



THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

CONTRACT DOCUMENT

FOR THE

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A

(RETURNABLE DOCUMENT)

Name of Tenderer	
Address (Physical)	
Telephone Number	
Fax Number	
Date	
Signature	
Amount (VAT Included)	
Duration	(Maximum 6 Weeks)

NOTE:

- The Form of Offer and Acceptance (C1.1) is on **page 68** of this document (see also Clause F.4.6)

PREPARED BY:



THEEWATERSKLOOF MUNICIPALITY

P O BOX 24

CALEDON

7230

Tel: (028) 214 3300

PART A INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE THEEWATERSKLOOF MUNICIPALITY					
Bid Number:	LED 01/2024/25	Closing Date:	28 FEBRUARY 2025	Closing Time:	12:00
Description:	UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A				
THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).					

Bid Response Documents may be Deposited in the **Bid Box No. 1** situated at:

MUNICIPAL HEAD OFFICE
6 PLEIN STREET
CALEDON
7230

SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		OR	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	<input type="checkbox"/> Yes <input type="checkbox"/> No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	<input type="checkbox"/> Yes <input type="checkbox"/> No	

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]

1. ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [[IF YES ENCLOSE PROOF]	2. ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	<input type="checkbox"/> Yes <input type="checkbox"/> No [[IF YES, ANSWER PART B:3]
3. TOTAL NUMBER OF ITEMS OFFERED		4. TOTAL BID PRICE	R
5. SIGNATURE OF BIDDER	.....	6. DATE	
7. CAPACITY UNDER WHICH THIS BID IS SIGNED			

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		TECHNICAL INFORMATION MAY BE DIRECTED TO:	
DEPARTMENT	SCM	DEPARTMENT	LED
CONTACT PERSON	Nico La Grange	CONTACT PERSON	Stalin Govender
TELEPHONE NUMBER	028 214 3300	TELEPHONE NUMBER	028 214 3300
FACSIMILE NUMBER	028 212 1229	FACSIMILE NUMBER	028 214 1289
E-MAIL ADDRESS	nicola@twk.gov.za	E-MAIL ADDRESS	stalingo@twk.gov.za

PART B TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:

- 1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
- 1.2. **ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED – (NOT TO BE RE-TYPED) OR ONLINE**
- 1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.

2. TAX COMPLIANCE REQUIREMENTS

- 2.1 Bidders must ensure compliance with their tax obligations.
- 2.2 Bidders are required to submit their unique personal identification number (pin) issued by SARS to enable the organ of state to view the taxpayer's profile and tax status.
- 2.3 Application for the Tax Compliance Status (TCS) certificate or pin may also be made via e-filing. In order to use this provision, taxpayers will need to register with SARS as e-filers through the website www.sars.gov.za.
- 2.4 Foreign suppliers must complete the pre-award questionnaire in part B:3.
- 2.5 Bidders may also submit a printed TCS certificate together with the bid.
- 2.6 In bids where consortia / joint ventures / sub-contractors are involved, each party must submit a separate TCS Certificate/Pin/CSD number.
- 2.7 Where no TCS is available, but the bidder is registered on the central supplier database (CSD), a CSD number must be provided.

3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

- 3.1. IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? YES NO
- 3.2. DOES THE ENTITY HAVE A BRANCH IN THE RSA? YES NO
- 3.3. DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA? YES NO
- 3.4. DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA? YES NO
- 3.5. IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION? YES NO

IF THE ANSWER IS "NO" TO ALL OF THE ABOVE, THEN IT IS NOT A REQUIREMENT TO REGISTER FOR A TAX COMPLIANCE STATUS SYSTEM PIN CODE FROM THE SOUTH AFRICAN REVENUE SERVICE (SARS) AND IF NOT REGISTER AS PER 2.3 ABOVE.

NB: FAILURE TO PROVIDE ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID. NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE.

SIGNATURE OF BIDDER:

CAPACITY UNDER WHICH THIS BID IS SIGNED:



THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

GENERAL TENDER INFORMATION

TENDER ADVERTISED	:	29 January 2025
ESTIMATED CIDB CONTRACTOR GRADING	:	3 CE or Higher
CLARIFICATION MEETING	:	A compulsory clarification meeting to be held on 14 February 2025 at 10:00 am.
VENUE FOR CLARIFICATION MEETING	:	55 Main Rd, Villiersdorp, Municipal Offices
CLOSING DATE	:	Friday, 28 February 2025
CLOSING TIME	:	12:00
CLOSING VENUE	:	Tender Box 1 at the Municipal Office, 6 Plein Street, Caledon.
VALIDITY PERIOD OF TENDER	:	90 days
TENDER BOX	:	The Tender Documents (which includes the Form of Offer and Acceptance) completed in all respects, plus any additional supporting documentation required, must be submitted in a sealed envelope with the name and address of the tenderer, the tender No. and title and the closing date indicated on the envelope. The sealed envelope must be inserted into the appropriate official tender box before closing time. The onus remains with the tenderer to ensure that the tender is placed in the correct tender box.

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Part T1: Tendering Procedure

T1.1 Tender Notice and Invitation to Tender

T1.2 Tender Data

THEEWATERSKLOOF MUNICIPALITY
TENDER NO. LED 01/2024/25
UPGRADING OF THE VLLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A

T1.1 Tender Notice and Invitation to Tender

THEEWATERSKLOOF MUNICIPALITY, DIRECTORATE ECONOMIC DEVELOPMENT AND PLANNING invites tenders for Contract no. **LED 01/2024/25 UPGRADING OF THE VLLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A**

Only tenderers who satisfy the eligibility criteria stated in the Tender Conditions, Special Conditions of Tender and Tender Data are eligible to submit tenders. It is estimated that the tenderers should have a CIDB contractors grading designation of **3CE or higher**.

All bids received shall be evaluated in terms of the Theewaterskloof Municipality's Supply Chain Management Policy, read with the Preferential Procurement Regulations of 2022. It is estimated that the 80/20 preference points system will be applicable. Tenders will be evaluated in terms of price and preference.

The successful tenderer must also be registered on the Centralized Supplier Database (CSD). Tenderers can register on WWW.CSD.GOV.ZA

A set of tender documents may be obtained from Theewaterskloof Municipality, Supply Chain Management Department from **29 January 2025** during office hours Monday to Thursday 07h45-13h00 and 13h45-16h45 and Fridays 07h45-13h00 and 13h45-15h30. **Payment of a non-refundable tender participation fee of R 550.00 (VAT Inclusive) is applicable.** It is an eligibility criterion and is payable by means of electronic transfer or direct deposit only. Proof of payment of the participation fee should accompany your tender document when submitting it. Refer enquiries, **only in the aforementioned regard**, to Mr Hanro September at hanrose@twk.gov.za.

All **technical queries** relating to this tender may be addressed to: Mr. Stalin Govender,
Tel : 028 214 3341/ 028 214 3300
e-mail: stalingo@twk.gov.za

A compulsory clarification meeting with representatives of the Employer will take place at the Town office, 55 Main Road, Villiersdorp (Municipal office), and then will commence to the proposed location on 14 February 2025 starting at 10:00 AM. Prospective tenderers who arrive later than 10:15 AM will not be allowed into the Clarification meeting. Tenderers should be represented at the site visit/ clarification meeting by a person who is suitably qualified and experienced to comprehend the implications of the work involved.

The closing time for receipt of tenders is **12h00 on Friday, 28 February 2025** at the Theewaterskloof Municipality, Tender Box 1- at the main entrance, 6 Plein Street, Caledon. Telegraphic, telephonic, telex, facsimile, electronic/e-mailed and late tenders will not be accepted. Tenders may only be submitted on the tender documentation that has been issued. Tenders, completed in full, must be submitted in tender box no. 1 which is located at the entrance to the municipality head office of Theewaterskloof Municipality, 6 Plein Street, Caledon. Please note that the tender box is open 24/7 and that the deposit slot opening is 5 x 30 cm.

Council reserves the right to accept a tender in full, partially or not at all and is not obliged to accept the lowest tender received. Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

The 80/20 preference point system in terms of Theewaterskloof Municipality's Preferential Procurement Policy will be applicable as follows:

Price 80
Specific goals: (20)

a) B-BBEE status level of contributor 10
b) locality 10
Total points 100

Joseph Amansure
Acting Municipal Manager
Theewaterskloof Municipality
P O Box 24
6 Plein Street
Caledon

THEEWATERSKLOOF MUNICIPALITY

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T1.2 Tender Data

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the Construction Industry Development Board (CIDB) Board Notice 423 of 2019 (contained in Government Gazette No. 42622 of 08 August 2019), bound into section T1.3.

The Standard Conditions of Tender makes several references to the Tender Data. The Tender Data also contains project-specific amendments to the Standard Conditions of Tender applicable to this document. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

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

Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Conditions of Tender
Clause	Description	
C.1.1	Actions	The Employer is Theewaterskloof Municipality
C.1.2	Tender documents	<p><i>Add the following:</i> “The following documents form part of this contract:</p> <p>VOLUME 1: The General Conditions of Contract for Construction Works (Third Edition) 2015 as published by the South African Institution of Civil Engineering. This publication is available, and tenderers must obtain copies at their own cost from the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House 1685, Tel: (011) 805 5947, Fax: (011) 805 5971, e-mail: civilinfo@saice.org.za.</p> <p>VOLUME 2: The South African Bureau of Standards Standardized Specification for Civil Engineering Construction SANS 1200 1996, prepared by and obtainable from the South African Bureau of Standards, Private Bag X191, Pretoria 0001, Tel: (012) 428 6929, Fax: (012) 428 6928, Web site: www.stansa.co.za.</p> <p>Volumes 1 and 2 may also be inspected, by appointment, at the offices of the Employer’s Agent during normal office hours.</p> <p>The tender documents issued by the Employer comprise:</p> <p>VOLUME 3: The Tender Document (this document), in which is bound:</p> <p><u>The Tender</u> Part T1: Tendering Procedure T1.1 Tender Notice and Invitation to Tender T1.2 Tender Data</p> <p>Part T2: Returnable Documents T2.1 List of Returnable Documents T2.2 Returnable Schedules</p>

Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Conditions of Tender
Clause	Description	
		<p>The Contract</p> <p>Part C1: Agreement and Contract Data C1.1 Form of Offer and Acceptance C1.2 Contract Data C1.3 Form of Guarantee C1.4 Occupational Health and Safety Agreement C1.5 Insurance Broker's Warranty</p> <p>Part C2: Pricing Data C2.1 Pricing Instructions C2.2 Bills of Quantities</p> <p>Part C3: Scope of Work C3.1 Description of the Works C3.2 Engineering C3.3 Procurement C3.4 Construction C3.5 Management C3.6 Annexes</p>
C.1.3.2	Interpretation	<p><i>Replace this sub-clause with the following:</i></p> <p>These Conditions of Tender, the Tender Data, List of Returnable Documents and Returnable Schedules which are required for tender evaluation purposes, shall form part of the Contract arising from the invitation to tender.</p>
C.1.4	Communication	<p><i>Delete the first sentence of the clause and replace with the following:</i></p> <p>Verbal or any other form of communication, from the Employer, its employees, agents or advisors during site visits/clarification meetings or at any other time prior to the award of the Contract, will not be regarded as binding on the Employer, unless communicated by the Employer in writing to suppliers by its Manager: Supply Chain Management or his nominee.</p> <p>The Employer's Representative is (also known as the Contract Administrator): Company: Theewaterskloof Municipality Name: JC Mong Address: 55 Main Road Villiersdorp, 6848</p> <p>Tel: (028) 214 3300 E-mail: johannesmo@twk.gov.za</p>
C.1.6.2.1	Negotiation procedure	<p><i>Add the following to C.1.6.2.1:</i></p> <p>A competitive negotiation procedure will not be followed.</p>
Add the following new clause: "C.1.7"	CSD Registration	<p><i>Add the following new clause C.1.7:</i></p> <p>Tenderers are required to be registered on the National Treasury Web Based Central Supplier Database (CSD) as a service provider. Tenderers must register as such upon being requested to do so in writing and within the period contained in such a request, failing which no orders can be raised or payments processed from the resulting contract. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture.</p>

Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Conditions of Tender
Clause	Description	
		<p>Tenderers who wish to register on the National Treasury Web Based Central Supplier Database (CSD) may do so via the web address https://secure.csd.gov.za.</p> <p>It is each tenderer's responsibility to keep all the information on the National Treasury Web Based Central Supplier Database (CSD) updated.</p>
Add the following new clause: "C.2.1.3"	Responsive tender	<p><i>Add the following new clause: C.2.1.3</i></p> <p>Only those tender submissions from which it can be established that a clear and unambiguous offer has been made to Employer, by whom the offer has been made and what the offer constitutes, will be declared responsive.</p>
Add the following new clause: "C.2.1.1"	Eligibility	<p><i>Add the following new clause: C.2.1.1</i></p> <p>Only those tenderers who substantiate their offer by providing sufficient proof, relevant to each of the following criteria and in terms of the Scope of Work included in this contract, are eligible to submit tenders:</p>
Add the following new clause: "C.2.1.2"		<p><i>Add the following new sub-clause: C.2.1.2</i></p> <p>Attendance of Compulsory Clarification Meeting</p> <p>The tenderer shall attend a compulsory clarification meeting (refer to sub clause 2.7 of Part T1.2). Attendance of the compulsory clarification meeting shall be confirmed by way of signature of an attendance register signed at the clarification meeting.</p>
C.2.2.1	Cost of tendering	<p><i>Add the following to sub-clause C.2.2.1:</i></p> <p>Accept that the Employer will not compensate the tenderer for any costs incurred in attending interviews in the office of the employer (if required).</p>
C.2.7	Clarification meeting	<p>A compulsory clarification meeting and site visit will be held as follows:</p> <p>Location : Municipal Offices, 55 Main Road, Villiersdorp Date : 14 February 2025 Time : 10:00 AM</p> <p>Confirmation of attendance will be recorded, on site, in the Site Inspection Certificate included in Section T2.2 of the Document.</p> <p>Tenderers should be represented at the site visit/clarification meeting by a person who is suitably qualified and experienced to comprehend the implications of the works involved.</p>
C.2.10	Pricing the tender offer	<p><i>Add the following sub-clause C.2.10.5:</i></p> <p>A digital copy of the Bill of Quantities can be obtained from the Employer upon sufficient notice.</p>
C.2.11	Alterations to documents	<p><i>Replace the last sentence of the clause with the following:</i></p> <p>To correct errors made, draw a line through the incorrect entry and write the correct entry above in non-erasable black ink and place the full signatures of the authorised signatories next to the correct entry.</p>

Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Conditions of Tender
Clause	Description	
C.2.12.1	Alternative tender offers	<i>Add the following to the clause:</i> No alternative offers will be considered.
C.2.13.2	Submitting a tender offer	<i>Replace the contents of the clause with the following:</i> Return all volumes of the tender document to the Employer after completion of the relevant sections of each volume in their entirety, by writing in non-erasable black ink. All volumes are to be left intact in its original format and no pages shall be removed or re-arranged.
C.2.13.3		<i>Add the following to C.2.13.3:</i> Parts of each tender offer communicated on paper shall be submitted as an original, plus Nil (0) copies of the tender offer are required.
C.2.13.4		<i>Add the following to the clause:</i> Only authorised signatories may sign the original and all copies of the tender offer where required in terms of C.2.13.3.
C.2.13.5		<i>Delete the clause and replace with the following:</i> The tender submission details are all described on the General Tender Information page. The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are: Tender box location : Municipal Head Offices Physical address : 6 Plein Street Caledon 7230 Identification details : LED 01/2024/25 Title of Tender : UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A. Sealed tenders with the name and address of the tenderer, the tender No. and title and the closing date indicated on the envelope, must be placed in the appropriate official tender box at the abovementioned address.
C.2.13.6		<i>Add the following to C.2.13.6:</i> A two-envelope procedure will not be followed.
C.2.13.10		<i>Add the following new sub-clause C.2.13.10:</i> Accept that all conditions, which are printed or written upon any stationary used by the Tenderer for the purpose of or in connection with the submission of a tender offer for this Contract, which are in conflict with the conditions laid down in this document shall be waived, renounced and abandoned.
C.2.14	Information and Data to be	<i>Add the following to the clause:</i>

Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Conditions of Tender
Clause	Description	
	completed in all respect	<p>The Tenderer is required to enter information in the following sections of the document:</p> <p>Section T2.2 : Returnable Schedules Section C1.1 : Form of Offer and Acceptance Section C1.2 : Contract Data (Part 2) Section C1.3 : Form of Guarantee Section C1.4 : Occupational Health and Safety Agreement Section C1.5 : Insurance Broker's Warranty Section C2.2 : Bill of Quantities</p> <p>The above sections shall be signed by the Tenderer (and witnesses where required). Individual pages should only be initialled by the successful Tenderer and by the witnesses after acceptance by the Employer of the Tender Offer.</p> <p>The Tenderer shall complete and sign the Form of Offer prior to the submission of a Tender Offer.</p> <p>The Schedule of Deviations (if applicable) shall be signed by the successful Tenderer after acceptance by the Employer of the Tender Offer.</p> <p>Accept that failure on the part of the Tenderer to submit any one of the Returnable Documents within the period stipulated, shall be just cause for the Employer to consider the tender offer as being regarded as non-responsive.</p> <p>Accept that the Employer shall in the evaluation of tender offers take due account of the Tenderer's past performance in the execution of similar engineering works of comparable magnitude, and the degree to which he possesses the necessary technical, financial and other resources to enable him to complete the Works successfully within the contract period. Satisfy the Employer and the Engineer as to his ability to perform and complete the Works timeously, safely and with satisfactory quality, and furnish details in section T2.2.2 of contracts of a similar nature and magnitude which they have successfully executed in the past.</p> <p>Accept that the Employer is restricted in accordance with clause 5 (1) of the Construction Regulations, 2014, to only appoint a contractor whom he is satisfied has the necessary competencies and resources to carry out the work safely. Accept that submitting inferior and inadequate information relating to health and safety shall be regarded as justifiable and compelling reasons not to accept the Tender Offer of the Tenderer scoring the highest number of tender evaluation points.</p>
C.2.15.1	Closing time	<p><i>Add the following to C.2.15.1 after the first sentence:</i></p> <p>The closing time and location for the submission of tender offers are:</p> <p>Time : 12:00 Date: 28 February 2025 Location : Caledon Municipal Head Offices 6 Plein Street Caledon</p>
C.2.16.1	Tender offer validity	The tender offer validity period is 90 days.

Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Conditions of Tender
Clause	Description	
C.2.16.1		<p><i>Add the following to the clause:</i></p> <p>If the tender validity expires on a Saturday, Sunday or public holiday, the tender shall remain valid and open for acceptance until the closure of business on the following working day.</p>
<i>Add the following new clause:</i> C.2.16.5		<p><i>Add the following new clause:</i></p> <p>Accept that should the Tenderer unilaterally withdraw his tender during the tender validity period, the Employer shall, without prejudice to any other rights he may have, be entitled to accept any less favourable tender for the Works from those received, or to call for fresh tenders, or to otherwise arrange for execution of the Works, and the Tenderer shall pay on demand any additional expense incurred by the Employer on account of the adoption of the said courses, as well as either the difference in cost between the tender withdrawn (as corrected in terms of clause C.3.9 of the Conditions of Tender) and any less favourable tender accepted by the Employer, or the difference between the tender withdrawn (as corrected) and the cost of execution of the Works by the Employer as well as any other amounts the Employer may have to pay to have the Works completed.</p>
C.2.18.1		<p><i>Add the following to clause C.2.18.1:</i></p> <p>Accept that if requested, the Tenderer shall within 7 days of the date upon which he is requested to do so, submit a full report from his banker as to his financial standing. The Employer may, in its discretion, and subject to the provisions of Section 4(1)(d) of the State Tender Board Act 86 of 1968, condone any failure to comply with the foregoing condition.</p> <p>Accept that the Employer or his agent, reserves the right to approach the Tenderer's banker or guarantor(s) as indicated in the tender document, or the bankers of each of the individual members of any joint venture that is constituted for purposes of this Contract, with a view to ascertaining whether the required guarantee will be furnished, and for purposes of ascertaining the financial strength of the Tenderer or of the individual member of such venture.</p>
C.2.19	Inspections, tests and analysis	<p><i>Add the following at the end of the clause:</i></p> <p>"..... or upon written request"</p>
C.2.22	Return of other tender documents	<p><i>Replace the contents of the clause with the following:</i></p> <p>Return all retained tender documents prior to the closing time for the submission of Tender Offers.</p>
C.3.1.1	Respond to requests from tenderer	<p><i>Replace the contents of the clause with the following:</i></p> <p>Respond to a request for clarification received up to ten (10) working days before the Tender closing time stated in the Tender Data and notify all Tenderers who collected procurement documents within five (5) working days of the same date.</p>
C.3.2	Issue agenda	<p><i>Add the following to C.3.2 at the end of the paragraph:</i></p> <p>Notwithstanding any requests for confirmation of receipt of addenda issued, the tenderer shall be deemed to have received such addenda if the Employer can show proof of transmission thereof (or a notice in respect thereof) via electronic mail, facsimile or registered post.</p>

Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Conditions of Tender
Clause	Description	
C.3.4	Opening of tender submissions	<p><i>Add the following to C.3.2 at the end of the paragraph:</i></p> <p>Tenders will be opened immediately after the closing time of submission of tenders at the venue indicated in Clause C.2.13.5 of the Tender Data.</p>
C.3.5	Two-envelope system	<p><i>Replace the contents of the clause with the following:</i></p> <p>A two-envelope procedure will not be followed.</p>
C.3.8.1	Test for responsiveness	<p><i>Add the following to the clause:</i></p> <p>Failure on the part of the Tenderer to submit a tender offer as stipulated in clause C.2.13 prior to the closing time as stipulated in clause C.2.15 shall be just cause for the Employer to consider the tender offer as being non-responsive</p> <p>Failure on the part of the Tenderer to submit any one of the returnable documents or certificates listed in clause C.2.23 within the period stipulated shall be just cause for the Employer to consider the tender offer as being non-responsive.</p> <p><u>Test for Responsiveness</u></p> <p>(This is a requirement on submission of bid document)</p> <p>Tenders will be considered non-responsive if, inter alia:</p> <ul style="list-style-type: none"> • The tenderer did not sign and complete the Form of Offer part, • The tenderer does not comply with the eligibility criteria listed above, and • The tenderer has failed to comply with item 4.1 under the Additional Conditions of tender • The tenderer has failed to comply with the Special conditions of tender <p><u>Test for Administrative Compliance</u></p> <p>Tenders will be considered non-compliant if, inter alia: (These documents may be requested)</p> <ol style="list-style-type: none"> a) The tenderer has failed to clarify or submit any supporting documentation within the time for submission stated in the employer's written request. b) The tenderer has failed to complete and sign, where prompted in the Returnable Schedules, all additional information requested, excluding responsiveness criteria. c) The tenderer has not submitted a municipal account of where the head office of the company is registered or in case where the premises are leased, the tenderer has not provided a copy of the lease of the premises. The successful contractor will be required to submit updated municipal accounts on a quarterly basis. d) The tenderer has failed to submit a valid Tax clearance status pin certificate. A valid Tax clearance status pin certificate may be requested. e) The tenderer has failed to submit a valid certified B-BBEE certificate, EME or QSE affidavit whereas points were claimed and a copy of the certificate or affidavit was supplied, a certified copy of the valid B-BBEE certificate, EME or QSE affidavit may be

Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Conditions of Tender
Clause	Description	
		<p>requested.</p> <p>f) The tenderer has failed to submit proof of good standing from the Department of Labour related to good standing with regards to COIDA payments. A certified copy of the proof of good standing may be requested.</p> <p>g) The tenderer has failed to submit proof of registration with the relevant Bargaining Council (or relevant affiliation). Should such be in place, a certified copy of the proof of registration may be requested.</p> <p>h) The tenderer has failed to provide proof of payment of participation fee. Proof of payment may be requested.</p> <p>i) The Tenderer has failed to submit proof of 3CE or higher CIDB grading. Proof may be requested.</p> <p>j) The tenderer has failed to sign, compliance with Scope of Works This may be requested.</p> <p>The Employer reserves the right to accept a tender offer which does not, in the Employer's opinion, materially and/or substantially deviate from the terms, conditions, and specifications of the tender documents.</p>
C.3.8.2		<p><i>Replace the final sentence of C.3.8.2 with the following:</i></p> <p>Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the material deviation.</p>
C.3.8.3		<p><i>Add the following after clause C.3.8.2</i></p> <p>The Employer reserves the right to accept a tender offer which does not, in the Employer's opinion, materially and/or substantially deviate from the terms, conditions, and specifications of the tender documents.</p>
C.3.9	Arithmetical errors, omissions and discrepancies	<p><i>Replace the contents of the clause with the following:</i></p> <ol style="list-style-type: none"> 1. Check responsive tenders for discrepancies between amounts in words and amount in figures. Where there is a discrepancy between the amounts in figures and the amounts in words, the amount in words shall govern. 2. Check responsive tender offers for arithmetical errors, correcting them in the following manner: <ol style="list-style-type: none"> a) If a bill of quantities (or schedule of quantities or schedule of rates) applies and there is an error in the line item total resulting from the product of the unit rate and the quantity, the unit rate shall govern and the line item total shall be corrected. b) Where there is an error in the total of the prices, either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the corrected total of the prices shall govern. c) Where there is a discrepancy between the amount indicated in the Tenderer's tender offer and the corrected amount obtained after completing the above steps, the corrected amount shall govern. 3. Notify a tenderer upon written request received after the closing date of tenders of all arithmetical errors made by that particular tenderer.
C.3.11.1	Evaluation of Tenders	<p><i>Replace the following after clause C.3.11.1:</i></p> <p>The evaluation of all responsive tender offers will be carried out in accordance with the following method:</p> <p>Subject to paragraph 3.13 the contract must be awarded to the tender who</p>

Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Conditions of Tender																										
Clause	Description																											
		<p>scores the highest total number of points.</p> <p>The points scoring for price and B-BBEE contribution will be a function of the financial value in accordance with:</p> <p>a) Clause 3.11.2 where the financial value inclusive of VAT of one or more responsive tender offers equals or is less than R50 000 000; or</p> <p>b) Clause 3.11.2 where the financial value inclusive of VAT of all responsive tenders received have a value in excess of R50 000 000.</p>																										
C.3.11.2		<p><i>Add the following to the clause:</i></p> <p>THE 80/20 PREFERENCE POINT SYSTEMS</p> <p>A maximum of 80 points are allocated for price on the following basis: Where</p> <p>Ps = Points scored for price of tender under consideration; Pt = Price of tender under consideration; Pmin = Price of Lowest acceptable tender</p> $P_s = 80 \left(1 - \frac{P_t - P_{\min}}{P_{\min}} \right)$ <p>Points awarded for B-BBEE Status Level of Contribution</p> <p>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 below tables below as may be supported by proof/documentation stated in the conditions of this tender:</p> <table border="1"> <thead> <tr> <th>The specific goals allocated points in terms of this tender</th> <th>Number of points allocated (80/20 system)</th> </tr> </thead> <tbody> <tr> <td>BBBEE (10)</td> <td>Level Points ÷ 2 (For example, Level 1 = 20 / 2 = 10)</td> </tr> <tr> <td>LOCALITY (10) (Latest Certified Municipal account/ Lease agreement in the name of the company must be attached to claim points)</td> <td>TWK AREA – 10 Overberg - 6 Western Cape – 4 Rest of South Africa - 0</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>B-BBEE Status Level of Contributor</th> <th>Number of points (80/20 system)</th> </tr> </thead> <tbody> <tr><td>1</td><td>20</td></tr> <tr><td>2</td><td>18</td></tr> <tr><td>3</td><td>14</td></tr> <tr><td>4</td><td>12</td></tr> <tr><td>5</td><td>8</td></tr> <tr><td>6</td><td>6</td></tr> <tr><td>7</td><td>4</td></tr> <tr><td>8</td><td>2</td></tr> <tr><td>Non-compliant contributor</td><td>0</td></tr> </tbody> </table> <p>Bidders who qualify as EMEs in terms of the B-BBEE Act must submit a certificate issued by an Accounting Officer as contemplated in the CCA or a Verification Agency accredited by SANAS or a Registered Auditor. Registered auditors do not need to meet the prerequisite for IRBA's approval for the purpose of conducting verification and issuing EMEs with B-BBEE Status Level Certificates.</p>	The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system)	BBBEE (10)	Level Points ÷ 2 (For example, Level 1 = 20 / 2 = 10)	LOCALITY (10) (Latest Certified Municipal account/ Lease agreement in the name of the company must be attached to claim points)	TWK AREA – 10 Overberg - 6 Western Cape – 4 Rest of South Africa - 0	B-BBEE Status Level of Contributor	Number of points (80/20 system)	1	20	2	18	3	14	4	12	5	8	6	6	7	4	8	2	Non-compliant contributor	0
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Reference to relevant clauses in Standard Conditions of Tender		Addition or Variation to Standard Conditions of Tender
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		<p>Bidders other than EMEs must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.</p> <p>A trust, consortium or joint venture, will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.</p> <p>A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate bid.</p> <p>Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.</p> <p>A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.</p> <p>A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.</p> <p>If a valid B-BBEE certificate of EME affidavit is not attached it will be interpreted that the preference points for B- BBEE status level or contribution are not claimed.</p> <p>If a valid B-BBEE certificate or EME affidavit is attached and if points is not claimed in terms of MBD 6.1 it will be interpreted that the preference points for B- BBEE status level or contribution are not claimed.</p> <p>Please note that the Municipality will not request a valid B- BBEE certificate or Sworn Affidavits if such is not attached to the bidders tender at closing date of this tender.</p>
C.3.11.4		<p><i>Add the following to the clause:</i></p> <p>Please note that the Municipality will not request a valid B-BBEE Certificate or EME affidavit if a valid certificate is not attached at closing of tender.</p> <p>The municipality reserves the right to appoint the bidder scoring first, second and third highest preference points at any time during the duration of the contract. When the tenderer scoring the highest points cannot perform on the contract, the municipality has the right to purchase from the tenderer scoring the second highest points and if the second highest point scorer cannot perform on the contract, the municipality reserves the right to purchase from the tenderer scoring the third highest points.</p>
C.3.16	Registration of the award	<p><i>Add the following to the clause:</i></p> <p>Notice of non-acceptance of tender will be sent to individual unsuccessful tenderers. Particulars of the accepted tender can be obtained from Theewaterskloof Municipality.</p>
C.3.17	Provide Copies of Contract	The successful tenderer shall receive one copy of the signed contract.

4. Additional Conditions of Tender
The additional conditions of tender are:

4.1 Invalid Tenders

Tenders shall be considered invalid and shall be endorsed and recorded as such in the tender opening record, by the responsible official who opened the tender, in the following circumstances:

- a) if the tender offer is not submitted on the Form of Offer and Acceptance bound into this tender document (**form of Offer and Acceptance**);
- b) if the tender is not completed in hand and in non-erasable black ink;
- c) if the offer has not been signed;
- d) if the offer is signed, but the name of the tenderer is not stated or is indecipherable.

4.2 Negotiations with preferred tenderers

The Employer may negotiate the final terms of a contract with tenderers identified through a competitive tendering process as preferred tenderers provided that such negotiation:

- a) does not allow any preferred tenderer a second or unfair opportunity;
- b) is not to the detriment of any other tenderer; and
- c) does not lead to a higher price than the tender as submitted.

Minutes of any such negotiations shall be kept for record purposes.

4.3 General supply chain management conditions applicable to tenders

In terms of its Supply Chain Management Policy the Municipality may not consider a tender unless the provider who submitted the tender:

- a) has furnished the Municipality with that provider's:
 - full name;
 - identification number or company or other registration number; and
 - tax reference number and VAT registration number, if any;
- b) has indicated whether:
 - the provider is in the service of the state, or has been in the service of the state in the previous twelve months;
 - the provider is not a natural person, whether any of the directors, managers, principal shareholders or stakeholders is in the service of the state, or has been in the service of the state in the previous twelve months;
 - whether a spouse, child or parent of the provider or of a director, manager, shareholder or stakeholder referred to above is in the service of the state, or has been in the service of the state in the previous twelve months; or
- c) irrespective of the procurement process followed, the Municipality is prohibited from making an award to a person:
 - who is in the service of the state;
 - if the person is not a natural person, a juristic entity of which any director, manager, principal shareholder or stakeholder is in the service of the state; or
 - who is an advisor or consultant contracted with the Municipality.

In this regard, tenderers shall complete **Schedule 1A**, Returnable Schedules: Compulsory Enterprise Questionnaire. Failure to complete this schedule may result in the tender not being considered.

4.4 Combating abuse of the Supply Chain Management Policy

In terms of the Supply Chain Management Policy, the Employer may reject the tender of any tenderer if that tenderer or any of its directors has:

- a) failed to pay municipal rates and taxes or municipal service charges and such rates, taxes and charges are in arrears for more than three months;
- b) failed, during the last five years, to perform satisfactorily on a previous contract with the Municipality or any other organ of state after written notice was given to that tenderer that performance was unsatisfactory;
- c) abused the supply chain management system of the Municipality or has committed any improper conduct in relation to this system;
- d) been convicted of fraud or corruption during the past five years;
- e) willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or

- f) been listed with the Register of Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or has been listed on National Treasury's database as a person or juristic entity prohibited from doing business with the public sector.

In this regard, tenderers shall complete **Schedule 2H**, Returnable Schedules: Declaration of Tenderers Past Supply Chain Management Practices (MBD 8). Failure to complete this schedule may result in the tender not being considered.

4.5 Price variations

The Contract Price shall not be subject to contract price adjustment.

4.6 Community liaison officer

It is **not** a requirement of this Contract that a local Community Liaison officer (CLO) be appointed for the area represented by the Tender.

4.7 COIDA payments

The Tenderer shall submit to Council a letter from the Department of Employment and Labour indicating his good standing with regard to COIDA payments. Complete **Schedule 2J** and append the letter in this regard.

4.8 Registration with Bargaining Council (or relevant affiliation)

Tenderers must be registered with a relevant Bargaining Council (if such be in place) and provide the applicable Certificate of Compliance in terms of the relevant Government Gazette. Complete **Schedule 2J** and append the certificate in this regard.

4.9 Compliance with Occupational Health and Safety Act 1993

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

The Health and Safety Plan shall cover inter-alia the following details:

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

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

The Contractor shall prepare and maintain a Health and Safety File in respect of the project, which shall be available for inspection on Site at all times and handed over to the Employer on Final Completion of the project.

The Contractor is required to submit to the Employer the Occupational Health and Safety Agreement (included in the Contract Document) and a letter of good standing from the Compensation Commissioner, or a licensed compensation insurer, within 14 days after the Commencement Date of the contract.

4.10 Eligibility with respect to expanded public works programme

This Contract does **not** qualify for consideration as an Expanded Public Works Programme project.

4.11 Claims arising after submission of tender

No claim for any extras arising out of any doubt or obscurity as to the true intent and meaning of anything shown on the Tender Drawings or contained in the Conditions of Contract, Scope of Work and Pricing Data, will be admitted by the Employer/ Engineer after the submission of any tender and the Tenderer shall be deemed to have:

- 1) inspected the Tender Drawings and read and fully understood the Conditions of Contract.

- 2) read and fully understood the whole text of the Scope of Work and Pricing Data and thoroughly acquainted himself with the nature of the works proposed and generally of all matters which may influence the Contract.
- 3) visited the site of the proposed works, carefully examined existing conditions, the means of access to the site, the conditions under which the work is to be done, and acquainted himself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials and plant to and from the site and made the necessary provisions for any additional costs involved thereby.
- 4) requested the Employer or his duly authorised agent to make clear the actual requirements of anything shown on the Tender Drawings or anything contained in the Scope of Work and Pricing Data, the exact meaning or interpretation of which is not clearly intelligible to the Tenderer.

Before submission of any tender, the Tenderer should check the number of pages, and if any are found to be missing or duplicated, or the figures or writing indistinct, or if the Pricing Data contain any obvious errors, the tenderer must apply to the Employer/ Employer's Agent at once to have the same rectified, as no liability will be admitted by the Employer/ Employer's Agent in respect of errors in any tender due to the foregoing.

4.12 Labour intensive construction/use of local labour

Tenderers are referred to the Special Conditions Tender regarding local labour relevant to this tender, Returnable **Schedule 3D**.

4.13 UIF payments

The Tenderer shall submit to the Employer a letter from the Industrial Council indicating his or her good standing with regard to UIF payments upon being requested to do so.

4.14 Requests for contract documents, or parts thereof, in electronic format

The Employer shall not formally issue tender documents in electronic format as contemplated in F2.13 and shall only issue tender documents in hardcopy. An electronic version of the issued tender documents may be made available to the tenderer, upon written request in terms of this clause, subject to the following:

- a) Electronic copies of the contract document, or parts thereof, will only be provided to tenderers who have been issued with the tender documents as contemplated in F1.2 in hardcopy.
- b) The electronic version shall not be regarded as a substitute for the issued tender documents.
- c) The Employer shall not accept tenders submitted in electronic format. Tenderers may not complete and submit a printed copy of the electronic version of the tender document or part thereof. Only those tenders that have been completed on the issued hard copy tender document shall be considered.
- d) The Employer accepts no responsibility or liability arising from any reliance on or use of the electronic version provided in terms of this clause. The Employer further does not guarantee that the electronic version corresponds with the issued tender documents in all respects. Tenderers are alerted to the fact that electronic versions of the tender documents may not reflect any notices or addenda that amend the tender document.
- e) Any non-compliance with these provisions, including effecting any unauthorised alterations to the tender document as contemplated in Tender data, shall render the tender invalid. The Employer reserves the right to take any action against such tenderer allowed in law including, in circumstances where the tender had already been awarded, the right to cancel the contract.
- f) In requesting the electronic version of the tender document or parts thereof, the tenderer is deemed to have read, understood and accepted all of the above conditions.

4.15 Special Conditions Tender

Tenderers must sign **Schedule 3D** in the **Returnable Schedules**.

4.16

Tenderers should complete and sign all schedules. The company's name must not be used as signature.

ANNEX C

(NORMATIVE)

STANDARD CONDITIONS OF TENDER

Standard Conditions of Tender as contained in Annex C of Board Notice 423 of 2019 in the Government Gazette No 42622 of 8 August 2019, Construction Industry Development Board (CIDB) Standard for Uniformity in Engineering and Construction Works Contracts

C.1 General

C.1.1 Actions

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

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

Note:

- 1) *A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.*
- 2) *Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.*

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

C.1.2 Tender Documents

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

C.1.3 Interpretation

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

C.1.3.2 These conditions of tender, the tender data and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.

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

a) **conflict of interest** means any situation in which:

- i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfill his or her duties impartially;
- ii) an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
- iii) incompatibility or contradictory interests exist between an employee and the tenderer who employs that employee.

b) **comparative offer means** the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;

c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;

d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;

C.1.4 Communication and employer's representative

C.1.4.1 Each communication between the employer and a tenderer shall be to or from the employer's representative only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's representative are stated in the tender data.

C.1.5 Cancellation and Re-Invitation of Tenders

C.1.5.1 An employer may, prior to the award of the tender, cancel a tender if-

- a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
- b) funds are no longer available to cover the total envisaged expenditure; or
- c) no acceptable tenders are received.
- d) there is a material irregularity in the tender process.

C.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the original tender invitation was advertised

C.1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

C.1.6 Procurement procedures

C.1.6.1 General

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

C.1.6.2 Competitive negotiation procedure

C.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of C.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

C.1.6.2.2 All responsive tenderers or at least a minimum of not less than three responsive tenderers that are highest ranked in terms of the evaluation criteria stated in the tender data shall be invited to enter into competitive negotiations based on the principle of equal treatment, keeping confidential the proposed solutions and associated information.

Notwithstanding the provisions of C.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

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

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

C.1.6.3 Proposal procedure using the two stage-system

C.1.6.3.1 Option 1

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

C.1.6.3.2 Option 2

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

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

C.2 Tenderer's obligations

C.2.1 Eligibility

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

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

C.2.2 Cost of tendering

C.2.2.1 Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer complies with requirements.

C.2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

C.2.3 Check documents

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

C.2.4 Confidentiality and copyright of documents

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

C.2.5 Reference documents

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

C.2.6 Acknowledge addenda

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

C.2.7 Clarification meeting

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

C.2.8 Seek clarification

Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in the tender data.

C.2.9 Insurance

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

C.2.10 Pricing the tender offer

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

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

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

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

C.2.11 Alterations to documents

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

C.2.12 Alternative tender offers

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

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

C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.

C.2.13 Submitting a tender offer

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

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

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

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

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

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

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

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

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

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

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

C.2.15 Closing time

- C.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.
- C.2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

C.2.16 Tender offer validity

- C.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.
- C.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.
- C.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).
- C.2.16.4 Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with the requirements of C.2.13 with the packages clearly marked as "SUBSTITUTE".

C.2.17 Clarification of tender offer after submission

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

Note:

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

C.2.18 Provide other material

- C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment.

Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

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

C.2.19 Inspections, tests and analysis

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

C.2.20 Submit securities, bonds and policies

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

C.2.21 Check final draft

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

C.2.22 Return of other tender documents

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

C.2.23 Certificates

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

C.3 The employer's undertakings

C.3.1 Respond to requests from the tenderer

C.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who collected tender documents.

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

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

C.3.2 Issue Addenda

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.

C.3.3 Return late tender offers

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

C.3.4 Opening of tender submissions

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

C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBEE status level and time for completion for the main tender offer only.

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

C.3.5 Two-envelope system

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

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

C.3.6 Non-disclosure

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

C.3.7 Grounds for rejection and disqualification

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

C.3.8 Test for responsiveness

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

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

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

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

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

C.3.9 Arithmetical errors, omissions and discrepancies

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

- C.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:
- a) the gross misplacement of the decimal point in any unit rate;
 - b) omissions made in completing the pricing schedule or bills of quantities; or
 - c) arithmetic errors in:
 - (i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or
 - (ii) the summation of the prices.

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

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

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

C.3.10 Clarification of a tender offer

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

C.3.11 Evaluation of tender offers

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

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

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

The activities associated with evaluating tender offers are as follows:

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

C.3.11.1 General

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

C.3.12 Insurance provided by the employer

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

C.3.13 Acceptance of tender offer

Accept the tender offer; if in the opinion of the employer, it does not present any risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement;
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;
- c) has the legal capacity to enter into the contract;
- d) is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing;
- e) complies with the legal requirements, if any, stated in the tender data; and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

C.3.14 Prepare contract documents

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

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

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

C.3.15 Complete adjudicator's contract

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

C.3.16 Registration of the award

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

C.3.17 Provide copies of the contracts

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

C.3.18 Provide written reasons for actions taken

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

ANNEX G

Alpha-numeric associated with the Contractor Grading Designations

Table G1: Contractor grading designations and associated parameters

Contractor Grading Designation	Tender Value Range designation	Maximum value of contract that a contractor is considered capable of performing (R)
1 (class of construction works)	1	500 000
2 (class of construction works)	2	1 000 000
3 (class of construction works)	3	3 000 000
4 (class of construction works)	4	6 000 000
5 (class of construction works)	5	10 000 000
6 (class of construction works)	6	20 000 000
7 (class of construction works)	7	60 000 000
8 (class of construction works)	8	200 000 000
9 (class of construction works)	9	No Limit

Table G2: Classes of construction work (see next page)

Table G2: CLASSES OF CONSTRUCTION WORK

Description	Designation	Definition	Basic works types	Examples
Civil engineering works	CE	Construction works that are primarily concerned with materials such as steel, concrete, earth and rock and their application in the development, removal, installation, maintenance, renovation, alteration, or dismantling of building and engineering infrastructure	Water, sewerage, roads, railways, harbours and transport, urban development and municipal services	Structures such as a cooling tower, bridge, culvert, dam, grand stand, road, railway, reservoir, runway, swimming pool, silo or tunnel. The results of operations such as dredging, earthworks and geotechnical processes. Township services, water treatment and supply, sewerage works, sanitation, soil conservation works, irrigation works, storm-water and drainage works, coastal works, ports, harbours, airports and pipelines.
Electrical engineering works (Infrastructure)	EP	Construction works that are primarily concerned with development, extension, installation, removal, renovation, alteration or dismantling of engineering infrastructure: a) relating to the generation, transmission and distribution of electricity; or b) which cannot be classified as EB.	Electrical power generation, transmission, control and distribution equipment and systems.	Power generation Street and area lighting Substations and protection systems Township reticulations Transmission Lines Supervisory control and data acquisition systems
Electrical engineering works (buildings)	EB	Construction works that are primarily concerned with the installation, extension, modification or repair of electrical installations in or on any premises used for the transmission of electricity from a point of control to a point of consumption, including any article forming part of such an installation	All electrical equipment forming an integral and permanent part of buildings and/or structures, including any wiring, cable jointing and laying and electrical overhead line construction	Electrical installations in buildings Electrical reticulations within a plot of land (erf) or building site Standby plant and uninterrupted power supply Verification and certification of electrical installations on premises

Description	Designation	Definition	Basic works types	Examples
General building works	GB	<p>Construction works that:</p> <p>a) are primarily concerned with the development, extension, installation, renewal, renovation, alteration, or dismantling of a permanent shelter for its occupants or contents; or</p> <p>b) cannot be categorised in terms of the definitions provided for civil engineering works, electrical engineering works, mechanical engineering works, or specialist works.</p>	<p>Buildings and ancillary works other than those categorised as being:</p> <p>c) civil engineering works;</p> <p>d) electrical engineering works;</p> <p>e) mechanical engineering works; or</p> <p>f) specialist works.</p>	<p>Buildings for domestic, industrial, institutional or commercial occupancies</p> <p>Car ports</p> <p>Fences other than classified as SS</p> <p>Stores</p> <p>Walls</p>
Mechanical engineering works	ME	<p>Construction works that are primarily concerned with the development, extension, installation, removal, alteration, renewal of engineering infrastructure for gas transmission and distribution, solid waste disposal, heating, ventilation and cooling, chemical works, metallurgical works, manufacturing, food processing and, materials handling</p>	<p>Machine systems including those relating to the environment of building interiors:</p> <p>a) gas transmission and distribution systems</p> <p>b) pipelines</p> <p>c) solid waste disposal</p> <p>d) materials handling, lifting machinery, heating, ventilation and cooling, pumps,</p> <p>e) continuous process systems</p> <p>f) chemical works, metallurgical works, manufacturing, food processing such as that in concentrator machinery and apparatus, oil and gas wells, smelters, cyanide plants, acid plants, metallurgical machinery, equipment and apparatus, and works necessary for the beneficiation of metals, minerals, rocks, petroleum and organic chemical processes.</p>	<p>Air-conditioning and mechanical ventilation</p> <p>Boiler installations and steam distribution</p> <p>Central heating</p> <p>Centralised hot water generation</p> <p>Cranes and hoists</p> <p>Dust and sawdust extraction</p> <p>Compressed air, gas and vacuum installations</p> <p>Conveyor and materials handling installations</p> <p>Continuous process systems involving chemical works, metallurgical works, oil and gas wells, acid plants, metallurgical machinery, equipment and apparatus, and works necessary for the beneficiation of metals, minerals, rocks, petroleum and organic substances and other chemical processes</p> <p>Kitchen equipment</p> <p>Laundry equipment</p> <p>Lift installations and escalators</p> <p>Refrigeration and cold rooms</p> <p>Waste handling systems (including compactors)</p>

Description	Designation	Definition	Basic works types	Examples
Specialist works	SB	A subset of construction works identified and defined by the Board that involves specialist capabilities for its execution	The extension, installation, repair, maintenance or renewal, or removal, of asphalt	
	SC		The development, extension, installation, removal, and dismantling, as relevant, associated with building excavations, shaft sinking and lateral earth support	
	SD		The development, extension, installation, repair, renewal, removal, or alteration of corrosion protection systems (cathodic, anodic and electrolytic)	
	SE		Demolition of buildings and engineering infrastructure and blasting	
	SF		The development, extension, installation, renewal, removal, renovation, alteration or dismantling of fire prevention and protection infrastructure (drencher and sprinkler systems and fire installation)	
	SG		The development, extension, installation, renewal, removal, renovation, alteration or dismantling of glazing, curtain walls and shop fronts	
	SH		The development, extension, installation, maintenance, renewal, removal, alteration or dismantling, as relevant, of landscaping, irrigation and horticultural works	
	SI		The development, extension, installation, repair, maintenance, renewal, removal, renovation, alteration or, dismantling of lifts, escalators, travellators and hoisting machinery	
	SJ		The development, installation, removal, or dismantling, as relevant, of piles and other specialized foundations for buildings and structures	
	SK		The installation, renewal, removal, alteration or dismantling, as relevant, road markings and signage	
	SL		The development, extension, installation, renewal, removal, renovation, alteration or dismantling of structural steelwork and scaffolding	
	SM		Timber buildings and structures	
	SN		The extension, installation, repair, maintenance, renewal, removal, renovation or alteration, as relevant, of the waterproofing of basements, roofs and walls using specialist systems.	
	SO		The development, extension, installation, renewal, removal, alteration or dismantling or demolition of water installations and soil and waste water drainage associated with buildings (wet services, plumbing)	
	SQ		The development, extension, installation, repair, removal, alteration, dismantling or demolition of precast concrete or steel fencing	

THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

Part T2: Returnable Documents

T2.1 List of Returnable Documents

T2.2 Returnable Schedules

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB PHASE 3A

T2.1 List of Returnable Documents

The following documents are to be completed and returned as they constitute the tender. Whilst many of the returnable are required for the purpose of evaluating the tenders, some will form part of the subsequent contract, as they form the basis of the tender offer. For this reason, it is very important that tenderers return **all information requested**.

1. RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES (included hereafter for completion)

- 1A Authority for Signatory
- 1B Compulsory Enterprise Questionnaire
- 1C Contractor's information
- 1D Schedule of Subcontractors
- 1E Schedule of estimated Local Labour to be employed on the contract
- 1F Preliminary Programme
- 1G Estimated Monthly Cash-flow

- 2A Certificate of Contractor Registration Issued by the CIDB
- 2B Certificate of Authority for Joint Ventures
- 2C Tax clearance certificate (MBD 2)
- 2D Declaration of Interest (MBD 4)
- 2E Preference points claim form in Terms of the Preferential Procurement regulations 2022
- 2F Declaration of Bidders Past Supply Chain Management Practices (MBD 8)
- 2G Certificate of Independent Bid Determination (MBD 9)
- 2H Declaration in terms of the MFMA in terms of Municipal Rates & Services
- 2I Proof of Payment of Tender Participation Fee
- 2J Letter of Good Standing with the relevant Authorities and Bargaining Council Certificate
- 2K Certificate of Attendance of Clarification Meeting

3. RETURNABLE SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT (to be attached with submission)

- 3A Record of Addenda to Tender Documents
- 3B Form of Indemnity
- 3C Occupational Health and Safety Plan
- 3D Special Conditions of Tender

4. OTHER SCHEDULES AND AFFIDAVITS THAT WILL BE INCORPORATED INTO THE CONTRACT (included hereafter for completion)

- C1.1 Form of Offer and Acceptance
- C1.2 Contract Data (Part 1 & 2)
- C1.3 Form of Guarantee
- C1.4 Occupational Health and Safety Agreement
- C1.5 Insurance Broker's Warranty
- C2.1 Pricing Instructions
- C2.2 Bills of Quantities

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

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UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

T2.2 Returnable Schedules

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UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

SCHEDULE 1A: AUTHORITY FOR SIGNATORY

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

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

A. Certificate for Company

I,, chairperson of the board of directors of
, hereby confirm that by resolution of the board
(copy attached) taken on 20..., Mr/Ms
 acting in the capacity of, was authorized to sign all documents in connection
 with this tender for contract and any contract resulting from it on behalf of the company.

As witnesses:

1. Chairman :
2. Date :

Tenderers must attach a copy of the Resolution of the Board.

B. Certificate for Partnership

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

NAME	ADDRESS	SIGNATURE	DATE

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

C. Certificate for Joint Venture

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

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

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

D. Certificate for Sole Proprietor

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

As witnesses:

- 1. _____ Signature: Sole owner: _____
- 2. _____ Date: _____

E. Certificate for Close Corporation

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

NAME	ADDRESS	SIGNATURE	DATE

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

THEEWATERSKLOOF MUNICIPALITY

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SCHEDULE 1B: 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 & Address of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number

Tax reference number

Section 6: Record of service of the state

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

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

If any of the above boxes are marked, disclose the following: (insert separate page if necessary)

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

* Insert separate page if necessary

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

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

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

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

* Insert separate page if necessary

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

- i) authorizes the Employer to obtain a valid Tax clearance status pin certificate from the South African Revenue Services that my / our tax matters are in order;
- ii) confirms that the neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears on the Register of Tender Defaulters established in terms of the Prevention and Combating of Corrupt Activities Act of 2004;
- iii) confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control over the enterprise appears, has within the last five years been convicted of fraud or corruption;
- iv) confirms that I / we are not associated, linked or involved with any other tendering entities submitting tender offers and have no other relationship with any of the tenderers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
- v) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed Date

Name Position

Enterprise name

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SCHEDULE 1C: CONTRACTOR'S INFORMATION

COMPLETE AS FULLY AS POSSIBLE, WHERE APPLICABLE

CONTRACTORS, SUPPLIERS AND SERVICES PROVIDERS (PROFESSIONAL AND NON-PROFESSIONAL)

PART ONE

1. NAME OF COMPANY

2. ADDRESS: PHYSICAL

POSTAL

CODE

WEBSITE http

E-MAIL

2.1 PHYSICAL ADDRESS IN LOCAL AREA (if applicable)

CODE

CONTACT PERSON (Name & Details)

TELEPHONE

FAX

CELL PHONE

3. SECTOR (e.g. Construction)

3.1 NATURE OF BUSINESS (e.g. Plumbing)

1.

2.

4. REGISTERED AS:

CLOSE CORPORATION

PTY LTD COMPANY

CO-OPERATIVE

SOLE TRADER

LTD COMPANY

PARTNERSHIP

NOT REGISTERED

4.1 REGISTERED NO. (if applicable)

5. VAT REGISTRATION NO.
(if applicable) (Attach certified copy)

5.1 RATES SERVICES ACCOUNT NO.

6. ANNUAL SALES/TURNOVER (Previous financial year) 20..... R

20..... R

20..... R

7. TOTAL ASSETS (Previous financial year) 20..... R

20..... R

20..... R

8. CURRENT CONTRACTS WITH COUNCIL
CONTRACT NO. 1. 2. 3.

DURATION

APPROXIMATE VALUE R R R

DATES CONTRACTS WERE SIGNED

PAYMENT TERMS

9. PREVIOUS CONTRACTS WITH COUNCIL (Last financial year only)
CONTRACT NO.

APPROXIMATE VALUE R R R

10. NAME AND ADDRESS OF AUDITORS/ACCOUNTING OFFICERS

NAME

ADDRESS

CODE

11. PROFESSIONALS ATTACHED TO THE CONCERN WITH QUALIFICATIONS (Name and Qualification)

Initials **Qualifications** **Surname**

Initials	Qualifications	Surname
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

PART 2

12. NAMES AND NUMBERS OF DIRECTORS/PARTNERS/MEMBERS - % SHAREHOLDING

	Initials	Surname	ID Number	Sex	% Holding	*HDI
1.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	YES/NO
2.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	YES/NO
3.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	YES/NO
4.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	YES/NO
5.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	YES/NO
6.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	YES/NO
7.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	YES/NO
8.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	YES/NO

13. INDICATE ON WHICH DATE YOUR BUSINESS STARTED ITS CURRENT TYPE OF BUSINESS

I..... (FULL NAME) HEREBY CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND CORRECT

.....
SIGNATURE

.....
DATE

(ADDITIONAL INFORMATION MAY BE ATTACHED IF NECESSARY.)

*DEFINITION OF HISTORICALLY DISADVANTAGED INDIVIDUAL (HDI) MEANS A SOUTH AFRICAN CITIZEN.

- WHO, DUE TO THE APARTHEID POLICY THAT HAD BEEN IN PLACE, HAD NO FRANCHISE IN NATIONAL ELECTIONS PRIOR TO THE INTRODUCTION OF THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA, 1983 (ACT NO. 110 OF 1983) OR THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA, 1993 (ACT NO. 200 OF 1993) ("THE INTERIM CONSTITUTION") AND/OR
 - WHO IS A FEMALE; AND/OR
 - WHO HAS A DISABILITY

PROVIDED THAT A PERSON, WHO OBTAINED SOUTH AFRICAN CITIZENSHIP ON OR AFTER THE COMING INTO EFFECT OF THE INTERIM CONSTITUTION, IS DEEMED NOT TO BE A HDI.

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SCHEDULE 1D: SCHEDULE OF SUBCONTRACTORS
--

I/we the tenderer, notify the Theewaterskloof Municipality that it is our intention to employ the following Subcontractors for work in this contract.

SUBCONTRACTORS					
Category / Type	Subcontractor Name; Address; Contact Person; Tel. No.			Items of work (pay items) to be undertaken by the Subcontractor	Estimated cost of Work (Rand)
1.	Name of firm				
	Contact person				
	Tel No				
	Address				
2.	Name of firm				
	Contact person				
	Tel No				
	Address				
3.	Name of firm				
	Contact person				
	Tel No				
	Address				
4.	Name of firm				
	Contact person				
	Tel No				
	Address				
5.	Name of firm				
	Contact person				
	Tel No				
	Address				
Number of sheets appended by the tenderer to this schedule <i>(If nil, enter NIL)</i>					

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

SIGNATURE		NAME (PRINT)	
-----------	--	--------------	--

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SCHEDULE 1F: PRELIMINARY PROGRAMME

The tenderer shall attach a preliminary programme, to this schedule.

This programme, and all subsequent programmes shall be in the MS Projects format acceptable (approved by the Employer) time/activity form reflecting the proposed sequence, critical path, and tempo of the various activities and the quantities that will be carried out every week under each of the elements, comprising the work for this contract. The programme shall also indicate the point where the tenderer intends to commence work operations and the direction in which the work will proceed. The working hours shall be indicated.

The tenderer shall also take into account the additional requirements stated in the Project Specifications when drawing up the programme.

Details of the preliminary programme shall be appended to this Schedule.

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

SIGNED ON BEHALF OF TENDERER:

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SCHEDULE 1G: ESTIMATED WEEKLY CASH-FLOW

The Tenderer shall state below the estimated value of work to be completed every week, based on his preliminary programme and his tendered unit rates.

The amounts for Contingencies must not be included. The Tenderer must make note of any cash-flow restrictions.

WEEK	VALUE
1	
2	
3	
4	
5	
6	
TOTAL	

Signed

Date

Name

Position

Tenderer

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SCHEDULE 2A: CERTIFICATE OF CONTRACTOR REGISTRATION ISSUED BY THE CIDB

The tenderer should attach to this page either a certificate of Contractor Registration issued by the Construction Industry Development Board or proof of registration in terms of the Construction Industry Development Board Act.

Signed

Date

Name

Position

Tenderer ...

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SCHEDULE 2B: CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

a) This returnable schedule is to be completed by joint ventures.

We, the undersigned, are submitting this tender offer in joint venture and hereby authorize Mr/Ms

....., authorized signatory of the company, close corporation or partnership

....., acting in the capacity of lead partner, to sign

all documents in connection with the tender offer and any contract resulting from it on our behalf.

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

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

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SCHEDULE 2C: TAX COMPLIANCE STATUS PIN CERTIFICATE

MBD 2

It is a condition of the bid that the taxes of the successful bidder must be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the bidder's tax obligations.

- 1 In order to meet this requirement (where necessary) bidders are required to complete in full the attached form TCC 001 "Application for a Tax clearance status pin certificate" and submit it to any SARS branch office nationally. The Tax clearance status pin certificate Requirements are also applicable to foreign bidders / individuals who wish to submit bids.
- 2 SARS will then furnish the bidder with a Tax clearance status pin certificate that will be valid for a period of 1 (one) year from the date of approval.
- 3 The original Tax clearance status pin certificate must be submitted together with the bid. Failure to submit the valid Tax clearance certificate will result in the invalidation of the bid.

a. Tax Compliance Status (TCS) Pin as of 18 April 2016

- i. **In terms of the new Tax Compliance Status System implemented by SARS on 18 April 2016, taxpayers are now able to issue the municipality with a TCS Pin which will be used to verify a bidder's tax status online via SARS E-filing.** This option will be used to verify the status of the service provider (which should be active or compliant) and will determine if the offer will be further evaluated or omitted. Service provider's status which is found inactive or non-compliant their offers will be omitted. As a result, Tenderers who are not in possession of an original Tax clearance certificate must issue the municipality with the following:

1.	Tax clearance certificated printed for SARS E-filing	
2.	Tax Reference Number:	
3.	Tax Compliance Status Pin:	

- 4 In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax clearance status pin certificate.
- 5 Copies of the TCC 001 "Application for a Tax clearance status pin certificate" form are available from any SARS branch Office nationally or on the website www.sars.gov.za.
- 6 Applications for the Tax clearance status pin certificates may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website www.sars.gov.za.

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UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

SCHEDULE 2D: DECLARATION OF INTEREST

MBD 4

- 1. No bid will be accepted from persons in the service of the state¹.
- 2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of 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 or he representative
 - 3.2 Identity Number:
 - 3.3 Position occupied in the Company (director, trustee, hareholder²):
 - 3.4 Company Registration Number:
 - 3.5 Tax Reference Number:
 - 3.6 VAT Registration Number:
 - 3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.
 - 3.8 Are you presently in the service of the state? **YES / NO**
 - 3.8.1 If yes, furnish particulars.
.....
 - 3.9 Have you been in the service of the state for the past twelve months? **YES / NO**
 - 3.9.1 If yes, furnish particulars

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

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

² Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.

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

3.10.1 If yes, furnish particulars

.....

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

3.11.1 If yes, furnish particulars

.....

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

3.12.1 If yes, furnish particulars

.....

3.13 Are any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

3.13.1 If yes, furnish particulars

.....

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

3.14.1 If yes, furnish particulars.....

.....

4. FULL DETAILS OF DIRECTORS / TRUSTEES / MEMBERS / SHAREHOLDERS.

Full Name	Identity Number	State Employee Number

.....
Signature

.....
Date

.....
Capacity

.....
Name of Bidder

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SCHEDULE 2E: PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Broad-Based Black Economic Empowerment (B-BBEE) Status Level of Contribution

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

1. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

The 80/20 preference point system will be applicable in this tender.

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 PREFERENCE POINT SYSTEMS

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

80/20

$$Ps = 80 \left(1 - \frac{Pt - Pmin}{Pmin} \right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

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

The specific goals allocated points in terms of this tender	Number of points Allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer and proof thereof attached)
BBBEE (10)	LEVEL POINTS ÷ 2 (For example, Level 1 = 20 Points ÷ 2 = 10)	
LOCALITY (10) (Latest Certified Municipal account/ Lease agreement in the name of the company must be attached to claim points)	TWK AREA – 10 OVERBERG - 6 WESTERN CAPE – 4 REST OF SOUTH AFRICA - 0	

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.

SIGNATURE(S) OF TENDERER(S)
SURNAME AND NAME:
DATE:
ADDRESS:

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SCHEDULE 2F: DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

MBD 8

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

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

4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.5.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME)
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM TRUE AND CORRECT.

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

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

THEEWATERSKLOOF MUNICIPALITY

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UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

SCHEDULE 2G: CERTIFICATE OF INDEPENDENT BID DETERMINATION
--

MBD 9

- 1 This Municipal Bidding Document (MBD) must form part of all bids¹ invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
 - a. take all reasonable steps to prevent such abuse;
 - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
 - c. cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
- 4 This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

THEEWATERSKLOOF MUNICIPALITY

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**SCHEDULE 2H: DECLARATION IN TERMS OF THE MFMA
(ACT 56 OF 2003) IN TERMS OF MUNICIPAL RATES AND SERVICES**

NAME OF ENTERPRISE/TENDERER*:

I the undersigned, who warrants that he/she is duly authorized to do so on behalf of the abovementioned enterprise/tenderer, do hereby declare that, to the best of my knowledge, neither the enterprise nor any of its directors, members or partners has:

- a) failed to pay municipal rates and taxes or municipal service charges and such rates, taxes and charges are in arrears for more than three months;
- b) failed, during the last five years, to perform satisfactorily on a previous contract with the Theewaterskloof Municipality or any other organ of state after written notice was given to that tenderer that performance was unsatisfactory;
- c) abused the supply chain management system of the Theewaterskloof Municipality or has committed any improper conduct in relation to this system;
- d) been convicted of fraud or corruption during the past five years;
- e) wilfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
- f) been listed with the Register of Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or has been listed on National Treasury's database as a person or juristic entity prohibited from doing business with the public sector.

I acknowledge that any misrepresentation in respect of this declaration may be regarded as reason to cancel any contract arising out of this tender.

SIGNED ON BEHALF OF ENTERPRISE/TENDERER:

DATE:

DOCUMENTARY EVIDENCE IN TERMS OF GOOD STANDING WITH MUNICIPAL RATES AND TAXES AND SERVICE CHARGES SHALL BE ATTACHED TO THIS FORM.

* where the entity tendering is a joint venture, each party to the joint venture must sign a declaration in terms of the Municipal Finance Management Act and attach it to this schedule

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SCHEDULE 2I: PROOF OF PAYMENT OF TENDER PARTICIPATION FEE

The tenderer should attach to this page proof of payment of the tender participation fee as stipulated in the tender advertisement.

Signed

Date

Name

Position

Tenderer

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SCHEDULE 2J: LETTER OF GOOD STANDING WITH RELEVANT AUTHORITIES AND BARGAINING COUNCIL CERTIFICATE

The tenderer should attach to this page a letter from the relevant authorities indicating his good standing with regard to UIF payments and COIDA as well as certificates issued by relevant Bargaining Council. Each party to a Joint Venture or Consortium shall submit separate documents.

Signed

Date

Name

Position

Tenderer

THEEWATERSKLOOF MUNICIPALITY

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UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

SCHEDULE 2K: CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING

This is to certify that
..... (Tenderer)
of (address)
.....

was represented by the person(s) named below at the compulsory meeting held for all tenderers at
..... (location) on (date), starting at

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

Particulars of person(s) attending the meeting: (Refer to F 2.7)

Name Signature

Capacity

Name Signature

Capacity

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

Name Signature

Capacity Date & Time

THEEWATERSKLOOF MUNICIPALITY

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UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT - HUB PHASE 3A

SCHEDULE 3A: RECORD OF ADDENDA TO TENDER DOCUMENTS

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

No.	Date	Title or Details
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

Signed Date

Name Position

Tenderer

THEEWATERSKLOOF MUNICIPALITY

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SCHEDULE 3B: FORM OF INDEMNITY

The tenderer must complete this page

THE MUNICIPAL MANAGER
Theewaterskloof Municipality

INDEMNITY

Given by (Name of Company)

of

(registered address of Company) a company incorporated with limited liability according to the Company Laws of the Republic of South Africa (hereinafter called the Contractor),

represented herein by

..... (Name of Representative) in his capacity as

.....(Designation) of the Contractor is

duly authorised hereto by a resolution dated.....

To sign on behalf of the Contractor.

WHEREAS THE CONTRACTOR HAS ENTERED INTO A CONTRACT DATED
WITH THEEWATERSKLOOF MUNICIPALITY (HEREINAFTER CALLED THE MUNICIPALITY) WHO
REQUIRE THIS INDEMNITY FROM THE CONTRACTOR FOR THE

**CONTRACT: LED 01/2024/25 – UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB – PHASE
3A**

NOW THEREFORE THIS DEED WITNESSES that the Contractor does hereby indemnify and hold harmless the Municipality in respect of all loss or damage that may be incurred or sustained by the Municipality by reason of or in any way arising out of or caused by operations that may be carried out by the Contractor in connection with the aforementioned contract; and also in respect of all claims that may be made against the Municipality in consequence of such operations, by reason of or in any way arising out of any accidents or damage to life or property or any other cause whatsoever; and also in respect of all legal or other expenses that may be incurred by the Municipality in examining, resisting or settling any such claims; for the due performance of which the Contractor binds itself according to law.

SIGNATURE:

THUS DONE AND SIGNED for and on behalf on the Contractor.

At on the day of In the

presence of the subscribing witnesses.

AS WITNESSES

1..... (Designation)

2..... (Designation)

THEEWATERSKLOOF MUNICIPALITY

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UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

SCHEDULE 3C: OCCUPATIONAL HEALTH & SAFETY PLAN

OCCUPATIONAL HEALTH AND SAFETY ACT (Act No 85 of 1993)

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

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

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

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

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

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

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

SIGNED ON BEHALF OF TENDERER:

**THEEWATERSKLOOF MUNICIPALITY
TENDER NO. LED 01/2024/25
UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A**

SCHEDULE 3D: SPECIAL CONDITIONS OF TENDER

A. CONDITIONS APPLICABLE TO THE PROMOTION OF MUNICIPAL LOCAL AND SOCIO-ECONOMIC DEVELOPMENT

For the **unskilled labour** portion of this tender the Service Provider **MUST** employ **100% local labourers from the benefitting community where construction work is taking place, please refer to Schedule 1E in this regard.** The contractor must comply with EPWP requirements for all unskilled labour and must supply all the necessary documents to Theewaterskloof Municipality for EPWP Registration. Industry related wage rates must be used for the numeration of unskilled labour employed and artisans.

Sub-contracting: The contractor will be required to subcontract the following work, which is outlined in the Bill of Quantities:

1. Site Clearance
2. Segmented Paving
3. Kerbing & Channeling
4. Ancillary Roadworks

The sub-contractor/s must be based in the Theewaterskloof Municipal jurisdiction and the onus is on the contractor to ensure that the selected sub-contractor is capable of performing the subcontracted work in terms of the contract.

Note that only sub-contractors local to Theewaterskloof Local Municipal area will be allowed. Only where subcontracting is related to specialised services of which no service providers is located in Theewaterskloof Area, will the contractor be allowed to make use of a subcontractor from elsewhere. In support of this, the service provider must submit substantive evidence and relevant information with its tender proposal. See **Schedule 1D**

All small construction equipment that the contractor should lease must be from local Theewaterskloof Area as listed in Returnable **Schedule 1D**. Construction equipment not available from the Theewaterskloof Area must be substantiated by proof of such

Security services, if required, must be sourced from within the boundaries of Theewaterskloof Municipality.

Bedding and blanket sand must be sourced within the boundaries of the Theewaterskloof Municipality or otherwise approved with significant reason thereof.

B. CONDITIONS APPLICABLE AFTER CLOSING OF TENDER BUT BEFORE A SELECTED SERVICE PROVIDER IS ANNOUNCED

Any additional information upon request must be submitted in writing within 48 hours of receipt.

C. CONDITIONS APPLICABLE AFTER AWARDING OF THE TENDER

The service provider must provide the Employer with a completed list of local labourers used, as depicted in EPWP schedule that will be provided, with monthly claims.

The aforesaid list must be updated and submitted together with the service provider's progress report and monthly invoice, inclusive of the following details:

- a) Salary / wages spent on local employees versus total wages/salary budget at site
- b) Number of local employees employed versus per total workforce at site
- c) Amount spent on local suppliers versus budgeted

Any amendments to the list require prior approval from the Municipality.

The service provider must provide local labourers with basic on-the-job training and provide them with a reference letter after completion of their services.

The service provider must provide the Employer with a certificate confirming payments made to the local EME sub-contractor, if applicable. This certificate must be updated and submitted together with the service providers progress report and invoice.

Any changes in sub-contractors requires prior approval from the Municipality.

Proof of payment to **local sub-contractors, local suppliers and local labourers** must be submitted by the Contractor.

If the bidder fails to sign this schedule, it will be interpreted that the bidder does not comply with the Special Conditions of Tender and therefore will be regarded as being non-responsive.

I HEREBY DECLARE THAT I COMPLY WITH ALL THE SPECIAL CONDITIONS AS SET OUT ABOVE.

Signed Date

Name Position

Tenderer

THEEWATERSKLOOF MUNICIPALITY

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UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

Part C1: Agreements and Contract Data

C1.1 Form of Offer and Acceptance (Agreement)

C1.2 Contract Data

C1.3 Form of Guarantee

C1.4 Occupational Health and Safety Agreement

C1.5 Insurance Broker's Warranty

THEEWATERSKLOOF MUNICIPALITY

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C1.1 Form of Offer and Acceptance

Offer

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

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The tenderer, identified in the offer signature block, has examined the documents listed in the tender data and addenda thereto as listed in the returnable schedules, and by submitting this offer has accepted the conditions of tender.

By the representative of the tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the contract data.

THE ESTIMATED OFFERED TOTAL OF THE PRICES INCLUSIVE OF VALUE ADDED TAX IS:

Rand.....

..... (in words);

R..... (in figures)

This offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document to the tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the Contractor in the conditions of contract identified in the contract data.

Signature(s)

Name(s)

Capacity

(Name and

address of organization/tenderer)

Name and signature of witness

Date

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 (which includes this agreement)
- Part C2: Pricing Data
- Part C3: Scope of Work

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

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

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to 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 working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

Signature(s)
Name(s)
Capacity

For the Employer Theewaterskloof Municipality
 6 Plein Street
 Caledon
 7230

Name and
Signature
of witness
Date

Schedule of Deviations

Notes:

1. The extent of deviations from the tender documents issued by the employer before 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

1	Subject	.....
	Details	.....
	
	
	
2	Subject	.....
	Details	.....
	
	
	
3	Subject	.....
	Details	.....
	
	
	
4	Subject	.....
	Details	.....
	
	
	

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 and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance.

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

For the Tenderer: (To be signed after award of the tender)

Signature(s)

Name(s)

Capacity

(Name and address of organization /tenderer)
.....
.....

Name and signature of witness

Date

For the Employer:

Signature(s)

Name(s)

Capacity

(Name and address of organization /tenderer) Theewaterskloof Municipality
6 Plein Street
Caledon
7230

Name and Signature of witness

Date

THEEWATERSKLOOF MUNICIPALITY

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C1.2 Contract Data

Part 1: Contract Data provided by the Employer

GENERAL CONDITIONS OF CONTRACT

The following standardized General Conditions of Contract:

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

Prepared by the South African Institution of Civil Engineering (SAICE) shall apply to and from the General Conditions of Contract for this contract. Copies of these conditions of contract are obtainable from the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House 1685, Tel: (011) 805 5947, Fax: (011) 805 5971, e-mail: civilinfo@saice.org.za.

Copies of the General Conditions of Contract are available for inspection and scrutiny at the offices of the Employer's Agent.

The Pro-formas bound with the General Conditions of Contract 2015, on pages 96 to 116 shall not apply to this Contract and shall be replaced with the documentation bound into this Contract Document.

The General Conditions of Contract 2015 make several references to the Contract Data for specific data, which together with these conditions collectively describe the risks, liabilities and obligations of the contracting parties and the procedures for the administration of the Contract. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the general conditions of contract.

The General Conditions of Contract shall be read in conjunction with the variations, amendments and additions set out in the Contract Specific Data below. Each item of data given below is cross-referenced to the clause in the General Conditions of Contract to which it mainly applies.

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:

- a) the Form of Offer and Acceptance,
- b) the Contract Specific Data within the Contract Data,
- c) the General Conditions of Contract for Construction Works, Third Edition, 2015,
- d) the Drawings,
- e) the Scope of Work,
- f) the Pricing Data, and
- g) the conditions of tender, the tender data and tender schedules

If an ambiguity or discrepancy is found in the documents, the Employer's Agent shall issue any necessary clarification or instruction.

Contract Specific Data

The following contract specific data, referring to the General Conditions of Contract for Construction Works, Second Edition, 2015, are applicable to this Contract:

1.1 Definitions

The definitions contained in Clause 1.1 are hereby amended and/or supplemented as follows:

Clause 1.1.1.13:

The defects liability period is **12** months.

Clause 1.1.1.14:

The time for achieving Practical Completion of the whole of the Works is **6 weeks**, inclusive of the 14-day period referred to in Clause 5.3.2 below, and inclusive of non-working days referred to in Clause 5.8.1 below, but exclusive of special non-working days (Clause 5.8.1).

Clause 1.1.1.15:

The name of the Employer is Theewaterskloof Municipality.

Clause 1.2.1.2:

The address of the Employer is:

Physical address: 6 Plein Street
Caledon
7230

Postal address: PO Box 24
Caledon
7230

E-mail address: StalinGo@twk.gov.za

Clause 1.1.1.16:

The Contract Administrator, referred to in this document, is any member of Theewaterkloof Municipality responsible for to oversee the project.

The name of the Contract Administrator is: **Mr. JC Mong**

Clause 1.2.1.2:

The address of the Employers Agent is:

Physical address: Theewaterskloof Municipality
55 Main Street
Villiersdorp
6848

E-mail address: johannesmo@twk.gov.za

Clause 1.1.1.26:

The Pricing Strategy is a Re-measurement Contract.

Clause 3.2.2:

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

- a) Clause 3.3.1 Nomination of Employer's Agent's Representative
- b) Clause 3.3.4 Employer's Agent's authority to delegate

- c) Clause 5.8.1 Non-working times
- d) Clause 5.11.2 Suspension of the Works
- e) Clause 5.12.4 Acceleration instead of extension of time
- f) Clause 6.3.1 Ordering of any variation that causes the contract price to exceed the contract sum
- g) Clause 6.10.10 Advance payment, for items not listed in the Advance Payment Schedule.

Clause 5.1.1 and 5.8.1:

The non-working days are Sundays.

The special non-working days are:

- a) All gazetted public holidays.
- b) Year-end break(s) not exceeding 21 days in duration.

Clause 5.3.1:

The documentation required before commencing with the Works are:

- a) Approved Health and Safety Plan (Refer to applicable clause in the Health and Safety Specification in Part C3.5 in the Scope Work)
- b) Initial programme (Refer to Clause 5.6)
- c) Security (Refer to Clause 6.2)
- d) Evidence of Insurance (Refer to Clause 8.6)
- e) Occupational Health and Safety Agreement (Part C1.5 in Agreements and Contract Data)
- f) Letter of good standing from the Compensation Commissioner, or a licensed compensation insurer (Refer to Clause 4.3)
- g) Protection of the Environment Declaration (Part C1.6 in Agreements and Contract Data)

Clause 5.3.2:

The time to submit the documentation required before commencement of the Works 14 days.

Clause 5.12.2.2:

No extension of time will be granted in respect of any delays attributed to normal climatic conditions. Normal climatic conditions shall be deemed to include normal rainfall and associated wet conditions and materials, strong winds and extremes of temperature. However, in the event that delays to critical activities exceed the number of working days listed below for each month, then abnormal climatic conditions shall be deemed to exist, and an extension of time may be claimed in accordance with the provisions of Clause 5.12.

The number of days quoted below shall be regarded as a fair estimate of the delays to be anticipated and allowed for under normal climatic conditions where inclement weather prevents or disrupts work on the critical path of the approved construction programme.

January	2 days
February	2 days
March	2 days
April	2 days
May	2 days
June	4 days
July	4 days
August	4 days
September	4 days
October	2 days
November	2 days
December	2 days

Claims for delays for abnormal climatic conditions shall be accompanied by substantiating facts and evidence, which shall be submitted timeously as each day or half-day delay is experienced.

Extension of time as a result of abnormal climatic conditions shall be calculated monthly being equal to the number of working days certified by the Engineer's Representative as lost due to rainfall or abnormal climatic

conditions, less the number of days allowed for as stated in the table above. The total extension of time as a result of abnormal climatic conditions for which the Contractor may apply, shall be the cumulative algebraic sum of the monthly extensions over the entire contract period. Should the sum thus obtained be negative, the extension of time shall be taken as nil.

It shall be further noted that where the critical path is not affected, no extension of time for abnormal climatic conditions or for any other reason will be entertained.

Clause 5.13.1

The penalty for failing to complete the Works is **R5 000** per calendar day.

Clause 5.16.3:

The latent defects period shall be 10 years for civil works, 5 years for building works.

Clause 6.2.1:

The security to be provided by the Contractor shall be a performance guarantee of 10% of the Contract Sum. The performance guarantee shall contain the precise wording of the document included in Part C1.3 of the Contract Data: Form of Performance Guarantee, and it shall be issued by a financial institution approved by the Employer at the date when the guarantee is issued. The list of approved financial institutions current at the date of tender is attached to the Form of Performance Guarantee.

Clause 6.2.2:

Delete Clause 6.2.2 in its entirety.

Clause 6.5.1.2.3:

The percentage allowance to cover overhead charges is **10%**

Clause 6.8.2:

Add the following to Clause 6.8.2:

The Contract Price shall not be subject to any contract price adjustment and the rates and prices tendered in the bill of quantities shall be final and binding throughout the period of the Contract.

Notwithstanding the above, if special materials are specified in Part 2 of the Contract Data, then the provisions of Clause 6.8.3 of the General Conditions of Contract shall apply to such special materials.

Furthermore if, because of any extension of time granted, the duration of the contract period exceeds one year, the contract will automatically be subject to contract price adjustment for that period by which the extended contract period exceeds such one year.

Clause 6.8.4:

Add the following to Clause 6.8.4:

Notwithstanding the above, if a public holiday is proclaimed after 28 days before the closing date for tenders, no costs other than those that can be claimed under Clause 5.12.3 shall be added to the contract price.

Clause 6.10.3:

Add the following to Clause 6.10.3:

Notwithstanding the provision of a performance guarantee in terms of Clause 6.2.1, interim payments to the Contractors shall be subject to a retention by the Employer of an amount of **10%** of the said amounts due to the Contractor, with no limit. A guarantee in lieu of retention is not permitted.

Clause 8.6.1.1.2:

The value of Plant and materials supplied by the Employer to be included in the insurance sum is R 0.00 (Nil).

Clause 8.6.1.1.3:

The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is R0.00 (Nil).

Clause 8.6.1.3:

The limit of indemnity for liability insurance is **R10 000 000.00** for a single claim – the number of claims to be unlimited during the construction and defects liability periods.

Clause 8.6.1.5:

In addition to the insurances required in terms of General Conditions of Contract Clauses 8.6.1.1 to 8.6.1.4 the following insurance is also required:

- (a) Insurance of Construction Equipment (including tools, offices and other temporary structures and contents) and other things (except those intended for incorporation into the Works) brought onto the site for a sum sufficient to provide for their replacement.
- (b) Insurance in terms of the provisions of the Compensation for Occupational injuries and Diseases Act No. 130 of 1993.
- (c) Motor Vehicle Liability Insurance comprising (as a minimum) “Balance of Third Party” Risks including Passenger Liability Indemnity.
- (d) Where the contract involves manufacturing and/or fabrication of the works or part thereof at premises other than the Site, the Contractor shall satisfy the Employer that all materials and equipment for incorporation in the works are adequately insured during manufacture and/or fabrication. In the event of the Employer having an insurable interest in such works during manufacture or fabrication then such interest shall be noted by endorsement to the Contractor’s Policies of Insurance.

Clause 8.6.6:

The evidence that the insurances have been effected in terms of Clause 8.6.1, shall be in the form of an insurance broker’s warranty worded precisely as given in part C1.6 Insurance Broker’s Warranty.

Clause 9.2.1:

Add the following Clauses after Clause 9.2.1.3.8:

9.2.1.3.9 The Contractor committed a corrupt or fraudulent act during the procurement process or the execution of the contract.

9.2.1.3.10 An official or other role player committed any corrupt or fraudulent act during the procurement process or in the execution of the contract that benefited the Contractor.

Clause 10.5.3:

The number of ad-hoc Adjudication Board Members to be appointed is 1(one).

Clause 10.7.4:

Add the following Clauses after Clause 10.7.3:

The Arbitrator must be a legal practitioner with more than 10 years legal experience. Must have a good knowledge of the Municipal Finance Management Act and other relevant Municipal Legislation and may in addition be qualified in respect of the main nature of the Contract (Engineer, Quantity Surveyor, Accountant, etc.).

PART 2: DATA PROVIDED BY THE CONTRACTOR

1.1.1.9 The Name of the Contractor is

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

Physical :
Address

Postal :
Address

.....

.....

.....

.....

.....

.....

.....

.....

Telephone : Fax:

email :

SIGNED ON BEHALF OF TENDERER:

THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

C1.3 Form of Guarantee

PERFORMANCE GUARANTEE

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

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means:

"Physical address:

"Employer" means: Theewaterskloof Municipality, Engineering Services.....

"Contractor" means:

"Engineer" means:

"Works" means: **CONTRACT NO. LED 01/2024/25 – UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A**

"Site" means: The site as defined in Clause 1.1.1.29 of the General Conditions of Contract.....

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

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

Amount in words:

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

Amount in words:

"Expiry Date" means: The date of issue by the Engineer of the Certificate of Completion of the Works.....

CONTRACT DETAILS

Engineer issues: Interim Payment Certificates, Final Payment Certificate and the Certificate of Completion of the Works as defined in the Contract.

PERFORMANCE GUARANTEE

1. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum.
2. The Guarantor's period of liability shall be from and including the date of issue of this Performance Guarantee and up to and including the Expiry Date or the date of issue by the Engineer of the Certificate of Completion of the Works or the date of payment in full of the Guaranteed Sum, whichever occurs first. The Engineer and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.

The Guarantor hereby acknowledges that:

- 3.1 any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a surety ship;
- 3.2 its obligation under this Performance Guarantee is restricted to the payment of money.
3. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:
 - 4.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Engineer in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
 - 4.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 4.1 and the sum certified has still not been paid;
 - 4.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 4.
4. Subject to the Guarantor's maximum liability referred to in 1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
 - 5.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 5; or
 - 5.2 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 5; and
 - 5.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
5. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 4 and 5 shall not exceed the Guarantor's maximum liability in terms of 1.
6. Where the Guarantor has made payment in terms of 5, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
7. Payment by the Guarantor in terms of 4 or 5 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
8. Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.
9. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
10. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
11. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.

13. This Performance Guarantee, with the required demand notices in terms of 4 or 5, shall be regarded as a liquid document for the purposes of obtaining a court order.
14. Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

Signed at

Date

Guarantor's signatory (1)

Capacity

Guarantor's signatory (2)

Capacity

Witness signatory (1)

Witness signatory (2)

ANNEXURE

LIST OF APPROVED FINANCIAL INSTITUTIONS

The following financial institutions are currently (as at 25th January 2015) approved for issue of contract guarantees to the Municipality:

National Banks:

ABSA Bank Ltd.
Development Bank of Southern Africa
FirstRand Bank Ltd.
Gensec Bank Ltd.
Investec Bank Ltd.
Land & Agricultural Bank of SA
Nedbank Ltd.
Standard Bank of SA Ltd.

International Banks (with branches in SA):

Barclays Bank plc.
Citibank n.a.
Commerzbank Aktiengesellschaft
Credit Agricole Corporate and Investment Bank
Deutsche Bank AG
HSBC Bank : Johannesburg
JP Morgan Chase Bank
Societe Generale
Standard Chartered Bank

Insurance companies:

ABSA Insurance
AIG South Africa
Coface s.a.
Compass Insurance Co.
Constantia Insurance Co.
Credit Guarantee Insurance Co.
Guardrisk Insurance Co.
Hollard Insurance Company Ltd.
Home Loan Guarantee Co.
Infiniti Insurance Limited
Lombard Insurance
Mutual & Federal Insurance Co.
New National Assurance Co.
Regent Insurance Co.
Renasa Insurance Company Ltd.
Santam Limited
Zurich Insurance Co.

THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

C1.4 Occupational Health and Safety Agreement

AGREEMENT MADE AND ENTERED INTO BETWEEN THE THEEWATERSKLOOF MUNICIPALITY (HEREINAFTER CALLED THE "EMPLOYER") AND

.....
(Contractor/Mandatory/Company/CC Name)

IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, ACT No. 85 OF 1993 AS AMENDED.

I,, representing
....., as an employer
in its own right, do hereby undertake to ensure, as far as is reasonably practicable, that all work will be performed, and all equipment, machinery or plant used in such a manner as to comply with the provisions of the Occupational Health and Safety Act (OHSA) and the Regulations promulgated there under.

I furthermore confirm that I am/we are registered with the Compensation Commissioner and that all registration and assessment monies due to the Compensation Commissioner have been fully paid or that I/We are insured with an approved licensed compensation insurer.

COID ACT Registration Number:

OR Compensation Insurer: Policy No.:

I undertake to appoint, where required, suitable competent persons, in writing, in terms of the requirements of OHSA and the Regulations and to charge him/them with the duty of ensuring that the provisions of OHSA and Regulations as well as the Council's Special Conditions of Contract, Way Leave, Lock-Out and Work Permit Procedures are adhered to as far as reasonably practicable.

I further undertake to ensure that any subcontractors employed by me will enter into an occupational health and safety agreement separately, and that such subcontractors comply with the conditions set.

I hereby declare that I have read and understand the appended Occupational Health and Safety Conditions and undertake to comply therewith at all times.

I hereby also undertake to comply with the Occupational Health and Safety Specification and Plan.

Signed aton the.....day of.....20.....

.....
Witness

.....
Mandatory

Signed aton the.....day of.....20.....

.....
Witness

.....
for and on behalf of
Theewaterskloof Municipality

OCCUPATIONAL HEALTH AND SAFETY CONDITIONS

1. The Chief Executive Officer of the Contractor shall assume the responsibility in terms of Section 16(1) of the Occupational Health and Safety Act (as amended). Should the Contractor assign any duty in terms of Section 16(2), a copy of such assignment shall immediately be provided to the representative of the Employer as defined in the Contract.
2. All work performed on the Employer's premises shall be performed under the supervision of the construction supervisor who understand the hazards associated with any work that the Contractor performs on the site in terms of Construction Regulations 2014.
3. The Contractor shall appoint a Competent Person who shall be trained on any occupational health and safety aspect pertaining to them or to the work that is to be performed.
4. The Contractor shall ensure that he familiarises himself with the requirements of the Occupational Health and Safety Act and that he, his employees, and any sub-contractors, comply with them.
5. Discipline in the interests of occupational health and safety shall be strictly enforced.
6. Personal protective equipment shall be issued by the Contractor as required and shall be worn at all times where necessary.
7. Written safe work procedures and appropriate precautionary measures shall be available and enforced, and all employees shall be made conversant with the contents of these practices.
8. No substandard equipment/machinery/articles or substances shall be used on the site.
9. All incidents referred to in terms of Section 24 of the Occupational Health and Safety Act shall be reported by the Contractor to the Department of Labour and the Employer.
10. The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of Section 32 of the Occupational Health and Safety Act and into any incident involving a Contractor and/or his employees and/or his sub-contractor/s.
11. No use shall be made of any of the Employer's machinery/plant/equipment/substance/personal protective equipment or any other article without prior arrangement and written approval.
12. No alcohol or any other intoxicating substance shall be allowed on the site. Any person suspected of being under the influence of alcohol or any other intoxicating substance shall not be permitted access to, or allowed to remain on the site.
13. Prior to commencement of any work, verified copies of all documents mentioned in the agreement, must be presented to the Employer.

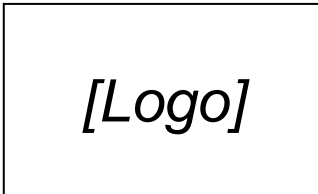
THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

C1.5 Insurance Broker's Warranty

Pro Forma



Letterhead of Contractor's Insurance Broker

Date _____

Theewaterskloof Municipality
Municipal Manager
6 Plein Street
Caledon
7230

Dear Sir

CONTRACT NO.: LED 01/2024/25

CONTRACT TITLE: UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A

NAME OF CONTRACTOR: _____

I, the undersigned, do hereby confirm and warrant that all the insurances required in terms of the abovementioned contract have been issued and/or in the case of blanket/umbrella policies, have been endorsed to reflect the interests of the THEEWATERSKLOOF MUNICIPALITY with regard to the abovementioned contract, and that all the insurances and endorsements, etc, are all in accordance with the requirements of the contract.

I furthermore confirm that all premiums in the above regard have been paid.

Yours faithfully

Signed: _____

For: _____

THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

Part C2: Pricing Data

C2.1 Pricing Instructions

C2.2 Bills of Quantities

THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

C2.1 Pricing Instructions

1. The method of measurement published by the South African National Standards in clause 8 of the Standardised Specifications for Civil Engineering Construction is applicable, subject to the variations and amendments contained in the section "Applicable SANS 1200 standardised specifications".
2. Descriptions in the Bills of Quantities are abbreviated and comply generally with those in the Standardised Specifications. Clause 8 of each Standardised Specification, read together with the relevant clauses of 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 Standardised Specification, or the Scope of Work, conflict with the terms of the Schedule, the requirements of the Standardised Specification or Scope of Work, as applicable, shall prevail.
3. The clauses in a specification in which further information regarding the schedule item appears under "Reference clause" in the Schedule. The reference clauses indicated are not necessarily the only sources of information in respect of scheduled items. Further information and specifications may be found elsewhere in the contract documents. Standardised Specifications are identified by the letter or letters which follow SANS in the SANS 1200 series of specifications, e.g. G for SANS 1200 G.
4. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.
5. The quantities set out in the Bills of Quantities are the estimated quantities of the Contract 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.
6. The prices and rates to be inserted in the Bills of Quantities are to be the 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.
7. A price or rate is to be entered against each item in the Bills of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bills of Quantities.
8. Except where rates only are required, insert all amounts to be included in the total tendered price in the "Amount" column and show the corresponding total tendered price.

9. The units of measurement described in the Bills of Quantities are metric units. Abbreviations which may be used in these Bills of Quantities are as follows:

mm	=	millimetre	h	=	hour
m	=	metre	kg	=	kilogram
km	=	kilometre	t	=	ton (1000 kg)
m ²	=	square metre	No.	=	number
sum	=	lump sum	ha	=	hectare
m ³	=	cubic metre	m ³ .km	=	cubic metre-kilometre
P C sum	=	Prime Cost sum	l	=	litre
Prov sum	=	Provisional sum	kl	=	kilolitre
%	=	percent	MPa	=	megapascal

I HEREBY DECLARE THAT I UNDERSTAND AND COMPLY WITH PRICING INSTRUCTION.

