

# ROADS & TRANSPORT DEPARTMENT



## TRANSPORT INFRASTRUCTURE DESIGN & CONSTRUCTION DIVISION

**TENDER REFERENCE: RTD 03-2025/26**

**RTD 03-2025/26: TENDER FOR THE APPOINTMENT OF A CONTRACTOR FOR THE  
UPGRADING OF ROADS AND STORMWATER SYSTEMS IN MAHUBE VALLEY –  
PHASE 3 FOR A PERIOD OF 16 MONTHS**

### VOLUME 1

**A Tender for Category 7CE or higher CIDB registered Contractors**

<b>ISSUED BY:</b>	<b>PREPARED BY:</b>
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Registered Name of Tenderer:	
Trading Name of Tenderer:	
Registration No. of Entity:	CoT Vendor No:
CIDB CRS Number (s):	CSD Number (s):
Contact Person:	
Tel. No:	E-Mail Address:
Cell No:	Fax No:

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### COLOUR

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Yellow

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## T2.1 LIST OF RETURNABLE DOCUMENTS

### RD.A MANDATORY RETURNABLE DOCUMENTS

**Note:** *Failure to submit, fully complete and sign the applicable documents and submit all required attachments will result in the tender offer being disqualified from further consideration*

Document Name	Reference	Confirmation of Document Included (Tenders may use this column to confirm documents have been completed and included in the tender)
Compulsory Enterprise Questionnaire	Form RD.A.1	
<b>MBD 4:</b> Declaration of interest in tender of persons in service of state	Form RD.A.2	
<b>MBD 8:</b> Declaration of tenderer's past supply chain management practises	Form RD.A.3	
<b>MBD 9:</b> Certificate of independent tender determination	Form RD.A.4	
Certificate of authority of signatory	Form RD.A.5	
Certificate of authority of signatory for joint ventures and consortia	Form RD.A.6	
Proof of registration in terms of the South African Council for the Project and Construction Management Professions	Form RD.A.7	

### RD.B RETURNABLE DOCUMENTS REQUIRED FOR PREFERENTIAL PROCUREMENT EVALUATION PURPOSES

**Note:** *Failure to submit, fully complete and sign the applicable documents and submit all required attachments will result in the tender offer being awarded 0 (zero) preference points*

Document Name	Reference	Confirmation of Document Included (Tenders may use this column to confirm documents have been completed and included in the tender)
Valid B-BBEE Status Level of Contributor Certificate	Form RD.B.1	
<b>MBD 6.1:</b> Preference points claim form in terms of the Preferential Procurement Regulations, 2022	Form RD.B.2	
B-BBEE Exempted Micro Enterprise – Sworn Affidavit	Form RD.B.3	
Promotion of local enterprises (Local Economic Participation)	Form RD.B.4	
Certified copy of Identity Document/s proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)	Form RD.B.5	
Medical Certificate with doctor's details (Practice Number, Physical Address and contact numbers) proof of ownership (Sworn affidavit for B-BBEE qualifying small enterprise or Exempt Micro Enterprises, CIPC registration or any other proof of ownership)	Form RD.B.6	

### RD.C ADDITIONAL RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

Document Name	Reference	Confirmation of Document Included (Tenders may use this column to confirm documents have been completed and included in the tender)
Proof of registration on CSD with National Treasury	RD.C.1	
<b>MBD 5:</b> Declaration for procurement above R10 million (all applicable taxes included)	RD.C.2	
Proof of Registration with CIDB	RD.C.3	
Compliance with OHSA (Act 85 of 1993)	RD.C.4	
Record of services provided to organs of state	RD.C.5	
Schedule of plant and equipment	RD.C.6	
Status of concern submitting tender	RD.C.8	
Classification of business	RD.C.9	
Letter of intent to provide a performance bond	RD.C.10	

**RD.D OTHER DOCUMENTS THAT WILL FORM PART OF THE CONTRACT**

**Note:** *Failure to submit, fully complete and sign the applicable documents and submit all required attachments will result in the tender offer being disqualified from further consideration*

Document Name	Reference	Confirmation of Document Included (Tenders may use this column to confirm documents have been completed and included in the tender)
Record of addenda to tender documents	RD.D.1	
Mandatory requirements (key Personnel)	RD.D.2	
Curriculum vitae of key personnel	RD.D.3	
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**FORM RD.A.1 COMPULSORY ENTERPRISE QUESTIONNAIRE**

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

**Section 1: Name of Enterprise:**

**Section 2: VAT registration number, if any:**

**Section 3: CIDB registration number, if any:**

**Section 4: CSD number:**

**Section 5: Particulars of sole proprietors and partners in partnerships:**

Name*	Identity Number*	Personal Income Tax Number*

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

**Section 6: Particulars of companies and close corporations**

Company registration number:

Close corporation number:

Tax reference number:

**Section 7: MBD4 issued by National Treasury must be completed for each tender and be attached as a tender requirement.**

**Section 9: MBD8 issued by National Treasury must be completed for each tender and be attached as a tender requirement.**

**Section 10: MBD9 issued by National Treasury must be completed for each tender and be attached as a tender requirement.**

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; and
- 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.

<b>Signed:</b>		<b>Date:</b>	
<b>Name:</b>		<b>Position</b>	
<i>Enterprise Name:</i>			

**FORM RD.A.2 MBD 4: DECLARATION OF INTEREST**

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.

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

3.1 Full name of bidder or his/her representative:

---

3.2 Identity Number:

---

3.3 Position occupied in Company:  
(director, trustee, shareholder<sup>2</sup>)

---

3.4 Company Registration Number:

---

3.5 Tax Reference Number:

---

3.6 VAT Registration Number:

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

---

<sup>1</sup> MSCM Regulations: “in the service of the state” means to be –

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

<sup>2</sup> Shareholder” means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.



3.8 Are you presently in the service of the state?

YES	NO
-----	----

If yes, furnish particulars \_\_\_\_\_

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

YES	NO
-----	----

If yes, furnish particulars \_\_\_\_\_

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid?

YES	NO
-----	----

If yes, furnish particulars \_\_\_\_\_

3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid?

YES	NO
-----	----

If yes, furnish particulars \_\_\_\_\_

3.12 Are any of the company's directors, trustees, managers, principal 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
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If yes, furnish particulars \_\_\_\_\_

3.14 Do you or any of the directors, trustees, managers, principal 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. Full details of directors / trustees / members / shareholders:

Full Name	Identity Number	State Employee Number

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.

Person authorized to sign the tender:

Full name (in BLOCK letters): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**FORM RD.A.3 MBD 8: DECLARATION OF TENDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTISES**

1. This municipal tender document must form part of all tenders invited.
2. It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.
3. The tender of any tenderer may be rejected if that tenderer, or any of it's directors have:
  - a. abused the municipality's/municipal entity's supply 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; or
  - d. been listed in the Register for Tender Defaulters in terms of Section 29 of the Prevention and Combating of Corrupt Activities Act, 2004 (Act 12 of 2004).
4. In order to give effect to the above, the following questionnaire must be completed and submitted with the tender:

Item	Question	Response	
4.1	Is the tenderer, any of it's directors listed on the National Treasurer's database as a company or persons prohibited from doing business with the public sector? <b>(Companies for persons who are listed on this database were informed in writing of this restriction by the National Treasury after the <i>audi alteram partem</i> rule was applied)</b>	YES	NO
	If so, furnish particulars:		
4.2	Is the tenderer or any of it's directors listed on the Register for Tender Defaulters in terms of Section 29 of the Prevention and Combating of Corrupt Activities Act, 2004 (Act 12 of 2004)? <b>(The Register for Tender Defaulters can be accessed on the National Treasury's website (<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>) by clicking on its link at the bottom of the home page.)</b>	YES	NO
	If so, furnish particulars:		
4.3	Was the tenderer 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
	If so, furnish particulars:		

Item	Question	Response	
4.4	Does the tenderer 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
	If so, furnish particulars:		
4.5	Was any contract between the tenderer 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
	If so, furnish particulars:		

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 accept that, in addition to cancellation of a contract, action may be taken against me should this declaration prove to be false.

Person authorized to sign the tender:

Full name (in BLOCK letters): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**FORM RD.A.4 MBD 9: CERTIFICATION OF INDEPENDENT TENDER DETERMINATION**

1. This Municipal Bidding Document (MBD) must form part of all bids <sup>3</sup>invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive tendering (or bid rigging<sup>4</sup>). Collusive tendering is a *per se* prohibition meaning that it cannot be justified under any grounds.
3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
  - a. Take all reasonable steps to prevent such abuse;
  - b. Reject the tender of any tenderer if that tenderer 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 tendering process or the execution of the contract.
4. This will serve as a certificate of declaration that would be used by institutions to ensure that, when tenders are considered, reasonable steps are taken to prevent any form of tender-rigging.
5. In order to give effect to the above, the attached Certificate of Tender Determination must be completed and submitted with the tender.

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

<sup>4</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.

### **CERTIFICATE OF INDEPENDENT TENDER DETERMINATION**

I, the undersigned, in submitting the accompanying tender:

**RTD 03-2025/2026 Tender for the appointment of a Contractor for the Upgrading of Roads and Stormwater Systems in Mahube Valley – Phase 3 for a period of 16 Months**  
in response to the invitation for the tender made by

**City of Tshwane Metropolitan Municipality**

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

I certify, on behalf of \_\_\_\_\_ that:  
(Name of tenderer)

1. I have read and understand the contents of this certificate;
2. I understand that the accompanying tender will be disqualified if this certificate is found not to be true and complete in every aspect;
3. I am authorised by the tenderer to sign this certificate, and to submit the accompanying tender, on behalf of the tenderer;
4. Each person whose signature appears on the accompanying tender has been authorised by the tenderer to determine the terms of, and to sign, the tender, on behalf of the tenderer;
5. For the purposes of this Certificate and the accompanying tender, I understand that the word “competitor” shall include any individual or organization, other than the tenderer, whether or not affiliated with the tenderer who:
  - a. Has been requested to submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and
  - b. Could potentially submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and provides the same goods and services as the tenderer and/or is in the same line of business as the tenderer.
6. The tenderer has arrived at the accompanying tender independently form, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium<sup>5</sup> will not be construed as collusive tendering.
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 of services 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 tender;
  - e. The submission of a tender which does not meet the specifications and conditions of the tender; or
  - f. Tendering with the intention not to win the tender.

---

<sup>5</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.

8. In addition, there have been no consultations, communications, agreements or arrangement with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this tender invitation relates.
9. The terms of the accompanying tender have not been, and will not be, disclosed by the tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or to the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practises related to tenders and contracts, tenders 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 form conduction 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.

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.

Person authorized to sign the tender:

Full name (in BLOCK letters): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**FORM RD.A.5 CERTIFICATE OF AUTHORITY OF SIGNATORY**

**RESOLUTION** of the a meeting of the \*Board of Directors/Members/Partners of

\_\_\_\_\_  
(Legally correct full name and registration number, if applicable, of the enterprise)

Held at: \_\_\_\_\_ (place)

On: \_\_\_\_\_ (date)

**RESOLVED** that:

1. The enterprise submits a tender to the Tshwane Metro Municipality in respect of the following project:

Tender Number:	<b>RTD 03-2025/2026</b>
Tender Description:	<b>Tender for the appointment of a Contractor for the Upgrading of Roads and Stormwater Systems in Mahube Valley – Phase 3 for a period of 16 Months</b>

2. \*Mr/Ms:

in \*his/her capacity as

and who will sign as follow:

Proof signature	Proof signature
-----------------	-----------------

be, and is hereby authorised to sign the tender, and any and all other documents and/or correspondence in connection with and relating to the tender for the enterprise mentioned above

NAME	CAPACITY	SIGNATURE

Note:

- \*Delete which is not applicable.
- IMPORTANT: This resolution must be signed by all the directors/members/ partners of the tendering enterprise.
- Should the number of directors/members/partners exceed the space available above, additional names and signatures must be supplied on a separate page.

Enterprise stamp



**FORM RD.A.6 CERTIFICATE OF AUTHORITY OF SIGNATORY FOR JOINT VENTURES AND CONSORTIA**

\*Joint venture/consortium name: \_\_\_\_\_

We, the undersigned, are submitting this tender in a \*joint venture/consortium and hereby authorise \*Mr/Ms \_\_\_\_\_  
authorised signatory of the enterprise  
\_\_\_\_\_ acting in the capacity of lead partner

to sign the tender, and any and all other documents and/or correspondence in connection with and relating to the tender for the \*joint venture/consortium mentioned above.

Registered name of enterprise	Registration number	% of contract value	Address	Duly authorised signatory	Mark with (x) for lead partner

**Note:**

1. \*Delete which is not applicable.
2. IMPORTANT: This resolution must be signed by all the parties of the joint venture/consortium and every duly authorised signatory for each party to the joint venture/consortium must complete a Form RD.C.15.
3. Should the number of directors/members/partners exceed the space available above, additional names and signatures must be supplied on a separate page.

**FORM RD.A.7 PROOF OF REGISTRATION IN TERMS OF THE SOUTH AFRICAN COUNCIL FOR THE PROJECT AND CONSTRUCTION MANAGEMENT PROFESSIONS**

The tenderer must provide proof of persons in their **full-time employ** that are registered in terms of Project and Construction Management Professions Act, 2000 (Act No 48 of 2000). The tenderer must confirm that registered employees are in their full-time employ by means of a declaration to this effect on the company's letterhead and duly signed.

NAME	REGISTRATION			Confirm full time employed
	Professional Category	Discipline	SACPCMP Number	

(Attach required documentary proof to this page)

The undersigned, who warrants that he / she is duly authorized 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.

Person authorized to sign the tender:

Full name (in BLOCK letters): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**FORM RD.B.1      VALID B-BBEE STATUS LEVEL OF CONTRIBUTOR CERTIFICATE**

Submit B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS) or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA) or an Accounting Officer as contemplated in the Close Corporation Act (CCA).

**NOTE:**

1. Attach original copy of B-BBEE Verification Certificate to this page.
2. In the case of a joint venture / consortium parties must each attach original copy of their B-BBEE Verification Certificates.

**FORM RD.B.2 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022**

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

**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**

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**1. GENERAL CONDITIONS**

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

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

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

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

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

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

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

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	80
SPECIFIC GOALS	20
TOTAL POINTS FOR PRICE AND SPECIFIC GOALS	100

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

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

## 2. DEFINITIONS

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

## 3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

### 3.1. POINTS AWARDED FOR PRICE

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

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

80/20	or	90/10
$Ps = 80 \left( 1 - \frac{Pt - P_{min}}{P_{min}} \right)$	or	$Ps = 90 \left( 1 - \frac{Pt - P_{min}}{P_{min}} \right)$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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

#### 3.2.1. POINTS AWARDED FOR PRICE

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

80/20	or	90/10
$Ps = 80 \left( 1 + \frac{Pt - P_{max}}{P_{max}} \right)$	or	$Ps = 90 \left( 1 + \frac{Pt - P_{max}}{P_{max}} \right)$

#### Where

- Ps = Points scored for price of tender under consideration  
Pt = Price of tender under consideration  
Pmax = Price of highest acceptable tender

#### 4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

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

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

Specific goals	80/20 preference point system	Number of points claimed (80/20 system) (To be completed by the tenderer)
BB-BEE score of companies		
• Level 1	• 8 Points	
• Level 2	• 7 Points	
• Level 3	• 6 Points	
• Level 4	• 5 Points	
• Level 5	• 4 Points	
• Level 6	• 3 Points	
• Level 7	• 2 Points	

Specific goals	80/20 preference point system	Number of points claimed (80/20 system) (To be completed by the tenderer)
<ul style="list-style-type: none"> <li>Level 8</li> <li>Non-compliant</li> </ul>	<ul style="list-style-type: none"> <li>1 Point</li> <li>0 Points</li> </ul>	
EME and/ or QSE	2 Points	
At least 51% of Women-owned companies	2 Points	
At least 51% owned companies by People with disability	2 Points	
At least 51% owned companies by Youth	2 Point	
Local Economic Participation <ul style="list-style-type: none"> <li>City of Tshwane</li> <li>Gauteng</li> <li>National</li> </ul>	4 Points 2 Points 1 Point	

**N.B** For points to be allocated as per above the tenderers will be required to submit proof of documentation as evidence for claims made. Any tenderer that does not submit evidence as stated in the bid document to claim applicable points will be allocated zero points.

#### DECLARATION WITH REGARD TO COMPANY/FIRM

- 4.3. Name of company/firm.....
- 4.4. Company registration number: .....
- 4.5. TYPE OF COMPANY/ FIRM
- ☐ Partnership/Joint Venture / Consortium
  - ☐ One-person business/sole propriety
  - ☐ Close corporation
  - ☐ Public Company
  - ☐ Personal Liability Company
  - ☐ (Pty) Limited
  - ☐ Non-Profit Company
  - ☐ State Owned Company
- [TICK APPLICABLE BOX]

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

	..... <b>SIGNATURE(S) OF TENDERER(S)</b>
<b>SURNAME AND NAME:</b>	.....
<b>DATE:</b>	.....
<b>ADDRESS:</b>	..... ..... ..... .....



**FORM RD.B.2 VALID B-BBEE STATUS LEVEL OF CONTRIBUTOR CERTIFICATE**

Submit B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS) or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA) or an Accounting Officer as contemplated in the Close Corporation Act (CCA).

**NOTE:**

1. Attach original copy of B-BBEE Verification Certificate to this page.
2. In the case of a joint venture / consortium parties must each attach original copy of their B-BBEE Verification Certificates.

**FORM RD.B.3 B-BBEE EXEMPTED MICRO ENTERPRISE – SWORN AFFIDAVIT**

I, the undersigned

<b>Full Name &amp; Surname</b>																		
<b>Identity Number</b>								-						-			-	

Hereby declare under oath as follow:

- The contents of this statement are to the best of my knowledge a true reflection of the facts.
- I am a member / director / owner of the following enterprise and am duly authorised to act on its behalf.

<b>Enterprise Name</b>	
<b>Trading Name</b>	
<b>Registration Number</b>	
<b>Enterprise Address</b>	

3. I hereby declare under oath that:

- The enterprise is \_\_\_\_\_ % black owned;
- The enterprise is \_\_\_\_\_ % black woman owned;
- Based on the audited management accounts and other information available on the \_\_\_\_\_ financial year, the income did not exceed R 10,000,000 (ten million rands);
- Please confirm on the below the B-BBEE level contributor, by ticking the applicable box.

100% Black owned	<b>Level One</b> (135% B-BBEE procurement recognition)	
More than 51% Black owned	<b>Level Two</b> (125% B-BBEE procurement recognition)	
Less than 51% Black owned	<b>Level Four</b> (100% B-BBEE procurement recognition)	

- The entity is an empowering supplier in terms of the dti Codes of Good Practice
- I know and understand the contents of the contents of this affidavit and I have no objection to take the prescribed oath and consider the oath binding on my conscience and on the owners of the enterprise which I represent in this matter.
- The sworn affidavit will be valid for a period of 12 (twelve) month from the date signed by the commissioner.

<b>Deponent Signature:</b>	<b>Date:</b>
          Commissioner of oaths (Signature and stamp)	

**FORM RD.B.4 PROMOTION OF LOCAL ENTERPRISES**

The City of Tshwane has mandated the promotion of local enterprises. To comply with this the tenderer must provide proof of the type of business unit and whether the unit resides within the Tshwane and will be scored as follow:

**80/20 preference point system applies:**

	Promotion of local enterprises
No Response (score 0)	The tenderer did not respond or comply with this evaluation schedule. A score of 0 will also be awarded for any misrepresentation made in this regard,
Satisfactory (score 1)	The tenderer operates a head office or fully staffed office or his sole office outside the boundaries of Gauteng Province. (I.e. no business unit or office resides within the boundaries of Tshwane Metropolitan Municipality)
Good (score 1)	The tenderer's office resides within the boundaries of Gauteng Province. (I.e. no business unit or office resides within the boundaries of Tshwane Metropolitan Municipality)
Very good (score 2)	The tenderer's office resides within the boundaries of the Tshwane Metropolitan Municipality.

Municipal Rates & Taxes not older than three months from tender advertisement date or Valid Lease Agreement should be attached as evidence.

(If necessary the tenderer will be requested to present the office / business unit to officials of the City)

The undersigned, who warrants that he / she is duly authorized 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.

Person authorized to sign the tender:

Full name (in BLOCK letters):

Signature:

Date:

**FORM RD.B.5 At least 51% Women owned companies and At least 51% owned companies by Youth**

The City of Tshwane has mandate for the promotion At least 51% Women owned companies and At least 51% owned companies by youth. To comply with this the tenderer must provide Certified copy of Identity Document/s that proof that company is 51% owned by Women or youth

	Promotion At least 51% Women owned companies and At least 51% owned companies by youth
No Response (score 0)	The tenderer did not respond or comply with this evaluation schedule. A score of 0 will also be awarded for any misrepresentation made in this regard,
Good (score 1)	Certified copy of Identity Document/s that proof that company is 51% owned by Women
Good (score 1)	Certified copy of Identity Document/s that proof that company is 51% owned by youth

(If necessary the tenderer will be requested to present the office / business unit to officials of the City)

The undersigned, who warrants that he / she is duly authorized 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.

**Person authorized to sign the tender:**

Full name (in BLOCK letters):

Signature:

Date:

**FORM RD.B.6 At least 51% owned companies by People with disability**

The City of Tshwane has mandate for the promotion of At least 51% owned companies by People with disability. To comply with this the tenderer must provide Medical Certificate with doctor's details (Practice Number, Physical Address and contact numbers that proof that company is 51% owned by People with disability

	Promotion of At least 51% owned companies by People with disability
No Response (score 0)	The tenderer did not respond or comply with this evaluation schedule. A score of 0 will also be awarded for any misrepresentation made in this regard,
Good (score 1)	Medical Certificate with doctor's details (Practice Number, Physical Address and contact numbers

(If necessary the tenderer will be requested to present the office / business unit to officials of the City)

The undersigned, who warrants that he / she is duly authorized 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.	
<u>Person authorized to sign the tender:</u>	
Full name (in BLOCK letters):	_____
Signature:	_____
Date:	_____

**FORM RD.C.1      PROOF OF REGISTRATION ON CSD WITH NATIONAL TREASURY**

1. Attach original or certified copy of CSD registration certificate to this page.
2. In the case of a joint venture / consortium (excluding consulting engineering partners) the joint venture / consortium must attach original or certified copy of their CSD registration certificate to this page.

**FORM RD.C.2 MBD 5: DECLARATION FOR PROCUREMENT ABOVE R10 MILLION**

1. The tenderer is required by law to prepare annual financial statements for auditing their audited annual financial statements:

- i) for the past three years; or  
ii) Since the establishment if established during the past three years.

Indicate whether these have been included in the tender:

YES	NO
-----	----

2. Does the tenderer have any undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days?

YES	NO
-----	----

If so, state particulars \_\_\_\_\_

3. Has any contracts been awarded to the tenderer by an organ of state during the past five years?

YES	NO
-----	----

If so, state particulars \_\_\_\_\_

4. Has there been any material non-compliance or dispute concerning the execution of such contract?

YES	NO
-----	----

If so, state particulars \_\_\_\_\_

5. Is any portion of the goods or services expected to be sourced from outside the Republic?

YES	NO
-----	----

If, so state what portion and whether any portion of payment from the municipality is expected to be transferred outside of the Republic.

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 accept that the state may act against me should this declaration prove to be false.

Person authorized to sign the tender:

Full name (in BLOCK letters): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**FORM RD.C.3 PROOF OF REGISTRATION WITH THE CIDB**

1. Attach original or certified copy of CIDB registration certificate to this page.
2. In the case of a joint venture / consortium (excluding consulting engineering partners) parties must each attach original or certified copy of their CIDB registration certificate.

Firm	CRS Number	CIDB Grading	Lead Partner (Indicate with X)
<b>Combined CIDB Grading for Joint Venture / Consortium:</b>			

(Calculator is available at <https://registers.cidb.org.za/common/jvcalc.asp> )

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.

Person authorized to sign the tender:

Full name (in BLOCK letters): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



**FORM RD.C.4 COMPLIANCE WITH OHSA (ACT 85 OF 1993)**

Tenderers are required to satisfy the employer and the engineer as to their ability and available resources to comply with the above by answering the following questions and providing the relevant information required below.

(Tick applicable box)

1. Are your company familiar with the OHSA (ACT 85 of 1993) and its Regulations?	<b>YES</b>	<b>NO</b>
2. Who will prepare your company's Health and Safety Plan? Provide a copy of the person/s curriculum vitae/s or company profile.		
3. Do your company have a health and safety policy? If <b>YES</b> provide a copy.	<b>YES</b>	<b>NO</b>
4. How is this policy communicated to your employees? Provide supporting documentation.	<b>YES</b>	<b>NO</b>
5. Do your company keep record of safety aspects of each site where work is performed? If <b>YES</b> what records are kept?	<b>YES</b>	<b>NO</b>
6. Do your company conduct monthly safety meetings? If <b>YES</b> , who is the chairperson of the meeting, and attend these meetings?	<b>YES</b>	<b>NO</b>
7. Do your company have a safety officer in its employment, responsible for overall safety of your company? If <b>YES</b> , explain his duties and provide a copy of his CV	<b>YES</b>	<b>NO</b>
8. Do your company have trained first aid employees? If <b>YES</b> , indicate who.	<b>YES</b>	<b>NO</b>
9. Do your company have a safety induction training programme in place? If <b>YES</b> , provide a copy.	<b>YES</b>	<b>NO</b>
10. Does your company conduct medical surveillance for its employees?	<b>YES</b>	<b>NO</b>

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.

Person authorized to sign the tender:

Full name (in BLOCK letters): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## FORM RD.C.5 RECORD OF SERVICES PROVIDED TO ORGANS OF STATE

Tenderers are required to complete this record in terms of the Supply Chain Management Regulations issued in terms of the Municipal Finance Management Act of 2003.

Include only those contracts where the tenderer identified in the signature block below was directly contracted by the employer. Tenderers must not include services provided in terms of a sub-contract agreement.

Where contracts were awarded in the name of a joint venture and the tenderer formed part of that joint venture, indicate in the column entitled "Title of the contract for the service" that was in joint venture and provide the name of the joint venture that contracted with the employer. In the column for the value of the contract for the service, record the value of the portion of the contract performed (or to be performed) by the tender.

Complete the record or attach the required information in the prescribed tabulation

ALL SERVICES COMMENCED OR COMPLETED TO AN ORGAN OF STATE IN THE LAST FIVE YEARS				
	Organ of state, i.e. national or provincial department, public entity, municipality or municipal entity.	Title of contract for the service	Value of contract for service incl. VAT (Rand)	Date completed (State current if not yet completed)
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				

(Attach additional pages if more space is required.)

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.

Person authorized to sign the tender:

Full name (in BLOCK letters): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**FORM RD.C.6 SCHEDULE OF PLANT AND EQUIPMENT**

The following are lists of the major items of relevant equipment that I/we presently own/lease and will have available for this contract or will hire/acquire for this contract as proof of the requirements for Clause F.3.13 b) of the Conditions of Tender

Major equipment owned/leased that is immediately available for the execution of the works	
Quantity	Description, size, capacity etc.

(Attach additional pages if more space is required)

Major equipment that will be hired or acquired for the execution of the works	
Quantity	Description, size, capacity etc.

(Attach additional pages if more space is required)

## FORM RD.C.8 STATUS OF CONCERN SUBMITTING TENDER

### 1. General

State whether the tenderer is a company, a closed corporation, a partnership, a sole practitioner, a joint venture/consortium or a co-operative

Public Company

Private Company

Closed Corporation

Partnership

Sole Proprietary

Joint Venture / Consortium

Co-operative

(Mark the appropriate option)


### 2. Information to be provided

If the Tendering Entity is a:		Documentation to be submitted with the tender
1	<u>Closed Corporation</u> , incorporated under the Close Corporation Act, 1984, Act 69 of 1984	CIPRO CK1 or CK2 (Certified copies of the founding statement) and list of members
2	<u>Private Company</u> incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 (Including Companies incorporated under Art 53 (b))	Certified copies of: a) CIPRO CM 1 - Certificate of Incorporation b) CIPRO CM 29 – Contents of Register of Directors, Auditors and Officers c) Shareholders Certificates of all Members of the Company, plus a signed statement of the Company's Auditor, certifying each Member's ownership/shareholding percentage relative to the total.
3	<u>Private Company</u> incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 in which any, or all, <u>shares are held by another</u> Closed Corporation or company with, or without, share capital.	Certified copies of documents referred to in 1 and/or 2 above in respect of all such Closed Corporations and/or Companies
4	<u>Public Company</u> incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 (Including Companies incorporated under Art 21)	A signed statement of the Company's Secretary confirming that the Company is a public Company.
5	<u>Sole Proprietary</u> or a <u>Partnership</u>	Certified copy of the Identity Document of: a) such Sole Proprietary, or b) Each of the Partners in the Partnership Certified copy of the Partnership agreement.

If the Tendering Entity is a:		Documentation to be submitted with the tender
6	<u>Co-operative</u>	CIPRO CR2 - Certified copies of Company registration document.
7	<u>Joint Venture / Consortium</u>	All the documents (as described above) as applicable to each partner in the joint venture / consortium as well as a certified copy of the joint venture / consortium agreement.

**Note:**

1. If the shares are held in trust provide a copy of the Deed of Trust (only the front page and pages listing the trustees and beneficiaries are required) as well as the Letter of Authority as issued by the Master of the Supreme Court wherein trustees have been duly appointed and authorised
2. Include a certified copy of the Certificate of Change of Name (CM9) if applicable.

3. Registered for VAT proposes in terms of the Value-Added Tax Act (89 of 1991)

Yes

☐

No

☐

(Make an X in the appropriate space)

REGISTRATION NO: \_\_\_\_\_

**FORM RD.C.9 CLASSIFICATION OF BUSINESS**

1. The Small Businesses are defined in the National Small Business Act, 1996 (Act 102 of 1996).

2. Information furnished with regard to the classification of Small businesses

(b.) Indicate whether the company/entity is defined as a small, medium or micro enterprise by the National Small Business Act.

YES	NO
-----	----

(Tick appropriate box)

(c.) If the response to 2.(a.) is **YES**, the following must be completed:

i. Sector/sub-sector in accordance with the Standard Industrial classification:

---

ii. Size or class:

---

iii. Total full-time equivalent of paid employees:

---

iv. Total annual turnover:

---

v. Total gross asset value (fixed property excluded):

---

(A schedule indicating the different sectors is attached to this form.)

(d.) The tenderer should substantiate the information provided by submitting the following documentation:

i. A letter from the tenderer's auditor or an affidavit from the South African Police Services confirming the correctness of the abovementioned information,

ii. Company profile indicating the tenderer's staff compliment, and

iii. 3 year financial statement or since their establishment if established during the past 3 years.

