



**CLUSTER**  
**Human Settlement, Engineering, and Transport**

**UNIT**  
**Engineering**

**DEPARTMENT**  
**Architecture Department**

**PROCUREMENT DOCUMENT**  
**INFRASTRUCTURE (JBCC MINOR WORKS)**

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

**Contract No:** **CSA - 3311**

**Contract Title:** **WARD 18 - SUPPLY, INSTALLATION AND COMMISSIONING OF AN AUTOMATIC HIGH VELOCITY DELUGE FIRE EXTINGUISHING SYSTEM FOR UNDERWOOD ROAD SUB-STATION**

**Est. CIDB Grade/ Class:** **4 SF**

**CLARIFICATION MEETING AND QUERIES**

**Clarification Meeting:** **Compulsory Clarification Meeting**

**Meeting Location, Date, Time:** **6 Underwood Rd, Hatton Estate, Pinetown, 3610**  
**On 26 October 2023 at 10:00 am**

**Queries can be addressed to:** **Langelihle Majola**  
**The Employer's Agent's:** **Tel: 031-322-9332**  
**Representative:** **eMail: [Langelihle.majola@durban.gov.za](mailto:Langelihle.majola@durban.gov.za)**  
**All consolidated questions and answers to be uploaded on the website on the 30 October 2023.**

**TENDER SUBMISSION**

**Delivery Location:** **The Tender Box in the foyer of the Municipal Building**  
**166 KE Masinga Road, Durban**

**Closing Date/ Time:** **Friday, 03 November 2023** at **11h00**

**FACSIMILE, eMAIL, or POSTED TENDERS WILL NOT BE ACCEPTED**

**Issued by:**

**ETHEKWINI MUNICIPALITY**

**Deputy Head:** **Architecture Department**

**Date of Issue:** **20/10/2023**

Document Version 17/05/2023

**FOR OFFICIAL USE ONLY**

<b>Tenderer Name:</b>			<b>VAT Registered: Yes No</b>
	<b>Price (excl)</b>	<b>VAT</b>	<b>Price (incl)</b>
<b>Submitted: R</b>			
<b>Corrected: R</b>			

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## **PART T1: TENDERING PROCEDURES**

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

Tenders are hereby invited for the works to supply (including delivery), install and commission automatic high velocity deluge fire extinguishing systems for the Underwood Road Electricity Sub-Station to serve four (4) transformer bays and four (4) radiator bays, per the specification and drawings provided under this tender.

<b>Subject</b>	<b>Description</b>	<b>Tender Data Ref.</b>
<b>Employer</b>	The Employer is the eThekweni Municipality as represented by: Deputy Head: <b>Architecture Department</b>	F.1.1.1
<b>Tender Documents</b>	Documents can only be obtained in electronic format, issued by the eThekweni Municipality. Documentation can be downloaded from the <b>National Treasury's eTenders website</b> or the <b>eThekweni Municipality's Website</b> . The <u>entire document</u> should be printed (on A4 paper) and suitably bound by the tenderer.	F.1.2
<b>Eligibility</b>	It is <u>estimated</u> that tenderers should have a CIDB contractor grading designation of <b>4 SF</b> (or higher). The CIDB provisions in relation to a Contractor's Potentially Emerging (PE) status <u>do not</u> apply.	F.2.1.1
<b>Clarification Meeting</b>	<b>6 Underwood Rd, Hatton Estate, Pinetown, 3610</b> <b>On 26 October 2023 at 10:00 am</b>	F.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>Langelihle Majola</b> <b>Tel: 031-322-9332</b> <b>eMail: Langelihle.majola@durban.gov.za</b> <b>All consolidated questions and answers to be uploaded on the website on the 30 October 2023.</b>	F.2.8
<b>Submitting a Tender Offer</b>	Tender offers shall be delivered to: <b>The Tender Box in the foyer of the Municipal Building</b> <b>166 KE Masinga Road, Durban</b>	F.2.13
<b>Closing Time</b>	Tender offers shall be delivered on or before <b>Friday, 03 November 2023</b> at or before <b>11h00</b> .	F.2.15
<b>Evaluation of Tender Offers</b>	<b>The 80/20</b> Price Preference Point System, as specified in the PPPFA Regulations 2022 will be applied in the evaluation of tenders. Refer to Clause F.3.11 of the Tender Data for the <b>Specific Goal(S)</b> for the awarding of Preference Points, and other related evaluation requirements.	F.3.11

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

## **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 F of the CIDB Standard for Uniformity in Construction Procurement (July 2015) as published in Government Gazette No 38960, Board Notice 136 of 2015 of 10 July 2015.

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

#### **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.

### **F.1: GENERAL**

**F.1.1 The employer:** The Employer for this Contract is the eThekweni Municipality as represented by: Deputy Head: **Architecture Department**

**F.1.2 Tender documents:** The Tender Documents issued by the Employer comprise:

- 1) This procurement document.
- 2) "JBCC Minor Works Agreement, 3<sup>rd</sup> Edition, September 2005" issued by the Joint Building Contract Committee (JBCC). This document is obtainable separately from the JBCC and Tenderers shall obtain their own copies.
- 3) "Model Preambles for Trades 2008" issued by the Association of South African Quantity Surveyors. This document is obtainable separately and Tenderers shall obtain their own copies.
- 4) Drawings, issued separately from this document, or bound in Section C3.4 (as an Annexure B).
- 5) In addition, Tenderers are advised, in their own interest, to obtain their own copies of the following acts, regulations, and standards referred to in this document as they are essential for the Tenderer to get acquainted with the basics of construction management, the implementation of preferential construction procurement policies, and the participation of targeted enterprise and labour.
  - The Employer's current (as at advertising date) Supply Chain Management Policy.
  - The Preferential Procurement Policy Framework Act No 5 of 2000, and the Preferential Procurement Policy Framework Act Regulations (2022).
  - 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).
  - SANS 1921:2004 – Construction and Management Requirements for Works Contract, Parts 1-3.
  - Any other eThekweni Policy documents referenced in the Tender Documents.

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

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

The entire downloaded document should be printed on white A4 paper (single-sided) and suitably bound by the tenderer.

**F.1.4 Communication and employer's agent:** The Employer's Agent's Representative is:

**Langelihle Majola**

**Tel: 031-322-9332**

**eMail: [Langelihle.majola@durban.gov.za](mailto:Langelihle.majola@durban.gov.za)**

**All consolidated questions and answers to be uploaded on the website on the 30 October 2023.**

The Tenderer's contact details, as indicated in the Contract Data: Clause C1.2.2.2 "Data to Be Provided by Contractor", shall be deemed as the only valid contact details for the Tenderer for use in communications between the Employer's Agent and the Tenderer.

**F.1.6 Procurement procedures:** The competitive bidding procedure shall be applied.

## **F.2: TENDERER'S OBLIGATIONS**

### **F.2.1.1 Eligibility: General**

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

- (a) the Tenderer does not comply with the legal requirements as stated in the Employer's current SCM Policy.
- (b) the Tenderer cannot provide proof that he is in good standing with respect to duties, taxes, levies and contributions required in terms of legislation applicable to the work in the contract.
- (c) In the event of a Compulsory Clarification Meeting:
  - i) the Tenderer fails to attend the Compulsory Clarification Meeting.
  - ii) the Tenderer fails to have form "Certificate of Attendance at Clarification Meeting / Site Inspection" (in T2.2) signed by the Employer's Agent or his representative.
- (d) in the case of JV submissions, two or more JV entities have common directors / shareholders or common entities tendering for the same works.
- (e) at the time of closing of tenders, the Tenderer is not registered on the National Treasury Central Supplier Database (CSD) as a service provider. In the case of a Joint Venture, this requirement will apply individually to each party in the Joint Venture.
- (f) The tenderer has not submitted, with this tender, a valid Letter of Good Standing from the Compensation Commissioner as proof of being registered and in good standing with the compensation fund. Reference is to be made to Returnable Document T2.2.13.
- (g) The tender fails to complete and sign the Declaration of Municipal Fees in T2.2: "Returnable

Documents” and submits the required documentation. Reference is to be made to Returnable Document T2.2.12.

SCM Policy (Cl.14(4)) requires suppliers/ service providers/ contractors to be registered on the eThekweni Municipality Central Supplier Database or be in a position to be so before the award.

In the event of the Tenderer not being registered on the eThekweni Municipality’s Central Supplier Database, 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's Database.

The following are to be noted:

- (a) The information for registration as in the possession of the eThekweni Municipality will apply.
- (b) It is the Tenderer's responsibility to ensure that the details as submitted to the Municipality are correct.
- (c) Tenderers are to register prior to the submission of tenders.

#### F.2.1.2 **Eligibility: CIDB**

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 **SF** class of construction work, are eligible to have their tenders evaluated.

**Joint ventures are NOT eligible to submit tenders.**

It should be noted that this contract 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.

#### F.2.1.3 **Eligibility: Tenderer’s Experience**

Tenderer’s experience is not an eligibility requirement for this tender. The tenderer’s experience is included within functionality requirements.

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

Documents are to be obtained, free of charge, in electronic format, from the **National Treasury’s eTenders website** or the **eThekweni Municipality’s Website**. The entire electronically downloaded document should be printed on white A4 paper (single-sided) and suitably bound by the tenderer.

#### F.2.6 **Acknowledge addenda:**

Addenda will be published, in electronic format, on the websites specified in F.1.2. Tenderers are to ensure that the eTenders 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 may result in the tender submission being made non-responsive.

#### F.2.7 **Clarification meeting:**

**6 Underwood Rd, Hatton Estate, Pinetown, 3610**  
**On 26 October 2023 at 10:00 am**

Bidders are also requested to submit email queries related to the bid. All email queries are to be submitted to the **Employer's Agent's Representative** (refer to F1.4) by 2023/08/21. Email questions and answers will be consolidated and posted on the eTenders/Municipal website for the benefit of all tenderers by 2023/08/25.

In the event of a Compulsory Clarification Meeting, Tenderers must sign the attendance register in the name of the tendering entity. The Tenderer's representative(s) at the clarification meeting must be able to clearly convey the discussions at the meeting to the person(s) responsible for compiling the entity's tender offer.

**F.2.12 Alternative tender offers:** No alternative tender offers will be considered.

**F.2.13 Submitting a tender offer:** Submissions must be submitted on official submission documentation issued (either in hard copy or in electronic format) by the eThekweni Municipality.

Identification details to be shown on each tender offer package are:

- Contract No. : **CSA - 3311**
- Contract Title : **WARD 18 - SUPPLY, INSTALLATION AND COMMISSIONING OF AN AUTOMATIC HIGH VELOCITY DELUGE FIRE EXTINGUISHING SYSTEM FOR UNDERWOOD ROAD SUB-STATION**

The Employer's address for delivery of tender offers is:

**The Tender Box in the foyer of the Municipal Building**  
**166 KE Masinga Road, Durban**

Tenderers are to include, with their paper ("hard copy") submission, a memory-stick containing an electronically scanned (300 dpi resolution) Public Document Format (PDF) copy of their complete bid submission. This PDF file should be named using the contract number and the Tenderer's name, eg. **"CSA-3311 – Tenderers Name.PDF"**. The memory-stick must be labelled with the Tenderer's name and securely fixed to the paper submission.

Telephonic, telegraphic, telex, facsimile or e-mailed tender offers **will not** be accepted.

**F.2.15 Closing time:** The closing time for delivery of tender offers is:

- Date : **Friday, 03 November 2023**
- Time : **11h00**

**F.2.16 Tender offer validity:** The Tender Offer validity period is 120 Days from the closing date for submission of tenders.

**F.2.23 Certificates:** Refer to **T2.1** 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, at the back of their tender submission document, a printout of the required documents/ certificates.**

The Form of Offer (C1.1.1), Data to be provided by the Contractor (C1.2.2.2), and the Bill of Quantities (C2.2) are also required to be completed in full.



### **Tax Clearance**

Reference is also to be made to returnable form T2.2.3: “Tax Compliance Status PIN/ Tax Clearance Certificate”.

SARS has introduced a new Tax Compliance Status System. Tenderers must submit a **Tax Compliance Status PIN** (TCS PIN) instead of an original Tax Clearance Certificate. This TCS PIN can be used by third parties to certify the taxpayer’s real-time compliance status. This TCS PIN is to be entered on Returnable Document T2.2.1: “Compulsory Enterprise Questionnaire”. Separate Tax Clearance Certificates / TCS PINs are required for each entity in a Joint Venture.

Failure to comply will make the tender non-responsive.

### **Compensation Commissioner**

Reference is also to be made to returnable form T2.2.13: “Eligibility: Registration with Compensation Commissioner”.

The tenderer 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.

Failure to comply will make the tender non-responsive.

### **Central Supplier Database (CSD)**

Reference is also to be made to returnable form T2.2.14: “Eligibility: CSD Registration Report”.

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

Separate CSD Registration Reports are required for each entity in a Joint Venture.

### **CIDB Registration**

Reference is also to be made to returnable form T2.2.15: “Eligibility: Verification of CIDB Registration and Status”.

Registration with the CIDB must be reflected as “Active” at time of tender closing.

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

The Joint Venture Grading Designation Calculator should be used when submitting 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.

## **F.3: THE EMPLOYER'S UNDERTAKINGS**

**F.3.1.1 Respond to requests from the tenderer:** three working days.

**F.3.2 Issue addenda:** Addenda will be published, in electronic format, on the same platform(s) as the Tender Notification (refer to F.1.2).

**F.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 SCM Boardroom, 6<sup>th</sup> Floor, Engineering Unit Building, 166 KE Masinga Road, Durban.



### F.3.11 Evaluation of Tender Offers:

#### Eligibility

Tenders will be checked for compliance with the ELIGIBILITY requirements, as specified in T1.2.2 Clause F.2.1. Tenderers not in compliance will be deemed non-responsive.

#### Functionality

FUNCTIONALITY will be evaluated to determine the responsiveness of tenders received. The minimum score for FUNCTIONALITY is **60** points. Those tenders not achieving the minimum score will be deemed non-responsive.

The functionality Criteria, Sub-Criteria, Points per Criteria/ Sub-Criteria, Returnable Documentation and Schedules, Method of Evaluation, and Prompts for Judgement are as specified in T1.2.3: "Additional Conditions of Tender".

#### Preference Point System

The procedure for the evaluation of responsive tenders is **PRICE AND PREFERENCE** in accordance with the Employer's current SCM Policy, the Preferential Procurement Policy Framework Act (5 of 2000), and the Preferential Procurement Policy Framework Act Regulations (2022).

#### Price Points

The **80/20** preference points system will be applied. The Formula used to calculate the **Price Points (max. 80)** will be according to that specified Regulation 4.1.

#### Preference Points

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

The Preference Points (max. 20) will be derived from points allocated/ claimed for **Specific Goals** as indicated in the table(s) below, according to the specified **Goal/ Category Weightings**.

• **Ownership Goal**

Goal Weighting: 50%

The tendering entity's **Percentage Ownership**, in terms of the **Ownership Category(s)** listed below, is to be used in the determination of the tenderer's claim for **Preference Points**.