Signed Date

Name Position

Tenderer

THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB PHASE 3A

C2.2 Bill of Quantities

CONTENTS

SECTION 1:	PRELIMINARY & GENERAL
SECTION 2:	SITE CLEARANCE
SECTION 3:	EARTHWORKS
SECTION 4:	MEDIUM PRESSURE PIPELINES
SECTION 5:	SUBBASE
SECTION 6:	BASE
SECTION 7:	SEGMENTED PAVING
SECTION 8:	KERBING AND CHANNELING
SECTION 9:	ANCILLARY ROADWORKS

ITEM NO		DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	SABS 1200 A	PRELIMINARY & GENERAL				
		<i>As specified in SABS1200 A and in project specifications</i>				
1.1	PSA 8.3.1	Fixed preliminary and general charges	Sum	1		
1.2	PSA 8.3.2	Value related preliminary and general charges	Sum	1		
1.3	PSA 8.4	SCHEDULED TIME RELATED ITEMS - Time related preliminary and general charges				
1.3.1	PSA 8.4.1.1	(a) Contract period during the normal industry working period	Sum	1		
1.3.2	PSA 8.4.1.2	(b) Statutory Public Holidays	No	10		
1.3.3	PSA 8.4.1.3	(c) 15 Working days Shut down period during December and January	Sum	1		
1.4	PSA 8.5	SUMS STATED PROVISIONALLY BY ENGINEER PRIME COST SUMS (1) Additional testing of materials required by Engineer (PSA 8.6):				
1.4.1		(a) Cost of testing	PCSum	1		
1.4.1.1		(b) Charge required by Contractor on sub-item above	%	15.00		
1.4.2		(2) As built surveys:				
1.4.2.1		(a) Cost of as built surveys and camera inspection	PCSum	1		
1.4.2.2		(b) Charge required by Contractor on sub-item above	%	15.00		
1.5		Accommodation of traffic				
1.5.1		Cost of traffic accommodation along Taxi Rank hub main access	PCSum	1		
1.6	PSA 8.7	DAYWORK				
1.6.1		Vehicles, plant and equipment:				
1.6.1.1		(1) Hydraulic excavator	h			Rate Only
1.6.1.2		(2) Tipper truck, more than 5m ³	h			Rate Only
1.6.1.3		(3) Flatbed truck equipped with hydraulic crane of more than 2 t capacity	h			Rate Only
1.6.2		Water trucks:				
1.6.2.1		(i) Up to 12 kl capacity	h			Rate Only
1.6.3		Compressors:				
1.6.3.1		(i) Up to 10m ³ /minute	h			Rate Only
1.6.4		Concrete mixer:				
1.6.4.1		(ii) Over 400 l capacity	h			Rate Only
1.6.5		Water pump:				
1.6.5.1		(i) Up to 600 l/minute capacity	h			Rate Only
1.6.5.2		(ii) Up to 200 l/minute capacity	h			Rate Only
1.7		Labour:				
1.7.1		Labourer	h			Rate Only
1.7.2		Semi-skilled	h			Rate Only
1.7.3		Skilled	h			Rate Only
1.7.4		Artisan	h			Rate Only
1.7.5		Gang Boss	h			Rate Only
1.7.6		Chargehand	h			Rate Only
1.7.7		Surveyor	h			Rate Only
	PSA 8.8	TEMPORARY WORKS				
	PSA 8.8.4	Location and protection of existing services:				
1.8	PSA 8.8.4.1	Provision of detecting devices for:				

1.8.1		Water and sewer pipes	Sum	1		
1.8.2		(b) Electrical and other cables	Sum	1		
ITEM NO		DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	PSA 8.8.4.2	Hard excavation necessary for locating and exposing existing services in all materials:				
1.9		In roadways	m ³	50		
1.10		In all other areas	m ³	20		
1.11	PSA 8.8.7	Dealing with water:				
1.11.1		(a) Dealing with subsurface water	Sum	1		
1.11.2		(b) Dealing with surface water	Sum	1		
1.11.3	PSA 8.8.10	Dust control	Sum	1		
1.12	PSA 8.9	STANDING TIME COST				
1.12.1		(a) Plant	Days			Rate Only
1.12.2		(b) Labour	Days			Rate Only
1.12.3		(c) Other (Specify)				
					
					
					
					
1.13	PSA 8.12	Compliance with the Occupational Health and Safety Act (Act No 85 of 1993) and Construction Regulations and specifications included in Part C5	Sum	1		
1.14	PSA 8.13	Compliance with the Environmental Management Plan and requirements.	Sum	1		
Total Carried Forward To Summary						

ITEM NO		DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2	SABS 1200 C	SITE CLEARANCE				
2.1		CLEAR SITE				
2.1.1	PSC 8.2.1	CLEAR AND GRUB:				
2.1.1.1		Site	m ²			Rate Only
2.1.1.2		Road reserves	m ²	405.0		
2.1.2	8.2.2	Remove and grub large trees and tree stumps of girth over and up to (including backfill)				
2.1.2.1		Over 1,0m up to and including 2,0m	No			Rate Only
2.1.2.2		Over 2,0m up to and including 3,0m	No			Rate Only
2.1.3	PSC 8.2.7	Dismantle and remove pipelines (not encased in concrete), electricity transmission lines, cables etc.				
2.1.3.1		110mm dia existing water mains and irrigation pipes up to 1,5m deep	m			Rate Only
2.1.3.2		100mm dia existing sewers up to 2,0m deep	m			Rate Only
2.1.3.3		100mm dia existing sewers over 2,0m up to 3,0m	m			Rate Only
2.1.3.4		Telkom overhead lines including poles	m			Rate Only
2.1.3.5		Electrical overhead lines including poles	m			Rate Only
2.1.4		Remove and reinstate existing services				
2.1.4.1		Telkom Pole	No			Rate Only
2.1.4.2		Electrical Pole	No			Rate Only
2.1.4.3	8.2.5	Take down existing fences	m			Rate Only
2.1.4.4	PSC 8.2.13	Take down and re-erect existing fences	m			Rate Only
2.1.5		Remove and dispose of site existing sewer manholes for depths:				
2.1.5.1		1,0m - 2,0m	No.			Rate Only
2.1.5.2		2,0m - 3,0m	No.			Rate Only
2.1.5.3		3,0m - 4,0m	No.			Rate Only
2.1.6	PSC 8.2.17	Rip and clear areas:				
2.1.6.1		Asphalt up to 30mm thick	m ²	70.0		
2.1.6.2		Segmented paving	m ²			Rate Only
2.1.6.3		Replant 150l trees similar to existing	No			Rate Only
2.1.6.4		Remove existing gate	No	1		
Total Carried Forward to Summary						

ITEM NO		DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3	SABS 1200 DM	EARTHWORKS (ROADS, SUBGRADE)				
		As specified in SABS 1200 DM and in the project specifications				
	PSDM 8.3.3	Treatment of roadbed:				
3.1		(a) Roadbed preparation and compaction of material to:				
3.1.1		(1) Minimum of 93% of modified AASHTO maximum density (Roads, 150mm depth)	m ³	61.0		
3.2	PSDM 8.3.4	Cut to fill:				
3.2.1		(a) In road prism, compact to 93 % of modified AASHTO maximum density (100% for sand)	m ³	605.0		
3.2.2	PSDM 8.3.5	Import G7 upper selected material from commercial sources and use as upper selected layer compacted to 95% Mod AASHTO (100% Mod AASHTO for sand)	m ³	61.0		
3.2.3	PSDM 8.3.5	Import G9 lower selected material from commercial sources and use as lower selected layer compacted to 93% Mod AASHTO (100% Mod AASHTO for sand)	m ³			Rate Only
3.3	8.3.6	Extra-over item 8.4.3 for excavating and breaking down material in:				
3.3.1		(a) Intermediate excavation	m ³	10.0		
3.3.2		(b) Hard excavation	m ³	5.0		
3.4	8.3.7	Cut to spoil from:				
3.4.1		(a) Soft excavation	m ³	575.0		
3.4.2		(b) Intermediate excavation	m ³	30.0		
3.4.3		(c) Hard excavation	m ³			Rate Only
3.5	PSDM 8.3.13	Surface finishes				
		Trimming and grading of verges				
3.5.1		Between kerb and erf boundary	m ²	10.0		
3.5.2	PSDM 8.3.22	Tie in with existing road edge	m	20.0		
3.6	PSDB 8.3.5	Existing services that intersect or adjoin roadworks:				
3.6.1		Services that intersect roadworks:				
3.6.1.1		(1) LT Electricity Cables	No			Rate Only
3.6.1.2		(2) MV Electricity Cables	No			Rate Only
3.6.1.3		(3) Foul Sewer	No			Rate Only
3.6.1.4		(4) Stormwater Earth Channels	No			Rate Only
3.6.1.5		(5) Water Irrigation	No			Rate Only
3.6.2		Services that adjoin roadworks:				
3.6.2.1		(1) LT Electricity Cables	m			Rate Only
3.6.2.2		(2) MV Electricity Cables	m			Rate Only
3.6.2.3		(3) Foul Sewer	m			Rate Only
3.6.2.4		(4) Stormwater	m			Rate Only
3.6.2.5		(5) Water Irrigation	m			Rate Only
3.6.2.6	PSDM 8.3.21	Benching into existing layer works as per detail DWG 23175-C-004-204	m	10.0		
Total Carried Forward to Summary						

ITEM NO		DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4		MEDIUM PRESSURE PIPELINES				
	SABS 1200 DB	EARTHWORKS (PIPE TRENCHES)				
		As specified in SABS 1200 DB and in the project specifications				
	PSDB 8.3.2	Excavation:				
		Excavate in all materials for trenches, backfill, compact and dispose of surplus material:				
4.1		Pipes up to 200mm dia for depths:				
4.1.1		Up to 1,5m	m	60.0		
4.2		Extra over item (a) above for:				
4.2.1		Intermediate excavation	m ³	5.0		
4.2.2		Hard rock excavation	m ³	5.0		
4.3		Hand excavation and backfill where directed by the Engineer				
4.3.1		Soft material	m ³	5.0		
4.3.2		Intermediate material	m ³	10.0		
4.3.3		Excavate and dispose of unsuitable material from trench bottom	m ³	5.0		
	PSDB 8.3.3	Excavation ancillaries:				
4.4	PSDB 8.3.5	Make up deficiency in backfill material:				
4.4.1		(a) from other necessary excavations on site	m ³	10.0		
4.4.2		(C.) by importation from commercial sources (sand compacted to 100% Mod AASHTO)	m ³	20.0		
4.4.3	PSDB 8.3.3	Compaction in road reserves	m ³	30.0		
4.5	PSDB 8.3.5	Existing services that intersect or adjoin a pipe trench:				
4.5.1		Services that intersect a pipe trench:				
4.5.1.1		LT Electricity Cables	No	1.0		
4.5.1.2		MV Electricity Cables	No	1.0		
4.5.1.3		Foul Sewer	No	1.0		
4.5.1.4		Stormwater Earth Channels	No	1.0		

4.5.1.5		Water Irrigation	No	1.0		
4.6		Services that adjoin a trench:				
4.6.1		(1) LT Electricity Cables	m	20.0		
4.6.2		(2) MV electricity cables	m	20.0		
4.6.3		(3) Foul Sewer	m	1.0		
4.6.4		(4) Stormwater	m	1.0		
4.6.5		(5) Water Irrigation	m			Rate Only
4.7	PSDB 8.3.6	Finishing:				
4.7.1	PSDB 8.3.6.1	Reinstate road surfaces complete with all courses:				
4.7.1.1		Asphalt roads	m ²			Rate Only
4.8	SANS 1200 LB	BEDDING (PIPES)				
		As specified in SABS 1200 LB and in the project specifications				
	PSLB 8.2.1	Provision of bedding from trench excavations				
TOTAL CARRIED FORWARD						

ITEM NO		DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
4.8.1		Selected Granular Material	m ³	5.0		
4.8.2		Selected Fill Material	m ³	5.0		
4.9	PSLB 8.2.2	Supply only of bedding by importation:				
	8.2.2.3	From commercial sources:				
4.9.1		Selected granular material	m ³	10.0		
4.9.2		Selected fill material	m ²	5.0		
4.10	8.2.4	Encasing of pipes in concrete				
4.10.1		Class 15Mpa/19mm	m ³	5.0		
4.11	SABS 1200 L	MEDIUM PRESSURE PIPELINES				
		As specified in SABS 1200 L and in the project specifications				
	PSL 8.2.1	Supply, lay and bed on bedding for flexible pipes, complete with couplings:				
		PVC-U Class 12 pipes:				
4.11.1		110mm dia	m	60.0		
4.12	8.2.2	Extra over item 8.2.1 for the supplying, laying and bedding of Ductile Iron specials to SABS 966, complete with spigot and socket rubber ring joints fusion bonded epoxy coated internally and externally to a minimum of 250 micron:				
4.12.1		11,25 degree bends:				
4.12.1.1		110mm dia	No			Rate Only
4.12.2		22,5 degree bends:				
4.12.2.1		110mm dia	No			Rate Only
4.12.3		45 degree bends:				
4.12.3.1		110mm dia	No.			Rate Only
4.12.4		90 degree bends:				
4.12.4.1		110mm dia	No			Rate Only
4.12.5		Tees:				
4.12.5.1		110x110mm dia	No			Rate Only
4.12.6		Reducing Tees:				
4.12.6.1		160x110mm dia	No			Rate Only
4.12.7		Reducers:				
4.12.7.1		160x110mm dia	No			Rate Only
4.12.8		End caps:				
4.12.8.1		110mm dia	No	1.0		
4.12.8.2		160mm dia	No			Rate Only
4.12.9		Flanged adaptors:				
4.12.9.1		110mm dia	No	4.0		
4.12.9.1		160mm dia	No			Rate Only
4.13	8.2.3	Extra over item 8.2.1 for supplying, fixing and bedding flanged gate valves:				
4.13.1		110mm dia	No	1.0		
4.13.2		160mm dia	No			Rate Only
4.14	8.2.3	Extra over item 8.2.1 for supplying, fixing and bedding of fire hydrants including double flanged distance piece between hydrant and tee:				
TOTAL CARRIED FORWARD						

ITEM NO		DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
4.14.1		110mm dia	No	1.0		
4.15		Extra over item 8.2.1 for supplying, fixing and bedding screwed air valves:				
4.15.1		110mm dia	No			Rate Only
4.16		Extra over item 8.2.1 for supplying, fixing and bedding flanged scour valves:				
4.16.1		110mm dia	No			Rate Only
4.16.2	8.2.10	Marker posts	No	5.0		
4.17	PSL 8.2.11	Anchor blocks / thrust blocks and pedestals:				
		Concrete:				
4.17.1		Class 25Mpa/19mm	m ³	5.0		
4.18	8.2.13	Valve and hydrant chambers, etc.:				
4.18.1		Valve chamber complete as per dwg no 23175-C-004-203	No	1.0		
4.18.2		Fire hydrant valve chamber complete as per dwg no 23175-C-004-201	No	1.0		
4.19	PSL 8.2.18	Connection to existing main supply pipe at Buitenkant Street:				
4.19.1		160mm dia PVC-U (96l diameter to be conformed on site)	No	1.0		
4.20	SABS 1200 LF	ERF CONNECTIONS				
		As specified in SABS 1200 LF and in the project specifications				
4.20.1		250mm dia MAGFLO Bulk water meter (including chamber) complete with all valves, strainer, check valve, couplings, puddle pipes and flanges as per dwg no. 23175-C-004-202	No	1.0		
TOTAL CARRIED FORWARD						

5		DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
5	SANS 1200 ME	SUBBASE				
		As specified in SANS 1200 ME and in the project specifications				
5.1	PSME 8.3.3	Construct 150mm subbase (G5) with material from commercial sources and compact to 95% Mod AASHTO density	m ³	61.0		
TOTAL CARRIED FORWARD TO SUMMARY						

ITEM NO		DESCRIPTION	UNIT	QTY	RATE	AMOUNT
BROUGHT FORWARD						
6	SABS 1200 MF	BASE				
		As specified in SABS 1200 MF and in the project specifications				
6.1	PSMF 8.3.3	Construct 150mm base (G4) with material from commercial sources and compact to 98% Mod AASHTO density	m ³			Rate Only
6.2		Construct 150mm base (C4) with material from commercial sources and compact to 98% Mod AASHTO density	m ³	61.0		
TOTAL CARRIED FORWARD						

ITEM		DESCRIPTION	UNIT	QTY	RATE	AMOUNT
7	SABS 1200 MJ	SEGMENTED PAVING				
		As specified in SABS 1200 MJ and in the project specifications and in accordance with SANS 1058				
	PS MJ 8.2.1	Provision of anchor beams as per detail 20158-C-214:				
		Flat restraints				
7.1		Straight	m			Rate Only
	PSMJ 8.2.2	Construction of paving complete:				
7.2		Supply and install 200 x 100 x 80mm, 35 Mpa coarse exposed aggregate interlocker paving, Herringbone pattern, color: Grey (Including 20mm blinding layer of sand)	m ²	405.0		
7.3	PSMJ 8.2.3	Cutting units to fit edge restraints for 200 x 100 x 80mm road	m	150.0		
7.4	8.2.4	Rolling to locked up condition as specified in 5.6.2	m ²	405.0		
TOTAL CARRIED FORWARD TO SUMMARY						

8	SABS 1200 MK	KERBING AND CHANNELLING				
		As specified in SABS 1200 MK and in the project specifications				
	PSMK 8.2.1	Precast concrete kerbing:				
8.1		Barrier kerb (E1):				
8.1.1		Radius up to 4m	m	15		
8.1.2		Radius over 4m up to 20m	m			Rate Only
8.1.3		Radius over 20m and straight sections	m	7.0		
8.2		Barrier Kerb and Channel (BK2 + C1)				
8.2.1		Radius up to 4m	m			Rate Only
8.2.2		Radius over 4m up to 20m	m			Rate Only
8.2.3		Radius over 20m and straight sections	m	15.0		
8.3		Barrier kerb (Dropped BK2):				

8.3.1		Radius up to 4m	m			Rate Only
8.3.2		Radius over 4m up to 20m	m			Rate Only
8.3.3		Radius over 20m and straight sections	m	75.0		
8.4		Barrier kerb and Channel (Dropped BK2+C1):				
8.4.1		Radius up to 4m	m			Rate Only
8.4.2		Radius over 4m up to 20m	m			Rate Only
8.4.3		Radius over 20m and straight sections	m	15.0		
	8.2.6	ANCILLARIES:				
8.5		TRANSITION SECTIONS BETWEEN KERBS:				
8.5.1		BK2 and BK2+C1	No	1.0		
8.5.2		CK5 and BK2	No			Rate Only
8.5.3		CK5 and BK2 + C1	No			Rate Only
8.5.4		MK10 and BK2 + C1	No			Rate Only
8.5.5		E1 and BK2 + C1	No			Rate Only
8.5.6		E1 and BK2	No			Rate Only
8.5.7		MK10/CK5 and Street name kerb	No			Rate Only
8.5.8	PSMK 8.2.14	Kerb markings as per standard	No			Rate Only
Total Carried Forward to Summary						
9	SABS 1200 MM	ANCILLARY ROADWORKS				
		As specified in SABS 1200 MM and in the project specifications				
	8.3	PERMANENT ROADSIGNS				
9.1	8.3.6	Statutory signs, street names and the like, supplied and erected, complete:				
9.1.1		R1 – Stop	No			Rate Only
9.1.2		R3	No	1.0		
9.1.3		R4.1	No	1.0		
9.2	8.4	ROAD MARKINGS				
	8.4.1	Non reflectorized paint applied at nominal rate of 0.42 l/m:				
		White lines (broken or unbroken):				
9.2.1		100mm wide	m			Rate Only
9.3.2		300mm wide	m			Rate Only
9.3.3		White characters and symbols	m ²			Rate Only
	8.4.2	Variation in rate of application from that stated in 8.4.1				
9.3.4		White paint	ℓ			Rate Only
Total Carried Forward to Summary						

THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

SUMMARY OF SCHEDULE(S) OF QUANTITIES

SECTION 1: PRELIMINARY AND GENERAL	R
SECTION 2: SITE CLEARANCE	R
SECTION 3: EARTHWORKS	R
SECTION 4: MEDIUM PRESSURE PIPELINES	R
SECTION 5: SUBBASE	R
SECTION 6: BASE	R
SECTION 7: SEGMENTED PAVING	R
SECTION 8: KERBING AND CHANNELING	R
SECTION 9: ANCILLARY ROADWORKS	R

CALCULATION OF CONTRACT PRICE

10: TOTAL OF SECTION(S) (SUM OF 1 to 9)	R
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11: CONTINGENCIES
(The utilization of the contingencies is subject to final approval of the client)
(**10%** of TOTAL 10 above) **R**

12: TOTAL (10+11)	R
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13: TOTAL VALUE ADDED TAX (15%) ON (13) ABOVE **R**

14: CONTRACT PRICE CARRIED FORWARD TO C1.1 FORM OF OFFER (12+13)R
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I/We, the undersigned, do hereby declare that these are the properly priced Bill / Schedules of Quantities forming part of this Contract Document containing Pages in consecutive order upon which my/our Tender for Contract No.: LED 01/2024/25 – UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB- PHASE 3A has been based.

My/our total Contract Price for this work and above item (Total 14) is (in words)

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

SIGNED ON BEHALF OF TENDERER:

THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

DECLARATION (In respect of completeness of Tender)

Theewaterskloof Municipality
6 Plein Street
CALEDON
7230

I/we, the undersigned, do hereby declare that these are the properly priced Bills of Quantities forming Part C2.2 of this Contract Document containing 10 pages in consecutive order upon which my/our tender for **TENDER NO. LED 01/2024/25 – UPGRADING OF THE VILLIERSDOPR PUBLIC TRANSPORT HUB – PHASE 3A**, has been based.

.....
SIGNATURE OF TENDERER/S

.....
DATE

THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

Part C3: Scope of Work

C3.1 Description of the Works

C3.2 Engineering

C3.3 Procurement

C3.4 Construction

C3.5 Management

C3.6 Annexes

Status

Should any requirement or provision in the parts of the Scope of Work conflict with any requirement of any Standardised Specification, or any drawings, the order of precedence, unless otherwise specified, is:

Drawings

Scope of Work (Parts C3.1, C3.4, C3.5 and C3.6) SANS Standardised Specifications.

THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB - PHASE 3A

C3.1 Description of the Works

CONTENTS

- 3.1.1 EMPLOYER'S OBJECTIVES
- 3.1.2 OVERVIEW OF THE WORKS
- 3.1.3 GENERAL INTENT
- 3.1.4 EXTENT OF THE WORKS
- 3.1.5 LOCATION OF THE WORKS
- 3.1.6 TEMPORARY WORKS

3.1.1 EMPLOYER'S OBJECTIVES

The Employer's objectives are to **UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A**

3.1.2 OVERVIEW OF THE WORKS

The work to be carried out in this contract will be for the upgrading of the existing Villiersdorp Public Transport Hub in Villiersdorp. The project will roll out into separate phases which will be based on available funding.

3.1.3 GENERAL INTENT

The general intent of this Contract is that the Contractor shall procure all items necessary for, construct and complete the Works in accordance with the terms of Contract, in a workman-like and expeditious manner, and shall have full authority over all the Works.

The Engineer shall have the right to verify that all work is carried out in accordance with this Contract and to approve or reject materials supplied and work undertaken by the Contractor or approved subcontractors.

3.1.4 EXTENT OF THE WORKS

The work that is to be carried out under the Works, in general include, but is not restricted to the following:

- Site clearance,
- Earthworks (Roads, Subgrade)
- Medium Pressure Pipelines
- Subbase
- Base
- Segmented Paving
- Kerbing and Channeling
- Ancillary Roadworks

This description of the works is not necessarily complete and shall not limit the work to be carried out by the contractor under this contract. Approximate quantities of each type of work are given in the schedule of quantities.

3.1.5 LOCATION OF THE WORKS

All work will take place within the boundaries of the Theewaterskloof Municipality area.

The site is located near the one of the main entrance area next to the main road (Grabouw direction) of the town of Villiersdorp, Western Cape. The approximate co-ordinates are 33° 59' 36.6"S - 19°17' 19.1"E.

For a locality map, please refer to the locality sketch in **Locality Plan (Annex 2)**.

3.1.6 TEMPORARY WORKS

- a) Other services (telkom electricity etc.) / protection of existing works
Items have been allowed for in the Bill of Quantities for dealing with and protecting existing services where they are known. The Contractor will, however, ensure that prior to construction all the necessary Record Drawings and Wayleaves for all services have been obtained and verified on site by the relevant Service Providers in his presence. The Contractor must request in writing that the relevant official indicates the said services at least 48 hours prior to the commencement of the works.

The Contractor shall take whatever precautions are required to protect all existing services from damage during the period of the Contract. Any damage to existing services indicated by the relevant service providers or other damage as a result thereof, shall be for the Contractor's account. Photographical evidence shall be taken by the contractor before any work is done in close proximity to existing property, services, structures or any other infrastructure.

- b) Survey beacons and benchmarks
The Contractor shall be responsible for the preservation of all land survey, erf or other pegs, benchmarks, or beacons. If damage or disturbance of any such pegs or beacons is caused due to vandalism, the operations of the Contractor or his subcontractors, the pegs are to be replaced by a Registered Land Surveyor at the cost of the Contractor. Benchmarks will be replaced by the Employer's Agent at the Contractor's expense.

Information regarding the position of all such pegs will be made available to the Contractor by the Employer's Agent on request.

The Contractor is to ensure that no spoil is placed over an erf peg or benchmarks and that they are adequately protected for the full duration of the Contract.

Where disturbances of boundary pegs are unavoidable due to excavation of other operations adjacent to pegs, the Contractor shall advise the Employer's Agent or his Representative immediately, agreement is to be reached that disturbance of the peg is unavoidable and a strict record of such disturbed pegs is to be kept. Such pegs are to be replaced by a Registered Land Surveyor as described above and the Contractor is to submit proof of the cost of replacement of pegs. The Contractor will be reimbursed on a basis pro-rata to the total cost of peg replacement determined on completion of the Works.

- c) Tidying up of the works
The Contractor shall take note that the progressive and systematic finishing and tidying will form an essential part of this contract. On no account shall spoil, stockpiles, rubble, materials, equipment, or unfinished operations be allowed to accumulate in such a manner as to unnecessarily be a hindrance or impede the activities of other the public or the Client. In the event of this occurring, the Employer shall have the right to withhold payment for as long as may be necessary in respect of the relevant works in the area(s) concerned.

Upon completion of the Works, or any portion thereof, the ground, fences, gates, and any structures that have been interfered with are to be carefully restored to their original condition or better and all rubbish, tools, tackle, plant and materials must be removed, so as to leave the Site in a clean and orderly condition. No additional payment will be made for such work.

- d) Temporary traffic control
The Contractor will be responsible for the design and implementation of all temporary traffic control measures where the works shall impact the public road network. To this end, all traffic control measures implemented by the Contractor shall be in accordance with The South African Road Traffic Signs Manual, Volume 2, Chapter 13.

- e) **Shoring of excavations**
The Contractor will be required to make allowance for shoring and protection against collapse of all excavations deeper than 1.5m from the surrounding natural ground level. Alternatively battering of side slopes of the excavation will be allowed.

- f) **Temporary scaffolding and structural support work**
The Contractor will be responsible for the design, erection and dismantling of all temporary scaffolding and structural support work. Liability for damage, injuries or fatalities caused as a result of collapse or structural failure of the scaffolding or temporary support work will be borne by the Contractor.

DECLARATION (In respect of the Scope of Work in this tender)

I/we, the undersigned, do hereby declare that the Scope of Work has been reviewed and I/we fully understand what is expected in this tender for TENDER NO. LED 01/2024/25 – UPGRADING OF THE VILLIERSDOPR PUBLIC TRANSPORT HUB – PHASE 3A.

.....
SIGNATURE OF TENDERER/S

.....
DATE

THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A

C3.2 ENGINEERING

CONTENTS

- 3.2.1 DESIGN SERVICES AND ACTIVITY MATRIX
- 3.2.2 EMPLOYER'S DESIGN
- 3.2.3 DESIGN BRIEF
- 3.2.4 DRAWINGS

3.2.1 DESIGN SERVICES AND ACTIVITY MATRIX

- Concept, feasibility and overall process (Civil (C) and Electrical (E)) - Employer
- Basic engineering and detail layouts to tender stage (C, E) - Employer
- Final design approved for construction stage (C) - Employer
- Final design approved for construction stage (E) - Employer
- Temporary Works (C, E) - Contractor
- Completion of all works (C, E) - Contractor
- Site supervision and payments (C, E) - Employer
- Preparation of as-built data (C, E) - Contractor

3.2.2 EMPLOYER'S DESIGN

The Employer's Agent is responsible for the design of all permanent works up to procurement stage. From construction stage onwards, the Employer's Agent is only responsible for the design of the permanent civil, structural and electrical works.

3.2.3 DESIGN BRIEF

The Contractor will be responsible for the design and approval of all temporary works.

3.2.4 DRAWINGS

The drawings listed below are attached to give an overview of the project. Additional construction drawings will, in terms of Clause 5.9 of the General Conditions of Contract (2015), be issued to the Contractor by the Employer's Agent/ Employer on commencement date and thereafter from time to time as required.

The drawings that form part of the tender document are to be used for tender purposes only. On award of the Contract, the successful bidder will receive three (3) sets of unreduced paper prints of each drawing free of charge. Any additional prints will be for the account of the Contractor. Only figured dimensions shall be used and drawings shall not be scaled unless so instructed by the Employer's Agent. The Employer's Agent shall supply all figured dimensions omitted from the drawings.

Any information in possession of the Contractor that the Employer's Agent requires in order to complete his as-built drawings shall be supplied to the Employer's Agent before a Certificate of Completion will be issued.

The following drawings are applicable to the contract and are issued with this tender document and will form part of the Contract Documents as Annex 3.

DRAWING NUMBER	DRAWING TITLE
23175-C-001-01	Existing Services
23175-C-002-01	Road & Parking Setting Out Plan
23175-C-002-201	Typical Detail of Kerbs
23175-C-004-201	Fire Hydrant with Concrete Protection Detail
23175-C-004-202	Typical Detail of Water Meter Chamber
23175-C-004-203	Typical Detail of Valve
23175-C-004-204	Benching into Existing Layer works
23175-C-004-205	Detail of Thrust Blocks
23175-C-004-206	Detail of Water House Connections
23175-C-010-01	Services Layout Plan

THEEWATERSKLOOF MUNICIPALITY

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UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A

C3.3 PROCUREMENT

CONTENTS

3.3.1 PREFERENTIAL PROCUREMENT PROCEDURES

3.3.2 SUBCONTRACTING

3.3.3 EMPLOYMENT OF LOCAL COMMUNITY LABOUR

3.3.1. PREFERENTIAL PROCUREMENT PROCEDURES

The works shall be executed in accordance with the conditions associated with the preferences granting in accordance with the Preferencing Schedule detailed in (**Schedule 2E** in Part T2.2, Returnable Schedule).

3.3.2. SUBCONTRACTING

3.3.2.1 Scope of mandatory subcontract works

This will be done in line with **Schedule 3D**.

3.3.2.2 Preferred subcontractors/suppliers

There are preferred subcontractors that need to be employed on this contract (**Schedule 3D**).

3.3.2.3 Attendance on subcontractors

The Contractor needs to allow in their tendered site supervision rates for sufficient attendance on all subcontractors to be employed during this contract. This includes all of the Contractor's own subcontractors as well as the selected subcontractor to be appointed for the Mechanical and Electrical works.

3.3.2.4 Monitoring the use of sub-contractors

The Contractor shall submit to the Employer's Agent documentary evidence (either an original valid B-BBEE status level verification certificate or an Exempted Micro Enterprise certificate issued by a registered auditor, accounting officer (as contemplated in section 60(4) of the Close Corporation Act, 69 of 1984) or an accredited verification agency in terms of the Construction Codes of Good Practice for Broad-Based Black Economic Empowerment, in terms of the Preferential Procurement Regulations, 2017) of the B-BBEE status level of every sub-contractor employed by the Contractor. Until such time as documentary evidence as described above has been submitted to the Employer's Agent, a sub-contractor shall be deemed to be a non-compliant contributor.

The Contractor shall furthermore, on the written request of the Employer's Agent, provide documentary evidence showing the value of work sub-contracted to any or all of the sub-contractors employed by the Contractor.

3.3.3 EMPLOYMENT OF LOCAL COMMUNITY LABOUR

The maximum possible number of workers is to be employed from the labour database provided by the Employer of the currently unemployed persons in the local community of Villiersdorp.

Key personnel are defined as supervisors and skilled labourers without whom a specific task cannot be executed. As far as possible these people should impart their management and other skills to individuals within the local workforce who show a keen interest and display a willingness to learn.

A monthly report on employment of local labour in relation to other employees must be submitted for information of the Employer.

THEEWATERSKLOOF MUNICIPALITY

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UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB PHASE 3A

C3.4 CONSTRUCTION

Section 1: Civil Works

3.4.1 WORKS SPECIFICATIONS (CIVIL)

3.4.1.1 Applicable SANS 1200 standards

The following relevant standardised specifications, as listed below, shall form the Standard Specifications and apply to this contract:

- a) For the purpose of this Contract the latest issues of the following Standard Specifications for Civil Engineering Construction, applicable at the date of tender advertisement, shall apply -

SANS 1200A	1986	General
SANS 1200AB	1986	Engineer's Office
SANS 1200C	1982	Site Clearance
SANS 1200D	1990	Earthworks
SANS 1200DB	1989	Earthworks (Pipe Trenches)
SANS 1200DM	1981	Earthworks (Road and Subgrade)
SANS 1200G	1982	Concrete (structural)
SANS 1200GA	1982	Concrete (small works)
SANS 1200 H	1990	Structural Steelwork
SANS 1200L	1983	Medium Pressure Pipe Lines
SANS 1200LB	1983	Bedding (Pipes)
SANS 1200LC	1981	Cable ducts
SANS 1200LD	1982	Sewers
SANS 1200LE	1982	Stormwater Drainage
SANS 1200M	1996	Roads (General)
SANS 1200ME	1981	Subbase
SANS 1200MF	1981	Base
SANS 1200MJ	1984	Segmented paving
SANS 1200MK	1983	Kerbing and channelling
SANS 1200 MM	1984	Ancillary roadworks

- b) The term project specifications appearing in any of the SANS 1200 standardised specifications must be replaced with the terms scope of work.

3.4.1.2 Applicable national and international standards

No other standards than those mentioned in 3.4.1 above are deemed to be applicable.

3.4.1.3 Particular/generic specifications

In certain instances, the Standard Specifications listed in 3.4.1 above allow a choice to be specified in the Scope of Work between alternative materials or methods of construction. Allowance is also made for additional requirements to be specified to suit each particular contract. Details of such alternatives or additions are contained in this part of the Scope of Works. In addition, it contains some supplementary specifications required for this particular contract. Subclauses referred to are those in the relevant Standardised Specification.

The number of each clause and each payment item in this part of the project specifications consists of

the prefix PS followed by a number corresponding to the number of the relevant clause or payment item in the standard specifications. The number of a new clause or a payment item which does not form part of a clause or a payment item in the standard specifications and which is included here, is also prefixed by PS followed by a new number. The new numbers follow on the last clause or item number used in the relevant section of the standard specifications.

The variations and additions to the specifications listed as follows:

PSA GENERAL (1986)

PSA 1 SCOPE

Replace subclause 1.1 with the following:

"1.1 This specification covers requirements, principles and responsibilities of a general nature which are normally applicable to all civil engineering contracts as well as the requirements for the contractor's establishment on site."

PSA 2 INTERPRETATIONS

PSA 2.3 Definitions

In the opening phrase between the words "specification" and "the following", insert the words "the definitions given in the conditions of contract and "

(a) General

Add the following definitions:

"Employer's Agent: All references in the SANS specifications referring to the Engineer shall also be deemed to refer to the Employer's Agent in terms of the General Conditions of Contract.

General conditions: The general conditions of contract specified for use with this contract and the special conditions of contract as applicable.

Specified: As specified in the standardised specifications, the drawings or the project specifications. Specifications shall have the corresponding meaning."

(c) Measurement and payment

Replace the definitions for fixed charge and time-related charge with the following:

"Fixed charge: A charge that is not subject to adjustment on account of variation in the value of the contract amount or the contract time of completion.

Time-related charge: A charge, the amount of which is varied in accordance with the time for completion of the work as adjusted in accordance with the provisions of the contract.

PSA 2.4 Abbreviations

(a) Abbreviations relating to standard documents

Add the following abbreviation:

"CKS : SABS Co-ordinating Specification."

PSA 3 MATERIALS

PSA 3.1 Quality

Add the following:

"All manufactured materials supplied shall be new materials unless the contrary is specified. All materials specified in accordance with SABS specifications shall bear the SABS mark, whether so specified or not. Copies of SABS Certificates of all materials used must be submitted to the Employer's Agent."

Add the following:

"The Contractor must provide the Employer's Agent with at least 48 hours' notice prior to control testing being required. Furthermore, the contractor must make provision in his programme for the undertaking, and calculation of results, of such testing. Construction of layer works over areas for which test results are not available will be undertaken at the Contractors own risk."

Add the following subclause(s)

"PSA 3.3 Ordering of Materials

The quantities set out in the schedule of quantities have been determined from calculations based on data available at the time and should therefore be considered to be only approximate quantities. The contractor shall therefore, verify the quantities before ordering materials of any kind. No liability or responsibility whatsoever shall be attached to the employer for materials ordered by the contractor except if they have been ordered in accordance with written confirmation issued by the Employer's Agent.

PSA 4 **PLANT**

Replace the heading of PSA 4 with:

"PSA 4 Construction Equipment".

PSA 4.1 **Silencing of Plant**

Replace the heading of "PSA 4.1 Silencing of plant" with:

"PSA 4.1 Silencing of Construction Equipment".

Replace the contents of subclause 4.1 with the following:

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

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

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

PSA 4.2 **Contractor's Offices, Stores and Services**

Add the following paragraph before the first paragraph:

"The Contractor's construction camp shall be fenced off and shall contain all offices, stores, workshops, testing laboratories, toilet facilities, etc. The camp shall always be kept in a neat and tidy condition.

No personnel will be allowed to reside on the site. Only night-watchmen may be on the site after hours."

Add the following to the second paragraph:

"The Contractor shall provide on the Site and in close proximity to the actual locations where the work is being executed, one toilet per 10 workmen, which toilets shall be effectively screened from public view and their use enforced. Such toilets shall be relocated from time to time as the location of the work being executed changes, so as to ensure that easy access to the toilets is maintained.

The contractor shall, where applicable, make all necessary arrangements and pay for the removal of night soil."

"PSA 4.3 **Site Security**

The area within the area used by the Contractor for the establishment of his camp site may be subject to a security risk. The Contractor must assess the additional risk and make his own provision for additional protection.

No separate payment will be made for these additional security measures and the cost thereof will be deemed to be included in the rates tendered for Items PSA 8.3 and PSA 8.4. Should the Contractor feel that he needs additional insurance to cover these risks, the cost of such insurance will also be deemed to be included in the tendered rates."

PSA 5 **CONSTRUCTION**

PSA 5.1 **Survey**

PSA 5.1.2 Preservation and replacement of survey beacons and pegs subject to the Land Survey Act

Delete the words "in the vicinity of boundaries" in the second sentence of Subclause 5.1.2 and replace the words "under the direction of" in the same sentence with "in consultation and liaison with".

Add the following after the second sentence of Subclause 5.1.2:

"The Contractor and the Employer's Agent shall record on the said list, their concurrence or disagreement (as the case may be) regarding the completeness and accuracy of the details recorded therein."

Replace the third sentence of Subclause 5.1.2 with the following:

"At the completion of the Contract, the Contractor shall expose all pegs that were listed at the commencement of the

construction as being in order and the Contractor shall arrange with a registered Land Surveyor for the checking of the positions of all such pegs and the replacement of those that the Land Surveyor's check reveals have become disturbed or damaged. The Contractor shall, as a precedent to the issue of the Certificate of Completion, provide to the Employer's Agent, a certificate from the registered land surveyor, certifying that all the pegs listed at the commencement of construction in accordance with the provisions of this clause, have been checked and that those found to have been disturbed, damaged or destroyed have been replaced in their correct positions, all in accordance with the provisions of the said Act.

The costs of all checking, replacement and certification as aforesaid shall be entirely for the Contractor's account. This, with the provision always that the Contractor shall not be liable for the cost of replacement of pegs which :

- (a) cannot reasonably be re-established in their original positions by reason of the finished dimensions of the permanent works, and
- (b) the Contractor can prove beyond reasonable doubt to the satisfaction of the Employer's Agent, were disturbed, damaged or destroyed by others beyond his control."

PSA 5.3 **Protection of Existing Structures**

Replace:

"Machinery and Occupational Safety Act, 1983, (Act No. 6 of 1983)" WITH : "Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), as amended," and insert the following after "(Act No. 27 of 1956)" : "as amended".

PSA 5.4 **Protection of Overhead and Underground Services**

Replace the heading and the contents of this subclause with the following:

"PSA 5.4 **Location and Protection of Existing Services**

PSA 5.4.1 Location of existing services

Before commencing with any work in an area, the Contractor shall ascertain the presence and actual position of all services that can reasonably be expected by an experienced and competent Contractor to be present on, under, over or within the Site.

Without in any way limiting its liability in terms of the Conditions of Contract in relation to damage to property and interference with services, the Contractor shall, in collaboration with the Employer's Agent, obtain the most up-to-date plans as are available, showing the positions of services existing in the area where it intends to work. Neither the Employer nor the Employer's Agent offer any warranty as to the accuracy or completeness of such plans and because services can often not be reliably located from plans, the Contractor shall ascertain the actual location of services depicted on such plans by means of careful inspection of the Site and the provision and utilisation of suitable detecting and testing equipment.

Thereafter, the Contractor shall, by the use of appropriate methodologies carefully expose the services at such positions as are agreed to by the Employer's Agent, for the purposes of verifying the exact location and position of the services. Where the exposure of existing services involves excavation to expose underground services, the further requirements of Sub-clauses 4.4 and 5.1.2.2 of SABS 1200D (as amended) shall apply.

The aforesaid procedure shall also be followed in respect of services not shown on the plans but which may reasonably be anticipated by an experienced Contractor to be present or potentially present on the site.

All services, the positions of which have been determined as aforesaid at the critical points, shall henceforth be designated as 'Known Services' and their positions shall be indicated by the Contractor on a separate set of Drawings, a copy of which shall be furnished to the Employer's Agent without delay.

As soon as any service, which has not been identified and located as described above is encountered on, under, over or within the Site, it shall henceforth be deemed to be a Known Service and the aforesaid provisions pertaining to locating, verifying and recording its position on the balance of the Site shall apply. The Contractor shall notify the Employer's Agent immediately any such service is encountered or discovered on the Site.

Whilst it is in possession of the Site, the Contractor shall be liable for all loss of or damage as may occur to :

- (a) Known Services, anywhere along the entire lengths of their routes, as may reasonably be deduced from the actual locations at which their positions were verified as aforesaid, due cognisance being taken of such deviations in line and level which may reasonably be anticipated ; and
- (b) any other services which ought reasonably to have been a Known Service in accordance with the provisions of this clause ;

as well as for consequential damage, whether caused directly by the Contractor's operations or by the lack of proper protection ;

Provided always that the Contractor will not be held liable in respect of damages occurring to services not being Known Services.

No separate payment will be made to the Contractor in respect of its costs of providing, holding available on the Site and utilising the said detecting and testing equipment, nor for any costs incurred in preparing and submitting to the Employer's Agent, the Drawings as aforesaid and these costs shall be deemed included in the Contractor's other tendered rates and prices included in the Contract.

Payment to the Contractor's in respect of exposing services at the positions agreed by the Employer's Agent and as described above will be made under the payment items (if any) as may be provided therefor in the respective sections of the Specifications pertaining to the type of work involved.

PSA 5.4.2 Protection during construction

The contractor shall exercise all the necessary care to prevent damage to known services during construction operations. Major excavating equipment and other plant shall not be operated in dangerously close proximity of these services. Where necessary, excavation in close proximity of these services shall be carefully carried out by means of suitable hand tools, excluding picks wherever their use could cause damage to the services.

Services left exposed shall be suitably protected from damage.

PSA 5.4.3 Alterations and repairs to existing services

Unless the contrary is clearly specified or ordered, the contractor shall not carry out any alterations to existing services. Where this may be necessary, the contractor shall inform the Employer's Agent, who will either make arrangements for such work to be executed by the owner of the service or instruct the contractor to make such arrangements himself.

Where existing services are damaged by the contractor, he shall immediately inform the Employer's Agent, or when this is not possible, the relevant authority, and shall obtain instructions as to who should carry out repairs. In urgent cases the contractor shall take all necessary steps to minimise damage to and the interruption of the service. No repairs shall be attempted to telecommunication cables or electric power lines and cables.

No liability for damages arising from any delay in having such alterations or repairs effected will be accepted by the employer. The contractor shall provide all reasonable opportunity, access and assistance to persons doing alterations or repairs to existing services."

PSA 5.7 **Safety**

Replace the contents of subclause 5.7 with the following:

"Pursuant to the provisions of the Conditions of Contract, and without in any way limiting the Contractor's obligations thereunder, the Contractor shall at its own expense (except only where specific provision (if any) is made in the Contract for the reimbursement to the Contractor in respect of particular items):

- (a) Provide to its Employees on the Site of the Works, all safety materials, clothing and equipment necessary to ensure full compliance with the provisions of the Occupational Health and Safety Act (Act No 85 of 1993) and Construction Regulations as amended (hereinafter referred to as the Act) at all times, and shall institute appropriate and effective measures to ensure the proper usage of such safety materials, clothing and equipment at all times; and
- (b) Provide, install and maintain on all barricades, safety signage and other measures to ensure the safety of workmen and all persons in, on and around the Site, as well as the general public; and
- (c) Implement on the Site of the Works, such procedures and systems and keep all records as may be required to ensure compliance with the requirements of the Act at all times; and
- (d) Implement all necessary measures as to ensure compliance of the Act by all subcontractors engaged by the Contractor and their employees engaged on the Works; and
- (e) Comply fully with all other requirements pertaining to safety as may be specified in the Contract.

The Employer and the Employer's Agent shall be entitled, although not obliged, to make such inspections on the Site, as they shall deem appropriate, for the purpose of verifying the Contractor's compliance with the requirements of the Act. For this purpose, the Contractor shall grant full access to the Site of all parts of the Site and shall co-operate fully in such inspections and shall make available for inspection, all such documents and records as the Employer's and/or Employer's Agent Representative may reasonably require.

Where any such investigations reveal, or where it comes to the Employer's Agent's attention that the Contractor is in any way in breach of the requirements of the Act or is failing to comply with the provisions of this clause, the Employer's Agent shall, in accordance with the provisions of Clause 5.11 of the Conditions of Contract, be entitled to suspend progress on the Works or any part thereof until such time as the Contractor has demonstrated to the satisfaction of the Employer's Agent, that such breach has been rectified.

The Contractor shall have no grounds for a claim against the Employer for extension of time and/or additional costs if the progress on the Works or any part thereof is suspended by the Employer's Agent in terms of this clause and the Contractor shall remain fully liable in respect of the payment of penalties for late completion in accordance with

the provisions of Clause 5.13 of the Conditions of Contract should the Contractor fail to complete the Works on or before the specified Due Date for Completion in consequence of the suspension.

Persistent and repeated breach by the Contractor of the requirements of the Act and/or this clause shall constitute grounds for the Employer's Agent to act in terms of Sub-Clause 9.2 of the Conditions of Contract and for the Employer to cancel the Contract in accordance with the further provisions of the said Clause.

Add the following subclause:

"PSA 5.9

Site Meetings

The Contractor or its authorised agent will be required to attend regular site meetings, which shall normally be held twice a month on dates and at times determined by the Employer's Agent, but in any case whenever reasonably required by the Employer's Agent. Unless otherwise indicated in the Contract or instructed by the Employer's Agent, such meetings shall be held at the Contractor's offices on the Site. At such monthly meetings, matters such as general progress on the Works, quality of work, problems, claims, payments, and safety etc, shall be discussed, but not matters concerning the day-to-day running of the Contract."

Add the following :

"PSA 5.10

Work on, Over, Under or Adjacent to a Railway Line

All work carried out on, over, under or adjacent to a railway line shall be carried out strictly in accordance with the latest edition of Transnet Specification E7, part 2. The contractor shall obtain a copy of the latest edition, which shall be kept on the site, before any work of this nature is commenced.

Attention is drawn especially to the requirements contained in the E7 Specification regarding approval that must be obtained from Transnet for a work permit or the occupation of property of the Transport Services and the approval of false work and form work plans."

PSA 6

TOLERANCES

Add the following subclause:

PSA 6.2

Degrees of Accuracy

Add to the subclause:

"Degree of Accuracy 1 shall be applicable to the following parts of the Works unless stated to the contrary elsewhere; weirs, flanges at civil/mechanical interfaces."

"PSA 6.4

General

No guarantee is given that the full specified tolerances will be available independently of each other, and the contractor is cautioned in regard to the fact that the liberal or full use of any one or more of the tolerances may deprive him of the full or any use of tolerances relating to other aspects of the work.

Except where the contrary is specified or when clearly not applicable, all quantities shall for purpose of measurement and payment be determined from the 'authorised' dimensions. This shall be taken to mean the dimensions as specified or shown on the drawings or, if changed, as finally instructed by the Employer's Agent, without any allowance for the tolerances specified. Save as hereinafter specified to the contrary, all measurements for determining quantities for purposes of payment will be based on the "authorised" dimensions.

If the work is therefore constructed in compliance with the "authorised" dimensions plus or minus any tolerances allowed, quantities will be based on the "authorised" dimensions regardless of the actual dimensions to which the work has been constructed."

When the work is not constructed in accordance with the 'authorised' dimensions plus or minus the tolerances allowed, the Employer's Agent may nevertheless, at his sole discretion, accept the work for payment. In such cases no payment shall be made for quantities of work or material in excess of those calculated for the 'authorised' dimensions, and where the actual dimensions are less than the 'authorised' dimensions minus the tolerance allowed, quantities for payment shall be calculated based on the actual dimensions as constructed."

PSA 7

TESTING

PSA 7.1.1

Checking

Replace the last sentence with the following:

"The contractor shall obtain the services of an independent testing laboratory at his own expense (Refer subclause PS 8.4 of portion 1 of the project specifications) to carry out such checks as are prescribed in the various standardised specifications."

PSA 7.1.2

Standard of finished work not to specification

Insert the words "or checks by an approved laboratory ..." after the words "Where the Employer's Agent's checks ..." in the first line of Subclause 7.1.2.