## SCHEDULE OF SECTORS

SIZE OF CLASS	THE TOTAL FULL-TIME EQUIVALENT OF PAID EMPLOYEES	TOTAL TURNOVER	TOTAL GROSS ASSET VALUE (FIXED PROPERTY EXCLUDED)
<b>AGRICULTURE</b>			
Medium	100	R 5 mil	R 5 mil
Small	50	R 3 mil	R 3 mil
Very Small	10	R 500 000	R 500 000
Micro	5	R 200 000	R 100 000
<b>MINING AND QUARRYING</b>			
Medium	200	R 39 mil	R 23 mil
Small	50	R 10 mil	R 6 mil
Very Small	20	R 4 mil	R 2 mil
Micro	5	R 200 000	R 100 000
<b>MANUFACTURING</b>			
Medium	200	R 51 mil	R 19 mil
Small	50	R 13 mil	R 5 mil
Very Small	20	R 5 mil	R 2 mil
Micro	5	R 200 000	R 100 000
<b>ELECTRICITY, GAS &amp; WATER</b>			
Medium	200	R 51 mil	R 19 mil
Small	50	R 13 mil	R 5 mil
Very Small	20	R 5.1 mil	R 1.9 mil
Micro	5	R 200 000	R 100 000
<b>CONSTRUCTION</b>			
Medium	200	R 26 mil	R 5 mil
Small	50	R 6 mil	R 1 mil
Very Small	20	R 3	R 500 000
Micro	5	R 200 000	R 100 000
<b>RETAIL AND MOTOR TRADE &amp; REPAIR SERVICES</b>			
Medium	200	R 39 mil	R 6 mil
Small	50	R 19 mil	R 3 mil
Very Small	20	R 4 mil	R 600 000
Micro	5	R 200 000	R 100 000
<b>WHOLESALE TRADE, COMMERCIAL AGENTS AND ALLIED SERVICES</b>			
Medium	200	R 64 mil	R 10 mil
Small	50	R 32 mil	R 5 mil
Very Small	20	R 6 mil	R 600 000
Micro	5	R 200 000	R 100 000
<b>CATERING, ACCOMMODATION AND OTHER TRADE</b>			
Medium	200	R 13 mil	R 3 mil
Small	50	R 6 mil	R 1 mil
Very Small	20	R 5.1 mil	R 1.9 mil
Micro	5	R 200 000	R 100 000
<b>TRANSPORT, STORAGE &amp; COMMUNICATIONS</b>			
Medium	200	R 26 mil	R 6 mil
Small	50	R 13 mil	R 3 mil
Very Small	20	R 3 mil	R 600 000
Micro	5	R 200 000	R 100 000
<b>FINANCE &amp; BUSINESS SERVICES</b>			
Medium	200	R 26 mil	R 5 mil
Small	50	R 13 mil	R 3 mil
Very Small	20	R 3 mil	R 500 000
Micro	5	R 200 000	R 100 000
<b>COMMUNITY, SOCIAL AND PERSONAL SERVICES</b>			
Medium	200	R 13 mil	R 6 mil
Small	50	R 6 mil	R 3 mil
Very Small	20	R 1mil	R 600 000
Micro	5	R 200 000	R 100 000

**FORM RD.C.10 LETTER OF INTENT TO PROVIDE A PERFORMANCE BOND**

It is hereby agreed that a Performance Bond drafted **exactly** as set out in the attached examples (See Section C1.3: Form of Guarantee) will be provided by the Surety named below:

Name of Surety (Bank or Insurer)

Address:

Signed:

Name:

Capacity:

On behalf of Tenderer (name of tenderer)

Date:

**CONFIRMED BY** Surety's Authorised representative

Signature(s):

Name (print):

Capacity

On behalf of Surety (Bank or Insurer)

Date:

**Note:** Refer to the Annexure to **C1.3 Form of Guarantee** for the List of Institutions from who Contract/Deposit Guarantees will be accepted.



**FORM RD.D.1 RECORD OF ADDENDA TO TENDER DOCUMENTS**

We confirm that the following communications received from the Employer before submission of this tender, amending or amplifying the tender documents, have been taken in account in this tender offer:

	DATE	REFERENCE	TITLE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

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.

Person authorized to sign the tender:

Full name (in BLOCK letters): \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**FORM RD.D.2 KEY PERSONNEL**

The tenderer shall list in the table below the key personnel to be engaged for this project.

Refer to clause C.2.1 of Part T1: Eligibility (mandatory requirements)

**Note:** Form RD.D.3 must be complete for each person listed below.

	NAME	PROFESSIONAL REGISTRATION CATEGORY	Number of years post registration experience
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

(Attach additional pages if more space is required)



#### **FORM RD.D.4 COMPANY EXPERIENCE**

The tendering company must have experience of at least two successfully completed roads and stormwater systems project with the largest of these projects valued at a minimum of R 9 million (**attach appointment letters and completion certificates as proof**).

Refer to clause C.3.11 of Part T1: Evaluation of tender offers (mandatory requirements)

# PORTION 2: CONTRACT

## PART C1: AGREEMENTS AND CONTRACT DATA

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<b>C1.1</b>	<b>FORM OF OFFER AND ACCEPTANCE .....</b>	<b>2</b>
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## C1.1 FORM OF OFFER AND ACCEPTANCE

STAMP

### OFFER

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

#### **RTD 03-2025/2026: Tender for the appointment of a Contractor for the Upgrading of Roads and Stormwater Systems in Mahube Valley – Phase 3 for a period of 16 Months**

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

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

#### **THE OFFERED TOTAL OF PRICES INCLUSIVE OF VALUE ADDED TAX IS**

R \_\_\_\_\_ (in figures)

\_\_\_\_\_  
(in words)

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in the conditions of contract identified in the Contract Data.

#### **FOR AND ON BEHALF OF THE TENDERER:**

NAME:

(In BLOCK letters)

CAPACITY:

(Of authorized agent)

SIGNATURE:

(Of authorized agent)

SIGNED at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_

WITNESSES:

(Full name in BLOCK letters and signature)

1. \_\_\_\_\_

2. \_\_\_\_\_

## ACCEPTANCE

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

The terms of the contract, are contained in:

Part C1 Agreements and Contract Data

Part C2 Pricing Data

Part C3 Scope of Work

Part C4 Site Information

and drawings and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable 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 Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The Tenderer shall within two weeks of 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 securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the Contract Data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

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

### **FOR AND ON BEHALF OF THE EMPLOYER:**

NAME:

(In BLOCK letters)

---

CAPACITY:

(Of authorized agent)

---

SIGNATURE:

(Of authorized agent)

---

SIGNED at

\_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_

WITNESSES:

(Full name in BLOCK letters and signature)

1. \_\_\_\_\_

2. \_\_\_\_\_

## SCHEDULE OF DEVIATIONS

### Notes:

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

4.1	Subject:	<hr/>
	Details:	<hr/> <hr/>
4.2	Subject:	<hr/>
	Details:	<hr/> <hr/>
4.3	Subject:	<hr/>
	Details:	<hr/> <hr/>
4.4	Subject:	<hr/>
	Details:	<hr/> <hr/>
4.5	Subject:	<hr/>
	Details:	<hr/> <hr/>



Contract: **RTD 03-2025/2026:** Tender for the appointment of a Contractor for the Upgrading of Roads and Stormwater Systems in Mahube Valley – Phase 3 for a period of 16 Months

Part C1: Agreement and Contract Data

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By the duly authorised representatives signing this agreement, the employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from the 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, 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 AND ON BEHALF OF THE TENDERER:**

NAME:

(In BLOCK letters)

---

CAPACITY:

(Of authorized agent)

---

SIGNATURE:

(Of authorized agent)

---

SIGNED at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_

WITNESSES:

(Full name in BLOCK letters and signature)

1. \_\_\_\_\_

2. \_\_\_\_\_

**FOR AND ON BEHALF OF THE EMPLOYER:**

NAME:

(In BLOCK letters)

---

CAPACITY:

(Of authorized agent)

---

SIGNATURE:

(Of authorized agent)

---

SIGNED at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_

WITNESSES:

(Full name in BLOCK letters and signature)

1. \_\_\_\_\_

2. \_\_\_\_\_

Contract: **RTD 03-2025/2026:** Tender for the appointment of a Contractor for the Upgrading of Roads and Stormwater Systems in Mahube Valley – Phase 3 for a period of 16 Months

Part C1: Agreement and Contract Data

---

## CONFIRMATION OF RECEIPT

The Tenderer, (now Contractor), identified in the Offer part of this Agreement hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) today the \_\_\_\_\_ (day) of \_\_\_\_\_ (month) \_\_\_\_\_ (year) at \_\_\_\_\_ (place).

### **FOR AND ON BEHALF OF THE CONTRACTOR:**

NAME:

(In BLOCK letters)

\_\_\_\_\_

CAPACITY:

(Of authorized agent)

\_\_\_\_\_

SIGNATURE:

(Of authorized agent)

\_\_\_\_\_

SIGNED at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_

WITNESSES:

(Full name in BLOCK letters and signature)

1. \_\_\_\_\_

2. \_\_\_\_\_

**C1.2 CONTRACT DATA**

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Contract: **RTD 03-2025/2026:** Tender for the appointment of a Contractor for the Upgrading of Roads and Stormwater Systems in Mahube Valley – Phase 3 for a period of 16 Months

Part C1: Agreement and Contract Data

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#### **C.1.2.1 GENERAL CONDITIONS OF CONTRACT**

The general conditions of contract applicable to this contract shall be **General Conditions of Contract for Construction Works, Third Edition (2015)** of the South African Institution of Civil Engineering (SAICE), read together with the Variations and Additions to the Conditions of Contract as well as the Data provided by Employer.

Tenderers, contractors and subcontractors shall obtain their own copies of the document **General Conditions of Contract for Construction Works, Third Edition (2015)** for tendering purposes and for use for the duration of the contract from the Secretary of the South African Institution of Civil Engineering, Private Bag X200, Halfway House, Midrand, 1685 and shall bear all expenses in this regard:

South African Institution of Civil Engineering (SAICE)

Telephone: 011 80505947 / 48 / 53

E-Mail: [civilinfo@saice.org.za](mailto:civilinfo@saice.org.za)

Web: [www.saice.org.za](http://www.saice.org.za)

## C1.2.2 VARIATIONS AND ADDITIONS TO THE CONDITIONS OF CONTRACT

The following variations and additions to the **General Conditions of Contract for Construction Works, Third Edition (2015)**, shall apply to this contract:

CLAUSE / SUB-CLAUSE	DESCRIPTION	VARIATION / ADDITION
1.1.1	Definitions	<p><b>1.1.1.3 Certificate of Completion</b></p> <p><b>Add</b> the following to the clause:</p> <p><i>Unless specified otherwise in the Contract Data, separate Certificates of Completion will not be issued for portions or phases of the Works.</i></p> <p><b>1.1.1.24 Practical Completion</b></p> <p><b>Add</b> the following to the clause:</p> <p><i>This clause shall apply mutatis mutandis to any portion or phase of the Works that may be described in the Scope of Works or in the Contract Data, or agreed subsequently between the Contractor and the Employer, and committed to in writing.</i></p> <p><b>Add</b> the following new clause:</p> <p><b>1.1.1.35 Construction Work Permit</b></p> <p><i>Construction Work Permit” means a statutory permit as defined in the Construction Regulations 2014.</i></p>
1.2.1	Delivery of notices	<p><b>Add</b> the following to the clause:</p> <p><b>1.2.1.3</b> <i>Sent by facsimile, electronic or any like communication irrespective of time of transmission;</i></p> <p><b>1.2.1.4</b> <i>posted to the Contractor’s address, and delivered by the postal authorities; or</i></p> <p><b>1.2.1.5</b> <i>delivered by a courier service or messenger, and signed for by the recipient or his representative.</i></p>
1.2.3	Authority representatives of	<p><b>Add</b> the following to the clause:</p> <p><b>1.2.3.1</b> <i>The Employer has authorised the <b>Divisional Head: Transport Infrastructure Design &amp; Construction</b> to act on his behalf in respect of this Contract, save for such duties or functions:</i></p> <p><b>1.2.3.1.1</b> <i>which other holders of office ex officio execute on behalf of the Employer; or</i></p> <p><b>1.2.3.1.2</b> <i>for which the <b>Divisional Head: Transport Infrastructure Design &amp; Construction</b> has no authority and the Employer’s approval is required before execution thereof.</i></p>
2.4.1	Ambiguity or Discrepancy	<p><b>Delete</b> the contents of the clause and insert the following:</p>

		<p><i>The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence, listed from highest to lowest priority:</i></p> <ul style="list-style-type: none"> <li><i>a) Form of Offer and Acceptance</i></li> <li><i>b) Contract Data</i></li> <li><i>c) General Conditions of Contract</i></li> <li><i>d) Drawings</i></li> <li><i>e) Scope of Work</i></li> <li><i>f) Standard Specifications</i></li> <li><i>g) Bill of Quantities</i></li> <li><i>h) any other documents forming part of the Contract</i></li> </ul> <p><i>Upon finding any ambiguity in, or discrepancy between, or otherwise any error in the documents, the Contractor shall forthwith advise the Employer's Agent thereof before applying an interpretation in accordance with the above priority. If, after applying the above priority, an ambiguity in, or discrepancy between, or otherwise any remaining error in the documents remains, the Employer's Agent shall provide the necessary clarification or instruction.</i></p>
3.2.3	Specific approval of the Employer required	<p><b><u>Replace</u></b> clause 3.2.3 with the following:</p> <p><i>In addition to the functions or duties set out in the Contract Data under Data Provided By The Employer, the Employer's Agent is required to obtain the specific prior approval of the Employer for:</i></p> <ul style="list-style-type: none"> <li><i>3.2.3.1 certification of expenditure that exceeds the Contract Price in terms of Clause 1.1.1.10;</i></li> <li><i>3.2.3.2 issuing of an order to suspend the progress of the Works in terms of Clause 5.11.2, the extra cost resulting from which order is to be borne by the Employer or the effect of which is liable to give rise to a claim by the Contractor for an extension of time under Clause 5.12 of these conditions;</i></li> <li><i>3.2.3.3 issuing of an instruction or order to vary the nature or quantity of the Works in terms of Clause 6.3, the estimated effect of which will be to increase the Contract Price by an amount exceeding R100 000, the evaluation of all variation orders in terms of Clause 6.4 and the adjustment of the sum(s) tendered for General Items in terms of Clause 6.11; or</i></li> <li><i>3.2.3.4 approval of any claim submitted by the Contractor in terms of Clause 10.1.</i></li> </ul>
4.1.2	Contractor's liability for own design errors	<p><b><u>Add</u></b> the following to the clause:</p> <p><i>The Contractor shall provide the following to the Employer's Agent for retention by the Employer or his assignee in respect of all works designed by the Contractor:</i></p>

		<p>4.1.2.1 <i>A Certificate of Stability of the Works signed by a registered Professional Engineer confirming that all such works have been designed in accordance with the appropriate codes of practice.</i></p> <p>4.1.2.2 <i>Proof of registration and of adequate and current professional indemnity insurance cover held by the designer(s).</i></p> <p>4.1.2.3 <i>Design calculations should the Employer's Agent request a copy thereof.</i></p> <p>4.1.2.4 <i>Engineering drawings and workshop details (both signed by the relevant professional engineer), in order to allow the Employer's Agent to compare the design with the specified requirements and to record any comments he may have with respect thereto.</i></p> <p>4.1.2.5 <i>"As-Built" drawings in DXF electronic format after completion of the Works.</i></p> <p><i>The Contractor shall be responsible for the design of the Temporary Works.</i></p>
4.3	Legal Provisions	<p><b>Add</b> the following new sub-clause:</p> <p>4.3.3 <i>Wages and conditions of work:</i></p> <p>i. <i>For conventional construction works the Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) shall apply and the minimum employment conditions which will apply shall be guided by the Bargaining Council for the Civil Engineering Industry Collective Agreement as published from time to time.</i></p> <p>ii. <i>Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) as per Government Notice R63 of 25 January 2002, shall apply to works described in the Scope of Work as being labour intensive and which are undertaken by unskilled or semi-skilled workers.</i></p> <p><b>Add</b> the following new sub-clause:</p> <p>4.3.4 <i>Notwithstanding any actions which the Employer may take, the Contractor accepts sole liability for due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures imposed by the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and all its regulations, including the Construction Regulations, 2014, for which he is liable as mandatory. By entering into this Contract it shall be deemed that the parties have agreed in writing to the above provisions in terms of Section 37(2) of the Act. The Contractor shall sign the Occupational Health and Safety Agreement for Contract Work in the City of Tshwane Metropolitan Municipality included in section C1.5.</i></p> <p><b>Add</b> the following new sub-clause:</p> <p>4.3.5 <i>The Employer retains an interest in all inquiries conducted under this Contract in terms of Section 31 and/or 32 of the Occupational Health</i></p>

		<p><i>and Safety Act, 1993 (Act 85 of 1993) and its Regulations following any incident involving the Contractor and/or Sub-Contractor and/or their employees. The Contractor shall notify the Employer in writing of all investigations, complaints or criminal charges which may arise pursuant to work performed under this Contract in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and Regulations.</i></p>
		<p><b>Add</b> the following new sub-clause:</p> <p><b>4.3.6 Contractor's Designer</b></p> <p><i>The Contractor and his designer shall accept full responsibility and liability to comply with the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and the Construction Regulations, 2014 for the design of the Temporary Works and those part of the Permanent Works which the Contractor is responsible to design in terms of the Contract</i></p>
		<p><b>Add</b> the following new sub-clause:</p> <p><b>4.3.7 Construction Work Permit</b></p> <p><i>Unless duly exempted or otherwise duly agreed with the Contractor, the Employer shall forthwith, where a Construction Work Permit in terms of Regulation 3(1) of the Construction Regulations 2014 is required to be obtained by the Employer without derogation from the Employer's duties, the Employer or his duly appointed Construction Health and Safety Agent in terms of Regulation 5(6) or otherwise, upon the Construction Work Permit becoming available, issue it to the Employer's Agent, who, in turn, shall forthwith issue it to the Contractor.</i></p> <p><i>Notwithstanding anything stipulated to the contrary in these Conditions, the Contractor shall not be entitled to any claim or extension of time arising from any delay in obtaining a Construction Work Permit which has been duly applied for, unless such delay exceeds 84 consecutive days.</i></p>
5.3.3	Time to instruct the commencement of the works	<b>Replace</b> both periods of "7 days" in Clause 5.3.3 with "14 days".
5.6.1	Programme of works	<p><b>Add</b> the following to the clause:</p> <p><i>The Contractor shall have regard for the phases and sub-phases (if applicable) for the Works, which shall also be the order in which the Permanent Works shall be constructed, unless otherwise agreed between the parties and committed to writing. If phased construction is applicable, the phases and sub-phases will be described in the Scope of Works and/or will be indicated on the Phasing Plan which forms part of the Drawings.</i></p>
5.7.1	Rate of progress	<p><b>Delete</b> the last paragraph of the clause and replace with the following:</p> <p><i>No instruction by the Employer's Agent to the Contractor to improve his rate of progress in this regard will qualify for additional compensation, unless the instruction explicitly states that the Contractor is entitled to additional</i></p>



		<i>compensation and cites the amount of such compensation or the basis upon which it is to be determined.</i>
5.9.2	Further drawings and instructions	<p><b>Add</b> the following to the clause:</p> <p><i>All instructions shall be in writing</i></p>
5.12	Extension of time for Practical Completion	<p><b>Add</b> the following new sub-clause</p> <p><b>5.12.5 Critical path provision</b></p> <p><i>A delay in so far as extension of time is concerned, will be regarded as a delay only if, on a claim by the Contractor in accordance with the General Conditions of Contract, the Employer's Agent rules that all progress on an item or items of work on the critical path of the approved programme for the execution of the Works by the Contractor, has been brought to a halt. Delays on normal working days only, based on a working week, of five normal working days, will be taken in account for the extension of time.</i></p> <p><b>Add</b> the following new sub-clause</p> <p><b>5.12.6 Extension of time due to abnormal rainfall</b></p> <p><i>Extension of time due to abnormal rainfall shall be determined by means of Method 1, if rainfall records and/or values derived from rainfall records are supplied in the Scope of Work, otherwise Method 2 shall apply.</i></p> <p><b><u>Method 1: Rainfall formula method</u></b></p> <p><i>The rainfall records and/or values derived from rainfall records from a suitable rainfall station near the Site, which are supplied in the Project Specifications, shall be considered suitable for the determination of extension of time due to abnormal rainfall in accordance with this method.</i></p> <p><i>Extension of time arising from abnormal rainfall, shall be calculated separately for each calendar month or part thereof for the full period of completion of the Contract, including any extension thereof, in accordance with the rainfall formula given below:</i></p> $V = (N_w - N_n) + \frac{(R_w - R_n)}{X}$ <p><i>If <math>V</math> is negative and its absolute value exceeds <math>N_n</math>, then <math>V</math> shall be equal to minus <math>N_n</math>.</i></p> <p><i>If <math>V</math> is positive and greater than the number of calendar days in the calendar month under consideration, <math>V</math> shall be taken as equal to the number of calendar days in the relevant calendar month.</i></p>

		<p><i>The symbols shall have the following meaning:</i></p> <p><math>V</math> = Extension of time in calendar days in respect of the calendar month under consideration</p> <p><math>N_w</math> = Actual number of days during the calendar month on which a rainfall of <math>Y</math> mm or more has been recorded.</p> <p><math>R_w</math> = Actual rainfall in mm for the calendar month under consideration.</p> <p><math>N_n</math> = Average number of days as derived from existing rainfall records, on which a rainfall of <math>Y</math> mm or more has been recorded for the calendar month. Rainfall records and/or the derived values of <math>N_n</math> will be provided in the Specifications.</p> <p><math>R_n</math> = Average rainfall in mm for the calendar month, as derived from existing rainfall records. Rainfall records and/or the derived values of <math>R_n</math> will be provided in the Project Specifications.</p> <p><math>X</math> = 20 unless otherwise provided in the Project Specifications</p> <p><math>Y</math> = 10 unless otherwise provided in the Project Specifications</p> <p><i>The total extension of time shall be the algebraic sum of the monthly totals for the period under consideration. However, if the grand total is negative the time for completion shall not be reduced on account of abnormal rainfall. Extension of time for parts of a month shall be calculated by pro rata values of <math>N_n</math> and <math>R_n</math> being used.</i></p> <p><i>The factor <math>(N_w - N_n)</math> shall be considered to represent a fair allowance for variations from the average number of days during which rainfall exceeds <math>Y</math> mm and wet conditions prevented or disrupted work.</i></p> <p><i>The factor <math>\frac{(R_w - R_n)}{X}</math> shall be considered to represent a fair allowance for variations from the allowance for variations from the average number of days when wet conditions further to that allowed for the factor <math>(N_w - N_n)</math>, prevented or disrupted work during the calendar month.</i></p> <p><i>Accurate rain gauging shall be taken at a suitable point on Site and the Contractor shall, at his own expense, take all necessary precautions to ensure that the rain gauges cannot be interfered with.</i></p> <p><i>This formula does not take into account further on concurrent delays which could be caused by other abnormal climatic conditions such as floods, which have to be determined separately in accordance with Sub-Clause (5.12.5 Critical Path Provision) hereof.</i></p> <p><b><u>Method 2: Expected delay method</u></b></p> <p><i>The Contractor shall make provision in his programme for the execution of the Works, for an expected delay of "n" normal working</i></p>
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		<p><i>days (based on a working week of five normal working days) due to normal rainfall, for which he will not receive any extension of time.</i></p> <p><i>Unless otherwise provided in the Project Specifications, the value of "n" shall be taken as equal to the tendered time for completion of the Works in months, rounded off to an integer.</i></p> <p><i>Extension of time during normal working days will be granted to the degree to which actual delays as determined in accordance with Sub-Clause (5.12.5 Critical Path Provision) hereof, exceed the number of "n" normal working days.</i></p> <p><i>The value of "n" does not take into account further or concurrent delays which are caused by other abnormal climatic conditions such as floods, which have to be determined separately in accordance with Sub-Clause (5.12.5 Critical Path Provision) hereof.</i></p>
6.1	Payment to Contractor	<p><b>Add</b> the following new sub-clause:</p> <p>6.1.2 <i>Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way of his obligations either in contract or in delict.</i></p> <p><b>Add</b> the following new sub-clause:</p> <p>6.1.3 <i>The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the employer. If the Contractor chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and timeframe stipulated by the employer. The Contractors invoices shall not be paid until all pending labour information has been submitted.</i></p> <p><b>Add</b> the following new sub-clause:</p> <p>6.1.4 <i>The Contractor shall be paid at Pretoria in the currency of the Republic of South Africa only at the Office of the Chief Financial Officer of the CITY OF TSHWANE, unless otherwise stated in the Data provided by Employer.</i></p>
6.2	Security	<p><b>Add</b> the following new sub-clause:</p> <p>6.2.4 <i>As an alternative to a performance guarantee, the Contractor may deposit with the Employer a cash amount in a sum equal to the amount stated in the Data provided by Employer. All the provisions in respect of the guarantee apply mutatis mutandis to the cash deposit accept that the amount deposited will be repaid to the Contractor within 30 (txaw2xde d34crv c3hirty) days after the issue of the Certificate or Certificates of Completion in respect of the whole of the permanent works.</i></p>
8.6	Insurances	<p><b>Replace</b> clause 8.6 with the following:</p>

		<p><b>8.6 Insurances</b></p> <p><b>8.6.1</b> <i>Without limiting the Contractor's/Sub-contractor's obligation in terms of the Contract, the Employer will effect and maintain for the duration of the Contract until the issuing of the Final Approval Certificate, the following insurances in the name of the Contractor (including all Subcontractors whether nominated or otherwise):</i></p> <p><b>8.6.1.1</b> <i>The Employer's insurer will indemnify the Contractor/Sub-contractor against physical loss of or damage to any part of the Property Insured not exceeding the maximum contract value or the final contract value estimated at inception including free issue materials were applicable as stated in the Contract Data:</i></p> <ul style="list-style-type: none"> <li><i>a. Whilst in transit including loading and unloading whilst temporarily stored at any premises and route to or from the Contract Site within the Territorial Limits;</i></li> <li><i>b. From the time of unloading, dismantling or preparation at the Contract Site and thereafter until the Property Insured has been officially accepted by the Employer and becomes his responsibility by means of a notice of completion certificate or similar evidence of legal transfer of risk;</i></li> <li><i>c. During the contractual defects liability or Maintenance Period which shall not exceed the period reflected in the Schedule but only so far as the Contractors and/or Sub-Contractors may be liable for such loss or damage under the defects liability or maintenance condition/s of the Insured Contract;</i></li> <li><i>d. Removal of debris;</i></li> <li><i>e. Surrounding property</i></li> <li><i>f. Work away;</i></li> <li><i>g. Off-site storage</i></li> <li><i>h. Temporary repairs;</i></li> <li><i>i. Contribution clause – marine;</i></li> <li><i>j. Escalation during Contract Period;</i></li> <li><i>k. Post loss escalation;</i></li> <li><i>l. Automatic reinstatement;</i></li> <li><i>m. Principals maintenance;</i></li> <li><i>n. Property taken over;</i></li> <li><i>o. Beneficial occupation;</i></li> <li><i>p. Escalation due to currency fluctuation;</i></li> <li><i>q. Manufacturers guarantees</i></li> </ul> <p><b>8.6.1.2</b> <i>The Employer's insurer will indemnify the Contractor/Sub-contractor against all sums for which the Contractor/Sub-contractor shall become legally liable towards third party claimants to pay for and in consequence of:</i></p> <ul style="list-style-type: none"> <li><i>a. Accidental death of or bodily injury to or illness or disease contracted by any person (excluding employees of the Contractor/Subcontractor);</i></li> <li><i>b. Accidental physical loss or damage to tangible property occurring during the Period of Insurance and arising out of or in connection with the performance of the Insured Contract at the Contract Site as defined in the Schedule. The minimum limit of indemnity for any one event is R10-million</i></li> </ul>
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		<p><i>in respect of contracts with a contract value of up to R50-million (excluding VAT).</i></p>
		<p><b>8.6.2 Insurance premium payable</b></p> <p><i>The Employer will pay the insurance premium for the works damage and public liability insurance cover. The insurance premium will be calculated based on the approved Capital Budget per financial year and the insurance premium will be charged out to the relevant departments by the Section: Insurance and Risk Management.</i></p>
		<p><b>8.6.3 Additional insurance by the Employer</b></p> <p><i>The Employer shall be free to effect at his own cost any additional insurance, which he deems necessary in own interest to cover loss or damage not insured in terms of the insurance policies of Sub-Clause 8.6.1.1 of this Clause.</i></p>
		<p><b>8.6.4 Additional insurance by the Contractor / Subcontractor</b></p> <p><i>The Contractor and Sub-contractor shall be free to effect and maintain at their own cost any additional insurance which the Contractor/Subcontractor deem necessary to cover damage, loss or injury not insured in terms of the insurance effected by the Employer's insurer. The cost of the additional insurance will be for the account of the Contractor/Subcontractor.</i></p>
		<p><b>8.6.5 Contractor satisfied with insurance</b></p> <p><i>The submission of a tender shall be construed as acknowledgement by the Contractor that he is satisfied with the insurance cover affected by the Employer.</i></p>
		<p><b>8.6.6 Contractor to observe conditions</b></p> <p><i>The Contractor shall give all notices and observe all conditions and requirements imposed by the relevant insurance policies, which shall be binding on the Contractor.</i></p>
		<p><b>8.6.7 Contractor to insure</b></p> <p><i>The Contractor/Sub-contractor must obtain for the duration of the contract until the issuing of the Final Approval Certificate, the following insurance policies at an insurance company within 14 (fourteen) days of the notification of acceptance of the tender and must pay all premiums and supply proof thereof to the relevant Employer's Agent, 30 (thirty) days before the inception of the contract, that the policies have been taken out and that all premiums have been paid:</i></p> <p><i>a. All Risk Insurance cover with regard to all Plant and Materials and Equipment, owned, leased or hired by the</i></p>