Ownership Categories	Criteria	80/20	90/10
<b>Race: Black (w1)</b>	Equals 0%	0	n/a
	Between 0% and 51%	3	n/a
	Greater or equal to 51% and less than 100%	6	n/a
	Equals 100%	7,5	n/a
<b>Gender: Female (w2)</b>	Equals 0%	0	n/a
	Between 0% and 51%	1	n/a
	Greater or equal to 51% and less than 100%	2	n/a
	Equals 100%	2,5	n/a
<b>Disabilities (w3)</b>	Equals 0%	0	n/a
	Between 0% and 51%	0	n/a
	Greater or equal to 51% and less than 100%	0	n/a
	Equals 100%	0	n/a
<b>Maximum Goal Points:</b>		10	n/a

The **Weightings** of the **Ownership Categories** will be:

- w1 = 75%, w2=25%, w3=0% (where: w1 + w2 + w3 = 100%)

**Proof of claim as declared on MBD 6.1** (1 or more of the following will be used in verifying the tenderer's status)

- Companies and Intellectual Property Commission registration document (CIPC)
- CSD report.
- B-BBEE Certificate of the tendering entity.
- Consolidated BBBEE Certificate if the tendering entity is a Consortium, Joint Venture, or Trust (Issued by verification agency accredited by the South African Accreditation System).
- Agreement for a Consortium, Joint Venture, or Trust.

• **RDP Goal: The promotion of South African owned enterprises**

Goal Weighting: 50%

The tendering entity's **Address** (as stated on the National Treasury Central Supplier Database (CSD) or on the eThekweni Municipality Vendor Portal) is to be used in the determination of the tenderer's claim for **Preference Points** for this Specific Goal.

Location	80/20	90/10
Not in South Africa	0	n/a
South Africa	2,5	n/a
Kwa Zulu Natal	5	n/a
eThekweni Municipality	10	n/a
<b>Maximum Goal Points:</b>	10	n/a

**Proof of claim as declared on MBD 6.1** (1 or more of the following will be used in verifying the tenderer's status)

- CSD report

**F.3.13 Acceptance of tender offer:** In addition to the requirements of Clause F.3.13 of the Standard Conditions of Tender, tender offers will only be accepted if:

- (a) The tenderer submits a **valid Tax Clearance Certificate OR Tax Compliance Status PIN**, issued by the TCS System of the South African Revenue Services, or has made arrangements to meet outstanding tax obligations.
- (b) The tenderer is **registered, and “Active”, with the Construction Industry Development Board**, at time of tender closing, in an appropriate contractor grading designation.
- (c) The tenderer or any of its directors/shareholders is **not listed on the Register of Tender Defaulters** in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector.
- (d) The tenderer has not:
  - Abused the Employer’s Supply Chain Management System; or
  - Failed to perform on any previous contract and has been given a written notice to this effect.
- (e) The tenderer has completed the **Compulsory Enterprise Questionnaire** and there are no conflicts of interest which may impact on the tenderer’s ability to perform the contract in the best interests of the Employer or potentially compromise the tender process.
- (f) The tenderer is **registered and in good standing with the compensation fund or with a licensed compensation insurer**.
- (g) 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 clause F.1.1.3 of the Standard Conditions of Tender, the municipality reserves the right to award or not award the tender based on the municipalities available budget.

**F.3.15 Complete adjudicator’s contract:** Refer to the **General Conditions of Contract** and the **Contract Data**.

**F.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 to include, with their “hard copy” submission, a memory-stick containing an electronically scanned (300 dpi resolution) Public Document Format (PDF) copy of their complete bid submission. This PDF file should be named using the contract number and the Tenderer’s name, eg. **“CSA-3311 – Tenderers Name.PDF”**. The memory-stick must be labelled with the Tenderer’s name and securely fixed to the paper submission.

### **T1.2.3 ADDITIONAL CONDITIONS OF TENDER**

#### **T1.2.3.1 Appeals**

In terms of Regulation 49 of the Municipal Supply Chain Management Regulations persons aggrieved by decisions or actions taken by the Municipality, may lodge an appeal within 14 days of the decision or action, in writing to the Municipality. All appeals (clearly setting out the reasons for the appeal) and queries with regard to the decision of award are 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

#### **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 that are available on web address: <ftp://ftp.durban.gov.za/cesu/StdContractDocs/>:

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

#### **T1.2.3.4 Targeted Procurement**

Targeted Procurement provisions are not applicable to this tender.

#### **T1.2.3.5 Functionality Specification**

Functionality Evaluation is applicable to this tender.

The value of  $W_2$  is 100. The Functionality criteria (and sub criteria if applicable) and maximum score in respect of each of the criteria are as follows:

Functionality Criteria / Sub Criteria		Maximum Points Score
Experience of Tenderer's past projects		45
Experience of Key Staff	Fire Engineer (Pr. Tech Eng/ Pr. Eng.)	15
	Contracts Manager	15
	Installation Technician (#1)	10
	Installation Technician (#2)	10
Preliminary Programme		5
<b>Maximum possible score for Functionality (<math>M_s</math>)</b>		<b>100</b>

The minimum number of evaluation points for Functionality is **60**. Only those tenderers who achieve the minimum number of Functionality evaluation points (or greater) will be eligible to have their tenders further evaluated.

Functionality shall be scored by not less than three evaluators and the scores of each of the evaluators will be averaged, weighted and then totalled to obtain the final score for Functionality. Each evaluation criteria will be assessed in terms of six indicators and scores allocated according to the following table:

Level 0	Level 1	Level 2	Level 3	Level 4	Level 5
0	20	40	60	80	100

Evaluation criteria will be adjudicated according to submissions made in accordance with the following schedules, which are found in Part T2.2: Returnable Schedules.

Functionality Criteria	Returnable Schedules
Experience of Tenderer's Past Projects	<ul style="list-style-type: none"><li>• Experience of Tenderer</li></ul>
Proposed Organisation and Experience of Key Staff	<ul style="list-style-type: none"><li>• Proposed Organisation and Staffing</li><li>• Key Personnel</li><li>• CV's with Experience of Key Personnel</li></ul>
Preliminary Programme	<ul style="list-style-type: none"><li>• Preliminary Programme</li></ul>

Unless otherwise stated, evaluation criteria will be adjudicated with respect to the contract specific Scope of Work, as specified in Part C.3. In this regard the following definitions apply to the evaluation criteria prompts for judgement:

- “**successfully completed**” implies a project has been completed on time and to specification;
- “**similar nature**” implies projects that were of a value of at least **20%** (only applicable for tenderers experience) of this tender’s value, and had a comparable Scope of Work in terms of technical requirements and operations;
- “**experience**” implies experience on projects or work of a similar nature;
- “**accredited degree / diploma**” implies a minimum 3 year qualification within the built environment, from a registered University or Institute of Technology.

<b>Criterion : Tenderer’s Experience</b>  Notes: Projects of a “Similar Nature” are projects that were of a value of at least 20% of this tender’s value, and had a comparable Scope of Work in terms of technical requirements and operations consisting of the design, supply, installation, commissioning, maintenance, repairs or servicing of deluge or sprinkler fire extinguishing system;  “Successfully completed” implies a project that has been completed on time and to specification  <b>Note: Projects which are submitted without Completion Certificates reflecting the project value, at Tender, will not be considered</b>	
Level 0	No information provided; OR submission of no substance / irrelevant information provided
Level 1	To have successfully completed <u>1 project</u> of a similar nature within the past 10 years.
Level 2	To have successfully completed <u>2 projects</u> of a similar nature within the past 10 years.
Level 3	To have successfully completed (ie. on time and to specification) <u>3 to 4 projects</u> of a similar nature within the past 10 years.
Level 4	To have successfully completed (ie on time and to specification) <u>5 to 8 projects</u> of a similar nature within the past 10 years.
Level 5	To have successfully completed (ie on time and to specification) <u>9 + projects</u> of a similar nature within the past 10 years.

For Tenderer’s Experience under this project, projects of a similar nature are projects that were of a value of at least 20% of this tender’s value, and had a comparable Scope of Work in terms of technical requirements and operations consisting of the design, supply, installation, commissioning, maintenance, repairs or servicing of deluge or sprinkler fire extinguishing system.

- ECSA: Engineering Council of South Africa.

**Criterion: Project Organogram and Experience of Key Staff**

Note: Projects of a similar nature that will be considered for this criterion shall be as follows: The design, supply, installation, commissioning, maintenance, repairs or servicing of fire suppression or water-based fire extinguishing systems.

Work of a similar nature that will be considered shall be undertaking designs, assessments, tasks, roles, and/or activities on fire suppression or extinguishing systems as reflected in the CV submission.

	<b>FIRE ENGINEER</b>	<b>CONTRACTS MANAGER</b>	<b>INSTALLATION TECHNICIAN</b>
Level 0	No information provided OR submission of no substance / irrelevant information provided	No information provided OR submission of no substance / irrelevant information provided	No information provided OR submission of no substance / irrelevant information provided
Level 1	<b>Fire Engineer (Pr. Tech Eng or Pr. Eng.):</b> Relevant accredited diploma/degree in Engineering, Professional registration with ECSA, and minimum 1-year relevant experience on a project or work of a similar nature.	<b>Contracts Manager:</b> relevant accredited diploma/degree in Project Management or Engineering, and minimum 1-year relevant experience on a project or work of a similar nature.	<b>Installation Technician:</b> SAQCC Fire Registration, and minimum 1 year's relevant experience on projects or work of a similar nature.
Level 2	<b>Fire Engineer (Pr. Tech Eng or Pr. Eng.):</b> Relevant accredited diploma/degree in Engineering, Professional registration with ECSA, and minimum 2 years relevant experience on projects or works of a similar nature.	<b>Contracts Manager:</b> a relevant accredited diploma/degree in Project Management or Engineering, and minimum 2 years relevant experience on projects or work of a similar nature.	<b>Installation Technician:</b> SAQCC Fire Registration, and minimum 2 years relevant experience on projects or work of a similar nature.
Level 3	<b>Fire Engineer (Pr. Tech Eng or Pr. Eng.):</b> Relevant accredited diploma/degree in Engineering, Professional registration with ECSA, and minimum 4 years relevant experience on projects or works of a similar nature.	<b>Contracts Manager:</b> a relevant accredited diploma/degree in Project Management or Engineering, and minimum 4 years relevant experience on projects or work of a similar nature.	<b>Installation Technician:</b> SAQCC Fire Registration, and minimum 4 years relevant experience on projects or work of a similar nature.
Level 4	<b>Fire Engineer (Pr. Tech Eng or Pr. Eng.):</b> Relevant accredited diploma/degree in Engineering, Professional registration with ECSA, and minimum 7 years relevant experience on projects or works of a similar nature.	<b>Contracts Manager:</b> a relevant accredited diploma/degree in Project Management or Engineering, and minimum 7 years relevant experience on projects or work of a similar nature.	<b>Installation Technician:</b> SAQCC Fire Registration, and minimum 7 years relevant experience on projects or work of a similar nature.
Level 5	<b>Fire Engineer (Pr. Tech Eng or Pr. Eng.):</b> Relevant accredited diploma/degree in Engineering, Professional registration with ECSA, and minimum 9 years relevant experience on projects or works of a similar nature.	<b>Contracts Manager:</b> a relevant accredited diploma/degree in Project Management or Engineering, and minimum 9 years relevant experience on projects or work of a similar nature.	<b>Installation Technician:</b> SAQCC Fire Registration, and minimum 9 years relevant experience on projects or work of a similar nature.

- Pr. Tech Eng: Professionally registered Engineering Technologist with the ECSA
- Pr. Eng: Professionally registered Engineer with the ECSA
- SAQCC: South African Qualifications Certification Committee



Criterion : Preliminary Programme	
<b>Level 0</b>	No information provided; OR submission of no substance / irrelevant information provided.
<b>Level 1</b>	The tenderer has misunderstood certain aspects of the Scope of Work and does not deal with the critical aspects of the project.
<b>Level 2</b>	The programme does not adequately deal with the critical characteristics of the project or the plan and manner in which risk is to be managed.
<b>Level 3</b>	Programme covers all the applicable individual activities which are in an acceptable sequence, with appropriate durations, and is in accordance with generally accepted construction practice, and is in line with Clause 15.3 of the JBCC Principal Building Agreement (time for achieving Practical Completion). Programme must show the critical path.
<b>Level 4</b>	In addition to the requirements of level 3, the programme covers all activities, meetings, requirements and is sufficiently flexible to accommodate changes that may be required during execution within project completion time.
<b>Level 5</b>	In addition to the requirements of level 4, the program covers all activities, meetings, requirements and accommodates changes and details ways to improve the overall project outcome within the completion time.

## **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 as required.

The Tenderer is required to complete 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**

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##### **Eligibility**

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##### **Technical or Functionality Evaluation**

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T2.2.20	Preliminary Programme .....	45
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T2.2.22	Plant and Equipment.....	47
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## T2.2 RETURNABLE SCHEDULES, FORMS, AND CERTIFICATES

The returnable schedules, forms, and certificates, as listed in T2.1.2, can be found on pages 18 to 36.

### NOTE

The **Form of Offer** (C1.1.1), The **Data to be Provided by Contractor** (C1.2.2.2), and the **Bill of Quantities** (C2.2) are also required to be completed by the tenderer.

**T2.2.1 COMPULSORY ENTERPRISE QUESTIONNAIRE**

Ref	Description	Complete or Circle Applicable
1.1	Name of enterprise	
1.2	Name of enterprise's representative	
1.3	ID Number of enterprise's representative	
1.4	Position enterprise's representative occupies in the enterprise	
1.5	National Treasury Central Supplier Database Registration number	<b>MAAA</b>
1.6	eThekwini Supplier Database: Reference number (PR), if any:	<b>PR</b>
1.7	VAT registration number, if any:	
1.8	CIDB registration number, if any:	
1.9	Department of Labour: Registration number	
1.10	Department of Labour: Letter of Good Standing Certificate number	
2.0	<b>Particulars of sole proprietors and partners in partnerships (attach separate pages if more than 4 partners)</b>	
	<b>Full Name</b>	<b>Identity No.</b>
2.1		
2.2		
2.3		
2.4		
3.0	<b>Particulars of companies and close corporations</b>	
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 Record in the service of the state** (Insert on a separate page if necessary)

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

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

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

**5.0 Record of spouses, children and parents in the service of the state** (Insert on a separate page if necessary)

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

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

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

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

- i) authorizes the Employer to verify the tenderers tax clearance status from the South African Revenue Services that it is in order.
- ii) 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.
- iii) 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.
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest.
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

**NAME (Block Capitals):**

**Date**

**SIGNATURE:**

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

Reference is to be made to Clauses F.2.1(c) and F.2.7 of the Tender Data.

This is to certify that:

(tenderer name):

of (address):

was represented by the person(s) named below at the Clarification Meeting held for all tenderers, the details of which are stated in the Tender Data (F.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 TAX COMPLIANCE STATUS PIN / TAX CLEARANCE CERTIFICATE**

Reference is to be made to Clauses F.2.23 and F.3.13(a) of the Tender Data.

SARS has introduced a new Tax Compliance Status System. Tenderers can submit a Tax Compliance Status PIN (TCS PIN) instead of an original Tax Clearance Certificate. This TCS PIN can be used by third parties to certify the taxpayer's real-time compliance status.

Separate Tax Clearance Certificates / TCS PINs are required for each entity in a Joint Venture.

The TCS PIN(s) are to be entered under item 3.4 on form **T2.1.2.1: Compulsory Enterprise Questionnaire**.

