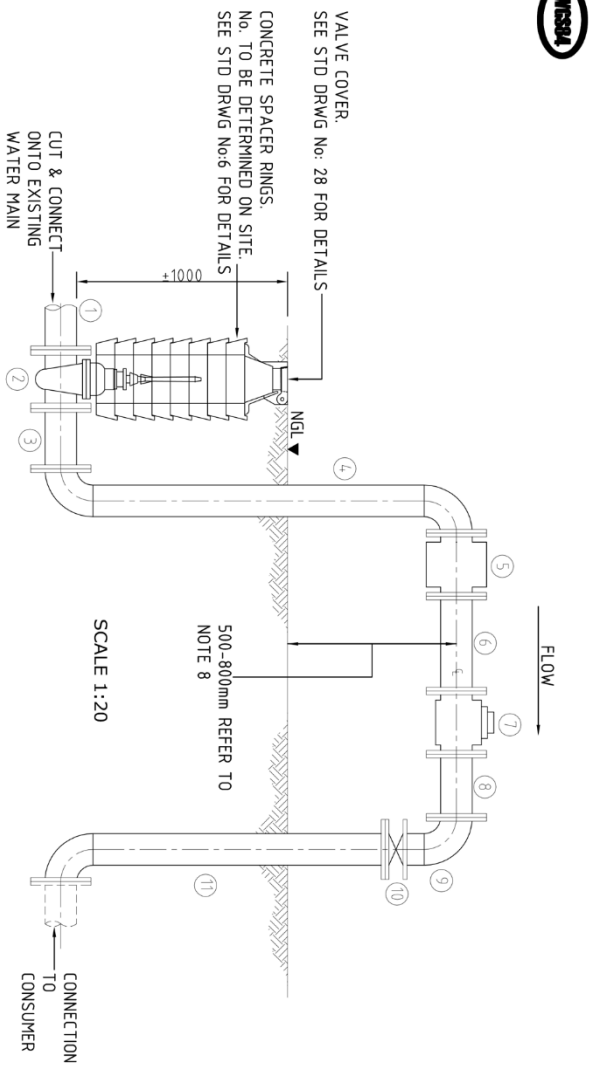


TABLE 1

REPAIR OF PIPE COATINGS/LININGS		
COATING/LINING	COLOR	REPAIR MEDIUM
COPIN KSR 88	RED/BLUE	COPON HYCOTE 151
FUSION BONDED EPOXY (F.B.E.)	GREEN	COPON HYCOTE 151
FUSION BONDED MEDIUM DENSITY POLYETHYLENE (F.B.M.D.P.E.)	BLACK	COPON HYCOTE 151
COPIN	RED	COPON HYCOTE 151
SOLVENT FREE/BORNE EPOXY (S.F.E.S.B.E.)	BLUE/RED/ GREY	COPON HYCOTE 151
CEPENT HOUR LAR	GREY	EPIDERMIX 338
RIL SAN	BLACK	RIL SAN REPAIR KIT

TABLE 2

ITEM NO.	DESCRIPTION	QUANTITY
1	EXISTING 150mm <sup>Ø</sup> WATER MAIN	1
2	150mm <sup>Ø</sup> GATE VALVE	1
3	150mm <sup>Ø</sup> STEEL SPOUL PIECE F.B.E 250mm FLANGED DISTANCE	1
4	2 No 150mm <sup>Ø</sup> 90° STEEL SHORT RADIUS BENDS WITH STEEL SPOUL PIECE (SPOUL PIECE LENGTH VARIES-REFER TO NOTE 8) F.B.E	1
5	150mm <sup>Ø</sup> STRAINER 300mm LONG, CONE/HI STRAINER TYPE WITH ENGINEER	1
6	150mm <sup>Ø</sup> STEEL SPOUL PIECE 450mm LONG (F.B.E)	1
7	150mm <sup>Ø</sup> BULK METER 300mm LONG (F.B.E)	1
8	150mm <sup>Ø</sup> STEEL SPOUL PIECE (F.B.E) REFER TO TABLE 3 FOR DIMENSIONS.	1
9	150mm <sup>Ø</sup> 90° STEEL SHORT RADIUS BEND WITH 100mm LONG SPOUL PIECE (F.B.E)	1
10	150mm BUTTERFLY VALVE WAFFERED WITH FLANGES (P.N.6)	1
11	150mm <sup>Ø</sup> 90° STEEL SHORT RADIUS BEND WITH SPOUL PIECE (SPOUL PIECE LENGTH VARIES-REFER TO NOTE 8) F.B.E	1