		<p><i>Contractor that are used in the execution of the contract for the full replacement value thereof.</i></p> <p><i>b. Motor Vehicle and Liability Insurance cover indicating the registration numbers of the vehicles owned, leased or hired by the Contractor that are used in the execution of the contract to the amount of at least R10-million per claim with the number of claims unlimited.</i></p> <p><i>c. SASRIA cover for motor vehicles and Plant and Materials and Equipment owned, leased or hired by the Contractor that are used in the execution of the contract for the full replacement value thereof.</i></p> <p><i>d. In respect of Plant and Materials and Equipment and Motor Vehicles brought onto the Site by or on behalf of Subcontractors, the Contractor shall be deemed to have complied with the provisions of this Sub-Clause by ensuring that such Subcontractors have similarly insured such Plant and Materials and Equipment and Motor Vehicles.</i></p> <p><i>e. Proof must also be submitted that the Contractor complies with the conditions of the following legislation:</i></p> <ul style="list-style-type: none"> <li><i>- Compensation for Occupational Injuries and disease, 1993</i></li> <li><i>- Unemployment Insurance Act, 1996</i></li> <li><i>- The Contractor shall in respect of the Site of the contract works appoint in writing a Section 16 appointee to meet the requirements of the Health and Safety Act, No 85 of 1993 as amended.</i></li> </ul> <p><b>8.6.8</b> <i>The Employer's Agent involved must furnish the required insurance documentation 30 (thirty) days before the inception of the contract to the Section: Insurance and Risk Management.</i></p> <p><b>8.6.9</b> <i>Reporting of incidents</i></p> <p><i>In the event of an occurrence, which is likely to give rise to a claim under the insurance policy affected by the Employer, the Contractor / Subcontractors and Employer's Agent will adhere to the following procedures:</i></p> <p><i>a. In addition to any statutory obligations and/or requirements contained in the General Conditions of Contract, the Contractor shall notify the Employer and the Employer's Agent of every occurrence within 48 (forty-eight) hours giving the circumstances, nature and an estimate of the loss or damage.</i></p> <p><i>b. The Employer's Agent will be responsible to complete and submit the relevant claim documentation for each incident within 30 (thirty) days after the incident occurred to the Section: Insurance and Risk Management. Should the incident be reported by the Employer's Agent more than 30 (thirty) days after the incident occurred to the Section: Insurance and Risk Management, the claim will only be considered if the claim documentation is accompanied by a letter from the relevant Strategic Executive Director motivating the reason(s) for the late reporting of the incident, but the Employer's Agent must take note the</i></p>
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		<p><i>Insurer might repudiate the loss if it is found that the insurers rights have been compromised as a result of the late reporting.</i></p> <p>c. <i>The following documentation must be included with the claim documentation:</i></p> <ul style="list-style-type: none"> <li>- <i>Photos of damages caused or suffered as proof or substantiation of the claims.</i></li> </ul> <p>d. <i>In the event of Insured Property being damaged during the Contract Works beyond economical repair, the property must be safeguarded and be handed over to the Employer's insurer for salvage.</i></p> <p>e. <i>The Section: Insurance and Risk Management will inform the Employer's insurer of the incident. The Contractor/Subcontractor shall afford all reasonable access to the Site to the Employer, the Employer's Agent, the Employer's insurers and/or representatives for the purpose of assessment of any loss or damage.</i></p> <p><b>8.6.10 Reporting of catastrophic incidents</b></p> <p><i>In the event of an occurrence, which is likely to give rise to a claim, under the insurance policy effected by the Employer, with an estimated loss or damage of more than R250 000,00, the Contractor and the Employer's Agent will adhere to the following procedures:</i></p> <p>a. <i>In addition to any statutory obligations and/or requirements contained in the General Conditions of Contract, the Contractor shall notify the Employer and the Employer's Agent of every occurrence within 24 (twenty-four) hours giving the circumstances, nature and an estimate of the loss or damage.</i></p> <p>b. <i>The Employer's Agent must notify the Section: Insurance and Risk Management on the same day that the Contractor/Sub-contractor has notified the Employer's Agent of the incident.</i></p> <p>c. <i>The Section: Insurance and Risk Management will notify the Employer's insurer of the incident. The Contractor/Sub-contractor shall afford all reasonable access to the Site to the Employer, the Employer's Agent, the Employer's insurers and/or representatives for the purpose of assessment of any loss or damage.</i></p> <p>d. <i>The Employer's Agent will be responsible to complete and submit the relevant claim documentation for each incident within 30 (thirty) days after the incident occurred to the Section: Insurance and Risk Management. Should the incident be reported by the Employer's Agent more than 30 (thirty) days after the incident occurred to the Section: Insurance and Risk Management, the claim will only be considered if the claim documentation is accompanied by a letter from the relevant Strategic Executive Officer motivating the reason(s) for the late reporting of the incident. Should the relevant claim documentation not be submitted within 30 (thirty) days, the claim will be repudiated.</i></p>
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		<p><b>8.6.11 Reporting of crime related incidents</b></p> <p><i>All crime related incidents, losses or shortages irrespective of the value, must be reported within 24 (twenty-four) hours by the person who was involved or who has discovered the incident to the nearest South African Police Services (SAPS) station. The name of the Police Station, Investigation Officer and the Case number must be obtained and stated on the Contractor Claim Form. Should the incident not be reported to the SAPS, the claim will be repudiated.</i></p> <p><b>8.6.12 Claim documentation</b></p> <p><i>The Employer's Agent must obtain all relevant information from the Contractor/Sub-contractor and complete the Contractor Claim Form, included in this report as Annexure B that is available on the Intranet. The project number must be stated on the Contractor Claim Form.</i></p> <p><i>The Employer's Agent must submit with the Contractor Claim Form a detailed cost sheet indicating the estimate of the loss or damage.</i></p> <p><i>Any misrepresentation, misdescription or non-disclosure of material facts, at the option of the insurers, can result in claims submitted being declared null and void.</i></p> <p><b>8.6.13 Authorization of claim forms</b></p> <p><i>It is imperative that a formally delegated official or his nominee of the Employer should authorize the Contractor Claim forms as proof of the appropriate authorization, verification and approval of claims submitted. The Divisional Head must provide an authorization letter to the Section: Insurance and Risk Management stating the names and the specimen signatures of the delegated official or his nominee within 30 (thirty) days from approval of this report by Council. Should the delegated official or his nominee not sign the relevant claim form, the claim will be repudiated as this may lead to inappropriate independent verification of the validity of claims, thereby increasing the risk of insurance fraud and consequent reputation damage to the Employer.</i></p> <p><b>8.6.14 Contractor to pay deductibles</b></p> <p><i>Any claim in terms of the insurance affected by the Employer shall be subject to the Contractor being responsible for the payment of the amount stated in the Annexure to the Policies as being the deductible (first amount payable or Excess) as defined in the Certificate of Insurance issued by the Employer's insurer in terms of the Policy.</i></p> <p><b>8.6.15 Settlement of claims</b></p> <p><i>All incidents reported to the Section: Insurance and Risk Management in respect of an occurrence, which is likely to give rise to a claim will be forwarded to the Employer's insurer who will take the necessary actions for the settlement of any such claims.</i></p>
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		<p><i>The Contractor <u>shall negotiate</u> for the settlement of claims with the Employer or the Employer's insurer through the Section: Insurance and Risk Management. The Employer's Chief Financial Officer will authorize all settlements of claims.</i></p> <p><i>Should action for the settlement of any such claim to the satisfaction of the Employer's Agent not be taken by the Contractor/sub-contractor within 30 (thirty) days after receipt of such claim by the Contractor/sub-contractor, the Employer or the Employer's insurer may settle any such claim, after giving the Contractor notice of its intention to do so; provided that no such claim shall be settled by the Employer or the Employer's insurer without first consulting the Contractor/sub-contractor.</i></p> <p><i>The foregoing provisions of this Sub-Clause shall apply mutatis mutandis to any such claim received by the Contractor directly.</i></p>
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### C1.2.3 DATA PROVIDED BY THE EMPLOYER

CLAUSE/OPTION		DATA																							
1.1.1.13	The Defects Liability period is:	12 (twelve) months from the date of the Certificate of Completion.																							
1.1.1.14	The time for achieving Practical Completion is:	Due Completion Date is 16 months from Commencement Date																							
1.1.1.15	The name of the Employer is:	City of Tshwane Metropolitan Municipality.																							
1.1.1.26	The Pricing Strategy is:	Re-measurement Contract																							
1.2.1.2	The address of the Employer is:	Physical Address:	Capitol Towers North, 225 Madiba (Vermeulen) Street, Pretoria																						
		Postal Address:	P.O. Box 1409 PRETORIA 0001																						
1.1.1.16	The name of the Employer's Agent is:	Afrisa Consulting (Pty) Ltd																							
1.2.1.2	The address of the Employer's Agent is:	Physical Address:	23 VENTER STREET MBOMBELA 1201																						
		Postal Address:	POSTNET SUITE 26, PRIVATE BAG X11326 MBOMBELA 1200																						
		E-Mail Address:	info@afrixa.net																						
3.1.3		<ul style="list-style-type: none"><li>The Employer's Agent is required to obtain approval of the Employer:<ul style="list-style-type: none"><li>for expenditure on the Contract to exceed the Contract Price;</li><li>prior to the execution of any of the following duties of functions:</li></ul></li></ul> <table><tr><th>CLAUSE</th><th>DUTY/FUNCTION</th></tr><tr><td>3.2.1</td><td>Nomination of person as Employer's Agent's Representative</td></tr><tr><td>3.3.4</td><td>Authorization to Employer's Agent's Representative or any other person</td></tr><tr><td>4.10.1</td><td>Approval to use the Site for any other purpose such as housing</td></tr><tr><td>5.3.1</td><td>Delivery of the written notice to commence the execution of the works</td></tr><tr><td>5.6.3</td><td>Approval of programme of construction</td></tr><tr><td>5.7.2</td><td>Permission to carry out work by day and by night</td></tr><tr><td>5.8.1.1</td><td>Approval to work on special non-working days and between sunset and sunrise</td></tr><tr><td>5.9.7</td><td>Approval of Contractor's designs</td></tr><tr><td>5.11</td><td>Suspension of progress of the Works</td></tr><tr><td>5.13.2</td><td>Reduction of penalty for delay</td></tr></table>		CLAUSE	DUTY/FUNCTION	3.2.1	Nomination of person as Employer's Agent's Representative	3.3.4	Authorization to Employer's Agent's Representative or any other person	4.10.1	Approval to use the Site for any other purpose such as housing	5.3.1	Delivery of the written notice to commence the execution of the works	5.6.3	Approval of programme of construction	5.7.2	Permission to carry out work by day and by night	5.8.1.1	Approval to work on special non-working days and between sunset and sunrise	5.9.7	Approval of Contractor's designs	5.11	Suspension of progress of the Works	5.13.2	Reduction of penalty for delay
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CLAUSE/OPTION		DATA	
		5.14.2	The issue of a Certificate of Practical Completion
		5.14.4	The issue of a Certificate of Completion
		5.16.1	The issue of a Final Approval Certificate
		6.3.1	Variation Orders in respect of variations which are not small
		6.6	Instruction to expend on Provisional and Prime Cost Sums
		6.11	Adjustment of Preliminary and General allowances
		7.8.1	Order to execute work of repair, etc. during the Defects Liability Period
		7.8.2	Determination of value of repair work
		8.2.2.2	Order to repair and make good damage arising from any excepted risk
5.3.1	The documentation required before commencement with Works execution are:	<ul style="list-style-type: none"> <li>• Health and Safety Plan (Refer to Clause 4.3)</li> <li>• Initial programme (Refer to Clause 5.6)</li> <li>• Security (Refer to Clause 6.2)</li> <li>• Proof that all contributions required in terms of the provisions of the Workman's Compensation Act (Act no 30 of 1941) as amended in 1993, 2002 have been paid (Refer to Cause 4.3.2)</li> <li>• A certified copy of Unemployment Insurance Certificate, Act of 1996 (Refer to Clause 4.3.2)</li> </ul>	
5.3.2	The time to submit the documentation required from the Commencement Date is:	<b>14 days</b>	
5.8.1	The non-working days are:	Sundays	
	The special non-working days are:	<ul style="list-style-type: none"> <li>• Annual builders holiday</li> <li>• Statutory public holidays</li> </ul>	
5.13.1	The penalty for failing to complete the works is:	<b>The penalty will be R5000/day.</b>	
5.14.1	Requirements for achieving Practical Completion	<ul style="list-style-type: none"> <li>• Layer works, Surfacing, Pre-marking, Road signs</li> <li>• All storm water systems, inlets, outlets, junction boxes and manholes must be completed.</li> </ul>	
5.16.3	The latent defect period is:	<b>10 (ten) Years</b>	
6.1.3	Labour returns:	Labour returns will be submitted <b>monthly</b> .	
6.2.1	Type of security for due performance:	<ul style="list-style-type: none"> <li>• Fixed Performance Guarantee from approved financial institution or Cash Deposit.</li> <li>• The forms for the Guarantees is to contain the wording of the pro forma document included as <b>C1.3</b> or <b>C1.4</b> contained herein.</li> </ul>	
	Liability of performance guarantee/cash deposit	The liability of the guarantee shall be for <b>10 (ten) %</b> of the Contract Sum, excluding contingencies and VAT.	
6.2.2	Retention money guarantee	<b>Not permitted</b>	

CLAUSE/OPTION		DATA																		
6.8.2	Adjustment in rates and/or prices	<ul style="list-style-type: none"> <li>The value of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following values: <table border="1"> <thead> <tr> <th>Coefficient</th><th>Description</th><th>Value</th></tr> </thead> <tbody> <tr> <td><i>x</i></td><td>Portion not subject to adjustment</td><td><b>0.10</b></td></tr> <tr> <td><i>a</i></td><td>Labour</td><td><b>0.21</b></td></tr> <tr> <td><i>b</i></td><td>Civil Engineering Plant</td><td><b>0.27</b></td></tr> <tr> <td><i>c</i></td><td>Civil Engineering Materials</td><td><b>0.42</b></td></tr> <tr> <td><i>d</i></td><td>Fuel</td><td><b>0.10</b></td></tr> </tbody> </table> <p>(Coefficients a, b, c and d must sum to one)</p> </li> <li>The area nearest the Site is <b>Gauteng</b>.</li> <li>The base month is <b>the month and year prior to the closing of the tender</b>.</li> </ul>	Coefficient	Description	Value	<i>x</i>	Portion not subject to adjustment	<b>0.10</b>	<i>a</i>	Labour	<b>0.21</b>	<i>b</i>	Civil Engineering Plant	<b>0.27</b>	<i>c</i>	Civil Engineering Materials	<b>0.42</b>	<i>d</i>	Fuel	<b>0.10</b>
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6.8.3	Price adjustment for variations in the cost of special materials	<b>Allowed</b>																		
6.10.1.5	The percentage on materials not yet built into the Permanent Works is:	<b>80% (Eighty percent)</b>																		
6.10.3	Percentage retention is:	<b>10% (ten percent) of the value of works, excluding contingencies and VAT</b>																		
	The limit of retention money is:	<b>5% (five percent) of Contract Sum, excluding contingencies and VAT.</b>																		
8.6	Insurance of the Works and Public Liability Insurance	<p>The Employer shall arrange this insurance.</p> <p>A copy of the policy and the list of excesses may be obtained from</p> <p><b>Contractors All Risk and Liability Insurance</b>  Ms. Morongwa Mokoena (Tel: 012 358 1126) (<a href="mailto:morongwam@tshwane.gov.za">morongwam@tshwane.gov.za</a>)  Mrs Ronett Marlow-Reid (Tel: 012 358 1131) (<a href="mailto:ronettm@tshwane.gov.za">ronettm@tshwane.gov.za</a>)  Mr Lawrence Matjila (Tel: 012 358 1374) (<a href="mailto:lawrencem@tshwane.gov.za">lawrencem@tshwane.gov.za</a>)</p>																		
	The value of plant and materials supplied by the Employer to be included in the insurance sum is:	<b>R 0 (zero)</b>																		
	Responsibility for payment of deductibles in respect of Insurance of Works as well as Public Liability Insurance:	Deductibles are the responsibility of the Contractor																		
	Construction Plant:	Contractor to insure. Policy to be approved by Employer																		
10.5	Determination of disputes	<b>Ad-hoc</b> Adjudication Board																		
10.5.3	Number of Adjudication Board members to be appointed:	<b>One</b>																		

Contract: **RTD 03-2025/2026:** Tender for the appointment of a Contractor for the Upgrading of Roads and Stormwater Systems in Mahube Valley – Phase 3 for a period of 16 Months

Part C1: Agreement and Contract Data

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CLAUSE/OPTION		DATA
10.6	Disagreement with Adjudication Board's decision, refer matters to:	Court proceedings

#### C1.2.4 DATA PROVIDED BY THE CONTRACTOR

CLAUSE/OPTION		DATA		
1.1.1.9	The name of the Contractor is:			
1.2.1.2	The address of the Contract is:	<ul style="list-style-type: none"> <li>Physical Address:</li> </ul>		
		<ul style="list-style-type: none"> <li>Postal Address:</li> </ul>		
		<ul style="list-style-type: none"> <li>Fax to E-Mail:</li> </ul>		
		<ul style="list-style-type: none"> <li>E-Mail Address:</li> </ul>		
6.2.1	The security to be provided by the Contractor shall be one of the following:	Type of Security	Contractor's choice (Indicate "Yes" or "No")	
		Performance guarantee <b>(10% (ten percent))</b> of the Contract Sum, excluding contingencies ad VAT)		
		Cash deposit <b>(10% (ten percent))</b> of the Contract Sum, excluding contingencies and VAT)		
6.5.1.2.3	The percentage allowance to cover profits and overhead charges for dayworks is:	<p>_____ %. (Maximum of <b>15%</b> will be allowed)</p> <p><i>(In the case of the Contractor not providing a percentage the percentage as per the General Conditions of Contract will prevail)</i></p>		
6.8.3	Price adjustments for variations in the cost of special materials	The variation in cost of special materials is:		
		<b>Type of material</b>	<b>Unit</b>	<b>Base Rate or Price</b>
		Bitumen		
		Steel		

## C1.3 PERFORMANCE GUARANTEE

### C1.3 PERFORMANCE GUARANTEE

WHEREAS

**The City of Tshwane Metropolitan Municipality**

(hereinafter referred to as the "Council"),

enters into a Contract (No \_\_\_\_\_) with

\_\_\_\_\_  
(hereinafter referred to as the "Contractor")

for \_\_\_\_\_

AND WHEREAS in terms of the General Conditions of the Contract the Contractor is required to furnish an acceptable independent guarantee for the due and proper fulfilment by him of all his duties and obligations in terms of the said contract.

NOW THEREFORE we the undersigned \_\_\_\_\_  
\_\_\_\_\_ (full names of authorized agent(s))

and acting in my/our capacity as \_\_\_\_\_

and \_\_\_\_\_

and as such duly authorized thereto, do hereby bind the said \_\_\_\_\_

(hereinafter referred to as the "Guarantor") as surety and co-principal Debtor in solidum for the sum of

R \_\_\_\_\_ (\_\_\_\_\_)

for the due and proper fulfilment by the Contractor of all or any of his duties and obligations in terms of the said Contract. The guarantee shall not be interpreted as accessory to the contract between Council and the Contractor. The Guarantor further undertakes, in the event of the Contractor failing duly and properly to fulfil any of his duties and obligations in terms of the said Contract, or if the Contractor is placed under provisional liquidation or in the event of termination of the Contract by the Council in terms of the General Conditions of Contract, to pay to the Council the said sum of

R \_\_\_\_\_ (\_\_\_\_\_)

or such portion thereof as may be required by the Council, immediately upon receiving written demand from the Council which written demand shall be addressed to the Guarantor at (domicilium address)

The Guarantor further hereby renounces the benefits of the legal exceptions:

Exceptio non numerate pecuniae

Exception non causa debiti

*Beneficium de duobus vel pluribus reis debendi*

*Beneficium ordinis deu excussionis*

*Beneficium divisionis*

and all other defence which could be pleaded against the validity of this guarantee, with the meaning and effect of which it declares itself to be fully acquainted.

This undertaking shall remain in full force and effect up to and including the date of issue of the Certificate of Completion, as provided for in the General Conditions of Contract, unless the Guarantor is advised in writing by the Council of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated. Notwithstanding the aforesaid, the Council may at its' sole discretion elect to have the amount provided for under this guarantee, paid out directly to it in the case of breach of contract by the Contractor by giving the Guarantor written notice to that effect, notwithstanding the fact that the Council may decide not to institute any further legal action against the Contractor.

This document is not negotiable or transferable.

**FOR AND ON BEHALF OF THE BANKER/INSURER:**

BANKER/INSURER:

NAME: \_\_\_\_\_  
(in BLOCK letters)

CAPACITY: \_\_\_\_\_  
(of authorized agent)

SIGNATURE: \_\_\_\_\_  
(of authorized agent)

SIGNED at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_

WITNESSES:

(Full name in BLOCK letters and signature)

1. \_\_\_\_\_

2. \_\_\_\_\_



## C1.4 CASH DEPOSIT GUARANTEE

Contract:	Contract RTD03-2025/2026
Description of Contract:	Tender for the appointment of a Contractor for the Upgrading of Roads and Stormwater Systems in Mahube Valley – Phase 3 for a period of 16 Months
Employer:	<b>CITY OF TSHWANE METROPOLITAN MUNICIPALITY</b>
Contractor:	

I/We, the undersigned, deposit herewith <sup>1</sup>cash / a bank certified cheque, in the amount of

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as surety for the due performance of the Contract by the abovementioned Contractor, and for all losses, damages and expenses that may be suffered or incurred by the Employer as a result of non-performance of the Contract by the Contractor.

The amount thus deposited shall at the sole discretion of the above Employer be utilised and appropriated in the manner it deems fit which shall include but not be limited to the set off of claims upon occurrence of any one or more of the following events:

- (a) the Contractor being placed under provisional liquidation or committing any one or more of the acts of insolvency as provided for in the Insolvency Act, 1936 (Act 24 of 1936);
- (b) failure to comply with the conditions of the contract by the contractor; or
- (c) if the contract is terminated.

A letter received from the Employer stating that any one or more of the aforementioned has occurred shall be sufficient notice to effect appropriation of such deposit. A certificate under the hand of the Employer's Agent as defined under the contract described above reflecting the amount of damages shall for all purposes be deemed to be sufficient to proof to do a set off of claims

The deposit shall, subject to the above, be returned to the Contractor on the issue of the Completion Certificate in terms of the Contract, unless the Employer has utilised and / or appropriated the monies as provided for above.

---

<sup>1</sup> Delete which is not applicable

Contract: **RTD 03-2025/2026:** Tender for the appointment of a Contractor for the Upgrading of Roads and Stormwater Systems in Mahube Valley – Phase 3 for a period of 16 Months

Part C1: Agreement and Contract Data

---

**FOR AND ON BEHALF OF THE CONTRACTOR:**

NAME:

(in BLOCK letters)

---

CAPACITY:

(of authorized agent)

---

SIGNATURE:

(of authorized agent)

---

SIGNED at

---

on this

---

day of

---

WITNESSES:

(Full name in BLOCK letters and signature)

1.

---

---

2.

---

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## C1.5 HEALTH AND SAFETY AGREEMENT

Article of Agreement in terms of Section 37(2) of the Occupational Safety Act, 1993 between

**CITY OF TSHWANE**  
(Hereinafter referred to as the “EMPLOYER”)

AND

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Herein represented by \_\_\_\_\_ in his/her capacity as \_\_\_\_\_ duly authorised by  
virtue of a resolution dated \_\_\_\_\_, attached hereto Annexure A, of the said  
\_\_\_\_\_ (herein after referred to as the “CONTRACTOR”)

WHEREAS the CONTRACTOR is the mandatory of the EMPLOYER as contemplated in an agreement in respect of

**RTD 03-2025/2026: Tender for the appointment of a Contractor for the Upgrading of Roads and Stormwater Systems in Mahube Valley – Phase 3 for a period of 16 Months**

AND WHEREAS section 37 of the Occupational Health and Safety act, 1993 (Act 85 of 1993), hereinafter referred to as the “ACT”), imposes certain powers and duties upon the EMPLOYER.

AND WHEREAS the parties have agreed to enter into an agreement in terms of section 37(2) of the ACT.

NOW THEREFORE the parties agree as follows:

- (a) The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
- (b) The CONTRACTOR undertakes that all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations will be fully complied with. Provided that should the EMPLOYER prescribe certain arrangements and procedures, that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
- (c) The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedure, if any, imposed by the ACT and Regulations and the EMPLOYER expressly absolves the EMPLOYER from itself being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedure as the case may be.
- (d) The CONTRACTOR agrees that any duly authorised officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with the undertakings as more fully set out in paragraphs 1 and 2 above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to inspect

any appropriate records held by the CONTRACTOR or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.

- (e) The CONTRACTOR shall be obliged to report forthwith to the EMPLOYER any investigations, complaint or criminal charge which may arise as a consequence of the provisions of the ACT and Regulations, pursuant to work performed in terms of this agreement, and shall, on written demand, provide full details in writing of such an investigation, complaint or criminal charge as the case may be

**FOR AND ON BEHALF OF THE CONTRACTOR:**

NAME:

(in BLOCK letters)

---

CAPACITY:

(of authorized agent)

---

SIGNATURE:

(of authorized agent)

---

SIGNED at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_

WITNESSES:

(Full name in BLOCK letters and signature)

1. \_\_\_\_\_

2. \_\_\_\_\_

**FOR AND ON BEHALF OF THE EMPLOYER:**

NAME:

(in BLOCK letters)

---

CAPACITY:

(of authorized agent)

---

SIGNATURE:

(of authorized agent)

---

SIGNED at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_

WITNESSES:

(Full name in BLOCK letters and signature)

1. \_\_\_\_\_

2. \_\_\_\_\_

## **C1.6 APPLICATION FOR A PERMIT TO DEPARTMENT OF LABOUR TO DO CONSTRUCTION WORK**

### **Annexure 1**

#### **Occupational Health and Safety Act, 1993 (Regulation 3(2) of the Construction Regulations, 2014)**

#### **APPLICATION FOR A PERMIT TO DO CONSTRUCTION WORK**

This application must be submitted with the following documents:

- a) Health and Safety specification
- b) Health and Safety plan
- c) Baseline risk assessment.

**1. Name, postal address and telephone numbers of the client**

---

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**2. Details of the agent**

(a) Title, Surname and initials:

---

(b) Identity number / Passport number:

---

(c) Registration number with SACPCMP:

---

(d) Office Tel. Number and/or Mobile number:

---

(e) Postal address:

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**3. Name, postal address and telephone numbers of the principal contractor**

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**4. Name, postal address and telephone numbers of the designer of the project**

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**5. Name, Postal address and telephone numbers of the following persons**

(a) Construction Manager:

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(b) Construction Health and Safety Officer

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---

(c) Construction Health and Safety Officer

---

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**6. Exact physical address of the construction and site office**

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**7. Nature of construction work**

---

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**8. Expected commencement date**

---

**9. Expected completion date**

---

**10. Estimated maximum number of persons on the construction site:**

---

**11. Planned number of contractors on the construction site accountable to the principal contractor:**

---

**12 Names(s) of contractors appointed**

---

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**18. Signature of Client / Client's Agent**

---

**19. Signature of the Principal Contractor**

<b>FOR OFFICE USE ONLY</b>					
Authorization / Unique No.	LABOUR CENTRE	OFFICE APPROVAL STAMP			
<b>13. Date of application:</b> _____					
<b>14. Submitted documents prescribed in Construction Regulation 5(4). (Please tick v)</b>					
CR 5(1)(a)		CR 5(1)(b)		CR 5(1); (C-S)	
<b>15. Result of the application. (Please tick v)</b>					
<b>Approved</b>			<b>Declined</b>		
<b>16. Reason for declining the application</b>					
<b>17 Signature of the Supervisor:</b> _____					
<b>18 Signature of revoking officer / inspector:</b> _____					

## C1.7 ADJUDICATOR'S AGREEMENT

This agreement is made on the \_\_\_\_\_ day of \_\_\_\_\_ between:

\_\_\_\_\_ (name of company / organisation)

of \_\_\_\_\_

\_\_\_\_\_ (address) and

\_\_\_\_\_ (name of company / organisation)

of \_\_\_\_\_

\_\_\_\_\_ (address) (the

Parties) and

\_\_\_\_\_ (name of Adjudicator)

of \_\_\_\_\_

\_\_\_\_\_ (address) (the

Adjudicator).

Disputes or differences may arise/have arisen<sup>1</sup> between the Parties under a Contract dated \_\_\_\_\_ and known as \_\_\_\_\_

and these disputes or differences shall be/have been<sup>2</sup> referred to adjudication in accordance with the CIDB Adjudication Procedure, (hereinafter called "the Procedure") and the Adjudicator may be or has been requested to act.

**IT IS NOW AGREED** as follows:

- 1 The rights and obligations of the Adjudicator and the Parties shall be as set out in the Procedure.
- 2 The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.
- 3 The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure as set out in the Contract Data.
- 4 The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
- 5 The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

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<sup>1</sup> Delete as necessary

<sup>2</sup> Delete as necessary



SIGNED by:

Name:

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

Witness

Name:

Address:

Date:

SIGNED by:

Name:

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

Witness:

Name

Address:

Date:

SIGNED by:

Name:

the Adjudicator in the presence of

Witness:

Name:

Address:

Date:

#### Contract Data

1	The Adjudicator shall be paid at the hourly rate of R _____ in respect of all time spent upon, or in connection with, the adjudication including time spent travelling.
2	The Adjudicator shall be reimbursed in respect of all disbursements properly made including, but not restricted to: (a) Printing, reproduction and purchase of documents, drawings, maps, records and photographs. (b) Telegrams, telex, faxes, and telephone calls. (c) Postage and similar delivery charges. (d) Travelling, hotel expenses and other similar disbursements. (e) Room charges. (f) Charges for legal or technical advice obtained in accordance with the Procedure.
3	The Adjudicator shall be paid an appointment fee of R _____. This fee shall become payable in equal amounts by each Party within 14 days of the appointment of the Adjudicator, subject to an Invoice being provided. This fee will be deducted from the final statement of any sums which shall become payable under item 1 and/or item 2 of the Contract Data. If the final statement is less than the appointment fee the balance shall be refunded to the Parties.
4	The Adjudicator is/is not <sup>1</sup> currently registered for VAT.
5	Where the Adjudicator is registered for VAT it shall be charged additionally in accordance with the rates current at the date of invoice.
6	All payments, other than the appointment fee (item 3) shall become due 7 days after receipt of invoice, thereafter interest shall be payable at 5% per annum above the Reserve Bank base rate for every day the amount remains outstanding.

<sup>1</sup> Delete as necessary

## **PART C2: PRICING DATA**

### **TABLE OF CONTENTS**

<b>C2.1</b>	<b>PRICING INSTRUCTIONS</b>	<b>2</b>
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<b>C2.2</b>	<b>PRICING SCHEDULE</b>	<b>5</b>

## C2.1 PRICING INSTRUCTIONS

### 1. General

- 1.1 This section provides the tenderer with guidelines and requirements with regard to the completion of the Price Schedule. The Schedule **shall be completed by hand in black ink** and the tenderer is referred to the Tender Specifications in regard to the correction of errors.
- 1.2 The Price Schedule shall be read with all the documents which form part of this Contract.
- 1.3 The following words shall have the meanings hereby assigned to them:
- |           |  |
|-----------|--|
| Unit:     | The unit of measurement for each item of work in terms of the Specifications and the Project Specifications.   |
| Quantity: | The number of units of work for each item.   |
| Rate:     | The payment per unit of work at which the tenderer tenders to do the work.   |
| Amount:   | The product of the quantity and the rate tendered for an item.   |
| Lump sum: | An amount tendered for an item, the extent of which is described in the Price Schedule, the Specifications and the Project Specifications, but the quantity of work of which is not measured in any units. |
- 1.4 Reference shall be made to the General and Special Conditions of Contract regarding Provisional and Prime Costs Sums.
- 1.5 Work reserved for Labour Intensive construction methods will be numbered with a prefix “LI” in the Price Schedule to distinguish them from the conventional construction works. Such work shall be constructed using local labour who is temporarily employed in terms of the project specification.

### 2. Pay Items

- 2.1 Descriptions in the Price Schedule are abbreviated and comply generally with those in the Standard Specifications. The measurement and payment clause of each Standard Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standard Specification, or the Scope of Work, conflict with the terms of the Price Schedule, the requirements of the Standard Specification or Scope of Work, as applicable, shall prevail.
- 2.2 The item numbers appearing in the Price Schedule refer to the corresponding item number in the standard specifications or as amended in the Scope of Work. In the latter case, the item number is prefixed with the letter “B”. The same applies to new clauses added to the standard specifications. The prefix “LI” is simply highlighting that the item is to be done using labour intensive methods.
- 2.3 Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
- 2.4 The quantities set out in the Price Schedule are the estimated quantities of the Works, but the Contractor will be required to undertake whatever quantities may be directed by the Engineer from time to time. The Contract Price for the completed contract shall be computed from the actual quantities of work done, valued at the relevant unit rates and prices.

2.5 The units of measurement described in the Price Schedule are metric units. Abbreviations used in the Price Schedule are as follows:

mm	=	Millimetre	h	=	per hour
m	=	Metre	kg	=	kilogram
km	=	Kilometre	t	=	ton (metric = 1000kg)
m <sup>2</sup>	=	square metre	no	=	number
m <sup>2</sup> .pass	=	square metre pass	sum	=	sum
ha	=	Hectare	MN	=	mega newton
m <sup>3</sup>	=	cubic meter	MN.m	=	mega newton metre
m <sup>3</sup> .km	=	cubic meter kilometre	PC sum	=	prime cost sum
ℓ	=	Litre	prov sum	=	provisional sum
kℓ	=	Kilolitre	%	=	percent
MPa	=	mega pascal	kW	=	kilowatt
V	=	Volt	KVA	=	kilo volt ampere
A	=	Ampere	R/only	=	rate only
month	=	per month	pe	=	per establishment
day	=	per day	pm	=	per person per month
pd	=	per person per day	p	=	per person
ph	=	per person per hour			

### 3. Rates

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

3.2 **A price or rate is to be entered against each item in the Price Schedule, whether the quantities are stated or not.**

**An item against which no price is entered or where a word or phrase such as “included” or “provided elsewhere” will be accepted as a rate of nil (R0,00) having been entered against such items and covered by the other prices or rates in the Schedule.**

**Any work executed to which such a pay item applies, shall be measured under the appropriate items in the Price Schedule and valued at a rate of nil (R0,00). The rate of nil shall be valid irrespective of any change in the quantities during the execution of the Contract.**

3.3 The Tenderer shall fill in a rate against all items where the words “rate only” appears in the amount column. The intention is that, although no work is foreseen under such item and no quantities are consequently given in the quantity column, the tendered rate shall apply should work under this item be actually required.