**Tenderers are to include, at the back of their tender submission document, a printout of their Tax Compliance Status PIN (TCS PIN) OR an original Tax Clearance Certificate.**

**Failure to include the required document will make the tender submission 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 (if any) has been included in the tender submission.***

**NAME (Block Capitals):**

**Date**

**SIGNATURE:**



## T2.2.4 CONTRACTOR'S HEALTH AND SAFETY DECLARATION

If Functionality is applicable as part of tender evaluation, reference is to be made to Clause F3.11.9 of the of the Conditions of Tender.

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

In terms of Clause 5(1)(h) of the OHSA 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 OHSA 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 OHSA 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)**:

- (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:

Circle Applicable	
Yes	NO
Yes	NO
YES	NO

- 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, **and that the requested documentation (if any) has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

## T2.2.5 **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.

Complete T2.1.2.1 Item 1.1
Complete T2.1.2.1 Item 1.2
Complete T2.1.2.1 Item 1.3
Complete T2.1.2.1 Item 1.4
Complete T2.1.2.1 Item 3.1 or 3.2
Complete T2.1.2.1 Item 3.3
Complete T2.1.2.1 Item 1.7

3.8 Are you presently in the service of the state?

If yes, furnish particulars: .....

Circle Applicable	
YES	NO

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

If yes, furnish particulars: .....

YES	NO
-----	----

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			

*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 (if any) has been included in the tender submission.***

NAME (Block Capitals): .....

Date

SIGNATURE: .....

**T2.2.6 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	
YES	NO
<p>1.0 Are you by law required to prepare annual financial statements for auditing?</p> <p>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.</b></p>	
<p>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?</p> <p>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.</p> <p>2.2 If YES, provide particulars.</p> <p>.....</p> <p>.....</p>	
<p>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?</p> <p>3.1 If YES, provide particulars.</p> <p>.....</p> <p>.....</p>	
<p>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?</p> <p>4.1 If YES, provide particulars.</p> <p>.....</p> <p>.....</p>	

**If required by 1.1 above, tenderers are to include, at the back of their tender submission document, a printout of their audited annual financial statements.**

*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 (if any) has been included in the tender submission.***

**NAME (Block Capitals):**

**Date**

**SIGNATURE:**

**T2.2.7 MBD 6.1: PREFERENCE POINTS CLAIM**  
**In terms of THE PREFERENTIAL PROCUREMENT REGULATIONS (2022)**

**Reference is to be made to Clause F.3.11 of the Tender Data.**

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

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

**1.0 GENERAL CONDITIONS**

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

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

1.2 The applicable preference point system for this tender is the 80/20 preference point system.

1.3 Preference Points for this tender shall be awarded for:

- **Price and Specific Goals:** Either 80 or 90 (price) and 20 or 10 (specific goals), in terms of 1.2 above.
- The total Preference Points, for Price and Specific Goals, is 100.

1.4 Failure on the part of the tenderer to submit the required proof or documentation, in terms of the requirements in the Conditions of Tender for claiming specific goal preference points, will be interpreted that preference points for specific goals are not claimed.

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

**2.0 DEFINITIONS**

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

2.2 **“price”** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts.

2.3 **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes.

2.4 **“tender for income-generating contracts”** means a written offer in the form determined by Municipality in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the Municipality and a third party that produces revenue for the Municipality, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions.

2.5 **“the Act”** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

### 3.0 FORMULA FOR CALCULATION OF PREFERENCE PRICE POINTS

#### 3.1 PROCUREMENT OF GOODS AND SERVICES

**POINTS AWARDED FOR PRICE:** A maximum of 80 or 90 points is allocated for price on the following basis:

<b><u>80 / 20 Points System</u></b>	<b>OR</b>	<b><u>90 / 10 Points System</u></b>
$P_s = 80 \left( 1 - \frac{P_t - P_{min}}{P_{min}} \right)$		$P_s = 90 \left( 1 - \frac{P_t - P_{min}}{P_{min}} \right)$

Where:

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

#### 4.0 POINTS AWARDED FOR SPECIFIC GOALS

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

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



**TABLE 1:** Specific Goals for the tender and maximum points for each goal are indicated per the table below.

**Tenderers are to indicate their points claim for each of the Specific Goals in the shaded blocks.**

The Specific Goals to be allocated points in terms of this tender	Maximum Number of points ALLOCATED (80/20 system)	Maximum Number of points ALLOCATED (90/10 system)	Number of points CLAIMED (80/20 system)	Number of points CLAIMED (90/10 system)
<b>Ownership Goal:</b> Race (black). (refer to page 11 of document)	7,5	n/a		n/a
<b>Ownership Goal:</b> Gender (female). (refer to page 11 of document)	2,5	n/a		n/a
<b>RDP Goal:</b> The promotion of South African owned enterprises. (refer to page 11 of document)	10	n/a		n/a
<b>Total CLAIMED Points (20 Maximum)</b>				n/a

I, the undersigned, who warrants that they are authorised to sign on behalf of the Tenderer, certify that the points claimed, based on the specific goals as specified in the tender, qualifies the tendering entity for the preference(s) shown.

I acknowledge that:

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

**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.

.....

.....

4.4 Does the bidder or any of its directors owe any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?

YES

NO

4.4.1 If YES, provide particulars.

.....

.....

4.5 Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?

YES

NO

4.5.1 If YES, provide particulars.

.....

.....

*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 (if any) has been included in the tender submission.***

*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 attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid.

**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying bid:

-----  
(Bid Number and Description)

in response to the invitation for the bid made by:

-----  
(Name of Municipality / Municipal Entity)

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

I certify, on behalf of:

-----  
(Name of Bidder)

that:

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

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

**Date**

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

---

#### **T2.2.10 JOINT VENTURES AGREEMENTS**

Joint Ventures are **NOT** applicable for this tender.



**T2.2.11 RECORD OF ADDENDA TO TENDER DOCUMENTS**

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, **and that the requested documentation (if any) has been included in the tender submission.***

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

NAME (Block Capitals):

Date

SIGNATURE:

## T2.2.12 ELIGIBILITY: DECLARATION OF MUNICIPAL FEES

Reference is to be made to Clause F.2.1(f)(ii) of the Tender Data.

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												

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.

**Tenderers are to include, at the back of their tender submission document, a printout of the above account's and or agreements signed with the municipality.**

**Failure to include the required document will make the tender submission 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 (if any) has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

## **T2.2.13 ELIGIBILITY: REGISTRATION WITH COMPENSATION COMMISSIONER**

Reference is to be made to Clause F.2.1(f)(i) of the Tender Data.

The Occupational Injuries and Diseases Act (130 of 1993 as amended) (the Act) refers. A summary of the pertinent Clauses are listed below. The act is to be referenced for the full text of the clauses.

### **Clause 80: Employer to register with commissioner and furnish him with particulars**

The Act requires that an Employer carrying out business in the Republic to register with the Compensation Commissioner. Any person who fails to comply with the provisions of the this clause is guilty of an offence.

### **Clause 82: Employer to furnish returns of earnings**

The Act requires an Employer to furnish the commissioner with a return showing:

- The amount of earnings paid by him to his employees.
- Any further information as may be prescribed or as the commissioner may require.

Any Employer who fails to comply with the provisions of the this clause is guilty of an offence.

### **Clause 86: Assessment to be paid by an employer to commissioner**

The Act states that an Employer will receive notices of assessment from the commissioner. The Employer must pay the commissioner the assessment amount on the notices.

### **Clause 89: Mandators and contractors**

The Act requires a contractor (a person with a contract with a mandator) to register as an Employer in accordance with the provisions of the Act and pay the necessary assessments. Failing registration or payment of assessments, the mandator is required to pay the assessments in respect of the employees of the contractor. The mandator is allowed to recover the assessment amounts paid from the contractor.

The Department of labour issues contractors with a **Letter of Good Standing** if the contractor has complied with the requirement(s) of the Act and is in "good standing" with the Compensation Fund. Employers can check the validity of such Letters of Good Standing on the internet (<https://cfoonline.labour.gov.za/VerifyLOGS> ).

**Tenderers are to include, at the back of their tender submission document, a printout of their most recent Letter of Good Standing from the Department of Labour.**

**Failure to include the required document will make the tender submission 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 (if any) has been included in the tender submission.***

**NAME (Block Capitals):**

**Date**

**SIGNATURE:**

## T2.2.14 ELIGIBILITY: CSD REGISTRATION REPORT

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

The Conditions of Tender, Clause F.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 date of obtaining the printout is to be indicated on the printout.

The following is an example of the beginning of the printout obtained from the above website.

**CENTRAL SUPPLIER DATABASE FOR GOVERNMENT**

Report Date:

Report Ran By:

### CSD REGISTRATION REPORT

#### SUPPLIER IDENTIFICATION

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

**Tenderers are to include, at the back of their tender submission document, a printout of their (full) CSD Registration Report.**

*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 (if any) has been included in the tender submission.***

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

**Date**

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

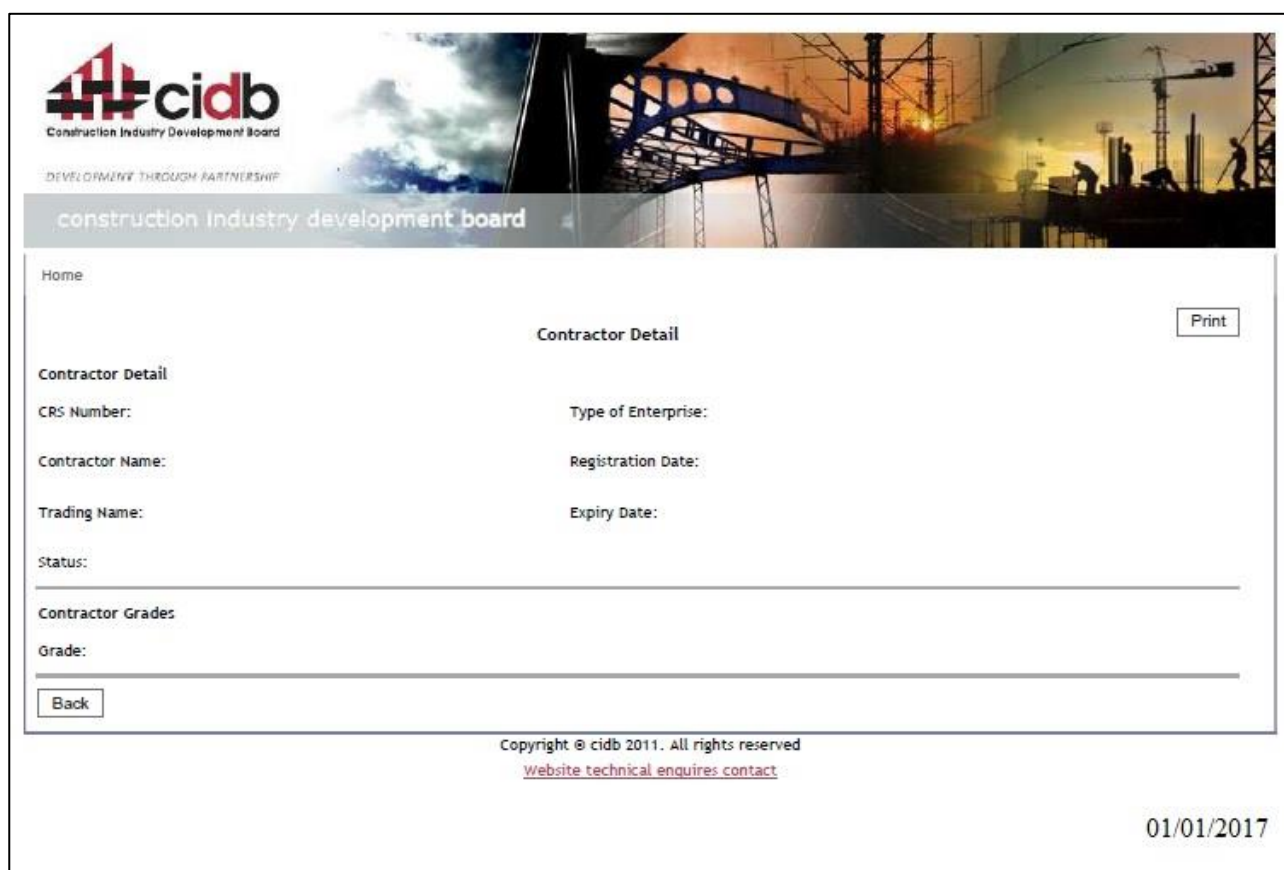
## T2.2.15 ELIGIBILITY: VERIFICATION OF CIDB REGISTRATION AND STATUS

Reference is to be made to Clause F.2.1.1 and F.2.23 of the Tender Data.

The Conditions of Tender, **Clause F.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 Clause F.2.1.1.

CIDB Registrations can be obtained from the CIDB website at <https://registers.cidb.org.za/PublicContractors/ContractorSearch>. The date of obtaining the printout is to be indicated on the printout.

The following is an example of the beginning of the printout obtained from the above website.



The screenshot shows the CIDB (Construction Industry Development Board) website interface. At the top, there is a header with the CIDB logo and the tagline "DEVELOPMENT THROUGH PARTNERSHIP". Below the header, the text "construction industry development board" is displayed. The main content area is titled "Contractor Detail" and includes a "Print" button. The form contains the following fields: CRS Number, Contractor Name, Trading Name, Status, Type of Enterprise, Registration Date, Expiry Date, Contractor Grades, and Grade. A "Back" button is located at the bottom left of the form. At the bottom of the page, there is a copyright notice: "Copyright © cidb 2011. All rights reserved" and a link: "Website technical enquires contact". The date "01/01/2017" is printed in the bottom right corner.

**Tenderers are to include, at the back of their tender submission document, a printout of their registration with the CIDB.**

*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 (if any) has been included in the tender submission.***

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

**Date**

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

Refer to Clause F3.11.9 for Functionality Points evaluation prompts.

Tenderers are to submit copies of signed completion certificates for all projects submitted reflecting the value of the total project.

<b>EMPLOYER: CONTACT PERSON AND TELEPHONE NUMBER</b>	<b>CONSULTING ENGINEER: CONTACT PERSON AND TELEPHONE NUMBER</b>	<b>NATURE OF WORK</b>	<b>VALUE OF WORK (inclusive of VAT)</b>	<b>DATE COMPLETED</b>

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 (if any) has been included in the tender submission..**

Date \_\_\_\_\_

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

**T2.2.17 PROPOSED ORGANISATION and STAFFING**

Refer to Clause F3.11.9 for Functionality Points evaluation prompts.

The tenderer should propose the structure and composition of their team i.e. the main disciplines involved, the key staff member / expert responsible for each discipline, and the proposed technical and support staff and site staff.

The roles and responsibilities of each key staff member / expert should be set out as job descriptions. In the case of an association / joint venture / consortium, it should, indicate how the duties and responsibilities are to be shared.

The tenderer must attach his / her organization and staffing proposals to this page. (this is to include both the on-site and off-site staffing resources used for this project)

In addition to any lists, this information should also be shown in an organogram format (flow chart) clearly indicating the staff hierarchy and reporting lines, again for on- and off-site resources.

The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

*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 (if any) has been included in the tender submission.***

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

Date

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

## T2.2.18 KEY PERSONNEL

Refer to Clause F3.11.9 for Functionality Points evaluation prompts .