- NOTES**
- EXACT POSITION OF METER INSTALLATION TO BE INDICATED BY ENGINEER.
  - CONTRACTOR TO CHECK DIMENSIONS OF ALL NEW STEEL PIPE WORK PRIOR TO FABRICATION AND INSTALLATION.
  - PRIOR TO INSTALLATION ALL FABRICATED PIPE WORK TO BE EXTERNALLY COATED AND INTERNALLY LINED WITH "RIL SAN" TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS, OR SIMILAR APPROVED (O.S.A)
  - PREP TO INSTALLATION AND ASSEMBLY ANY UNCOATED FLANGE FACES TO BE COATED WITH "CONKONKISSER" TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS (O.S.A)
  - ONCE THE PIPE WORK HAS BEEN INSTALLED ALL DAMAGED STEEL PIPE WORK IS TO BE REPAIRED USING AN APPROVED PROCEDURE AS PER TABLE "REPAIR OF PIPE COATINGS/LININGS"
  - ALL FLANGE DRILLING TO BE TO SABS 1023 (P.N. 6)
  - ALL STEEL PIPE TO BE IN ACCORDANCE WITH SABS 179 - MEDIUM BLACK- 6mm THICK
  - 100% BOLD ARMS - METERS INSTALLATIONS TO BE 800mm INCL - CU AND CONCRETE BOLLARDS - METERS INSTALLATIONS TO BE 500mm INCL - CU AT ENGINEERS DISCRETION
  - CONCRETE BOLLARDS TO BE INSTALLED TO PROTECT INSTALLATION FROM TRAFFIC AS REQUIRED BY ENGINEER
  - CONTRACTOR TO RENOVATE EXCAVATED AREA TO ORIGINAL CONDITION & DISPOSE OF UNSUITABLE SURPLUS MATERIAL OFF SITE

**TABLE 3**

INSTALLATION REQUIREMENT FOR DIMENSIONS IN TABLE 2

METER TYPE	ITEM 6	ITEM 8
SERGIS	450mm	—
EL-STER KENT	450mm	300

ESTERKWI  
WATER & SANITATION

Water Design Branch  
REDUCED PLAN USE SCALE BELOW

0 10 20 30 40 50  
50mm ON ORIGINAL PLAN

LEGEND  
EXISTING UNDERGROUND SERVICES  
ARE AS SHOWN BELOW.

SERGIS AND M.F.T  
STORK WATER BAINS AND M.F.T  
WATER MAINS AND VALVES  
ELECTRICITY CABLES  
TELECOM CABLES  
OIL PIPELINES

1 FEBRUIS 2016 CHANGES TO FITTINGS ON 80-200mm METERS ISSUED FOR SIGNATURE

REVISION | Date | Description

Author: [Name] | Date: [Date] | Description: [Description]

Checked: [Name] | Date: [Date] | Description: [Description]

Approved: [Name] | Date: [Date] | Description: [Description]

Engineer: [Name] | Date: [Date] | Description: [Description]

Contract No. [Number]

Project No. [Number]

Planning Unit [Name]

Ward No. [Number]

Project Title: NRW STANDARD CONSUMER METER CONNECTION

Drawing Title: 150mm<sup>Ø</sup> CONSUMER METER CONNECTION

Scales: 1:20

Designed: K.E.X. | Date: 16/01/08

Checked: S.S./N.N. | Drawn: A.F.K.