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

- 3.5 The tenderer shall not group together a number of items and tender one rate for such group of items.
- 3.6 The tenderers shall be requested to supply three (3) quotations on each provisional sums items provided as and when needed. The service provider will be required to provide a minimum of three ( 3) quotations every time he is allocated work depending on the available budget and scope thereof. The approved quotation will be taken as a lump sum for that specific period only and paid for according to the CTMM Standard Specifications for Civil Engineering works 2005 or as specified in terms of a “B” item.
- 3.7 All rates and sums of money quoted in the Price Schedule shall be in rands and whole cents. Fractions of a cent shall be discarded.
- 3.8 All prices and rates entered in the Price Schedule must be **excluding VAT**. VAT will be added last on the summary page of the Price Schedule.
- 3.9 Should excessively high unit prices be tendered, such prices may be of sufficient importance to warrant rejection of a tender by the Employer.

**4. Corrections of entries made by tenderer**

Any entry made by the Tenderer in the Price Schedule, forms, etc., which the tenderer desires to change, **shall not be erased or painted out. A line shall be drawn through the incorrect entry and the correct entry shall be hand written above in black ink and the full signature of the Tenderer shall be placed next to the correction.**

## C2.2 PRICING SCHEDULE

### C2.2 PRICING SCHEDULE

#### SERIES 0 GENERAL

SECTION 001	GENERAL REQUIREMENTS AND CHARGES
SECTION 002	ENGINEER'S ACCOMMODATION
SECTION 003	TRAINING

#### SERIES 1 ANCILLARY WORK

SECTION 101	SITE CLEARING AND GRUBBING
SECTION 102	ACCOMMODATION OF TRAFFIC
SECTION 104	LANDSCAPING
SECTION 106	SERVICE DUCTS
SECTION 107	DAYWORKS

#### SERIES 2 EARTHWORKS

SECTION 202	TRENCH EXCAVATION
SECTION 203	MASS EARTHWORKS

#### SERIES 3 SEWER

SECTION 302	SEWER NETWORK
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#### SERIES 4 WATER

SECTION 402	WATER NETWORK
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#### SERIES 5 DRAINAGE AND EROSION PROTECTION

SECTION 501	SUBSURFACE DRAINS AND DRAINAGE BLANKETS
SECTION 502	PREFABRICATED CULVERTS, STORMWATER
SECTION 503	KERBING AND CHANNELLING
SECTION 505	EROSION PROTECTION

#### SERIES 6 ROADS AND PARKING AREAS

SECTION 601	GRAVEL PAVEMENT LAYERS
SECTION 602	CRUSHED-STONE PAVEMENT LAYERS
SECTION 603	UNPAVED AREAS
SECTION 604	STABILISATION
SECTION 605	PRIME COAT
SECTION 606	ASPHALT BASE AND SURFACING
SECTION 608	ROAD AND SURFACING REHABILITATION
SECTION 612	TRAFFIC SIGNS
SECTION 613	TRAFFIC MARKINGS

#### SERIES 9 QUALITY CONTROL

SECTION 903	TESTING
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ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 0</b>	<b>GENERAL</b>				
<b>Section 001</b>	<b>General Requirements and Charges</b>				
<b>001.01</b>	<b>Preliminary and General Charges:</b>				
001.01.01	Fixed charges	lump sum	1		
001.01.02	Time-related charges	lump sum	1		
001.02	Locate existing services	Lump Sum	1		
LI 001.03	Excavate by hand to expose existing services and backfill	m <sup>3</sup>	200		
<b>001.04</b>	<b>Compliance with the Occupational Health and Safety Act and applicable regulations</b>				
001.04.01	Provision of a Health and Safety Plan	Lump Sum	1		
001.04.02	Provision of a Health and Safety File	Lump Sum	1		
001.04.03	Provision of construction supervisors	Lump Sum	1		
001.04.04	Provision of a safety officer (full time)	Lump Sum	1		
001.04.05	Health and safety training	Lump Sum	1		
001.04.06	Provision of personal protective clothing and equipment	lump sum	1		
001.04.07	Provision of safety fences, signs and barricades	lump sum	1		
<b>001.05</b>	<b>Community liaison officer</b>				
001.05.01	Monthly Wage Task 5 Level rate p/m	Month	16	16 120,00	257 920,00
001.05.02	Percentage on item B001.05.01 for charges and profit	%	16 120		
<b>B001.06</b>	<b>Occupational Health and Safety Officer</b>				
B001.06.01	Occupational Health and Safety Officer expenses	Prov Sum	1	15 000,00	15 000,00
B001.06.02	Percentage on item B001.06.01 for charges and profit	%			
<b>TOTAL CARRIED FORWARD</b>					
Signature of person authorised to sign the tender:					
				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>TOTAL BROUGHT FORWARD</b>					
<b>B001.07</b>	<b>Relocation and protection of of existing services</b>				
<b>B001.07.01</b>	<b>Prime cost sum for existing services to be relocated and / or protected during construction</b>				
B001.07.01.01	Telkom services	PC Sum	1	200 000,00	200 000,00
B001.07.01.02	Electrical Services	PC Sum	1	300 000,00	300 000,00
B001.07.01.03	Water and Sanitation Services	PC Sum	1	200 000,00	200 000,00
B001.07.01.04	Neotel Services	PC Sum	1	150 000,00	150 000,00
B001.07.01.05	Other Services	PC Sum	1	150 000,00	150 000,00
B001.07.02	Handling cost and profit in respect of subitem B001.07.01	%	1 000 000,00		
B001.08	Contract Notice Board (See Drawing STD-001 sheet 1)	no	3		
<b>B001.09</b>	<b>Provisional sum for the temporary demolishing and reconstruction of private structures and/ or compensation</b>				
B001.09.01	Costs incurred for crossing private property	Prov Sum	1	300 000,00	300 000,00
B001.09.02	Percentage on item B001.09.01 for charges and profit	%	300 000		
<b>TOTAL CARRIED FORWARD</b>					



Signature of person authorised to sign the tender:	Date
--	------

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 0</b>	<b>GENERAL</b>				
<b>Section 002</b>	<b>Engineer's Accommodation</b>				
<b>002.01</b>	<b>Services</b>				
002.01.01	Services for offices and laboratories	Lump Sum	1		
002.01.02	Services for ablution facilities on site for the Engineer's site staff	Lump Sum	1		
002.02	Treatment and maintenance of areas surrounding offices and laboratories	Lump Sum	1		
<b>B002.03</b>	<b>Office and accommodation</b>				
B002.03.01	Provision of office accommodation, including fittings, furniture and equipment as specified	Lump Sum	1		
002.04	Provision of survey equipment and assistants	Lump Sum	1		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 0</b>	<b>GENERAL</b>				
<b>Section 003</b>	<b>TECHNICAL TRAINING</b>				
B003.01	CETA Accredited Technical Skills training of labour - seconded labour	Prov sum	1	500 000,00	500 000,00
B003.02	Percentage on item B003.01 for charges and profit	%	500 000		
B003.03	CETA Accredited Technical Skills training of labour - non seconded labour	Prov sum	1	200 000,00	200 000,00
B003.04	Percentage on item B003.01 for charges and profit	%	200 000		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:					
				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 1</b>	<b>ANCILLARY WORK</b>				
<b>Section 101</b>	<b>Site Clearing and Grubbing</b>				
101.01.01	Areas	m <sup>2</sup>	10 250		
101.01.02	Strips (5m wide)	m	1 070		
<b>101.02</b>	<b>Cutting and removing large trees with a girth -</b>				
101.02.01	exceeding 1m and up to and including 2m	no	12		
101.02.02	exceeding 2m and up to and including 3m	no	6		
<b>101.03</b>	<b>Grubbing and the removal of the stumps and roots of large trees with girth -</b>				
101.03.01	exceeding 1m and up to and including 2m	no	12		
101.03.02	exceeding 2m and up to and including 3m	no	6		
<b>101.04</b>	<b>Re-clearing of areas (only on the written instructions of the Engineer)</b>				
101.04.01	Strips	m	150		
101.04.02	Areas not classified as strips	m <sup>2</sup>	650		
<b>101.05</b>	<b>Removal and disposal of specific elements</b>				
101.05.01	Concrete kerbing / kerbing combinations	m	250		
101.05.02	Concrete or brick elements				
LI 101.05.02.01	230mm brickwork	m <sup>2</sup>	200		
LI 101.05.02.02	115mm brickwork	m <sup>2</sup>	120		
101.05.02.04	Concrete elements (unreinforced)	m <sup>3</sup>	85		
101.05.02.05	Concrete elements (reinforced)	m <sup>3</sup>	60		
101.05.03	Asphalt surfacing	m <sup>2</sup>	507		
LI B101.05.04	Interlocking / non-interlocking paving blocks	m <sup>2</sup>	360		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 1</b>	<b>ANCILLARY WORK</b>				
<b>Section 102:</b>	<b>Accommodation of Traffic</b>				
B102.01	Accommodation of traffic	Lump Sum	1		
<b>102.12</b>	<b>Provision of temporary bridges for maintaining access to properties</b>				
102.12.01	Temporary pedestrian bridges	no	3		
102.12.02	Temporary vehicular bridges	no	3		
<b>102.13</b>	<b>Moving of temporary bridges to and re-erection in entirely new positions</b>				
102.13.01	Temporary pedestrian bridges	no	3		
102.13.02	Temporary vehicular bridges	no	3		
<b>102.14</b>	<b>Temporary traffic-control facilities</b>				
B102.14.01	Flagmen	Lump Sum	1		
102.14.02	Portable Stop and Go signs	no	6		
102.14.03	Amber flashing lights	no	6		
102.14.04	Road signs, TR-series, 1200mm in diameter or 900mm x 675mm if rectangular	no	10		
102.14.05	Road signs, TW-series, 1524mm sides	no	10		
102.14.06	Road signs, TG-series	m <sup>2</sup>	20		
102.14.07	Danger plates and delineators	no	120		
102.14.08	Moveable barricade / road sign combination	no	10		
102.14.09	Traffic cones	no	50		
102.14.10	Movable Barriers (2m nominal lengths)	no	20		
<b>102.15</b>	<b>Re-use or removal of traffic-control facilities</b>				
102.15.01	Amber flashing lights	no	24		
102.15.02	Road signs, TR and TW series	no	80		
102.15.03	Road signs, TG-series	no	80		
102.15.04	Danger plates and delineators	no	480		
102.15.05	Movable Barriers (2m nominal lengths)	no	80		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:					
				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 1</b>	<b>ANCILLARY WORK</b>				
<b>Section 104</b>	<b>Landscaping and Grassing</b>				
<b>104.01</b>	<b>Trimming</b>				
104.01.02	Hand trimming	m <sup>2</sup>	6 300		
<b>104.03</b>	<b>Preparing areas for grassing and ground covers</b>				
<b>104.03.02</b>	<b>Top soiling on the Site with -</b>				
104.03.02.02	Topsoil provided by the Contractor from other sources (including all hall)	m <sup>3</sup>	630		
<b>104.03.04</b>	<b>Supplying and applying chemical fertilizers</b>				
104.03.04.02	Superphosphate	kg	160		
104.03.04.03	Limestone ammonium nitrate	kg	230		
104.03.04.04	2:3:2 (22)	kg	180		
<b>104.04</b>	<b>Grassing</b>				
LI 104.04.01	Planting of grass cuttings	m <sup>2</sup>	6 300		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 1</b>	<b>ANCILLARY WORK</b>				
<b>Series 106</b>	<b>Service Ducts</b>				
<b>106.01</b>	<b>Bedding and backfilling up to</b>				
106.01.01	Using selected excavated material	m <sup>3</sup>	80		
106.01.02	Using imported selected material	m <sup>3</sup>	40		
106.02	The casting of in situ concrete in bedding and the encasing of pipes (Class 20/19 concrete)	m <sup>3</sup>	20		
106.03	Soilcrete	m <sup>3</sup>	40		
<b>106.04</b>	<b>Service duct pipes</b>				
106.04.01	Ordinary pipes				
106.04.01.01	NexTube DN110 or similar approved	m	210		
<b>106.04.03</b>	<b>Pipe fittings</b>				
106.04.03.01	NexTube coupling for DN110 pipes or similar approved	no	30		
106.04.03.02	NexTube sealing ring for DN110 pipes or similar approved	no	60		
106.04.03.03	NexTube end plug for DN110 pipes or similar approved	no	60		
106.04.03.04	NexTube spacer module for DN110 pipes or similar approved	no	30		
106.05	Duct markers	no	60		
106.06	Extra over item 106.01 and 106.03 for using material obtained from sources provided by the Contractor	m <sup>3</sup>	40		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 1</b>	<b>ANCILLARY WORK</b>				
<b>Section B107</b>	<b>Dayworks</b>				
<b>B107.01</b>	<b>Labour during normal working hours</b>				
B107.01.01	Unskilled labour	h	25		
B107.01.02	Semi-skilled labour	h	10		
B107.01.03	Skilled labour	h	15		
<b>B107.03</b>	<b>Construction Plant</b>				
B107.03.01	Tipper trucks				
B107.03.01.01	6m³ capacity	h	40		
B107.03.01.02	10m³ capacity	h	30		
B107.03.02	Backhoe loaders (Mass 7 - 8 ton)	h	40		
B107.03.04	Tracked Excavator (Mass 18 - 22 ton, Power 70 - 105 kW)	h	15		
B107.03.05	Generator (15kVA)	h	25		
B107.03.06	Grader (Mass 16 - 20 ton)	h	10		
B107.03.07	Wheel Loader (Mass 10 - 13 ton)	h	10		
<b>B107.03.09</b>	<b>Rollers</b>				
B107.03.09.11	Pedestrian roller (1000 - 1500kg, width 900mm)	h	25		
<b>B107.04</b>	<b>Construction Materials</b>				
B107.04.01	Construction materials provided by the Contractor	Prov Sum	1	50 000,00	50 000,00
B107.04.02	Percentage on item B107.04.01 charges & profit	%	50 000		
<b>B107.05</b>	<b>Transport of Construction Plant</b>				
B107.05.01	Flatbed truck (2 - 4 ton)	km	250		
B107.05.02	Lowbed (30 - 40 ton)	km	175		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 2</b>	<b>EARTHWORKS</b>				
<b>Section 202</b>	<b>Trenching</b>				
<b>202.01</b>	<b>Trench excavation</b>				
202.01.02	<b>1,0m and up to 2,0m wide</b>				
202.01.02.01	Up to 1,0m deep	m <sup>3</sup>	210		
202.01.02.02	Over 1,0m deep and up to 1,5m deep	m <sup>3</sup>	500		
202.01.02.03	Over 1,5m deep and up to 2,0m deep	m <sup>3</sup>	2 020		
202.01.02.04	Over 2,0m deep and up to 2,5m deep	m <sup>3</sup>	6 440		
202.01.02.05	Over 2,5m deep and up to 3,0m deep	m <sup>3</sup>	1 440		
202.01.02.06	Over 3,0m deep and up to 3,5m deep	m <sup>3</sup>	60		
<b>202.02</b>	<b>Extra over items 202.01, 202.03, 202.04 and 202.09 for excavating in</b>				
202.02.02	Hard material	m <sup>3</sup>	540		
202.03	Excavations and backfill outside the normal trench profile	m <sup>3</sup>	1 690		
202.04	Hand Excavation (Extra over 202.01)	m <sup>3</sup>	2 730		
202.06	The backfilling of trenches excluding backfill around pipe barrel with material obtained from excavation. Using backfill materials from sources provided by the Contractor. Compacted to 93% modified AASHTO density.	m <sup>3</sup>	4 320		
<b>202.10</b>	<b>Removal of spoil material:</b>				
202.10.01	to positions indicated on the Drawings or by the Engineer.	m <sup>3</sup>	100		
202.10.02	To dumping areas to be provided by the Contractor	m <sup>3</sup>	8 540		
202.13	Backfilling trenches with soilcrete	m <sup>3</sup>	620		
202.15	Reinstatement of bitumen surfaced roads	m <sup>2</sup>	770		
B202.16	Reinstatement of concrete pavements in driveways	m <sup>2</sup>	260		
B202.17	Reinstatement of segmented paving in driveways	m <sup>2</sup>	350		
B202.18	Extra-over item 202.01, 202.06 for working inside a private property	m	90		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 2</b>	<b>EARTHWORKS</b>				
<b>Section 203</b>	<b>Mass Earthworks</b>				
<b>203.01</b>	<b>Excavation and borrow to fill</b>				
B203.01.01	Compaction to 93% of modified AASHTO density	m <sup>3</sup>	1 650		
<b>203.03</b>	<b>Excavate and spoil of -</b>				
203.03.01	Soft material	m <sup>3</sup>	3 100		
203.03.03	Hard material	m <sup>3</sup>	150		
203.03.04	Boulder material class A	m <sup>3</sup>	80		
203.03.05	Boulder material class B	m <sup>3</sup>	80		
203.04	Removal of oversize material	m <sup>3</sup>	400		
203.08	Preparation and compaction of construction bed material to 90% of modified AASHTO density	m <sup>3</sup>	1 000		
<b>203.10</b>	<b>In situ treatment of the construction bed</b>				
203.10.01	In situ treatment by ripping	m <sup>3</sup>	250		
<b>203.11</b>	<b>Finishing off slopes</b>				
203.11.01	Excavation slopes	m <sup>2</sup>	1 940		
203.11.02	Fill slopes	m <sup>2</sup>	2 570		
203.15	Extra over items 203.03 and 203.04 for disposing of spoil material to sites to be provided by the Contractor	m <sup>3</sup>	3 810		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 3</b>	<b>SEWERS</b>				
<b>Section 302</b>	<b>Construction</b>				
<b>302.01</b>	<b>Supplying, laying and jointing of sewer pipes irrespective of depth or width of trench:</b>				
	PVC pipes shall comply with the relevant requirements of SANS 1601 for stiffness Class 400 pipes and shall be fitted with approved spigot and socket joints with rubber seal rings. PVC products shall be stored out of the sun and must be backfilled as soon as practical after been laid.				
302.01.01	OPVC 110mm	m	20		
302.01.02	OPVC 160mm	m	60		
302.01.03	OPVC 200mm	m	30		
<b>302.02</b>	<b>Construction of pipe beddings</b>				
302.02.01	Class B bedding				
302.02.01	OPVC 110mm	m	20		
302.02.02	OPVC 160mm	m	20		
302.02.03	OPVC 200mm	m	20		
<b>302.03</b>	<b>Encasement of pipes with:</b>				
302.03.01	Class 15/19 concrete	m <sup>3</sup>	20		
<b>302.09</b>	<b>Construction of manholes, up to 1,0 m deep</b>				
<b>302.09.01</b>	<b>For sewers 300 mm in diameter and smaller</b>				
302.09.01.01	Type 2A manholes	no	12		
<b>302.10</b>	<b>Extra-over item 302.09 for the construction of manholes in excess of 1,0 m deep</b>				
<b>302.10.01</b>	<b>For sewers 300 mm in diameter and smaller</b>				
302.10.01.01	Type 2A manholes	m	30		
<b>302.12</b>	<b>Supplying and installing manhole covers and frames</b>				
302.12.02	SANS 558 Type 2A circular	no	12		
<b>302.14</b>	<b>Supplying and placing selected backfill material around and up to 300 mm above pipe barrels, using</b>				
302.14.01	Excavated material	m <sup>3</sup>	40		
302.14.02	Imported material from sources provided by the Contractor	m <sup>3</sup>	18		
302.15	Extra over item 402.05 for screening excavated material for selected backfill	m <sup>3</sup>	40		
<b>TOTAL CARRIED FORWARD</b>					
Signature of person authorised to sign the tender:					
				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>TOTAL BROUGHT FORWARD</b>					
<b>302.16</b>	<b>Connecting to existing manholes</b>				
302.16.01	OPVC 110mm	No.	4		
302.16.02	OPVC 160mm	No.	4		
302.16.03	OPVC 200mm	No.	4		
<b>302.20</b>	<b>Preliminary work prior to the construction of a manhole on an existing pipeline</b>				
302.20.01	OPVC 110mm	No.	4		
302.20.02	OPVC 160mm	No.	4		
302.20.03	OPVC 200mm	No.	4		
<b>SECTION 303</b>	<b>TESTING</b>				
303.01	Testing of manholes	No.	12		
<b>303.02</b>	<b>Air Testing of sewers</b>				
303.02.01	OPVC 110mm	m	20		
303.02.02	OPVC 160mm	m	60		
303.02.03	OPVC 200mm	m	30		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 4</b>	<b>WATER</b>				
<b>401.04.03</b>	<b>PVC pipes shall comply with the requirements of SANS 966-1 (PVC-U) or SANS 966-2 (PVC-M) for class 12 pressure pipes and shall be fitted with spigot and socket joints with rubber sealing rings.</b>				
	<b>SECTION 402</b>				
<b>402.01</b>	<b>Supplying, laying and jointing of water pipes irrespective of depth:</b>				
<b>402.01.01</b>	<b>OPVC Pipe</b>				
402.01.01.01	75mm	m	120		
402.01.01.02	90mm	m	80		
402.01.01.03	110mm	m	40		
<b>402.02</b>	<b>Extra over item 402.01 for providing and installing fittings, valves and specials:</b>				
402.02.01	Bends in any angle, T-pieces, reducers for 75mm pipes	No.	10		
402.02.01	Bends in any angle, T-pieces, reducers for 90mm pipes	No.	6		
402.02.01	Bends in any angle, T-pieces, reducers for 110mm pipes	No.	4		
<b>402.03</b>	<b>Encasement of pipes with:</b>				
402.03.01	Class 15/19 concrete	m <sup>3</sup>	60		
402.04	Providing thrust blocks using class 15/19 concrete	m <sup>3</sup>	40		
<b>402.05</b>	<b>Supplying and placing unscreened selected backfill material under, alongside and up to 200mm above pipe barrels using:</b>				
402.05.01	Excavated material	m <sup>3</sup>	80		
402.05.03	Imported material from sources provided by the Contractor	m <sup>3</sup>	36		
402.06	Extra over item 402.05 for screening excavated material for selected backfill	m <sup>3</sup>	80		
<b>402.10</b>	<b>Sterilization of pipelines</b>				
402.10.01	75mm	m	120		
402.10.02	90mm	m	80		
402.10.03	110mm	m	40		
<b>TOTAL CARRIED FORWARD</b>					
Signature of person authorised to sign the tender:					
				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>TOTAL BROUGHT FORWARD</b>					
<b>B402.11</b>	<b>Miscellaneous Items:</b>				
B402.11.01	Connect to existing reticulation	No.	15		
B402.11.02	Relocate existing water connections and meters	No.	25		
	<b>SECTION 403 : TESTING</b>				
<b>403.01</b>	<b>Hydraulic field-testing of pipelines</b>				
403.01.01	75mm	m	120		
403.01.02	90mm	m	80		
403.01.03	110mm	m	40		
<b>TOTAL CARRIED TO SUMMARY</b>					

Signature of person authorised to sign the tender:	Date
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ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 5</b>	<b>DRAINAGE AND EROSION PROTECTION</b>				
<b>Section 501</b>	<b>Subsurface Drains and Drainage Blankets</b>				
<b>501.01</b>	<b>Crushed stone</b>				
501.01.02	Single-sized crushed stone:				
501.01.02.02	19mm nominal aggregate size	m <sup>3</sup>	50		
<b>501.04</b>	<b>Geotextiles</b>				
501.04.02	Bidim grade A2 (1.6mm thick) or equivalent approved	m <sup>2</sup>	290		
<b>501.05</b>	<b>Pipes in subsurface drains</b>				
501.05.01	opvc pipes (or similar approved)				
501.05.01.02	Drainex DN110 (or similar approved) including all fittings	m	120		
501.08	Concrete caps for subsurface drain pipes	no	2		
<b>TOTAL CARRIED FORWARD</b>					



Signature of person authorised to sign the tender:	Date
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ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 5</b>	<b>DRAINAGE AND EROSION PROTECTION</b>				
<b>Section 502</b>	<b>Prefabricated Culverts, Stormwater</b>				
<b>502.01</b>	<b>Backfilling with selected excavated material compacted to -</b>				
502.01.01	90% of modified AASHTO density	m <sup>3</sup>	750		
502.01.02	93% of modified AASHTO density	m <sup>3</sup>	2 250		
<b>502.02</b>	<b>Supplying and laying of concrete pipe culverts (type SC-pipes)</b>				
<b>502.02.02</b>	<b>Class B bedding / Class 75D</b>				
502.02.02.01	450mm Ø	m	510		
502.02.02.02	600 mm Ø	m	440		
502.02.02.03	750mm Ø	m	200		
502.02.02.04	900mm Ø	m	210		
502.02.02.05	1050mm Ø	m	310		
502.02.02.06	1200mm Ø	m	760		
<b>502.10</b>	<b>Cast in situ concrete</b>				
<b>502.10.01</b>	<b>In Class A bedding, blinding layers and encasing of pipes, including any formwork required</b>				
502.10.01.01	Class 20/19	m <sup>3</sup>	35		
<b>502.10.03</b>	<b>Inlet and outlet structures, catchpits, manholes and junction boxes excluding formwork, but including U2 surface finish</b>				
502.10.03.01	Class 25/19	m <sup>3</sup>	86		
<b>502.10.04</b>	<b>Formwork for concrete under item 502.10.03 above:</b>				
502.10.04.01	F1 surface finish	m <sup>2</sup>	240		
502.10.04.02	F2 surface finish	m <sup>2</sup>	10		
502.13	Welded-steel fabric	kg	1 400		
<b>TOTAL CARRIED FORWARD</b>					
Signature of person authorised to sign the tender:					Date

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>TOTAL BROUGHT FORWARD</b>					
<b>502.14</b>	<b>Reinforcement</b>				
502.14.01	Mild steel	kg	480		
502.14.02	High-yield-stress	kg	3 200		
<b>502.16</b>	<b>Manholes, catchpits, precast inlet and outlet structures and junction boxes complete</b>				
502.16.02	Catchpits (Kerb inlets - 2.0m long)	No.	38		
<b>502.16.04</b>	<b>Transitions at kerb inlets</b>				
502.16.04.01	Transition in front - 3.0m long	No.	38		
502.16.04.02	Transition behind - 2.0m long	No.	38		
<b>502.17</b>	<b>Brick work</b>				
502.17.01	115mm thick	m <sup>2</sup>	430		
502.17.02	230mm thick	m <sup>2</sup>	2 120		
502.18	Plaster	m <sup>2</sup>	2 550		
502.19	Benching	m <sup>2</sup>	520		
<b>502.20</b>	<b>Accessories</b>				
<b>502.20.01</b>	<b>Manhole covers including frames</b>				
502.20.01.02	Combination precast concrete / cast iron frame and cover	no	54		
502.20.03	Step Irons	no	24		
<b>502.20.04</b>	<b>Precast concrete elements</b>				
<b>502.20.04.01</b>	<b>Precast manhole cover slabs Class 25/19 concrete (See drawing STD004 - Sheet 1)</b>				
502.20.04.01.01	Rectangular slab 1.5m long - 0.45m wide	no	225		
502.20.04.01.02	Rectangular slab 1.5m long - 0.60m wide	no	100		
502.23	Cleaning existing culverts	m <sup>3</sup>	250		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:					Date

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 5</b>	<b>DRAINAGE AND EROSION PROTECTION</b>				
<b>Section 503</b>	<b>Kerbing and Channelling</b>				
<b>LI 503.01</b>	<b>Concrete kerbing Class 20/19 concrete (See drawing STD007 - Sheet 1)</b>				
503.01.01	Edge beam	m	175		
503.01.02	300mm Sloping kerb	m	4 230		
<b>503.03</b>	<b>Transition sections (See drawing STD007 - Sheet 2)</b>				
503.03.01	Sloping kerb to edge beam	no	35		
<b>TOTAL CARRIED FORWARD</b>					
Signature of person authorised to sign the tender:					Date

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 5</b>	<b>DRAINAGE AND EROSION PROTECTION</b>				
<b>Section 505</b>	<b>Erosion Protection</b>				
<b>505.01</b>	<b>Foundation trench excavation and backfilling</b>				
505.01.02	In all other classes of material	m <sup>3</sup>	300		
LI 505.02	Surface preparation for the bedding of gabions	m <sup>2</sup>	720		
<b>505.03</b>	<b>Gabions</b>				
505.03.01	Gabion boxes, mesh type 80 with 2.7mm Class A galvanised wire	m <sup>3</sup>	50		
505.03.02	Reno mattresses, mesh type 60 with 2.2mm Class A galvanised wire 300mm thick	m <sup>3</sup>	220		
<b>505.05</b>	<b>Filter fabric for gabions and riprap</b>				
505.05.01	Bidim A4 or equivalent approved	m <sup>2</sup>	870		
<b>505.06</b>	<b>Stone pitching</b>				
LI 505.06.02	Grouted pitching	m <sup>2</sup>	200		
<b>505.09</b>	<b>Concrete pitching</b>				
505.09.04	Precast concrete blocks: Armoflex lining as per detailed drawing STD012.	m <sup>2</sup>	310		
505.10	Concrete edge beams and foundation trenches	m <sup>3</sup>	30		
<b>TOTAL CARRIED FORWARD</b>					
Signature of person authorised to sign the tender:					Date

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 6</b>	<b>ROADS AND PARKING AREAS</b>				
<b>Section 601</b>	<b>Gravel Pavement Layers</b>				
<b>601.01</b>	<b>Preparation and compaction of in situ subgrade material to -</b>				
601.01.02	93% of modified AASHTO density	m <sup>3</sup>	870		
<b>B601.02</b>	<b>Gravel layers constructed from material obtained from commercial sources</b>				
<b>B601.02.01</b>	<b>Selected Subgrade</b>				
B601.02.01.03	Compacted to 95% of modified AASHTO density (G6)	m <sup>3</sup>	870		
<b>601.02.02</b>	<b>Subbase</b>				
601.02.02.02	Compacted to 97% of modified AASHTO density (150mm thick)	m <sup>3</sup>	920		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 6</b>	<b>ROADS AND PARKING AREAS</b>				
<b>Section 602</b>	<b>Crushed-Stone Pavement Layers</b>				
<b>602.01</b>	<b>Crushed-stone base constructed with material obtained from</b>				
<b>602.01.01</b>	<b>Commercial sources</b>				
602.01.01.02	G2 material compacted to 100% of modified AASHTO density	m <sup>3</sup>	830		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 6</b>	<b>ROADS AND PARKING AREAS</b>				
<b>Section 603</b>	<b>Unpaved Areas</b>				
<b>603.01</b>	<b>Compacted gravel shoulder or gravel wearing course (from excavations)</b>				
603.01.01	Shoulder material compacted to 93% of modified AASHTO density	m <sup>3</sup>	800		
603.01.02	Wearing course compacted to 93% of modified AASHTO density	m <sup>3</sup>	200		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:					Date



ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
SERIES 6	ROADS AND PARKING AREAS				
Section 604	Stabilization				
604.01	Chemical stabilization extra over unstabilized compacted layers				
604.01.03	Subbase	m³	870		
604.02	Chemical stabilizing agent				
B604.02.01	Cement	t	68		
TOTAL CARRIED TO SUMMARY					
Signature of person authorised to sign the tender:					Date

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 6</b>	<b>ROADS AND PARKING AREAS</b>				
<b>Section 605</b>	<b>Prime Coat</b>				
<b>605.01</b>	<b>Prime coat</b>				
605.01.02	MC-30 cut-back bitumen	ℓ	6 070		
<b>605.02</b>	<b>Aggregate for blinding</b>	m <sup>2</sup>	200		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:					Date