The Tenderer shall list below the personnel which he intends to utilize on the Works, including key personnel (Fire Engineer, Contract's Manager, Fire Installation Technicians) which may have to be brought in from outside if not available locally.

CATEGORY OF EMPLOYEE	NUMBER OF PERSONS	
	KEY PERSONNEL, PART OF THE CONTRACTOR'S ORGANISATION	KEY PERSONNEL TO BE IMPORTED IF NOT AVAILABLE LOCALLY
Fire Engineer		
Contracts Manager		
Installation Technician		
Installation Technician		
Others: .....		

Note: CVs of key personnel may be requested during the contract period and are to be attached in this tender submission as well.

*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 (if any) has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:



## T2.2.19 EXPERIENCE OF KEY PERSONNEL

Refer to Clause F3.11.9 for Functionality Points evaluation prompts (if applicable).

The experience of assigned staff member in relation to the Scope of Work will be evaluated from three different points of view:

- 1) General experience (total duration of professional activity), level of education and training and positions held of each discipline specific team leader.
- 2) The education, training, skills and experience of the Assigned Staff in the specific sector, field, subject, etc which is directly linked to the scope of work.
- 3) The key staff members' / experts' knowledge of issues which the tenderer considers pertinent to the project e.g. local conditions, affected communities, legislation, techniques etc.

**A CV of the Fire Engineer, Contract manager, and Installation Technicians of not more than 5 pages should be attached to this schedule:**

Each CV should be structured under the following headings:

- a) Personal particulars
  - name
  - date and place of birth
  - place (s) of tertiary education and dates associated therewith
  - professional awards
- b) Qualifications (copies of degrees, diplomas, grades of membership of professional societies, trade test, SAQCC card/letter and professional registrations). Copies of certificates and cards must be certified and certification date to be within three (3) months of tender closing date (inclusive).
- c) Skills
- d) Name of current employer and position in enterprise
- e) Overview of pre- and post-graduate / diploma / qualification experience (year, organization and position)
- f) Outline of recent assignments / experience that has a bearing on the scope of work

*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 (if any) has been included in the tender submission.***

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

**Date**

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

### T2.2.20 PRELIMINARY PROGRAMME

Refer to Clause F3.11.9 for Functionality Points evaluation prompts.

The Tenderer shall detail below or attach a preliminary programme reflecting the proposed sequence and tempo of execution of the various activities comprising the work for this Contract. The programme shall be in accordance with the information supplied in the Contract, requirements of the Project Specifications and with all other aspects of his Tender.

A suitable preliminary programme of another format can be submitted but must clearly indicate the activity and duration to complete such activity leading up to completion.

[illegible]

Note: The programme must be based on the completion time as specified in the Contract Data.

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 (if any) has been included in the tender submission.**

**NAME (Block Capitals):**

Date \_\_\_\_\_

**SIGNATURE:**

The following firms have been identified as possible subcontractors for work in this contract.

[illegible]

***Attach additional pages if more space is required***

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 (if any) has been included in the tender submission.**

Date \_\_\_\_\_

## T2.2.22 PLANT and EQUIPMENT

Refer to Clause F3.11.9 for Functionality Points evaluation prompts (if applicable).

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

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

DESCRIPTION (type, size, capacity etc)	QUANTITY	YEAR OF MANUFACTURE

*Attach additional pages if more space is required*

(b) **Details of major equipment that will be hired, or acquired for this contract if my / our tender is accepted**

DESCRIPTION (type, size, capacity etc)	QUANTITY	HOW ACQUIRED	
		HIRE/ BUY	SOURCE

*Attach additional pages if more space is required*

The Tenderer undertakes to bring onto site without additional cost to the Employer any additional plant not listed but which may be necessary to complete the contract within the specified contract period.

*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 (if any) has been included in the tender submission.***

NAME (Block Capitals):

Date

SIGNATURE:

## T2.2.23 CONTRACTOR'S HEALTH AND SAFETY PLAN

Refer to Clause F3.11.9 for Functionality Points evaluation prompts (if applicable).

At tender stage only a brief overview (**to be attached to this page**) of the tenderers perception on the safety requirements for this contract will be adequate.

Only the successful Tenderer shall submit separately the Contractor's Health and Safety Plan as required in terms of Regulation 7 of the Occupational Health and Safety Act 1993 Construction Regulations 2014.

The detailed safety plan will take into consideration the site-specific risks as mentioned under C.3: Project Specification. A generic plan will not be acceptable.

*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 (if any) 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**



**Form of Tender**

submitted in terms of the enquiry  
by the Principal Agent or Agent

**MINOR WORKS AGREEMENT**

☒

<b>Client</b>	ETHEKWINI MUNICIPALITY		
<b>Contract No.</b>	CSA 3311		
<b>Description</b>	WARD 18 – SUPPLY, INSTALLATION AND COMMISSIONING OF AN AUTOMATIC HIGH VELOCITY DELUGE FIRE EXTINGUISHING SYSTEM FOR UNDERWOOD ROAD SUB-STATION		
<b>Name of Tenderer</b>			
<b>Postal Address</b>			
<b>Tel.</b>	<b>Fax.</b>	<b>E-Mail</b>	
<b>VAT Registration No.</b>			

**THE TENDER SUM**

1.0 Tenderer's Work (Amount to be inserted by the Tenderer)

2.0 Provisional Sums

3.0 SUB-TOTAL

4.0 Add : V.A.T. (15%) on 3.0

5.0 TOTAL TENDER SUM INCLUSIVE OF V.A.T.

**Tender Sum in Words**

:

**THE TENDERER SELECTS:**

**SECURITY:**

**RETENTION**

☐

**MINOR WORKS GUARANTEE**

☐

Thus done and signed at \_\_\_\_\_ on \_\_\_\_\_

for and on behalf of the Tenderer who by signature hereof warrants authorisation hereto

**FAILURE OF A TENDERER TO SIGN AND FULLY COMPLETE THIS FORM OF TENDER WILL RENDER  
THIS TENDER UNRESPONSIVE AND THE TENDERER WILL THEREFORE BE DISQUALIFIED**

## **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 fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

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

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

**C1.1.3: SCHEDULE OF DEVIATIONS**

**This form will be completed by THE EMPLOYER and ONLY THE SUCCESSFUL TENDERER**

1.   **Subject**       : .....
- Details**     : .....
- : .....
2.   **Subject**       : .....
- Details**     : .....
- : .....
3.   **Subject**       : .....
- Details**     : .....
- : .....

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

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

**FOR THE TENDERER**

**FOR THE EMPLOYER**

.....	Signature	.....
.....	Name ( <i>in capitals</i> )	.....
.....	Capacity	.....
.....	Name and Address of	.....
.....	Organisation	.....
.....		.....
.....		.....
.....	Witness Signature	.....
.....	Witness Name	.....
.....	Date	.....



## **C1.2: CONTRACT DATA**

### **C1.2.1 CONDITIONS OF CONTRACT**

#### **C1.2.1.1 GENERAL CONDITIONS OF CONTRACT**

**The Conditions of Contract are the JBCC Series 2000 Minor Works Agreement, prepared by the Joint Buildings Contracts Committee, September 2005, 3<sup>rd</sup> Edition.**

The Contract Data, Preliminaries and related Notes, contained hereunder, (including variations and additions) shall amplify, modify or supersede, as the case may be, the JBCC 2000, to the extent specified below, and shall take precedence and shall govern.

### **C1.2.2 CONTRACT DATA**

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

##### **Project name**

CSA 3311: WARD 18 – SUPPLY, INSTALLATION AND COMMISSIONING OF AN AUTOMATIC HIGH VELOCITY DELUGE FIRE EXTINGUISHING SYSTEM FOR UNDERWOOD ROAD SUB-STATION

##### **Works description**

The works under this contract are for the supply, installation and commissioning of automatic high velocity deluge fire extinguishing systems to serve four (4) transformers/radiator bays at the Underwood Road Electricity Sub-Station.

##### **Site description**

Erf No/Township	Remainder of Erf 2651 / Pinetown
Local authority	eThekweni Municipality
Street address	26 Underwood Road, Pinetown, Durban, 4001

##### **Employer**

Name	ETHEKWINI MUNICIPALITY		
Business-eg: public company	N/A		
Business registration number	N/A	VAT	
Contact person	Allan Shazi	Mobile	
E-mail	<a href="mailto:Allan.Shazi@durban.gov.za">Allan.Shazi@durban.gov.za</a>		
Registered street address	166 KE Masinga Road, Durban, 4001		
Postal address	P.O. Box 1548, Durban	Code	4000
Telephone	031 311 7278	Fax	031 311 7111

### Principal agent

Name	ARCHITECTURE DEPARTMENT		
Practice registration number		VAT	
Contact person	Nhlanhla Mbatha	Mobile	
E-mail	<a href="mailto:Nhlanhla.Mbatha@durban.gov.za">Nhlanhla.Mbatha@durban.gov.za</a>		
Registered street address	166 KE Masinga Road, Durban, 4001		
Postal address	P.O. Box 1548, Durban	Code	4000
Telephone	031 311 7466	Fax	031 311 7111

### Agent (1)

Name	MECHANICAL ENGINEER		
Practice registration number		VAT	
Contact person	Langelihle Majola	Mobile	
E-mail	<a href="mailto:Langelihle.majola@durban.gov.za">Langelihle.majola@durban.gov.za</a>		
Registered street address	166 KE Masinga Road, Durban, 4001		
Postal address	P.O. Box 1548, Durban	Code	4000
Telephone	031 322 93321	Fax	031 311 7111

## 2.0 LAW, REGULATIONS AND NOTICES

Law of the country applicable to the project	SOUTH AFRICA
--	--------------

## 3.0 CONTRACT DOCUMENTS

Signed <b>contract documents</b> held by <b>principal agent</b> , OR	Principal Agent
Number of copies of documents issued free to the <b>contractor</b>	<b>None – electronic transferal</b>

### Priced document

Lump sum priced document, or	NO
Priced Bills of Quantities (BOQ)	PRICED BILLS OF QUANTITIES
System/method of measurement	Seventh Edition of the Standard System of Measuring Builders' Work

**Contract documents** comprising .....

Document Description	Marked	Notes
JBCC Minor Works Agreement		
Contract Drawings		
Health and Safety Specification		

NOTE: If insufficient space, please see annexure:	
---	--

**Contract drawings** comprise:

Drawing Description	Date	Marked	Number	Revision
TRANSFORMER HOUSE 01 & 02 DELUGE SYSTEM LAYOUT	07/2023		<b>CSA3311-A</b>	<b>00</b>
TRANSFORMER HOUSE 03 & 04 DELUGE SYSTEM LAYOUT	07/2023		<b>CSA3311-B</b>	<b>00</b>

NOTE: If insufficient space, please see annexure:	
---	--

**5.0**

**Employer's agents**

Description of interests of <b>agents</b> in the project other than professional services, if applicable	N/A
--	-----

## 10.0 Insurances

By the <b>contractor</b> in the joint names of the <b>parties</b> , yes/no?	<b>YES</b>	Currency	Insured amount
Contract Works Insurance (CWI) (including <b>materials and goods</b> , temporary works)			<i>contract sum +30%</i>
Public Liability Insurance (each and <u>every claim</u> OR <u>unlimited</u> for the period?)	R10 million with a deductible of R2,500		
Supplementary Insurance (incl CWI extensions)			<i>contract sum +30%</i>
Policy deductibles			<i>not greater than R50,000</i>
Other:			

## 14.0 Security

The **Contractor** can either choose **Retention as a security** or provide a **JBCC Minor Works Construction Guarantee** to the **Employer**.

Retention	JBCC Minor Works Construction Guarantee
-----------	---

## 15.0 Duties of the parties = employer = site

Alterations & additions to existing premises?	Yes				
Premises occupied – yes/no? Identify area?	Partially				
Relevant natural features to be retained / relocated / removed	None				
Areas the <b>contractor</b> may not occupy?	To be instructed onsite				
Utilities connections - location	To be determined onsite				
Statutory and/or other notices to be complied with by the contractor before possession of site can be given	All notices applicable to the nature of the works (OHS, SANS, DOL etc).				
Possession of the <b>site</b> – intended date	<table border="1"> <tr> <td></td> <td>Due Date</td> </tr> <tr> <td></td> <td>TBC</td> </tr> </table>		Due Date		TBC
	Due Date				
	TBC				
Description of <b>free issue</b> by <b>employer</b> (Attach separate page for multiple items)					
NOTE: If insufficient space, please see annexure:					

## 20.0 Nominated subcontractors

Specialisation:

Specialisation:

Specialisation:

Specialisation:

Specialisation:

NOTE: If insufficient space, please see annexure:

## 22.0 Direct subcontractors

Employer to define extent of work by a direct contractor [12.1.2]

Specialisation:

Specialisation:

Specialisation:

Specialisation:

Specialisation:

NOTE: If insufficient space, please see annexure:

## 24/30 Practical completion / penalty for late completion

**Practical completion** of the **works** as a whole

Inspection = working days	Date for practical completion	Penalty Currency	Penalty amount per calendar day
120 days	TBD	Rands	R 3300.00

## 24.0 Practical completion

Items that do not have to be complete to achieve **practical completion**

N/A

NOTE: If insufficient space, please see annexure:

Criteria to achieve **practical completion** (the BOQ may contain a more detailed description)

As per JBCC Minor Works Agreement

NOTE: If insufficient space, please see annexure:

## 31.0 Payment

Currency:

South African Rand

Issue of regular payment certificates on  
**Materials and goods off site** – paid subject  
to ....  
Contract price adjustment provisions

date@month	TBC	day of the month	TBC
A Bank Guarantee being provided to the Employer			
Method	Not applicable. Fixed Price		

NOTE: If insufficient space, please see annexure:

#### 40.0

#### Dispute resolution

Alternative Dispute Resolution nominating body

**Association of Arbitrators (South Africa)**

## C1.2.2.2 DATA TO BE PROVIDED BY CONTRACTOR

### TENDERER'S DETAILS

The legal name of Contractor is:

.....

.....

.....

.....

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**

Not applicable.

**C1.2.3.2 EMPLOYMENT OF LOCAL LABOUR**

Not applicable. Contractor shall bring his own qualified labour.

**C1.2.3.3 CONTRACTOR PARTICIPATION GOAL (CPG) / ECONOMIC TRANSFORMATION SPECIFICATION**

It is a Condition of Contract that the contractor must allow for a minimum of **5%** of the contract value (excluding Provisional Sum Items and Fixed Cost Allowances) to be subcontracted to contractors who are **>51% Black owned**. Proof of payment to the subcontractors will be required to verify that the minimum has been achieved.

The penalty for not achieving the specified CPG will be 0.5% of the contract value (excluding Provisional Sum Items and Fixed Cost Allowances) for every 1% of CPG 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 31 of JBCC Principal Building Agreement March 2005 Edition, 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**

The Contractor shall be subjected to "Performance Monitoring" assessments in terms of the applicable Section of the Council's current Supply Chain Management Policy.

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

#### **C1.2.3.6 SYSTEM OF MEASUREMENT**

These Bills of Quantities, unless otherwise stated, shall be deemed to have been prepared in accordance with the SEVENTH EDITION of the Standard System of Measuring Builders' Work issued by the Association of South African Quantity Surveyors.