Manager: NON REVENUE WATER

B.SONJ DEPUTY HEAD ENGINEERING

E.MSWELL HEAD WATER & SANITATION

Drawing No: 72056 | Sheet 47 | 1



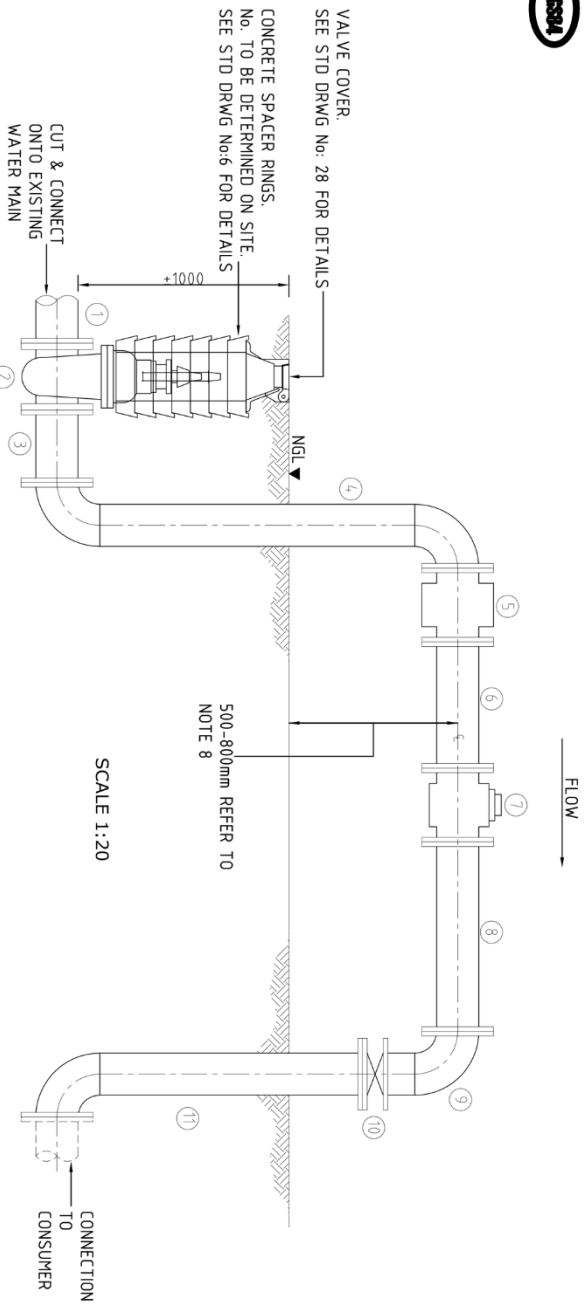


TABLE 1:

COATING/LINING	COLOR	REPAIR MEDIUM
COPON KSR 88	RED/BLUE	COPON HYCOTE 151
FUSION BONDED EPOXY (F.B.E.)	GREEN	COPON HYCOTE 151
FUSION BONDED MEDIUM DENSITY POLYETHYLENE (F.B.M.D.P.E.)	BLACK	COPON HYCOTE 151
COPON	RED	COPON HYCOTE 151
SOUVEN FINE/BORNE EPOXY (S.F.E./S.B.E.)	BLUE/RED/ GREY	COPON HYCOTE 151
CEMENT MORTAR	GREY	EPODERNIX 338
RILSAN	BLACK	RILSAN REPAIR KIT

TABLE 2:

ITEM NO.	DESCRIPTION	QUANTITY
1	EXISTING 200mm WATER MAIN	1
2	200mm GATE VALVE	1
3	200mm STEEL SPOOL PIECE F.B.E. 300mm FLANGED DISTANCE	1
4	2 No. 200mmx 90° STEEL SHORT RADIUS BENDS WITH STEEL SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8 F.B.E.	1
5	200mmx 5 STRAINER 350mm LONG CONFORM STRAINER TYPE WITH ENGINEER	1
6	200mm STEEL SPOOL PIECE 600mm LONG (F.B.E.)	1
7	200mmx BLK METER 350mm LONG (F.B.E.)	1
8	200mmx 5 STEEL SPOOL PIECE (F.B.E.) REFER TO TABLE 3 FOR DIMENSIONS.	1
9	200mmx 90° STEEL SHORT RADIUS BEND WITH 150mm LONG SPOOL PIECE (F.B.E.)	1
10	200mmx BUTTERFLY VALVE VARED WITH FLANGES (P/N/6)	1
11	200mmx 90° STEEL SHORT RADIUS BEND WITH SPOOL PIECE SPOOL PIECE LENGTH VARIES-REFER TO NOTE 8 F.B.E.	1

NOTES

1. EXACT POSITION OF METER INSTALLATION TO BE INDICATED BY ENGINEER.
2. CONTRACTOR TO CHECK DIMENSIONS OF ALL NEW STEEL PIPE WORK PRIOR TO FABRICATION AND INSTALLATION.
3. PRIOR TO INSTALLATION ALL FABRICATED PIPE WORK TO BE EXTERNALLY COATED AND INTERNALLY LINED WITH "RILSAN" TO A MINIMUM GRY FILM THICKNESS OF 300 MICRONS, OR SIMILAR APPROVED (OS&I).
4. PRIOR TO INSTALLATION AND ASSEMBLY ANY UNCOATED FLANGE FACES TO BE COATED WITH "COPON KSR88" TO A MINIMUM DRY FILM THICKNESS OF 300 MICRONS (OS&I).
5. ONCE THE PIPE WORK HAS BEEN INSTALLED ALL DAMAGED STEEL PIPE WORK IS TO BE REPAIRED USING AN APPROVED PROCEDURE AS PER TABLE REPAIR OF PIPE (CONFORM) DRAWING.
6. ALL FLANGE DRILLING TO BE TO SABS 1123 (P/N/6).
7. ALL STEEL PIPE TO BE IN ACCORDANCE WITH SABS 719 - MEDIUM BLACK- 6mm THICK.
8. INDUSTRIAL AREAS - METER INSTALLATIONS TO BE 800mm NGI - CL AND COMMERCIAL AREAS - METER INSTALLATIONS TO BE 500mm NGI - CL AT ENGINEERS DISCRETION.
9. CONCRETE BOLLARDS TO BE INSTALLED TO PROTECT INSTALLATION FROM TRAFFIC AS REQUIRED BY ENGINEER.
10. CONTRACTOR TO RENOVATE EXCAVATED AREA TO ORIGINAL CONDITION & DISPOSE OF UNSUITABLE MATERIAL OFF SITE.

TABLE 3:

INSTALLATION REQUIREMENT FOR DIMENSIONS IN TABLE 2	METER TYPE	ITEM 6	ITEM 8
TERGUS	600mm	---	---
ELSTER KHNT	600mm	---	300

ESTERVENT WATER & SANITATION



WATER DESIGN BRANCH  
REDUCED PLAN USE SCALE BELOW  
0 10 20 30 40 50  
FORMS ON ORIGINAL PLAN

- LEGEND
- EXISTING UNDERGROUND SERVICES ARE AS SHOWN BELOW
  - SEWERS AND M.F.TS
  - STORM WATER DRAINS AND M.F.TS
  - WATER MAINS AND VALVES
  - ELECTRICITY CABLES
  - TRUCK CABLES
  - OIL PIPELINES

REVISION	DATE	DESCRIPTION
1	FEB/2015	CHANGES TO FITTINGS ON 60-200mm METERS
A	JAN 08	ISSUED FOR SIGNATURE

DATE	DESIGNED	CHECKED	APPROVED
	UNDERGROUND SERVICES	DATE	SIGNATURE
	S.W. DRAINS		
	SEWERS		
	WATER MAINS	JUNE 02	
	TRUCK CABLES		
	S.A.R. CABLES		
	E.S.C. CABLES		

NOTE: Any construction are shown affected by the proposed services are shown in red. Care must be taken during excavation work to ensure that no underground services are damaged. Where possible, these services should be protected by concrete encasement. Wherever possible, these must be located before work begins.