PSA 7.2 **Approved Laboratories**

REPLACE THE CONTENTS OF SUB-CLAUSE 7.2 WITH THE FOLLOWING:

"Unless otherwise specified in the relevant specification or elsewhere in the Project Specification, the following shall be deemed to be approved laboratories in which design work, or testing required in terms of a specification for the purposes of acceptance by the Employer's Agent of the quality of materials used and/or workmanship achieved, may be carried out :

- (a) any testing laboratory certified by the South African National Accreditation Systems (SANAS) in respect of the nature and type of testing to be undertaken for the purposes of the Contract ;
- (b) any testing laboratory owned, managed or operated by the Employer or the Employer's Agent ;
- (c) any testing laboratory established and operated on the Site by or on behalf of the Employer or the Employer's Agent.

PSA 8 **MEASUREMENT AND PAYMENT**

PSA 8.1 **Measurement**

PSA 8.1.1 Method of Measurement, All Sections of the Schedule

Delete the words : "and South West Africa".

PSA 8.1.2 Preliminary and general items or section

PSA 8.1.2.1 *Contents*

Delete item (c).

PSA 8.1.2.2 *Tendered sums*

Replace the contents of this subclause with the following:

"The contractor's tendered sums under items PSA 8.3 and PSA 8.4 shall collectively cover all charges for:

- Risks, costs and obligations in terms of the general conditions of contract and of this standardised specification, except to the extent that provision is made in these project specifications to cover compensation for any of these items of work.
- Cost of all wayleaves.
- Head-office and site overheads and supervision.
- Profit and financing costs.
- Expenses of a general nature not specifically related to any item or items of permanent or temporary work.
- Providing facilities on site for the contractor's personnel, including offices, storage facilities, workshops, ablutions, for providing services such as water, electricity, sewerage, sewage and rubbish disposal, for access roads and all other facilities required as well as for the maintenance and removal on completion of the works of these facilities and the cleaning-up of the camp site on completion of the works.
- Providing facilities for the Employer's Agent and his staff as specified in Part C3.4: Construction Site Establishment.
- Providing and erecting two new contract name boards as shown on the drawings.
- Providing all the required documentation described in Part C3.
- Adhering and complying with the client's Procurement requirements including the monthly completion of labour and remuneration records."

PSA 8.2 **Payment**

PSA 8.2.1 Fixed-charge and value-related items

Replace the contents of this subclause with the following:

"Payment of fixed charges in respect of item 8.3.1 will be made as follows:

Eighty per cent (80%) of the sum tendered will be paid once the facilities have been provided and approved. The remaining twenty per cent (20%) will be paid once the works have been completed, the facilities removed and the

camp-site cleared and cleaned.

Payment for the sum tendered under item 8.3.2 will be made in three separate instalments as follows:

- (a) The first instalment which is 40% of the sum, will be paid when the contractor has met all his obligations to date under this specification, the general conditions of contract and the special conditions of contract, and where the value of work certified for payment, excluding materials on site and any payments under preliminary and general items is equal to not less than 5% of the total value of the work listed in the schedule of quantities.
- (b) The second instalment, which is 40% of the sum, will be made when the amount certified for payment, including retention moneys but excluding the second instalment referred to herein, exceeds 50% of the tender sum.
- (c) The final payment, which is 20% of the sum, will be made when the works have been certified as completed and the contractor has fulfilled all his obligations to date under this specification, the general conditions of contract and the special conditions of contract.

Should the value of the measured work finally completed by more or less than the tender sum, then the sum tendered under item 8.3.2 will be adjusted pro rata up or down and this adjustment shall be applied to the third instalment. No adjustment will apply to item 8.3.1 in respect of variations in the value of work done or the time for completion finally authorised."

PSA 8.2.2 Time-related items

Replace the contents of this subclause with the following:

"Three time related items shall be scheduled and shall be full compensation for all time related preliminary and general costs and shall include the following:

- Public holidays
- Year-end break(s) not exceeding 15 working days in duration; and
- The contract period during the normal industry working period outside public holidays and outside the industry shutdown period during December and January.

Subject to the provisions of 8.2.3 and 8.2.4, payment under item 8.4.1 (time-related item) will be made as follows:

PSA 8.2.2.1 The contract period during the normal industry working period payment **Unit: Sum**

Payment will be made monthly in equal amounts, calculated by dividing the sum tendered for the item by the tendered contract period in Days (excluding public holidays and the year-end break during December and January), provided always that the total of the monthly amounts so paid for the item is not more than in proportion to the progress of the work as a whole.

Should the Employer's Agent grant an extension of the time for completion of the works, the Contractor will be entitled to an increase in the sum tendered for the time-related item, which increase shall be in the same proportion to the original tendered sum as the extension of time is to the original time for completion of the works.

PSA 8.2.2.2 Public Holidays **Unit: No of Statutory Public Holidays**

The tendered amount per day will be payable for the number of statutory public holidays included in the contract period which replaces normal working days.

Should an extension of time be granted and a public holiday is within this period, the Contractor will be entitled to additional payment for each additional public holiday which replaces a working day.

PSA 8.2.2.3 Annual holiday period during December and January **Unit: Sum**

The tendered sum will be payable for the annual holiday not exceeding 15 working days in duration which falls within the construction period. Should an extension of time be granted which extends the contract period beyond the annual holiday, the Contractor will be entitled to payment as tendered for this item 8.2.2.3.

Payment for such increased amounts determined in accordance with PSA 8.2.2.1 to PSA 8.2.2.2 will be taken to be in full compensation for all additional time-related preliminary and general costs, that result from the circumstances pertaining to the extension of time granted."

PSA 8.3 **Scheduled Fixed-Charge and Value-Related Items**

Replace the items with the following:

"PSA 8.3.1 Fixed preliminary and general charges **Unit: Sum**

PSA 8.3.2 Value-related preliminary and general charges **Unit: Sum**

The sums tendered shall collectively include full compensation for all fixed and value-related preliminary and general

charges as described in subclause PSA 8.1.2.2. Payment will be made as described in subclause PSA 8.2.1."

Add the following subclause:

"PSA 8.3.5 Locate, record, protect and reinstate pegs **Unit: Sum**

This item must cover all costs incurred to locate, record and protect pegs during the duration of the contract and the reinstatement of all disturbed pegs on completion of the contract in the manner as prescribed by the Land Survey Act."

PSA 8.4 **Scheduled Time-Related Items**

Replace the items with the following:

"PSA 8.4.1 Time-related preliminary and general charges

PSA 8.4.1.1 *The contract period during the normal industry working period payment*..... **Unit: Sum**

PSA 8.4.1.2 *Public Holidays*..... **Unit: No**

PSA 8.4.1.3 *Year-end break(s) not exceeding 15 working days in duration* **Unit: Sum**

The sums and rate tendered for items PSA 8.4.1.1 to PSA 8.4.1.3 shall include full compensation for all time-related preliminary and general charges as described in subclause PSA 8.1.2.2. Payment will be made as described in subclause PSA 8.2.2."

PSA 8.6 **Prime Cost Items**

Replace Subclause 8.6 with the following:

"PSA 8.6 **Prime Cost Sums**

- (a) Description of Item to which Prime Cost Sum Applies **Unit: PC Sum**
- (b) Charge required by Contractor on Sub-item (a) above **Unit: %**

Sub-items (a) and (b) will be provided in the Schedule of Quantities for each different item to which a Prime Cost Sum applies.

The Contractor shall be reimbursed under sub-item(s) (a) in substitution of the respective Prime Cost Sums included in the Contract, the actual price(s) paid or payable by him in respect of the goods, materials or services supplied, but excluding any charges for the Contractor's labour, profit, carriage, establishment or other charges related to such goods, services or materials.

The Contractor shall be paid under sub-item (b), the respective percentage, as stated by the Contractor in its Tender, of the amount certified by the Employer's Agent for payment under the related sub-item (a). The percentages tendered by the Contractor for each respective sub-item (b) included in the Schedule of Quantities shall be deemed to in full and final compensation to the Contractor in respect of any charge by the Contractor for labour, carriage profit, establishment and for any other charges related to the goods, services or materials supplied under the related sub-item (a).

If the Contractor shall have omitted within its Tender to insert a tendered percentage under sub-item (b), or tendered a zero percentage, the Contractor's tendered rate for sub-item (b) shall be deemed to be zero and the Contractor shall not be entitled to any payment under sub-item (b)."

PSA 8.7 **Daywork**

Replace the contents of Subclause 8.7 with the following:

"Measurement and payment shall be in accordance with the provisions of Sub-clause 6.5 of the Conditions of Contract."

Add the following item:

PSA 8.8 **Temporary Works**

PSA 8.8.2 Accommodation of traffic **Unit : sum**

Add the following:

"Traffic control facilities and traffic management plan to comply to requirements as set by the South African Road Traffic Sign Manual Volume 2 and the Health and Safety Specification.

This amount shall further cover all costs in respect of the provision, erection, moving, re-erection and maintenance of all barriers, road signs, lights and flagmen necessary for the protection of the works, for the construction, gravelling and maintenance of detours and entrance roads affected by the work, as well as the breaking up and

removal thereof at the contract completion, and for compliance with all necessary traffic rules and regulations, liaising with the road authorities, and all other costs necessary in respect of accommodation of traffic."

PSA 8.8.3 Protection of infrastructure during construction of pipe at the existing municipal cemetery **Unit : sum**

Add the following:

"This amount shall cover the cost to protect existing built out structures, all visible services and graves during the construction of the new pipe at the existing cemetery. Trenchless construction will take place, but the Contractor will still need to set out the works and confirm the impact it may have on existing infrastructure. Should it be required to construct section by open excavation, the Contractor will still be required to take additional steps to protect all infrastructure"

Replace item 8.8.4 with the following:

"PSA 8.8.4 Location and protection of existing services

Where particular items are provided in other sections of the schedule the costs of detection, exposure, protection and alterations shall be covered by such particular items. Where no such particular items are provided and where there is reason to expect the presence of such a service or services, the following items will apply:

PSA 8.8.4.1 *Provision of detecting devices for:*

The tendered rate shall include full compensation to provide a scanner to detect steel pipes and a scanner to detect electrical cables and to mark the position of these services on site.

- (a) Water and sewer pipes..... **Unit: Sum**
- (b) Electrical and other cables **Unit: Sum**
- (c) Other **Unit: Sum**

PSA 8.8.4.2 *Hand excavation necessary for locating and exposing existing services in all materials:*

- (a) In roadways **Unit: m³**
- (b) In all other areas **Unit: m³**

The rates shall cover the cost of excavating by means of hand tools within authorised dimensions, for all precautionary measures necessary to protect the services from damage during excavation and backfilling and for subsequent backfilling and compacting. Compaction of material in all areas except in roadways shall be to 93% of modified AASHTO density.

The rate for hand excavation in roadways shall also include compensation for compacting excavated or selected backfill material to 100% of modified AASHTO density. Reinstating layerworks and surfacing shall be measured and paid for under SABS 1200 DB.

The tendered rates shall also include for keeping excavations safe, for dealing with surface and subsurface water and for removal of surplus excavated material from the site."

Add the following items :

"PSA 8.8.7 Dealing with water **Unit: Sum**

The sum shall cover the cost for the provision, operation, maintaining and removal of all plant and materials required to deal with surface and subsurface water anywhere on the Site as required in terms of Subclause 5.1.3 of SABS 1200 D and Subclause 5.1.2 of SABS 1200 DB. No additional payment will be made for "Special water hazards".

The sum shall cover the cost of providing the necessary plant or materials, or both, fully erected and operative on the Site, the cost of operating and maintaining pumps, well points, sheeting, close timbering, and other equipment, as applicable, for 24 hours a day, 7 days a week, throughout the period during which the facilities are required, and the cost of removing such goods and restoring the Site to its original condition on completion of that part of the project for which the temporary works were erected.

Equal monthly payments will be made calculated by dividing the sum tendered for the item by the tendered contract period in months. The sum of the equal monthly payments shall not exceed the sum tendered for this item except where an extension of the contract period is approved by the Employer's Agent in which case the monthly payments will be made pro rata to the extension of time only if dealing with water is required."

PSA 8.8.10 Dust control..... **Unit: Sum**

The tendered rate shall include full compensation for the provision of a water truck on site on a continuous basis during the construction of earthworks and layerworks period and the regular wetting of the construction area to prevent any dust disturbance to adjacent areas.

Add the following:

"PSA 8.9

Standing Time Cost

- (a) Plant **Unit: Day**
- (b) Labour **Unit: Day**
- (c) Other.....

The sum tendered for this item shall allow for full compensation for all standing time costs of whatever nature, and approved by the Employer's Agent.

For purposes of calculating the standing time costs, a working week will be held to consist of five working days.

The amount by which the standing time costs is adjusted shall only apply to delays which, in the opinion of the Employer's Agent, are incurred as a result of a riot, commotion, politically motivated sabotage and acts of terrorism or disorder outside the Contractor's control.

Costs for delays incurred for all other circumstances shall be treated as provided for in the Conditions of Contract.

The provision of this Clause shall in no way prejudice the right of either the Employer or the Contractor to terminate the Contract in terms of the provisions of Clause 9.1.2 of the General Conditions of Contract.

Variations in the Total Tender Sum resulting from payment for delays as a result of standing time costs as described herein shall be excluded from the total tender sum when Clause 6.4 of General Conditions of Contract is applied."

PSA 8.12

Compliance with The Occupational Health and Safety Act (Act No 85 Of 1993) and Construction Regulations and Specifications Included in the Particular Specifications Unit: Sum

The tendered rate shall include full compensation for compliance with the OHS Act and Construction Regulations and the Health and Safety requirements and specification included in this tender document. Refer to the Particular Specifications and Part C3.5.

It shall further include full compensation for the registration of the project with the Authorities (Department of Labour) and any delay in awaiting for approvals by the Authorities.

Temporary barriers and fences for deep or trench excavations required in terms of the contract shall not be paid for separately.

Payment under this item will be made as follows :

- (a) The first instalment which is 30% of the sum tendered, will be paid once the contractors Health and Safety Plan is approved by the Employer or the Employers Agent and the Contractor has met all his obligations to date under this specification.
- (b) The remainder of the sum tendered will be paid in equal monthly amounts calculated by dividing the sum tendered (less 30%) divided by the contract period in months.

No additional payment will be made should an extension of the contract period be granted. Penalties for non-compliance will be deducted from payments due to the contractor.

PSA 8.13

Compliance with The Environmental Management Plan and Requirements Included in the Particular Specifications Unit: Sum

The tendered rate shall include full compensation for compliance with the environmental management requirements and specification included in this tender document.

Payment under this item will be made in equal monthly amounts calculated by dividing the sum tendered divided by the contract period in months.

No additional payment will be made should an extension of the contract period be granted. Penalties for non-compliance will be deducted from payments due to the contractor.

PSA 8.19

Liaison with residents and the local authority Unit: Sum

The tendered rate shall include full compensation for all liaisons with the residents of each area and the Municipality regarding valve closures and issuing of public notices.

Residents must be informed of valve closures at least 48 hours prior to closing of valves.

The tendered rate must include:

- the preparation of an information page which must be delivered to each household to be affected, prior to working

in the area.

- the delivery of a notice informing residents of a disruption in the water supply (three days prior to the disruption)
- obtaining a "happy letter" from all residents once the work is completed and gardens re-instated.
- direct liaison with residents should a complaint be received including a written account of the complaint and agreement reached with the resident.

No additional payment will be made for additional notices of disruption which must be issued as a result of failed connection attempts."

PSC SITE CLEARANCE (1982)

PSC 3 MATERIALS

PSC 3.1 Disposal of Material

Add the following:

"The contractor shall obtain his own dumping sites for the disposal of material and all transport costs shall be included in the rates tendered for site clearance."

PSC 5 CONSTRUCTION

PSC 5.1 Areas to be Cleared and Grubbed

Add the following:

"Pipeline routes shall be cleared to a distance of 1,5 m on both sides of the pipeline centre line. Route pegs or markers shall not be destroyed or damaged during clearing operations."

PSC 5.2 Cutting of Trees

PSC 5.2.3 Preservation of trees

PSC 5.2.3.2 *Individual trees*

Replace the last sentence with the following:

"An amount of **R500-00** will be deducted from moneys due to the Contractor as a penalty for every tree that is damaged or removed unnecessarily."

PSC 5.3 Clearing

ADD THE FOLLOWING:

"The thickness of the layer that will unavoidably be stripped during clearing of vegetation will be taken as 100 mm. This implies that levels used in earthworks quantity calculations will be 100 mm lower than the original levels."

Add the following:

"The tenderers attention is drawn to the fact that all items described under subclause 5.3 which are not separately listed in the bill of quantities must be included in the price for item PSC 8.2.1."

PSC 8 MEASUREMENT AND PAYMENT

PSC 8.1 Basic Principles

Add the following:

"Levels to be used for earthworks quantity calculations will be surveyed once the clearing operation have been completed."

PSC 8.2 Scheduled Items

PSC 8.2.1 Clear and Grub

Replace the first line with the following:

"The area designated by the Employer's Agent to be cleared and grubbed will be measured in m² to the nearest square meter or,"

PSC 8.2.8	<u>Demolish and remove structures / buildings</u> Unit : Sum
	The contractor shall ascertain the works necessary to remove the top structures up to floor level complete as given in the schedule of quantities and noted on the drawings.
	"The rate shall cover the cost of excavating around the structure, demolishing the structure, disposal of excavated material and rubble, and backfilling where necessary of the hole with sand in layers of 300 mm including compaction to 100% of MOD AASHTO. There will be distinguished between different structures."
	Add the following payment clauses:
PSC 8.2.11	<u>Rip and clear tarred and paved areas</u> Unit : m²
	Various items shall be scheduled. The rates shall collectively include full compensation to rip, clear and spoil at a spoil site provided by the contractor of asphalt or block paving.
PSC 8.2.12	<u>Remove and dispose of kerbing</u> Unit : m
	The rate shall cover the cost of the removal, transport and disposal of existing kerbs to a spoil site furnished by the Contractor, including all necessary excavation and backfill compacted to 100% modified AASHTO density
PSC 8.2.13	<u>Remove and dispose of existing fence</u> Unit : m
	The rate shall cover the cost of the removal, transport and disposal of existing fence to a spoil site furnished by the Contractor, including all necessary excavation and backfill compacted to 100% modified AASHTO density
PSD	EARTHWORKS (1988)
PSD 2	INTERPRETATIONS
PSD 2.1	SUPPORTING SPECIFICATIONS
	Replace subclause 2.1.2 with the following:
"PSD 2.1.2	Any of the other SABS 1200 specifications may form part of the contract documents."
PSD 2.3	DEFINITIONS
	Replace the definition "Specified density" with the following:
	"Specified density: The specified dry density expressed as a percentage of modified AASHTO dry density."
	Replace the definition "Stockpile" with the following:
	"Stockpile (Verb): The process of selecting and, as maybe necessary, loading, transporting and off-loading material in a designated area for later use and a specific purpose."
	Add the following definitions:
	"Fill: An embankment or terrace constructed from material obtained from excavations or borrow. In roads it includes the earthworks up to below the selected sub-grade level.
	Fill (material): Material used for the construction of an embankment or terrace.
	Roadbed: The in-situ material on which a fill is to be constructed.
	Placing : Placing shall mean spreading of backfilling material, watering, mixing, compacting, final grading, complying with the required tolerances and providing for testing, all in accordance with the requirements of the specification."
PSD 3	MATERIALS
PSD 3.1	CLASSIFICATION FOR EXCAVATION PURPOSES
PSD 3.1.1	<u>Method of classifying</u>
	Add the following:
	"Classification of material other than 'soft excavation' shall be agreed upon before excavation may be commenced. The contractor shall immediately inform the engineer if and when the nature of the material being excavated changes to the extent that a new classification for further excavation is warranted. Failure on the part of the contractor to advise the engineer thereof in good time shall entitle the engineer to classify, at his discretion, such excavation as may have been executed in material of a different nature."
PSD 3.3	SELECTION

PSD 3.3.1 General

Replace the second paragraph with the following :

"The Contractor shall deal selectively with materials from all excavations to ensure that no acceptable backfill or bedding material is contaminated by material unfit for use. No additional payment shall be made in this regard and all costs related to the above selection process shall be included in the applicable payment items. Should useful material be contaminated to such an extent that it is regarded as unfit for use the Contractor shall at his own cost dispose of this material and replace it with material of an equivalent standard to the acceptable in-situ material."

Add the following subclause:

PSD 4 PLANT

PSD 4.4 DETECTORS

Replace the contents of Subclause 4.4 with the following :

"The Contractor shall, for the purposes of detecting and locating underground services in accordance with the provisions of Subclause 5.4 of SABS 1200 A and Subclause 5.1.2 of SABS 1200 D, at its own cost, provide and use detecting equipment which is suitable for the detection of underground cables and pipes."

PSD 5 CONSTRUCTION

PSD 5.1 PRECAUTIONS

PSD 5.1.1 Safety

PSD 5.1.1.1 Barricading and Lighting

REPLACE "Machinery and Occupational Safety Act, 1983 (Act 6 of 1983)" WITH "Occupational Health and Safety Act, 1993 (Act 85 of 1993)."

PSD 5.1.1.2 Safeguarding of Excavations

REPLACE "Machinery and Occupational Safety Act" WITH "Occupational Health and Safety Act, 1993 (Act 85 of 1993)."

Add the following to paragraph (B)(1) :

"Payment for supporting the sides of excavations and trenches shall be deemed to be included in the rates tendered for excavations. No separate payment will be made in this regard and it will be the Contractor's responsibility to ensure the safety and stability of all excavations.

Where trenches have to be widened to accommodate manholes, junction boxes, etc., the cost of supporting the vertical sides of such additional excavations will be deemed to be included in the rates tendered for excavation."

Add the following to paragraph (B)(2) :

"The slope of the sides of an excavation of trench may never be steeper than 60° to the horizontal and all costs incurred to slope the sides of an excavation or trench will, irrespective of the angle of the slope, be deemed to be included in the rates quoted for excavation."

PSD 5 CONSTRUCTION

PSD 5.1 PRECAUTIONS

PSD 5.1.2 Existing services

PSD 5.1.2.2 Detection, location and exposure

Replace the contents of sub subclause 5.1.2.2 with the following:

"Where no services are shown on the drawings, but the presence of such a service could be assumed within reason, the Contractor must in co-operation with the relevant authorities locate such a service before commencing construction. After locating such a service, it would be regarded as a noted service, and the Contractor will be responsible for any costs arising from damages to the service due to the construction activities of the contractor."

"The exposure by the Contractor of underground services, as required in terms of Subclause 5.4 of SABS 1200 A (as amended) shall be carried out by careful hand excavation at such positions and to such dimensions as are agreed to by the Engineer.

Unless otherwise instructed or agreed by the Engineer, no service shall be left exposed after its exact position has been determined and all excavations carried out for the purposes of exposing underground services shall be promptly backfilled and compacted to the following densities :

- (a) In roadways : 98% Mod AASHTO density ; and
- (b) In all other areas : 93% Mod AASHTO density.

Where hand excavations to expose underground services have to be carried out in roadways, the Contractor shall reinstate the road layerworks in accordance with the provisions of Subclause 5.9 of SABS 1200DB.

Payment in respect of the exposing of the services by means of hand excavation as described above, will be made in accordance with Subclause PSD 8.3.8.1.

Payment in respect of the reinstatement of layerworks in roadways will be made in accordance with Subclause 8.3.6.1 of SABS 1200DB (as amended).

PSD 5.1.2.3 Protection of cables

REPLACE SUBSUBCLAUSE 5.1.2.3 WITH THE FOLLOWING:

“5.1.2.3 Protection during Construction

Further to the requirements of Subclause 5.4.2 of SABS 1200A (as amended), major excavating equipment and other Equipment shall not be operated dangerously close to Known Services. Where necessary, excavation in close proximity to Known Services shall be carefully carried out with suitable hand tools, excluding picks wherever their use could damage the services. No additional payment will apply to such more difficult work.

Should any service not being a Known Service be discovered or encountered during the course of the Contract, the Contractor shall, in addition to complying with the requirements of Subclause 5.4.2 of SABS 1200A (as amended), immediately notify the Engineer thereof and implement such measures as will prevent damage of such service or, if it was damaged in the course of discovery, will prevent and minimise the occurrence of any further damage occurring.”

PSD 5.2 METHODS AND PROCEDURES

PSD 5.2.2 Excavation

PSD 5.2.2.1 Excavation for general earthworks and for structures

Add the following to paragraph (b):

“Where the nature of the material precludes the above procedure, additional excavations shall be made to provide working space for the erection of form work. In general payment will be made for a working width of 600mm, but the contractor may excavate a greater working width at no additional cost to the employer. Excavation for structures shall be measured to vertical planes 0,6m outside the concrete perimeter.

Immediately before any permanent construction is commenced, all loose material shall be removed or thoroughly compacted.”

Replace paragraph (e) with the following:

“Where excavations have been carried out below the authorized levels, the contractor shall backfill such excavations to the correct level with approved gravel compacted to 95% of modified AASHTO density or to the density of the surrounding material.

Where excavations for structures in hard material have been carried out, the engineer may however require the over-excavation to be backfilled with a weak concrete if there is a danger of settlement or differential settlement of the foundations.

Where the sides of excavations against which concrete is to be cast have been over-excavated or have collapsed partially, the contractor shall retrim in the excavations if necessary and, unless other remedial measures are agreed to by the engineer, shall cast the concrete for the structure, including any additional concrete which may be required as a result of the over-excavation or partial collapse. The cost of the additional concrete or remedial measures shall be for the contractor’s account.”

“PSD 5.2.2.3 Disposal

Add the following:

“The contractor shall provide the necessary spoil sites and shall make the necessary arrangements with the owner of the site where the material is disposed of and shall include in his rates for all charges in this regard and for transporting the material regardless of the distance involved.”

Add the following subclause:

PSD 5.2.3 Placing and Compaction

PSD 5.2.4.3 Grass or other vegetation

Add the following subclause:

Grass

Sods and runners

1. Grass sods shall be clean of invasive plants or weeds.
2. Sods shall be obtained from a source approved by the Engineer/Client. Sods rejected by the Engineer/Client shall be removed from the site immediately.

3. Grass shall have been grown specifically for sod purposes, mown regularly and cared for to provide an approved uniformity to the satisfaction of the Engineer/Client. It shall be harvested by special machines manufactured for this purpose to ensure an even depth of cut with sufficient root material and soil.
4. Sods shall be delivered in healthy conditions and be free from weeds and disease.
5. Sods shall be obtained from an approved nursery. Nursery sods shall have been maintained regularly to the required quality. Nursery grass sods shall have at least a 30 mm layer of topsoil.
6. Runners shall be of an approved quality and free from disease or weeds.

Seed

1. The seed mix quantities and purity levels shall be specified and approved by the Engineer/Client.
2. Seed shall be utilised for the cultivation of material for re-vegetation.
3. Seed shall be utilised for direct sowing.
4. Seed must be pre-dried then stored under cool, dry, insect free conditions until required either for cultivation in the nursery or in the rehabilitation process. Only viable, ripe seed shall be used.
5. Seed shall be stored at the Contractors expense.

Commercial seed

1. All seed used shall be labelled in accordance with the Government Seed Act No. 28 of 1961 or amendment thereof. The Contractor shall furnish the Engineer/Client with signed copies of a statement from the seed merchant certifying that each container of seed delivered is fully labelled in accordance with the Government Seed Act. This certification shall appear on, or be submitted with, all copies of invoices for the seed.
2. Commercial seed shall only be used in previously disturbed areas.

Basic regressing

1. The Contractor shall use 2:3:2 and super-phosphate.

Cultivated lawns

1. The Contractor shall use 3:2:3, super-phosphate or similar as approved by the Engineer/Client.

PSD 5.2.5 Transport for Earthworks

PSD 5.2.5.2 Overhaul

Replace the contents of this subclause with the following:

"No overhaul will be paid under sections 1200 D, 1200 DM, 1200 DK or 1200 DB or any other sections. All transport costs irrespective of distance, source and material must be included in the relevant payment clauses."

PSD 7 TESTING

PSD 7.2 TAKING AND TESTING OF SAMPLES

Replace the contents of this subclause with the following:

"The contractor shall carry out sufficient tests on a regular basis as agreed between him and the engineer to determine whether the degree of compaction, and, where applicable, the quality of materials used, comply with the specification and shall submit the results of these tests to the engineer in a form approved by him. The engineer may likewise carry out such tests.

Testing by the engineer will not relieve the contractor of his obligations to provide materials and workmanship in accordance with the specifications.

The requirements of the density for a particular lot shall be deemed to be satisfied if at least 75% of the dry-density tests show values equal to or above the specified density and no single value is more than five percentage points below the specified value."

PSD 8 MEASUREMENT AND PAYMENT

PSD 8.1 BASIC PRINCIPLES

Add the following paragraph:

"PSD 8.1.4 Where backfilling is part of the activities described under a payment clause, the word backfilling includes the supply of the approved backfilling (regardless of the source and distance), as well as the placing of the material as described under subclause PSD 2.3."

PSD 8.1.5 Watering or harrowing of material and allowing it to dry out to obtain optimum moisture content before backfilling and compaction of fill material (whether obtained from site or commercial sources) will not be paid for separately and shall be deemed to be included in the tendered rates for Bulk Excavation or Restricted Excavation.

PSD 8.2	COMPUTATION OF QUANTITIES
PSD 8.2.1(a)(2)	Add “or residential houses”, after “.... rail embankment”.
PSD 8.3	SCHEDULED ITEMS
PSD 8.3.2	<u>Bulk Excavation:</u> Add the words “temporary stockpiling, harrowing or drying the material” after the words “..... basic selection, loading” in the second sentence of paragraph (a). Add the following:
“PSD 8.3.2(c)	<u>Excavate in all materials, temporary stockpile and maintain..... Unit : m³</u> The rate shall cover the cost of complying with all precautions required in terms of SABS 1200 subclause 5.1 in addition to the cost of excavation, basic selection, loading, transportation within freehaul distance, off-loading, temporary stockpiling, spreading or backfilling, watering, harrowing and drying the material, compacting, final grading complying with the requirements for tolerances, and maintaining of the stockpile, all in accordance with the requirements of the specifications.”
PSD 8.3.2.2	<u>Cut to spoil..... Unit : m³</u> The unit measurement shall be the cubic metre of material measured in-situ before excavation or measured in accordance with the provisions of 8.2.2 by taking a percentage of the loose volume in trucks. Where material from an excavation is used in fill, as well as taken to spoil the provisions of 8.2.1 shall be strictly adhered to for purposes of measurement. The tendered rates shall include full compensation for excavating as if in soft excavation, loading, transporting for the free-haul distance and for off-loading, spreading and trimming the spoil material at sites provided by the employer.
PSD 8.3.2.3	<u>Extra over sub-items 8.3.2.1 and 8.3.2.2 for excavating in :</u> (a) Intermediate excavation Unit : m ³ (b) Hard rock excavation Unit : m ³ The tendered rates shall include full compensation for the additional cost of excavating and processing material in the classes specified (see drawing D-1).”
PSD 8.3.3	<u>Restricted excavation</u> Add the words “harrowing or drying the material” after the words “..... material separate (where relevant)” in the fourth sentence of paragraph (a). Add the following sub-sub-item : “(c) Extra over item 8.3.3 (a) for hand excavation Unit : m ³ This item shall apply to hand excavation ordered by the engineer or where the engineer considers that, owing to circumstances, excavation by mechanical excavators is not practicable. It shall not apply to hand excavation for the purpose of trimming or finishing excavation made by mechanical means. The tendered rate shall include full compensation for the additional cost of excavating by means of hand tools.”
PSD 8.3.4	<u>Importing of Materials</u> Amend subclause ‘(a)’ as follows: Delete the words “Extra over for” from the heading. Delete the words “additional to 8.3.2 and 8.3.3” and replace with “of the work and items described in payment items 8.3.2 or 8.3.3 and including the cost of”.
PSD 8.3.6	<u>Overhaul</u> Add the following : “No overhaul shall apply to material from commercial sources or to material disposed of to sites provided by the contractor or by other means employed by the contractor.”
PSD 8.3.8	<u>Existing services</u> (see 5.1.2.2)
PSD 8.3.8.1	Location

REPLACE ITEM 8.3.8.1 WITH THE FOLLOWING :

“8.3.8.1 Hand Excavation for Locating and Exposing Existing Services :

- (a) In roadways **Unit : m³**
- (b) In all other areas **Unit : m³**

The unit of measurement shall be the cubic metre of material excavated, measured in place according to the authorised or actual dimensions of the excavation, whichever is the lesser.

The tendered rates shall cover the cost of excavating in all materials by means of hand tools within authorised dimensions and at locations approved by the Engineer in accordance with the requirements of Subclause PSA 5.4.1, for all precautionary measures necessary to protect the services from damage during excavation and backfilling, and for subsequent backfilling and compacting. Compaction of material in all areas except in roadways shall be to 90% of the modified AASHTO density.

The tendered rate for hand excavation in roadways shall include compensation for compacting excavated or selected backfill material to 93% of modified AASHTO density (100% of modified AASHTO for sand). Reinstating layerworks and surfacing shall be measured and paid for in terms of SABS 1200DB.

The tendered rates shall also include for keeping excavations safe, for dealing with surface and subsurface water, for removing surplus excavated material from the Site, for transporting all material within the free-haul distance, and for supplying adequate supervision during both excavation and backfilling operations. Overhaul, if applicable, will be measured and paid for in terms of SABS 1200DB."

PSD 8.3.11 Grassing or other vegetation cover

Replace the contents with the following :

PSD 8.3.11.2 Planting of grass sods **Unit : m²**

Only special type of grass with a short root system is to be used.

Sodding

1. Prior to sodding, the area shall be re-inoculated with microbes contained within natural veld sods. Veld sods of restios or grasses shall be collected, as directed by the Site Manager, and replanted in shallow hollows for this purpose.
2. Re-inoculation shall occur during or immediately after a rain event. Inoculation sods shall be watered lightly after placement.
3. Revegetation sods shall be planted in strips to reduce erosion.
4. Sodding shall take place on moist, rock free topsoil that has been scarified.
5. Sodds, once harvested or delivered from a nursery, shall not be allowed to dry out and shall be planted within 30 hours of being removed from the soil or growing medium. If necessary, they shall be lightly watered prior to planting.
6. Sodds shall be planted so they abut tightly against one another. The first row shall be in a straight line with subsequent rows planted so that the joints are staggered. Any gaps shall either be planted with a sod reduced to the gap size or filled with topsoil.
7. Where grass sods are planted on slopes steeper than 1:2, wooden stakes of 500 mm diameter shall be used to anchor the sods in position.
8. In the absence of rain, sods shall be well watered after planting and not be allowed to deteriorate through a lack of moisture.
9. Where grass sods are planted in the floodplain, wooden stakes of 500 mm in diameter shall be used to anchor the sods in position.

ADD THE FOLLOWING ITEMS IN SUBCLAUSE 8.3:

“PSD 8.3.14 Extra over items 8.3.2.1(a) and PSD 8.3.3 for temporary stockpiling **Unit : m³**

The unit of measurement shall be the cubic metre of material from necessary excavations, temporarily stockpiled by the Contractor on the instructions of the Engineer, before being used in embankments or backfill. Measurements shall be taken in place in compacted embankment or backfill as the case may be.

The tendered rate shall include for the costs, additional to those provided for in PSD 8.3.2.1(a) and PSD 8.3.3 of off-loading, forming and maintaining the stockpile for as long as is required, reloading and transporting within the applicable freehaul distance from the stockpile.

Payments to the Contractor under this item will only be made in respect of that material stockpiled on the instructions of the Engineer (which instruction shall state specifically that payments for such stockpiling will be paid for under this item) and no payments will be made to the Contractor under this item in respect of materials stockpiled by the Contractor on its own volition, nor for materials necessarily stockpiled by the Contractor in consequence of the sequence of operations adopted by it in the course of executing the Works, whether such stockpiling was avoidable or otherwise.”

PSD 8.3.16 Extra over items 8.3.2 and 8.3.3 for disposing of spoil material on a site provided by the contractor..... **Unit : m³**

The tendered rate shall include full compensation for the additional cost of providing a spoil site or other means of disposing of surplus spoil material, for transporting the material, regardless of the distance involved, for any charges for taking such material and for all other incidentals necessary to dispose of the spoil material. No overhaul shall apply.

PSD 8.3.17 Variations in compactive effort : (use in conjunction with PSD 8.3.2.1(b))

- (a) Vibrator roller **Unit : m²-pass**
- (b) Heavy grid roller **Unit : m²-pass**
- (c) Tamping roller **Unit : m²-pass**
- (d) Flat wheel roller **Unit : m²-pass**
- (e) Pneumatic roller **Unit : m²-pass**

The unit of measurement shall be the square-metre-pass and shall be computed by multiplying the number of square metres to which the changed pass efforts apply by the increased or decreased number of roller passes, computed on the basis of a 200 mm layer thickness.

Where a change in the compaction effort is requested, the contractor will be compensated at the tendered rates for the above items in respect of the increased number of square-metre roller passes of each type of roller required over and above that specified in the relevant standard effort. His compensation will be decreased simultaneously, at the applicable rates, by the number of square-metre roller passes of each type of roller which is either decreased or completely left out.

The tendered rate for each additional square-metre-pass ordered by the engineer over and above the specified number of passes, shall include full compensation for all supervision, labour, plant, equipment, fuel, materials and incidentals necessary for completing the work. The same rates shall be accepted by the contractor during computation of a decrease in his compensation where the number of roller passes for each specific type or roller is decreased.

PSD 8.3.19 Compaction of In-situ Material to a depth of 150 mm

- a) 93% modified AASHTO density **Unit : m²**
The unit of measurement shall be the square metre.

The tendered rate shall include full compensation for scarifying, watering, shaping and compacting the in-situ material to 93% modified AASHTO density to a depth of 150 mm.”

Allowance must also be made for the above before handover to the Client.

PSD 8.3.21 Importing topsoil from commercial sources and mixing with stockpile

“The unit of measurement shall be the cubic metre and the quantity shall be calculated from the authorized dimensions.

The tendered rate shall include for importing of topsoil from commercial sources, mixing the imported topsoil with the existing topsoil stockpile.

PSDB EARTHWORKS (PIPE TRENCHES) (1989)

PSDB 3 MATERIALS

PSDB 3.5 Backfill Materials

Add the following paragraphs:

"(c) Cement stabilised backfilling

Backfilling shall be stabilised with 5% cement where directed by the Employer's Agent. Aggregate shall consist of approved soil or gravel containing stones not bigger than 38 mm and with a plasticity index not exceeding 10.

The soil or gravel shall be mixed with 5% cement and shall be compacted in layers of 100 mm thick to 90% of modified AASHTO density.

(d) Soilcrete backfilling

Aggregate for soilcrete shall be mixed with 5% cement and shall consist of approved soil or gravel containing stones not bigger than 38 mm and with a plasticity index not exceeding 10.

The soil or gravel shall be mixed in a concrete mixer with the cement and enough water to such a consistency that the mixture can be placed with vibrators to fill all voids between the pipe and the sides of the trench. Shuttering shall be used where necessary."

PSDB 3.7 Selection

Replace the words "if he so wishes" in the first line of the second paragraph with the words "at his own cost".

PSDB 4 PLANT

PSDB 4.1 Excavation Equipment

Add the following paragraph:

"All excavations in excess of the specified depth and width, must be backfilled with approved backfilling material. No additional payment regarding this will be made, it will be assumed that payment is included in the tendered rates for the applicable items.

Compaction of sand must be to 100% of modified AASHTO maximum density."

PSDB 5 CONSTRUCTION

PSDB 5.1 Precautions

PSDB 5.1.3 Accommodation of traffic and access to properties

Replace the semicolon and the word "and" at the end of subclause 5.1.3(a) with a full stop and replace item (b) with the following:

"(b) Where necessary to achieve compliance by the Contractor with his obligations in terms of subclause PS 8.1 of Portion 1 Specifications to provide and maintain pedestrian and vehicular access to properties affected by the works, the Contractor shall construct and maintain to the satisfaction of the Employer's Agent, such temporary access roads around, and/or steel or timber bridges over excavations in roads, pavements, entrances or accesses to properties.

Temporary pedestrian access bridges shall be at least 1,2 m wide and temporary access bridges for vehicles shall be at least 3,6 m wide. All temporary access bridges shall be fitted with handrails as well as protective mesh fencing on both sides.

On completion of the work, the Contractor shall dismantle and remove all such temporary constructions and reinstate these areas to their former condition.

Except only where the Employer's Agent has included in the Schedule of Quantities, particular payment items specifically therefore, the Contractor will not be paid directly for the construction and maintenance of temporary access roads and/or the provision and maintenance of bridges as aforementioned, and the costs thereof shall be deemed included in the Contractor's tendered rates for excavation."

- PSDB 5.2 **Minimum Base Widths**
 Add the following above the table.
- “No allowance shall be made for the extra thickness of the collars or couplings.”
- Add the following after paragraph (b) :
- “The above is not applicable to trenches for subsurface drains.
- Trenches for subsurface drains shall be excavated to the dimensions and gradients shown on the drawings or directed by the Employer’s Agent.”
- PSDB 5.4 **Excavation**
- Add the following:
- “All excavation for pipes must be done according to the trench excavation method, and not to the fill method. No additional payment extra over to that listed under item 8.3.3 will be made for pipes, culverts or any other structure that falls within the road or fill layers. Except where otherwise specified, trenches shall be of such a depth that the minimum cover over the pipes shall be 700 mm except at road-crossings where the minimum cover shall be 1 000 mm.”
- PSDB 5.6 **Backfilling**
- PSDB 5.6.3 Disposal of soft Excavation Material
- Replace the contents of the subclause with the following:
- “Excavated material from the trench that has become surplus because of bulking, displacement by the pipe, and importation, shall be disposed of outside the site boundaries at a spoil site provided by the contractor. No additional payment will be made and all costs related to the disposal of this surplus or unsuitable material will be deemed to be included in the tendered rates for the applicable items.”
- PSDB 5.7 **Compaction**
- PSDB 5.7.1 Areas not Subject to Traffic Loads
- Replace “90%” with “95%”.
- Add the following sentence: -
- “All non-cohesive material shall be compacted to 100% MOD AASHTO density.”
- PSDB 5.7.2 Areas Subject to Traffic Loads:
- Replace “93%” with “95%”.
- Delete “98%” and substitute “100%”.
- Add the following:
- “All pipe trenches that fall within the road reserves shall be regarded as areas subject to traffic loads.”
- PSDB 8 **MEASUREMENT AND PAYMENT**
- PSDB 8.1 **Basic Principles**
- PSDB 8.1.1 Replace the last section of subclause 8.1.1 “... surplus material along the route of the pipeline within 0,5 km of the source”, with “... surplus material within the freehaul distance of the site boundaries.”
- PSDB 8.1.2 Add the following:
- “In the road prism the ground surface from which depth will be measured will always (irrespective of operation sequenced) be the road bed level at centre-line.”

PSDB 8.2 **Computation of Quantities**

PSDB 8.2.3 Add the following to subclause 8.2.3.

“Where two or more pipes/ducts are to be placed in one trench, the specified base width shall be calculated as follows:

The trench width for the deeper service shall be calculated according to above specifications. The effective trench width for the shallower service shall then be the difference between its specified base width and the overlap with the trench width of the deeper service.

The trench width for subsurface drains shall be as shown on the drawings.”

PSDB 8.3 **Scheduled Items**

PSDB 8.3.2 Excavation

(a) Excavate in all materials for trenches, backfill, compact and dispose of surplus material. Replace “of 1, 0 m” in the first sentence of 8.3.2 (a) with “as scheduled in the schedule of quantities.” Replace the words “measured to the bottom of the bedding layer” with “measured from the final road layer or surface to the pipe invert level”.

Replace the phrase “within freehaul distances” with:

“at a spoil site provided by the contractor or municipal dumpsite unless scheduled otherwise” Add the following after the last sentence and before paragraph (b).

“The tendered rate for excavation of trenches for electrical cables to be supplied and installed by the Electrical Contractor shall include full compensation for liaising with the Electrical Contractor, maintaining the trenches to allow the installation of the cables, supply and installation of warning tape and backfilling once the Electrical Contractor completed the installation of cables.”

Add the following after the third paragraph:

“The rate shall also cover the cost of the additional compactive effort required as specified in 5.7.2 (as amended) and the additional selection of materials as specified in 5.6.2 to comply with the requirements for areas subject to road traffic loads. No additional payment will therefor be made under item 8.3.3.3.”

(b) Extra-over item (a) above for; and (c) excavate and dispose of unsuitable material from trench bottom

Replace the phrase “within freehaul distances” with:

“at a spoil site provided by the contractor or municipal dumpsite unless scheduled otherwise”

PSDB 8.3.2 (b) Extra over item (a) for :

Add the following at the end of the existing sub-item 2:

“No payments will be made under sub-items (1) and (2) in respect of any materials measured and paid for under sub-item 3 below.”

And add the following new sub-items in 8.3.2(b):

“(3) Hand excavation and backfill where ordered by the Employer’s Agent:

- (3.1) Soft material **Unit: m³**
- (3.2) Intermediate material **Unit: m³**

The unit of measurement shall be the cubic metre of material, measured in place according to the authorised dimensions, or the lesser dimension excavated, which was excavated by hand on the specific prior written instructions of the Employer’s Agent; provided always that the Employer’s Agent’s said instruction shall have stated that measurement and payment for such hand excavation will be in accordance with this item.

The tendered rate shall include full compensation for the additional cost, effort and time resulting from excavating in the respective materials using hand methods only.

The Employer’s Agent shall not be obliged to authorise payment under this item in respect of any hand excavation carried out (whether ordered in writing or otherwise), which hand excavation was in any case necessary to achieve compliance by the Contractor of his obligations under the Contract to:

- (i) utilise construction appropriate to the nature of the specific parts of the Work and /or
- (ii) protect existing structures and/or services; and/or
- (iii) comply with all prevailing legislation and regulations.

- (4) Backfill stabilised with 5% cement where directed by the Employer's Agent Unit : m³

The unit of measurement shall be the cubic metre of backfill material, measured in place after compaction according to the authorised dimensions, which was stabilised on the Employer's Agent's instructions in accordance with Sub-clause PSDB 3.5(c).

The tendered rate shall include full compensation for supplying the cement and for selecting, mixing, backfilling and compacting the stabilised material to 90% of modified AASHTO density.

PSDB 8.3.3 Excavation ancillaries

PSDB 8.3.3.1 Add the following to the last paragraph:

"The freehaul distance is unlimited and no additional payment will be made for the transport of the material".

PSDB 8.3.3.3 Compaction in road reserves

Replace the heading of this subitem with the following:

"PSDB 8.3.3.3 Compaction in road crossings"

And replace the sentence "The volume will be measured as specified in 8.2.2, 8.2.3 and 8.3.3.1" with the following:

"In the case of gravel roads, determining the volume, the depth will be measured from the underside of the gravel wearing course to the top of the fill blanket, and in the case of bitumen roads, from the underside of the subbase to the top of the fill blanket, unless a selected layer is specified then it will be measured from the bottom of the selected layer. The length of the trench used for compacting the quantity for payment will be the actual length under the road."

The rest of the trench shall be backfilled as specified in Clauses 5.9.3, 5.9.4 and 5.9.5, as applicable, and payment will be made under item 8.3.6.1."

PSDB 8.3.3.4 Overhaul

Delete this item.

No overhaul will be paid on material for the purposes of this contract and all the costs for transporting material shall be included in the applicable tendered rates and amounts.

PSDB 8.3.4 Particular Items

PSDB 8.3.4(a) Shore trench opposite structure or service

Replace the heading of this subitem with the following:

"PSDB 8.3.4(a) Shore trench opposite structure or service or in restricted workspace

Add 'of the approved design, presentation of method statement' after 'if necessary', in the second sentence.

"Add the following after the last sentence:

The Contractor shall be responsible for the design of all lateral support and shoring. Designs certified by a Registered Professional Engineer including all design assumptions, calculations, drawings and method statements must be submitted to the Employer's Agent for acceptance prior to ordering material and prior to any excavation work commences.

Add the following after the last sentence:

"Separate items will be measured for depths of trenches in increments of 1,0m. The rate for each stated category shall cover the cost of shoring from ground level up to the full depth of the stated category, both sides of the trench. Payment for this item will only be made if written instructions were issued by the Employer's Agent."