#### **C1.2.3.7 FIXED PRICE CONTRACT**

This contract is **not** subject to escalation and the tenderer must take that into consideration when pricing this document.

#### **C1.2.3.8 APPLICATIONS FOR SERVICE CONNECTIONS**

The Contractor is to be responsible for all timeous applications for service connections, including electricity, water, sewerage, etc. The Department is responsible for payment of these connection fees, where Departmental Sums have been included in the Tender Summary.

#### **C1.2.3.9 MARKET RELATED WAGE RATES**

When pricing this document, Tenderers are to allow for wages which are not less than the BCCEI recommended minimum rates applicable at any time during the duration of the contract.

#### **C1.2.3.10 TENDER PRICES AND CONTINGENCY SUM:**

All Tenders are to be firmly priced in South African currency.

#### **C1.2.3.11 VALUE-ADDED TAX (VAT):**

All prices and or rates tendered shall be deemed to be EXCLUSIVE of Value-Added Tax. Value-Added Tax shall be added as a lump sum where provided on the SUMMARY/ FINAL SUMMARY page and as shown in the Tender Form.

Tenderers shall state, where provided on the Tender Form, their VAT Registration Number.

#### **C1.2.3.12 OCCUPATIONAL HEALTH AND SAFETY ACT:**

The Contractor's particular attention is drawn to the Occupational Health & Safety Specification which is **Annexure A** of this document. The Contractor will be required to submit with his tender an Occupational Health & Safety Plan for this project indicating what steps he is going to take to comply with this Occupational Health & Safety Specification and indeed that he has made allowance for compliance with this document within his Tender Price. Failure to do so will render his Tender liable for disqualification.

The principle health and safety risks involved on this specific site will include:

- Working in confined spaces
- Working near heavy equipment
- Working around highly flammable substances
- working with heavy duty tools

#### **C1.2.3.13 CONTRACTOR'S DOMESTIC SUBCONTRACTORS FOR PLUMBING INSTALLATION AND ELECTRICAL INSTALLATION**

The tenderers attention is drawn to the requirement that the appointment of any sub-contractor to carry out electrical or plumbing installation under this contract, is subject to such sub-contractor being registered on the databases of eThekwini Electricity and Water Services respectively, as an accredited contractor.

#### **C1.2.3.14 CONTRACTOR'S DOMESTIC SUBCONTRACTORS FOR WATER CONNECTION AND ELECTRICAL CONNECTION**

The Contractor shall appoint a domestic subcontractor for the water connection who is on the Ethekwini Water Services database.

The Contractor shall appoint a domestic subcontractor for the electrical connection who is on the Ethekwini Electricity database.

#### **C1.2.3.15 USE OF PROPRIETARY PRODUCTS**

The tenderers attention is drawn to the fact that where in this document a proprietary product is specified he may use a similar or equal approved product to the Engineer's satisfaction.

#### **C1.2.3.16 SCHEDULE OF DRAWINGS**

The following drawings are included with this tender :

- CSA3311-A: TRANSFORMER HOUSE 01 & 02 DELUGE SYSTEM LAYOUT
- CSA3311-B: TRANSFORMER HOUSE 03 & 04 DELUGE SYSTEM LAYOUT

#### **C1.2.3.17 CONTRACT PERIOD**

**The Contract Period from the commencement of work on site for this project is 120 working days.**

#### **C1.2.3.18 DAMAGE TO PERSONS OR PROPERTY**

The successful Contractor shall indemnify and keep indemnified Council against any claim for death, injury, damage, or loss to any person or property whatsoever in respect thereof or in relation thereto.

The successful Contractor enters into this contract as an independent Contractor and shall be solely liable in respect of any claim for death, injury, damage, or loss to any person or property whatsoever in respect thereof or in relation thereto.

#### **C1.2.3.19 SECURITY (RETENTION OR JBCC MINOR WORKS CONSTRUCTION GUARANTEE)**

The Contractor shall either choose Retention or provide a JBCC Minor Works Construction Guarantee to the Employer in terms of clause 2.0 of the JBCC Minor Works Agreement.

**Interest will not be paid on the retention amount by the Employer.**

## C2.1 PRICING ASSUMPTIONS / INSTRUCTIONS

### C2.1.1 GENERAL

C2.1.1.1 A word or phrase in bold type in the Pricing Data shall have the meaning assigned to it in the definitions listed in the Conditions of Contract, Contract Data, and the **JBCC Minor Works Agreement 3<sup>rd</sup> Edition - September 2005, JBCC Series 2000 May 2005 Preliminaries and the Model Preambles for Trades 2008 as issued by the Association of South African Quantity Surveyors**. A word or phrase not in bold type shall be interpreted in the context of its usage.

C2.1.1.2 Tenderers are to allow for wages which are not less than the Bargaining Council for the Civil Engineering Industry (BCCEI) agreed wage rates.

C2.1.1.3 The agreement is based on the Conditions of Contract as specified in Part C1.2.1. Additions, deletions and alterations to the Conditions of Contract, as well as the contract specific variables, are as stated in the Contract Data as specified in Part C1.2.2 and Additional Conditions of Contract as specified in Part C1.2.3

C2.1.1.4 Bills of Quantities: Except where indicated otherwise, the quantities of and classes and kinds of works set out in these Bills of Quantities are provisional and do not purport to represent the final quantities of and classes and kinds of work eventually required to be done. The quantities of and classes and kinds of work contained herein have been set down solely in order to form a basis for obtaining competitive tenders.

The Bills of Quantities are not to be used for ordering materials under any circumstances whether this be with regard to description or specification of materials or goods required, or with regard to quantities. Failure to comply with this condition is entirely at the Contractor's own risk. The Contractor shall be obliged upon instruction of the Principal Agent to execute such quantities of and classes and kinds of work as the Principal Agent in his sole discretion may deem necessary or which, in the Principal Agent's opinion, become expedient from time to time or which may be required to meet the Employer's requirements, whether or not such quantities of and classes or kinds of work may appear in these Bills of Quantities or the contract drawings.

The consideration payable to the Contractor in respect of the works shall be determined by the Agent by the application of the rates contained in the priced Bill of Quantities to the quantities of and classes and kinds of work actually executed, which quantities of and classes and kinds of work shall be determined by the Agent. The rates contained in the priced Bills of Quantities shall apply irrespective of the final quantities of the different classes and kinds of work actually executed. No claims for extras, loss of profit, variation of rates or other similar claims will be entertained as a result of any variations whatsoever between the quantities of work set out in these Bills of Quantities and the quantities of work actually executed, nor as a result of any variation whatsoever between the contract sum and the final value of works.

C2.1.1.5 Budgetary Allowances and Provisional Sums: All items described as "Budgetary Allowance" shall be used as directed by the Employer and measured and valued and paid for.

No work for which "Budgetary Allowance" items are allowed shall be commenced without written instructions from the Principal Agent. The contractor is duly informed in this document that the Budgetary Allowance Items are completely subject to the discretion of the employer and will only form part of the contract value once duly authorised by the employer and executed by the contractor to the full satisfaction of the principal agent, irrespective of the fact that the Budgetary Allowance formed part of the contract sum.

- 
- C2.1.1.6 Prime Cost Amounts: Prime cost amounts are a net allowance (excluding VAT), for materials only, and the tenderer should allow for the necessary labour, wastage, profit, etc in pricing these items.
- C2.1.1.7 Value Added Tax: The tendered price must include for Value Added Tax (VAT). All rates, provisional sums, etc in these Bills of Quantities must however be net with VAT calculated and added to the total value thereof as provided for in the Final Summary.

## **C2.2: BILL OF QUANTITIES**

The Bill of Quantities follows and comprises of 21 pages. The pages are numbered Section 1 to Section 3, and summary page .

**NOTE: TENDERERS ARE REQUIRED TO PRICE THE ENTIRE DOCUMENT AT THE TIME OF TENDER**

## **PART C3: SCOPE OF WORK**

### **PAGE**

<b>C3.1</b>	<b>PROJECT DESCRIPTION AND SCOPE OF CONTRACT</b>	<b>67</b>
<b>C3.2</b>	<b>PROJECT SPECIFICATIONS</b>	<b>70</b>
<b>C3.3</b>	<b>STANDARD SPECIFICATIONS</b>	<b>92</b>
	C3.3.1 Listing of the Standard Specifications	
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<b>C3.4</b>	<b>PARTICULAR SPECIFICATIONS</b>	<b>93</b>
	C3.4.1 Part AH - OHSA 1993 Safety Specification – Baseline Risk Assessment (27 Pages)	
	C3.4.2 OHSA Site Specific Health and Safety Specifications in terms of 2014 Construction Regulations 5.1(b) (27 Pages)	
	C3.4.3 COVID 19 Health & Safety Specification (8 Pages)	
<b>C3.5</b>	<b>CONTRACT AND STANDARD DRAWINGS</b>	<b>94</b>
	C3.5.1 Contract Drawings / Details	
	C3.5.2 Standard Drawings	
<b>C3.6</b>	<b>ANNEXURES</b>	<b>94</b>
	<ul style="list-style-type: none"><li>• Annexure A: Occupational Health &amp; Safety Specification</li><li>• Annexure B: Tender Drawings</li><li>• Annexure C: Notice Board Details</li></ul>	

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

#### **C3.1.1 Client's / employer's objectives**

The Employer has identified a need for the supply and installation of a new fire detection and extinguishing system to protect critical substation electricity infrastructure in the event of a fire. The system under this contract is an automatic high velocity deluge fire extinguishing system which will be fitted to four (4) transformer rooms and four (4) radiator rooms as per the specifications and drawings contained in this document pack. The project's objective is to provide fire protection system in the case of a fire at the sub-station.

#### **C3.1.2 Description of Works**

The works will take place in the **Inner West Region of the municipality in Ward No. 18** and includes, inter alia, the following :-

- Finalization of provisional design by Fire Engineer (Professional Technologist or Professional Engineer), and professional sign off
- The supply, installation and commissioning of the four (4) deluge systems inclusive of all necessary materials, tools, equipment and labour to allow full system functionality.
- Coring/drilling and other builders' work to support the above work
- Certification of installation with ASIB once complete and compliance with the NFPA, SABS and other relevant bodies, with local national standards/regulations taking precedence over international standards/regulations.
- Maintenance of the deluge systems for a period of 12 months from practical completion.

It is the intention of the Employer to maximise the CPG contribution achieved on the project. **A minimum of 5% over-all must be achieved.**

#### **C3.1.3 Description of Site and Access**

The site is located in Ward No. 18, (refer to locality plan). – 26 Underwood Road, Pinetown.

#### **C3.1.4 Nature of Ground and Subsoil Conditions**

There is no specific information regarding the nature of the ground and subsoil conditions available.

#### **C3.1.5 Programming of Works**

The contractor shall programme the identified works so as to ensure that the full scope of the works are undertaken and completed within the 2023/2024 financial year and before **25 June 2024**.



### **C3.1.6 Key Personnel**

Due to the nature of the programme, key personnel allocated must have sufficient skill and competency to implement the work; personnel must further be able to project manage and including being able to deal with socio-economic and related conditions arising from such works.

### **C3.1.7 Co-operation with other services providers / Stakeholders**

In undertaking the works, the appointed contractor will be required to work closely with, but not limited to:

- Consultant team
- Employer's Departmental representative, (such being determined based on the scope of works and responsible department);
- Ward councillor
- Local ward based contractors / CPG targeted contractors
- Business Interest Groups
- Materials and equipment suppliers

### **C3.1.8 Quality Management**

The contractor shall be fully responsible for the management of all sub-contractors appointed. The contractor shall therefore ensure that a suitable quality monitoring process is in place for each element of the works and that the appointed sub-contractors is conversant on the requirements thereof.

The Contractor shall keep relevant records of all tests and inspections undertaken and will be responsible for submission of all test results as may be required in terms of the Project Specification.

### **C3.1.9 Limitation on Designs**

It must be noted that detailed scope and associated designs for works required may not be available at time of award of task order. The contractor must therefore have sufficient competency to determine and implement site-based solutions using best practice principles and accepted norms and standards. This support is to be provided primarily in the form of an experience Fire Engineer to look over provisional designs and redesign to suit ASIB and SANS regulations.

### **C3.1.10 Management Meetings**

Requirements for management meetings will be specified upon commencement of the project; monthly management meetings will be held with the Employer, Programme Manager, Consultant and Contractor. Such will be held at venues provided by the Employer or Programme Manager.

The Contractor shall report on the over-all progress of the contract to date and task order specific issues requiring further Client engagement will be addressed at the above meeting.

Site meetings, as and where necessary, will be held specific to each task order awarded. So far as reasonably possible, site and task order specific issues are to be resolved at site meetings. Items/issues that cannot be resolved by the parties at these meetings may be escalated to the management meeting.

#### **C3.1.11 Payment Certificates**

Interim payment certificates will be submitted on a monthly basis. Such payment certificate will be subject to approval by the Architecture Department.

The contractor must ensure full reporting (i.t.o CPG beneficiaries, etc) accompanies the consolidated payment certificate.

Monthly payments are to include 100% of the value of materials for permanent work delivered onto the site but not incorporated in the works. The materials must be adequately stored and protected to the satisfaction of the Principal Agent and proof of payment needs to be provided to the Principal Agent and that the materials and goods are the Contractor's bona fide property BEFORE payment can be made for them. A cession of rights in favour of eThekweni Municipality in respect of unfixed materials on site shall be filled in and signed by the Contractor whenever a claim for materials on site is made. A copy of the materials on site cession form will be made available to the contractor on request.

#### **C3.1.12 Proof of compliance with the law**

The Contractor shall ensure full compliance with all applicable laws for the duration of the Contract; such requirement shall extend to all sub-contractors appointed by the Contractor. The Contractor shall further ensure compliance with gazetted labour rates for the 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**

## **1. SECTION 1: STANDARD SPECIFICATION**

### **STANDARD TECHNICAL SPECIFICATION**

#### **1.1. PRELIMINARIES TO STANDARD TECHNICAL SPECIFICATION**

##### **1.1.1. Part of rest of specification**

The Standard Technical Specifications cover the general technical requirements w.r.t. materials, installation, testing, commissioning and maintenance of the complete Fire Protection work as shown on the relevant drawings, and in accordance with all the applicable requirements of the Sprinkler Regulations. These specifications shall be read in conjunction with the rest of this contract in its entirety. If the conditions and/or specifications contained herein are at variance with anything contained in the detail specification, the latter shall take preference, otherwise these Standard Technical Specifications shall apply as if duly included.

##### **1.1.2. Minimum Requirement**

The conditions and/or specifications in this document shall be regarded as the absolute minimum requirement. More stringent similar conditions and/or specifications stated in the detail specification shall take preference to those in these Standard Technical Specifications. The work shall be in full conformity with the latest edition of the Rules of the Automatic Sprinkler Inspection Bureau (A.S.I.B.) and all authorities having jurisdiction and shall be **approved by A.S.I.B. on completion**.

##### **1.1.3. Alternatives to Specification**

Tender prices for articles and equipment described by means of trade names or catalogue references must refer to the type and manufacture specified, and shall include equal and approved equipment. If it is desired to use substitutes, the onus shall be on the contractor to prove that such substitutes are similar and equivalent to the articles specified and meet with the approval of the Engineer. The decision as to whether to use the specified or alternative articles shall rest solely with the Engineer.