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 6</b>	<b>ROADS AND PARKING AREAS</b>				
<b>Section 606</b>	<b>Asphalt Base and Surfacing</b>				
<b>606.02</b>	<b>Asphalt surfacing Using 60/70 penetration grade bitumen</b>				
606.02.01	Continuously graded (fine)	m <sup>2</sup>	5 520		
606.05	Tack coat of 30% stable grade emulsion	ℓ	3 310		
<b>606.06</b>	<b>Binder variations</b>				
606.06.01	Penetration grade bitumens	t	rate only		ro
<b>606.07</b>	<b>Variations in active filler content</b>				
606.07.01	Cement	t	rate only		ro
606.10	Saw-cutting of asphalt, asphalt base or paving 40mm deep	m	2 130		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 6</b>	<b>ROADS AND PARKING AREAS</b>				
<b>Section 608</b>	<b>Road and Surfacing Rehabilitation and Overlay Construction</b>				
<b>608.01</b>	<b>Replacing of failed layers:</b>				
608.01.01	Excavating in existing pavements	m <sup>3</sup>	30		
608.01.02	Compacting the floors of excavations	m <sup>2</sup>	160		
<b>608.01.03</b>	<b>Backfilling of excavations with:</b>				
608.01.03.01	Chemically-stabilised gravel	m <sup>3</sup>	130		
608.01.03.02	Emulsion-treated crushed stone	m <sup>3</sup>	190		
608.02	Repairing potholes and local pavement layer failures with asphalt	ton	67		
<b>608.08</b>	<b>Treatment type 5</b>				
608.08.01	Trimming the edges of existing surfacing	m	1 760		
608.08.02	Reconstructing edges using continuously-graded asphalt	ton	40		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:					Date

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 6</b>	<b>ROADS AND PARKING AREAS</b>				
<b>Section 612</b>	<b>Traffic Signs</b>				
<b>612.01</b>	<b>Sign boards with painted back-ground, symbols, lettering and borders in engineering-grade retro-reflective material with sign boards constructed from -</b>				
<b>612.01.03</b>	<b>Sheet steel (Chromadek) with an -</b>				
612.01.03.01	Area not exceeding 2m <sup>2</sup>	m <sup>2</sup>	16		
612.01.03.02	Area exceeding 2m <sup>2</sup> but not 10m <sup>2</sup>	m <sup>2</sup>	10		
<b>612.02</b>	<b>Extra over Item 612.01 for -</b>				
<b>612.02.01</b>	<b>Background of retro-reflective material of -</b>				
612.02.01.02	High-intensity grade	m <sup>2</sup>	10		
<b>612.02.02</b>	<b>Lettering, symbols and borders of retro-reflective material of -</b>				
612.02.02.01	High-intensity grade	m <sup>2</sup>	26		
<b>612.03</b>	<b>Sign supports</b>				
612.03.02	Steel tubing	t	0,6		
<b>612.04</b>	<b>Extra over Items 612.03.01 and 612.03.02 for providing</b>				
612.04.01	Unpainted galvanized steel members	t	0,4		
612.05	Excavation and backfilling for sign supports	m <sup>3</sup>	50		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
<b>SERIES 6</b>	<b>ROADS AND PARKING AREAS</b>				
<b>Section 613</b>	<b>Traffic Markings</b>				
<b>613.01</b>	<b>Road-marking paint</b>				
613.01.06	Kerb markings (any colour)	m <sup>2</sup>	30		
<b>613.02</b>	<b>Retro-reflective road-marking paint</b>				
613.02.01.01	White lines (broken or unbroken) 100mm wide	km	2		
613.02.01.01	White lines (broken or unbroken) 300mm wide	km	0,2		
613.02.03	White lettering and symbols	m <sup>2</sup>	120		
<b>613.04</b>	<b>Variation in the rate of application</b>				
613.04.01	White paint	ℓ	rate only		ro
613.04.03	Glass beads	kg	rate only		ro
613.06	Setting out and the premarking of lines (excluding traffic-island markings, lettering and symbols)	km	2,2		
<b>TOTAL CARRIED TO SUMMARY</b>					
Signature of person authorised to sign the tender:				Date	

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
SERIES 9	QUALITY CONTROL				
Section 903	Testing				
903.06	Other special tests requested by the Engineer				
903.06.01	Cost of testing	PC sum	1	-	-
903.06.02	Charge on Prime cost sum (B903.06.01)	%			
TOTAL CARRIED FORWARD					
Signature of person authorised to sign the tender:					Date

SUMMARY OF PRICING SCHEDULE		
SECTION	DESCRIPTION	AMOUNT
<b>SERIES 0</b>	<b>GENERAL</b>	
001	General Requirements and Charges	
002	Engineers Accommodation	
003	Training	
<b>SERIES 1</b>	<b>ANCILLARY WORK</b>	
101	Site Clearing and Grubbing	
102	Accommodation of Traffic	
104	Landscaping	
106	Service Ducts	
107	Dayworks	
<b>SERIES 2</b>	<b>EARTHWORKS</b>	
202	Trench Excavation	
203	Mass Earth Works	
<b>SERIES 3</b>	<b>SEWERS</b>	
302	Sewer network	
<b>SERIES 4</b>	<b>WATER</b>	
402	Water network	
<b>SERIES 5</b>	<b>DRAINAGE AND EROSION PROTECTION</b>	
501	Subsurface Drains and Drainage Blankets	
502	Prefabricated Culverts, Stormwater	
503	Kerbing and Channelling	
505	Erosion Protection	
<b>SERIES 6</b>	<b>ROADS AND PARKING AREAS</b>	
601	Gravel Pavement Layers	
602	Crushed-Stone Pavement Layers	
603	Unpaved Areas	
604	Stabilization	
605	Prime Coat	
606	Asphalt Base and Surfacing	
608	Road and Surfacing Rehabilitation and Overlay Construction	
612	Traffic Signs	
613	Traffic Markings	
<b>SERIES 9</b>	<b>Quality Control</b>	
903	Testing	
<b>TOTAL SCHEDULE OF PRICES</b>		

Signature of person authorised to sign the tender:	



**SUMMARY OF PRICING SCHEDULE**

DESCRIPTION	AMOUNT
<b>TOTAL SCHEDULE OF PRICES</b>	
Add 10% for contingencies	
Add 4% for Contract Price Adjustment	
<b>SUBTOTAL</b>	
Add 15% VAT	
<b>CONTRACT PRICE CARRIED FORWARD TO FORM OF OFFER</b>	

Signature of person authorised to sign the tender:	Date

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## 1. INTRODUCTION, PROBLEM STATEMENT AND OBJECTIVES OF THE PROJECT

The Mahube Valley stormwater systems project in Mamelodi is an extension of previous efforts made by the City of Tshwane to improve the general drainage in the area. For this project three flood prone areas were identified and solutions were developed to resolve these concerns. These solutions include the extension of the existing stormwater network, upgrading of outfall stormwater lines, but also the upgrade from gravel to surfacing of several streets to further control the stormwater run-off.

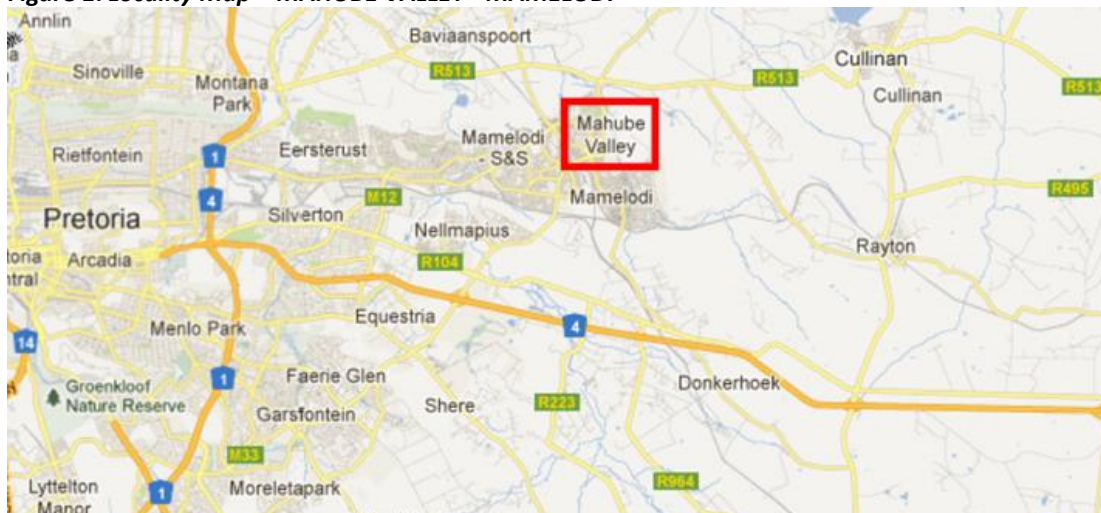
The Employer's objective is furthermore to create temporary local job opportunities as well as opportunities for local enterprises. The project will be subject to a 30% subcontracting target to BE subcontractors, of which 80% need to come from the local community.

## 2. DESCRIPTION OF THE SITE

The proposed works are located at 3 separate work areas within the Mahube Valley of Mamelodi, refer to the book of drawings for additional detail. The sites can be accessed from the Soloman Mahlangu Drive (M10), approximately 8.2 km north of the N4 (East), within the City of Tshwane Metropolitan Municipality.

The topography of the area is flat, generally draining towards the Edendalspruit north-east of Mahube Valley. Locality map is shown in Figure 1 below.

**Figure 1: Locality Map – MAHUBE VALLEY - MAMELODI**



## 3. PROJECT SCOPE OVERVIEW AND PURPOSE OF THE SHE SPEC

### Project Scope overview

The scope of works is divided into three work zones within the Mahube Valley:

- Area 1: consisting of Boloa, Phahlane, Mogashoa and Morwa Avenue
- Area 2: consisting of Hlekani, Mamati, Lekwati, Lehlaku, Lesodi, and Mambitha Street
- Area 3: consisting of Julius Nyerere Street

Area 1 will involve road upgrades and new stormwater network, Area 2 will consist of predominantly

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upgrades to the stormwater network and Area 3 is limited to road upgrades only.

In summary the project tasks entail (but not limited) to the following:

- Site establishment
- Setting out of works
- Accommodation of traffic
- Excavation of trenches
- Construction of bedding
- Installation of stormwater sewers including construction of inlet, outlet structures and junction boxes
- Backfilling
- Structures and appurtenant to stormwater systems (inlets, junction boxes and manholes)
- Quality control
- Maintenance of the work during the construction and subsequent liability periods
- And other related civil works

**Purpose of the Site-Specific Health and Safety Specification**

This health and safety specification aims to inculcate a positive safety culture in the project and outlines the working behaviours and safe work practices that must be implemented and complied with by, the Principal Contractor, Contractors, Consultants, Visitors and Suppliers, that will be undertaking activities associated with the UPGRADING OF STORMWATER SYSTEMS IN MAHUBE VALLEY: PHASE 3 project. The Site Specific Health and Safety Specification has been developed in accordance with the requirements of Occupational Health and Safety Act 85 of 1993 and related Regulations, the Construction Regulation of 2014, and as partial fulfilment of the Construction Regulation 5(1)(b) as well as any other applicable legislation.

The appointed Principal Contractor and other contractors must identify all requirements applicable to their scope of works and address these accordingly in their Contractor 's Site Specific Health and Safety Management Plan. It is the Principal Contractor 's responsibility to ensure that all other sub-contractors comply fully with all legal requirements as well as the requirements of this Specification.

This Site Specific Health and Safety Specification will be reviewed and updated periodically as and when necessary to address and / or include:

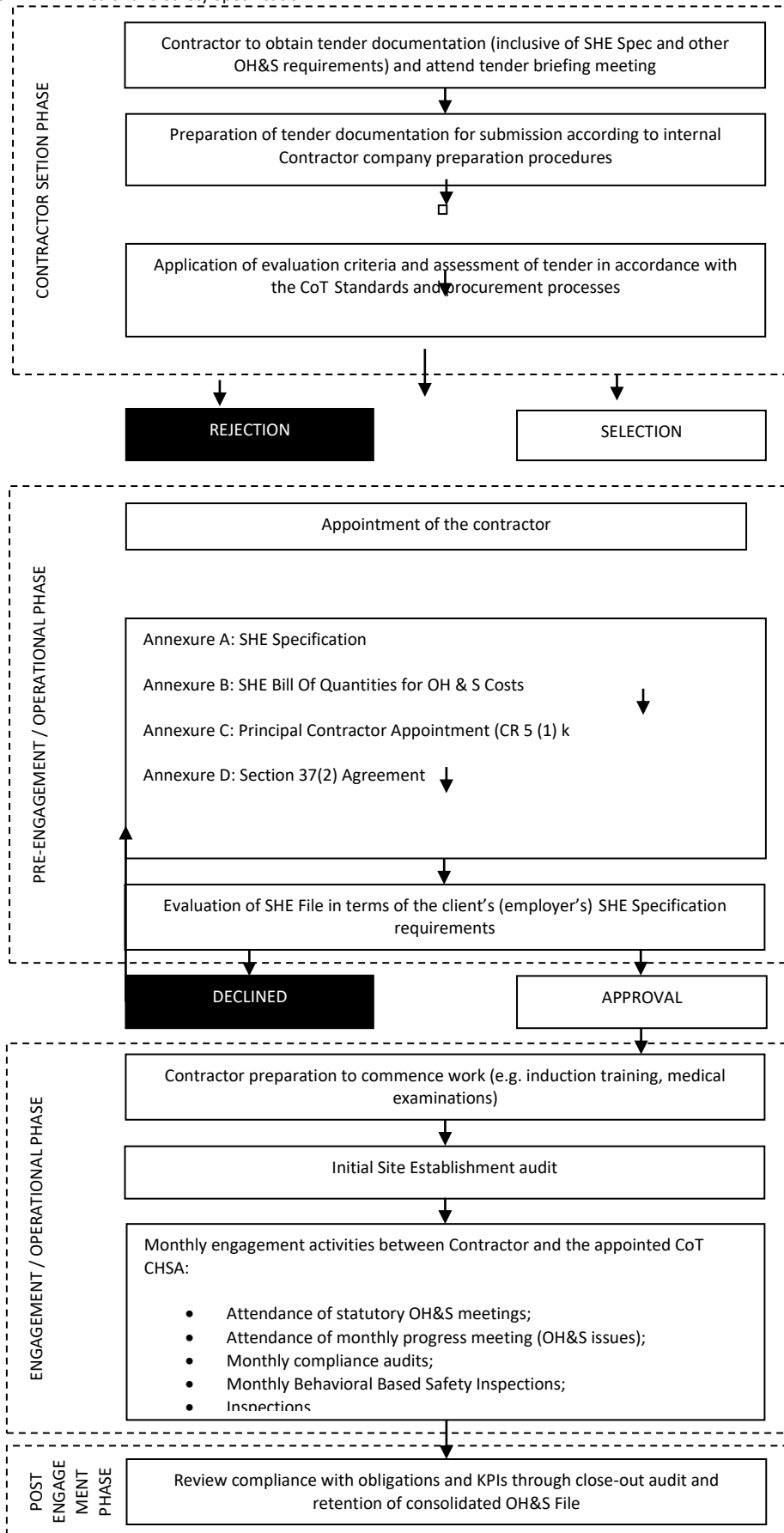
- Changes in legislation;
- As per Client requirements;
- Change in scope of work
- Construction Design review must consequently be followed by review of the Baseline Risk Assessment for the project and the SSHSS;
- Lessons learnt from incidents.

**4. CONTRACTOR SELECTION, ENGAGEMENT AND MANAGEMENT PROCESS OVERVIEW**

**Figure 2: Contractor selection, engagement and management process overview**



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## **4.1 DEFINITIONS**

### **The Act**

Means, unless the context indicates otherwise, the Occupational Health and Safety Act, 85 of 1993 and Construction Regulations 2014 promulgated there under, (OHSA).

### **Acceptable Risk**

A risk that has been reduced to a level that can be tolerated having regard for the applicable legal requirements and the Health and Safety Policy adopted for the project.

### **Agent**

Means in terms of Construction Regulations, 2014, 'a competent person who acts as a representative for a client'.

### **ALARP (As Low as Reasonably Practicable)**

The concept of weighing a risk against the sacrifice needed to implement the measures necessary to avoid the risk. With respect to health and safety, it is assumed that the measures should be implemented unless it can be shown that the sacrifice is grossly disproportionate to the benefit.

### **Applicant (Permit to Work)**

A person requesting permission to perform work for which a Permit to Work is required. Applicants must be authorised (in writing) to receive (or accept) Permits to Work and must be competent to do so by virtue of their training, experience and knowledge of the area or plant in which the work is to be performed.

### **Authorised Person (Permit to Work)**

A person (typically a Project employee or an employee of the client) who has been authorised (in writing) by the nominated project management representative to issue Permits to Work within the scope of his designation. A person may only be appointed to issue Permits to Work if he has undergone training and has been assessed and found competent in systems, plant and equipment operation within the scope of his designation.

### **Barricade**

A temporary structure that is erected as a physical barrier to prevent persons from inadvertently coming into contact with an identified hazard.

### **Battering**

Sloping the sides of an excavation to a predetermined angle (usually less than the natural angle of repose) to ensure stability.

### **Benching**

The creation of a series of steps in the sides of an excavation to prevent collapse.

### **Client**

Means any person for whom construction work is being performed.

### **Consequence**

The outcome of an event expressed qualitatively or quantitatively.

### **Contractor**

An employer performing construction work, or providing related or supporting services, on a project site.

### **Competent Person**

A person who has in respect of the work or task to be performed the required knowledge, training, experience and as per OHS Act, 1993 (Act 85 of 1993) and CR 2014.

### **Construction Manager**

Means a competent person responsible for the management of the physical construction processes and the coordination, administration and management of resources on a construction site.

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**Construction Supervisor**

A competent person responsible for supervising construction activities on a construction site.

**Excavation**

Any man-made cut, cavity, pit, trench, or depression in the earth's surface formed by removing rock, sand, soil or other material using tools, machinery, and / or explosives. Tunnels, caissons and cofferdams are specifically excluded and are not addressed in this standard.

**First-Aid Injury (FA)**

A first-aid injury is any one-time treatment and any follow up visit for observation of minor scratches, cuts, burns, splinters and the like which do not normally require medical care. Such treatment is considered to be first aid even if administered or supervised by a medical practitioner.

**Hazard**

A source of potential harm in terms of human injury or ill health, or a combination of these.

**Hierarchy of Controls**

A sequence of control measures, arranged in order of decreasing effectiveness, used to eliminate or minimise exposure to workplace health and safety hazards:

- Elimination – Completely removing a hazard or risk scenario from the workplace.
- Substitution – Replacing an activity, process or substance with a less hazardous alternative.
- Isolation (Engineering) Controls – Isolating a hazard from persons through the provision of mechanical aids, barriers, machine guarding, interlocks, extraction, ventilation or insulation.
- Administrative Controls – Establishing appropriate policies, procedures and work practices to reduce the exposure of persons to a hazard. This may include the provision of specific training and supervision.
- Personal Protective Equipment – Providing suitable and properly maintained PPE to cover and protect persons from a hazard (i.e. Prevent contact with the hazard).

**Health and safety by Design-** this is the process of managing health and safety risks throughout the lifecycle of structures, plant, substance or other products.

**Incident**

An event (or a continuous or repetitive series of events) that results or has the potential to result in a negative impact on people (employees, contractors and visitors), the environment, operational integrity, assets, community, process, product, legal liability and / or reputation.

**Likelihood**

A description of probability or frequency, in relation to the chance that an event will occur.

**Lost Time Injury (LTI)**

Any occurrence that resulted in a permanent disability or time lost from work of one day/shift or more. If an employee is injured and cannot return to work in the next shift (will ordinarily miss one whole shift), and the department brings the employee in to only receive treatment by the Supervisor/ Return to Work Coordinator in that shift, this is still considered an LTI.

Lost Time Injury Frequency Rate (LTIFR) - Number of LTI's multiplied by 1 million or 200,000 and divided by labour hours worked.

**Light Vehicle**

A vehicle that:

- Can be licensed and registered for use on a public road;
- Has four or more wheels, and seats a maximum of 12 adults (including the driver);
- Requires the driver to hold only a standard civil driving licence; and
- Does not exceed 4.5 tonnes gross vehicle mass (GVM), which is the maximum loaded mass of the motor vehicle as specified by:
  - ♦ The vehicle's manufacturer; or
  - ♦ An approved and accredited automotive engineer, if the vehicle has been modified to the extent that the manufacturer's specification is no longer appropriate.

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Examples of light vehicles include passenger cars, four-wheel drive vehicles, sports utility vehicles (suvs), pick-ups, minibuses, and light trucks.

Any vehicle falling outside of this definition must be considered mobile equipment.

**Mobile Equipment**

A vehicle (wheeled or tracked) that generally requires:

- The driver to hold a specific state or civil license; or
- The operator to hold a nationally recognized certificate of competency.

Examples of mobile equipment include, but are not limited to, dump trucks, water trucks, graders, dozers, loaders, excavators, forklifts, tractors, back-actors, bobcats, mobile cranes, tele- handlers, drill rigs, buses and road-going trucks.

**Near-Miss**

An incident that has occurred that did not result in any injuries, illnesses, environmental or property damage but had the potential to cause an injury, illness, environmental or property damage.

**Personal Lock**

A single lock with one unique key controlled by the owner. Used for personal protection.

**Regulation**

In the context of this guideline, \_Regulation(s) 'refers to the Construction Regulations, 2014 required by Section 43 of the Occupational Health and Safety Act 85 of 1993, published under Government Notice R 84 in Government Gazette 37305 of February 2014.

**Risk**

A combination of the likelihood of an occurrence of a hazardous event or exposure and the severity of injury or ill health that can be caused by the event or exposure.

**Risk Assessment**

A process of evaluating the risk arising from a hazard, taking into account the adequacy of any existing control measures, and deciding on whether or not the risk is acceptable.

**Risk Management**

The systematic application of management policies, processes and procedures to identifying hazards, analysing and evaluating the associated risks, determining whether the risks are acceptable, and controlling and monitoring the risks on an ongoing basis.

**Abbreviations**

CR – Construction Regulations

CHSA- Construction Health and Safety Agent

CIDB- Construction Industry Development Board

CHSO- Construction Health and Safety Officer

DSTI - Daily Safety Task Instruction

DoL- Department of Employment and Labour

LTI- Lost Time Injury

HIRA - Hazard Identification and Risk Assessment

IMS - Integrated Management System

MS - Management System

OHS Act - Occupational Health and Safety Act

SSHSS- Site Specific Health and Safety Specification

SHE- Safety, Health and Environment

PTO – Planned Task Observation

PM- Project Manager

VFL - Visible Felt Leadership

OHS - Occupational Health and Safety

VCT - Voluntary Counselling and Testing

SACPCMP - The South African Council for Project and Construction Management Professions, here in refer to as the registrar of Health and Safety Professionals

## **5. LEGAL REQUIREMENTS**

*Execution of project tasks must be in line with relevant applicable legislation throughout the project lifecycle, applicable standards and specifications and code of practice must be adhered to by the Principal Contractor and other contractors on the project. The Principal Contractor must compile a legal register that must also include applicable standards and specifications, code of practice including applicable municipal by-laws. The Principal Contractor must demonstrate SHE legal compliance throughout the project lifecycle.*

### **5.1 GENERAL ADMINISTRATIVE REGULATIONS (GAR) REQUIREMENTS**

- 5.1.1 Copy of the Act (OHS Act)
- 5.1.2 Health and Safety Representative
- 5.1.3 Health and Safety Committee
- 5.1.4 Reporting of Incidents and Occupational Diseases
- 5.1.5 Recording and Investigation of incidents
- 5.1.6 Registration in terms of the COID Act
- 5.1.7 Health and Safety File

#### **5.1.1 Copy of the Act (Reg. No. 4 of GAR)**

The contractor shall retain the copy of the OHS Act and the relevant regulations on site all the times, where there are more than five people on site.

Basic Conditions of Employment Act, Employment Equity Act and the General Machinery Regulations must also be available on site. The Principal Contractor must ensure that these are communicated to the construction personnel and an attendance register must be completed to certify this.

#### **5.1.2 Designation of Health and Safety Representatives (Reg. No. 6 of GAR)**

The team of employees on site must have a health and safety representative deployed on the project site(s). A Health and Safety Representative must be elected and appointed. Taking into consideration the number of employees deployed, the geographical area in which the work is taking place, the different work disciplines, and the shift pattern (if applicable), the contractor must ensure that an adequate number of Health and Safety Representatives (at a minimum ratio of one Health and Safety Representative per 50 employees) are elected and appointed to effectively represent all site personnel as required by the OHS Act 85 of 1993, section 17 - 18.

Each Health and Safety Representative must attend an accredited training course for health and safety representatives. The cost of this training shall be for the contractor's account.

The contractor must make the necessary allowances for the Health and Safety Representatives to carry out their duties as specified in the applicable legislation.

The contractor must ensure that the nominated and appointed SHE Rep is easily identifiable; this can be achieved through ensuring that the SHE Rep has a badge or sticker on his / her helmet (written) SHE Rep.

Without derogating from the aforementioned, the principal contractor / contractor shall ensure that the provisions of OHSACT 17-20 and General Administrative Regulations, 2003 (hereinafter GAR) 5 to 7 are implemented and adhered to.

#### **5.1.3 Health and Safety Committee (Reg. No. 5 of GAR)**

The Principal Contractor/Contractor shall convene a health and safety committee meeting monthly. All members required to be in attendance shall be notified of such meeting by means of a formal agenda which must be made available to the Safety Agent / Project Manager upon request. Items on the agenda include but not limited to the following:

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- Opening and welcome
- Members present, apologies and absent
- Minutes of previous meeting
- Matters arising from the previous meeting
- SHE rep deviation reports
- Outcomes of previous audit and behavioural based safety inspections
- Incident and / or accident reports and investigations
- Incident, accident and / or injury statistics
- Health and safety plan (revisions and new requirements)
- Training (awareness, competence and off-the-job)
- Emergency Preparedness Plan
- Non-conformances and notices
- Toolbox talks Program
- Close and next meeting

#### **5.1.4 Reporting of Incidents and Occupational Diseases (Reg. No. 8 of GAR)**

- (1) The contractor shall,
  - (a) Give notice to the Provincial director in the form of WCL 1 or WCL 2 within seven days of any incident referred to in section 24(1)(a) of the Act,
  - (b) Report to the provincial director by telephone, facsimile or similar communication where a person, in consequence of such an incident, dies, becomes unconscious, suffers the loss of a limb or part of a limb, or is otherwise injured or becomes ill to such a degree that he or she is likely either to die or to suffer a permanent physical defect, such incident, including any other incident contemplated in section 24(1)(b) and (c) of the Act.
- (2) The principal contractor shall furnish the provincial director with the following information whenever an incident arises to persons other than employees,
  - (a) name of the injured person;
  - (b) address of the injured person;
  - (c) name of the user, employer or self-employed person;
  - (d) address of the user, employer or self-employed person;
  - (e) telephone number of the user, employer or self-employed person;
  - (f) name of contact person;
  - (g) details of incident:
    - (i) what happened;
    - (ii) where it happened (place);
    - (iii) when it happened (date and time);
    - (iv) how it happened;
    - (v) why it happened; and
  - (h) names of witnesses.
- (3) The principal contractor shall make use of a registered medical practitioner for the examination or treatment of a person for a disease contemplated in section 25 of the Act, give notice thereof to the chief inspector and the employer in the form of WCL 22.
- (4) Any other person not contemplated in this regulation may in writing give notice of any disease contemplated in section 25 of the Act, to the employer and chief inspector.

### **5.1.5 Recording and Investigation of Incidents ((Reg. No. 9 of GAR)**

The Principal Contractor shall report all incidents and accidents including near miss incidents, first aid, medical treatment, lost time incidents (disabling injuries & fatalities); OH&S Act Section 24 and 25 incidents; electrical contact; falls from height: major equipment damage; chemical spillage and other Environmental Incidents to the appointed Project Manager or Engineer within 24 hours of them occurring or, before the end of the work shift.

For any incident (near miss, first aid, medical) that has contravened any of the Statutory Requirements, the Contractor's Representative (Construction Health and Safety Officer) (including the Subcontractor's Representative, if applicable) may be required to present to the client, the incident and the mitigation measures that would be implemented to prevent a recurrence and the implementation of a deadline for all corrective actions to be implemented.

The Principal Contractor and all the other contractors shall ensure that immediate post incident drug and alcohol samples are taken for all parties who are involved in the accident. This may include machine operators, riggers, general labourers and supervisors as well as any witness and the injured. Testing may take place even if there is no property damage or injury, as in the event of a near miss.

If it is found that the Principal Contractor or their Subcontractors are not reporting incidents, actions (which may include disciplinary action) shall be taken against the contractor's or subcontractor's representatives.

A detailed investigation report, including supporting documents, proof of actions taken and proof of communication to other affected employees, shall be completed within 14 days of the incident and submitted to the Project Manager or Engineer formally for comment and review. Should the contractor require a greater period of time to conduct the investigation then permission should be sought from the client's representatives (Engineer or appointed Project Manager). Medical reports received by the contractor after the investigation submission should be forwarded immediately to the client's representative.

An Incident flash report shall be submitted by the Principal Contractor and all the Contractors upon knowledge of an incident; health and safety and occupational injury as soon as reasonably practicable.

Near misses shall be reported and investigated based on the severity of the near miss. The Principal Contractor and Contractors shall submit the completed investigation within seven days.

The Principal Contractor and all the other contractors shall ensure that all accidents / incidents are investigated by a competent person and are discussed at the relevant SHE meetings. The client reserves the right to participate in any accident / incident investigation if the accident / incident is directly linked to any activity related to the project. The Construction Health and Safety Agent (CHSA) must be part of the incident investigation team for all project related incidents.

The Principal Contractor shall keep at his Project Site Office a record of all accidents and incidents reported in the form of the OH&S Act Annexure 1 investigation form as referenced in the OH&S Act. (Incident Investigation Report).

The client or the client's appointed CHSA reserves the right to conduct an independent investigation of any accident and / or incident reported by the Principal Contractor or Subcontractors over and above their own investigations. The Principal Contractor and Subcontractors shall co-operate fully with the investigation and implement any additional improvement measures.

Investigations shall begin as soon as practicable after the incident / accident has occurred. Where applicable and with appropriate authorisation (when required), photographs shall be taken of the scene of the incident as well as any equipment involved. Interviews with witnesses shall be conducted as soon as possible after the incident occurred whilst it is still fresh in their memory and if necessary followed up later to determine if further information was recalled.

The Principal Contractor shall investigate all incidents immediately and supply to the Engineer a written report within five days, unless otherwise specified by Engineer, which shall include but not limited to:

- Date, time and place of incident;
- Description of incident;

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- Root causes of incident/accident;
- Type of injury and/or (if any);
- Medical treatment provided (if any);
- Persons involved;
- Loss or damage sustained (if any);
- Names and contact details of witness/s;
- Description of corrective action to prevent a recurrence (with clear deadlines and persons identified for taking remedial action).
- All corrective actions shall be closed out within 14 days of the date of the incident, unless otherwise agreed by the Engineer.

### 5.1.6 Registration in terms of the COID Act

The Principal Contractor and all the other Contractors on site must be in good standing with the Compensation Commission for Occupational Injuries and Diseases or similar (Federated Employer's Mutual Assurance- FEMA) by registering in terms of the COID Act. A copy of a *valid letter of good standing* as issued by the Compensation Commission for Occupational Injuries and Diseases (Department of Employment and Labour) or similar (Federated Employer's Mutual Assurance- FEMA) must be retained in the safety file all the times.