Contract No. \_\_\_\_\_

Project No. \_\_\_\_\_

Planning Unit \_\_\_\_\_

Ward No. \_\_\_\_\_

Project Title: MRW STANDARD CONSUMER METER CONNECTION

Drawing Title: 200mm CONSUMER METER CONNECTION

Scales: 1:20

Designed: K.E.X. Date: 16/01/08

Checked: S.S./N.N. Drawn: A.F.K.

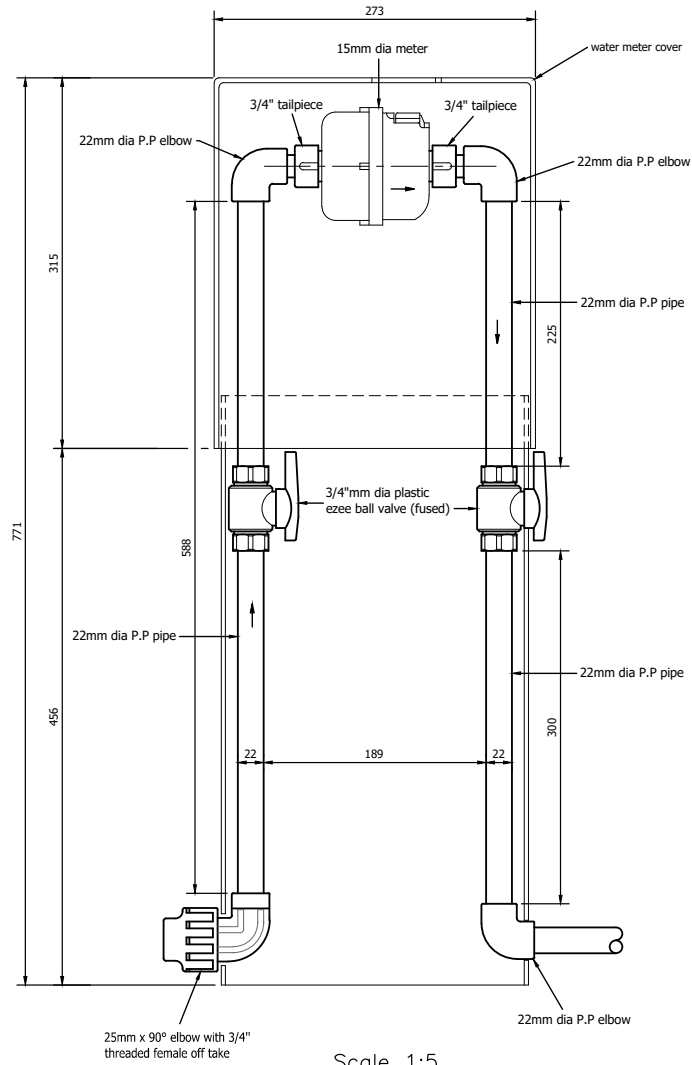
Manager: NON REVENUE WATER

BSOIN DEPUTY HEAD ENGINEERING

E.MSWELL HEAD WATER & SANITATION

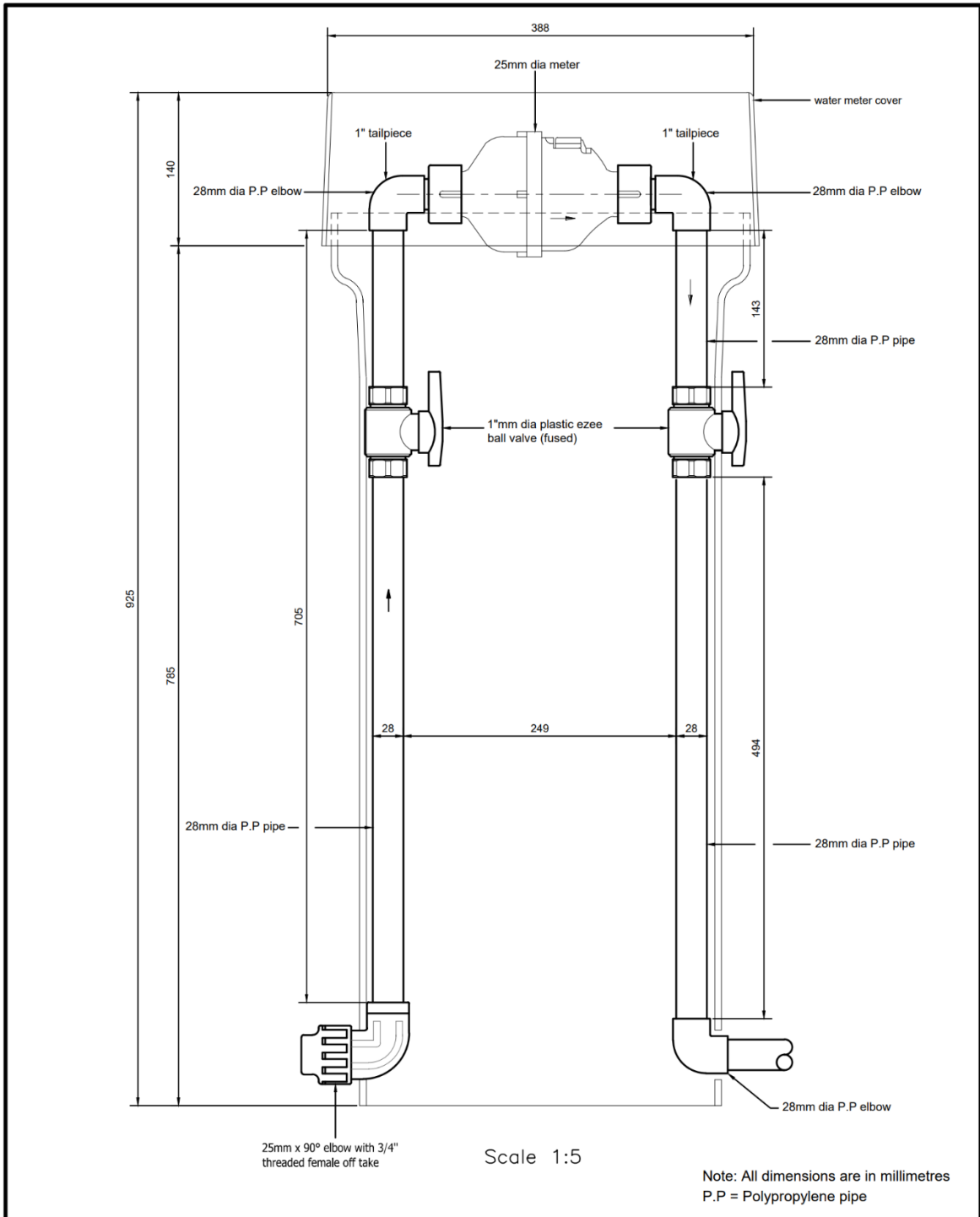
Drawing No. 72056 5/7/1

Sheet Rev



Note: All dimensions are in millimetres  
P.P = Polypropylene pipe

<b>ETHEKWINI MUNICIPALITY</b>		<b>WATER DESIGN BRANCH</b>	
Drawn by : D.A.S	<b>15mm WATER METER CONNECTION</b>	_____	
Checked by :		Head: Water and Waste	
Date : MARCH 2011		<b>102</b>	
_____		Plan No: _____	
Manager: Water Design			



<b>ETHEKWINI MUNICIPALITY</b>		<b>WATER DESIGN BRANCH</b>	
Drawn by : D.A.S	<b>28mm WATER METER CONNECTION</b>		Head: Water and Waste
Checked by :			<b>104</b>
Date : MARCH 2011			Plan No: _____
Manager: Water Design			

## PART C4: SITE INFORMATION

### C4.1 LOCALITY PLAN