##### **1.1.4. Standard type and make of equipment**

Once installation has commenced with the appropriate approvals for using any type and make of article or equipment, the same type and make of article or equipment shall be used throughout the project for that specific application unless otherwise specified.

##### **1.1.5. Standard of workmanship**

The workmanship under this contract shall be of a high standard and to the satisfaction of the Engineer. Where work is sub-standard per the reasonable observations of the Engineer, the contractor will have to make good at their own costs.

##### **1.1.6. Standard of materials**

All materials and equipment supplied and/or installed under this contract shall be new and the best of their respective kinds and shall comply with the requirements laid down in the latest editions of the relevant SABS (or international equivalent) and their amendments and with the requirements of this specification.

#### **1.1.7. Supervision over staff**

At all times for the duration of the contract, the work shall be carried out under the supervision of a qualified, skilled and competent SAQCC Fire licensed/registered technician and representative of the contractor. Also refer to the conditions of contract.

#### **1.1.8. Variations**

The owner reserves the right to instruct the contractor to carry out variations to the contract in accordance with the conditions of contract and site conditions.

#### **1.1.9. Completion date (Contract)**

Except where otherwise specified, the works must be completed in working order in line with the approved program and contract duration as stipulated above.

#### **1.1.10. Construction, plant, etc**

Tenderers shall include an amount for the supply of all scaffolding, ladders, trestles, dust sheets and everything necessary for the proper performance of the contract, for clearing and removal of all rubbish due to the work, for the protection of the work from damage due to the building operations, other contracts and the weather. In existing buildings contractors shall in particular take adequate precautions to the satisfaction of the Engineer to prevent damage to existing apparatus/equipment during erection operation.

#### **1.1.11. Material, offloading and storage**

Tenderers must take due allowance in their tenders for the off-loading of materials and the storage and safe custody thereof according to manufacturer's specifications, on or off site until such can be accommodated or is required on site.

In addition to the requirements of the Conditions of Tender and Conditions of this contract, the following shall apply:

- Materials permitted to be stored within building shall be safely stacked and shall not overload floor construction beyond the legal permissible floor loading.
- Combustible materials shall not be stored on premises longer than minimum period necessary for execution of work. Provide fire protective measures as directed by Architect or Engineer.

#### **1.1.12. Extra copies of tender drawings**

The successful tenderer shall supply, on request, provide two (2) extra electronic copies of his completed tender, contract documents and drawings. Tenderers are therefore advised to make copies of their tender prior to document consolidation (i.e., binding etc) and submission of the tender.

#### **1.1.13. Drawings**

##### **1.1.13.1. Engineer's and working drawings**

The Engineer's drawings covering the various sections of the installation are as stipulated in the schedule of drawings herein. The working drawings of the contract shall, however, consist of the following :

- (a) Electrical Engineer's drawings.
- (b) Mechanical Engineer's drawings.

- (c) All drawings of any other services that are included in the contract.

#### **1.1.13.2. Workshop drawings**

Two (2) copies of all workshop drawings as approved and signed by the Contractor (Fire Engineer) shall, within two (2) weeks after appointment of the successful tenderer, be submitted to the Engineer for his approval prior to manufacture. Workshop drawings shall be prepared for wiring diagrams, schematic diagrams, general arrangements and construction details of all distribution boards and mechanical systems. These drawings shall indicate all electrical and mechanical information as well as the make and type of equipment, dimensions, ratings and other relevant technical information.

The Engineer's approval of shop drawings shall not relieve the contractor of responsibility for any deviation from the requirements of this contract unless the contractor has informed the Engineer in writing of such deviation at the time of submission of shop drawings or samples and the Engineer has given written approval for the specific deviation, nor shall the Engineer's approval relieve the contractor of responsibility for errors or omissions in the workshop drawings or samples.

#### **1.1.13.3. Drawings on site**

A sets of paper Engineer's drawings applicable to this contract will be issued to the contractor for installation purposes. The contractor shall at all times during the duration of the contract make available a complete set of up- to-date Engineer's and workshop drawings as well as a copy of the contract at no cost for use on site by the owner, architect, engineers and sub-contractors authorised on site.

#### **1.1.13.4. As-built drawings and detail specifications**

The contractor shall supply to the owner a complete set of drawings and detail specification of the works as actually carried out (as built) within four (4) weeks of the first delivery date of the completed contract (practical completion). If the representative of the owner is either a consulting architect or Engineer, these items, in the form of marked-up paper prints shall be supplied to the representative, who will then compile final as-built drawings as well as an as- built detail specification for the account of the Contractor for handing over to the owner.

#### **1.1.14. Operating instructions and drawings**

A complete diagram showing the electrical connections and the schematic layout of the installations together with maintenance and operating manuals shall be provided by the Contractor. The diagram and instructions shall be on stiff paper (minimum 1mm thickness) that shall be placed in an approved metal frame with hard perspex cover and neatly fixed in an approved position for each installation and/or distribution board. The installation will not be taken over until this clause has been complied with.

#### **1.1.15. Inspection of imported supplies**

Where materials are to be imported the Secretary, the Counsellor (Administration) or the Secretary of the relevant South African embassy may order any inspection and test and independent analysis of material, and if these prove the material to be in accordance with the contract specification, the cost shall be borne by the owner but if otherwise the Contractor shall bear the cost and pay the same on demand. All materials, labour or assistance, tools, gauges, articles or apparatus that the inspector may require for the purpose of testing, gauging and inspection, must be provided by the contractor. In all cases where inspection and/or shipment is desired by the Secretary, the Contractor shall make provision for the Counsellor (Administration) or the Secretary of the relevant South African embassy to be notified when consignments are ready for inspection and/or shipment, in order that he may arrange for such inspection and/or shipment.

#### **1.1.16. Inspection of locally manufactured supplies**

Where locally manufactured plant or materials are offered, the owner reserves the right to inspect such plant or goods during manufacture and to reject items that do not conform to the owners' requirements. Where a number of units are ordered by the owner the Contractor shall notify the local representative of the owner when one unit has been completed so that the representative of the owner may inspect and approve it.

#### **1.1.17. Ordering materials**

The Contractor is advised to place all orders for materials or special articles as early as possible as he/she will be held solely responsible for any delay in the delivery of such goods. In line with the contract conditions, penalties will be applied for failing to meet contract delivery times.

#### **1.1.18. Packing**

The Contractor will be held responsible for packing all plant and other goods in such a manner as to ensure freedom from any loss or damage in transit. Unless otherwise specifically agreed upon, receptacles will not be returned or paid for, and no additional charges will be allowed for packing or packing materials.

#### **1.1.19. Samples for test**

The Contractor shall furnish, without delay, such samples for testing or other purposes as called for or may be called for by the Engineer, who may reject all materials or workmanship not corresponding with the approved sample. Notwithstanding that samples and approved brands of materials etc. are exhibited or included in classified lists at the offices of the owner, the Engineer may retest any samples, brands of materials, etc. included in the contract and reject articles and materials, etc. that do not strictly comply with the specification.

#### **1.1.20. Builder's work**

The Contractor shall notify the Engineer immediately on acceptance of this tender of the positions where holes, recesses, chases, ducts, manholes, etc. will be required in order that no unnecessary expense is incurred. Except where otherwise specified, the cost of the above and of all such cutting away and making good will form part of this contract and shall be executed by the contractor. Cutting away and making good shall be carried out by and at the expenses of the Contractor except where otherwise specified.

Note: The Contractor will be held responsible for the sizes and positions of the holes, chases, recesses, ducts, manholes, etc. required.

#### **1.1.21. Damage to building**

Any damage done to the building by the Contractor or his employees shall be made good by the contractor at his own cost.

#### **1.1.22. Protection of owner's equipment**

The Contractor shall ensure that any computers, transformers, radiators or other valuable equipment of the owner is sufficiently protected against work or dust by means of temporary coverings or sealed-off partitions.

#### **1.1.23. Inspections, testing, commissioning, and handing over**

The Contractor shall provide all tools and instruments required for inspections, testing and commissioning of the works.

The installation shall be equipped with the necessary test facilities at pumps and control valves to establish the satisfactory operation of the system.

Once the Contractor has completed the total installation, written notice shall be given to the Engineer in order that a mutually acceptable date may be arranged for a joint inspection. During the course of the inspection the Engineer, in collaboration with the owner's, will compile a list of items (if any) requiring further attention. These items shall be identified by checking each and every clause in the contract (all specifications and drawings) in relation to the offered installation. A copy of this list of outstanding items will be provided to the contractor for action.

The Contractor shall then similarly provide written notice that he is ready for an inspection of the remedial work done on the offending items. If the installation is accepted as completed at this stage by both the representative and quality inspector, the representative may certify the works as practically completed (practical completion). If at this stage there are still outstanding items requiring attention irrespective of whether those items were identified during prior inspections or not, the procedure will continue until the entire installation has been correctly completed to the satisfaction of the Engineer and owner.

In addition to the above, the Contractor shall have the complete installation tested and approved by the relevant inspection authorities, and the correct operation of all plant demonstrated to the Engineer, and/or the owner.

First delivery (see conditions of contract ) may only be proceeded with after final acceptance and testing have been completed successfully

Provision shall be made at the remote end of each system for the installation of a 32 mm diameter gate valve and pressure gauge connection to ascertain the flow and pressure conditions at the design point of each system.

#### **1.1.24. Contractor's liability in respect of defects (Warranty & Maintenance period)**

The Contractor shall make all adjustments necessary for the correct operation of the plant for a period of 12 (twelve) months after the date of first delivery (practical completion) of the installation by the owner. The Contractor shall make good any defects due to inferior materials or workmanship that may arise during this 12-month period from practical completion. If during this period, the plant is not in working order for any reason for which the Contractor can be held responsible or if the plant develops defects, the Contractor will be notified and immediate steps shall be taken by him to remedy the defects or to make any adjustments required.

Should such defects occur so frequent as to become objectionable or should the equipment otherwise prove unsatisfactory during the above-mentioned period, the contractor, if called upon by the Engineer, shall replace at his own expense the whole or such parts thereof as the Engineer may deem necessary, with apparatus to be specified by the Engineer.

The contractor will be required to service the equipment in line with OEM recommendations, and these servicing intervals shall be made known to the client, but no fewer than once within a twelve (12) cycle and two (2) inspections annually, within the twelve (12) warranty period.

#### **1.1.25. Compliance with regulations**

The entire installation shall be carried out in accordance with the latest revision and amendments of the following:

- a. The Code of Practice for the Wiring of Premises issued by the South African Bureau of Standards, SABS 0142-1987



- b. The Occupational Health and Safety Act 85 of 1983
- c. eThewkini Municipal by-laws (Water by-laws and Fire Safety by-laws) and any special requirements of the supply authorities of the area and district concerned
- d. The local fire-brigade regulations
- e. The applicable SABS specifications, or the BS specifications where no SABS specifications exist
- f. NFPA 13 guidelines

No claims for extras in respect of failure by the contractor to comply with any of the above regulations will be considered. Contractors need to factor in compliance of the installation when pricing the bill.

Where conflict exists between any of the above regulations and the specification the said conflict must be referred to the Engineer in writing for his ruling.

The contractor shall be responsible for serving all notices and paying all fees due in terms of the laws and regulations mentioned except electrical connection fees.

#### **1.1.26. Taking responsibility for the installation (for normal electrical or electrical within mechanical installations)**

With first delivery (practical completion), the Contractor shall accept in writing the responsibility for the total installation as installed by him/her by certifying the correctness of the installation in accordance with and on the certificates of compliance/conformity for Electrical and plumbing work. Copies of the completed certificates shall be distributed to the owner - for retention in main contract file (original certificates) and the Engineer. ASIB certification shall also be submitted to the Project Engineer following the certification of the equipment/installation.

#### **1.1.27. Quality, Gauges, Weights and Measures of Material**

New, best quality and free from defects. Materials and/or apparatus used for similar purposes shall be of the same manufacturer.

Materials and apparatus in electrical system to be in accordance with relevant SABS standards.

Secure approval of all Authorities, as required, for materials, equipment and installation.

Thickness of wire and metal: International metric series.

All weights and measures shown or mentioned shall be taken to be in accordance with the Systems International duties.

#### **1.1.28. Cooperation and coordination with other trades**

Render full cooperation to other trades. Provide any information necessary to permit work of all trades to be installed satisfactorily and without interference or delay.

Where work is to be installed in close proximity to work of other trades, or where there is evidence that work may interfere with work of other trades, assist in working out space conditions to make satisfactory adjustment. Refer to other divisions of these specifications for co-ordinated layouts and/or composite drawing requirements.

### **1.1.29. Wiring Diagrams**

Apart from submitting comprehensive wiring diagrams for approval prior to the commencement of control board manufacture, the contractor is to provide on completion, "as-built" wiring diagrams for all electrical work forming part of this contract.

Copies of these diagrams and those for manufactured equipment are to be included in the Operating and Maintenance Instruction Manuals (refer to section headed Warranty and MAINTENANCE of this Specification) and a copy of each is to be framed, mounted behind glass and hung in a location to be agreed on site.

### **1.1.30. Location Plans**

The contractor shall provide and install, in the area housing the main control valves, a plan of the reticulation indicating main stop valves, zoned areas, etc. The plan shall be fully legible and shall be in a location where it can be readily seen by firemen and others responding to a fire alarm. Final location of this plan shall be approved by the Engineer. In addition, the contractor shall supply and install outside the area containing the main control valves, a location plate. This plate shall bear the following words in raised letters "SPRINKLER STOP VALVE INSIDE". These words shall be in letters of at least 35 mm, and the word "INSIDE" shall be at least 25 mm in height —letters shall be painted white on black background.

### **1.1.31. Municipal Water Supplies**

Where required, the contractor shall arrange with the local water authority for the water connections, kerb valves, service valves etc., and shall pay the required connection charges.

### **1.1.32. Structural Requirements**

It shall be noted that openings through the structure, beams, walls, slabs, etc., will need to be provided by the contractor where required. Any additional structural requirements shall be approved by Engineer before implementation.

### **1.1.33. Maintenance And Guarantees**

#### **1.1.33.1. Operating And Maintenance Manuals**

On completion of the installation and before requesting acceptance, submit to the Engineer three (3) bound sets of Operating and Maintenance Instructions for the entire system as well as for each item of equipment.

The manuals shall also contain the following:

- Names and addresses of suppliers of each item of equipment.
- Performance data for each item of equipment.
- Spare parts list for each item of equipment.
- Detailed description of system operation and performance procedure.
- Complete colour coded wiring diagram for all equipment.
- A complete set of "as-built" drawings shall be included in each manual. In addition, a set of electronic "as-built" drawings shall be submitted for record purposes.

### 1.1.33.2. Maintenance And Guarantee

The complete sprinkler system shall be guaranteed by the appointed contractor for a period of twelve (12) months from the date of practical completion of the system. During this period the system shall be serviced free of charge in accordance with the requirements of the bodies specified under the paragraph headed "Approvals" but not less than two (2) times within the guarantee period.

## 1.2. EQUIPMENT

### 1.2.1. Sprinkler Heads

All sprinkler nozzles/heads shall be selected to suit the installation hazard rating as indicated in the Detailed Specification and shall conform to the regulations as set out by the Automatic Sprinkler Inspection Bureau in the latest edition of the rules for automatic sprinkler installations. Contractor shall make provision for this in their pricing.