### 5.1.7 Contents of the Health and Safety File (CR 7 (1) b

**The Principal Contractor shall open and retain on site a SHE file with the following minimum requirements:**

- Notification of construction work to the Department of Employment and Labour
- Letter of good standing
- Safety, Health and Environmental (SHE) plan
- SHEQ policy, procedures and guidelines
- SHE Organogram
- Definitions
- Substance abuse, alcohol and Drug Policy
- Legal Appointments relevant to the project scope of work
- Risk Assessment relevant to the project scope of work
- Method statements relevant to the project scope of work
- Safe work procedures relevant to the high risk tasks and machinery
- Safety Induction derived from the risk assessment and aligned to the project scope of work.
- First aid arrangements
- Lifting and tackle equipment
- Excavation work
- Key Performance Indicators
- Working at heights (Fall Protection Plan)
- Access ladders
- Vehicle Safety policy for Construction vehicles and mobile plant
- Use and temporary storage of flammable liquids
- Incident Management
- Personal Protective Equipment
- Housekeeping
- Stacking and storage
- Fire precautions on site
- Emergency Evacuation plan
- Medical examination
- Toolbox talks
- Safety Audit
- Monthly SHE stats reporting and recording
- Traffic management plan
- SHE Communication



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- Employee wellness program TB & HIV
- Waste Management
- Asset Register
- Inspection registers not limited to the following:
  - Accident and/or incident register;
  - Occupational health and safety representatives' inspection register;
  - Construction vehicles and mobile plan inspections;
  - Daily inspections of construction vehicles, plant and other equipment by the operator, driver and/or user;
  - Daily inspections of excavations by competent person;
  - Record of training;
  - Record of toolbox talks;
  - Designer's inspections record;
  - Inspection and maintenance of explosive powered tools;
  - Inspection of electrical installations (including inspection of portable electrical tools, electrical equipment and other electrical appliances);
  - Fall protection inspections;
  - First-aid box content;
  - Record of first-aid treatment;
  - Fire equipment inspection and maintenance;
  - Record of hazardous chemical substances kept and used on site;
  - Ladder inspection;
  - Machine safety inspections (including machine guards, lock-outs etcetera);
  - Inspection registers and logbooks for lifting machines and –tackle (including daily inspections by drivers/operators);
  - Inspection of excavation
  - Inspection of stacking and storage;
  - Inspection of use and temporary storage of flammable liquids on construction sites
  - Inspection of housekeeping and general safeguarding on construction site
  - Inspection of construction employees' facilities
  - Traffic accommodation signage inspection
  - Inspection of material hoists
  - Inspection of bulk mixing plant
  - Inspection of cranes
  - Inspection of construction vehicles and mobile plant
  - Inspections of vessels under pressure;
  - Inspection of electrical installations and machinery on construction sites; and
  - Records of issuing of Personal Protective Equipment;

The Principal Contractor must note that the contents mentioned herein must be used as a guideline, It is the responsibility of the Principal Contractor to ensure that the SHE file is comprehensive and entails all the procedures meant to mitigate the project's identified risk and endeavour to meet health and safety legal requirements. The Principal Contractor must ensure that all the Contractors (subcontractors) on site develop and submit a SHE file to the approval of the CHSO, contents thereof must be discussed between the Principal Contractor's CHSO and the Contractors SHE personnel.

## **5.2 GENERAL SAFETY REGULATIONS (GSR) REQUIREMENTS**

### **5.2.1 Personal Protective Equipment (Safety PPE and Clothing)**

All applicable legislation concerning Personal Protective Equipment (PPE) must be complied with at all times. As a minimum, the following PPE must be worn by all persons (including visitors) at all times whilst on the project site:

- Safety footwear with steel toe protection;
- Face mask;

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- Safety glasses (individuals who wear prescription spectacles must be provided with either over-spec safety glasses or prescription safety glasses);
- Safety helmet (hard hat); and
- High visibility protective clothing with reflective taping (long trousers and long-sleeved shirts with collars and cuffs).
- Additional PPE requirements must be informed by hazard identification and risk assessment i.e must be risk based. This hazard-specific PPE (such as hand protection, welding suit, hearing protection and respiratory protection) must be worn as required (e.g. when in a certain area, when performing a certain task, or when working with a certain substance);
- The correct PPE must always be worn:
- In accordance with site requirements (as indicated at the entrances to a project site and at the entrances to buildings and / or designated areas on the premises);
- In zoned areas (e.g. noise zones and respirator zones); or
- As required by a Safe Work Procedure, a risk assessment, safety information boards or a Material Safety Data Sheet (MSDS).

The Principal Contractor and all the Contractors must provide each of his employees with all required PPE (at no cost to the employee). Only in isolated circumstances such as proven act of negligence by the employee should a cost be attached to the replacement of the PPE. The specific PPE that is provided to a particular employee must be based on the nature of that employee's work and the location in which the work is performed (i.e. must be based on the hazards and risks which the employee is exposed to). PPE requirements for a particular job or for a particular area must be determined through a risk assessment for that task or area.

Any employee who does not have all of the PPE that is required for him to perform his duties safely will not be permitted to work. Each employee must care for his PPE, maintain it in good condition, and inspect it on a daily basis. If an item of PPE has worn out, has become damaged, or is found to be defective in any way, it must be replaced by the contractor.

PPE must be stored in accordance with the manufacturer's requirements and / or recommendations. All PPE issued must be SABS (or equivalent) approved.

Each employee must receive training in the use, maintenance and limitations of the PPE that is provided to him, and must be made aware of why the PPE is necessary as well as the consequences of not wearing it as instructed (i.e. the potential for injury and / or disciplinary action). Training records must be retained.

The Principal Contractor and all the Contractors must conduct a PPE survey so as to define the relevant PPE per project task this must be aligned to the risk profile of the task in question.

Any person who refuses to wear PPE as required must follow the necessary Principal Contractor's disciplinary procedures and must not be allowed to conduct any site tasks. Symbolic signs indicating mandatory PPE requirements must be prominently displayed at the entrances to a project site and at the entrances to buildings and / or designated areas on the premises where additional PPE is required. These signs must comply with the applicable national standard (if one exists).

The Principal Contractor and any other Contractor must appoint an employee to:

- Control the issuing and replacement of PPE;
- Keep an up-to-date register as proof that items of PPE have been issued to individuals (an employee must sign for the items that he receives);
- Ensure that there is an adequate supply of all required PPE (i.e. maintain PPE stock levels on site); and
- Carry out regular inspections to ensure that PPE is being used correctly, is being maintained in a good, serviceable and hygienic state, and is not being shared between employees

### **5.2.2 Access Control/Admittance of Persons**

All persons shall report to the Security Officer at the main site office before proceeding to site. Visitors shall sign a visitors' log book and read through the induction notes as detailed on the induction book. All visitors to be accompanied by an authorized person for inspections and other site related assignments.

### **5.2.3 Display of Notices, Symbolic SHE signs, Hazard Notices and danger areas**

All symbolic safety signage that the Principal Contractor is to use/display shall conform to the requirements of SANS 1186.

The display of the following signs is mandatory:

- For Site Establishment: The Principal Contractor's Company Name Sign must be posted at their site offices to reflect the name and contact details of the: Construction Manager; CHSO; First Aider(s); Health and Safety Representative and Evacuation arrangements.
- The Principal Contractor must ensure that the name board is aligned to the employer's requirements in terms of contents thereof.
- "Radio-Active Material" symbolic signs for radioactive material storage areas.
- The location of every First Aid Box; Fire Extinguisher and Emergency Exit is to be clearly indicated by means of appropriate signage.
- When in use, an explosive Power Tool shall have signage warning of its operation.
- Other specific signage for high risk activities shall be displayed e.g. deep excavations and traffic accommodation signage.
- Contractor(s) shall post Company Name Sign on all fuel storage containers.
- Symbolic SHE signs must be displayed as per the risk profile of the task in the different project areas.

The Contractor shall provide the signage where work is carried out, where unauthorised entry is prohibited and/or where alerting and cautioning passers-by to be aware of potential dangers. Risk based signage shall be installed as the project progresses.

### **5.2.4 First Aid, Emergency Equipment & Procedures**

The Principal Contractor must develop, implement, test and maintain an Emergency Preparedness Plan (incorporating emergency evacuation procedures with all the necessary emergency evacuation routes) that focuses specifically on the Principal Contractor's team and work activities and sequence. The plan must be risk-based and must detail the procedures that must be followed when responding to all potential emergency scenarios such as a medical emergency (including first aid response), a fire, an explosion, a hazardous substance spill, flooding, rescue from height, rescue from a confined space, mob violence, hostage situation etc.

Consideration must be given also to potential off-site emergency scenarios must be included (e.g. emergency scenarios related to the transport of personnel, strikes, the transport of hazardous materials, and personnel performing work in remote locations and lone working).

The Emergency Preparedness Plan must satisfy and comply with all applicable legal requirements. The plan must be adequately resourced to ensure effective implementation. These resources must include appropriate personnel, external emergency response service providers, emergency response equipment, and warning devices. All equipment and warning devices must be identified, maintained and tested to ensure availability at all times.

Accountability for the Emergency Preparedness Plan must be clearly defined. An Emergency Response Team (ERT) responsible for the implementation, management and execution of the Emergency Preparedness Plan must be established. The roles and responsibilities of each team member must be clearly defined in the plan. Each team member must receive appropriate training to ensure that each role is performed competently.

The process for managing incident communication, notification, and reporting must be incorporated into the Emergency Preparedness Plan. The responsible person(s) must be clearly identified, and the protocols for communicating with internal and external stakeholders must be defined.

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Emergency evacuation procedures must be developed and included in the Emergency Preparedness Plan. A copy of the plan must be submitted to the CHSA or the Resident Engineer or his representative for approval prior to site establishment. The Emergency Preparedness Plan must be formally reviewed (and amended if necessary) when project needs require, and following any emergency situation, to ensure that it remains appropriate and effective.

At each project work site, as a minimum:

- A suitable evacuation alarm (whistle or siren) must be provided. All persons working in an area where an evacuation alarm is sounded must respond to it immediately.
- Suitable fire-fighting equipment must be provided and maintained, and personnel must be trained in fire-fighting procedures and the use of fire-fighting equipment.
- Suitable first aid equipment and supplies must be provided and maintained, and an adequate number of appropriately trained First Aiders must be in place.
- Emergency assembly points positioned in safe locations away from buildings, plant and equipment must be designated (and conspicuously signposted). In the event of an evacuation, all persons (i.e. personnel and visitors) must assemble and be accounted for at these emergency assembly points.
- All personnel must receive awareness training on the applicable Emergency response procedures, and all visitors entering the site must be properly instructed in these procedures.
- The Emergency response procedures must be displayed on each notice board.
- A diagram (site plan) indicating evacuation routes, emergency assembly point locations, and the positioning of emergency equipment (fire extinguishers, first aid boxes, etc.) must be prominently displayed in all buildings and plants, in all offices, on all notice boards, and in other locations on the site as may be required.
- An up-to-date list of emergency telephone numbers must be compiled and maintained. A copy of this list must be posted at each site entrance, in each office, near each telephone, and on every notice board.
- Emergency response drills must be conducted to test the effectiveness of the emergency procedures and equipment, as well as the knowledge and proficiency of the response personnel consisting mainly site personnel. Where appropriate, drills must include liaison with and the involvement of external emergency response service providers. A range of emergency scenarios must be tested including, but not limited to, medical emergencies, fires, rescues, and hazardous substance spills. A drill must be carried out one month after site establishment and then again six months thereafter.

Each drill must be monitored and the outcomes (highlights and shortcomings) must be documented. Corrective actions must be identified and implemented to address the shortcomings, and the Emergency Preparedness Plan and associated procedures must be amended as required.

### **Fire Fighting**

The contractor must ensure that Fire Fighting requirements are complied with. An appointed competent Fire Fighter must be appointed to ensure compliance to firefighting requirements. Applicable standards and codes of practice apply.

### **First Aid and First Aid Kits**

The Principal Contractor must ensure that First Aiders are trained and appointed as described in the Site Specific Health and Safety Specification and in accordance with relevant legislative requirements (GSR 3).

A suitable first aid kit (i.e. appropriate to the level of training) must be readily available to each First Aider. All kits must be provided and maintained by the contractor.

Taking into account the type of injuries that are likely to occur in the workplace, each first aid kit must contain suitable equipment and supplies. First aid equipment and supplies required by applicable legislation must be provided as a minimum.

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The contents of each first aid kit must be kept clean and dry. Each kit must be contained in either a portable weather-proof case / bag or a steel box mounted to a fixed structure. Access to first aid equipment / supplies must be limited to train First Aiders only. Access to portable kit bags must be controlled and steel first aid boxes mounted in the workplace must be kept locked. Approved signage must be in place to indicate the locations of the first aid boxes / bags. A record of each treatment administered must be kept in a suitable register.

No tablets or medication to be stored in the first aid box. No tablets or medication to be administered by first aiders or other personnel to employees who are not feeling well or have been injured.

The first aid kits must, as a minimum, contain the following equipment and supplies:

**Table1: Minimum Requirements to be included when equipping first aid boxes**

Item 1:	Wound cleaner/ antiseptic – 100ml;
Item 2:	Swabs for cleaning wounds;
Item 3:	Cotton wool for padding – 100g;
Item 4:	Sterile gauze – minimum quantity 10;
Item 5:	1 x Pair of forceps – for splinters;
Item 6:	1 x Pair of scissors – minimum size 100mm
Item 7:	1 x Set of safety pins;
Item 8:	4 x Triangular bandages;
Item 9:	4 x Roller bandages – 75mm x 5m;
Item 10:	4 x Roller bandages – 100mm x 5m;
Item 11:	1 x Roll of elastic adhesive – 25mm x 3m;
Item 12:	1 x Non-allergenic adhesive strip – 25mm x 3m;
Item 13:	1 x Packet of adhesive dressing strips – minimum quantity 10 assorted sizes;
Item 14:	4 x First aid dressings – 75mm x 100mm;
Item 15:	4 x First aid dressings – 150mm x 200mm;
Item 16:	2 x Straight splints;
Item 17:	2 x Pairs large and 2 x pairs medium disposable latex gloves;
Item 18:	2 x CPR mouth pieces or similar devices.

Additional items / supplies may need to be provided depending on the nature of the workplace (specific hazards) and the level of training of the first aider in position of the kit.

## 5.2.5 Work in Elevated Positions

There is no scope for working in elevated positions for this project. Where a contractor is appointed to install street lights and light fittings the requirements of Construction Regulations 10 shall be adhered to.

## 5.2.6 Use and storage of flammable liquids

Refer to Operational Control Section of the SSHSS

## 5.2.7 Stacking of articles

The Principal Contractor and all the other contractors must, in addition to compliance with the provisions for the stacking of articles in the General Safety Regulations, 2003, ensure that:

- A competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site;
- Adequate storage areas are provided;
- There are demarcated storage areas; and
- Storage areas are kept neat and under control.

### **5.2.8 Ladders**

Access step ladders shall be used for deep excavations, the following requirements shall be complied with regarding ladders and ladder work:

- The term "ladders" refers to both fixed and portable ladders.
- Ladders shall be clearly numbered, and inspected on the register provided.
- A competent person shall be identified and appointed as the ladder inspector.
- Where aluminium ladders cannot be used, then wooden ladders shall be straight grained, unpainted to allow for proper inspection of the grain for cracking.
- Ladders shall be secured at the top and chocked at the base to prevent slipping.
- Where chocking of the base is not possible, then the user shall ensure that the ladder is held in position by another employee when ascending the ladder.
- Ladders shall be inspected a minimum once per month by the person appointed as the ladder inspector.
- Proper storage shall be provided for all ladders when not in use.

### **5.3 APPLICATION OF CONSTRUCTION REGULATIONS (CR) (2014 REQUIREMENTS)**

The intended construction work falls within the scope of “construction work” as defined in the Construction Regulations, 2014 made under the Occupational Health and Safety Act 1993 (OHS Act), as amended (“the Act”).

#### **5.3.1 Construction Design Management (CR 6- Duties of Designer)**

The Designers must ensure that all the designs for the project are in line with the requirements of Construction Regulation 6 and the requirements for construction material and substances as spelt out in the OHS Act Sect 10: General duties of manufacturers and others regarding articles and substances for use at work are met.

The Designers must demonstrate proof that health and safety by design prevails throughout all the construction stages of the project. As a minimum requirement a Design Health and Safety Report should be compiled at Design Stage and must consequently form part of the contract documentation to be accessible to contractors for construction documentation and management stage.

The minimum requirements of the Design Health and Safety Report should consist but not limited to the following:

- The purpose of the project as outlined by the client / client representative in the project brief.
- All the relevant parties consulted in undertaking the design.
- Design risk register.
- Product Technical statements and relevant material safety data sheets for construction.
- Relevant test results as outlined in the contract documents and relevant code of practice.
- The hazards and risks identified during the design process, and control measures incorporated into the design, specifically in relation to:
  - Any hazardous materials specified in the design.
  - Any unusual or atypical features requiring attention during construction stage.
  - Evidence of consideration of design ergonomics while undertaking the design.
  - Any features of the design which present specific risks.
  - The recommended control measures for any foreseeable activities (for instance operation, maintenance, repair and any disposal requirements).
- Manuals and procedures for safe operations and maintenance post project completion.

The Designers must provide evidence and supporting documentation throughout the Design Development such as:

- Design Development Planning
- Design and development inputs
- Design development controls and related reviews
- Design Development desired outputs and hold points to support design reviews conducted.
- Design and development changes.
- Final Design approval and provision for ongoing design reviews to manage health and safety risks.

#### **5.3.2 Contractor Health and Safety Management System (HSMS)**

##### **Health and Safety Philosophy**

Health and safety is a shared responsibility and team work effort. The client shall endeavour to provide a working environment that is free from health, safety and environmental hazards. To this end, the Principal Contractor and all the other Subcontractors in the project must execute their tasks in the safest possible manner. The Principal Contractor must ensure that a health and safety management system is developed, implemented, monitored and

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continually reviewed on site to ensure that the risk of harm to employees from construction hazards is reduced to as low as reasonably practicable. The Health and Safety Management System must clearly outline the following steps 'Plan, Do, Check, Act' and the risk based approach to site tasks, this approach shall be explained in detail to the Principal Contractor upon contractor and subcontractor induction to be conducted by the Construction Health and Safety Agent.

### 5.3.2.1 Occupational Health and Safety (OHS) Structure and Responsibilities

#### (i) APPOINTMENTS

All appointment letters must be signed by the appointer and acknowledged by the appointee. Appointment letters must be retained in the SHE file and must be up-to-date with the duration of the appointment. The following legal appointments are relevant to this project:

Chief Executive Officer	[OHSAct Section 16.1]
Project Manager	[OHSAct Section 16.2]
Construction Manager	[Construction Regulation 8.1]
Construction Health and Safety Officer	[Construction Regulation 8(5)]
Construction Supervisor	[Construction Regulation 8(7)]
Construction Supervisor Assistant	[Construction Regulation 8(8)]
Temporary Electrical Installations Insp & Controller	[Construction Regulation 24 e]
Electrical Machinery Inspector	[Construction Regulation 24 d]
Drivers/Operators of Construction Vehicles/Plant	[Construction Regulation 23]
Crane Operator	[Construction Regulation 22 a]
Emergency/Security/Fire Coordinator	[Construction Regulation 29]
Excavation Supervisor	[Construction Regulation 13(1) a]
Excavation Inspector	[Construction Regulation 13 (2) h]
First Aider	[General Safety Regulation 3]
Fire Fighting Equipment Inspector	[Construction Regulation 29]
Hazardous Chemical Substances Supervisor	[HCS Regulations 10]
Incident Investigator	[General Admin Regulation 9]
OH&S Committee	[OHSAct Section 19]
OH&S Officer	[Construction Regulation 8(5)]
OH&S Representatives	[OHSAct Section 17]
Person Responsible for Machinery	[General Machinery Regulation 2]
Risk Assessor	[Construction Regulation 9(1)]
Stacking and Storage Supervisor	[Construction Regulation 28]
Construction Vehicles/Mobile Plant/Machinery Operator	[Construction Regulation 23 (1) d]
Construction Vehicles/Mobile Plant Inspector	[Construction Regulation 23]
Ladder Inspector	[General Safety Regulation 13 A]
Lifting Machine Inspector	[Driven Machinery Regulation 18 (5)]
Lifting Machinery Operator	[Driven Machinery Regulation 18 (11)]
Lifting Tackle Inspector	[Driven Machinery Regulation 18 (10) e]
Goods Hoist Inspector	[Driven Machinery Regulation 17 (2)]
Handtools Inspector	[OHS Act Sect 8]

**Based on the HIGH degree of risk attached to the project, a Full-Time Construction Health and Safety Officer (CR 8.5) registered with SACPCMP as a Construction Health and Safety Officer must be appointed to oversee construction health and safety aspects of the project.**

The above legal appointments are not exhaustive the Principal Contractor and all the other subcontractors must ensure that the Legal appointments register is updated in line with the changing scope of work and consequent risk register. **Change of Project Personnel must be done with the approval of the client's representative.**



**(ii) ADDITIONAL DUTIES OF PRINCIPAL CONTRACTOR**

- a) It is the responsibility of the principal contractor to notify the Department of Employment and Labour regarding the intended construction work. Notification of construction work with the Department of Employment and Labour is applicable to this project.
- b) Coordination, supervision and monitoring of other contractors on site remains the responsibility of the Principal Contractor.  
It is the responsibility of the principal contractor to carry out duties as outlined in the Construction Regulations 7. All subcontractors are required to submit a complete health and safety file to Safety Agent. The latter shall evaluate and approve the safety file. A minimum score of 95% must be achieved by any contractor before commencement with any tasks on site.
- c) The Principal contractor must provide proof of registration with the Compensation commission or any other registered insurer. The letter of good standing must be valid and available on site all the times.
- d) The Principal Contractor must engage with the CHSA with respect to subcontractor challenges when it comes to development and implementation of the safety management system on site which must be aligned to the SSHSS and also the baseline risk assessment for the project.

**(iii) MANDATARIES**

The Principal Contractor shall be appointed by the client to undertake construction work on site in terms of Construction Regulations 5 (1) k. An Agent (The Project Manager, Project Engineer) is appointed in writing to represent the client. The Construction Regulations places the responsibility on the client to oversee health and safety matters (who in turn appoints a Construction Health and Safety Agent to oversee health and safety aspects of the project. The Project Manager or Project Engineer must be competent to perform project management functions of the project.

**(iv) SCHEDULE OF ALL CONTRACTORS**

A sub-contractor list with key contact persons shall be maintained on site. All subcontractors shall be evaluated for competence and compliance to health, safety, environmental and other applicable legislation. Each subcontractor shall be legally appointed and shall be required to sign the Construction Regulation 7 1 C v appointment and the Occupational Health and Safety Act Section 37 (1) (2) Mandatory agreement.

**(v) OCCUPATIONAL HEALTH AND SAFETY ACT SECTION 37(2) AGREEMENTS**

The principal contractor shall sign the 37 (1) (2) agreement with the client. All other subcontractors on site shall also sign the Sect 37 (1) (2) upon appointment by the principal contractor.

**5.3.2.2 GENERAL OHS PROVISIONS**

**5.3.2.2.1 Risk Assessment and Method Statement**

**(Project specific assessment requirements / Potential Sources of risks, RA Plan and Contractor Health and Safety Plan)**

Detailed hazard identification and risk assessment processes must be followed for all work to be performed as well as for all associated equipment and facilities as required by the Construction Regulation of 2014, Regulation 9(1) – (7).

The Client through the appointed Construction Health and Safety Agent shall provide a baseline risk assessment (BRA) informing the Principal Contractor on the hazards and risks relevant to the project. The Principal Contractor must also conduct a detailed suitable and sufficient risk assessment for the project. The Principal Contractor must ensure that effective procedures and risk assessment systems are in place to control hazards and to mitigate risks to levels that are as low as is reasonably practicable.

The risk assessment processes must be applied to:

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- The full life cycle of the project, including any design changes within the project scope of work;
- Routine and non-routine activities;
- Planned or unplanned changes;
- All employees, sub-contractors, suppliers and visitors; and
- All infrastructure, equipment and materials.

The risk assessment processes and methodologies must be in context with the nature and scale of the risks, and must be compiled and implemented by competent persons. To this end, a competent risk assessor must be appointed in writing.

The process of analysing and managing risk must include the following:

- Establishing the context of the risk assessment;
- Identifying hazards and determining possible risk scenarios (unwanted events);
- Evaluating risks and assigning ratings (classification);
- Recording the risk analysis in a risk register;
- Managing risks according to their classification (prioritising for action);
- Identifying and implementing control measures (through the application of the Hierarchy of Controls) to ensure that risks are managed to levels that are as low as is reasonably practicable (ALARP);
- Developing action plans for reducing risk levels (where possible);
- Verifying the completion of actions;
- Re-evaluating the risks and classifications as appropriate; and
- Reviewing and updating the risk register.

#### **Baseline Risk Assessments**

Prior to site establishment, (the Client or appointed client representative, the CHSA in this instance) will conduct a detailed Baseline Risk Assessment identifying foreseeable hazards and risk scenarios associated with the contractor's scope of work on the project site(s) as required by Construction Regulations of 2014, regulation 5(1)(a). Details concerning proposed control measures shall be included. The Principal Contractor shall conduct a task based risk assessment for all the project tasks, ideally the project programme of works should be used to align the task based risk assessment and ensure that all high risk project tasks are adequately assessed. The risk assessment process must be facilitated by a competent person who has been appointed in writing and must involve the participation of the contractor's site management representatives, supervisory personnel and technical experts. An attendance register must be completed and retained for reference purpose. The Baseline Risk Assessment must be reviewed and approved by the Project CHSO and Project Construction Manager.

When carrying out a Baseline Risk Assessment or a Task-Based Risk Assessment, Hazard (Energy) Types must be specified. Risk scenarios must be described indicating the manner in which a person may come into contact with, or be exposed to, a specific hazard.

An initial risk rating must be assigned to each risk scenario without taking any control measures into consideration. Control measures for managing the risks to levels that are as low as is reasonably practicable must then be identified for implementation on the project, and a residual risk rating must be assigned to each risk scenario taking the identified control measures into consideration.

A Risk Register comprising of all significant risks (i.e. Risks rated as major or catastrophic) identified for the project will be compiled using the information contained in the project Baseline Risk Assessment as well as the contractor's Baseline Risk Assessment. Key control measures for managing each of these risks will be specified in the register.

For the significant risks in particular, action plans will be developed for reducing the risk levels (where possible).

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The project Risk Register will be reviewed and, if necessary, updated:

- On a quarterly basis during construction;
- When changes are made to a design and / or the construction scope, schedule, methods, etc. That result in a change to the risk profile; and
- Following an incident.
- Project risk monitoring and review plan must be retained by the contractor and any subcontractor on site.

The Principal Contractor must ensure that the hazards, risk scenarios and control measures identified in the contractor's Baseline and Task-Based Risk Assessments are taken into consideration when developing, implementing and maintaining the various elements of the contractor's health and safety management system for the project (e.g. Competence, training and awareness requirements).

All persons potentially affected must be made aware of the hazards, risk scenarios and control measures identified in the contractor's risk assessments. This must be done through training, Toolbox Talks, and Daily Safe Task Instructions.

### **Task-Based Risk Assessments**

The Principal Contractor must carry out detailed project-specific Task-Based Risk Assessments which must be reviewed and approved by the Client's appointed CHSA and internally by the Principal Contractor's Project Construction Manager prior to the commencement of any work.

The risk assessment process must be facilitated by a competent person who has been appointed in writing in terms CR 9 sub regulation (1). The contractor's site management representatives, supervisory personnel, technical experts (as required) and workforce personnel directly involved with the task being examined must participate in the risk assessment process. An attendance register must be completed and retained.

**Please Note:** Under no circumstances may a Contractor's Health and Safety Officer perform a risk assessment in on his/ her own. The active participation of all persons referred to above is mandatory, a risk assessment team must conduct the risk assessment.

A Task-Based Risk Assessment must at least:

- Be accompanied by a Work Method Statement (describing in sufficient detail how the specific job or task is to be performed in a logical and sequential manner);
- Provide a breakdown of the job or task into specific steps;
- Identify the hazards and potential risk scenarios associated with each step;
- Include consideration of possible exposure to noise, heat, dust, fumes, vapours, gases, chemicals, radiation, vibration, ergonomic stressors, or any other occupational health hazard or stressor;
- Describe the control measures that will be implemented to ensure that the risks are managed to levels that are as low as is reasonably practicable; and
- Assign an initial risk rating (without taking any control measures into consideration) and a residual risk rating (taking the identified control measures into consideration) to each risk scenario.

A Task-Based Risk Assessment must be reviewed and, if necessary, updated:

- On an annual basis (as a minimum);
- When changes are made to the associated Work Method Statement; and
- Where there are changes to the project scope.
- Where there are design changes.
- Introduction of new equipment.
- Introduction of new personnel.
- Introduction of new material.
- Following an incident.

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- Whenever the need arise based on the progress of the project.

The Principal Contractor and all the other contractors are advised to align the Task Based Risk assessment to the tasks as outlined in the Project Programme of works for their specific project scope of work. The following is a guide in terms of tasks and equipment that require risk assessment:

- **Site establishment**
- **Setting out of works**
- **Accommodation of traffic**
- **Excavation of trenches**
- **Installation of bedding, compaction and backfilling**
- **Installation of stormwater management system**
- **Road construction**
- **Installation of road signage and road markings**
- **Construction of sidewalks, paving and other**
- **Site De-establishment**
- **Maintenance of the work during the construction and subsequent liability periods**
- **Any other specific tasks as part of the project works.**

***It remains the responsibility of the Principal Contractor and all the other contractors in the project to ensure that the risk assessment is aligned and relevant to their scope of work.***

#### **Pre-Task Hazard Assessments (Daily Safety Task Instruction- DSTI)**

A pre-task hazard assessment (Daily Safety Task Instruction- DSTI) must be completed before conducting any task on site and whenever a change is identified while carrying out an activity. Any deviation from what was discussed during the Daily Safety Task Instruction (prior to the activity commencing), or anything that was not discussed, constitutes a change.

Before carrying out the particular task that involves the identified change, a few minutes must be spent identifying the hazards and risks associated with that task as well as suitable control measures.

### **5.3.2.3 CONTRACTOR HEALTH AND SAFETY PLANS**

The Principal Contractor must prepare, implement and maintain a project-specific Health and Safety Management Plan. The plan must adhere to the requirements of the SHE specification, aligned to the project risk assessment and comply with relevant/applicable legislation. It must cover all activities that will be undertaken as part of the Project from project inception, site mobilisation, project implementation right upto decommissioning. The plan must demonstrate the Principal Contractor 's commitment to health and safety and must, as a minimum, include the following:

- A copy of the contractor's **Health and Safety Policy**; in terms of the OHS Act section 7
- Procedures concerning **Hazard Identification and Risk Assessment**, including both Baseline and Task-Based Risk Assessments;
- Arrangements concerning the identification of applicable Legal and Other Requirements, measures to ensure compliance with these requirements, and measures to ensure that this information is accessible to relevant personnel;
- Details concerning Health and Safety Objectives – a process must be in place for setting objectives (and developing associated action plans) to drive continual improvement;
- Details concerning Resources, Accountabilities and Responsibilities – this includes the assignment of specific health and safety responsibilities to individuals in accordance with legal or project requirements, including the appointment of a Project Manager, Health and Safety Officers, Supervisors, Health and Safety

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Representatives, and First Aiders;

- Details concerning Competence, Training and Awareness – a system must be in place to ensure that each employee is suitably trained and competent, and procedures must be in place for identifying training needs and providing the necessary training;
- Communication, Participation and Consultation arrangements concerning health and safety, including Safety Observations and Coaching, Toolbox Talks, Daily Safe Task Instructions, project health and safety meetings, and notice boards;
- Documentation and Document Control – project-specific documentation required for the effective management of health and safety on the project must be developed and maintained, and processes must be in place for the control of these documents;
- Processes and procedures for maintaining Operational Control, including rules and requirements (typically contained in Safe Work Procedures) for effectively managing health and safety risks, particularly critical risks associated with working at heights, confined spaces, mobile equipment and light vehicles, lifting operations, hazardous chemical substances, etc.;
- Emergency Preparedness and Response procedures;
- Fall protection planning
- Management of Change – a process must be in place to ensure that health and safety risks are considered before changes are implemented;
- Sub-contractor Alignment procedures – a process must be in place for the assessment of sub-contractors and suppliers with regard to health and safety requirements and performance (before any contract or purchase order is awarded);
- Measuring and Monitoring plans, including a plan for the measuring and monitoring of employee exposure to hazardous substances or agents (e.g. Noise, dust, etc.) In order to determine the effectiveness of control measures;
- Incident Reporting and Investigation procedures describing the protocols to be followed with regard to incident reporting, recording, investigation and analysis;
- Non-conformance and Action Management procedures concerning the management of corrective actions;
- Performance Assessment and Auditing procedures concerning health and safety performance reporting, monthly internal audits to assess compliance with the project health and safety requirements, and daily site health and safety inspections; and
- Details concerning the Management Review process followed to assess the effectiveness of health and safety management efforts.