PSDB 8.3.5 Existing services that intersect or adjoin a pipe trench

PSDB 8.3.5(b) Services that adjoin a trench

Replace the last phrase "measuring for shoring" with the words "protected by shoring". The rate for this item shall cover the cost of any necessary shoring.

Add the following:

"(v) This rate shall also cover the additional cost of detection, exposure, hand excavation, protection, alteration and backfill material (the last if outside trench dimensions).

(vi) An existing service which has been abandoned at the time it is crossed, will not be measured.

PSDB 8.3.6.1 Reinstatement road surfaces complete with all coursesUnit : m²

Add the following:

- (a) Asphalt roads and sidewalks

The courses shall consist of 35 mm Asphalt on MC-30 bitumen on 150 mm thick G4 base to 98% Mod AASHTO, on 150 mm thick G5 subbase to 97% Mod AASHTO on 300mm sand to 100% Mod AASHTO.

The tendered rate shall also include the application of a joint sealer, Viaseal or equivalent for all joints in the asphalt.

Where hot premix cannot be obtained, road crossings shall be reinstated in accordance with the following.

Tosas Pothole Patch water resistant hot mixed cold bagged premix; or similar proven and approved

Product to satisfy:

- Grading as per COLTO Table 4202/7 for medium continuously graded asphalt
- With a typical active filter content of 1%, and
- base bitumen as per Clause 4202 (a) (1).
- Binder content between 4,8 and 5,8% by mass and specifically formulated binder additive 0,008 to 0,009% by mass (the lower value for hot conditions and higher value for cold conditions)
- Voids in mix 3,0 to 5,0
- Marshall properties:
 - Stability (kN) 8,0 to 16,0;
 - Flow (mm) 2 to 14;
 - Immersion Index (%) 75(min)
- All weather application possible in case of emergency, but ambient temperature should be 20 degrees centigrade and rising.

- (b) Gravel roads and sidewalks

The course shall consist of 150 mm G5 subbase compacted to 97% Mod AASHTO on 300 mm sand to 100% Mod Aashto.

PSL MEDIUM-PRESSURE PIPELINES

PSL 2 INTERPRETATIONS

PSL 2.1 REFERENCES

PSL 3 MATERIAL

PSL 3.1 GENERAL

Add the following paragraphs:

"For each type of pipe to be delivered to the site the individual pipes shall have a standard length, which shall correspond with standard lengths offered by the pipe manufacturer in his catalogue, with a maximum allowable variation in length of ± 2%.

A pipe which has a shorter or longer length than the defined standard will be rejected by the engineer, except where such non-standard lengths are required in terms of the contract and have been specifically manufactured or cut as such by the pipe manufacturer or supplier."

PSL 3.7 OTHER TYPES OF PIPES

PSL 3.7.1 PVC-U pipes

Replace "uPVC" with "PVC-U" in the heading and first sentence.

Replace "SABS 966" with "SANS 966 : PART 1:2000 (PVC-U).

Add the following:

"All PVC-U pipes shall be class/PN 12 unless otherwise specified".

PSL 3.10 VALVES

Replace the contents of this subclause with the following:

"Valves shall be the standard cast-iron gate valve for waterworks and shall comply with the following requirements:

- (a) Valves shall be left hand closing with a non-rising spindle and spindle cap bolt to spindle with stainless steel 316 bolt.
- (b) Valves shall be class 16.
- (c) Valves shall comply with the requirements of SABS 664/1974. "AVK" or similar approved.
- (d) Valves shall be the resilient seal type.
- (e) Valves shall be coated before delivery both internally and externally with a suitable bitumastic paint free of phenols.
- (a) The direction for turning the valve open or closing must be permanently marked on the valve."
- (b) All valve installations deeper than 350mm measured from ground level/final road level to top of spindle, to include extension spindle.

"Fire hydrants shall be the standard cast-iron fire hydrant and shall comply with the following requirements :

- (a) Fire hydrants shall be anti clockwise closing with a non-rising spindle and spindle cap and also fitted with a captop with a stainless bolt to attach the captop to the hydrant spindle. No clips, split pins or screws allowed.
- (b) Fire hydrants shall be class 16
- (c) Fire hydrants shall be a type 65 "AVK or Ainsworth" or any approved by the local authority
- (d) Fire hydrants must have London Round thread outlets
- (e) Fire hydrants shall be coated before delivery both internally and externally with a suitable bitumanistic paint free of phenols.
- (f) The direction for turning the fire hydrant open or closing shall be permanently marked on the fire hydrant.

PSL 5.6 VALVE AND HYDRANT CHAMBERS

PSL 5.6.1 General

Replace the words "drawing L-1" in the second line with "the drawings".

PSL 5.6.2 Construction of chambers

Replace the words "drawing L-1, L-2 and L-3" in the fourth line with "the drawings".

PSL 7 TESTING

PSL 7.3 STANDARD HYDRAULIC PIPE TEST

PSL 7.3.1 Test pressure and time of test

PSL 7.3.1.2 Add the following:

The test pressure for field testing shall be 1.25 times the working pressure indicated by the class of the pipe.

(e.g. Test at 15 bar for class 12 pipe).

"The engineer may order re-testing of any section of the entire network at any time after the trench is backfilled. The contractor will do the tests and any remedial work required at his own cost.

Any isolating valves and/or end caps, blank flanges, or other isolating devices required for testing mixed types of classes of pipelines which traverse over a wide range of altitudes, will be installed by the contractor at his own cost."

PSL 8 MEASUREMENT AND PAYMENT

PSL 8.2 SCHEDULED ITEMS

PSL 8.2.1 Supply, lay and bed pipes complete with couplings

Add the following:

"The tendered rates shall also include full compensation for the cost of all labour, material, plant, chemicals and overheads for the complete sterilisation of the entire potable water reticulation system and the disposal of the sterilising solution as approved by the engineer."

PSL 8.2.11 Anchor/Thrust blocks and pedestals

Add the following:

"The tendered rates shall also include the wrapping of uPVC pipes and fittings with Densopol 80 or similar approved material where the pipes and fittings are in contact with concrete."

PSL 8.2.18 Connection to existing watermain **Unit : No**

The tendered rate shall include full compensation for the location of the main pipe, excavation, removal of surplus material, cutting into the main pipe supply and installation of all fittings and constructing the connection as shown on the drawings, backfilling with clean sand and compacting to 100% Mod Aashto.

The tendered rate will also include all liaison with the local authority and closing of the water supply and notifying affected residents.

PSLB BEDDING (PIPES) (1983)

PSLB 3.2 Selected Fill Material

Add the following:

"Where required, selected fill material used for bedding, is to be stabilised with 5% cement as specified under subclause PSDB 3.5(c)."

PSLB 3.3 Bedding

Add the following:

"PVC-U and HDPE pipes are considered to be flexible pipes for the purpose of this subclause."

PSLB 3.4.1 Suitable material available from trench excavation

Replace the words "(but is not required)" in the fifth line with the words "(at his own cost)".

PSLB 5 CONSTRUCTION

PSLB 5.1 General

PSLB 5.1.2 Details of bedding

Add the following paragraph.

"The dimension "X" for flexible and rigid pipes as indicated on drawing LB-1 will be 150 mm unless otherwise indicated on the drawing. The dimension "X" will be measured from the invert of the pipe."

PSLB 5.1.4 Replace "90%"

with:

"90% (100% for sand)".

PSLB 7 TESTING

Add the following :

PSLB 7.3 Routine Testing

The Contractor must test the bedding density and grading every 50m. A laboratory grading analysis must be undertaken every 50m. All test positions must be recorded by the Contractor and submitted with test results to the Employer's Agent within 7 Days of placing the bedding.

PSLB 8 MEASUREMENT AND PAYMENT

PSLB 8.1 Principles

PSLB 8.1.1 Supply of Bedding Materials measured separately

Insert the following words after the word "placing" in the last sentence : "density testing and grading analysis every 50m,".

PSLB 8.1.3 Volume of Bedding Materials

Add the following to paragraph (b):

"The depth of bedding as specified in PSLB 5.1.2 is applicable. The volume of bedding material displaced by the pipeline shall not be included in the calculation of the volume of bedding material."

PSLB 8.1.5 Disposal of Displaced Material

Replace the contents of this subclause with the following:-

"Material displaced by the pipeline and by importation of material from sources other than trench excavation, shall be disposed of outside the boundaries of the site."

PSLB 8.1.6 Freehaul

Notwithstanding what is specified in subclauses 8.2.1, 8.2.2.2, 8.2.2.3, 8.2.4 and 8.2.5, the freehaul distance for disposal of all displaced (surplus) material, shall be unlimited."

PSLB 8.2 Scheduled Items

PSLB 8.2.1 Provision of Bedding from Trench Excavation

Replace the paragraph "The rate shall" with the following :

"The rates shall cover the cost of acquiring, from within site boundaries, bedding that complies with the relevant requirements of the specification, of delivering it to points alongside the trench spaced to suit the Contractor's methods of working, and of disposing of displaced material outside the site boundaries."

Add the following after the note:

"Bedding material excavated as part of the trench excavation, placed adjacent to the trench and used at the same point as bedding material will therefore not be measured separately, but will be deemed to be included in the rates for trench excavation and the supply, lay and bed of pipelines."

PSLB 8.2.2 Supply only of bedding by Importation

PSLB 8.2.2.2 *From borrow pits*

Delete the words in brackets in the first four lines.

Add the following:

"Payment for opening up borrow pits and for removal of overburden shall be made under subclause 8.3.4 of SABS 1200 D."

"PSLB 8.2.6 Extra over items 8.2.1 and 8.2.2 for bedding stabilised with 5% cement..... Unit : m³

The tendered rate shall include full compensation for selecting, mixing, backfilling and compacting the stabilised material to 90% of modified AASHTO density."

PSLF **ERF CONNECTION (WATER)**

PSLF 3 MATERIALS

PSLF 3.1 PIPES, FITTINGS AND COUPLINGS

PSLF 3.1.4 Polyethylene

Replace the contents of this subclause with PSL 3.7.2

ADD THE FOLLOWING SUBCLAUSE:

"PSLF 3.1.8 Ferrule

A bronze or galvanised ferrule that can be closed off similar to the "Talbot" standard pattern and in accordance with BS 1400 must be supplied."

PSLF 8 MEASUREMENT AND PAYMENT

PSLF 8.2 SCHEDULED ITEMS

PSLF 8.2.1 Provide erf connections complete **Unit : No.**

ADD THE FOLLOWING:

"The length of erf connection will be taken as the shortest distance between the watermain and the erf boundary."

"The rate shall also include for the excavation, backfilling and disposal of the surplus material as well as for the supply and construction of bedding. The rate shall also include the supply and installation of the saddle."

PSLF 8.2.10 Marker posts

Replace the contents of this subclause with the following:

The Item will differentiate between marker posts to be placed at newly constructed house connections and marker posts to be provided at existing house connections.

a) At new house connections **Unit : No**

The rate for new house connections shall include full compensation for painting identification marks, for manufacturing, installing, and painting marker posts and, in both cases, the cost of listing and submitting a record of the installations to the Engineer.

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UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A

C3.5 MANAGEMENT

CONTENTS

- 3.5.1. FORMS FOR CONTRACT ADMINISTRATION
- 3.5.2 PARTICIPATION OF TARGETED LABOUR
- 3.5.3. PARTICIPATION OF TARGETED ENTERPRISES
- 3.5.4 HEALTH AND SAFETY

3.5.1 FORMS FOR CONTRACT ADMINISTRATION

The Contractor shall complete, sign and submit with each monthly statement for payment, the following updated returns:

- a) Monthly Project Labour Report
- b) B-BBEE Sub-contract Expenditure Report
- c) Joint Venture Expenditure Report
- d) Targeted Labour Contract Participation Expenditure Report

The Monthly Project Labour Report must include details of all labour (including that of sub-contractors) that are South African citizens earning less than R300.00 per day, as adjusted from time to time (excluding any benefits), who are employed on a temporary or contract basis on this contract in the month in question.

In addition to the Monthly Project Labour Report the Contractor shall simultaneously furnish the Employer's Agent with copies of the employment contracts entered into with such labour, together with copies of identification documents as well as evidence of payments to such labour in the form of copies of payslips or payroll runs. If the worker is paid in cash or by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it.

Monthly Project Labour Reports shall be completed and submitted in accordance with the instructions therein.

The B-BBEE Sub-contract Expenditure Report is required for monitoring the main contractor's compliance with the Preferencing Schedule where preferences are granted in respect of B-BBEE contribution, in Part T.2.2 Returnable Schedules, where the Tenderer/Contractor has declared that "I/we **DO NOT** intend sub-contracting more than 30% of the value of the contract to sub-contractors.

The Joint Venture Expenditure Report is required for monitoring the joint venture's compliance with the percentage contributions of the JV partners as tendered, where the joint venture has been awarded preference points in respect of its consolidated B-BBEE scorecard.

The Targeted Labour Contract Participation Expenditure Report is required for monitoring the contractor's compliance for achieving the specified targeted labour contract participation goal.

The Expenditure Reports shall be verified by the Employer's Agent/Employer's Agent's Representative.

3.5.2 PARTICIPATION OF TARGETED LABOUR

3.5.2.1 Targeted labour contract participation goal

It is the intention that, the project, of which this contract is a part, should make the maximum possible use of the local labour force which is at present under-employed. To this end, the contractor is expected to limit non-local employees to key personnel only and to employ local labour on this contract.

3.5.2.2 The selection and recruitment of targeted labour

Where targeted labour is to be drawn from specific local communities (defined in terms of the target area), such labour shall be identified using the relevant Theewaterskloof Municipal Unemployment Database. The Contractor shall request, via the Local Economic Development Department, a list of suitable candidates from the database,

from which the Contractor shall make his/her final selection. The contractor shall enter into written contracts of temporary employment with all targeted labour.

Any difficulty experienced by the Contractor in identifying candidates through the Local Unemployment Database, or as regards any matter relating to the employment of targeted labour, shall be immediately referred to the Employer's Agent.

The contractor shall fill in Schedule 1E: Schedule of Estimated Local Labour to be Employed on the Contract and state how many non-local key personnel he intends to employ in the various categories. The tenderer must also state on this form the number of local labourers he intends employing for this contract. The numbers stated in the above-mentioned data sheet will be strictly controlled during the contract period and any increase in numbers shall be subject to the approval of the employer. The workforce utilized on the contract is to comprise only of local workers within the area of the jurisdiction of the client i.e. within municipal boundaries. The Employer's Agent may, at his discretion, upon receipt of a written and fully motivated application from the contractor and where he deems the circumstances so warrant, authorize in writing that non-local temporary works, not being his Key Personnel, be included in the workforce.

The contractor must provide records of all labour employed including name, surname and ID number, differentiating between male, female, local or non-local key personnel, youth and handicapped on a monthly basis. This record must also indicate the total number of man-hours and total remuneration of labour.

All costs, relating to identification, acquisition, allocation, training, relieving labour of their duties, problemsolving and attending to any other matters in order that the employment of local labour proceeds smoothly, shall be included in the relevant rates.

3.5.2.3 Training of targeted labour

The Contractor is required to provide all informal (on-the-job) skills training so as to ensure that a minimum level of competence is achieved and maintained, such that the various activities are carried out safely and to the required standard. The cost of informal training shall be included in the rates for the various work activities.

3.5.2.4 Community Liaison Officer

It is **NOT** a requirement of this Contract that a Community Liaison Officer (CLO) shall be appointed by the Contractor.

3.5.3 PARTICIPATION OF TARGETED ENTERPRISES

A requirement of this contract (**Schedule 3D**)

3.5.4 HEALTH AND SAFETY

The Construction Health and Safety Specification is attached as Annex 1 to this document

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UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A

C3.6 ANNEXES

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ANNEX 1: OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION

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ANNEX 3: DRAWINGS



THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

OCCUPATIONAL HEALTH & SAFETY SPECIFICATION

FOR THE

**UPGRADING OF THE VILLIERSDORP PUBLIC
TRANSPORT HUB – PHASE 3A**

ANNEX 1

PREPARED BY:

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- C5.1. DOCUMENT PURPOSE AND INTENT
- C5.2. PURPOSE
- C5.3. DEFINITIONS
- C5.4. ORGANIZATIONAL STRUCTURE OF HEALTH AND SAFETY RESPONSIBILITIES
- C5.5. APPLICATIONS AND INTERPRETATION
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- C5.8. NOTIFICATION TO AUTHORITIES, INTERESTED AND AFFECTED PARTIES
- C5.9. HEALTH AND SAFETY FILE
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- C5.30. ACCEPTANCE
- C5.31. BASELINE RISK ASSESSMENT
- C5.32. COST OF SAFETY

C5.1. PURPOSE AND INTENT

In terms of the Construction Regulation 5(1)(b), Theewaterskloof Municipality hereafter referred to as the Client, is required to compile a Project Specific Health & Safety Specification (hereafter referred to as the specification) for any intended project and provide such specification to any prospective Principal Contractor (hereafter referred to as the Contractor) and or a subcontractor who, on appointment shall submit a Project Specific Health and Safety Plan which shall address the requirements of this specification.

This specification is applicable to the Project known as Upgrading of the Villiersdorp Public Transport Hub – Phase 3A.

Take note of the following specific requirements and statements:

The Principal Contractor must, after award, immediately appoint a competent Construction Manager (as defined in Act 48 of 2000) and as prescribed in Construction Regulation 2014, Sub-regulation 8(1). The qualifications, experience and registration details must be included into the Project Health and Safety Plan. This person, in terms of these specifications, is the person accountable to ensure the agreed Project Health and Safety Plan is executed and controlled.

Compliance to the Occupational Health and Safety Act (Act 85 of 1993) and the linked Regulations are not limited to the specifications and definitions contained in this document but, additionally, all new health and safety risks that get identified during the project lifetime must be adequately controlled as well.

A comprehensive and documented Health and Safety Plan must be drawn up by the Principal Contractor, as a duty imposed on the Principal Contractor's Construction Manager. The plan must be based on the results of Health and Safety Risk Assessments conducted by the Client. This plan must be submitted to the Construction Health and Safety (CHS) Agent for approval prior to commencement of work. This plan will transform into the Project Health and Safety File, as and when project Health and Safety Records are added to it.

Monitoring of compliance of Health and safety on site shall be to the requirements of the OHS Act and Regulations as well as the contents of the Health and Safety Plan(s) of the Principal Contractor and Sub-Contractors, and. ensuring compliance to these is the duty of the appointed Construction Manager of the Principal Contractor. The Client's Construction Health and Safety Agent is duty bound under CR 5(7) to manage the Principal Contractor's (hereafter referred to as the Contractor) compliance to the agreed Project Health and Safety Plan, and as such has unrestricted access to site for the duration of the project to execute this duty.

C4.2. PURPOSE

The purpose of this specification is to provide the Contractor with any information other than the standard conditions pertaining to construction sites which might affect the health and safety of persons at work and of persons in connection with the use of plant and machinery. It further aims to protect persons other than its employees against any potential hazards to their health and safety arising out of or in connection with the activities of persons at work during the construction work for the project.

The purpose of this specification is further:

To brief the Principal Contractor/Contractor on the significant health and safety requirements and aspects of the project. This shall include the provision of the following information and requirements namely:

- Safety considerations affecting the site of the project and its environment;

- Health and safety aspects of the associated structures and equipment;
- Required submissions on health and safety matters required from the Contractor and subcontractors.
- To serve to ensure that the Contractor and Subcontractors are fully aware of what is expected
- From them with regards to the Occupational Health and Safety Act, 85 of 1993 and the
- Regulations made there- under including the applicable safety standards, and in particular in terms of Section 8 of the Act.

To ensure that a Contractor and Subcontractors entering into a contract with the Client achieve an acceptable level of Occupational Health & Safety performance. This specification forms an integral part of the contract agreement. The Contractor and its Subcontractors MUST make it part of any Contract that they may have with their Contractors and/or Suppliers.

C5.3. DEFINITIONS

The most important definitions in the Act and Regulations pertaining to this specification document are tabulated below.

Act	Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).
Agent	A competent person who acts as a representative for a client.
Client	Any person for whom construction work is performed.
Construction Manager	A competent person responsible for the management of the physical construction processes and the coordination, administration and management of resources on a construction site.
Construction site	A workplace where construction work is being performed.
Construction Supervisor	A competent person responsible for supervising construction activities on a construction site.
Construction work	Any work in connection with - the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure; or the construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work;
Contractor	An employer who performs construction work.
Designer	A competent person who: <ol style="list-style-type: none"> 1. prepares a design; 2. checks and approves a design; 3. arranges for a person at work under his or her control to prepare a design, including an employee of that person where he or she is the employer; or 4. designs temporary work, including its components; 5. an architect or engineer contributing to, or having overall responsibility for a design; 6. a building services engineer designing details for fixed plant; 7. a surveyor specifying articles or drawing up specifications; 8. a contractor carrying out design work as part of a design and building project; or an interior designer, shop-fitter or landscape architect;

Excavation work	The making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping.
Fall protection plan	A documented plan, which includes and provides for— all risks relating to working from a fall risk position, considering the nature of work undertaken; the procedures and methods to be applied in order to eliminate the risk of falling; and a rescue plan and procedures.
Health and Safety File	A file, or other record containing the information in writing required by the Construction Regulations.
Health and Safety Plan	A site, activity or project specific documented plan in accordance with the client's health and safety specification.
Health and Safety Specification	A site, activity or project specific document prepared by the client pertaining to all health and safety requirements related to construction work.
Method Statement	A document detailing the key activities to be performed in order to reduce as reasonably as practicable the hazards identified in any risk assessment.
Principal contractor	An employer appointed by the client to perform construction work.
Risk Assessment	A program to determine any risk associated with any hazard at a construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard.

C5.4. ORGANIZATIONAL STRUCTURE OF HEALTH AND SAFETY RESPONSIBILITIES

All responsibilities fall under the legal requirement of legal appointment letters – each responsible person must have an appointment letter. The site must commit to establish, implement and maintain a site Organogram. The Organogram must be displayed on site.

The Principal Contractor must appoint in writing a full time Construction Manager in terms of CR8(1) who will be responsible for managing all construction work on a site.

The Principal Contractor and their appointed Contractors must appoint in writing a Construction Supervisor in terms of CR8(7) who will be responsible for supervising all construction work on site

The Principal Contractor must at all times have supervision on site for all construction activities at that point in time, which include work after hours and weekends.

The Principal Contractor must in writing appoint a Part Time Health & Safety Officer (registered with SACPCMP) to monitor the Health and Safety compliance on site.

ROLE	RESPONSIBILITIES
Client Client Agent	The Client and/or its Agent shall ensure that the Principal Contractor, appointed in terms of Construction Regulation 5(1) (k), implements and maintains the agreed and approved Health and Safety Plan. Failure on the part of the Client or Agent to comply with this requirement will not relieve the Principal Contractor from any duties under the Act and Regulations.
CEO – Principal Contractor	The Chief Executive Officer of the Principal Contractor in terms of Section 16 (1) of the OHS Act to ensure that the Employer (as defined in the Act) complies with the Act. The pro forma Legal Compliance Audit may be used for this purpose by the Principal Contractor or his/her appointed contractor.
Person responsible for Health and Safety Section 16(2)	All OHS Act (85 /1993), Section 16 (2) appointee/s as detailed in their respective appointment forms shall regularly, in writing, report to management on health and safety matters or deviations identified during routine or ad hoc inspections/ audits. All reports shall be made available to the principal Contractor to become part of their site records (Health & Safety File).

Construction Manager or Assistant	The Construction Manager and Assistant Construction Supervisor/s appointed in terms of Construction Regulation 8 shall regularly, in writing, report to their managers on health and safety matters or deviations identified during inspections. All reports shall be made available to the principal Contractor to become part of site records (Health & Safety File).
SHE Representatives	All Health and Safety Representatives (SHE-Reps) shall act and report as per Section 18 of the OHS Act. She Representatives shall inspect and monitor activities on a daily basis and report findings to the Client and Health and Safety manager immediately. These safety representatives have the right to stop any unsafe work or work due to unsafe conditions and report findings and reason immediately to the employer.
Other Legal Appointees	Further (Specific) Supervision Responsibilities for OH&S Several appointments or designations of responsible and /or competent people in specific areas of construction work are required by the OHS Act and Regulations. The following competent appointments, where applicable, in terms of the Construction Regulations are required to ensure compliance to the Act, Regulations and Safety Standards.

Minimum Competency Requirements Per Appointment		
Legislation	Appointment Description	Required Competency
OHSA 16(1)	CEO (Appointment/ Declaration)	Legal Liability
OHSA 16(2)	Delegated Authority	1 Page CV & Legal Liability
CR 8(1)	Construction Manager	1 Page CV, ND Civil Engineering, US 120344. Legal Liability & HIRA
CR 8(2)	Assistant Construction Manager	1 Page CV, ND Civil Engineering, US 120344 Legal Liability & HIRA
CR 8(7)	Construction Supervisor	1 Page CV, SAQA US 365183, Legal Liability & HIRA
CR 8(8)	Assistant Construction Supervisor	1 Page CV, SAQA US 365183, Legal Liability & HIRA
CR 10(1)(a)	Fall Protection Planner	US 229994 - Assess a work site for work at height and prepare a fall protection plan US 229998 - Explain and perform fall arrest techniques when working at heights US 229995 - Install, use and perform basic rescues from fall arrest systems and implement the fall protection plan TRAINING PROVIDER TO BE ACCREDITED BY THE INSTITUTE FOR WORK AT HEIGHT
CR 10(4)(b)	Fall Arrest Equipment Inspector	US 229998 - Explain and perform fall arrest techniques when working at heights TRAINING PROVIDER TO BE ACCREDITED BY THE INSTITUTE FOR WORK AT HEIGHT
	All employees working at heights	US 229998 - Explain and perform fall arrest techniques when working at heights TRAINING PROVIDER TO BE ACCREDITED BY THE INSTITUTE FOR WORK AT HEIGHT

	Each climbing team must have 1 working at heights rescue technician	US 229998 - Explain and perform fall arrest techniques when working at heights US 229995 - Install, use and perform basic rescues from fall arrest systems and implement the fall protection plan TRAINING PROVIDER TO BE ACCREDITED BY THE INSTITUTE FOR WORK AT HEIGHT
CR 13(1)(a)	Excavation Supervisor	US 336961 | US 254061, US 365183 Excavation Safety Training
CR 23(d)(k)	Vehicle/Plant Operator & Inspector	Relevant code operator's license
DMR 18(11)	Lifting Machine Operator & Inspector	Relevant Operating License (Refer to Driven Machinery Regulations)

Legislation	Appointment Description	Required Competency
DMR 18(10)(e)	Lifting Tackle Inspector	US 14706 - Perform basic rigging procedures
EMR 10(4)	Portable Electric Tool Inspector	US 259622 - HSE Rep or other applicable certificate /US & deemed competent by company as per 3.6.2 below
CR 28(a)	Stacking & Storage Supervisor	US 259622 - HSE Rep or other applicable certificate /US
HCS 3(3)	Hazardous Chemical Substance Supervisor	US 259622 - HSE Rep or other applicable certificate /US & training on relevant MSDS
GSR 13(a)	Ladder Inspector	US 229998 - Explain and perform fall arrest techniques when working at heights
CR 16(1)	Scaffolding Supervisor	US 263245 - Erect, use and dismantle access scaffolding US 263205 - Inspect access scaffolding
	Scaffolding Erector	US 263245 - Erect, use and dismantle access scaffolding
	Scaffolding Inspector	US 263245 - Erect, use and dismantle access scaffolding US 263205 - Inspect access scaffolding
OHSA 8	Hand Tools Inspector	US 259622 - HSE Rep or other applicable certificate /US
OHSA 8	PPE Inspector	US 259622 - HSE Rep or other applicable certificate /US
OHSA 8	Flagman	Aligned to US 258923 – Ensure safety at road works in urban areas
OHSA 8	Traffic Safety Officer	US 258923 – South African Road Federation (Traffic Safety Officer course)

CR 8(5)	HSE Officer	HSE Qualification NQF Level 5 & SACPCMP CHSO Registration, CV, (If making use of Candidates CHSO SACPCMP Outcomes letter to be submitted with CV of mentor and SACPCMP Registration)
CR 9(1)	Risk Assessor	Risk Assessor Training US 244287 | US 244383 | US120330
GAR 9(2)	Incident Investigator	Incident Investigation Training US 120335 | US 120483
GSR 3(4)	First Aider	As prescribed in General Safety Regulations 3
CR 29(h)(i)	Fire Equipment Operator & Inspector	Fire Fighting Training US 12484
OHSA 17(1)	Health & Safety representative	HSE Representative Training US 259622
OHSA 19(3)	H&S Committee Appointee's	N/A
Best practice		
10(4)(c)(i)	Safety harness inspector	Principal Contractor & Contractor
E.M.R 10(4)	Portable electrical equipment inspector	Principal Contractor & Contractor
C.R 29(l)	Emergency evacuation co-ordinator	Principal Contractor & Contractor
C.R 29(i)	Fire marshal	Principal Contractor & Contractor

Legal appointment lists may be used as a reference or tool to determine which components of the Act and Regulations would be applicable. This list shall not be assumed to be exhaustive.

C5.5. APPLICATIONS AND INTERPRETATION

The Occupational Health and Safety Act and all its Regulations, with the exception of the Construction Regulations, distinguish between the roles, responsibilities and functions of employers and employees respectively. It views Consultants and Contractors as employees of the “owner” of a construction or operational project, the “owner” being regarded as the employer. Only if formally agreed to by way of the written agreement in this regard between the “owner(s)” and Consultant and/or between the “owner(s)” and the Contractor(s), will these assumptions be relinquished in favour of the position agreed upon between the relevant parties.

The position taken by the Construction Regulations is that the “owner”, in terms of its instructions, operates (has to operate) in the role of Client as per relevant definition. The Contractors working for the Client are seen to be in two categories, i.e. the Contractors and Subcontractors. The Contractor has to take full responsibility for the health and safety on the site of the relevant project/contract. This includes monitoring health and safety conditions and overseeing administrative measures required by the Construction Regulations from all Contractors on the project site.

Subcontractors are required to operate under the scrutiny and control (in terms of all health and safety measures which are covered in the Construction Regulations) of the Contractor. Where, for the work the Contractor will have to execute himself, practical health and safety measures are applicable, he will also be subjected to the relevant requirements with which Subcontractors have to comply with. The Contractor, however, does not have to actually fulfil such requirements in respect of any of the work/functions of any Subcontractors on the site for which he has been appointed as a Contractor. He has to, however, monitor such

processes, ensuring that the requirements are complied with and that the required appointments/evaluations/inspections/assessments and tests are done and that the records are duly generated and kept as prescribed in the Construction Regulations. This has to feature clearly in the Contractors Health and Safety Plan.

C5.6. RESPONSIBILITIES

C5.6.1. A Client (Municipality) must:

1. Prepare a baseline risk assessment for an intended construction work project;
2. Prepare a suitable, sufficiently documented and coherent site-specific health and safety specification
3. Include the health and safety specification in the tender documents;
4. Ensure that potential principal contractors submitting tenders have made adequate provision for the cost of health and safety measures;
5. Ensure that the principal contractor to be appointed has the necessary competencies and resources to carry out the construction work safely;
6. Ensure before any work commences on a site that every Contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993 (Act No. 130 of 1993);
7. Appoint every Contractor in writing for the project or part thereof on the construction site;
8. Ensure that the Construction Work Permit (CWP) is available from the CHSA prior to any Contractors commencing any form of construction work
9. Ensure that the health and safety file contemplated in regulation 7(1)(b) is kept and maintained by the principal contractor.

C5.6.2. A Contractor must:

The Contractor shall ensure that he is fully conversant with the requirements of this Specification and all relevant health and safety legislation. This Specification is not intended to supersede the Act nor the Construction Regulations or any part of either. Those sections of the Act and the Construction Regulations which apply to the scope of work to be performed by the Principal Contractor in terms of this contract (entirely or in part) will continue to be legally required of the Principal Contractor to comply with. The Principal Contractor will in no manner or means be absolved from the responsibility to comply with all applicable sections of the Act, the Construction Regulations or any Regulations proclaimed under the Act or which may perceivable be applicable to this contract;

The Contractor shall ensure that the appointed Construction Health and Safety Officer/s are competent, resourced and have the support and accountability required in terms of the OHS Act and Regulations, as well as the duties required by the SACPCMP. Resources include administrative supplies such as computers, printers, 3g cards, vehicles, means of communication, stationary etc.

A principal contractor must further —

provide and demonstrate to the client a suitable, sufficiently documented and coherent site specific health and safety plan, based on the client's documented health and safety specifications contemplated in regulation 5(1) (b), which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the principal contractor as work progresses;

open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, which must be made available on request to an inspector, the client, the client's agent or a contractor; and

on appointing any other contractor, in order to ensure compliance with the provisions of the Act- provide contractors who are tendering to perform construction work for the principal contractor, with the relevant sections of the health and safety specifications contemplated in regulation 5(1)(b) pertaining to the construction work which has to be performed;

ensure that potential contractors submitting tenders have made sufficient provision for health and safety measures during the construction process;

ensure that no contractor is appointed to perform construction work unless the principal contractor is reasonably satisfied that the contractor that he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely;

ensure prior to work commencing on the site that every contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993;

appoint each contractor in writing for the part of the project on the construction site;

take reasonable steps to ensure that each contractor's health and safety plan contemplated in sub regulations (2)(a) is implemented and maintained on the construction site;

ensure that the periodic site audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days;

stop any contractor from executing construction work 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 or which poses a threat to the health and safety of persons;

where changes are brought about to the design and construction, make available sufficient health and safety information and appropriate resources to the contractor to execute the work safely; and

discuss and negotiate with the contractor the contents of the health and safety plan contemplated in sub regulations (2)(a), and must thereafter finally approve that plan for implementation.

ensure that a copy of his or her health and safety plan contemplated in paragraph (a), as well as the contractor's health and safety plan contemplated in sub regulation (2)(a), is available on request to an employee, an inspector, a contractor, the client or the client's agent hand over a consolidated health and safety file to the client upon completion of the construction work and must, in addition to the documentation referred to in sub regulation (2)(b), include a record of all drawings, designs, materials used and other similar information concerning the completed structure.

In addition to the documentation required in the health and safety file in terms of paragraph (c)(v) and sub regulation (2)(b), include and make available a comprehensive and updated list of all the contractors on site accountable to the principal contractor, the agreements between the parties and the type of work being done; and lastly ensure that all his or her conduct pre-employment, periodic and exit medical certificates of fitness specific to the construction work to be performed before and issued by an occupational medical practitioner in the form of Annexure 3.

Failure to comply will be noted as a serious offence.

C5.7. SITE SPECIFIC INFORMATION

These specifications are applicable to the specific scope of work pertaining Upgrading of the Villiersdorp Public Transport Hub – Phase 3A. The proposed scope of works involves the following:

CIVIL ENGINEERING

- Site clearance to remove topsoil and unwanted material

- Opening of existing civil services and pipelines
- Trenching for new pipelines
- Laying of new water, stormwater, and sewer pipelines
- Connection of the new pipelines to existing infrastructure
- Testing of the new line
- Importation of soil, backfilling, and compaction
- Construction of new asphalt road surface
- Supply and installation of new kerbs and channels
- Construction of new concrete surface beds and sidewalks

The following list is an example of specific activities and considerations that may be encountered on a project. The Contractor must select the applicable and extend with items particular to the project under consideration and Site Risk Assessments, Standard Working Procedures (SWP), management and control measures and Method Statements (where necessary) have to be developed by the Contractor:

Site Establishment including:

- Office/s
- Secure/Safe Storage and storage areas for materials, plant & equipment
- Ablution facilities
- Sheltered eating area
- Vehicle access to the site
- Dealing with existing structures.
- Location of existing Services
- Installation & maintenance of temporary construction electrical supply, lighting and equipment
- Accommodation of traffic
- Adjacent land uses and surrounding property exposures
- Boundary & access control/public liability exposures (NB: The Employer is also responsible for the health and safety of non-employees affected by his/her work activities)
- Health risks arising from neighbouring as well as own activities and from the environment e.g. threats by dogs, bees, snakes, lightning, allergies etc.
- Exposure to noise
- Exposure to vibration
- Protection against dehydration and heat exhaustion
- Protection from wet & cold conditions
- Demolition
- Dealing with HIV/Aids
- Use of Portable Electrical Equipment including:
 - Angle grinder
 - Electrical Drilling machine
 - Skill saw
 - Welding including:
 - Arc Welding
 - Gas welding

- Flame cutting
- Use of LP Gas torches and appliances
- Formwork
- Scaffolding
- Steel reinforcement
- Concrete
- Excavations
- Work in trenches
- Loading & Offloading of delivery trucks
- Aggregate/sand and other materials delivery and or removal
- Manual and mechanical handling
- Lifting and rigging operations
- Driving & operation of construction vehicles and mobile plant including:
- Vibratory rollers and others
- Plate compactor
- Front End Loader
- Mobile Cranes, tower cranes and the ancillary lifting tackle
- Parking of vehicles & mobile plant
- Towing of vehicles & mobile plant
- Use and storage of flammable liquids and other hazardous substances. The Client and/or its Agent must be informed of this prior to such substances being brought on to site
- Ergonomic hazards
- As discovered by the Contractor's hazard identification and risk assessment
- As discovered from any inspections and audits conducted by the Client and/or its Agent
- As discovered from any accident/incident investigation.

C5.8. NOTIFICATION TO AUTHORITIES, INTERESTED AND AFFECTED PARTIES

C5.8.1. Notifications of Construction Work

Each Contractor must submit a Notification of Construction work, where the conditions specified under regulation 4.(1)(a-d) is triggered, 7 days prior to commencing on site to the department of employment and labour's provincial office.

C5.9. HEALTH AND SAFETY FILE

The Contractor must, in terms of Construction Regulation 7(2)(b), keep an Occupational Health & Safety File on site at all times that must include all documentation required in terms of the Act and Regulations and must also include a list of all Contractors on site that are accountable to the Principal Contractor and the agreements between the parties and details of work being done. A more detailed list of documents and other legal requirements that must be kept in the Health and Safety File is attached as an addendum to this document. The Health and Safety File will remain the property of the Client and/or its Agent on its behalf throughout the period of the project and shall be consolidated and handed over to the Client and/or its Agent on its behalf at the time of completion of the project.

The template for the file has been agreed and will be forward with the meeting minutes and indicated as annexure A.

C5.10. POLICY

The following policies must be developed, reviewed and approved:

- Occupational Health and Safety Policy
- Environmental Policy
- Alcohol and Drug Abuse Policy
- Disciplinary Policy
- All the above Policies must be displayed in a conspicuous area, communicated to all employees and records of such training shall be retained in the safety file.

C5.11. OH&S PERFORMANCE

The Contractor is required to report monthly on his health and safety performance to the Client or its Agent.

This will include but not limited to:

- Number of injuries (First aid, medical injuries, lost time injuries and fatalities)
- Number of near misses
- Number of property damages
- Lost time injury rate
- Medical treatment cases
- First aid injury cases
- Total man-hours worked
- Man-hours without a lost time injury
- Total man-power numbers
- Total number of improvements, contravention and prohibition notices

C5.12. HEALTH AND SAFETY HAZARD IDENTIFICATION, RISK ASSESSMENT AND CONTROL

This Specification prescribes the minimum requirements for any Health and Safety Hazard Identification, Risk Assessment and Control activity during the Upgrades and Construction of Upgrading of the Villiersdorp Public Transport Hub – Phase 3A. It applies to all site staff involved during the Upgrading of the Villiersdorp Public Transport Hub – Phase 3A. These include the Client, his Agents, visitors and other stakeholders such as the Department of Labour (DoL) etc.

Effective Health and Safety programs are critical for all Construction companies and, if implemented and managed well, is a substantial cost saving exercise through the resultant minimized losses. This includes an effective Hazard Identification, Risk Assessment and Control Program.

This Specification prescribes the minimum components required to constitute a substantially common approach to hazard identification, risk assessment and control of these in order to:

Pro-actively assess the hazards and risks associated with all tasks performed by the Division;

Reduce and where possible eliminate the risks that employees and equipment are exposed to;

Create hazard awareness amongst the employees performing various tasks;

Ensure compliance to legislation and the requirements of the client.

C5.12.1. Risk assessment methodology

Any risk assessment methodology that is accepted in the industry or prescribed by a Client may be used but all efforts must be made to ensure that it is covering the specifics in the construction industry.

The hazard identification and risk assessment process (HIRA) is a team-process. The Contractors appointed Risk Assessor must establish the relevant HIRA team and ensure that the members are trained to understand and be competent to perform HIRA using the multiplier approach. Though the Health and Safety professional coordinates the activities of the HIRA team, the Project or Line Manager must ensure the assessed and ranked risks are controlled on his Project. All Health and Safety hazards and risks must ideally be identified and assessed per project, per process and task step in order to support the Method Statements, Safe Work Procedure and Planned Task Observation requirements.

C5.12.2. Minimum required risk assessment processes

The following HIRA processes form part of an integrated pure risk management program and must be developed for each project:

Project Risk Assessment:

This must be conducted to encompass all the Projects Risks prior to commencement of work, covering all project specific areas, responsibilities, tasks, scope of work, method statements etc. from the project risk register.

Issue Based Risk Assessment:

This must be conducted prior to commencement of any specific work, covering all specific tasks and activities to be performed. This will include all tasks related to the scope of work, including newly identified tasks.

Daily Safe Task Instruction:

Informal risk assessments compiled by Frontline Supervisors or Foremen and discussed with employees before commencement of daily tasks.

Planned Task Observations:

Planned Task Observations (PTO) must be completed weekly by the Contractor's & subcontractor's management.

After any scope change, or specification change, or equipment change, new hazards and associated risk areas need to be evaluated, controlled and communicated to the workforce.

Change can be identified in the scope of work, the work environment, personnel selection / job competencies, man job specifications, laws, conventions, plant and equipment et cetera.

C5.12.3. Conditions to consider when conducting HIRA

The HIRA process shall take the following into account when conducting hazard identification and risk assessments:

- Routine and non-routine activities;
- Activities of all persons having access to the workplace (including contractors and visitors);
- Human behaviour, capabilities and other human factors;
- Identified hazards originating outside the workplace capable of adversely affecting the health and safety of persons under the control of the organization within the workplace;
- Hazards created in the vicinity of the workplace by work-related activities under the control of the organization;
- Infrastructure, equipment and materials at the workplace, whether provided by the organization or others;
- Changes or proposed changes in the organization, its activities, or materials;

- Modifications to the Health and Safety Management system, including temporary changes, and their impacts on operations, processes and activities;
- Any applicable legal obligations relating to risk assessment and implementation of necessary controls;
- The design of work areas, processes, installations, machinery and equipment, operating procedures and work organization, including their adaptation to human capabilities.

C5.12.4. Health risks to be included in assessments

The following health risks must also be considered when doing workplace risk assessments:

- Noise
- Dust
- Lighting
- Vibration
- Chemical Stressors
- Ergonomics

The prevalence and potential risk posed by biological stressors must be assessed by a Health and Safety Professional. These include:

- Bacteria.
- Viruses;
- Fungi;
- Parasites;
- Poisonous plants;
- Poisonous animals;
- Vectors such as mosquitoes, rats, mice, cockroaches;
- Water borne diseases;
- Air borne diseases; Blood borne diseases such as HIV/AIDS.
- Manual material handling and repetitive action stress disorders
- Workflow design and environmental conditions must be considered;
- The posture, actions and movements required for manual handling must be considered;
- The shape, size, weight and nature of the objects must be considered;
- The distance over which the object is handled must be considered;
- The handler's age and general state of health must be considered;
- The availability and suitability of mechanical aids must be considered
- A study of force application requirements must be done
- A study of energy consumption demands must be done Psychological stressors
- Psychological workplace stressors must be identified, for example extreme people concentrations or excessive work pressure, et cetera.
- Fire risks assessment
- Fire risks and follow on risks as a result of a fire, must be identified and assessed;
- A recognized fire authority must be consulted;
- The level of service available from the local authority must be assessed and results incorporated in the risk management plan.
- Emergency Scenarios

- Potential emergency scenarios must be identified and assessed, and emergency equipment or procedures must be supplied in relation to the risks. This includes assessing the following base emergency scenarios:
- Political instability risks;
- High-jacking and abduction risks;
- Theft and burglary risks;

C5.13. MONITORING AND REVIEW AND MANAGEMENT OF CHANGE

The contractor must develop and implement a monitoring and review plan for the risk assessments.

For any changes due to new designs, processes and incidents the specification, baseline risk assessment and SHE plan must be updated.

C5.14. AUDITING AND INSPECTIONS

C5.14.1. Periodical audit by Construction Health and Safety Agent

The Construction Health and Safety Agent will be conducting monthly audits at times agreed with the Contractor to comply with Construction Regulation 5(1)(o) to ensure that the Contractor has implemented, is adhering to and is maintaining the agreed and approved OH&S Plan (audits must be done at least once every 30 days).

C5.14.2. Other audits and inspections by Construction Health and Safety Agent

The Construction Health and Safety Agent reserves the right to conduct any ad hoc audits and inspections as it deems necessary.

A representative of the Contractor and the relevant Health and Safety Representative(s) (SHE - Reps) must accompany the Agent on all Audits and Inspections and may conduct their own audit/inspection simultaneously. Each party will, however, take responsibility for the results of his/her own audit/inspection results. The Agent may request a copy of the Contractor SHE Committee meeting minutes, reflecting possible recommendations made by that committee to the employer for reference purposes.

The Contractor must conduct at least monthly audits on their Subcontractors and daily regular site inspections and generate reports which must be handed to Contractor Management for their action. All inspections and audits must be available for the Client/Agent at any time. Records of the audits must be retained in the safety file for review by the Client and/or its Agent.

C5.14.3. Actions plans must be developed for all findings recorded in the audits or inspections completed.

C5.15. INCIDENT INVESTIGATION, REPORTING AND MANAGEMENT

C5.15.1. Incident investigation

The Contractor is responsible to investigate all his incidents. This will include near misses, first aid injuries, medical treatment injuries seen by a doctor and hospital or clinic cases, lost time injuries and fatalities.

(General Administrative Regulation 9).

All incidents must be recorded in the Incident Register. (General Administrative Regulation 9).

The Contractor is responsible for the investigation of all incidents as described in Section 24 (1) (b) & (c) of the Act and keeping a record of the results of such investigations including the corrective action to prevent similar incidents in future.

The Contractor is responsible for the investigation of all road traffic accidents relating to the construction site and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

Notwithstanding the requirements of Section 24 of the Act, all incidents shall be investigated and reported on in writing, irrespective of whether such incident gave rise to injury or damage.

C5.15.2. Incident reporting

The Contractor is required to notify the Construction Health and Safety Agent of all incidents immediately and then follow the Incident management reporting procedures thereafter.

The Contractor shall further report all incidents where an employee is injured on duty to the extent that he/she:

- Dies;
- becomes unconscious;
- loses a limb or part of a limb;
- is injured or becomes ill to such a degree that he/she is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he/she was usually employed.

or where:

- a major incident occurred;
- the health or safety of any person was endangered (this could be a near miss);

- where a dangerous substance was spilled;
- the uncontrolled release of any substance under pressure took place;
- machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects;
- machinery ran out of control.

To the Provincial Director of the Department of Labour within seven days and at the same time to the Client or its Agent. Refer in this regard to Section 24 of the Act, Construction Regulation 5(3) & General Administrative Regulation 8.

The Contractor is required to provide the Client and/or its Agent on its behalf with copies of all statutory reports required in terms of the Act and the Regulations;

The Contractor is required to provide a.s.a.p. the Client and/or its Agent on its behalf with copies of all internal and external accident/incident investigation reports

C5.15.3. Incident Management

The Contractor's safety officer must escort all injuries on duty to the hospital with the injured;

Must be in possession of a completed WCL.2 form (employers report of accident), and certified ID of the injured.

After treatment, the safety officer must ensure that he/she obtains a first medical report, from the attending Dr.

The Contractor must ensure the injured employee honours his/her medical check-ups post treatment. All progress medical reports issued to the injured employee must be retained in the safety file. The Contractor must further arrange transport for the employee to be accompanied to the hospital when required.

All medical reports and the investigations report must be filed in the safety file.

An incident recall must be conducted post all injuries including near misses. An attendance register must be kept for all incident recalls.