The spray nozzles are to be installed in the approximate positions indicated on the drawings. The contractor, through the Fire Engineer, shall check the tender drawings for compliance with A.S.I.B. rules. Any point of conflict between A.S.I.B. rules and the requirements of this Specification shall be rectified by the Fire Engineer and further brought to the attention of the Project Engineer. **The Tender price is to be given for a system in full compliance with A.S.I.B.**

Pilot sprinkler heads installed in exposed piping shall be cast brass with quartzoid bulb and of the conventional pattern. High Velocity nozzles shall be brass, and internal swirl (K65).

In areas of hung ceilings, piping shall be concealed, and sprinkler heads shall be chromium plated with quartzoid bulb and approved type escutcheon plates.

Pilot heads are to have ordinary temperature rating of 68°C. However, heads subjected to abnormally high temperatures are to have a sufficiently high temperature rating to prevent their accidental discharge when no fire is present.

Provide heavy wire guards for heads placed where liable to be accidentally damaged in normal course of events.

Provide enameled steel cabinet containing extra nozzles and sprinkler heads as required by the A.S.I.B. The cabinet is to be placed in a position approved by the Fire Engineer. Also to be included are all necessary implements for installing the replacement sprinkler heads. Heads for drenching systems shall be open type with orifice size as indicated. The head shall provide a 165-degree fan shape flat directional water flow to provide a protective sheet of water.

### 1.2.2. Alarms

Unless otherwise called for in this Specification allowance shall be made for the following alarm systems:

Each set of sprinkler control valves shall be equipped with an alarm valve, approved by A.S.I.B. The alarm valve shall be installed in the main supply pipe immediately after the main stop valve, before any connection is taken off to feed part of the sprinkler system.

Alarm valves shall be designed to pass water under flow conditions to a water motor alarm gong. One alarm gong shall be provided for each control valve.

Alarm gongs shall be mounted in an agreed position in the vicinity of and less than 6 m above the control valves.

Pressure switches (approved by A.S.I.B.) shall be provided to sense a drop in pressure in the pilot supply pipe after each set of control valves. A drop in pressure shall initiate an alarm on a remote fire alarm panel if called for under the Detailed Specification.

### **1.2.3. Alarm Panel**

Where called for in the Detailed Technical Specification, an alarm panel and remote auxiliary panels are to be installed in the positions indicated.

The panels are to give an indication of the system status including the following:

- Power on
- Power off
- Pump running (indication for each pump)
- Zone fire alarm
- General fire alarm
- Low Water Pressure

Each panel shall incorporate an audible and visual alarm as approved by the Engineer. An alarm accept and alarm cancel facility shall be provided.

Panel shall be designed for surface or flush mounting as indicated elsewhere and shall be finished in baked enamel with silk screen or screw on "Ivory" labels.

### **1.2.4. Jockey Pump**

Where required, the contractor shall provide an automatic jockey pump to maintain the pressure in the system.

The pump is to have a capacity greater than any normal leakage rate.

The pressure/flow characteristic of the pump shall be in accordance with the Rules of the A.S.I.B. and shall be approved by the Fire Engineer before installation. This is normally to be incorporated with the diesel fire pump set.

### **1.2.5. Centrifugal Pumps**

A centrifugal fire pump or pumps as called for in the Detailed specifications and/or BOQ are to be installed to ensure the correct pressure and flow characteristic required for the sprinkler installation.

The pumps are to be of the multistage centrifugal type and shall have a characteristic curve as laid down for the particular installation by the A.S.I.B.

The pump shall have a cast iron casing, bronze impeller and case wear rings and stainless-steel shaft and shall be approved before installation. Any deviations to this must be approved by the Engineer.

Where the pump constitutes the primary source of supply, it shall be driven by an engine of the compression ignition type. When the pump constitutes a duplicate supply, it shall be driven by an electrical motor or compression ignition engine as specified.

Pump and drive shall be direct coupled by means of a "Fennerflex" coupling (or equal) and shall be mounted on an integral cast iron or fabricated base plate. Base plate shall be bolted rigidly to a concrete foundation with a mass double that of the pump and drive. Pricing for all works reasonable associated to the pump (i.e., concrete foundation etc.) and its installation must be included in the pricing for the installation of the pump(s).

#### **1.2.6. Compression Ignition Engine**

The engine shall conform with the requirements of the A.S.I.B. in all respects and shall include all spare parts and tools as laid down. The normal and automatic starting of the engine shall be by means of a battery powered electric starter.

The battery is to be on a constant trickle charge and a charging rate meter as well as Volt and amp meters are to be provided.

Cooling of the engine shall be by means of an air-cooled radiator, the capacity of which shall not be less than that recommended by the engine manufacturer.

The power of the engine shall be sufficient for the pump requirements and rated for the site altitude. The contractor is to ensure that the pump is sufficient and make recommendation otherwise.

The engine exhaust shall be fitted with a suitable silencer. The exhaust shall be led to outside the pump room and arranged in a manner that no moisture can return into the engine. The engine shall be capable of operating on full load for a minimum period of six hours.

A fuel tank shall be provided and installed above the engine fuel pump. The tank shall be of sufficient capacity for four hours operation. The tank shall be provided with an inspection hole, fuel level gauge, air vent and sludge and sediment trap. A filter shall also be provided in the pipework between the tank and fuel pump. The fire pump set shall also include a jockey pump, 24L pressure vessel, control panel for both the diesel pump and jockey pump to suite, controls, pressure switches, non-return valves, diesel engine service spares etc to allow fully unit functionality.

The engine shall be provided with a means of starting manually with a crank handle.

#### **1.2.7. Electric Motor**

The electric motor shall be 3 phase suitable for 50 Hertz supply and shall be of the totally enclosed fan cooled (T.E.F.C.) type.

The speed of rotation and power shall match the requirements of the pump being driven.

The motor shall conform with the requirements of the A.S.I.B.

Power to the motor control panel will be provided under this contract from the main distribution board. All wiring within the panel sand to the equipment will form part of this contract.

Wiring shall be in accordance with all bodies having jurisdiction. Where these specifications are in conflict, this is to be brought to the attention of the Engineer who will direct the contractor on the course he is to follow.

#### **1.2.8. Suction Tank**

Where required in terms of the Detailed Specification or BOQ, the contractor shall provide a suction tank with an effective capacity in accordance with the A.S.I.B. rules.

In order to ensure maximum effective capacity of the tank, a suction sump may be incorporated.

Tanks shall be provided complete with centre partition, access ladders, access manholes, drip pans and all indicated or required connections.

Tanks shall be of the sectional bolted construction type, having suitable bracing to withstand internal pressure unless otherwise specified.

Bottom and sides of sectional bolted construction tanks shall be constructed of 6 mm galvanised mild steel plates. Lid or covers shall be at least 3 mm galvanised mild steel plates and shall be bolted to the top of the tanks with MS bolts at 1540 mm centres, or per manufacturer specification.

Covers shall be provided with a suitable number of access manholes to facilitate cleaning and maintenance of valves.

All bolts shall be galvanised.

Tank sections shall be bolted and made watertight by the use of an approved jointing and sealing compound. Tank bases shall be designed and installed by the contractor, and all materials, tools and labour required for this element must be incorporated into the pricing accordingly.

Access ladders into and on the outside of each tank shall be provided. The ladders shall be of galvanised mild steel with sides 32 mm x 15 mm flat bar and rungs 20 mm round bar at 300 mm centres, or equivalent.

Water level in each section shall be indicated by separate indication on the side of the tank.

The water level shall be controlled by an approved float operated full flow valve. The valve shall be arranged to prevent water hammer on closing. Valve shall be Clayton or equal and approved.

#### **1.2.9. Pipework**

##### **1.2.9.1. Piping And Fittings**

Drawings are generally diagrammatic and indicative of work to be installed. The run and arrangement of piping shall be approximately as indicated, and shall be subject to modifications as required to suit building conditions, to avoid interference with work of other trades, or for proper convenient and accessible location of all parts of piping systems. Contractor/Fire Engineer is to redesign routing to suite site conditions. Due to small scales of drawings, all required offsets, fittings, valves, drains, etc., are not indicated.

Tender shall include for all fittings which may reasonably be required to install the piping following the basic routes indicated on the drawings. Allowance shall be made for any offsets which may be required to achieve the accurate centering of sprinkler heads. Drawings shall be prepared taking full cognizance of the structure and other Mechanical and Electrical services in the building.

Run piping in wall chases, recesses, pipe shafts and hung ceilings where same are provided. Do not permanently close up, fur in or cover piping before examination and testing.

Run piping as straight and direct as possible in general forming right angles with or parallel to walls or other piping and neatly spaced, with risers erected plumb and true. Install piping so that there is clearance of at least 25 mm between piping and also between fitting hubs and adjoining work. Hang piping at or in ceiling from construction above, as close as possible to bottom of slabs, beams, etc., maintaining maximum headroom at all times.

Run no piping in elevator machine rooms; telephone rooms containing telephone equipment, relays and terminal strips, and electric rooms and closets containing exclusively equipment.

Provide control valves where noted or required for complete regulating control of all systems. Valves: accessible, but no valves installed with handles pointing down.

All piping required to connect to apparatus shall be complete and ready for regular and safe operation. Unless otherwise noted, connect all apparatus and equipment in accordance with manufacturers standard details as approved.

Consult drawings and specifications to determine number or requirements of all items of equipment requiring piping connections. Provide accessory piping, such as vent, drain, relief, etc., wherever equipment is provided with connections for such piping.

Cut pipe accurately to measurements established at building. Work into place without springing or forcing, and to properly clear windows, doors, and other openings. Ream all piping after cutting.

Pipes above ground shall be medium grade steel tube to BSS 1387 or equivalent. Piping subjected to alternate wetting and drying (e.g. water motor gong piping) shall be galvanised.

All pipework laid below ground or built into concrete shall be prefabricated, flanged and hot dip galvanised.

Where required, the digging and back filling of all trenches shall be done by the contractor, unless otherwise specified. The trenches shall be of such a depth that when pipes are laid, at least 750 mm shall cover the top of the pipe.

Underground piping shall be laid on clean soft soil. When backfilling, the trench shall firstly be filled to at least 150 mm above the pipe with a clean soft sand and then compacted after which the final filling is to be made and again compacted.

In all instances care shall be taken to accommodate all thermal movement of the piping. Concrete thrust blocks or anchors shall be provided where applicable.

Adequate protection shall be provided to all pipework below roads, etc. Methods of protection shall be approved by the Project Engineer. Fittings on all pipes shall be wrought iron to BS 1740 or equivalent. Use eccentric fittings at changes in pipe size, top level for horizontal piping. No bushings shall be used in lieu of reducing fittings.

Welded joints are permitted provided that joints are fabricated and welded in the contractors workshop. No welding shall be permitted on site. Only welding meeting the SABS qualifying tests for strength welds in pressure piping are to be permitted to make welded joints. Furnish copies of certificates of competence of each welder before he commences work.

Flanges shall be of correct pressure class conforming to BS 4504 or equivalent.

Piping to be screwed to BS 21 or equivalent. Screwed joints shall be screwed up tightly using an approved jointing compound such as P.T.F.E. tape or equivalent. Hemp joints will not be accepted.

During construction, temporarily close open ends of pipes with sheet metal caps to prevent debris from entering piping systems.

Support piping independently at all equipment so that equipment is not stressed by piping weight or expansion.

### 1.2.9.2. Accessories

Provide unions, or flanged connections, as required and at connections to all equipment, apparatus and specialties requiring disconnection for repairs or replacement. Locate unions between shut-off valves and equipment.

Provide shut-off valves where indicated and for individual equipment units at inlet and outlet, to permit unit removal for repairs without interfering with remainder of system.

Arrange piping for maximum accessibility for maintenance and repair; locate valves for easy access and operation. No valves shall be installed with handles pointing down.

### 1.2.9.3. Pipework Supports

All piping shall be adequately supported by means of galvanised hangers unless otherwise specified. No branch pipe longer than 750 mm will be allowed to be suspended without supports.

All supports shall make adequate provision for any thermal expansion and contraction of the pipework.

Piping shall be supported, and hanger rod sizes shall be at least as set out as follows:—

Nominal Pipe Size	Minimum Spacing	Rod Diameter
15 mm dia. — 20 mm dia.	1,5 m	6 mm dia
25 mm dia.	2,0 m	6 mm dia
32 mm dia. — 65 mm dia.	2,5 m	6 mm dia
80 mm dia. — and over	3,0 m	10 mm dia

### 1.2.9.4. Control Valves

Valves 50 mm and smaller shall be threaded bronze rising stem gate valves of 10 bars WWP Class.

Valves 65 mm and larger shall be flanged BSS 4504 (or equivalent) cast iron rising stem gate valves of 10 bar WWP Class.

Valves for sprinkler work shall be sealed in correct position and provided with approved type metal tag indicating purpose of the valve. The tags are to be fastened to the valves by means of brass chain.

All valves shall be approved by A.S.I.B.

### 1.2.9.5. Angle And Globe Valves

Sprinkler drain and test valves, and other angle or globe valves, as required, shall be bronze composition disc of 10 bars WWP Class.

### 1.2.9.6. Check Valves

Bronze regrind disc swing check valves as approved by the A.S.I.B.

### 1.2.9.7. Tests

Test piping and prove tight for 2 hours, as specified and/or required by Authorities having jurisdiction in presence of the Project Engineer and said authorities, who shall be given ample notice before tests are made. Make preliminary test and prove satisfactory before requesting witnessing of final test. Make tests in stages if



so ordered by Project Engineer to facilitate work of others. Repair defects disclosed by tests or, if required by the Project Engineer, replace defective work.

Be responsible for existing building and work of other trades disturbed or damaged by tests or repair and replacement of work and cause work so disturbed or damaged to be restored to its original condition at own expense.

Test sprinkler piping with water at the highest point of the section being tested. 200 kPa above the normal operating pressure at such point. The testing pressure at any point shall never be less than 800 kPa.

The entire sprinkler pipework reticulation shall be properly cleaned out after erection by introducing flushing connections at the extremities of the distribution pipes.

#### **1.2.9.8. Sleeves**

Provide sleeves large enough to accommodate pipe and passing entirely through floors, ceilings, walls or partitions. Pack sleeves through firewalls or slabs in accordance with Underwriters requirements.

Provide cast iron or steel pipe sleeves for pipes passing through floors (interior) of machinery rooms containing plumbing, heating, ventilating, or air conditioning equipment, or through floors of sprinklered areas, and here extending 50 mm above finished floor. Provide sleeves through floors specified above with continuously welded centre flange buried in construction.

Except as otherwise noted, 0,7 mm galvanised sheetmetal sleeves for pipes passing through interior floors, ceilings, walls or partitions, unless framed opening is provided in general construction.

#### **1.2.10. Baffle Plates**

Where sprinklers are located closer than 2 metres apart baffle plates shall be provided if interference is noted.

Baffle plates shall be 200 mm wide and 150 mm high and constructed of galvanised sheet metal, located midway between sprinklers. Top of the baffles should extend above the sprinkler head deflectors by 150 mm minimum.