Once the plan has been reviewed, the Principal Contractor must action and resolve any outstanding issues within 7 days from the start of work.

If the issues requiring corrective action are not resolved within this 7-day period, the Principal Contractor shall submit an action plan with relevant commitment dates.

Any proposed amendments or revisions to the Principal Contractor 's Health and Safety Management Plan must be submitted and approved by the client's appointed CHSA.

Should it be identified that the contractor has overlooked a high risk activity, and as a result has omitted the activity and associated control measures from the Health and Safety Management Plan, the plan will not be approved. The Principal Contractor shall be advised to review the Health and Safety Management Plan incorporating the omissions as identified before approval by the CHSA.

#### **5.3.2.4 H & S POLICY**

The Principal Contractor must develop, display, communicate and implement a Health and Safety Policy that clearly states the Principal Contractor 's values and objectives for the effective management of health and safety as required by OHS Act of 1993, 7(3). These values and objectives must be endorsed by the contractor 's management representative (ideally the Chief Executive Officer) and must be consistent with those adopted for

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the project.

The policy must be signed and dated, and must be reviewed annually. The policy must commit to:

- Compliance with all applicable legal requirements;
- The effective management of health and safety risks;
- Risk based approach to project tasks
- The establishment of measurable objectives for improving performance, and the provision of the necessary resources to meet these objectives;
- The prevention of incidents; and
- Achieving continual improvement with regard to health and safety performance.

All employees of the Principal Contractor as well as the employees of any sub-contractors that may be appointed by the Principal Contractor must be made aware of the policy. This must be done through Health and Safety Induction Training and Toolbox Talks. A copy of the policy must be displayed in each meeting room and on each notice board. The copy of the health and safety (environmental policy) must be available for interested and affected parties.

### 5.3.2.5 LEGISLATIVE REQUIREMENTS AND SITE SPECIFIC REQUIREMENTS

The Principal Contractor must comply with the requirements of all applicable health, safety and environmental legislation as well as any other project-specific standards, relevant codes of practice and procedures as issued by the client.

The Principal Contractor must compile and maintain a register of all legal and other (standards, specifications, codes of practice and municipal by laws) requirements relevant to the project. This register must be updated regularly to ensure relevance.

Applicable laws and standards must be appropriately communicated to all employees of the contractor (as well as the employees of any sub-contractors that may be appointed by the contractor) through training, Toolbox Talks, and Daily Safety Task Instructions.

### 5.3.2.6 OHS GOALS AND OBJECTIVES & ARRANGEMENTS FOR MONITORING AND REVIEW OF OHS PERFORMANCE

The Principal Contractor and all the other contractors are required to maintain zero mandays lost. The contractor will report mandays lost to the client on a monthly basis.

$$\text{LTIR} = \frac{(\text{Number of Lost Time Injuries}) \times 200\,000}{\text{Total Number of Man-hours Worked Over Period for the Construction Project}}$$

**Lost-Time Injury (LTI):** *A work related injury or illness resulting in unfitness or absence from normal work activities and the employee's absence is calculated from the time of the incident / accident. Lost-Time Injuries include injuries / accidents where an employee is placed on light-duty or any other duty for which he/she is not normally employed as a result of an accident / injury.*

The Principal Contractor shall establish health and safety objectives and targets and come up with ways of measuring performance with regards to achieving the set objectives. Progress towards the set objectives must be discussed during toolbox talks, safety meetings and ad hoc meetings. A system to report on SHE performance must be put in place by the Principal Contractor.

### **5.3.2.7 TRAINING, COMPETENCE AND INFORMATION**

**(i) General Induction Training**

All Principal Contractor and sub-contractor employees shall receive induction training based on the entire safety management system for the project. All project employees inducted, must be in possession of proof of induction. No employee must commence with any site activities without receiving induction training and proof thereof. All subcontractor employees must be inducted before proceeding to site. A programme to induct visitors must also be put in place. No visitor shall proceed to site without being inducted.

**(ii) Site/Job Specific Induction Training.**

The Principal Contractor must compile a risk based induction programme, this must be based on the hazards and risks identified on site. Site personnel must receive this induction as it is in context with project tasks. The principal contractor's employees and any other subcontractor employees must be in possession of proof of task specific induction training.

**(iii) Other Training**

The Principal Contractor must conduct training as stipulated by the Construction Regulations and other relevant regulations. Other training to be offered must be based on the Contractor's safety plan and as identified as a control in risk assessment. Other training shall include but not limited to the following:

- a) General induction training (Section 8 of the OHSACT- duty to inform).
- b) Site / task specific induction for employees and visitors (Section 8 & 9 OHSACT).
- c) OHS Representative Training (OHSACT Sect 18 (3)).
- d) Legal appointees training.
- e) Plant Operators, Light Driven Motor Vehicle drivers, Heavy Driven Vehicles drivers (Construction Regulation 23).
- f) Basic Fire Fighting (Environmental Regulations 9)
- g) Storekeeping methods and stacking storage (Construction Regulation 28).
- h) Emergency Coordination (Construction Regulation 29)
- i) Hazard identification and risk assessment (Construction Regulation 9).
- j) Use of power tools training
- k) Flagmen training

Any other training that is meant to mitigate an identified risk as an administrative control.

**(iv) Proof of Training**

Employees that are required to be trained according to the OHS Act, Construction Regulation and any other relevant legislation shall retain valid proof of training all the times.

**(v) Awareness & Promotion**

The Principal Contractor is required to create safety, health and environmental awareness for the duration of the project. This can be achieved through but not limited to the following:

- a) Use of SHE posters
- b) Use of SHE videos
- c) Toolbox talks
- d) SHE suggestion systems such as suggestion boxes
- e) Participating platforms such as SHE meetings.

**(vi) Competence**

The Principal Contractor shall ensure that all legally appointed personnel including subcontractor employees are competent to execute tasks assigned to them. Proof of competence shall be in the form of formal training and also on the job experience. Verification of proof of competence shall be through planned task observations and recommendations thereof.

Refresher training shall be conducted as and when required. Change in the risk profile of the tasks at hand may also necessitate refresher training for project personnel. Use of power tools such as the whacker, jack-hammer, grinding machines shall require formal training by a registered institution.

All training records shall be retained in the safety file for inspection.

### 5.3.2.8 CONSULTATION, COMMUNICATION AND LIAISON

The Principal Contractor shall maintain documented information detailing how to communicate, participate and consult with employees and external interested parties on issues of safety, health and environment.

Effective internal communication, participation and consultation is essential for the operation of the safety, health and environmental programme and the achievement of OH&S, Environment objectives. Methods of communication, participation and consultation with employees must be incorporated into all the Procedures and Work Instructions to promote interaction between all relevant levels. Individual and group responsibilities must be defined for recording, reporting and sharing of data and information. Monthly and Quarterly, Health & Safety and Environment Meetings must be held to maintain safety management system in place so as to reduce risk to health, safety and environment.

Effective communication and consultation with external interested parties is a vital component of maintaining a positive working relationship with legal regulators, customers, contractors, OH&S and Environmental interest groups.

A pro-active approach must be taken by communicating and consulting with staff in setting objectives and targets for SHE performance improvement.

The Principal Contractor must ensure that, SHE Procedures and method statements must describe the information and data to be recorded and communicated for effective operation of the SHE management System. All personnel in the project or through a representative (Supervisor) must be:

- Involved (take part) with the development and review of Safe Work Procedures related to the hazards of their activities/area.
- Consulted with regard to changes that affect their health and safety, and the environment.
- Represented on OH&S matters by their Safety Representative.
- Informed who their Safety Representative and OH&S and or any other safety appointee are by means of notices on the notice boards.

The Principal Contractor must ensure that Procedures that have a specific role in the formal communication system include:

- **Responsibility, Authority and Resources** informing all personnel of the structure, responsibility and resources for OH&S, Environmental. This assists with the understanding of the sources of OH&S, Environmental information and who should be advised of OH&S and Environmental.
- **Document Control** ensuring the communication of correct instructions to all personnel by defining and controlling the distribution of documentation of the OHS and Environmental System.
- **Procurement** communicating OH&S and Environmental expectations to individuals and organizations that provide products and services. Suppliers and contractors are expected to comply with OH&S and Environmental rules relating to the contractor's and subcontractor's policy and procedures when on site. The contractor must ensure that major suppliers carry out suitable OH&S and Environmental controls depending on the actual or potential OH&S and Environmental impacts of their products and services. This control also applies to any subcontractor on site.
- **Corrective Action** The contractor must identify problems arising from non-conformance incidents, accidents, emergencies and internal audits and communicating the causes, responsibilities and remedial action.
- **Internal Audits** The contractor must monitor the effective implementation of the SHE policies and procedures and communicating the results to all salient stakeholders in the project.

The Principal Contractor and any other subcontractor in the project must ensure that other specific communication methods that are used to capture and share information on OH&S and Environmental issues including:



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- **Team Briefings** must be conducted to advise project personnel on current issues and to seek ideas and opinions. All relevant topics must be discussed. Frequency of team briefings shall be determined by the contractor and all the other subcontractors in the project.
- **Notice Boards** must be conspicuously displayed on site to advise personnel of the SHEQ Policies, performance and initiatives for OH&S and Environmental improvement.
- **Safety & Wellness program and 5-minute Safety Talks** shall include general OH&S and Environmental information and must aim to maintain a constant awareness of OH&S and Environment by all employees. It must include OH&S and Environment incidents and monthly OH&S and Environmental statistics.
- **External Communication of Significant Aspects** The contractor shall evaluate the identified significant aspects; determine which of these will have an influence outside of company boundaries. Such aspects must be communicated to the relevant interested and affected parties, both internally and externally. External communication on significant aspects shall only take place provided the communication is related to a legal requirement.
- **After-Hours communications:**  
The contractor shall ensure that after-hours communications are limited to emergencies and contact details for emergencies must be available on the notice board on the site's entrance gate.
- **A letter of notification** must be used to notify interested parties e.g.
  - Neighbouring companies
  - Department of Employment and Labour - Chief Inspector
  - Provincial Director
  - Emergency Services
  - Local Town Council.
  - The local community any other interested and affected parties
  -

### 5.3.2.9 CHECKING AND REPORTING AND CORRECTIVE ACTION

#### Monthly Audit by Client (CR 5(1) o).

The client through the appointed CHSA shall monitor and ensure that contractor is implementing the safety plan in place by conducting monthly audits as per Construction Regulation 5 (1) o. The client reserves the right to appoint a competent person to conduct these audits, the CHSA in this case.

#### Other Audits and Inspections by Client

The client technical personnel including the appointed SHE personnel reserve the right to conduct scheduled site inspection. The Principal Contractor and any other subcontractor must ensure that a competent representative accompanies the team on any inspection conducted.

#### Conducting an Audit

The Principal Contractor must ensure that he has an appointed representative to accompany the auditor, it is the responsibility of the Principal Contractor or any subcontractor to ensure that findings raised are closed within a reasonably practicable timeframe. The turnaround time for closing the findings shall be agreed between the CHSA and the Principal Contractor, this shall be based on the degree of risk with regards to the finding raised.

An action plan with commitment dates and resources required to close SHE legal compliance audit finding must be sent to the CHSA within 3 days after notification of the finding. The Principal Contractor must commit to adhere to commitment dates as outlined in the action plan.

All the OHS legal compliance audit findings must be addressed through a Request For Improvement (RFI) system that aims to identify and conclusively address the root cause so as to mitigate the probability of recurrence. The RFI form, shall form part of the annexures to the SHE specification. The CHSA shall conduct formal month SHE legal audits without any prior arrangement or formal notice to the Principal Contractor or

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contractors on site. Ad hoc inspections shall be conducted ongoing as measure for health and safety monitoring and control.

#### Construction Regulations 5 (1) q Site works stoppages

***The CHSA has the authority as vested upon him by the client in line with CR 5 (1) q... 'stop any contractor from executing a construction activity which poses a threat to the health and safety of persons which is not in accordance with the client's health and safety specifications and the principal contractor's health and safety plan for the site'***

The CHSA shall conduct ad hoc OHS inspections and the outcomes shall also be incorporated to the monthly OHS legal compliance audit. The CHSA reserves the right to conduct OHS inspections and OHS legal compliance without any prior notification to the Principal Contractor. This is based on the premise that the project MUST be compliant all the times.

#### OHS legal compliance audit rating

0 to 50% Fail	51 to 79% Not acceptable	80 to 89% Acceptable- improvements required	90 to 100% Desired
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***For any given period under review the Principal Contractor or any other contractor appointed on the project must aim to achieve the DESIRED OHS legal compliance audit score that is between the 90- 100% range. Where the PC achieves an audit score in the ranges of 0-50% & 51- 79% this shall give strong motivation for suspension of site works pending rectification of the OHS deviations raised.***

***In any month where there were temporary work stoppages based on OHS deficiencies by the Principal Contractor or any other appointed contractor, the OHS audit score for the month shall be categorised as unacceptable by default.***

#### Principal Contractor's Audits and Inspections

The Principal Contractor shall conduct SHE monthly audits to measure performance of the SHE management system in place. Records of such audits and inspections must be retained in the safety file for record keeping and inspection. The appointed CHSO must engage Supervisor(s), the Construction Manager and other relevant personnel in terms of addressing the findings raised during the internal audit.

#### Inspections by OH&S Representative's and other Appointees

The appointed SHE Rep shall conduct daily and weekly inspections to identify any situations that are a risk to health and safety within the project. Any deviations noted must be immediately reported to the Supervisor or the personnel responsible for the area.

#### Recording and Review of Inspection Results

Records of formal inspections and audits must be filed and reviewed during SHE committee meetings, SHE meetings and during progress and technical meetings as held by the client.

#### Reporting of Inspection Results

The principal contractor is required to formally present a monthly audit report to the client at the end of each respective month.

### **5.3.2.10 OPERATIONAL CONTROL**

#### **5.3.2.10.1 Notification of Construction Work (CR 4).**

In the event that the contract meets the requirements of Construction Regulation 4, the contractor shall notify the Department of Labour 7 days before any construction works begins. The notification to the Department of Employment and Labour must valid for the duration of the contract and retained in the safety file. The notification must be in the form of Annexure 2 of the Construction Regulations 4. The project triggers Notification of Construction Work with the Department of Employment and Labour.

#### **5.3.2.10.2 Emergency Preparedness (EP), Contingency Plan and Response (See 5.2.4 of the specification).**

#### **5.3.2.11 First Aid (See 5.2.4 of the Specifications)**

##### **5.3.2.11.1 Security**

All persons shall report to the Security Officer at the main site office before proceeding to site. Visitors shall sign a visitors' log book and read through the induction notes as detailed on the induction book. All visitors to be accompanied by an authorized person for inspections and other site related assignments.

All Security Personnel to be in good standing in terms of PSIRA. A habitable guardhouse should be provided for all security personnel.

##### **5.3.2.11.2 Provision for substance abuse on site**

The contractor must ensure that all personnel under his authority do not at any time enter the site or perform any work whilst under the influence of alcohol, a drug, or any other intoxicating substance. To this end, the Principal Contractor shall put in place an adequate substance abuse, alcohol and drug policy in place.

Selling or possessing drugs, alcoholic beverages or any other intoxicating substance on the site is strictly prohibited. This constitutes a dismissable offence and the SAPS shall be engaged whenever such behaviour is discovered on site.

A drugs and alcohol testing program will be implemented. Persons entering the site shall be daily/ randomly tested. Any person who tests positive for alcohol or drug consumption will be subject to disciplinary action and shall be permanently removed from the site.

Any person has the opportunity to rather report that he/she is under the influence before accessing the project site – in these case the employee may only be sent home for the day by the responsible Project Manager representative but will then be tested for the following five days (each day) on his return to the project site. If it is found that the same person is frequently reporting that he/she is under the influence before even accessing the project site, It shall be the responsibility of the nominated project management representative to take disciplinary action and remove such a person's from the project site.

Should the actions and / or demeanour of an employee suggest possible drunkenness, the employee must be removed from the site. This may be done without testing.

Note: All personnel involved in an incident / accident must immediately be subjected to an alcohol test and a drug test as part of the investigation.

### **5.3.2.11.3 Excavation Work (CR 13)**

Prior to commencing work on any trench or excavation, the Contractor shall first submit a completed Excavation Method Statement and risk assessment to the Engineer or any appointed client's representative for approval. After reviewing the method statement, the Engineer or appointed client's representative shall sign and approve retain a copy and issue the signed original to the contractor. For all trenches or excavations over 7 meters deep, the contractor or any appointed subcontractor must have the sloping, shoring, or shielding method reviewed by a Licensed Professional Engineer (Excavation Technologist) of discipline. The design must be submitted to the Engineer as an attachment to the Excavation method statement.

The Principal Contractor shall ensure that a full sketch is provided as part of the method statement detailing the excavation and the location of underground services.

The Principal Contractor shall ensure that the requirements of the Employer's trenching and excavation procedure is complied with during activities. This will include the marking of the excavation boundaries, the location of all known services, performing a scan with a cable locator or Cable Avoidance Tool (CAT) by a trained individual, and also performing a physical evidence survey (ground trothing).

The Principal Contractor shall appoint a competent person to fill out the permit and monitor all trench and excavation work where required. Daily excavation inspections are also required to be performed and documented, an excavation Supervisor must be appointed to perform this function.

Adequate precautions shall be taken to prevent the collapse of excavations, as well as to prevent rocks and loose material falling onto workers. Sloping, shoring or shielding shall be provided for all excavations over 1.5 meters in depth. Angle of repose for project site shall not exceed 1:1 unless otherwise approved by a Licensed Professional Engineer of discipline and approved by the Engineer.

All excavations shall be clearly demarcated and securely barricaded to prevent unauthorised access. Only solid barricading will be used at areas where a fall hazard is present. Solid barricading such as fencing shall be provided by the Contractor around all holes or openings to prevent any person being injured as a result of a fall. Safety nets may only be used as a pre-warning to make the solid barricading more visible and to prevent persons from coming too close to the danger area.

If an excavation or trench endangers the stability of buildings or walls, shoring, bracing, or underpinning will be provided by the Contractor with prior approval from the Engineer. Excavations and trenches that are adjacent to backfilled excavations or trenches, or which are subject to vibrations from railroad traffic, road traffic, blasting or the operation of machinery (e.g., shovels, cranes, trucks), must be secured by a support system, shield system or other protective systems (i.e., sheet pile shoring, bracing).

No backfill material shall be allowed to be within 1 meter of the excavation edges. All excavations shall be on a register and inspected daily (documented) before work commences and after inclement weather (e.g. rainfall) by an appointed competent person. When declared safe work can recommence and the findings recorded in the register. If the excavation is not safe to use, remedial action shall be taken before the work site is re-opened.

Deep excavations (6 meters) shall have an escape ladder for access/egress and use in emergencies.

The contractor shall ensure that all precautionary measures as stipulated for confined spaces are determined. No work shall commence in an excavation unless the excavation has been declared safe by the competent person.

The Contractor shall conduct a cable scan using a device that can detect cables and other services. The Contractor shall ensure that the operator of the scanner is adequately trained and competent to use the device to its full capabilities with and without the use of a signal generator.

### **5.3.2.11.4 Protection of Overhead & Underground Services**

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The contractor shall ensure that a three-meter buffer zone is adhered to whenever working with close proximity to live overhead cables or adhere to compliance condition as stipulated by the service owner. A cable detector shall be used to sensor and identify any underground services. This shall be done in conjunction with the use of way-leaves as issued by the client. All the areas with underground services shall be marked, excavation in such areas shall be done with supervision from an appointed competent Excavation Supervisor.

It is the responsibility of the Principal Contractor to ensure that the wayleaves issued by each respective local authority are upto date. A register of wayleaves and expiry dates thereof must be retained by the contractor, expired wayleaves must be updated before the date of expiration. It remains the responsibility of the Principal Contractor make further effort and identify any other existing services within the project boundaries.

A safer buffer zone must be maintained for overhead services. It specific circumstances the Principal Contractor must ensure that where the relevant authorities are notified before working closer to specific services such as gas pipes.

It remains the responsibility of the Principal Contractor to ensure that wayleaves in place remain valid upto the completion of the project. Wayleaves conditions must be adhered to all the times. Where work require special permits for instance excavating on the road, the CHSO must ensure that approvals are in place from the relevant local authorities.

### 5.3.2.11.5 Cranes and Lifting Equipment

Lifting equipment must be designed and constructed in accordance with the manufactures/designers specifications as well as generally accepted technical standards and operated, used, inspected and maintained in accordance with the manufactures requirements as well as that of the of Driven Machinery Regulations promulgated in terms of the Occupational Health and Safety Act (Act no 85 of 1993):

The Driven Machinery Regulations requires that:

- Lifting equipment be clearly and conspicuously marked with the maximum mass load (MML) that it is designed to carry safely. When the MML varies with the conditions of use a table showing the maximum mass load with respect to every variable condition shall be posted up by the user in a conspicuous, place easily visible to the operator and the table shall be used by the driver/operator;
- Each winch on a lifting machine must al all time have, at least, three full turns of rope on the drum when the winch has been run to its lowest limit;
- Lifting equipment shall be fitted with a brake or other device capable of holding the MML. This brake or device shall automatically prevent the downward movement of the load when the lifting power is interrupted;
- Lifting equipment shall be fitted with a load limiting device that automatically arrest the lift when the load reaches its highest safe position or when the mass of the load is greater than the MML;
- Every chain or rope on a lifting machine that forms an integral part of the machine must have a factor of safety as prescribed by the manufacturer of the machine. Where no standard is available the factor of safety must be:
  - chains – 4 (four)
  - steel wire ropes - 5 (five)
  - fibre ropes- 10 (ten)
- Every hook or load attaching device must be designed to prevent the load from slipping off or disconnecting;
- Every lifting machine must be inspected and load tested by a competent person every time it has been dismantled and re-erected and every 12 months after that. The load test must be in accordance with the manufacturer's requirements or to 110% of the MML. In addition, all ropes, chains, hooks or other attaching devices, sheaves, brakes and safety devices forming an integral part of a lifting machine must be inspected every 3 months (quarterly) by a competent person;
- All maintenance, repairs, alterations and inspection results must be recorded in a log book and each lifting machine must have its own log book; and
- No person may be lifted by a lifting machine not designed for lifting persons unless in a cradle approved by the inspector of the Department of Labour.

Part C3.5.4.A: Health and Safety Specification

General requirements for cranes and lifting equipment

All documentation must be provided to the client's appointed CHSA or appointed Project Engineer prior to mobilisation. Failure to do so and the resulting cost of any delays and/or remedial activities will be for the Contractor's account.

All crane operators must be authorised by the relevant Engineer before they may operate a crane or lifting machine. The Load charts must be displayed in the cab of the crane.

Daily pre-use inspections of the cranes must be done and be kept on the file. The inspections must be logged in a logbook. The area in which a lift is performed must always be barricaded to prevent employees from entering.

A crane or lifting machine must not be left unattended and the keys may never be left in the ignition when the operator is not present. Properly constructed outrigger pads must be used when soil is uneven or unstable. (Only sleepers or appropriately designed steel plate pads may be used for this purpose).

Only a competent rigger may direct a lift of any kind unless the following requirements are met. Rigger assistants used for performing lifting operations shall be limited to lifts with all of the following requirements:

- Lifts lower than 5 tons
- Easy lifts that does not require the load to be lifted over structures, equipment or machinery
- Equipment that is not critical
- Rigging configuration that requires the attachment of several parts of lifting equipment such as chain blocks to adjust the angle of loads.

All safety devices on a crane or lifting machine must be functional.

All personnel responsible for lifting operations shall be appropriately identifiable.

Cranes and Lifting Machines

A contractor must in addition to compliance with the Driven Machinery regulation, 1988 ensure that tower cranes are used-

- They are designed and erected under supervision of a competent person;
- A relevant risk assessment and method statement are developed and applied
- The effects of wind forces on the crane are taken into consideration and that a wind speed device is fitted that provides the operator with an audible warning when the wind speed exceeds the design engineer's specification;
- the bases for the tower cranes and tracks for rail-mounted tower cranes are firm, level and secured;
- the tower cranes operators are competent to carry out the work safely and;
- the tower crane operators have a medical certificate of fitness to work in such an environment, issued by an Occupational Health Practitioner in the form of Annexure 3

Crane Test Certificate

The Contractor's CHSO and the Responsible Engineer must inspect all cranes and lifting machines before they are brought onto the construction site.

Certification will be required for record purpose, and shall cover the following:

- A Brake or other device capable of holding the maximum mass should the power fail, or which is such that it shall automatically prevent the uncontrolled downward movement of the load when the raising effort is interrupted; and
- A limiting device which shall automatically arrest the driving effort when:
- the Hook or Load attachment point of the Power Driven lifting machine reaches its highest safe position; and
- in the case of a Winch Operated lifting machine with a lifting capacity of 5000kg or more; the load is greater than the rated mass load of such machine.

No user shall use or permit any person to use a Jib-Crane with a lifting capacity of 5000kg or more at a minimum Jib radius, unless it is provided with:

A load indicator that shall indicate to the operator of the Jib-Crane the mass of the load being lifted, provided that such a device shall not require manual adjustment from the application of the load, to the Jib-Crane,

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until the release of the load.

A Limiting Device which shall automatically arrest the driving effort whenever the load being lifted is greater than the rated mass load of the Jib-Crane.

The user shall ensure that every lifting machine is operated by an Operator specifically trained for a particular type of lifting machine; the user shall not require or permit a person to operate such lifting machine unless the operator is in possession of a certificate of training, issued by an accredited person or organisation.

#### Acceptance of Cranes on Site

No Crane shall be used at arrival on site before copies of all documentation have been handed over to the Contractor's CHSO, or the CHSA or the appointed Resident Engineer and the Crane have been checked by a person dually authorised and signed off as acceptable. Copies of all documentation must be kept in the SHE File at all times.

No Crane shall be used without a pre-use check and findings entered on an approved checklist. Before any cranes are established on site the following must be inspected and approved:

- Operator's licences
- Training certificates
- Medical fitness certificate.
- The cranes load test certificate.
- Rope test certificates including Mill / Destructive test.
- The lifting gear load test certificates.
- The load limiting device calibration certificate.
- Proof that the hooks have been measured for spreading.
- The service inspection history.
- monthly comprehensive inspection certificate
- Operation and maintenance Manuals and crane condition.

#### Mobile Crane near Power Lines

No mobile cranes are to be used near overhead power lines until the client's Representative has been notified and provided safe access conditions and a valid permit to work is obtained. Mobile cranes shall be effectively earthed when working in the vicinity of electrical wires. Assume that all electrical equipment and wires are live and avoid them.

#### Lifting tackle

The following requirements will apply to lifting tackle:

- Manufactured of sound material, well-constructed and free from patent defects;
- Clearly and conspicuously marked with an identity number;
- MML factor of safety:

○ Natural fibre ropes	-	10(ten)
○ Man-made fibre ropes and woven webbing	-	06(six)
○ Steel wire ropes – single rope	-	06(six)
○ Steel wire ropes – combination slings	-	08(eight)
○ Mild Steel chains	-	05(five)
○ High tensile/alloy steel chains	-	04(four)
- Steel wire ropes must be examined by a competent person every three months and the results recorded in a designated log book. The ropes must be discarded (not used any further for lifting purposes) when wear and corrosion is evident.

Lifting equipment such as chain blocks and slings must be load tested every quarter by a registered Lifting Machinery Inspector.

#### Machine operators

The following requirements will apply to machine operators:

- Every lifting machine operator must be trained specifically for the type of lifting machine that he is operating.

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- Operators of Jib cranes with a MML of 500 kg or more must be in possession of a certificate of training issued by a training provider accredited by The Department of Employment and Labour.

### **Material hoists**

A contractor must ensure that every material hoist and its tower have been constructed in accordance with the generally accepted technical standards and are strong enough and free from defects. (2) A contractor must ensure that the tower of every material hoist is –:

- (a) Erected on firm foundations and secured to the structure or braced by steel wire guy ropes, and extends to a distance above the highest landing to allow a clear and unobstructed space of at least 900 millimetres for over travel;
- (b) Enclosed on all sides at the bottom, and at all floors where persons are at risk of being struck by moving parts of the hoist, except on the side or sides giving access to the material hoist, with walls or other effective means to a height of at least 2100 millimetres from the ground or floor level; and provided with a door or gate at least 2100 millimetres in height at each landing, and that door or gate must be kept closed except when the platform is at rest at such a landing.

A contractor must cause –

- (a) the platform of every material hoist to be designed in a manner that it safely contains the loads being conveyed and that the combined mass of the platform and the load does not exceed the designed lifting capacity of the hoist;
- (b) the hoisting rope of every material hoist which has a remote winch to be effectively protected from damage by any external cause to the portion of the hoisting rope between the winch and the tower of the hoist; and
- (c) every material hoist to be provided with an efficient brake capable of holding the platform with its maximum load in any position when power is not being supplied to the hoisting machinery.

No contractor may require or permit trucks, barrows or material to be conveyed on the platform of a material hoist and no person may so convey trucks, barrows or material unless those articles are secured or contained in a manner that displacement thereof cannot take place during movement.

A contractor must cause a notice, indicating the maximum mass load which may be carried at any one time and the prohibition of persons from riding on the platform of the material hoist, to be affixed around the base of the tower and at each landing.

A contractor of a material hoist may not require or permit any person to operate a hoist, unless the person is competent in the operation of that hoist.

No contractor may require or permit any person to ride on a material hoist

A contractor must ensure that every material hoist –

- (a) Inspected on daily basis by a competent person appointed in writing by the contractor and such competent person must have the experience pertaining to the erection and maintenance of material hoists or similar machinery;
- (b) Inspection contemplated in paragraph (a), includes the determination of the serviceability of the entire material hoist, including guides, ropes and their connections, drums, sheaves or pulleys and all safety devices; (c) Inspection results are entered and signed in a record book by a competent person, which book must be kept on the premises for that purpose;
- (d) Properly maintained and the maintenance records in this regard are kept on site.

### **5.3.2.12 Construction Vehicles and Mobile Plant**

All vehicles brought to site must meet safety requirements. Each vehicle to be used on site must be inspected and approved by the client's representative before a site access permit will be issued for the vehicle / equipment. No vehicle shall be permitted to enter the site unless it is duly authorised. Access permits are vehicle-specific and may not be transferred between vehicles.



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The contractor must allow any vehicle that is brought onto site (including privately owned vehicles) to be searched at any time while on the premises, or when entering or leaving the premises.

The Principal Contractor is solely responsible for the safety and security of all vehicles (including private vehicles) that is brought onto the site. All road-going vehicles used by the contractor on the site must be roadworthy and registered with the relevant traffic authority.

A vehicle will not be permitted to enter the site in an un-roadworthy condition. Access will be denied if, for example, but not limited to:

- The vehicle has a defective exhaust system;
- A serious oil or fuel leak is evident;
- The vehicle has unsafe bodywork or is carrying an unsafe load;
- The vehicle is fitted with extraneous or non-standard equipment;
- Passengers are not seated properly;
- The vehicle is not fitted with a seat belt for each occupant; or
- The vehicle has any obvious mechanical defect;
- Pre-inspection requirements are not met.