Risk assessment, safe work procedures, method statements and SHE Plan must be amended where required post the incident to ensure the controlled measures are strengthened to prevent a reoccurrence of the incident.

C5.16. HEALTH AND SAFETY REPRESENTATIVES AND SHE COMMITTEES

C5.16.1. Designation of health and safety representatives

Where the Principal Contractor employs more than 20 persons (including the employees of the Contractors) he/she has to nominate and appoint a minimum of one SHE Representatives, then he/she must appoint for every 50 employees or part thereof. (OHS Act 85, 1993 – Section 17 and GAR 6;7).

These SHE Representatives shall be trained and designated in writing.

C5.16.2. Duties and functions of health and safety representatives (this is based on the construction norms and is not an exhaustive list)

The Principal Contractor must ensure that the designated H&S representatives conduct a formal weekly inspection of their respective areas of responsibility using a checklist.

All findings must be reported to the Principal Contractor. The reports shall be submitted to the Health and Safety Committee for action. Record shall be kept in the form of minutes.

SHE Representatives must take part in incident investigations.

SHE Representatives shall be members of at least one SHE Committee and attend all the SHE Committee meetings.

C5.16.3. Establishment of H & S Committee (s) – where 2 or more H & S representatives appointed.

The contractor must establish H & S Committees consisting of designated H & Representatives together with a number of Employers Representatives appointed as per Section 19 (3) that are not allowed to exceed the number of H & S Representatives on the committee. The persons nominated by the employer on an H & S Committee must be designated in writing for such period as may be determined by him. The H & S Committee shall co-opt advisory (temporary) members (who are not allowed to vote on issues discussed) and determine the procedures of the meetings including the chairmanship.

Legally, the H & S Committee must meet every 3 months, but it is advised that they meet at least once a month and consider, at least, the following Agenda for the first meeting. Thereafter the H & S Committee shall determine its own procedures as per the previous paragraph.

AGENDA:

- Opening and determining of chairmanship (only when necessary);
- Facilities & Hygiene;
- Housekeeping
- Incidents and incident investigation; and
- Inspection checklists and Registers: H & S Representative Inspections
- Matter of first aid
- Scaffolding
- Ladders
- Excavations
- Portable electric Equipment
- Fire Equipment
- Explosive Fire Tools
- Power Hand Tools
- Incident Investigation reports
- Pressure Equipment and vessels under pressure;
- Personal Protective Clothing;
- Safety statistics
- Health and Safety Awareness / Training / Posters and Symbolic Signs
- First Aiders and First Aid Equipment;
- Demarcation of work- / hazardous-/safe areas / walkways;
- Safety suggestions
- Environmental Management
- General
- Date of next meeting
- Closing

All minutes must be circulated and retained on site.

C5.17. SITE ESTABLISHMENT

Proper planning by management is an essential part of preparation and budgeting for the safe and efficient running of a construction operation. Site establishment method statements and detailed risk assessments are required for each activity to be completed linking to the construction programme.

Details regarding management of subcontractors and Suppliers are contained within the body of the specification. Competent, resourced subcontractors are to be used, with an H&S plan approval lead time of 7 days prior to Contractors being able to commence work.

It is expected that Contractors and subcontractors will respect each other's workspaces and operations and communicate with each other to arrange work where there are overlaps or adjacent activities. The following rules apply:

All equipment and personal belongings must be locked whilst on site.

The camp must set-up at a location to prevent flooding and collision with traffic.

Precautions must be taken to prevent fires from starting.

Suitable toilet for each gender and signage posted to indicate such gender will be on site for the duration. The Contractor must note the Covid-19 hygiene requirements with respect to mobile toilets.

Provision of suitable change rooms

C5.18. SITE ACCESS AND PROTECTING THE PUBLIC AND SITE

C5.18.1. Site security

All people who are on site must be authorised.

No firearms or other dangerous weapons will be allowed at this construction site.

No people under the influence of alcohol or behaviour altering substances are allowed at this construction site.

C5.18.2. Site boundary

Information obtained from the pre-construction information and pre-contract situational assessment will enable decisions to be made on the site layout. It is important to remember that decisions relating to the site layout and its boundaries are important in protecting the safety of the public, especially children, as well as the safety of the workforce.

Owing to the proximity of the community to the Project, a fence must be erected enclosing all construction activities. In this case:

- The fence should not be less than 1,8m high;
- The fence should not be capable of being easily climbed;
- The fence should be either close-boarded or covered with mesh not exceeding 30mm in size;
- The fence should be planned, designed and constructed to ensure that it is stable and will not fall over;
- Solid fencing/hoarding must be designed to take into account wind loading;
- Access openings should be fitted with gates which must be kept locked at all times when the site is unoccupied;
- Surveillance of the gates should be maintained when they are open;
- Fencing should be properly maintained;
- Materials should not be placed or stacked in the vicinity of the fence in such a way as to provide easily climbed access over the fence;
- Suitable warning notices should be fixed to the fence.

As part of the planning process thought should also be given to the possibility of materials or equipment falling onto persons outside the site boundaries.

The possibility of plant, parts of plant, or loads extending beyond the site boundary and potentially hitting people or vehicles also needs to be considered;

Lifting operations over public areas should be avoided as far as is possible.

C5.18.3. Site layout

In addition to considerations of the site boundary, there are a range of other factors to be considered in deciding upon the site layout. Site layout plan must consider, but not limited to the following:

Location of sanitary facilities;

Parking area in relation to movement of persons;

Security guard house;

Illumination at night;

Storeroom/s;

Emergency signs and assembly area;

Smoking areas

Location of the construction board

Construction access gate

C5.18.4. Safe access

Safe access and good visibility for plant and vehicles entering and leaving the site must be ensured. Where possible, pedestrians should be excluded from vehicle access ways. Trained Banksmen should be used on busy highways near public footpaths and elsewhere if reversing is necessary. One-way systems or other means of controlling site transport and avoiding the need to reverse, should be set out. The conditions of both vehicle and pedestrian routes must be maintained in good order. Suitable warning signs must be posted. Employees will not be allowed to be transported at the back of construction vehicles unless the vehicle is fitted with seatbelts and the seats are firmly secured to the vehicle.

Delivering of Material and Equipment, Signage, Flagmen and Compliance to the South African Road Traffic Signs Manual (SARTSM) Chapter 13. Plan to be Monitored and Reviewed at least monthly or as the construction programme/activities changes with proof placed on file.

C5.18.5. Storage areas

Location of stores and storage areas will be determined by the availability of space, the nature of the materials and any statutory requirements, e.g. in relation to highly flammable materials or explosives. Consideration must be given to suitable off-loading areas and lifting equipment. Positioning lifting appliances. It must be noted that the site has limited space with a sloping topography.

Positioning of cranes, hoists and other lifting appliances will be determined by physical features on the site (e.g. overhead lines), the building under construction.

C5.18.6. Decanting plan requirements

- Access to the new clinic location must be controlled;
- Provision must be made for people with disabilities;
- Sufficient and suitable fencing must be erected;
- Emergency escape routes and assembly points must be considered during layout;
- Sanitary facilities, soap, water must be available;
- Toilets must be serviced at least 3 times a week
- Consideration should be given to car parking arrangements.

C5.19. DEMOLITION WORKS

A Contractor must appoint a competent person in writing to supervise and control of demolition works on site. A Contractor must ensure that before any demolition work is carried out, and in order to ascertain the method of demolition to be used, a detailed structural engineer survey of the structure to be demolished is carried out by a competent person and method statement on the procedure to be followed in demolishing the structure is developed by competent person. During a demolition, the competent person contemplated above must check the structural integrity of the structure at interval determined by in the method statement contemplated above, in order to avoid premature collapses.

A Contractor who performs demolition work must with regard to the structure being demolished take steps to ensure that:

No floor, roof or other part of the structure is overloaded with debris or material in a manner that will render it unsafe;

A reasonably practicable precaution is taken to avoid the danger of structure collapsing when any part of the framing of a framed or partly framed building is removed or when reinforced concrete is cut; and Precautions are taken in the form of adequate shoring or other means that may be necessary to prevent accidental collapse of any roof of any structure of the or adjoining structure.

The contractor must ensure that no person works under overhanging material or structure which has not been adequately supported, shored or braced.

Where the stability of the adjoining building, structure is likely to be affected by demolition work on a structure, take steps to ensure the stability of such structure. Erect a catch platform or net above entrance or passageways of an area where person pass or fence off the danger area which works is being performed so as to keep all persons away from the danger. The contractor must ensure no material is dropped to any point, which falls outside the exterior walls of the structure unless the area is effectively barricaded.

C5.20. EXCAVATION AND TRENCHING

Excavation work must be properly planned, managed, supervised and carried out to ensure that every excavation is done with absolute safety and to ensure there is no threat of damage to any service and that the excavation remains in a safe condition for the period that it is open.

C5.20.1. Pre-excavation

Note: All excavation work requires a permit.

Excavation work must be carried out under the supervision of a competent person who has been appointed in writing.

Planning for trenching and excavation work must as a minimum take the following into consideration:

- Location of existing services (gas, water, electricity, fibre optic cables, etc.) adjacent to or crossing the line of the trench. Mark all underground services before any excavation work commences by:
 - using service plan to locate and mark underground services; and
 - using locators to trace any services where there are no obvious signs of these services.
- Traffic diversions
- Hard surfaces or obstructions to be broken out.
- Limitations on plant (access, rights of way, headroom, overhead cables, bearing capacity of ground, noise restrictions)
- Possibility of flooding by surface run-off or water from broken mains
- Presence of standing or running water
- Suitable means of draining discharged water
- Condition and stability of adjacent structures
- Surcharge loads
- Vibrations
- Working area and room for placement of spoil and materials
- Evidence of previous excavations in the area
- Evidence of possible hazardous contamination
- Ensure that all employees involved in the digging know about safe digging practices and how to deal with damage to cables and pipes:

- Excavation by powered equipment is prohibited closer than 1.2 metres to any underground cable; do not remove tiles covering electric cables without prior approval.
- Make sure that there is an emergency plan to deal with damage to cables and pipes and a system for notifying the service owner.

C5.20.2. Assessment of ground conditions

Prior to any excavation taking place, the ground conditions must be assessed. This can be achieved through boreholes, trial pits or information from previous or current work in the area. If none of the above is possible the ground conditions can only be examined when excavation commences. This examination must be carried out by a competent person using the initial excavation as a trial pit.

C5.20.3. Excavation depth less than 1.25 metres

A risk assessment must be carried out to determine if a risk to employees exists, and if so, the method and type of protection to be provided. It should address, but not be limited to, the following:

- Water table - Is it above or below the trench bottom?
- De-watering - is dewatering required, and if so, will it affect the stability of the trench?
- Adjacent buildings or roads - are adjacent buildings, roads or services liable to damage?
- Ground conditions - has the type of ground been examined to determine its structure, i.e. clay, sand, silt, rock, fill or previously excavated ground?
- If any doubt exists as to the self-supporting ability of the ground it must be benched, battered or shored.

C5.20.4. Excavation depth 1.25 metres or greater

Trenches 1.25 metres deep or greater require a protective system, unless the excavation is made entirely in stable rock. Trenching or excavation work shall not be commenced until the ground has been examined by a competent person to determine the protection required. Protection must be erected and maintained where having regard to the nature of the soil and the slope of the side of the trench or excavation, a fall or dislodgment of earth or other material is likely to occur from a height of 1.25 metres or more so as to bury or trap a person. The competent person must then provide a statement in writing - detailing the findings of the examination, type(s) of ground encountered, the calculations used in deciding the method of protection required. Trenches of six meters (6 metres) deep or greater require that the protective system be designed by a registered professional engineer or be based on tabulated data prepared and/or approved by a registered professional engineer.

C5.20.5. Sloping and benching

In general, the flatter the sloping or benching angle, the greater the protection. Benches are cuts in the slope that give it a stair-step appearance. There are two types of benches: simple and multiple.

Rain, vibration, and pressure from heavy equipment can make soil unstable and increase the risk of a cave-in. Sloped or benched excavations that show signs of cracks, bulges, or clumps of soil that fall away from the faces are dangerous and must be inspected by a competent person. You must immediately get out of the excavation and stay away until the competent person determines it is safe to enter.

C5.20.6. Shoring

Shoring and shielding systems can prevent cave-ins in excavations with or without sloped or benched faces; it requires installing aluminium hydraulic or other types of supports to prevent soil movement. The safest way to install and remove them is from outside the excavation.

Vertical shores are called uprights. They're easy to install, relatively inexpensive, and often used in stable soil or in shallow excavations that have parallel faces. Vertical shores must be sized for the excavation's dimensions and soil type.

If shoring is to be used, it must be designed by a competent person. Shoring involving major temporary works (e.g. sheet piling/dewatering) should be designed by an experienced designer with suitable professional indemnity insurance provisions.

The shoring or support system must be installed without delay as the excavation progresses. Operatives installing the system must be given clear instructions preferably recorded as drawings or sketches. The shoring must extend at least 300mm above the edge of the excavation, or a fender board of the same height provided.

C5.20.7. Shielding

Shields provide employees a safe work area by using trench boxes or other types of supports to protect them from collapsing soil. Shields don't prevent cave-ins but "shield" employees if a face does collapse. They are usually placed in the excavation by heavy equipment.

C5.20.8 Barricading

Every part of the trench or excavation where there is a likelihood of a person falling 1 metre or more must be provided with barricades or guardrails as soon as possible after excavation. Barricades or guardrails can be removed to allow access or movement of plant, or materials. Once access is no longer required, the barricades or guardrails must be re-instated. Whenever barriers are set back from the edge of a trench, all access to the excavation should be confined to the proper pathways and no materials should be stacked in the space between the barrier and the trench edge.

Where vehicles can pass close to a trench, heavy loads can endanger the trench. Traffic barriers must be provided to keep vehicle traffic from encroaching too close to the trench edge. Barriers or stop blocks are also necessary to stop cranes, dumpers tip trucks, etc. manoeuvring too close to the edge of the trench and endangering its stability. Timber baulks are effective against small wheeled machines, but taller barriers are required for larger pieces of plant.

C5.20.9. Backfill and compaction

A competent person must supervise the installation, alteration, or removal of excavation support.

Make sure that employees removing shoring after completion of work are not left in the bottom of the excavation; remove shoring in a manner to prevent cave-in on employees.

Backfill consists of the placement of specified backfill material, in layers of 15 cm, in the excavations;

- use soil materials for backfill that is free of clay clods, rock or gravel larger than 6 cm. Debris waste, frozen materials and other deleterious matter of any dimension must be removed.
- Backfill excavations as promptly as the work permits, but not until completion of the following:
- approval of construction below finish grade;
- inspection, testing, approval, and recording location of underground utilities;
- removal of concrete formwork; and

- removal of rubbish and debris;
- Perform the compaction of soil materials for backfills by using the specified compaction equipment that is suitable for the soil material being compacted and for use in the location of the work area.
- Control soil compaction for compliance with the percentage of maximum density for the area classification, where applicable.

C5.20.10. Precautions

C5.20.10.1. Materials falling into excavations

Make sure that the edges of the excavation are protected against falling materials by: providing toe boards where necessary; and storing excavated ground and building materials well away from the side of any excavation.

C5.20.11. Inspections

A competent person must inspect trenches daily, and as conditions change, before employee entry and as needed throughout the shift to ensure elimination of excavation hazards. Changing conditions include, for example, after every rainfall or hail fall, as soil conditions change or after any accidental fall of rock, earth or any other material. Stop work if the inspection shows it is not safe to continue.

Note: A competent person is an individual who is capable of identifying existing and predictable hazards or working conditions that are hazardous, unsanitary, or dangerous to employees, soil types and protective systems required, and who is authorised to take prompt corrective measures to eliminate these hazards and conditions.

C5.20.12. Confined Space

An employer or a user of machinery shall take steps to ensure that a confined space is entered by an employee or other person only after the air therein has been tested and evaluated by a person who is competent to pronounce on the safety thereof, and who has certified in writing that the confined space is safe and will remain safe while any person is in the confined space, taking into account the nature and duration of the work to be performed therein.

Where the provisions of above cannot be complied with the employer or user of machinery, as the case may be, shall take steps to ensure that any confined space in which there exists or is likely to exist a hazardous gas, vapour, dust or fumes, or which has or is likely to have, an oxygen content of less than 20 per cent by volume, is entered by an employee or other person only when—

The confined space is purged and ventilated to provide a safe atmosphere therein and measures necessary to maintain a safe atmosphere therein have been taken; and

The confined space has been isolated from all pipes, ducts and other communicating openings by means of effective blanking other than the shutting or locking of a valve or a cock, or, if this is not practicable, only when all valves and cocks which are a potential source of danger have been locked and securely fastened by means of chains and padlocks.

The employer or user of machinery shall take steps to ensure that the confined space in question is entered only when the employee or person entering is using breathing apparatus of a type approved by the chief inspector and, further, that—

Any employee or person entering the confined space is using a safety harness or other similar equipment, to which a rope is securely attached which reaches beyond the access to the confined space, and the free end of which is attended to by a person trained in resuscitation is and remains in attendance immediately outside the entrance of the confined space in order to assist or remove any or persons from the confined space, if necessary; and effective apparatus for breathing and resuscitation of a type approved by the chief inspector is available immediately outside the confined space.

An employer or user of machinery shall take steps to ensure that all persons vacate a confined space on completion of any work therein where the hazardous gas, vapour, dust or fumes are of an explosive or flammable nature, an employer or user of machinery shall further take steps to ensure that such a confined space is entered only if the concentration of the gas, vapour, dust or fumes does not exceed 25 per cent of the lower explosive limit of the gas, vapour, dust or fumes concerned where the work to be performed is of such a nature that it does not create a source of ignition; or such concentration does not exceed 10 per cent of the lower explosive limit of the gas, vapour, dust or fumes where other work is performed.

C5.21. EMERGENCY PREPAREDNESS

The Contractor must develop a site Evacuation Plan detailing specification for the appropriate appointments for the fire-fighting team, bulk first aid and the emergency coordinating team. In addition to which, mustering points must be identified and depicted by the use of appropriate symbolic signage (SANS approved). The Emergency Evacuation Plan must be approved by the Contractor in consultation with the Client, or Clients Agents. Should the early warning fire alarm system not be integrated each zone/area must, by definition be accommodated in the site Evacuation Plan. (Ref Environmental Regulations Section 9).

The following plans must be action by the Contractor:

The Site Manager must conduct an emergency identification exercise and establish what emergencies could possibly develop. He/she must then develop a detailed contingency plan and emergency procedure, taking into account any emergency plans that may already be in place.

The Contractors must hold regular practice drills of the contingency plans and emergency procedures to test them and to familiarise employees with them.

Contractor and subcontractors must appoint a competent person to act as Emergency Controller/Coordinator. A contact list of all emergency service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc.) must be maintained and available for site personnel. An emergency situation, which is likely to require outside emergency assistance, may attract mass circulation, written media or electronic media attention and be harmful to the Client's reputation. No person may comment on the incident on site without prior approval from the Client.

Scenarios must be risk based and can include the following base emergency scenarios:

- Medical evacuation risks;
- Fire risk
- Political instability risks;
- High-jacking and abduction risks;
- Theft and burglary risks;
- Construction mafia risks;
- Flooding risk

- Riots
- Records from the emergency drills must be retained. The emergency equipment must be visible.

C5.22. TRAINING AND COMMUNICATION

The contents and syllabi of all training required by the OHSACT and Regulations must be included in the principal contractor’s occupational health and safety plan. A training matrix must be developed and scheduled for all training required for the project.

C5.22.1. General induction training

All members of the Contractor’s site management, employees, essential visitors as well as all the persons appointed as responsible for occupational health and safety in terms of the Construction and other Regulations will be required to attend a general induction session.

All employees of the principal and other contractors must be in possession of proof of general induction training. This could be by means of stickers on the hardhats.

All subsequent and newly appointed employees must also be subjected to the induction training as soon as possible after the appointment but prior to starting to work onsite.

C5.22.1. Site-specific induction training

The Contractor will be required to develop a contract work project specific induction training course based on the risk assessments for the contract work and train all employees and other contractors and their employees in this.

All employees of the Contractor and other contractors must be in possession of proof that they have attended a site-specific occupational health and safety induction training at all times.


C5.22.3. Communication






A risk communicate plan must be developed. This must include the platform to communicate all Health and safety risks. This can include emails, DSTI’s, training, communication of SOP’s and risk assessments, face to face meetings, notices and signages, toolbox talks, SHE rep meetings, community liaison, formal training etc.

All communications must be recorded and saved.

C5.23. SPECIFIC OBLIGATORY REQUIREMENTS

C5.23.1. PERSONAL PROTECTIVE EQUIPMENT

Subject	Requirement
PPE needs analysis	Need for PPE identified and prescribed in writing. PPE remain property of Employer, not to be removed from premises GSR 2(4)
Head Protection 	All persons on site wearing Hardhats including Contractors and Visitors (where prescribed)

<p>Foot Protection</p> 	<p>All employees on site wearing Safety Footwear including Gumboots for concrete / wet work and non-slip shoes for roof work. Visitors to wear same upon request or where prescribed</p>
<p>Eye and Face Protection</p> 	<p>Eye and Face (also Hand and Body) Protection (Goggles, Face Shields, Welding Helmets etc.) used when operating the following: Jack/ Kango Hammers Angle / Bench Grinders Electric Drills (Overhead work into concrete / cement / bricks) Explosive Powered tools Concrete Vibrators / Pokers Hammers & Chisels Cutting / Welding Torches Cutting Tools and Equipment Guillotines and Benders Shears Sanders and Sanding Machines CO2 and Arc Welding Equipment Skill / Bench Saws Spray Painting Equipment etc.</p>
<p>Hearing Protection</p> 	<p>Hearing Protectors (Muffs, plugs etc.) used when operating the following: Jack / Kango Hammers Explosive Powered Tools Wood/Aluminum Working Machines e.g. saws, planers, routers</p>
<p>Hand Protection</p> 	<p>Protective Gloves worn by employees handling / using: Cement / Bricks / Steel / Chemicals Welding Equipment Hammers & Chisels Jack / Kango Hammers etc.</p>
<p>Respiratory Protection</p> 	<p>Suitable/efficient prescribed Respirators worn correctly by employees handling / using: Dry cement Dusty areas Hazardous chemicals Angle Grinders Spray Painting etc.</p>
<p>Fall Prevention Equipment</p>	<p>Suitable Safety harnesses / Fall Arrest Equipment correctly used by persons working on / in unguarded, elevated positions e.g.: Scaffolding Riggers Lift shafts Edge work Ring beam edges etc. Other methods of fall prevention applied e.g. catch nets</p>
<p>Protective Clothing</p>	<p>All jobs requiring protective clothing (Overalls, Rain Wear, Welding Aprons etc.) Identified and clothing worn. Disposable overalls when Asbestos is handled.</p>

PPE Issue & Control	<p>Identified Equipment issued free of charge. All PPE maintained in good condition. (Regular checks).</p> <p>Workers instructed in the proper use & maintenance of PPE. Commitment obtained from wearer accepting conditions and to wear the PPE. Record of PPE issued kept on H&S File.</p> <p>PPE remain property of Employer, not to be removed from premises</p> <p>GSR 2(4)</p>
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C5.23.2. Scaffolding / formwork / support work

Subject	Requirement
Access/System Scaffolding	Foundation firm / stable Sufficient bracing. Tied to Structure/prevented from side or cross movement Platform boards in good condition/sufficient/secured. Handrails and toe boards provided. Access ladders / stairs provided. Area/s under scaffolding tidy. Safe/unsafe for use signs Complying with OH&S Act/SABS 085
Free Standing Scaffolding	Foundation firm / stable Sufficient bracing. Platform boards in good condition/sufficient/secured. Handrails and toe boards provided. Access ladders / stairs provided. Area/s under scaffolding tidy. Safe/unsafe for use signs Height to base ratio correct Outriggers used /tied to structure where necessary Complying with OH&S Act/SABS 085
Mobile Scaffolding	Foundation firm / stable Sufficient bracing. Platform boards in good condition/sufficient/secured. Handrails and toe boards provided. Access ladders / stairs provided. Area/s under scaffolding tidy. Safe/unsafe for use signs
Mobile Scaffolding	Wheels / swivels in good condition Brakes working and applied. Height to base ratio correct. Outriggers used where necessary Complying with OH&S Act/SABS 085
Suspended Scaffolding	Outriggers securely supported and anchored. Correct No. of steel wire ropes used. Platform as close as possible to the structure. Handrails on all sides All winches / ropes / cables / brakes inspected regularly and replaced as prescribed Scaffolding complies with OHS Act (Act 85/93) Winch(es) maintained by competent person(s)
Formwork / Support Work	All components in good condition. Foundation firm / stable. Adequate bracing / stability ensured. Good workmanship / uprights straight and plumb. Good cantilever construction. Safe access provided. Areas under support work tidy. Same standards as for system scaffolding.
Special Scaffolding	Special Scaffolding e.g. Cantilever, Jib and Truss-out scaffolds erected to an acceptable standard and inspected by specialists.
Edges & Openings	Edges barricaded to acceptable standards. Manhole openings covered / barricaded. Openings in floor / other openings covered, barricaded/fenced. Stairs provided with handrails. Lift shafts barricaded / fenced off.




C5.23.3. Ladders

Physical Condition / Use & Storage	<p>Stepladders - hinges/stays/braces/stiles in order. Extension ladders - ropes/rungs/stiles/safety latch/hook in order. Extension / Straight ladders secured or tied at the bottom / top. No joined ladders used Wooden ladders are never painted except with varnish Aluminum ladders NOT to be used with electrical work All ladders stored on hooks / racks and not on ground. Ladders protrude 900 mm above landings / platforms / roof. Fixed ladders higher than 5 m have cages/Fall arrest system</p>
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C5.23.4. Electricity (as part of, or additional to the manual “safety & switching procedures for electrical installations”)

Subject	Requirement
Electrical Distribution Boards & Earth Leakage	<p>Colour coded / numbered / symbolic sign displayed. Area in front kept clear and unobstructed. Fitted with inside cover plate / openings blanked off / no exposed “live” conductors / terminals/Door kept close Switches / circuit breakers identified. Earth leakage protection unit fitted and operating. Tested with instrument: Test results within 15 – 30 milliamps Aperture/Opening/s provided for the plugging in and removal of extension leads without the need to open the door. Apertures and openings used for extension leads to be protected against the elements and especially rain.</p>
Electrical Installations & Wiring	<p>Temporary wiring / extension leads in good condition / no bare or exposed wires. Earthing continuity / polarity correct: Cables protected from mechanical damage and moisture. Correct loading observed e.g. no heating appliance used from lighting circuit etc. Light fittings/lamps protected from mechanical damage/moisture. Cable arrestors in place and used inside plugs</p>
Physical condition of Electrical Appliances & Tools	<p>Electrical Equipment and Tools: (includes all items plugging in to a 16 Amp supply socket) Insulation / casing in good condition. Earth wire connected/intact where not of double insulated design Double insulation mark indicates that no earth wire is to be connected. Cord in good condition/no bare wires/secured to machine & plug. Plug in good condition, connected correctly and correct polarity.</p>

C4.23.5. Emergency and fire prevention and protection

<p>Fire Extinguishing Equipment</p> 	<p>Fire Risks Identified and on record The correct and adequate Fire Extinguishing Equipment available for: Offices General Stores Flammable Store Fuel Storage Tank/s and catchment well Gas Welding / Cutting operations Where flammable substances are being used / applied. * Equipment Easily Accessible</p>
<p>Maintenance</p>	<p>Fire equipment checked minimum monthly, serviced yearly</p>
<p>Location & Signs</p>	<p>Fire Extinguishing Equipment: Clearly visible Unobstructed Signs posted including "No Smoking" / "No Naked Lights" where required. (Flammable store, Gas store, Fuel tanks etc.)</p>
<p>Storage Issue & Control of Flammables (Inc. Gas cylinders)</p> 	<p>Storage Area provided for flammables with suitable doors, ventilation, bund etc. Flammable store neat / tidy and no Class A combustibles. Decanting of flammable substances carried out in ignition free and adequately ventilated area. Container bonding principles applied Only sufficient quantities issued for one task or one day's usage Separate, special gas cylinder store/storage area. Gas Cylinders stored / used / transported upright and secured in trolley/cradle/structure and ventilated. Types of Gas Cylinders clearly identified as well as the storage area and stored separately. Full cylinders stored separately from empty cylinders. All valves, gauges, connections, threads of all vessels to be checked regularly for leaks. Leaking acetylene vessels to be returned to the supplier IMMEDIATELY.</p>
<p>Storage, Issue & Control of Hazardous Chemical Substances (HCS)</p> 	<p>HCS storage principles applied: products segregated Only approved, non-expired HCS to be used Only the prescribed PPE shall be used as the minimum protection Provision made for leakage/spillage containment and ventilation Emergency showers/eye wash facilities provided HCS under lock & key controlled by designated person Decanted/issued in containers as prescribe with information/warning labels Disposal of unwanted HCS by accredited disposal agent No dumping or disposal of any HCS on or inside the storage area or anywhere else on the project site All vessels or containers to be regularly checked for leaks</p>

C5.23.6. Tools

Subject	Requirement
Hand Tools	<p>Shovels / Spades / Picks: Handles free from cracks and splinters Handles fit securely Working end sharp and true Hammers: Good quality handles, no pipe or reinforcing steel handles. Handles free from cracks and splinters</p>

	<p>Handles fit securely</p> <p>Chisels:</p> <p>No mushroomed heads / heads chamfered</p> <p>Not hardened</p> <p>Cutting edge sharp and square Saws:</p> <p>Teeth sharp and set correctly</p> <p>Correct saw used for the job</p>
Explosive Powered Tools	<p>Only used by trained / authorized personnel.</p> <p>Prescribed warning signs placed / displayed where tool is in use.</p> <p>Work area must be properly isolated/demarcated during use of tool.</p> <p>Inspected at least monthly by competent person and results recorded.</p> <p>Issue and return recorded including cartridges / nails and unused cartridges / nails / empty shells recorded.</p> <p>Cleaned daily after use.</p>

C5.23.7. Cranes

Subject	Requirement
Tower Crane	<p>Only operated by trained authorized operator with valid certificate of training.</p> <p>Structure – no visible defects.</p> <p>Electrical installation good / safe</p> <p>Crane hook: Throat pop marked / safety latch fitted / functional</p> <p>SWL/MML displayed</p> <p>Limited switches with backup switches fitted / operational</p> <p>Access ladder fitted with backrests / Fall arrest system installed</p> <p>Lifting tackle in good condition / inspection colour coding</p> <p>Lifting tackle checked.</p>
Mobile Crane	<p>Only operated by trained authorized operator with valid certificate of training.</p> <p>Rear view mirrors</p> <p>Windscreen visibility good</p> <p>Windscreen wipers operating effectively</p> <p>Indicators operational</p> <p>Hooter working</p> <p>Tyres safe / sufficient tread/pressure visibility sufficient</p> <p>No missing wheel nuts</p> <p>Headlights, taillights operational</p> <p>Reverse alarm working and audible and known by all employees.</p> <p>Grease nipples and grease on all joints</p> <p>No oil leaks</p> <p>Hydraulic pipes visibly sound / no leaks</p> <p>No corrosion on battery terminals</p> <p>Boom visibly in good condition / no apparent damage / split wires/corrosion and checked daily.</p> <p>Brakes working properly</p> <p>Crane hook: Throat pop marked /safety latch fitted / functional</p> <p>SWL/MML Displayed</p> <p>By-pass valves operational</p> <p>Deflection chart displayed / visible to the operator / driver</p> <p>Outriggers functional used.</p>

Gantry Crane	<p>"Hoist in Operation" – sign displayed</p> <p>General construction strong and free from patent defects. Tower:* adequately secured / braced.</p> <p>At least 900mm available for over travel.</p> <p>Barricaded at least 2 100mm high at ground level and floors.</p> <p>Landing place provided with gate at least 1 800 mm high. Platform:* No persons conveyed on platform.</p> <p>Steel wire ropes with breaking strength of six times max load.</p> <p>Signal systems used which may include two-way radio connection.</p> <p>Goods prevented from moving / falling off.</p> <p>Effective brake capable of stopping and holding max load.</p>
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C5.23.9. Transport & materials handling equipment

Subject	Requirement
Site Vehicles	<p>All Site Vehicles, Dumpers, Bobcats, Loaders etc.; checked daily before use by driver / operator.</p> <p>Inventory of vehicles used/operated on site</p> <p>Inspection by means of a checklist / result recorded.</p> <p>No persons riding on equipment not designed or designated for passengers.</p> <p>Site speed limit posted, enforced and not exceeded.</p> <p>Drivers / Operators trained / licensed and carrying proof.</p> <p>No unauthorized persons allowed to drive / operate equipment.</p>
Conveyors	<p>Conveyor belt nip points and drive gear guarded.</p> <p>Emergency stop/lever/brake fitted, clearly marked & accessible and tested to be functional under full load.</p>

C5.23.10. SITE PLANT AND MACHINERY

Subject	Requirement
Brick Cutting Machine	<p>Operator Trained.</p> <p>Only authorized persons use the machine.</p> <p>Emergency stop switch clearly marked and accessible.</p> <p>Area around the machine dry and slip/trip free/clear of offcuts</p> <p>All moving drive parts guarded/electrical supply cable protected</p> <p>Operator using correct PPE - eye/face/hearing/foot/hands/body.</p>
Electric Arc Welder	<p>Welder Trained.</p> <p>Only authorized / trained persons use welder.</p> <p>Earth cable adequately earthed to work.</p> <p>Electrode holder in good condition/safe</p> <p>Cables, clamps & lugs/connectors in good condition.</p> <p>Area in which welding machine is used is dry/protected from wet.</p> <p>Welder using correct PPE - eye/ face/foot/body/respirator.</p> <p>Correct transparent screens & warning signs placed</p>

Woodworking Machines	<p>Operators Trained. Only authorized persons use machines. Provided with guards. Guards used. Operators using correct PPE - eye/face/feet/hearing Circular saws strictly operated according to prescribed methods and settings Only prescribed saw blades (crosscut, ripping blade, smooth cut, aluminum) shall be used for various applications</p>
Compressors	<p>Relief valves correctly set and locked / sealed. Maximum Safe Working Pressure (MSWP) indicated on face of pressure gauge: not on glass cover. All drives adequately guarded. Receiver/lines drained daily Hoses good condition/clamped, not wired</p> <p>Compressed air NEITHER used to dust off clothing/PPE/ and work areas NOR on bare skin.</p>
Concrete Mixer / Batch Plant	<p>Top platform provided with guardrails. Dust abatement methods in use. Operators using correct PPE - eye / hands / respirators. All moving drive parts guarded. Emergency stops identified / indicated and accessible. Area kept clean/dry/and free from tripping and slipping hazards.</p> <p>Operator's overseer identified and crane signals displayed and used.</p>
Gas Welding / Flame Cutting Equipment	<p>Only authorized/trained persons use the equipment. Torches and gauges in good condition. Flashback arrestors fitted at cylinders and gauges. Hoses in good condition/correct type/all connections with clamps. Cylinders stored, used and transported in upright position, secured in trolley / cradle / to structure. All cylinders regularly checked for leaks; leaking cylinders returned immediately.</p> <p>Fire prevention/control methods must apply such as hot work permits.</p>

C5.23.1. Plant & storage yards/site workshops specifics

Subject	Requirement
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Section 8(2)(1) General Machinery Regulation 2(1): Supervision of the Use & Maintenance of Machinery	<p>Person/s with specific knowledge and experience designated in writing to supervise the Use & Maintenance of Machinery.</p> <p>Critical items of Machinery identified/numbered/placed on register/inventory.</p> <p>Inspection/maintenance schedules for abovementioned.</p> <p>Inspections/maintenance carried out to above schedules.</p> <p>Results recorded.</p>
General Machinery Regulation 9(2): Notices re. Operation of Machinery	Schedule D Notice posted in Work areas.
Pressure Equipment Regulation 13(1)(b): Supervision of the Use & Maintenance of Vessels under Pressure or Pressure Equipment	<p>Person/s with specific knowledge and experience designated in writing to supervise the Use & Maintenance of Pressure Equipment.</p> <p>Pressure Equipment identified/numbered/placed on register/Manufacturers plate intact.</p> <p>Inspection/maintenance carried out according to schedule.</p> <p>Results recorded/Test certificates available.</p>
Lock-out Procedure	Lock-out procedure in operation
Ergonomics	Ergonomics survey conducted – results on record. Survey results applied.
Demarcation & Colour Coding	<p>Demarcation principles applied</p> <p>All services, pipes, electrical installation, stop-start controls, emergency controls etc.</p> <p>Colour coded to own published or SABS standard</p> <p>Employees trained to identify colour coding</p>
Portable & Bench Grinders	<p>Area around grinder clear/trip/slip free</p> <p>Bench grinders mounted securely/grinder generally in good condition/No excessive vibration</p> <p>On/Off switch/button clearly demarcated/accessible</p> <p>Adequate guards in place</p> <p>Tool rest – secure/square/max. 2 mm gap, perpendicular to drive shaft</p> <p>Stone/disk - correct type and size/mounted correctly/dressed</p> <p>Use of Eye protection enforced</p>
Battery Storage & Charging	<p>Adequately ventilated, ignition free room/area/no smoking sign/s</p> <p>Batteries placed on rubber/wooden surface</p> <p>Emergency shower/eye wash provided</p> <p>No acid storage in area</p> <p>Prescribed methods in place and adhered to when charging batteries</p>
Ancillary Lifting Equipment	<p>Chain Blocks/Tirfors/jacks/mobile gantries etc. identified/ numbered on register</p> <p>Chains in good condition/links no excessive wear/checked daily</p> <p>Lifting hooks – throat pop marked/safety latch fitted</p> <p>SWL/MML marked/displayed</p>

Presses/Guillotines/ Shears	Only operated by trained/authorized persons Interlocks/lockouts fitted/PPE worn or used at all times
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C5.23.12. Workplace environment, health and hygiene

Subject	Requirement
Lighting	Adequate lighting in places where work is being executed e.g. stairwells and basements. Light fittings placed / installed causing no irritating/blinding glare. Stroboscopic effect eliminated (not only reduced) where moving objects or machinery is used
Ventilation	Adequate ventilation / extraction / exhausting in hazardous areas e.g. chemicals / adhesives / welding / petrol or diesel/ motors running and in confined spaces / basements.
Noise	Tasks identified where noise levels exceed 85 dB at any one time. All reasonable steps taken to reduce noise levels at the source. Hearing protection used where noise levels could not be reduced to below 85 db.
Heat Stress	Measures in place to prevent heat exhaustion in heat stress problem areas e.g. steel decks, when the WBGT index reaches 30. (See Environmental Regulation 4) Cold drinking water readily available at all times.
Ablutions	Sufficient hygiene facilities provided - 1 toilet per 30 employees (National Building Regulations prescribe chemical toilets for Construction sites) Toilet paper available. Sufficient showers provided. Facilities for washing hands provided. Soap/cleaning agent available for washing hands. Means of drying hands available. - Lock-up changing facilities / area provided. Ablution facilities kept hygienic and clean.
Eating / Cooking Facilities	Adequate storage facilities provided. Weather protected eating area provided, separate from changing area. Refuse bins with lids provided. Facilities kept clean and hygienic.
Pollution of Environment	Measures in place to minimize dust generation. Accumulation or littering of empty cement pockets, plastic wrapping / bags, packing materials etc. prevented. Spillage / discarding of oil, chemicals and diesel into storm water and other drains or into existing or newly dug holes/cavities on site expressly prohibited.

Hazardous Chemical Substances	All substances identified and list available e.g. acids, flammables, poisons etc. Material Safety Data Sheets (MSDS) indicating hazardous properties and emergency procedures in case of incident on file and readily available. Substances stored safely. Expiry dates meticulously checked where applicable.
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C5.24. EDGE PROTECTION AND BARRICADING

The Principal Contractor must ensure that all exposed edges and openings are guarded and demarcated at all times until permanent protection has been erected. All barriers must be at a minimum height of 900mm. The Contractor has the following options when contemplating the protection of openings, slabs and edges:

A physical barrier at the edge of the opening/slab, which must be strong enough to carry the weight of a person in the process of falling (wire will not be deemed sufficient).

External façade scaffold (with mid rail at 450 mm) complete with a fully boarded platform at the same level as the slab with a handrail, could serve as a fall protection measure.

A visual barrier in the form of orange webbing, at a distance of at least one meter from the actual edge of such slab, opening.

Should none of the above be achieved, as a last resort, the Contractor must endeavour to gain exemption from Construction Regulation 10(4)(a) obtainable in writing from the Department of Labour.

The Principal Contractor's fall protection plan must detail the following safety measures: Protection of decking edges; finished floor slab edges; stairways; floor penetrations; lift shafts; and all other openings and areas from where a person may fall.

The placement of edge protection at deck edges must be coordinated so as to minimize the time that such edge protection is not in place;

The removal of edge protection from temporary work decks and the subsequent replacement thereof at the finished floor edge must be systematically coordinated by the Principal Contractor.

During the erection of temporary works, edge protection may be waived in lieu of fall arrest equipment. The Principal Contractor and contractors' fall protection plans must include the strategies for management of edge protection and penetrations.

C5.25. BRICKLAYING

The Contractor must ensure the following:

- Ensure appropriate instruction in manual handling techniques and in the placing of bricks and blocks.
- The use of gloves when lifting and/or when applying mortar may be appropriate but care should be taken to ensure that gloves are a good fit.
- Do not allow brick or block work walls to increase in height by more than 1.5 m per day.
- Keep stacks of loose bricks and blocks at a low level and check for stability.
- Safety footwear should be worn.
- Safety helmets (hard hats) may be needed in some circumstances where there is a risk of objects falling onto someone's head.
- Use protective gloves or barrier creams and avoid direct contact with mortar.

- Consider wearing eye protection when mixing mortar, especially if this is done outside on windy days.
- Ensure when using scaffold that it conforms to SANS 10085 standards
- When working at heights, the fall protection plan must be communicated to employees.

C5.26. HOUSEKEEPING

Good housekeeping will be maintained at all times as per Construction Regulation No. 27. Poor housekeeping contributes to three major problems, namely, costly or increased accidents, fire or fire hazards and reduction in production. Good housekeeping will enhance production time.

Particular emphasis is to be placed on the following crucial elements of a construction site:

- Phase priorities and production/plant layout;
- Enclosures;
- Pits, openings and shoring;
- Storage facilities;
- Effective, sufficient and maintained lighting or illumination;
- Principal sources of injuries e.g. stairways, runways, ramps, loose building material;
- Oil, grease, water, waste, rubble, glass, storm water;
- Colour coding;
- Demarcations;
- Pollution;
- Waste disposal;
- Ablution and hygiene facilities; and
- First aid.

This list must not be taken to be exclusive or exhaustive!

In promotion of environmental control all waste, rubble, scrap etc, will be disposed of at a registered dump site and records will be maintained. Where it is found to be impractical to use a registered dump site or it is not available, the Principal Contractor will ensure that the matter is brought to record with the client or his representative, after which suitable, acceptable alternatives will be sought and applied.

Dross and refuse from metals, and waste matters or by-products whose nature is such that they are poisonous or capable of fermentation, putrefaction or constituting a nuisance shall be treated or disposed of by methods approved of by an inspector.

NOTE: No employer (Contractor) shall require or permit any person to work at night or after hours unless there is adequate, suitable artificial lighting including support services in respect of Health and Safety.

C5.27. LOCKOUT SYSTEMS – ELECTRICAL

A system of control shall be established in order that no unauthorized person can energize a circuit, open a valve, or activate a machine on which people are working or doing maintenance, even if equipment, plant or machinery is out of commission for any period, thus eliminating injuries and damage equipment as far as is reasonably practicable. Physical/mechanical lock-out systems shall be part of the safety system and included in training. Lockouts shall be tagged, and the system tested before commencing with any work or repairs.

C5.28. GENERAL

The project under control of the Contractor shall be subject to periodic health and safety audits that will be conducted by the client at intervals agreed upon between the Contractor and the client, provided such intervals

will not exceed periods of one month. The Contractor is to ensure that he/she and all persons under his control on the construction site shall adhere to the above specifications, as non-conformance will lead to the client taking action as directed by Construction Regulation 5(1)(q).

The Contractor should note that he shall be held liable for any anomalies including costs and resulting deficiencies due to delays caused by non-conformance and/or non-compliance to the above Health and Safety Specifications and the Health and Safety Plan based on these specifications.

C5.29. MANDATORY LISTS AND RECORDS TO BE KEPT

The following are lists of several records that are to be retained in terms of the Construction Regulations. The lists are:

List of appointments.

List of record keeping responsibilities.

These lists and documents are to be used as a point of reference to determine which components of the Act would be applicable to a particular site or task or project.

C5.29.1. List of record of responsibilities

ITEM		RECORD TO BE KEPT	RESPONSIBLE PERSON
1.	3 (2)	Application for construction work permit to Provincial Director – Annexure 1, Available on site.	Client
2.	Ohs Act, Sec 37(2)	37(2) agreement between the Client and Contractor and Contractor and the subcontractor.	Client, Contractor & subcontractor
3.	5(1)(m)	Copy of Contractor's Health & Safety Plan available on request	Client
4.	7(d)	Copy of Contractor's Health & Safety Plan As well as each Contractor's Health & Safety Plan Available on request	Contractor
5.	7(b)	Health and Safety File opened and kept on site (including all documentation required in terms of OHS & Regulations Available on request	All Contractors
6.	7 (e)	Consolidated Health and Safety File handed to Client on completion of Construction work. To include all documentation required in terms of the OHS & Regulations and records of all drawings, designs, materials used and similar information on the structure	Contractor
7.	7(f)	Comprehensive and Updated List of all subcontractors on site, the agreements between the parties and the work being done Included in Health and Safety file and available on request	Contractor

C5.29.2. List of records

ITEM	CR	RECORD TO BE KEPT	RESPONSIBLE PERSON
1.	8(6)	Keep record on the Health and Safety Officers registration with a statutory body approved by the Chief Inspector.	Contractor
2.	9(1)	Risk Assessment - Available on site for inspection	Contractor
3.	7 (5)	Proof of Health and Safety Induction Training	Every Employee on site
4.	10(3)	Construction Manager [CR 8(1)] has latest updated version of Fall Protection Plan [CR 10(1)]	Contractor
5.	11(2)(b)	Record of inspections of the structure [First 2 years – once every 6 months, thereafter yearly] - Available on request	Owner of Structure

6.	11(2)(c)	Maintenance records - safety of structure - Available on request	Owner of Structure
7.	13(2)(h)	Record of excavation inspection - On site available on request	Contractor
8.	17(11)	Suspended Platform inspection and performance test records Kept on site available, on request	Contractor
9.	19(8)(c)	Material Hoist daily inspection entered and signed in record book kept on the premises	Contractor
10.	19(8)(d)	Maintenance records for Material Hoist - Available on site	Contractor
11.	20(8)	Records of Batch Plant maintenance and repairs on site available for inspection	Contractor
12.	21(2)(g)(ii)	Issuing and collection of cartridges and nails or studs (Explosive Powered Tools) recorded in register – recipient signed for receipt as well as return	Contractor
13.	23(1)(k)	Findings of daily inspections (prior to use) of Construction Vehicles and Mobile Plant	Contractor
14.	24(d)	Record of temporary electrical installation inspections [once a week] and electrical machinery [daily before use] in a register and kept on site	Contractor
15	29(l)	Fire Evacuation Plan	Contractor

C5.30. Acceptance

Confirmation and Acceptance	Signature	Date
I confirm that I have read and understood the Health and Safety Specifications as set out above.		
I confirm that I have read and understood and confirm my intention to comply with all the legal requirements.		
I confirm my acceptance and understanding of the assigned responsibilities and duties involved.		

C5.31. The base line risk assessment is to highlight hazards emanating from project risks identified.