### **1.3. Finishing, Testing And Commissioning**

#### **1.3.1. Painting And Finishing**

All paint shall be delivered to site in the manufacturers original sealed containers, and all paint shall be of the highest quality, applied strictly in accordance with the manufacturers directions.

All metal surfaces, whether painted in the workshop, factory or on site, shall be cleaned and wire brushed to remove all dirt, rust, grease or other foreign matter before the application of the priming coat.

Hangers, including rods and inserts, shall be painted with one coat of Zinc Chromate Primer unless galvanised. Galvanised hangers and steelwork shall be painted, unless otherwise specified.

All piping and equipment shall be delivered to site with a factory-applied prime coat unless otherwise specified.

All piping and equipment shall be painted as follows:

1 Coat Rustodian Calcium Plumbate Primer (or equal) — 37 micron D.F.T.

1 Coat SABS 681 Universal Undercoat (or equal) — 30 micron D.F.T.

1 Coat Acid/Alkali Resistant Enamel (or equal) — 25 micron D.F.T.

All equipment delivered to site pre-painted shall be spot coated on all damaged areas. The equipment will be completely repainted if considered necessary by the Engineer to achieve a satisfactory finish.

### **1.3.2. Testing And Commissioning**

The installation shall be equipped with the necessary test facilities at pumps and controls valves, to establish the satisfactory operation of the system.

The contractor shall arrange for the inspection and approval of the entire installation, prior to handover, by the inspection authorities.

## **2. SECTION 2: DETAILED TECHNICAL SPECIFICATION**

### **2.1. SCOPE OF CONTRACT**

The work to be carried out under this contract comprises of the supply of all equipment, materials, tools, plant and labour for the installation of the following items at the Underwood Sub-Station. (26 Underwood Road, Pinetown)

- An automatic high velocity deluge fire extinguishing system, for four Transformer Bays and four Radiator Bays, with automatic alarms, both local and signalling at the Electricity Control Centre and the Fire Department.
- All sleeves required to be built into the building structure shall be supplied under this contract.
- A booster/jockey pump to maintain constant pressure and to prevent false alarm where specified in the specification and/or bill of quantities.
- A remote fire alarm panel as per Standard Specifications.

Unless otherwise specified, the Contractor shall make provision for the design, project planning, working drawings, supply, delivery, off loading, interim storage, erection, installation, corrosion protection, testing, commissioning, maintenance, record drawings and maintenance manuals for the system. The Contractor shall also arrange with the relevant authorities for final connections of both the water supply and alarm signalling devices.

### **2.2. DRAWINGS**

Two drawings issued together with this specification and which shall be considered as part of the tendering and subsequent sub-contract documentation, are :

- CSA3311-A: TRANSFORMER HOUSE 01 & 02 DELUGE SYSTEM LAYOUT
- CSA3311-B: TRANSFORMER HOUSE 03 & 04 DELUGE SYSTEM LAYOUT

### **2.3. APPLICABLE STANDARDS, REGULATIONS AND CODES OF PRACTICE**

This installation shall be in accordance with the following:

- 2.3.1. SANS 10287
- 2.3.2. SANS 10400 T &W
- 2.3.3. National Fire Protection Association (NFPA) Code 15.
- 2.3.4. eThekwin Municipality Water & Fire Safety by-laws
- 2.3.5. The recommendations of the manufacturer of the equipment installed.
- 2.3.6. Where the installation is not covered by NFPA 15, the applicable requirements of Part 4, Section 1 of this document shall apply.
- 2.3.7. The SABS Code of Practice for the Wiring of Premises.
- 2.3.8. The Occupational Health & Safety Act 85/1993, as amended.
- 2.3.9. South African Bureau of Standards Specifications and Codes of Practice (SABS).
- 2.3.10. British Standards and Specifications and Codes of Practice (BSS) – where RSA are not available
- 2.3.11. IEC Standards and Codes of Practice.
- 2.3.12. Automatic Sprinkler Inspection Bureau (ASIB) installation rules

National Standards and Codes of Practice take priority over foreign standards and codes, and where National Standards and Codes do not exist, the relevant BSS and IEC Codes shall apply in that order of preference.

## 2.4. GENERAL DESCRIPTION

The new Transformer Rooms and Radiator Bays are to be protected by an independent and separate high velocity deluge systems in line with the drawings provided and in line with the below. Each system is to be controlled by a 150mm diameter Deluge valve. (Total No. of Deluge valves 8 - off.)

The system is to be actuated via an array of fast response 68°C, quartzoid detectors attached to a network of detection steel piping. The general arrangement of this piping is provided in the drawings – Fire Engineer to detail. The pilot/detector piping is to be charged with water from the municipal mains or pumping system at all times. An orifice is to be installed between the connection to the main and the deluge valve diaphragm to prevent the mains pressure from holding the valve closed.

A manual release valve is to be provided for each system. This valve is to be enclosed in a break-glass stainless steel box and clearly labelled to indicate which system it operates. The valves shall be stainless steel ball valves.

The sprayers used are to be a type designed to extinguish oil fires by the emulsification process. The Angus type is preferred. Note that the sprayers must be the high velocity type. Medium velocity sprayers are not to be used.

Each of the eight(8) systems shall be provided with automatic alarm gongs located as shown on the drawing. Location to be confirmed.

## 2.5. SYSTEM DESIGN

Pipework layout and sizes shall be based on typical transformer system and oil cooling radiators in use at other installations, should the actual system be different, the tenderer will be required to redesign the system to suit.

The successful tenderer shall be responsible for the complete redesign of the fire extinguishing system in accordance with requirements of the transformers and radiators installed on site, and in alignment with ASIB rules and guidelines.

Within two weeks of award of the contract, the Contractor shall submit for approval by the Project Engineer two copies of the proposed installation, and one electronic copy, showing pipe sizes and proposed support system details, together with all calculations, where applicable.

The Contractor shall obtain the Engineer's written approval of the proposed installation before proceeding with the installation on site.

Approval by the Project Engineer of the proposed detailed working drawings shall not reduce the Contractor's responsibility in respect of the accuracy of his dimensions and the clashing of the system with other services or elements.

The primary water supply for the deluge system shall be the municipal mains. The secondary supply shall constitute the pumped system and fire tank. The secondary water supply system shall be triggered into action by an electronic pressure switch that will be monitoring the pressure in the municipal feed coming into the site. The pressure switch will actuate the fire pump where the pressure in the incoming feed drops below 200kPa, or the lowest operable pressure of the spray nozzles, whichever is higher. The piping arrangement in relation to the secondary system will be designed and installed by the contractor but be based on the pipe sizes available from the BOQ. Pricing for all design, equipment, tool and labour must be factored into to pricing of the appropriate system to allow proper system functioning.

## 2.6. WATER SUPPLIES

### Municipal Connection

The Contractor shall make arrangements with the water authorities to make connections to the municipal water reticulation and pay the cost thereof.

The contract will commence at the flanged outlets provided in the respective valve chambers, unless otherwise advise by the Engineer.

The contractor shall carry out a pressure v/s flow test of the water supplies at least two hydrants above and below the main connection and tabulate the results as follows:

<b>Diameter of Main</b>	mm
<b>Flowrate (Litres/s)</b>	l/s
<b>Pressure (kPa)</b>	kPa

The Contractor shall design the system on pressure values 80% of those obtained from the pressure/flow test.

## 2.7. PIPEWORK AND FITTINGS

### 2.7.1. Piping

The manifold and detector circuit pipework shall be of medium quality black piping, to SABS 62. All deluge system piping shall be SABS 62 Medium Quality galvanised for diameters 50mm and less, and SABS 62 Medium Quality Black, hot dip galvanised after fabrication, for diameters 65mm and larger.

Underground piping shall be laid on a 200mm base bed of lightly compacted, clean stone-free sand evenly graded to the specified falls to the manholes. The pipelines and flanges shall be completely wrapped with Densotape, 55% overlap, with PVC overwrap.

All bolts, nuts and washers shall be galvanised.

### 2.7.2. Fittings

For piping smaller than 50mm diameter, galvanised malleable fittings are to be used. For 65mm diameter and above, welded Schedule 40 fittings are to be used with flanged joints. Flanges to BS 4504 table 16/3.

## 2.8. CONTROL VALVES AND FITTINGS

The deluge valves shall be 150mm diameter, and shall be approved by the National Fire Protection Association (NFPA). All valves supplied under this contract all must include all necessary fittings, valve, gauges, flanges etc., to enabled correct operation.

Automatic reset or an external reset handle is preferred. The arrangement of the valves and ancillaries shall be shown on the shop drawings.

## 2.9. ALARMS

A local alarm for each system shall be provided in the form of a hydraulic alarm bell located on the outside wall of the control valve chamber.

In addition to the local alarm, the Contractor shall provide a ZX 4-zone communicator such as SESCO Model 4170Z, or equal or latest approved unit, linked to the Electricity Control Centre. Zone codes shall be allocated for mains water pressure failure, transformers protection system operated and cooling radiator operated as well as the operation of the jockey pump.

## **2.10. ELECTRICS AND CONTROL**

The Contractor shall provide in the control valve chamber a suitable electrical control panel to accommodate all necessary isolators, switches, relays, indicator lamps etc, required to control the operation of the systems.

The control panel shall be of the surface-mounted type with hinged doors. The colour shall be as per the Standard Specifications. All equipment shall be rated for a fault current of 5kA for tender purposes. The actual design fault current rating shall be determined in collaboration with the Project Engineer before actual panel construction is commenced. Pricing for the control panel must be inclusive of all materials and labour required.

Cables shall be top entry, top exit.

Indicator lamps shall be provided to indicate the following:

Mains pressure failure	Amber
System operated	Red
System Locked-off	Green
Jockey Pump Failure	Flashing Red

Enclosure protection rating shall be IP54. All fixed screws shall enter holes tapped into an adequate thickness of metal or nuts welded to the metal. Self-tapping screws shall not be used in the construction of switchboard-control panels.

All internal wiring between switchgear and terminals shall be identified with numbered ferrules to correspond with wiring diagrams. Switchboards shall be carefully designed to ensure ample space for wiring. Wiring channels shall be provided running horizontally and vertically.

Control wiring shall be colour-coded.

All damaged paint surfaces shall be touched up after the installation is complete and ready for first delivery. Dented switchboard panels, doors, etc. shall be replaced with new equipment without any additional cost to the Client.

## **2.11. SIGNAGE**

All necessary signage shall be provided, in both English and isiZulu.

## **2.12. DRAINPIPE WORK**

Drainpipe work from control valves assemblies shall be run to a height of 100mm above oil cooler / radiator area finished floor level. Drains MUST NOT terminate in control valve chamber.

## **2.13. TESTING & COMMISSIONING**

Testing shall generally be done in accordance with the Standard Specification.

## **2.14. LABELING**

Allowance must be made to provide ivorene labels with lettering of not less than 40mm high for each control valve assembly, hydraulic alarm and break glasses to indicate the areas they serve.

## **2.15. PAINTING**

All pipes shall be painted fire red.

All exposed support brackets i.e. those in the valve chamber and in the oil cooler area shall be painted marine grey.

Painting shall generally be done in accordance with the Standard Specification.

## **2.16. SERVICING AND MAINTENANCE**

Allowance shall be made for the service and maintenance of the entire deluge system, including the pumps over a 12-month period. The system is to be inspected at least four (4) times within the twelve month warranty period. The project engineer is to be informed prior to such inspections taking place.

The serviceable components of the system are to be serviced in line with manufacturer guidelines, subject to a minimum of once within the twelve month warranty period.

## **2.17. SPARE NOZZLES AND DETECTORS**

Allowance shall be made for the provision of 16 off of spray nozzles and 8 off detectors heads. These shall be stored in a wall mounted cabinet also provided under this Contract.

## **2.18. Pump House (Provisional Sums)**

To house the diesel fire pump assembly with its respective accessories including the jockey pump and pressure tank, a hot dipped galvanised steel structure be constructed by the contractor to house the diesel pump assembly and control panel. The structure shall be constructed on a raised concrete slab where the pump shall also be mounted to suite. A mounting structure for the control panel shall also be provided and assembled.

The structure shall be fully enclosed by galvanised steel mesh, ClearVu, Palisade or other suitable corrosion resistant enclosing/barrier. The structure shall incorporate a lockable corrosion protected gate sufficiently sized to accommodate the entry of equipment into and out of the structure; locking mechanism and all keys to be also included. The roof of the structure shall be galvanised steel sheeting, or other suitable non-corrosive metal roofing and slanted at a suitable angle to allow run off.

The bottom of the structure, up to 0.3m above the concrete slab, shall be sealed off to limit entry of dust into the structure by means of a facebrick wall or equivalent to be approved by the Project Engineer.

Piping from the pump housing to the deluge valve shall be by the main contractor in accordance with applicable SANS and ASIB rules. No drawings are available for this piping reticulation.

All required signage is to be included under the provision of the pump housing structure and securely affixed to the structure. The entire structure should be neat and complement the aesthetics of other buildings onsite.

## **2.19. DESIGN FINALIZATION AND APPROVAL**

The drawings provided are preliminary and the contractor will have to finalize design to suite site conditions where required and carry out any modifications to the design to ensure acceptance by ASIB, and sign off on drawings to be by the Fire Engineer. Contractor to take cognisance of codes per above that need to be abided by.

Detection reticulation to be also finalized onsite by contractor in accordance to site conditions to allow ASIB approval of installation.

All drawings to be signed off and approved by Fire Engineer registered as a Professional Technologist or Professional Engineer in terms of ECSA, appointed by the contractor. Installation to be signed off by the Fire Engineer and municipal officials.



### **C3.3: STANDARD SPECIFICATIONS**

**C3.3.1** The Specifications on which this contract is based are the **Model Preambles to Trades 2008 issued by the Association of South African Quantity Surveyors**. This document is obtainable separately, and Tenderers shall obtain their own copies at their own cost.

#### **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.

### **C3.4: PARTICULAR SPECIFICATIONS**

In addition to the Standardized and Project Specifications the following Particular Specifications / Policies shall apply to this contract and are available on web address:

<ftp://ftp.durban.gov.za/cesu/StdContractDocs/>:

- C3.4.1      Part AH - OHSA 1993 Safety Specification – Baseline Risk Assessment  
(27 Pages)
- C3.4.2      OHSA Site Specific Health and Safety Specifications in terms of 2014 Construction Regulations 5.1(b)  
(27 Pages)
- C3.4.3      COVID 19 Health & Safety Specification  
(8 Pages)

### **C3.5: CONTRACT AND STANDARD DRAWINGS**

#### **C3.5.1 CONTRACT DRAWINGS / DETAILS**

- CSA3311-A: TRANSFORMER HOUSE 01 & 02 DELUGE SYSTEM LAYOUT
- CSA3311-B: TRANSFORMER HOUSE 03 & 04 DELUGE SYSTEM LAYOUT

## **C3.6: ANNEXURES**

### **C3.6.1**

- **Annexure A: Occupational Health & Safety Specification**
- **Annexure B: Tender Drawings**
- **Annexure C: Notice Board Details**

## **PART C4: SITE INFORMATION**

### **C4.1 LOCALITY PLAN**



### **C4.2 CONDITIONS ON SITE**

There is no specific geotechnical information or other site information.

### **C4.3 TEST RESULTS**

There are no specific test results. The contractor will be required to carry out flow and pressure tests on site prior to design finalization.