Overloaded vehicles will not be permitted to enter the site. The driver / operator of any vehicle / mobile equipment must carry a copy of his appointment with him at all times. Each driver / operator must:

- Comply with all site rules and regulations pertaining to traffic and the safe operation of vehicles / mobile equipment;
- Obey all road signs;
- Obey all instructions given by security or emergency services personnel;
- Remain within the boundaries of the site; and
- Ensure that the vehicle that he is operating is never overloaded, and that loads are always properly secured.

In the interest of safety, only the minimum number of vehicles required by the contractor to complete the work under the contract will be permitted to enter the site. When not in operation, the contractor's vehicles / mobile equipment must be parked within the boundaries of his lay- down area or yard.

Parking is only permitted in designated parking areas. All cars are parked on site at the owner's risk. In the event of a vehicle accident on site, the driver(s) must report the incident immediately and must remain at the scene until a nominated project management representative arrives, or until a nominated project management representative authorizes him to leave (unless, of course, the driver requires medical attention).

#### **Construction Plant**

- All plant must comply with the OHS Act and Regulations requirements in relation to operation and maintenance thereof.
- Records of service and maintenance of the vehicles must be of a high standard at all times.
- All plant shall subject to design be fitted with back-up alarms and audible indicating devices.
- The Principal Contractor/Contractor shall ensure that all construction plant's moving parts are adequately protected.
- Pre-start inspections shall be conducted on all motorised equipment daily, deviations of such inspections shall be recorded.
- Construction plant identified for use shall be operated by a trained and authorised operator only.
- All construction plant shall be operated under the direct supervision of a person competent to

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identify potential hazards in the work he is conducting.

- Work involving the use of construction plant shall be conducted in accordance with an approved Risk Assessment.
- The Principal Contractor/Contractor shall ensure all operators are equipped with the necessary PPE namely; safety shoes, overall, safety glasses, and gloves.
- All Plant shall be fitted with an extinguisher where practicable.
- Washing shall be conducted in the designated washing areas.

The Principal Contractor/Contractor shall ensure the all equipment moving to and from site is adequately secured, and that all Principal Contractor/Contractor abide by this requirement.

The Principal Contractor/Contractor must provide proof of medical and psychological fitness including training of all operators engaged in the construction activity.

**Transport of Personnel**

- Should it be necessary for the Principal Contractor/subcontractor to transport their personnel to site, only safe vehicular transport must be provided. This shall include proper seating, side restraints and cover. Seats shall be firmly secured and adequate for the number of employees to be carried.
- No personnel shall be permitted to travel on any plant or equipment on the site works.

Road safety principles shall be adhered to on and off site, this includes adherence to the Road Traffic Management Act.

**5.3.2.13 Electrical Installations (CR 24)**

The installation of temporary electrical installations shall comply with Construction Regulation 24 and the Electrical Installations Regulations.

The Principal contractor must ensure that the following are in place for all electrical installations:

- a) Existing services are located and marked before construction works commences, markings must be clearly visible also during the construction work.
- b) Suitable protective work must be provided to employees working with equipment such as jackhammers. Suitable personal protective equipment includes but not limited to the following: rubber mats, insulated handles, non-electricity conductor wear.
- c) Electrical equipment must be suitable for intended site works.
- d) Temporary electrical installations must be inspected at least once a week by an appointed Temporary Electrical Installations Inspector (competent). Records of such inspections must be retained in the safety file.
- e) All electrical equipment in use on site must be inspected before use by a competent (operator), such inspection records must be retained in the safety file.
- f) A Certificate of Conformance (CoC) must be issued by a competent person for all temporary electrical installations.

**5.3.2.14 Electrical and Mechanical Lockout**

The Principal Contractor is mandated to develop a mechanical and electrical lock out procedure, which shall be submitted to the client for approval before any construction work commences. The Principal Contractor and any appointed subcontractor must adhere to the lock-out procedure in place.

### **5.3.2.15 Use and Storage of Flammables**

Storage of fuel and other hazardous chemical substances on site shall be done upon prior approval in writing by the client or his nominated representative.

If the on-site storage of a fuel or a flammable liquid is approved, the contractor must ensure the following:

- The quantity of fuel / flammable liquid to be stored on site must be kept to the minimum that is required;
- Applicable by laws in terms of fuel storage on site are adhered to i.e notification of relevant local authorities;
- The storage area must be located in a well-ventilated area at least 10 metres away from any building, drain, boundary or any combustible material;
- If more than 200 litres of fuel / flammable liquid is to be stored, the tank must be installed / the containers must be positioned within a bund;
- If the fuel / flammable liquid is to be stored in bulk tanks / vessels, then the minimum capacity of the bund must be 110% of the volume of the largest tank / vessel. If many small containers (e.g. 210 litre drums) are to be stored, the bund must be able to contain 25% of the total volume of the stored products;
- The bund must be impermeable. It must have a solid concrete floor and the walls must be constructed out of brick and must be plastered on the inside;
- The bund must be fitted with a lockable drain valve (for draining away rainwater), which must remain locked in the closed position. The valve may only be opened under supervision and in accordance with a written procedure;
- The fuel / flammable liquid storage area may not be used for the storage of any other materials / equipment, and must be kept completely free of all combustible materials (including rubbish, brush and long grass) at all times;
- Access to the storage area must be controlled (wire mesh fencing and gate);
- The contractor must ensure that appropriate warning signage (i.e. —Flammable Liquid, —No Smoking and —No Naked Flames) must be prominently displayed at the storage area. The contents and volume of each tank must be indicated;
- In order to contain spillages, the offloading / refuelling bay at the fuel / flammable liquid storage area must have a solid concrete base surrounded by bund walls, ramps or humps and / or spill trenches (covered with steel grating) that lead into a sump;
- Fuel dispensing pumps must be protected against impact damage;
- All fuel / flammable liquid storage tanks and dispensing equipment must be electrically bonded and properly earthed;
- All electrical installations and fittings must be of an approved intrinsically safe type;
- Two 9kg dry chemical powder fire extinguishers must be mounted in an easily accessible position near the entrance gate to the fuel / flammable liquid storage area. Depending on the size of the storage area, additional fire extinguishers may be required to ensure that an extinguisher is no further than 10 metres away from any point on the perimeter of the storage area;
- A fire extinguisher must be at hand wherever refuelling is carried out;
- Smoking or open flames within 5 metres of a fuel / flammable liquid storage / refuelling area is strictly prohibited;
- No petrol or diesel powered vehicle or equipment may be refuelled while the engine / motor is running;
- Cellular phones must be switched off in fuel / flammable liquid storage / refuelling areas;
- Spill clean-up kits (containing a suitable absorbent fibre product) must be provided;
- Any spillages must be cleaned up immediately and all contaminated cleaning materials must be disposed of in accordance with the applicable legislation;

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- If a flammable liquid is spilt or is leaking from a container / vessel, the area must be cordoned off and appropriate warning signage must be displayed to keep unauthorized personnel away from the affected area. Every effort must be made to contain the spillage. All hot work in the vicinity must be stopped immediately. If the spilt product is volatile and the possibility exists that a vapour cloud may form, or if the leak or spillage cannot be contained or stopped, then appropriate emergency response procedures must be activated, including the evacuation of all persons in the vicinity. Suitable firefighting equipment must be positioned ready for use should the spilt product ignite;
- The manual decanting of fuel or a flammable liquid from a large container should only be done using a stirrup pump (or similar) or a purpose-made frame which allows the container / drum to tilt for decanting and then return to the upright position;
- Drip trays must be used wherever required;
- All tanks, drums, cans, etc. containing flammable liquids must be tightly closed and properly sealed except for when a container is being filled or when a product is being decanted;
- The transport or storage of corrosive or flammable liquids in open containers is strictly prohibited;
- Daily-use quantities of fuel (up to a maximum of 20 litres) must be handled in an approved safety can with a flash arresting screen, spring closing lid and spout cover that will safely relieve internal pressure if the can is exposed to fire;
- Where safety cans may be impracticable, only approved metal containers with screw caps may be used. Each container must be clearly labelled to indicate its contents;
- Only small quantities of flammable liquids (paints, solvents, etc.) may be stored within a building. Each product must be kept either in its original container or in an approved container which must be properly sealed. Each container must be clearly labelled to indicate its contents. When not in use, all such containers must be stored in a well-ventilated steel cabinet which must be kept locked to prevent unauthorized access;
- Not even small quantities of flammable liquids may be stored or dispensed in buildings or places of public assembly, in general warehouses, or in buildings containing sources of ignition such as space heaters, cooking devices, open electric motors, motor vehicles, or where welding, cutting, or grinding activities are being carried out;
- Safe Work Procedures must be compiled for the transportation (including delivery), offloading, storage, handling and use of any fuel / flammable liquid on site;
- All personnel that will be required to work with or may come into contact with a flammable liquid must be made aware of the hazards associated with the product and must be thoroughly trained in the safe transportation, use, handling and storage thereof.

### **5.3.2.16 Housekeeping (CR27)**

The Principal Contractor must maintain a high degree of tidiness in all work areas free of debris and any other unwanted rubbish. Unless directed otherwise, the contractor must dispose of all debris, rubbish, spoil and hazardous waste off site in a designated and authorized area or facility. The contractor must familiarize himself with the waste management plan for the site including collection and disposal arrangements, and must align his waste management activities accordingly. Proof of waste disposal must be retained by the contractor.

In cases where an inadequate standard of housekeeping has developed and compromised safety and cleanliness, a nominated project management representative may instruct the contractor to stop work until the area has been tidied up and made safe. Neither additional costs nor contract deadline extensions will be allowed as a result of such a stoppage. Failure to comply will result in a clean-up being arranged through another service provider at the cost of the non-complying contractor.

The Principal Contractor must carry out housekeeping inspections on a weekly basis to ensure maintenance of satisfactory standards. The contractor must document the results of each inspection. These records must be retained in the safety file.

Part C3.5.4.A: Health and Safety Specification

The contractor must implement a housekeeping plan for the duration of the contract ensuring that the site housekeeping is maintained. Furthermore, at the end of every shift, the contractor must ensure that all work areas are cleaned, all tools and equipment are properly stored, and construction rubble is removed.

Where the contractor fails to maintain housekeeping standards, the client representative may instruct the contractor to appoint a dedicated housekeeping team for the duration of the project at the contractor's expense. Littering is prohibited.

#### **5.3.2.17 Stacking and Storage (CR 28)**

The Principal Contractor and any other subcontractor must ensure that all stacking is supervised by a competent person appointed in writing. Clearly defined and allocated storage areas are to be provided and identified. All materials being stored within these areas are to be stacked in accordance with the sound stacking principles of sort-by-sort. Storage areas are to be level and access through them is to be maintained. The height to which material is stacked shall not exceed three times the base width.

The PC and other contractor must avoid stacking of materials such as kerbs and other on the actual construction site where these introduce a secondary risk of injury to the public. Where materials are stored on site e.g. stormwater pipes adequate protection measures must be in place such as use of a physical barricade or fence to protect stacked material and stormwater pipes. Relevant signage and reflecting netting must be used to compliment the physical barricade. Public protection remains key in relation to the stacking and storage of material on site.

#### **5.3.2.18 Storage of Hazardous Chemicals (including flammables)**

(See 5.3.1.3.13 above)

#### **5.3.2.19 Fire Prevention and Protection (CR 29)**

The Principal Contractor must compile a Fire Protection and Prevention Plan for the work that will be carried out on site where a fire hazard has been identified.

The Principal Contractor must assess his area of responsibility and identify locations where the risk of fire is high. It is noteworthy that certain locations may need to be designated as high risk due to the presence of large quantities of flammable or combustible materials / substances. For all high risk areas, the contractor must ensure that additional precautions are taken to prevent fires and strict control is exercised over any hot work (i.e. welding, cutting, grinding, etc.) that is carried out.

The contractor must supply and maintain all required fire-fighting equipment. The type, capacity, positioning, and number of fire-fighting appliances must be to the satisfaction of the appointed client's representative and must meet the requirements of the applicable legislation. Fire mains, hydrants and hose reels will rarely be available on site, so use must primarily be made of portable fire extinguishers.

Fire-fighting equipment, fixed and portable, must be strategically located such that they are easy to use to bring potentially dangerous and destructive fires under control without causing significant damage.

All fire extinguishers (and any other fire-fighting equipment) placed on site must be:

- Conspicuously numbered;
- Recorded in a register;
- Visually inspected by a competent person on a monthly basis (the results of each inspection must be recorded in the register and the competent person must sign off on the entries made);
- Inspected and serviced by an accredited service provider every year (the appointed client representative may require that this frequency be increased depending on the environmental conditions (e.g. high dust levels, water, heat, etc.) to which the fire extinguishers are exposed).

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Any fire extinguisher that has a broken seal, has depressurised, or shows any sign of damage must be sent to an accredited service provider for repair and / or recharging. Details must be recorded in the register. Fire-fighting equipment may not be used for any purpose other than fighting fires.

Access to fire-fighting equipment, fixed or portable, must be kept unobstructed at all times. Approved signage must be in place to clearly indicate the location of each permanently mounted fire extinguisher, fire hose reel, etc.

The contractor must ensure that all persons working in / entering his area of responsibility are made aware of where all fire-fighting appliances and alarm points are located. The contractor must ensure that his employees (and those of any appointed sub-contractors) are trained in fire-fighting procedures and the use of fire-fighting equipment.

The contractor must compile an emergency response procedure detailing the actions that must be taken in the event of a fire or a fire / evacuation alarm. All personnel working within the contractor's area of responsibility must be trained, and all visitors must be instructed, on this procedure. Copies of the procedure must be prominently displayed in the workplace in all languages commonly used on the site.

Used fire extinguishers must be replaced by the contractor without delay.

No hot work (i.e. welding, cutting, grinding, etc.) or any other activity that could give rise to a fire may be performed outside of a designated area without a Permit to Work having been issued.

At the end of every working period (i.e. before each tea / lunch break and at the end of every shift / day), the workplace must be thoroughly inspected to ensure that no material is left smouldering and no condition / situation exists that could give rise to a fire.

The Principal Contractor must ensure that all Supervisors and all employees carrying out or assisting with any hot work or any other activity that could give rise to a fire have been trained in fire-fighting procedures and the use of fire-fighting equipment. The training must be conducted by an accredited training provider.

When using electrical equipment, all cables must be in good condition and the nearest convenient socket must be used. No power socket may be loaded beyond its rated capacity through the use of adaptors, etc. Makeshift electrical connections are not permitted under any circumstances. Water-based fire-fighting equipment must not be used on electrical equipment or burning liquids.

Each vehicle used on site for work purposes and each item of mobile equipment with a diesel or petrol engine must be fitted with a permanently mounted fire extinguisher. Smoking is only permitted in designated smoking areas. Cigarette ends / butts must be properly stubbed out in the ashtrays provided and never thrown into waste bins.

The contractor must ensure that good housekeeping practices are enforced, as this is crucial to the prevention of fires.

All combustible waste materials must be removed from the workplace on a daily basis (at the end of each shift) and placed in waste receptacles located at least 5 metres away from any structure. The accumulation of waste materials in out-of-the-way places is prohibited. Offices, desks, cabinets, etc. must always be kept tidy and uncluttered. Waste paper bins must be emptied regularly.

The storage of combustible materials under stairways or in attics is prohibited. The storage of any materials against the exterior of a building or any other structure is prohibited. All walkways, passages and stairways must be kept clear (i.e. must be unobstructed) at all times, as they may need to be used as a means of escape.

The areas around and the routes to all exits, fire escape doors, fire hydrants, fire hose reels and fire extinguishers must be kept clear (i.e. must be unobstructed) at all times. "No Smoking" signs must be conspicuously displayed in and around all storage areas / rooms. Waste may not be burned under any circumstances.

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No flammable liquid (such as petrol, acetone, alcohol, benzene, etc.) may be used for starting fires or as a solvent for cleaning clothes, tools, equipment, etc. Only solvents approved by the nominated project management representative may be used for cleaning purposes.

Whenever any work is carried out involving the use of a flammable substance / material, the area must be cordoned off and appropriate warning signage (i.e. —No Unauthorized Entry, —No Smoking and —No Naked Flames) must be displayed.

### **5.3.2.20 Eating, Changing, Washing and Toilet Facilities (CR 30)**

As a minimum requirement the following will apply:

a) Toilets

The National Building Regulations and Construction Regulations 30 stipulates that a contractor must provide toilets to his staff. The contractor must provide chemical toilets to a ratio of 1:30 on site.

The contractor must commit with the toilet supplier a service schedule that must adhere to all the times between the toilet supplier and the contractor. Records of service must be retained in the SHE file for inspection.

b) Showers

If permissible, cold showers must be provided to employees at a ratio of 1 shower per 15 workers.

c) Change rooms

Changing rooms must be provided for personnel in the project. Male and female changing rooms must be provided and must be kept tidy at all times.

d) Eating Facility

A decent eating facility must be provided. Excessive heat, wind, cold and any inclement weather must be considered when establishing an eating facility for employees. The facility must be located away from workplace activities that might introduce risk to health.

e) Living accommodation

There is no living or accommodation on site.

### **5.3.2.21 PPE (See 5.2.1 of the specifications)**

#### **5.3.2.21.1 Portable Electrical Tools and Equipment**

##### **Machinery, Tools and Equipment**

The Principal Contractor shall ensure that all machinery, tools and equipment are identified, safe to be used and maintained in a safe condition. All tools and equipment must be allocated a unique identifier.

Power tools like the compactor will be selected with the ergonomics of the operator taken into account. The machine will be fitted with an automatic stop device should the operator lose control.

All machines driven by means of belts, gear wheels, chains and couplings shall be adequately guarded. A machine is guarded when persons cannot gain access to the moving parts. The Contractor shall maintain an inventory list for all machinery, tools and equipment on site.

All machinery, tools and equipment shall be regularly inspected at least monthly or as required by legislation and risk assessments. A registers of tools shall be kept on the health and safety file.

All machinery, tools and equipment must have the necessary approved test or calibration documentation where applicable prior to being brought onto the premises.

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The client's representative (CHSA) reserves the right to inspect equipment and plant brought to the project site (and at other places, if any, as may be specified under the contract as forming part of the Site) by the Contractor for use on the project. Should any item be found to be inadequate, faulty, unsafe or in any other way unsuitable for the safe or satisfactory execution of the work for which it is intended, the contractor or subcontractor shall be advised in writing and shall remove the item from the site and replace it with a safe and adequate substitute. In such cases, the contractor or subcontractor shall not be entitled to extra payments or extensions of time in respect of delay caused by these instructions.

***All Principal Contractor's and subcontractor personnel must receive formal training and be declared competent for use of power tools and potable electrical equipment. No employee shall use portable electrical equipment and power tools in the absence of formal training by an accredited institution.***

**Portable Lights**

- a) Must be fitted with a robust non-hygroscopic non electricity conducting handle.
- b) Live metal parts which may become live must be protected against contact.
- c) The lamp must be protected by a strong guard.
- d) The cable lead in must withstand rough handling.
- e) A register for each light must be retained and inspection thereof.
- f) When used in wet/damp/metal container conditions, it must be protected the same manner as portable electrical tools as stated above.

**5.3.2.22 Public Health and Safety**

**It is the duty of the Principal Contractor and all the other contractors to ensure that non employees are equally protected from the project hazards and concomitant risks. This includes non-employees that are located further away from the project site, this is said considering the trans-boundary nature of other occupational stressors such as construction dust. Typical vulnerable population group include the following:**

- Non- employees entering the site for whatever reason;
- The surrounding community.
- School children within the project footprint.
- Businesses that are within the project footprint.
- Residents that are within the project footprint.
- Passers-by the site.
- Any other persons that maybe affected by the project works.

Appropriate signage must be posted to this effect and all employees on site must be instructed to ensure that non-employees are protected at all times. All non-employees entering the site must receive induction into the hazards and risks of the project and the control measures to be observed. The Principal Contractor should make efforts to identify the project site boundaries areas such as borrow pits and ensure that adequate measures are in place to protect the public especially in the absence of the Principal Contractor after working hours.

Access to residents' houses should be considered during excavation works, temporary access ramps should be put in place to ensure safe access. A suitable and sufficient risk assessment should accompany the installation of temporary access ramps such as load bearing aspects are considered.

Spectator value should be factored where heavy plant and equipment are at work. Children and some adults are fascinated by the various construction works and other equipment such as crane works, Excavator, the Grader, tipper trucks and many. It is a common occurrence that people watch such heavy plant and machinery executing project tasks. The PC must ensure that there is a safe buffer zone for anyone watching such construction works. The objective is to use a physical barricade with dust proof netting to protect t the project works especially where there are deep excavations. A designated person must be appointed to ensure that any



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persons watching construction works is further away from the construction activities such that the risk of harm as a result of the execution of project tasks is reduced to as low as reasonably practicable. All Plant Operators shall be given induction such that they are aware of the movement of public within the construction footprint. Appropriate NO TRESSPASSING signage shall also be used to restrict the public from trespassing into the project high risk areas. Designated personnel must be appointed to ensure public health and safety in relation to the various construction works.

Airborne dust is a significant occupational stressor that is transboundary and may easily affect the adjacent community resulting in short-term and chronic respiratory illness. The PC must put in place dust control programme (wet method) such that it is consistently implemented for the duration of the project. Excavation works, movement of plant, backfilling and compaction works are bound to generate clouds of airborne dust. The dust suppression programme should be spearheaded by an appointed person. The PC should ensure that water used for dust suppression does not introduce secondary health risk to the community.

The laying of stormwater pipes is characterised by deep excavations to various depths. The PC must develop and submit an excavation and laying of stormwater pipes method statement to the approval of the client's representative. Ideally the method statement should consider the length and duration of open excavations. The PC must ensure that excavations are done where pipes are set to be laid and backfilling must ensue such that the area is 'closed' at the end of the work shift. The PC should avoid instances whereby lengthy trenches are opened without laying the pipes and consequent backfilling. The method statement should consider the following: open, lay backfill material, lay the pipes after the necessary tests and backfill. Only small areas of trenches should be left open, where these are left open a physical barricade (speed fence or equivalent) including reflective barricade netting should be used.

The PC shall ensure that safe pedestrian walkways are in place for use by the public. The construction works are likely to temper or affect the original pedestrian walkways within the construction footprint. Pedestrian walkways should be clutter free and consider motor vehicle movement. The risk of harm in relation to the use of the designated pedestrian walkways should be reduced to as low as reasonably practicable

#### **Awareness creation in relation to project works**

The PC shall put measures in place meant to create awareness within the community in respect of the project construction works and the inherent construction hazards and risks and mitigation thereof. The PC must consider using public platforms such as community forums held from time to time to formally introduce the project and the anticipated inconveniences as a result of project works. Flyers should also be used to disseminate information with regards to the project mainly focusing on business and residents where project disturbances are expected to be significant. The CLO is strategically positioned to formally introduce the project to the community also detailing the basic health and safety aspects that the community should be cognisant of. The appointed CHSO and the CLO should target schools such that information regarding the common project risks and mitigation measures is communicated to school children.

### **5.3.2.23 Protecting the Environment**

It is a legal and moral obligation to ensure that the environment is protected from degradation as a result of project activities. The project must be executed within the realms of environmental sustainability and the project's ecological footprint must be reduced at all costs. It is the responsibility of the contractor to create environmental awareness through various initiatives such as environmental monthly workshops, environmental toolbox talks, and other environmental campaigns.

The project has various workplace hazards that includes but not limited to the following:

- a) Chemical (dust and vapours)
- b) Physical (heat, light, noise and radiation)
- c) Posture and motion (vibration and ergonomics)
- d) Biological (bacteria and viruses etc)
- e) Psychosocial (stress, bullying, and violence)

**Effective management of workplace health risks will assist the Employer to:**

- a) Maximize the productivity per employee as a result of improved well-being.
- b) Avoid illness as result of workplace exposures.
- c) Employee retention and consequently improved productivity.
- d) Good and positive company image, increased prospects of getting more work.
- e) Improved turnover and no income lost as result of standing time while investigating incidents.
- f) Improved personal relations amongst employees.
- g) Avoid prosecution and penalties.

**5.3.2.25 Transportation of employees**

Employees must not be transported with tools and equipment. Any bakkie or motor vehicle to be used on site for employee transport must be fitted with adequate seating facilities and restraint covers and must be approved by the client representative prior to be used on site. No persons shall be transported on construction plant and equipment. The contractor must develop a vehicle policy that must also incorporate the transporting of employees on site, to and from work.

**5.3.2.26 Sub-Contractors**

A detailed subcontractor list shall be retained on site by the principal contractor. Each subcontractor to be appointed formally and legally appointed using the CR 7 1 c v contractor and appointment and the Mandatory OHSACT Sect 37 (1) (2) agreement.

Each subcontractor shall be given that SHE specification and in turn must compile a safety plan that shall be approved by the Principal contractor. Each subcontractor to submit a detailed safety plan with all the necessary SHE procedures as identified by the respective risk assessment. The principal contractor to formally approve the Safety file.

All subcontractor employees to undergo induction before commencing with any site works. Each subcontractor must conduct his own induction (based on his scope of work) records of such to be retained in the safety file. It remains the responsibility of the Principal contractor to prescribe as to whether a full time safety officer must be appointed by the subcontractor. This shall be based on the risk profile of the task at hand.

The Principal Contractor Safety Officer must audit the subcontractor on a monthly basis to ensure that the contractor is adhering to the safety management system in place.

**5.3.2.27 Traffic Management**

Traffic Management Plan should be developed and approved by the client's representative Resident Engineer. No open manhole in streets, lanes or any place where the public or other persons have access shall be left unguarded. The necessary road signs and speed limitation boards must also be in place. Any construction area must have all barricading requirements and a person assigned as flagman in every entrance to the site.

Appointed trained flagpersons should be available all the times. The placement of traffic accommodation equipment shall be in line with the traffic accommodation drawings as issued by the client's representative where applicable. It remains the prerogative of the Resident Engineer to request for a competent Traffic Safety Officer for the traffic accommodation aspects of the project.

### **5.3.2.28 Handtools**

The contractor must inspect all hand tools before it is brought onto the site.

- As far as possible all hand tools must be numbered and placed on register to be inspected monthly by a person designated to do so.
- Any tools found to be in an unsafe condition must immediately be removed from service and either discarded or rectified.
- No chisels with “mushroomed” heads must be used.
- No hammer shall be used with a cracked or damaged handle.
- All files must be fitted with handles.
- All trolleys, pushcarts, etc. used on site must be identifiable, placed on register and inspected at least once every month.
- Non-sparking tools must be used in areas where the risk of fire or explosion is present.
- No home-made hand tools are allowed on the project.

### **5.3.2.29 Barricading**

Barricading method statements are to be presented by the Principal Contractor for any major operations involving site works for approval by the client’s appointed CHSA or Project Manager. Where areas are unsafe, they should be enclosed with barricading. Examples are Man at work, Narrow, Arrow etc. Where there is a risk of injury, the area should be barricaded off with secure solid barricades. The barricade must be constructed a minimum of 1,5m away from the hazard.

Barricading for the prevention of access into areas with a potential risk of injury shall as a minimum be constructed of a hand-rail, knee-rail and appropriately supported as to prevent any person from falling into the restricted/risk area.

All physical barricades shall be covered with netting ensuring visibility by personnel and operators of machinery.

Appropriate signage shall be affixed to the barricade indicating the hazard and risk associated (i.e. deep excavation, lifting operations etc.) and the responsible Supervisor and contact details shall be displayed. All barricading shall have a “No Entry” signs on all sides and at each change of direction. Signage shall be placed at 20 m intervals where lengths exceed. All signage shall be a minimum size of 290 mm x 290 mm.

Danger tape shall not be utilised to prevent personnel from entering into areas. Where no risk exist of injury to personnel such as stacking and storage areas, the use of wire shall be acceptable to demarcate the area.

All barricades will have a dedicated entrance where it is required that personnel enter the areas. Appropriate signage shall be placed at the entrance indicating which Contractor has right of entry.

It is the Contractor’s responsibility to remove all redundant barricades directly after use. The Contractor’s CHSO will maintain a marked-up site plan indicating where barricades are erected.

It will be a requirement that the contractor protects employees against contact with exposed rebar and poles by the installation of rebar-caps on all exposed areas where there is a potential that an employee could be injured.

### **5.3.2.30 Blasting works**

The Principal contractor shall appoint a competent blaster for all the project scope of works that require blasting. The appointed blasting contractor shall submit a comprehensive OHS file with all the relevant risk based blasting procedures, blasting risk assessment, blasting permits and notifications required and other required relevant documentation. The Principal Contractor shall approve the appointed blasting contractor

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OHS file, and the file shall be maintained for the duration of the blasting project scope. All the relevant legislation in relation to blasting works shall be adhered to all the times.

#### 5.3.4 CRITICAL (SAFE) OPERATING CONTROL PROCEDURES (SWPS)

**Procedures (but not limited) to the following activities shall be developed and implemented.**

- a) Site clearance;***
- b) Earthworks (Roads and subgrade)***
- c) Subbase***
- d) Asphalt base and surfacing***
- e) Road markings and road signage***
- f) Stormwater drainage excavation***
- g) Installation of stormwater pipes***
- h) Constriction of manhole and other relevant infrastructure***
- i) Construction of sidewalks***
- j) Segmented paving***
- k) Kerbing and channelling***
- l) Street furniture***
- m) Minor concrete works***
- n) Plumbing and drainage***
- o) Minor Electrical works***
- p) And other related civil works***
- q) Existing underground water, electricity and other Services***
- r) Use of ladders***
- s) Any other specific items or tasks relating to the construction work to be undertaken***

**PART C4: SITE INFORMATION**

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#### C4.1.1 Locality

below is the locality map of the site:



**Locality Map**

#### C4.1.2 General Description of the Site

Mahube Valley is located in Mamelodi East, Extensions 20 to 24, City of Tshwane Municipality, Gauteng Province and can be accessed from the Solomon Mahlangu Drive (M10) connecting to the N4 freeway. The site comprises of three areas as stated below:

- Area 1 consisting of Boloa, Phahlane, Mogashoa and Morwa Avenue.
  - Upgrade of approx. 700 m roads from gravel to surfacing, 5m wide.
  - New sloped kerbs on both edges of the roadway.
  - Provision of underground stormwater network with 12 new kerb inlets.
  - Upgrading existing stormwater outfall line of approx. 800 m with new outlet structure at local stream.
  - Provide new sloping kerbs along both sides of Mabena Avenue plus 10 new kerb inlets.
- Area 2 consisting of Hlekani, Mamati, Lekwati, Lehlaku, Lesodi, and Mambitha Street.
  - Rehabilitation of Mamati street (50 m) plus pothole repairs on other streets.
  - Upgrade of underground stormwater network with 8 new kerb inlets.
  - Upgrading existing stormwater outfall line of approx. 500 m with 7 new kerb inlets with new outlet structure at existing open earth drainage channel.
  - Erosion protection for approx. 20 m of earth drainage channel with concrete blocks.
- Area 3 consisting of Julius Nyerere Street.
  - Upgrade of approx. 240 m roads from gravel to surfacing, 5m wide.
  - New sloped kerbs on both edges of the roadway.

#### C4.1.3 Site Conditions

##### C4.1.3.1 Topography

Mahube Valley is situated on the eastern side of Pretoria, within the Tshwane Metropolitan Municipality, which is part of the Gauteng Province. The region exhibits a relatively flat to gently sloping terrain, characteristic of the highveld plateau in Gauteng. The elevation in Mahube Valley ranges between 1,300 to 1,500 meters above sea level.

#### C4.1.3.2 Site Geology

A geotechnical investigation was conducted in September 2013 as part of the detailed design process of the project done by NFM. The results are indicating G10 class subgrade conditions at all test pits. Although the test pits were not taken in the immediate locations of the current Area 1 to 3, it can be concluded that similar subgrade conditions will be found throughout the Mahube Valley.

No suitable natural gravel borrow pits were found in the Mamelodi area.

#### C4.1.3.3 Hydrology

The area faces hydrological challenges due to summer rainfall, leading to surface runoff, localized flooding, and a need for enhanced stormwater infrastructure.