No	ACTIVITY	IDENTIFIED HAZARDS	Base Risk Ranking (Without Controls)			CONTROL MEASURES
			C	L	R	
	Design	<p>Designer not taking 2014 Construction regulation into account during stages 2,3 and 4 Designs does not include safety aspects for safety during constructability, operability and maintainability Designs does not conform to the Design Specification as per the Engineering Scope of Work, checked and signed off by all relevant designers and engineer.</p> <p>Designs does not make provision for anchor points for working at height hook-up Design has made inadequate provision for lightning protection</p>	3	3	9	Designers are legally required to conform with all legislation and specifically the requirements of section 6 of the 2014 construction regulations.
	Work permits, licenses, way- leaves and authorizations	Legal noncompliance Unknown services	3	3	9	Client and the principal contractor need to ensure that all relevant work permits, licenses, wayleaves and authorizations are in place before work commences
	Procurement and cost management	<p>Inadequate funds to complete project safe, expected quality and on time.</p> <p>Delays in appointment of contractor, designers and specialists.</p>	3	2	6	Client project cost management must ensure that the project budget includes all costs including health and safety and procurement must ensure that the principal contractor has provided adequate funds to ensure that the project can

		Insufficient technical and safety information in tender document. Delay in start date will cause pressure on contractor to make deadline. Appointment of contractor based on cost and not on competence and health and safety performance				completed safe, on time and to the quality expected by the client
	Time constraints	Client has not allowed for adequate time to complete project to standard and on time	3	3	9	It is important to ensure that time for the construction is realistic and takes all possible aspects that can cause delays into account
	File Approval as per H&S Requirements and Client Specification	Work commencing prior to file being available and approved. No valid registration with COID. Expired Documentation (e.g. competencies, equipment load test, medicals, work permits) Documentation not available or approved as per required Client Spec and OHS act.	3	3	9	No Work Commencement until approval has been signed off. Client Health and Safety Specification. Baseline Risk Assessment Site Conditions evaluation
	Induction & Medical certificate of fitness	Employees entering site not being inducted. Visitors entering site not being inducted / signing visitors' induction form. Visitors not being provided with the necessary personal protective equipment. - Induction being conducted on employees without them being in possession of a valid medical	3	3	9	Site induction can only be done with an employee if they require up to date medical is presented at the induction. - Medical fitness certificates must be validated by the principal contractor to ensure adherence to the minimum requirements and validity of the document. Each person's ID or valid work permit must be inspected before induction can be allowed on site for the individual.

		<p>certificate of fitness in the form of an Annexure 3. The medical must be conducted by a registered Occupational Health Practitioner.</p> <p>Construction vehicles and mobile plant operators entering the site without being inducted.</p> <p>Driver of delivery vehicles not made aware of the specific site conditions.</p> <p>Employees being inducted without valid work permits / certified ID Copies.</p>				
	Notification of Construction Work	Construction work commencing without Notification of Construction Work	3	3	9	The client cannot allow any work to commence without Notification of Construction Work in place. Contractor is to ensure that the Notification of Construction Work is on file
	Pre-Construction & Start Up Meeting	Delays due to contractor missing out on discussion of scope work	3	3	9	Discussion between Client, Consultants, and Principal Contractor to discuss current issues on sites Contractor discussed how they plan to do the work Discussion of Drawings and Plans Discussions of Project Requirements
	Temporary hoarding to separate public and construction work. Existing boundary fences.	The erector must follow the specific position as required. When digging for fence poles, services can be damaged. When posts get knocked in it can damage services.	3	3	9	The site must be fenced off as a minimum with diamond mesh fence 1,8meters in height. Fence installation areas to be demarcated with netting when posts and fence is being installed. Movable hoarding must be secured with weights at the base of the hoarding to prevent displacement.
	Security	No security in place at entrances to construction site. Unauthorized entry to site. Theft of materials and equipment	3	3	9	The principal contractor must appoint full time security personnel to control access onto site at all times. Dedicated access control sign books to be available for visitor sign ins.

	Site Establishments or Mobilization	Truck Crane works during container placement Offloading plant and equipment from trailers / flatbeds	3	3	9	Complete risk assessments: Teach operatives Method Statement and Risk Assessment and implement at site.
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		Access to laydown is accessible by unauthorized persons Laydown area too small for volume of construction material				Only competent personnel to be used for plant transportation, loading and offloading tasks. Report any spills, a.s.a.p. after occurrence, to Supervisor and Client Representative Barricading of Site – Hard Barricading
	Isolation of Electrical Services (De energized of the whole site)	Working on live services	3	3	9	All existing services are to be properly isolated/switched off by the client prior to work being conducted on such systems/services. Existing services drawings to be provided and made available to all contractors, cable detectors to be used, hand excavation if unsure of exact position.
	Manual and mechanical handling	Employees not instructed on lifting and manual handling Procedures. Employees not obeying safety rules Improper lifting techniques. worker falling/tripping. Fall of material being carried Incorrect equipment/plant used for lifting Struck by falling load No risk Assessments and Permits available	3	3	9	Personnel should be aware of safe manual handling techniques Personnel to wear Personal Protective Equipment when carrying items, e.g.: safety footwear and gloves Ensure good housekeeping against tripping/fall hazards Worker to get assistance if load too heavy- Team lift where necessary Utilize mechanical lifting and carrying aids where possible Personnel to ensure item being carried, moved is properly bonded or will not be liable to break apart whilst being manually handled assessment and work permit required
	Excavations	Collapse of Excavations Falling excavated materials Falling into open excavations Ingress of water Collapse of excavation and falling material Machine getting stuck in wet soil condition Properly planned escape routes not available Collapsing of shoring Employees injuries Visitors or vehicles falling into excavations Harm to property Disruption of service supply to surrounding community Damage to equipment	3	3	9	Site Investigation information to be analyzed prior to commencing excavation operations. Retention method must be overseen by a qualified Engineer who is capable of training others as to its use and method of implementation. An exclusion zone should be set-up around excavation (approx. 1m, 2m if backfill areas) operations to reduce the risk of injury from falling excavated material and moving plant. Barriers will be erected to demarcate excavated area and reduce the risk of unauthorized entry. Method statement with slope, batter, piling (sheets), shoring etc. to be produced as required. Inspection of retention method to be done by the supervisor, at the start of each shift. Emergency Plan and Rescue Plan to be in place
	Dewatering Operations	Exposure to underground services Electricity near water Fire in generator / power supply Noise	3	3	9	Method statement must be developed for the job. Personnel must have had briefing to reiterate and understand the consequences of non-compliance of the Method Statement and Risk assessment. Records to be kept of attendees

						Cable management must be maintained at all times
	Confined Space	Asphyxiation Poisoning from toxic gases Injuries from exploding or igniting gases Back injuries from falls or collisions during extraction	3	3	9	Wherever possible do task form outside the confined space. A Permit to Work system should be in operation. This will stipulate any time limits on working in the confined space.

		<p>Infection from contaminated water e.g. Wells disease (Leptospirosis). Hepatitis, Drowning Abrasions, lacerations or fractures in wrists</p>		<p>The atmosphere of the confined space should be monitored for the presence of and levels of gases and must always be tested before entry. If dangerous fumes are present suitable breathing apparatus should be worn and the person entering the confined space should wear a safety rope, one end of which is held by the person keeping watch outside. Workers should be physically fit and competent to enter and undertake the work in confined spaces. Air circulation to be maintained in confined spaces and mechanical air movers used if required. Air quality to be checked with a gas detector as required for the level of risk. Smoking, naked lights, sparking tools and any nylon material should be prohibited. Spark proof tools, intrinsically safe electrical equipment or lighting may be required. Equipment which may release excess oxygen or engines which omit carbon monoxide gas should not be used in confined spaces. Air temperature is to be monitored and considered. Access and egress routes to be thoroughly considered and effectively designed. Materials producing toxic or explosive fumes should not be used within confined spaces. Local weather reports should be obtained if rainfall is likely to cause flooding. Special consideration will be given to any hot works or work using toxic substances inside a confined space. It is not envisaged at this point in the project, that saver sets WILL / WILL NOT be required for confined space working. A person is to be stationed outside the confined space c/w communication means to the operatives inside the confined space and the emergency services. Lights are to be provided in the space / area of work. Washing facilities should be available to encourage good hygiene Use of lifelines, ropes or harness when working in confined space.</p>
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	Temporary Work	<p>No approved design for Temporary work on site Collapse, injury to Employees, visitors & public Employees falling from heights Fatalities, LTI's Collapse of structure, fatalities, damage to property Exposure to chemicals, damage to environment, spillages, slip trip and fall</p>	3	3	9	<p>Risk Assessment and Method Statement to be developed for all Temporary Work Approved design to be available on site. Approved design to be communicated and discussed to all Temporary work supervisors, inspectors and erectors to prevent any misunderstandings and injuries from occurring. Competent person appointed to supervise & inspect erection of support/Temporary. Temporary work Supervisor to ensure that the Temporary work gets erected according to the available specification.</p>
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						<p>Employees working at heights to wear safety harnesses, edge protection to be installed. Supervisor to ensure that employees have a 100% tie off to a secured and always inspected anchorage point/structure when working at heights.</p> <p>Competent person to release decks for loading of materials / pouring concrete.</p> <p>MSDS on file, containers stored in bunded area.</p> <p>Supervisor and involved employees to ensure that any spillages get cleaned up immediately to prevent any injuries from occurring.</p> <p>Supervisors to ensure proper stacking controls in place.</p> <p>Material to be denailed after or before use. Supervisor to ensure that employees do not obstruct any entrances or any emergency escape routes.</p>
	Handling of Concrete	<p>Ready mix vehicles coming on to site</p> <p>Incorrect handling of concrete chute during discharge</p> <p>Unauthorized / untrained operator, injury to Employees & visitors</p> <p>Environmental pollution, injuries to Employees & visitors</p> <p>Environmental pollution</p> <p>Injuries to Employees</p> <p>Injuries to hands (dermatitis)</p> <p>Injuries to employees, noise, (inhalation)cement dust</p>	3	3	9	<p>Concrete deliveries to be coordinated</p> <p>Employees to be informed of potential hazard of working with concrete. Gloves to be worn when handling concrete chute. Only certified person to operate crane. Employees to be warned by Banksman when lifting material over Employees. Material not to be slewed over Employees if possible.</p> <p>Banksman to warn. Spills cleaned up immediately.</p> <p>Contracts Manager to identify an area for washing out of concrete trucks / buckets.</p> <p>Supervisors to ensure Employees wear PPE. Employees to be trained on handling of concrete bucket</p> <p>Employees not to wear any loose clothing.</p> <p>Concrete mixer to be inspected and declared safe prior to use, damaged/faulty mixers not to be use. Mechanical parts to be adequately covered by means of a machine guard.</p> <p>Employees to wear he required forms of PPE i.e. dust mask, ear plugs, safety glasses, gloves etc.</p>

	<p>Mobile Crane and tower-crane, lifting operations, rigging and lifting equipment</p>	<p>Incompetent crane operator Crane operator not medically fit Defective crane not inspected before work commences Man, machine interface Use of damaged slings/chains Incorrect slings used for load Crane and lifting equipment does not load tested and certified not done No lifting/sling plan No work permit and task risk assessment No banksman available</p>			<p>Supervisor (Safety Officer if available) to carry out checks when first bringing crane to site Ensure crane is set up/rigged out correctly, is on firm ground, and is level Ensure all lifting tackle and equipment have valid test certificate before use (6 monthly 3rd party inspections). All cranes certified (every 12 months a 3rd Party inspection) Method statements, R/A's, Lifting Plans and Rigging study to be submitted and followed for technical and/or non-routine lifts Riggers must carry out visual inspection of all lifting equipment daily Follow safe working load limits. Check item and weight of lifting gear before lifting Keep others away with a designate rigger / banksman to signal crane operator</p>
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						Tag lines shall be used to guide materials while lifting, 2 lines in heavy winds. Complete Risk Assessments
	Brick Work and Plastering	Not stacking bricks safely at workplace. Stacking bricks of 2 pallets or more on top of each other. Faulty hand tools used. Poor standard of scaffolding / trestles used. Frames and lintels falling. Incompetent employees using angle grinder / brick cutting machine. Employees not using the correct personal protective equipment. Insufficient space and access problems. Working at height over open spaces. Bricks falling onto other employees working below.	3	3	9	Work must be done under constant supervision. Employees must be provided with the PPE as determined in the task risk assessment Stacking and Storage Practices to be used Fall Protection Plan
	Paving & Kerbs	Employees inhaling dust from cutting of paving. Employees not wearing the required personal protective equipment. Unsafe handling of materials. Unsafe stacking of materials on site. Employees using unsafe hand tools. Employees being exposed to vibration from using compacting tools. Employees can sustain hand injuries if their hands become trapped in between paving blocks as they are being positioned. Employees being exposed to noise from using the compacting tools. Employees being exposed to extreme temperatures. Area not properly barricaded if in a public area – possible tripping hazard for members of public. Paving blocks not laid level – possible tripping hazard. Unsafe electrical tools being used on site.	3	2	6	Employees must be provided with the PPE (survey to be conducted) as determined in the task risk assessment Work Must be done under constant supervision. Work Must be done in line with risk assessment and Method Statement to ensure the safety of employees. Employees must be medically fit to work at heights and must be trained at fall risk work. Work Must be done in close reference to fall protection plan. MSDS available for all materials used Fire Extinguishers to be available Trained personnel

	Landscaping	Employees not wearing the required personal protective equipment. Employees making use of unsafe hand tools.			Employees must be provided with required PPE. All chemicals used must be clearly marked with MSDS communicated. Equipment used must be inspected before use. Fire Extinguishers to be available
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		<p>Warning signs not in place should work take place adjacent to public roadways. Damaging of existing services not pointed out to contractor. Working on a slope / close to a drop off edge. Unsafe handling of chemicals. Employees being exposed to extreme temperatures. Employees exposed to pesticides and / or weed killers.</p>	3	2	6	
	Truck Crane Operations (HIAB)	<p>Lifting loads beyond capacity. Unauthorized operation of the HIAB. Loads slipping or falling in transit. Uncontrolled loads during transit. Failure of HIAB during operations. Failure of lifting chains / slinging equipment. Collision with other moving plant</p>	3	2	6	<p>Lifting Plans and Rigging study</p> <p>Method Statement and risk assessment to be drawn up</p> <p>The HIAB will be tested and certificated as per manufacturer's recommendations and statutory regulations. Only competently trained operators will be authorized to use the HIABs. Only trained and competent rigger banksman will be authorized to sling loads and bank. All lifting kit (slings, chains etc.) to be tested as per manufacturer's recommendations.</p>
	Ergonomics	<p>Ergonomic risk assessments not conducted before commencement of work by a competent person. Ergonomic risk assessment not reviewed and updated in line with statutory requirements. Risk assessment does not include and addresses the hazards identified. The risk assessment does not identify the persons who may be affected by ergonomic risks.</p>				<p>Conduct an ergonomics risk assessment to identify potential exposures to ergonomic risks. Provide employees with the means and procedures to be able to report ergonomic risks. Ensure that medical surveillance of employees relating to ergonomic risks are conducted and kept up to date. Train employees on the procedures to flow to prevent exposure to ergonomic risks. Provide refresher training at regular intervals to employees regarding ergonomic risks and preventative measures.</p>

		<p>The risk assessment does not identify how employees may be exposed and priorities the risks.</p> <p>Ergonomic risk assessment not updated when there is a change in work method or scope and equipment used.</p> <p>Ergonomic risk assessment not updated after medical surveillance revealed an adverse health effect.</p> <p>Exposure to ergonomic risk where not avoidable not being adequately controlled.</p>	3	3	9	
	Ladder Use	<p>Falling from height injury. Falling materials</p> <p>Contact with electrical circuits</p>	3	3	9	<p>Development of Fall Protection Plan Work at Height</p> <p>Medicals</p> <p>Work at Height Training</p> <p>Method Statement and Risk Assessment to be drawn up the use of ladders and step-ladders is to be minimized. All equipment to be fit for purpose, in working condition and inspected prior to use. All ladders must be correctly footed and secured at the top.</p> <p>Fall arrest equipment to be used by all operatives when working at height. Lanyards to be of suitable length. Operatives must not carry out major work from ladders. Any work at height must be done from a tagged scaffold or MEWP.</p> <p>Metallic ladders are not to be used when working on electrical circuits, live wiring, etc.</p> <p>Co-worker to keep the ladder steady while the other worker is working on the ladder</p>
	Work at Height	<p>Falling from height.</p> <p>Access or scaffold collapse. Using incomplete scaffold.</p>	3	3	9	<p>Development of Fall Protection Plan Work at Height</p> <p>Medicals</p> <p>Work at Height Training</p>

		Injury from falling objects (e.g. dropped tools). Falling materials				<p>ALL workers on site must have received site-specific safety induction.</p> <p>Pre-task meeting between Supervisor and workers to discuss Risk assessment, Method Statement and any other relevant items. Records to be kept of attendees.</p> <p>Toolbox talks to be given to workers on subjects relevant to task being carried out that. Records to be kept of attendees. Plant operations and signaling. All people in the vicinity should be made aware of potential hazards and reasons for warning signs and barriers.</p> <p>People who could be affected should be informed of emergency arrangements.</p> <p>All personnel should be trained to a level of competence sufficient to enable them to carry out their work whilst ensuring the health and safety of themselves and others.</p>
	Loading & Unloading of Pipelines and other Materials	Falling objects	2	2	4	<p>Use proper lashings and check load before releasing lashings/securing straps</p> <p>Cover the load adequately to prevent blowing or falling loose material</p> <p>Consider load rating of slings, shackles and/or capacity of plant</p> <p>Do not swing or lift load over men; use a competent rigger. Complete Risk Assessment for Tasks</p>
		Being caught between stationary and mobile objects				
		Offloading plant and equipment from trailers / flatbeds Oils and diesel spillage	2	2	4	<p>Only competent personnel to be used for plant transportation, loading and offloading tasks.</p> <p>Report any spills, immediately after occurrence, to Supervisor and Client representative</p>

	Use of handheld electrical power tools and electrical extension cords	<p>Electric Shock Slips, trips and falls</p> <p>Noise</p> <p>Dust, flying particles Vibration</p>	3	2	6	<p>Tools shall be used only on correct power supply as instructed by the manufacturer.</p> <p>Power cords to be kept from access routes and protected where they cross walkways</p> <p>Ensure breakers and earth connections are not bypassed and tools are disconnected when not in use</p> <p>Only Earth Leakage protected electrical circuits to be used Damaged and / or defective tools shall be taken out of service immediately</p> <p>All running parts shall be guarded and monitor that guards are in place during operation</p> <p>Use eye and ear protection when noise and flying particles are expected</p> <p>All users must ensure they use the correct PPE for their tools Conduct monthly inspection with regards to electrical equipment / cord installations</p> <p>Conduct Risk Assessments for applicable tasks.</p> <p>Teach operatives Method Statement and Risk Assessment and implement at site.</p>
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	Hot Work (grinding, cutting, electrical, etc.)	<p>Fire and explosion from ignition of gas cylinders</p> <p>Ignition of other flammable materials whilst hot work operations are under way</p> <p>Metal spatter</p> <p>Hot work pieces</p> <p>Prolonged exposure to heat</p> <p>Infra-red and visible light given off by welding gas</p> <p>Ultra-violet radiation given off by electric arc welding (arc eye)</p> <p>Gases & fumes — iron oxide, carbon monoxide, ozone gas, nitrous fumes and carbon (incomplete combustion)</p> <p>Misuse of equipment</p> <p>Sparks and flying metallic particles</p> <p>Personal injuries, fatality</p>	3	2	6	<p>Method Statement and Risk Assessment to be drawn up</p> <p>Fire-wardens to be trained and appointed.</p> <p>Where possible all flammable material should be removed from the welding operations area.</p> <p>Only competent and authorized personnel to use equipment (i.e. welders, cutter/burners).</p> <p>Fire resisting sheets should be used to protect the surroundings from flame and spatter.</p> <p>Appropriate PPE to be used when carrying out hot works operations</p> <p>Equipment to be well maintained and inspected as per manufacturer's recommendations.</p> <p>Effective fume control equipment should be provided.</p> <p>Extra ventilation should be introduced to reduce the likelihood of heat stress occurrence.</p> <p>The placing of a second person on stand-by in case of emergency should be considered.</p> <p>Prolonged welding operations to be shielded from the sightline of adjacent operatives to reduce the risk of 'arc-eye'. Contractors undertaking welding operations should produce a method statement before work begins.</p> <p>Fire Warden to stay on site for 30min after Hot work is done to monitor the area.</p>
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	Welding Operations	<p>Fire and explosion from the ignition of gas cylinders. Ignition of other flammable materials whilst welding operations are under way. Metal spatter. Hot work pieces. Prolonged exposure to heat.</p> <p>Infra-red and visible light given off by welding gas. Ultra-violet radiation given off by electric arc welding. Gases and fumes — iron oxide, carbon monoxide, ozone gas, nitrous fumes and carbon (when combustion is incomplete).</p>	3	2	6	<p>Only competent and authorized personnel are permitted to carry out welding work. Hot Works Permit system to be used (check Client or Authority in the area). Fire wardens will be appointed during works. Consider fire watch for period after work has been completed as fires often start later. Fire resisting sheets should be used to protect the surroundings from flame and spatter. Appropriate PPE will be used when welding – gauntlets, welding shield, flame retardant overalls. Leather sleeves, shoulder drapes are to be used when welding upwards. Equipment will be well maintained and inspected as per manufacturer’s recommendations. Welding works will be carried out in well-ventilated locations when possible. If not forced ventilation may be required.</p>
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						<p>Extra ventilation should be introduced to reduce the likelihood of heat stress occurrence.</p> <p>Reduced time exposure should be considered especially during summer months.</p> <p>Prolonged welding operations to be shielded from the sightline of adjacent operatives to reduce the risk of 'arc-eye'. Plywood boards may be used.</p> <p>If welding operations are being undertaken on coated metals, air sampling should be carried out and consideration given to the use of respirators for this work.</p> <p>Contractors undertaking significant welding operations should produce a method statement before work begins.</p>
	Electrical Work	<p>Bad Wiring</p> <p>Wrong identification of faulty equipment on registers.</p> <p>Exposed wires. Unsafe equipment.</p>	3	2	6	<p>DB boards to be clearly marked.</p> <p>Monthly inspections are carried out and registers kept up to date.</p> <p>Any defects that recorded during inspections must be repaired immediately.</p> <p>Only accredited person to issue certificate of compliance and certificate kept in safe and copy on site.</p> <p>Wiring to be neat.</p> <p>Connections to be twisted or lugged as per good wiring practices.</p> <p>Source of DB to be noted on input of cable boards.</p> <p>A certificate of compliance is required from electrical contractor after completion of installations</p>
	Waste material removal	<p>Build-up of waste material</p> <p>Combustible / flammable materials</p>	3	3	9	<p>Placement and possible use of appropriate fire extinguishers</p> <p>Proper understanding of fire & evacuation plan, carry out drills as per H&S Plan</p> <p>Use of rubbish bins and black bag and regular removal of all rubbish from offices</p>

		Smoking near sources of ignition				<p>Avoid build-up of waste material. Remove rubbish daily.</p> <p>Designated smoking areas or no-smoking signs</p> <p>Store combustible / flammable materials / containers in designated area and place fire extinguisher in close proximity</p> <p>Teach operatives Method Statement and Risk Assessment and implement at site.</p> <p>All waste to be disposed at an Approved Waste Site</p>
	Alcohol and Drugs	<p>Use of drugs that impair perception / vision</p> <p>Working / on duty under the influence</p> <p>Stress, tension, high blood pressure</p>	3	2	6	<p>Any person found taking or under the influence of alcohol or non-prescription drugs will be removed from site</p> <p>This is an act of gross misconduct, and the person may be immediately dismissed from the company</p> <p>Drivers, operators, and maintenance personnel must be cautious of prescription drugs and ask doctors or pharmacists if drowsiness is a side effect of any pills, lotions, injections, creams, capsules, etc.</p> <p>If under any medications workers to report to site supervisor</p>
	Medical and / or Emergency	<p>Unclear location of first aid station / box</p> <p>Visitors unaware of protocols</p> <p>Unclear who is trained</p> <p>Blood borne pathogens</p>	2	2	4	<p>First aid box (including eye wash), with adequate contents inform everyone during Safety Induction.</p> <p>Identification sign and a list of first aid providers to be posted next to first aid box.</p> <p>Latex gloves must be provided in each first aid box.</p> <p>Wound must be cleaned correctly taking care of blood borne pathogens.</p> <p>All workers to be informed about the Emergency procedures</p> <p>Safety Induction to be conducted for all visitors and employees on arrival</p> <p>Conduct regular Emergency Evacuation Drills.</p>

	Use of Ablution Facilities	<p>Insufficient WC / washing facilities</p> <p>Not washing hands after use. Spread of germs, disease, etc.</p> <p>Incorrect use of WC</p> <p>Spillage of fluids on the floor. Slips and falls</p>	2	2	4	<p>Ensure that the total requirement of toilets & washing facilities with fixed or mobile units are addressed</p> <p>Proper disinfectant and cleaning for toilet facilities</p> <p>Signage in WC to encourage hygienic conditions</p> <p>Washing / mopping of floor with the use of disinfectant and hot water</p> <p>Leaks to be reported to building administration</p>
	Pregnant Women	<p>Difficulty in emergency and evacuation situations</p> <p>Stress and morning sickness</p>	3	3	9	<p>Carry out a risk assessment on the tasks and areas where the woman is working</p> <p>Assign a person to act in a Buddy-Buddy system for any difficult tasks</p> <p>Ensure regular breaks during working</p>
	General and Miscellaneous	<p>Young workers on site</p> <p>New and Inexperienced Workers</p>	3	2	6	<p>Complete risk assessments:</p> <p>Teach operatives Method Statement and Risk Assessment and implement at site.</p>

Definitions & Risk Rating Matrices

Hazards	Something with the inherent property to cause harm through injury, ill health and/or damage
Risk	Arises when there is the likelihood of the hazard is realized
Risk Rating (RR)	The outcome of the probability multiplied by the severity (RR = SR X PR) 4 – 9 High, 5 – 3 – 6 Medium, 6 – 1 – 3 Low
Severity Rating (SR)	3 – Potential of Fatal injury, major injury or dangerous occurrence 2 – Potential of Lost Time Accident 1 – Potential of minor injury without lost time
Probability Rating (PR)	3 – Certain or near certain to occur 2 – Will occur frequently 1 – Will rarely occur

C5.32. Cost of Safety

All parties bidding to work on this construction project must ensure that they have made adequate provision for the cost of complying with these specifications as well as with the OHS-Act 1993 and incorporated Regulations as a minimum requirement in their tender documentation. It must also be taken into consideration that time is money.

That implies that sufficient time must be allowed for the implementation of the minimum OHS standards. No additional claims will be entertained at a later stage if a compliance requirement was prescribed in the OHS-Act, 1993 and incorporated regulations or this specifications document.

As part of the tender submission contractors are required to include the costing for the health and safety contingencies as part of the costing as to the expenditure requirements with regard to the implementation and maintenance of the Health and Safety program. This check sheet serves as a guideline to the compilation of such costs and must be completed by the contractor.

List may be modified as required but must be submitted along with tender and self-assessment.

ITEMS		COSTS
1.	PERSONAL PROTECTIVE EQUIPMENT	
	Overalls	
	Hard hats and safety glasses	
	Safety boots/shoes	
	Visors / gloves	
	Other	
SUB TOTAL		
2.	FIRE FIGHTING	
	Fire extinguishers	
	Training	
	Surveys	
	Other	
SUB TOTAL		
3.	HEALTH AND SAFETY PERSONNEL	
	Safety Manager	
	Safety Officer	
	Full time Safety Representatives if required	
	Fire Watchers	
	First aiders	
	External auditors costs	
SUB TOTAL		

ITEMS		COSTS
4.	FACILITIES	
	Provision of ablution facilities	
	Service and maintenance of ablution facilities	
	Provision of eating areas	
	Cleaning of lay down and other storage areas	
SUB TOTAL		
5.	FALL PREVENTION AND PROTECTION	
	Safety harnesses with double lanyards	
	Lanyard extenders	
	Scaffold hooks	
	Lifelines and vertical fall arrest systems	
	Scaffolding – material, erection and inspection (estimate for project)	
	Temporary hand railing material and kick boards	
SUB TOTAL		
7.	LIFTING MACHINERY AND EQUIPMENT	
	Annual inspections and load testing as per legal requirement	
	Certification of all lifting gear during the course of the project	
	Third party inspections	
SUB TOTAL		
8.	INSURANCES	
	COID cover for the project	
	Liability insurances	
SUB TOTAL		
9.	FIRST AID	
	First aid boxes	
	Rescue equipment and stretchers	
	Replenishment of boxes and other supplies	
	Other	
SUB TOTAL		
10.	TRAINING	
	Health and Safety representatives	
	H&S Supervisory training	
	First aid training	
	Firefighting training	
	Legal liability training	

	Risk assessment training	
	Other	
SUB TOTAL		
11.	SIGNAGE	
	All signage as required by law: regulatory, warning and information	
	Posters for awareness	
SUB TOTAL		
12.	ELECTRICAL	
	Locks required for lockouts	
	Tags	
	Permit books	
	Calipers	
	Key safes	
SUB TOTAL		R
GRAND TOTAL FOR THIS TENDER		R
This list is not exhaustive, and Contractors may expand all levels to include all relevant H&S expenditure		



THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

LOCALITY

FOR THE

UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A

ANNEX 2

PREPARED BY:

THEEWATERSKLOOF MUNICIPALITY

P O BOX 24

CALEDON

7230

Tel: (028) 214 3300

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THEEWATERSKLOOF MUNICIPALITY
UPGRADING OF THE VILLIERSDORP PUBLIC TRANSPORT HUB – PHASE 3A
TENDER NO. LED 01/2024/25



VILLIERSDORP PUBLIC TRANSPORT HUB CO-ORDINATES: 33° 59' 36.6"S - 19°17' 19.1"E

LOCALITY PLAN – SITE VISIT VENUE



THEEWATERSKLOOF MUNICIPALITY

TENDER NO. LED 01/2024/25

DRAWINGS

FOR THE

**UPGRADING OF THE VILLIERSDORP PUBLIC
TRANSPORT HUB PHASE 3A**

ANNEX 3

PREPARED BY:

THEEWATERSKLOOF MUNICIPALITY

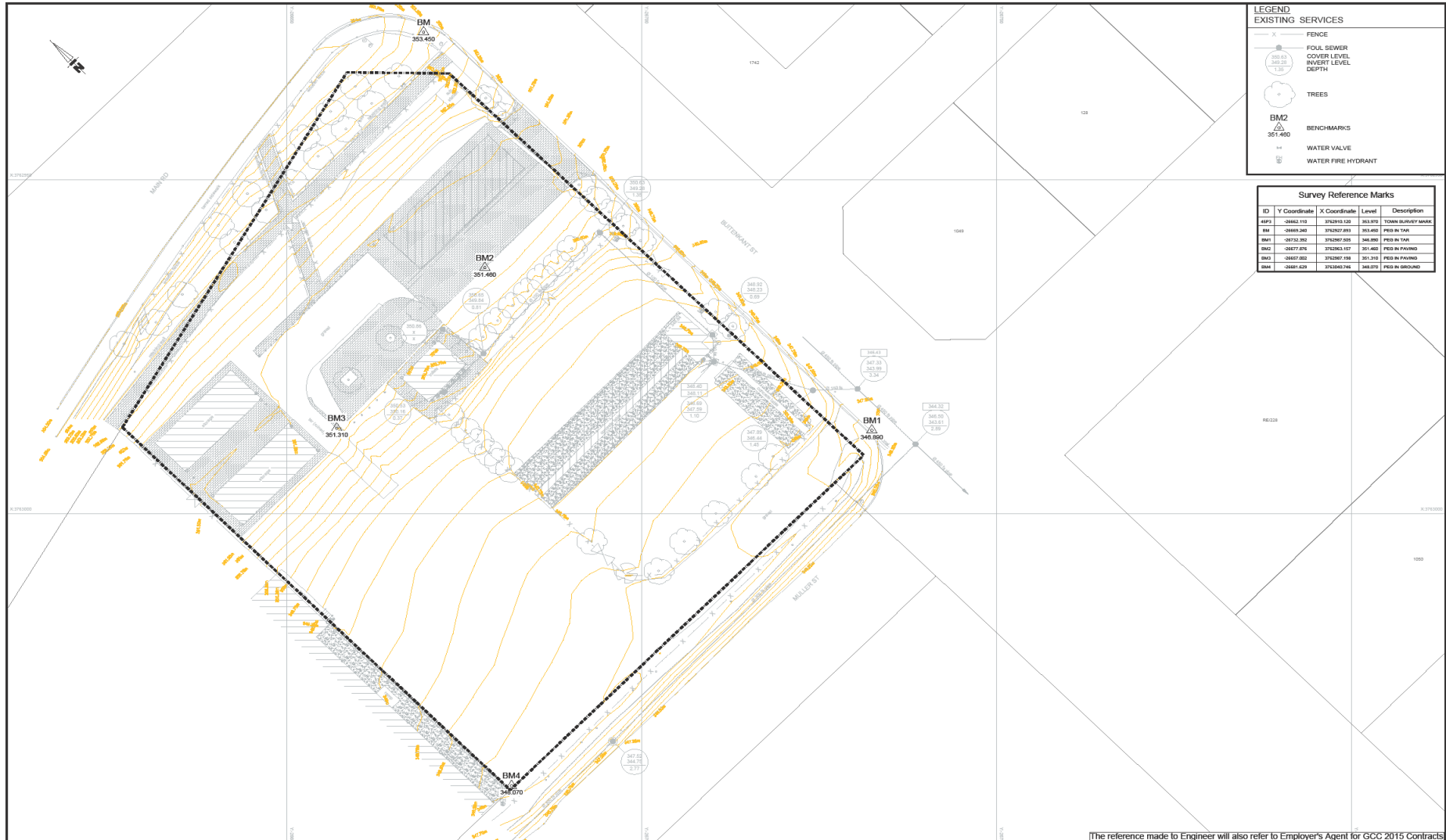
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7230

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LEGEND
EXISTING SERVICES

- FENCE
- FOUL SEWER
- COVER LEVEL
- INVERT LEVEL
- DEPTH
- TREES
- BENCHMARK
- WATER VALVE
- WATER FIRE HYDRANT

Survey Reference Marks

ID	Y Coordinate	X Coordinate	Level	Description
BM1	-28622.119	3762915.129	363.970	TOWN SURVEY MARK
BM2	-28689.262	3762907.893	363.490	PEG IN TANK
BM3	-28732.382	3762907.553	346.890	PEG IN TANK
BM4	-28677.876	3762903.157	351.460	PEG IN PAVING
BM5	-28697.882	3762907.198	351.210	PEG IN PAVING
BM6	-28687.629	3762902.746	348.870	PEG IN GROUND

[The reference made to Engineer will also refer to Employer's Agent for GCC 2015 Contracts]

SCALEBAR

0 7.5 15
Meters
1:250

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REV	DESCRIPTION	DATE	BY	CHKD
A	FOR APPROVAL	24-02-05	CVH	CK

REVISIONS

DESIGNED	JLS
DRAWN	CVH
CHECKED	CK

CONSULTING ENGINEERS

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Tel: 021 944 0000 Fax: 021 944 0437
email: info@lyners.co.za

APPROVED

ENGINEERS:

DATE: 2024-03-06

APPROVED

CLIENT: _____

DATE: _____

CLIENT

Theewaterskloof
Municipality

PROJECT

VILLIERSDORP TRANSPORT INTERCHANGE
AND MARKET ACCESS

TITLE

EXISTING SERVICES

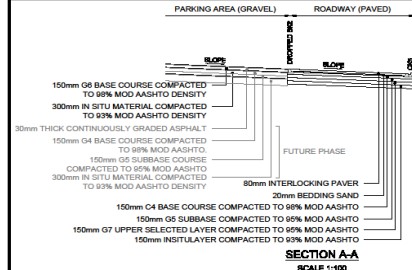
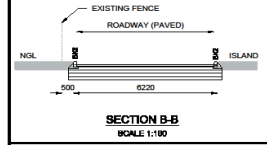
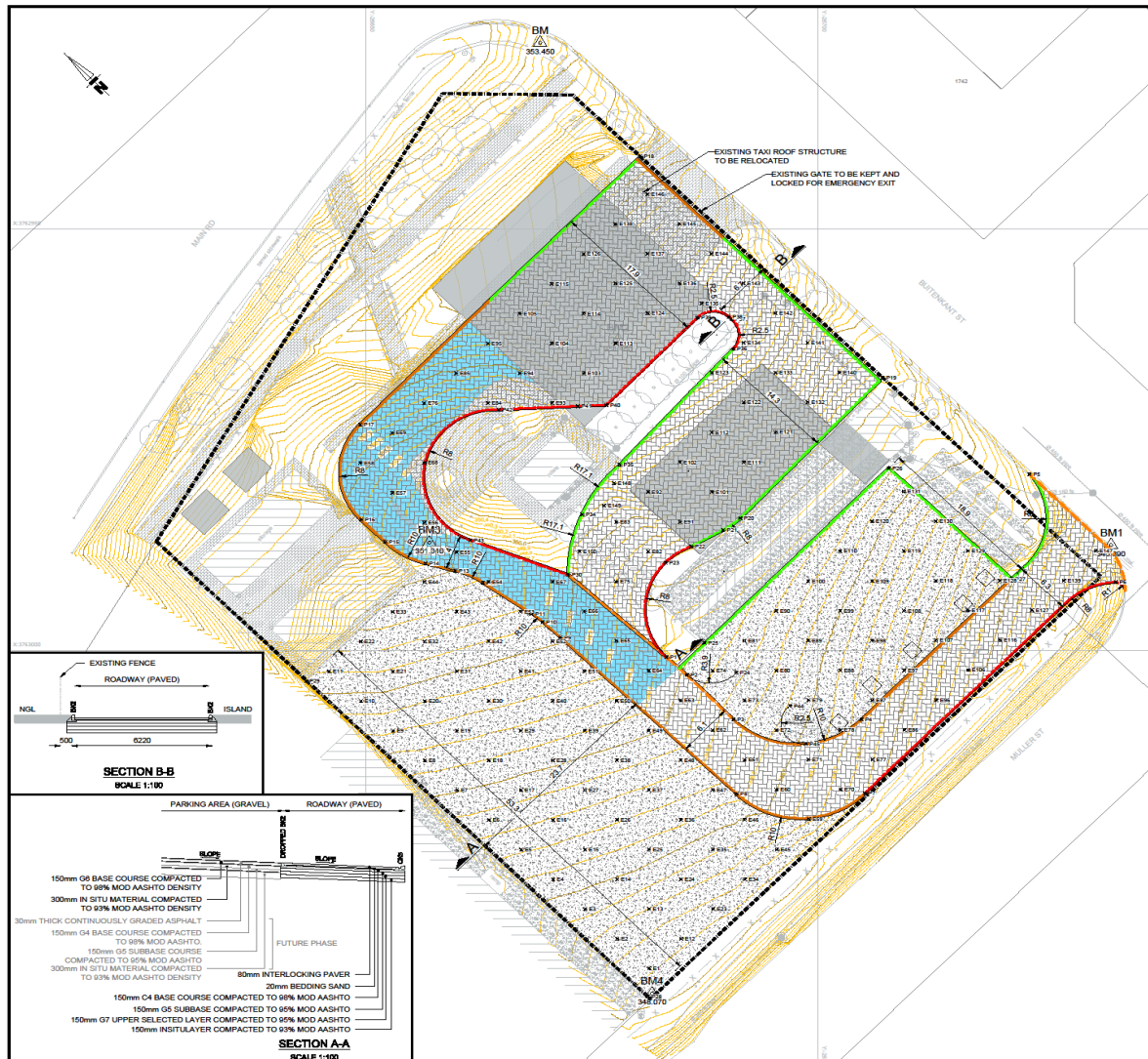
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1:250

SHEET
1 OF 1

CONTRACT No. _____
PROJECT No. C23175

DRAWING No. 23175-C-001-01
REV

COORDINATE SYSTEM: WGS84 / UTM



SETTING OUT DATA

POINT	Y	X	LEVEL
P1	-2868.328	376308.912	349.074
P2	-2868.489	376302.929	348.978
P3	-2868.642	376300.223	348.744
P4	-2870.764	376308.198	348.391
P5	-2872.381	376297.985	347.768
P6	-2872.516	376291.528	346.839
P7	-2875.762	376301.983	346.112
P8	-2869.846	3762871.983	348.536
P9	-2867.558	3762998.058	349.524
P10	-2868.621	376294.632	348.616
P11	-2868.205	376295.549	348.988
P12	-2868.212	376291.985	348.993
P13	-2869.864	376296.559	349.996
P14	-2868.678	376298.687	350.107
P15	-2869.219	376297.128	350.280
P16	-2869.841	376298.491	350.403
P17	-2869.344	376297.128	350.818
P18	-2869.312	376294.278	351.736
P19	-2867.948	376297.027	348.170
P20	-2869.177	376298.303	349.129
P21	-2869.514	376298.724	349.123
P22	-2868.971	376297.680	348.113
P23	-2868.119	376298.968	349.108
P24	-2869.932	376302.631	348.825
P25	-2867.438	376299.100	348.961
P26	-2877.860	376291.372	348.731
P27	-2867.462	376299.320	347.911
P28	-2868.168	376304.114	348.046
P29	-2868.321	376303.640	348.660
P30	-2867.230	376291.034	348.533
P31	-2867.878	376298.865	349.736
P32	-2867.905	376297.980	349.912
P33	-2868.998	376294.239	350.294
P34	-2869.024	376298.688	350.496
P35	-2869.124	376298.105	350.507
P36	-2868.644	376296.518	350.807
P37	-2868.644	376296.518	350.807
P38	-2868.644	376296.518	350.807
P39	-2868.644	376296.518	350.807
P40	-2867.673	376297.888	350.961
P41	-2867.989	376297.822	350.881
P42	-2868.484	376297.181	350.806
P43	-2868.513	376298.328	349.897
P44	-2868.907	376308.683	348.689
P45	-2868.863	376297.034	348.658

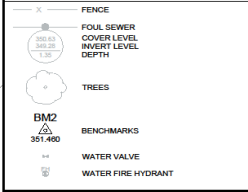
SETTING OUT DATA

POINT	Y	X	LEVEL
E1	-2868.328	376307.774	348.115
E2	-2867.782	376304.252	348.257
E3	-2867.238	376300.728	348.427
E4	-2867.694	376307.198	348.671
E5	-2867.150	376303.671	348.717
E6	-2866.606	376302.144	348.862
E7	-2866.062	376303.614	349.007
E8	-2866.518	376300.088	349.151
E9	-2865.974	376306.561	349.300
E10	-2865.431	376306.031	349.441
E11	-2864.887	376302.508	349.585
E12	-2864.343	376304.981	349.724
E13	-2863.799	376305.708	349.868
E14	-2863.255	376302.181	349.991
E15	-2862.711	376303.654	349.845
E16	-2862.167	376305.128	349.791
E17	-2861.623	376301.600	348.943
E18	-2861.079	376303.073	349.094
E19	-2860.535	376304.546	349.245
E20	-2859.991	376306.019	349.403
E21	-2859.447	376302.491	349.578
E22	-2858.903	376298.964	349.762
E23	-2858.359	376297.437	349.956
E24	-2857.815	376295.910	350.159
E25	-2857.271	376294.383	350.372
E26	-2856.727	376292.856	350.594
E27	-2856.183	376291.329	350.825
E28	-2855.639	376290.802	351.066
E29	-2855.095	376289.275	351.316
E30	-2854.551	376287.748	351.575
E31	-2854.007	376286.221	351.843
E32	-2853.463	376284.694	352.119
E33	-2852.919	376283.167	352.404
E34	-2852.375	376281.640	352.698
E35	-2851.831	376280.113	353.001
E36	-2851.287	376278.586	353.312
E37	-2850.743	376277.059	353.631
E38	-2850.199	376275.532	353.958
E39	-2849.655	376274.005	354.293
E40	-2849.111	376272.478	354.636
E41	-2848.567	376270.951	354.987
E42	-2848.023	376269.424	355.346
E43	-2847.479	376267.897	355.713
E44	-2846.935	376266.370	356.088
E45	-2846.391	376264.843	356.471
E46	-2845.847	376263.316	356.862
E47	-2845.303	376261.789	357.261
E48	-2844.759	376260.262	357.668
E49	-2844.215	376258.735	358.083
E50	-2843.671	376257.208	358.506
E51	-2843.127	376255.681	358.937
E52	-2842.583	376254.154	359.376
E53	-2842.039	376252.627	359.823
E54	-2841.495	376251.100	360.278
E55	-2840.951	376249.573	360.741
E56	-2840.407	376248.046	361.212
E57	-2839.863	376246.519	361.691
E58	-2839.319	376244.992	362.178
E59	-2838.775	376243.465	362.673
E60	-2838.231	376241.938	363.176
E61	-2837.687	376240.411	363.687
E62	-2837.143	376238.884	364.206
E63	-2836.599	376237.357	364.733
E64	-2836.055	376235.830	365.268
E65	-2835.511	376234.303	365.811
E66	-2834.967	376232.776	366.362
E67	-2834.423	376231.249	366.921
E68	-2833.879	376229.722	367.488
E69	-2833.335	376228.195	368.063
E70	-2832.791	376226.668	368.646
E71	-2832.247	376225.141	369.237
E72	-2831.703	376223.614	369.836
E73	-2831.159	376222.087	370.443
E74	-2830.615	376220.560	371.058
E75	-2830.071	376219.033	371.681
E76	-2829.527	376217.506	372.312
E77	-2828.983	376215.979	372.951
E78	-2828.439	376214.452	373.598
E79	-2827.895	376212.925	374.253
E80	-2827.351	376211.398	374.916
E81	-2826.807	376209.871	375.587
E82	-2826.263	376208.344	376.266
E83	-2825.719	376206.817	376.953
E84	-2825.175	376205.290	377.648
E85	-2824.631	376203.763	378.351
E86	-2824.087	376202.236	379.062
E87	-2823.543	376200.709	379.781
E88	-2822.999	376199.182	380.508
E89	-2822.455	376197.655	381.243
E90	-2821.911	376196.128	381.986
E91	-2821.367	376194.601	382.737
E92	-2820.823	376193.074	383.496
E93	-2820.279	376191.547	384.263
E94	-2819.735	376190.020	385.037
E95	-2819.191	376188.493	385.818
E96	-2818.647	376186.966	386.607
E97	-2818.103	376185.439	387.404
E98	-2817.559	376183.912	388.209
E99	-2817.015	376182.385	389.022
E100	-2816.471	376180.858	389.843

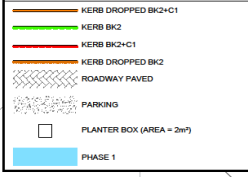
SETTING OUT DATA

POINT	Y	X	LEVEL
F1	-2868.328	376308.912	349.074
F2	-2868.489	376302.929	348.978
F3	-2868.642	376300.223	348.744
F4	-2870.764	376308.198	348.391
F5	-2872.381	376297.985	347.768
F6	-2872.516	376291.528	346.839
F7	-2875.762	376301.983	346.112
F8	-2869.846	3762871.983	348.536
F9	-2867.558	3762998.058	349.524
F10	-2868.621	376294.632	348.616
F11	-2868.205	376295.549	348.988
F12	-2868.212	376291.985	348.993
F13	-2869.864	376296.559	349.996
F14	-2868.678	376298.687	350.107
F15	-2869.219	376297.128	350.280
F16	-2869.841	376298.491	350.403
F17	-2869.344	376297.128	350.818
F18	-2869.312	376294.278	351.736
F19	-2867.948	376297.027	348.170
F20	-2869.177	376298.303	349.129
F21	-2869.514	376298.724	349.123
F22	-2868.971	376297.680	348.113
F23	-2868.119	376298.968	349.108
F24	-2869.932	376302.631	348.825
F25	-2867.438	376299.100	348.961
F26	-2877.860	376291.372	348.731
F27	-2867.462	376299.320	347.911
F28	-2868.168	376304.114	348.046
F29	-2868.321	376303.640	348.660
F30	-2867.230	376291.034	348.533
F31	-2867.878	376298.865	349.736
F32	-2867.905	376297.980	349.912
F33	-2868.998	376294.239	350.294
F34	-2869.024	376298.688	350.496
F35	-2869.124	376298.105	350.507
F36	-2868.644	376296.518	350.807
F37	-2868.644	376296.518	350.807
F38	-2868.644	376296.518	350.807
F39	-2868.644	376296.518	350.807
F40	-2867.673	376297.888	350.961
F41	-2867.989	376297.822	350.881
F42	-2868.484	376297.181	350.806
F43	-2868.513	376298.328	349.897
F44	-2868.907	376308.683	348.689
F45	-2868.863	376297.034	348.658

LEGEND EXISTING SERVICES

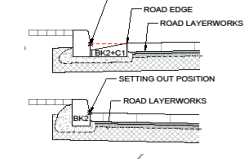


LEGEND PROPOSED SERVICES



NOTES:

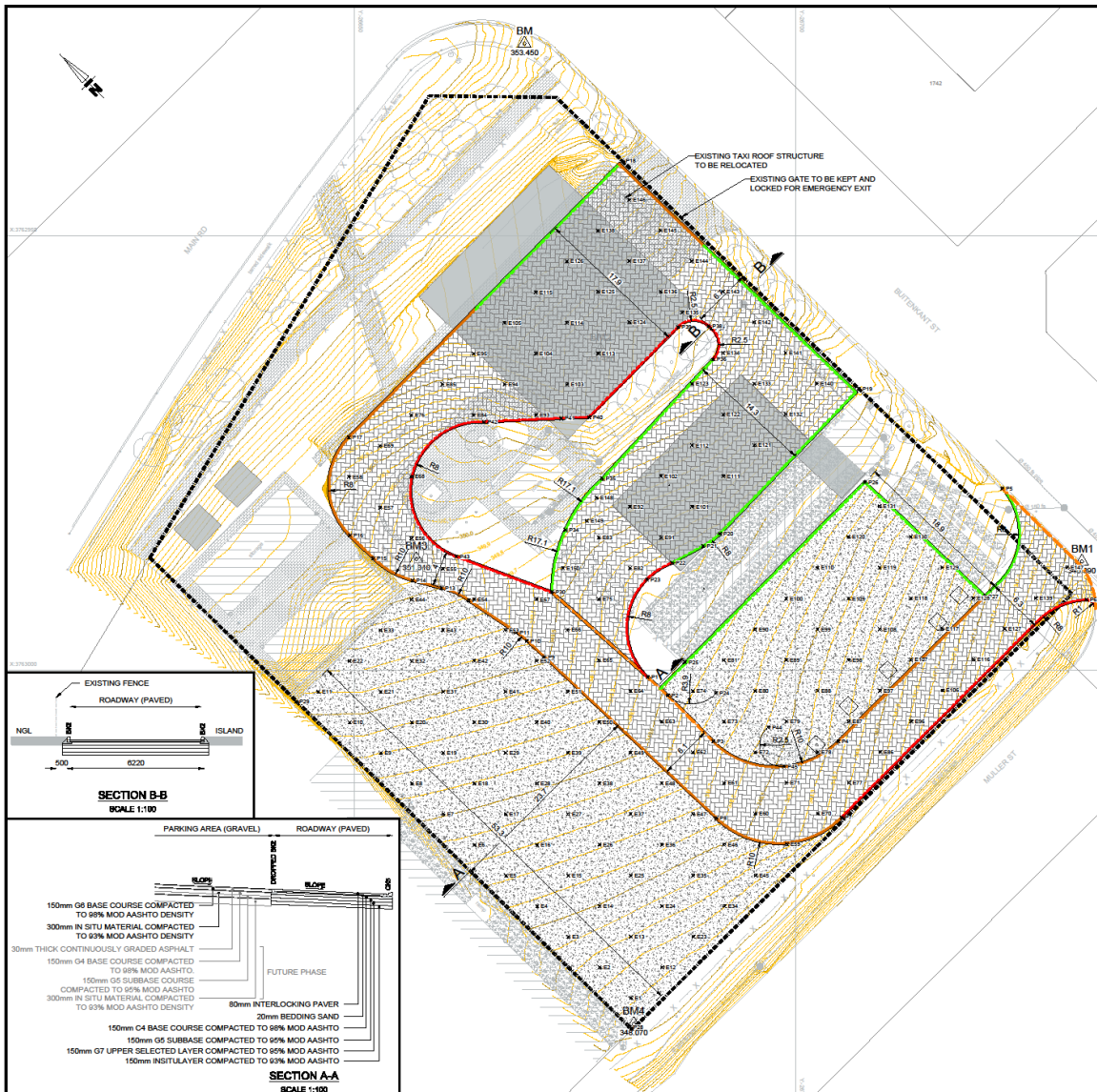
1. Road setting out data is given from face of kerb.



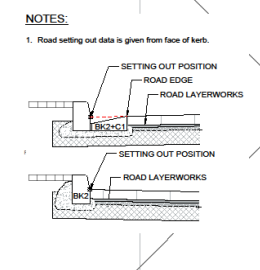
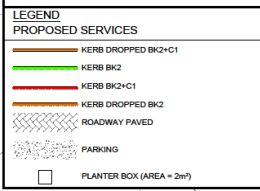
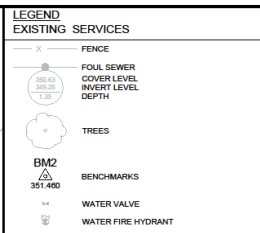
Survey Reference Marks

ID	Y Coordinate	X Coordinate	Level	Description
SP1	2862.110	376215.120	353.970	TOWN SURVEY MARK
BM	2868.348	376297.883	351.400	PEGS IN TAXI
BM1	2874.392	376287.680	346.800	PEGS IN TAXI
BM2	2867.782	376283.157	351.460	PEGS IN PAVING
BM3	2867.622	376287.198	351.310	PEGS IN PAVING
BM4	2868.628	376288.748	348.870	PEGS IN PAVING

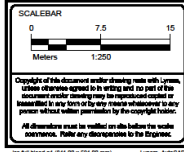
SCALE BAR <p>0 7.5 15 Meters 1:250</p>	<p>Copyright of this document and/or drawings made with Lyners software is reserved to Lyners and no part of this document may be reproduced or transmitted in any form or by any means electronic, mechanical, photocopying, recording, or by any information storage or retrieval system without written permission by the copyright holder.</p> <p>All dimensions shall be verified on site before the works commence. There are discrepancies to be reported.</p>	<p>DESIGNED: JLS</p> <p>DRAWN: CVH</p> <p>CHECKED: CK</p>	<p>CONSULTING ENGINEERS</p> <p>LYNERS</p> <p>PO Box 4601 TYGERVALLEY 7530</p> <p>Tel: 021 914 0000 Fax: 021 914 0437 email: info@lynersonline.co.za</p>	<p>APPROVED:</p> <p>ENGINEERS: </p> <p>DATE: 2024-03-13</p>	<p>CLIENT</p> <p>Theewatersloep Municipality</p>	<p>PROJECT</p> <p>VILLIERSDORP TRANSPORT INTERCHANGE AND MARKET ACCESS</p> <p>TITLE</p> <p>ROAD & PARKING SETTING OUT PLAN</p>	<p>SCALE ON A1 SHEET: 1:250 / 1 OF 1</p> <p>CONTRACT No: PROJECT No: C23175</p> <p>DRAWING No: 23175-C-002-01</p> <p>COORDINATE SYSTEM: WGS84 / UTM</p>
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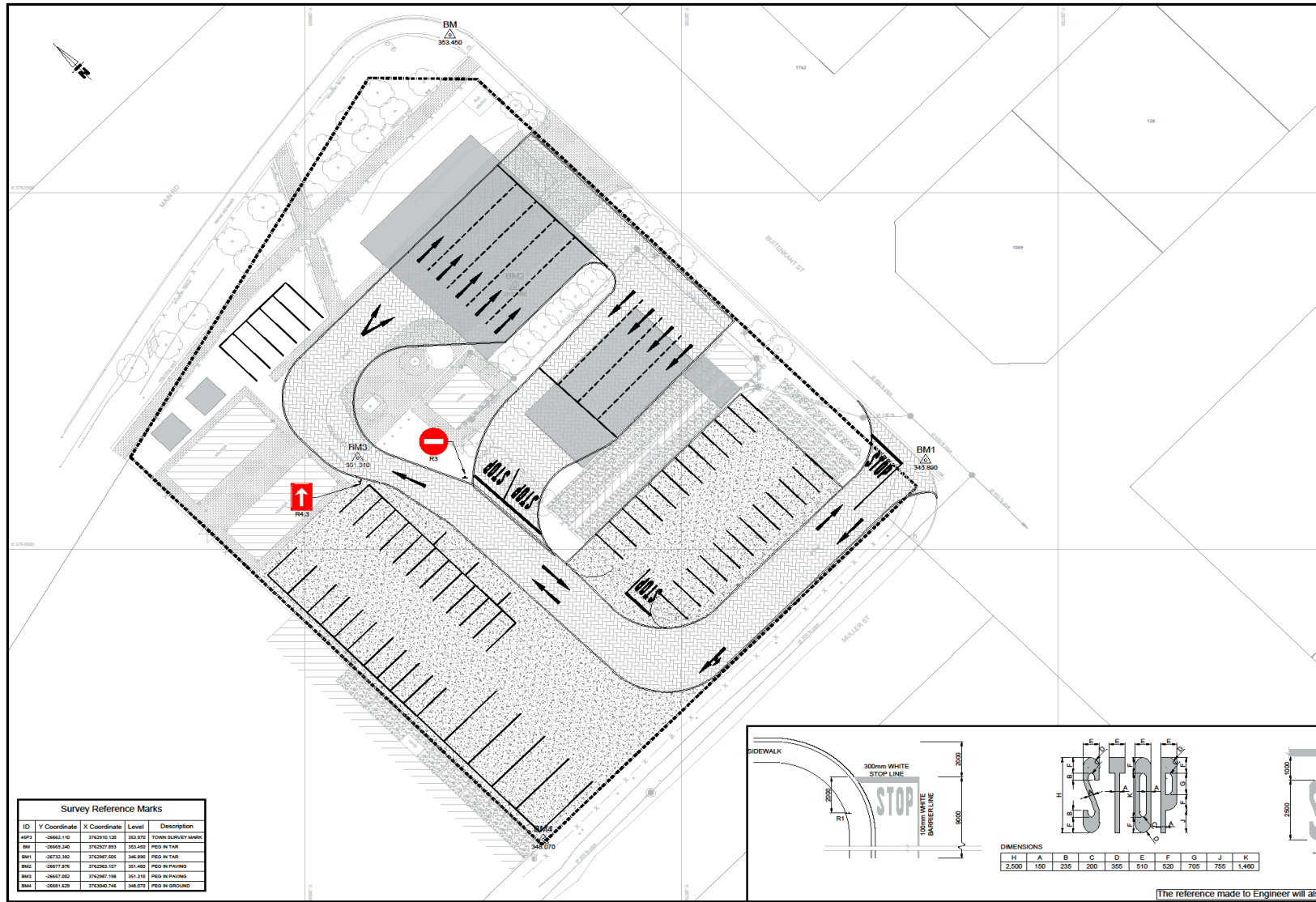


SETTING OUT DATA				SETTING OUT DATA				SETTING OUT DATA			
POINT	Y	X	LEVEL	POINT	Y	X	LEVEL	POINT	Y	X	LEVEL
F1	2688.282	373002.812	348.074	E1	2688.158	373007.712	348.074	BM2	351.400	373005.812	348.734
F2	2688.488	373002.822	348.076	E2	2687.762	373034.282	348.257	E7	2678.014	373013.872	348.148
F3	2688.642	373008.222	348.744	E3	26874.238	373030.732	348.427	E78	26702.472	373009.444	348.344
F4	2674.782	373008.188	348.251	E4	26876.694	373027.198	348.872	E79	26868.128	373006.818	348.524
F5	2672.332	373079.082	347.768	E5	26887.160	373023.672	348.717	E80	26898.384	373002.308	348.607
F6	2672.294	373079.328	348.839	E6	26882.944	373026.962	348.921	E81	26891.842	373008.822	348.863
F7	2676.142	373016.962	348.112	E7	26882.022	373016.414	348.907	E82	26881.208	373006.282	348.235
F8	2686.982	373017.028	348.834	E8	26886.518	373013.088	348.152	E83	26877.664	373004.754	348.558
F9	2687.188	373098.002	348.824	E9	26882.978	373009.942	348.308	E84	26883.488	373010.648	350.842
F10	2688.022	373028.022	348.616	E10	26884.431	373003.022	348.811	E85	26889.042	373011.758	350.798
F11	2688.202	373028.642	348.666	E11	26884.987	373002.588	348.694	E86	26879.541	373003.628	347.247
F12	2686.212	373091.868	348.893	E12	26884.683	373024.238	348.124	E87	26870.989	373005.981	348.202
F13	2689.848	373098.558	348.938	E13	26881.308	373028.708	348.298	E88	26870.458	373002.274	348.397
F14	2688.878	373098.887	350.107	E14	26877.785	373027.871	348.493	E89	26888.911	373008.847	348.594
F15	2688.022	373097.788	350.280	E15	26884.221	373023.864	348.848	E90	26888.387	373009.398	348.762
F16	2688.468	373098.491	350.403	E16	26878.877	373020.127	348.793	E91	26884.738	373004.738	348.321
F17	2688.344	373071.218	350.818	E17	26887.133	373016.658	348.543	E92	26881.122	373021.211	348.622
F18	2688.312	373024.178	351.738	E18	26883.598	373013.072	348.094	E93	26876.588	373010.638	350.823
F19	2687.148	373027.037	349.178	E19	26889.048	373009.248	348.244	E94	26887.018	373007.152	350.978
F20	2689.197	373028.388	348.129	E20	26888.622	373008.018	348.482	E95	26884.472	373013.978	351.283
F21	2688.814	373088.724	349.123	E21	26882.988	373002.491	348.978	E96	26871.018	373005.884	347.784
F22	2688.971	373087.688	348.113	E22	26884.414	373008.964	348.742	E97	26870.128	373002.357	348.958
F23	2688.119	373028.888	348.108	E23	26888.388	373003.891	348.168	E98	26878.848	373008.838	348.278
F24	2688.818	373002.811	348.828	E24	26884.898	373007.948	348.302	E99	26870.458	373009.398	348.622
F25	2688.738	373028.188	348.981	E25	26882.292	373023.837	348.858	E100	26884.898	373011.774	348.782
F26	2677.882	373078.372	348.731	E26	26877.748	373028.118	348.713	E101	26888.268	373011.194	348.411
F27	2671.482	373019.528	347.811	E27	26874.288	373016.888	348.888	E102	26884.718	373007.687	348.738
F28	2688.188	373004.114	348.848	E28	26879.881	373013.028	348.824	E103	26874.987	373007.888	351.883
F29	2684.312	373001.848	348.188	E29	26887.117	373009.028	348.188	E104	26870.541	373013.978	351.283
F30	2687.288	373091.034	348.633	E30	26883.173	373008.022	348.338	E105	26888.989	373006.831	351.483
F31	2687.878	373081.868	348.724	E31	26888.828	373002.474	348.688	E106	26874.987	373002.357	348.823
F32	2687.888	373077.988	348.912	E32	26888.488	373008.847	348.677	E107	26871.083	373008.813	347.888
F33	2688.988	373084.238	348.294	E33	26884.814	373008.898	348.898	E108	26878.988	373008.898	348.128
F34	2688.438	373088.888	350.294	E34	26889.987	373027.148	348.358	E109	26878.988	373011.788	348.488
F35	2688.128	373084.118	350.807	E35	26888.868	373023.028	348.627	E110	26870.422	373008.232	348.687
F36	2688.448	373088.818	350.607	E36	26884.819	373023.093	348.623	E111	26881.788	373007.627	348.858
F37	2687.678	373079.888	350.981	E37	26881.278	373016.888	348.793	E112	26888.248	373014.128	348.981
F38	2687.488	373071.888	350.188	E38	26887.127	373013.028	348.844	E113	26887.544	373008.842	348.983
F39	2684.688	373071.451	350.006	E39	26874.188	373008.012	348.108	E114	26874.878	373006.614	351.178
F40	2684.613	373088.808	348.897	E40	26876.644	373005.981	348.268	E115	26870.528	373004.487	351.484
F41	2688.987	373008.883	348.888	E41	26887.128	373002.488	348.627	E116	26878.128	373008.788	347.484
F42	2688.888	373011.084	348.488	E42	26888.028	373008.898	348.898	E117	26871.088	373008.898	348.778
F43	2688.888	373011.084	348.488	E43	26888.812	373006.487	348.774	E118	26871.087	373011.782	348.947
F44	2688.488	373011.878	348.988	E44	26888.488	373011.878	348.988	E119	26878.483	373008.215	348.312
F45	2688.438	373023.628	348.241	E45	26888.438	373023.628	348.241	E120	26878.483	373008.688	348.682
F46	2689.891	373023.078	348.698	E46	26889.891	373023.078	348.698	E121	26889.891	373014.128	348.981
F47	2688.847	373016.848	348.688	E47	26888.847	373016.848	348.688	E122	26889.778	373009.788	348.981
F48	2688.888	373013.022	348.888	E48	26888.888	373013.022	348.888	E123	26888.238	373007.982	350.288
F49	26881.288	373008.458	348.828	E49	26881.288	373008.458	348.828	E124	26881.141	373009.398	350.888
F50	26877.718	373008.988	348.198	E50	26877.718	373008.988	348.198	E125	26877.087	373006.471	351.178
F51	26874.718	373002.488	348.352	E51	26874.718	373002.488	348.352	E126	26870.583	373002.382	351.488
F52	26876.827	373009.814	348.827	E52	26876.827	373009.814	348.827	E127	26872.614	373008.622	348.281
F53	26887.083	373006.387	348.683	E53	26887.083	373006.387	348.683	E128	26870.128	373011.758	347.894
F54	26863.138	373001.858	348.858	E54	26863.138	373001.858	348.858	E129	26874.858	373008.188	347.914
F55	26889.988	373008.328	348.988	E55	26889.988	373008.328	348.988	E130	26873.028	373004.471	348.218
F56	26888.414	373008.898	348.898	E56	26888.414	373008.898	348.898	E131	26878.898	373011.848	348.988
F57	26882.987	373002.488	348.281	E57	26882.987	373002.488	348.281	E132	26871.087	373006.182	349.477
F58	26884.364	373077.751	350.555	E58	26884.364	373077.751	350.555	E133	26889.308	373007.638	348.323
F59	26888.982	373020.088	348.328	E59	26888.982	373020.088	348.328	E134	26891.758	373008.688	350.238
F60	26899.418	373016.828	348.558	E60	26899.418	373016.828	348.558	E135	26887.132	373008.188	350.878
F61	26891.874	373013.028	348.844	E61	26891.874	373013.028	348.844	E136	26884.688	373008.688	350.818
F62	26888.338	373009.478	348.911	E62	26888.338	373009.478	348.911	E137	26881.124	373002.527	351.177
F63	26884.788	373005.951	348.971	E63	26884.788	373005.951	348.971	E138	26877.581	373004.488	351.484
F64	26881.242	373002.424	348.138	E64	26881.242	373002.424	348.138	E139	26877.178	373001.788	347.128
F65	26877.688	373008.997	348.297	E65	26877.688	373008.997	348.297	E140	26870.271	373007.848	348.448
F66	26874.184	373008.378	348.442	E66	26874.184	373008.378	348.442	E141	26868.827	373003.491	348.988
F67	26876.818	373001.843	348.958	E67	26876.818	373001.843	348.958	E142	26868.283	373009.364	350.148
F68	26868.438	373077.734	350.288	E68	26868.438	373077.734	350.288	E143	26861.738	373004.437	350.484
F69	26882.891	373024.287	350.618	E69	26882.891	373024.287	350.618	E144	26888.198	373002.318	350.837
F70	26878.488	373016.818	348.248	E70	26878.488	373016.818	348.248	E145	26884.682	373004.398	351.148
F71	26888.488	373012.988	348.433	E71	26888.488	373012.988	348.433	E146	26881.188	373004.884	351.487
F72	26895.481	373009.482	348.833	E72	26895.481	373009.482	348.833	E147	26878.788	373008.184	348.844
F73	26891.887	373005.934	348.747	E73	26891.887	373005.934	348.747	E148	26877.424	373005.188	348.811
F74	26888.118	373002.487	348.784	E74	26888.118	373002.487	348.784	E149	26887.128	373002.718	348.778
F75	26877.841	373001.828	348.317	E75	26877.841	373001.828	348.317	E150	26878.488	373008.688	348.988



ID	Y Coordinate	X Coordinate	Level	Description
AP1	26862.118	373019.138	353.870	TOWN SURVEY MARK
BM	26868.240	373027.893	348.890	PEB IN TANK
BM1	26742.382	373027.888	348.890	PEB IN TANK
BM2	26877.878	373028.167	351.400	PEB IN PAVING
BM3	26860.882	373027.188	351.193	PEB IN PAVING
BM4	26861.628	373036.746	348.870	PEB IN GROUND





LEGEND

EXISTING SERVICES

- FENCE
- FOUL SEWER
- COVER LEVEL
- INVERT LEVEL
- DEPTH
- TREES
- BENCHMARKS
- WATER VALVE
- WATER FIRE HYDRANT

LEGEND

PROPOSED SERVICES

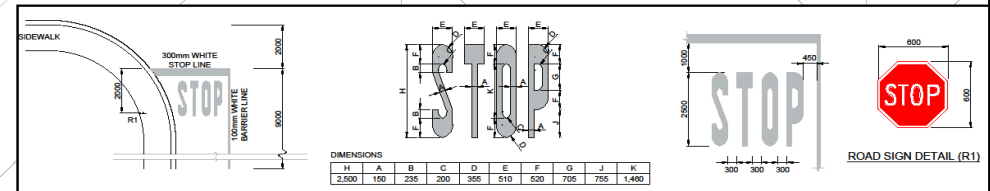
- ROAD EDGE
- ROADWAY PAVED
- PARKING
- PLANTER BOX (AREA = 2m²)
- ROAD SIGN BOARD
- ROAD MARKING WM2
- ROAD MARKING RM1
- ROAD MARKING WM7.3
- ROAD MARKING WM7.2

UNIT INVENTORY

SIGN & No.	SIZE (mm)	QUANTITY
R3	600	1
R4.1	600x450	1

Survey Reference Marks

ID	Y Coordinate	X Coordinate	Level	Description
AP2	-6662.110	3762910.126	353.979	TOWN SURVEY MARK
BM	-6660.340	3762927.893	353.493	PEGS IN TYP
BM1	-6733.360	3762987.056	348.996	PEGS IN TYP
BM2	-6677.876	3762963.157	351.460	PEGS IN PAVING
BM3	-6667.852	3762967.198	351.319	PEGS IN PAVING
BM4	-6661.629	3762946.746	348.072	PEGS IN GROUND



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REV	DESCRIPTION	DATE	REV BY	CHK
A	FOR APPROVAL	24-02-05	CWH	CK

DESIGNED	JLS
DRAWN	CWH
CHECKED	CK

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APPROVED

ENGINEERS: [Signature] By: TSB Corp 2016/2007

DATE: 2024-02-05

APPROVED

CLIENT:

DATE:

CLIENT

Theewaterskloof Municipality

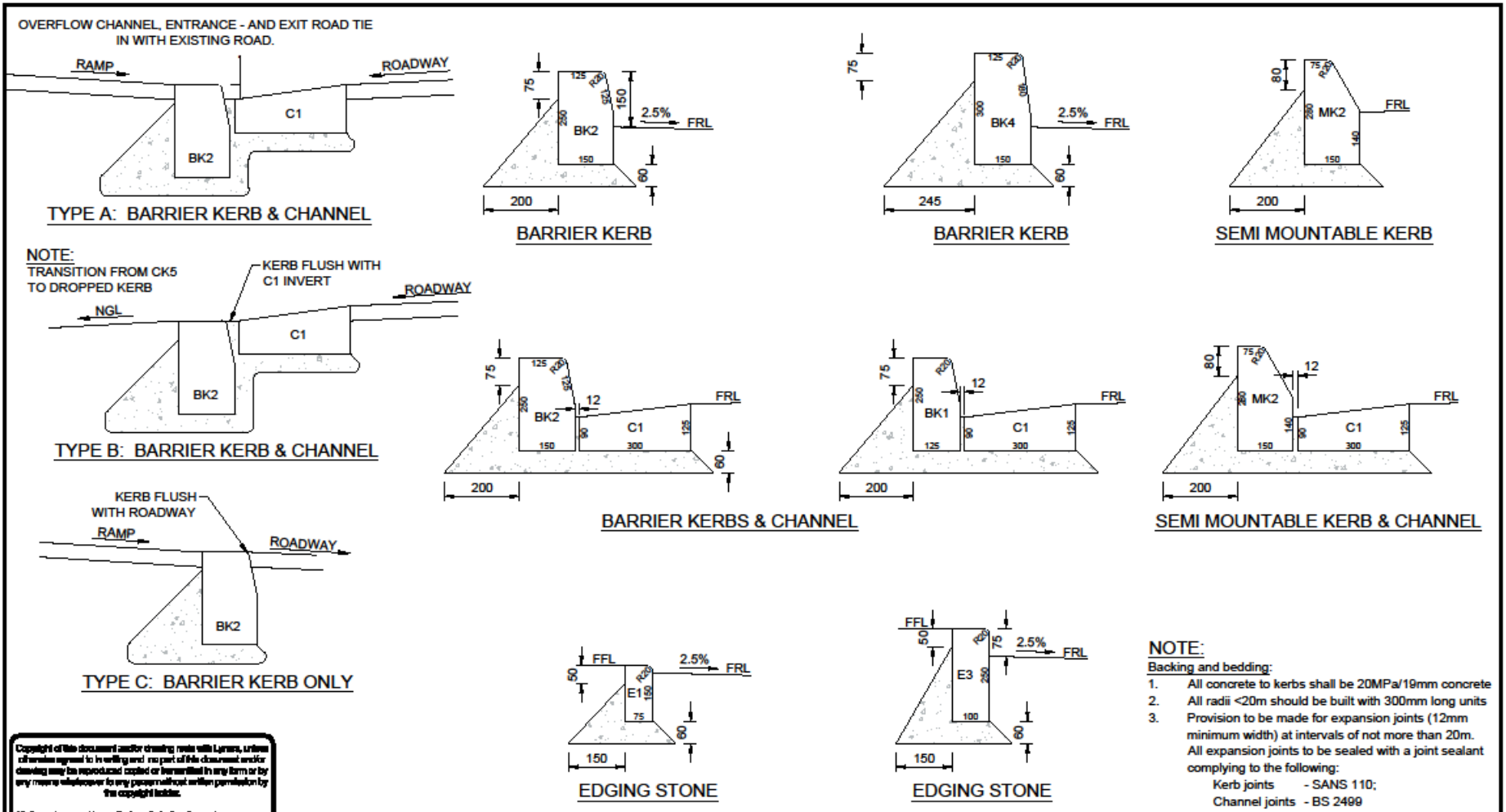
PROJECT

VILLIERSDORP TRANSPORT INTERCHANGE AND MARKET ACCESS

TITLE

PARKING SETTING OUT PLAN

SCALE	0:1 A1	SHEET	1 OF 1
CONTRACT No.	C23175	PROJECT No.	C23175
DRAWING No.	23175-C-002-02	REV	A
COORDINATE SYSTEM:	WGS84 / Ld157		



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REV	DESCRIPTION	DATE	BY	CHECKED
REVISIONS				

DESIGNED	JLS
DRAWN	CVH
CHECKED	CK

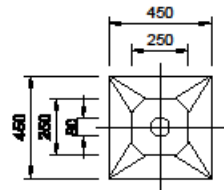
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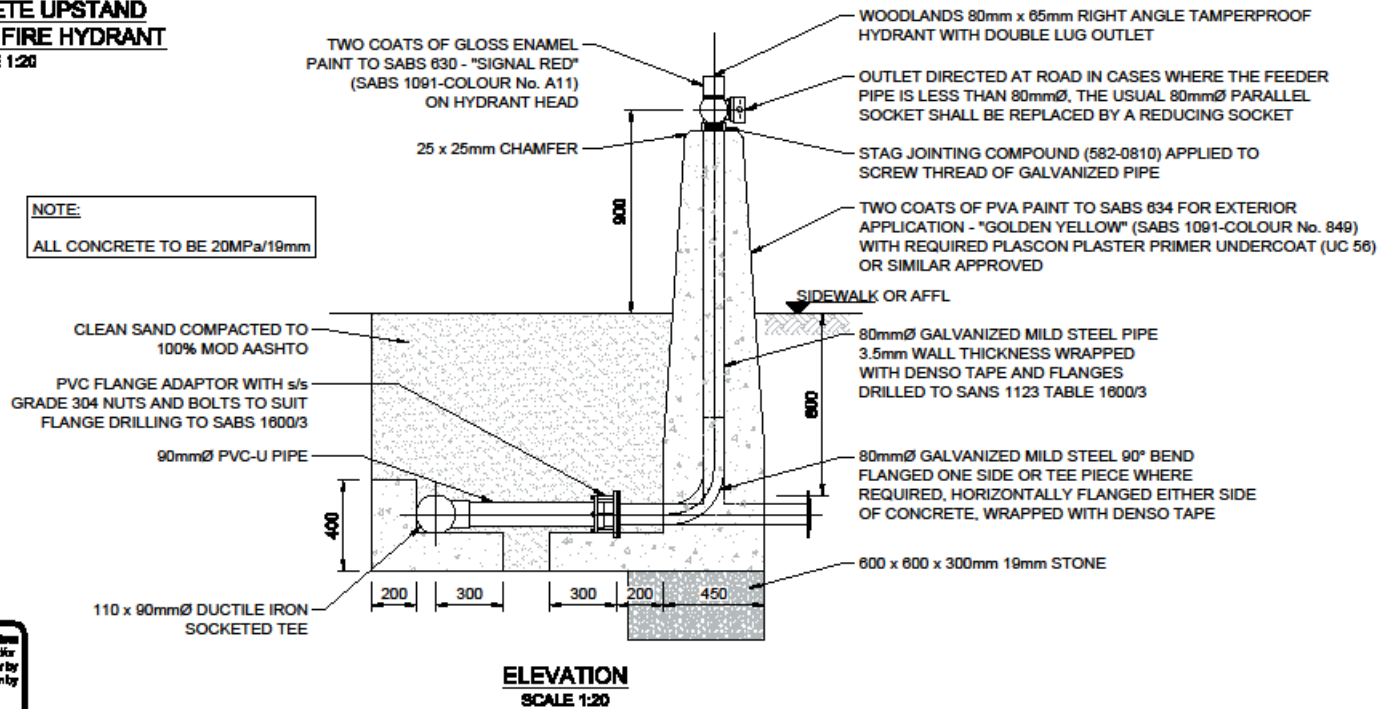
PROJECT	VILLIERSDORP TRANSPORT INTERCHANGE AND MARKET ACCESS
TITLE	TYPICAL DETAIL OF KERBS

SCALE	AS SHOWN	on A3	SHEET	1 OF 1
CONTRACT No.	23175	PROJECT No.	23175	
DRAWING No.	23175-C-002-201	REV	A	
COORDINATE SYSTEM: WGS84 / Ld 15°				



PLAN: CONCRETE UPSTAND
TYPICAL PILLAR FIRE HYDRANT
SCALE 1:20

NOTE:
 ALL CONCRETE TO BE 20MPa/19mm



ELEVATION
SCALE 1:20

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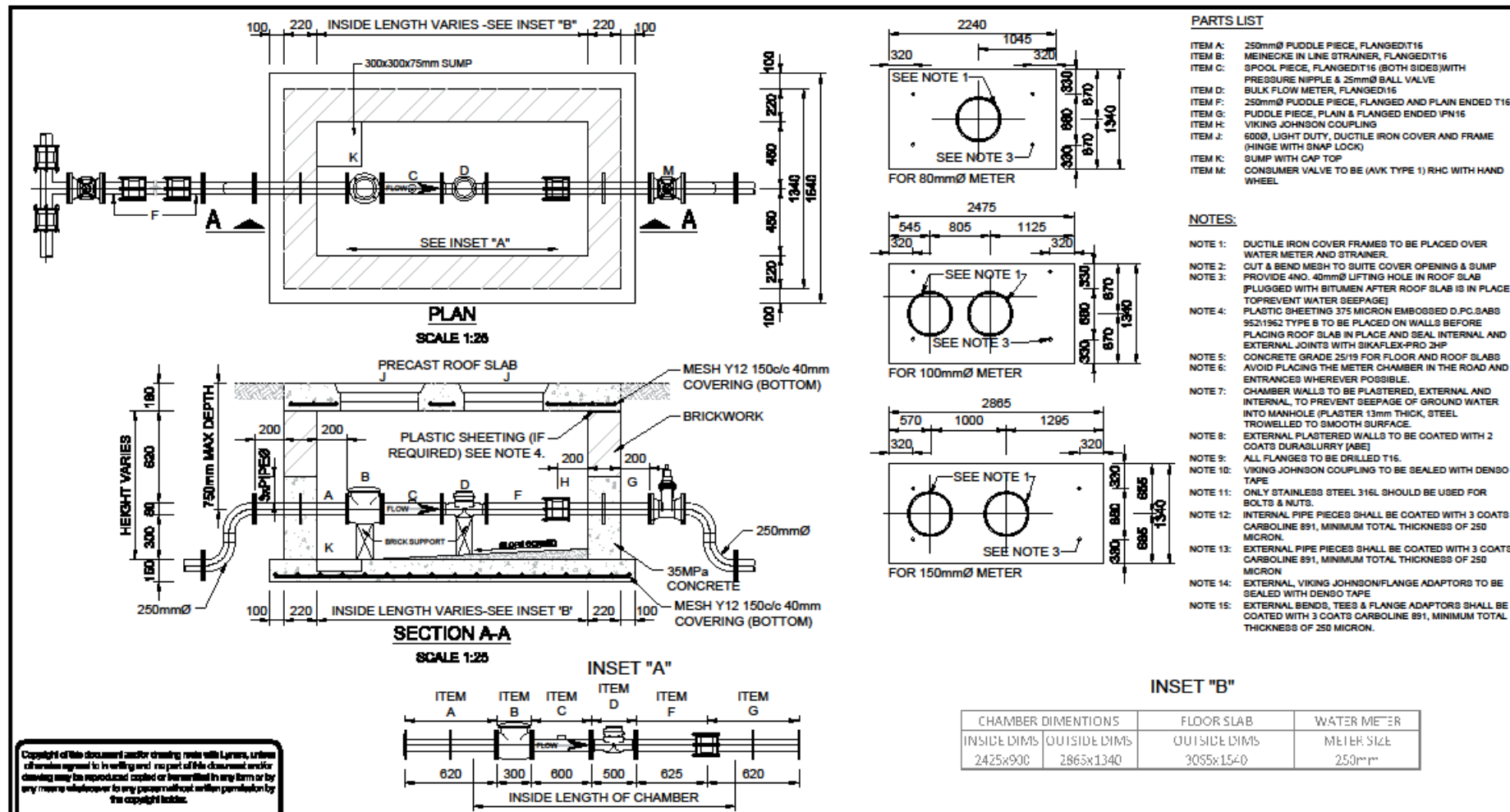
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A	FOR APPROVAL	24-02-05	CVH	CK
REVISIONS				

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DRAWN	CVH
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PROJECT	VILLIERSDORP TRANSPORT INTERCHANGE AND MARKET ACCESS
TITLE	FIRE HYDRANT WITH CONCRETE PROTECTION DETAIL

SCALE	on A3 AS SHOWN	SHEET	1 OF 1
CONTRACT No.		PROJECT No.	23175
DRAWING No.	23175-C-004-201	REV	A
COORDINATE SYSTEM: WGS84 / Ld 15°			



- PARTS LIST**
- ITEM A: 250mmØ PUDDLE PIECE, FLANGED IT16
 - ITEM B: MEINCKE IN LINE STRAINER, FLANGED IT16
 - ITEM C: SPOOL PIECE, FLANGED IT16 (BOTH SIDES) WITH PRESSURE NIPPLE & 25mmØ BALL VALVE
 - ITEM D: BULK FLOW METER, FLANGED IT16
 - ITEM F: 250mmØ PUDDLE PIECE, FLANGED AND PLAIN ENDED IT16
 - ITEM G: PUDDLE PIECE, FLAIN & FLANGED ENDED IT16
 - ITEM H: VIKING JOHNSON COUPLING
 - ITEM J: 600Ø LIGHT DUTY, DUCTILE IRON COVER AND FRAME (HINGE WITH SNAP LOCK)
 - ITEM K: SUMP WITH CAP TOP
 - ITEM M: CONSUMER VALVE TO BE (AVK TYPE 1) RHC WITH HAND WHEEL

- NOTES:**
- NOTE 1: DUCTILE IRON COVER FRAMES TO BE PLACED OVER WATER METER AND STRAINER.
 - NOTE 2: CUT & BEND MESH TO SUITE COVER OPENING & SUMP PROVIDE 4NO. 42mmØ LIFTING HOLE IN ROOF SLAB (PLUGGED WITH BITUMEN AFTER ROOF SLAB IS IN PLACE TOPREVENT WATER SEEPAGE)
 - NOTE 3: PLASTIC SHEETING 375 MICRON EMBOSSED D.P.C. 8485 952/1962 TYPE B TO BE PLACED ON WALLS BEFORE PLACING ROOF SLAB IN PLACE AND SEAL INTERNAL AND EXTERNAL JOINTS WITH SIKAFLEX-PRO 2HP
 - NOTE 4: CONCRETE GRADE 25/19 FOR FLOOR AND ROOF SLABS AVOID PLACING THE METER CHAMBER IN THE ROAD AND ENTRANCES WHEREVER POSSIBLE.
 - NOTE 5: CHAMBER WALLS TO BE PLASTERED, EXTERNAL AND INTERNAL, TO PREVENT SEEPAGE OF GROUND WATER INTO MANHOLE (PLASTER 13mm THICK, STEEL TROWELLED TO SMOOTH SURFACE.
 - NOTE 6: EXTERNAL PLASTERED WALLS TO BE COATED WITH 2 COATS DURASLURRY (ASE)
 - NOTE 7: ALL FLANGES TO BE DRILLED IT16.
 - NOTE 8: VIKING JOHNSON COUPLING TO BE SEALED WITH DENSO TAPE
 - NOTE 9: ONLY STAINLESS STEEL 316L SHOULD BE USED FOR BOLTS & NUTS.
 - NOTE 10: INTERNAL PIPE PIECES SHALL BE COATED WITH 3 COATS CARBOLINE 891, MINIMUM TOTAL THICKNESS OF 250 MICRON.
 - NOTE 11: EXTERNAL PIPE PIECES SHALL BE COATED WITH 3 COATS CARBOLINE 891, MINIMUM TOTAL THICKNESS OF 250 MICRON
 - NOTE 12: EXTERNAL VIKING JOHNSON FLANGE ADAPTORS TO BE SEALED WITH DENSO TAPE
 - NOTE 13: EXTERNAL BENDS, TEES & FLANGE ADAPTORS SHALL BE COATED WITH 3 COATS CARBOLINE 891, MINIMUM TOTAL THICKNESS OF 250 MICRON.

CHAMBER DIMENSIONS		FLOOR SLAB	WATER METER
INSIDE DIMS	OUTSIDE DIMS	OUTSIDE DIMS	METER SIZE
2425x900	2865x1340	3055x1540	250mm

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REVISIONS				

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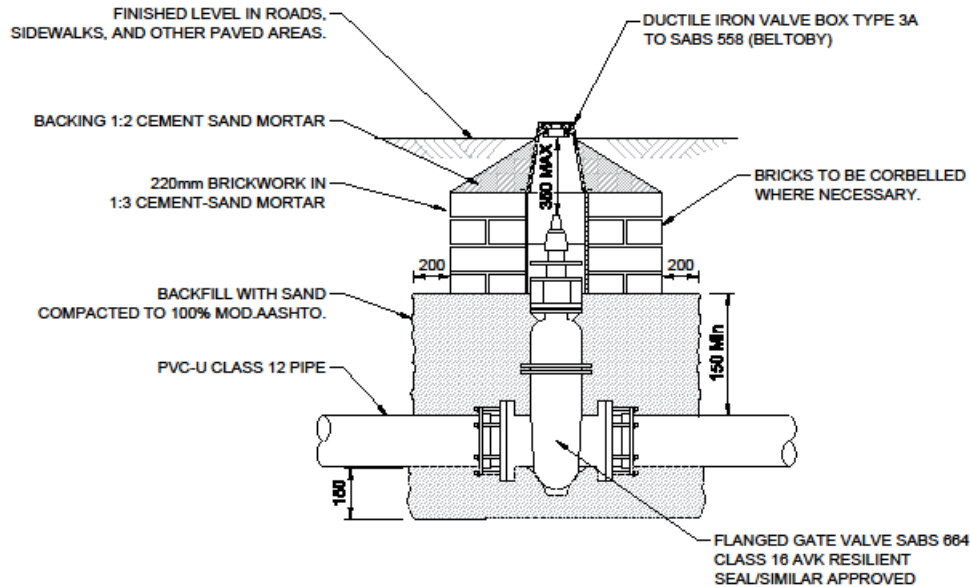
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PROJECT	VILLIERSDORP TRANSPORT INTERCHANGE AND MARKET ACCESS
TITLE	TYPICAL DETAIL OF WATER METER CHAMBER

SCALE	AS SHOWN	on A3	SHEET	1 OF 1
CONTRACT No.	PROJECT No. 23175			
DRAWING No.	REV			
23175-C-004-202	A			
COORDINATE SYSTEM: WGS84 / Ld 15°				



DETAIL OF VALVE CHAMBER
SCALE 1:50

NOTES:

- ALL VALVES SHALL BE ANTI CLOCKWISE CLOSING WITH A NON-RISING SPINDLE AND SPINDLE CAP FITTED WITH A CAPTOP WITH A STAINLESS STEEL BOLT TO ATTACH THE CAPTOP TO THE SPINDLE. NO CLIPS, SPLIT PINS OR SCREWS ALLOWED.
- ALL VALVES SHALL BE CLASS 16.
- ALL VALVES MUST HAVE LONDON ROUND THREAD OUTLETS.
- INSTALL EXTENSION ROD ON VALVE SPINDEL IF THE TOP OF THE VALVE IS MORE THAN 350mm BELOW FINISHED SURFACE LEVEL.
- ALL COVERS & FRAMES MUST BE PAINTED WITH 2 LAYERS OF OIL PAINT CHAMBER
CHAMBER VALVE: WHITE
- NO GALVANIZED ITEMS ALLOWED.
- ALL FITTINGS TO BE PLASCOATED DUCTILE IRON ON ALL DUCTILE IRON.
- VALVES SHALL BE COATED INTERNALLY AND EXTERNALLY BEFORE DELIVERY.
- ALL VALVES TO BE FLANGED VALVES DRILLED TO SANS 1123 TABLE 1600/3.
- ALL NUTS AND BOLTS TO BE STAINLESS STEEL 316.
- BOLT TO BE PAINTED WITH ANTI-SIEZE COMPOUND AND WRAPPED IN 3 LAYERS OF DENSO TAPE.
- FLANGE ADAPTOR WITH STAINLESS STEEL BACKING RING, CONTINUOUSLY BUTT WELDED.

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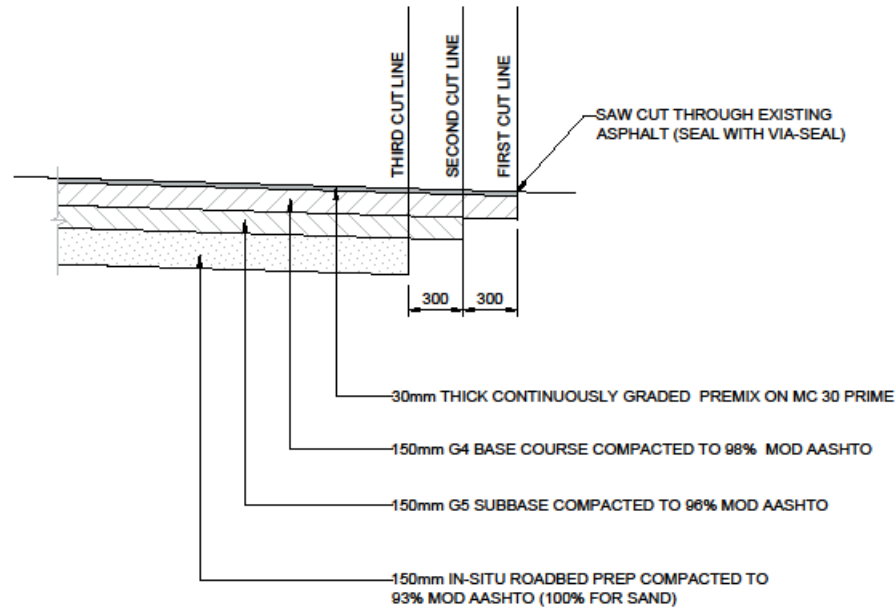
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A	FOR APPROVAL	24-02-05	CVH	CK
REVISIONS				

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PROJECT	VILLIERSDORP TRANSPORT INTERCHANGE AND MARKET ACCESS
TITLE	TYPICAL DETAIL OF VALVE

SCALE	on A3	SHEET	1 OF 1
AS SHOWN		PROJECT No.	23175
CONTRACT No.		DRAWING No.	23175-C-004-203
COORDINATE SYSTEM: WGS84 / Ld 15°		REV	



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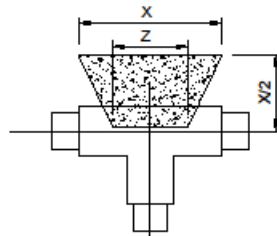
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PROJECT	VILLIERSDORP TRANSPORT INTERCHANGE AND MARKET ACCESS
TITLE	BENCHING INTO EXISTING LAYERWORKS

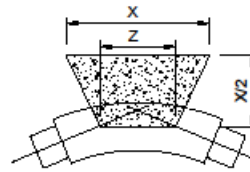
SCALE	on A3 AS SHOWN	SHEET	1 OF 1
CONTRACT No.		PROJECT No.	23175
DRAWING No.	23175-C-004-204	REV	A
COORDINATE SYSTEM: WGS84 / Ld 15°			

NOTES:

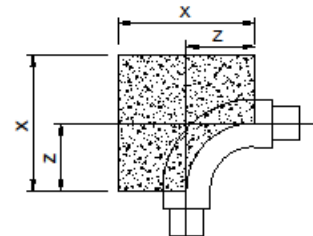
1. THRUST BLOCKS TO BE SYMMETRICAL TO THE CENTRELINES OF THE PIPES AND FITTINGS.
2. ALL ADDITIONAL EXCAVATION REQUIRED FOR THE CASTING OF THRUST BLOCKS IS REGARDED AS TRENCH EXCAVATION. THE RATES MUST INCLUDE THESE COSTS.
3. THRUST BLOCKS TO BE CAST AGAINST UNDISTURBED EARTH.
4. ALL CONCRETE TO BE CLASS 20/19.
5. ALL GALVANIZED BENDS TO BE PLAS-COATED WITH PPA 571 HES



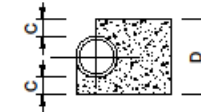
T - PIECE AND END CAP



22,5 ° AND 45 ° BENDS



90 ° BEND



TYPICAL CROSS-SECTION

DIMENSIONS OF THRUST BLOCKS IN SOIL WITH MAX.HOR. BEARING CAPACITY OF 65 kPa (SOFT CLAYS)				
PIPE DIA	X	D	Z	C
T - PIECE				
300	1950	1200	550	450
250	1475	900	425	325
200	1300	800	350	300
150	1000	600	275	225
100	650	400	200	150
22,5 ° BEND				
300	1200	1000	375	350
250	900	700	350	225
200	700	600	325	200
150	600	500	275	175
100	400	300	175	100
45 ° BEND				
300	1150	1200	375	450
250	1125	900	350	325
200	1000	800	325	300
150	750	600	275	225
100	500	400	175	150
90 ° BEND				
300	2550	1300	575	500
250	1890	1000	500	375
200	1640	900	475	350
150	1210	700	400	275
100	740	500	250	200


DIMENSIONS OF THRUST BLOCKS IN SOIL WITH MAX.HOR. BEARING CAPACITY OF 150 kPa				
PIPE DIA	X	D	Z	C
T - PIECE				
300	1000	1000	550	350
250	900	800	450	275
200	700	600	350	200
150	600	500	275	175
100	400	300	200	100
22,5 ° BEND				
300	650	800	375	150
250	600	450	350	100
200	500	350	325	75
150	400	250	275	50
100	300	150	175	25
45 ° BEND				
300	950	800	375	250
250	800	650	350	200
200	600	550	325	175
150	550	350	275	100
100	350	250	175	75
90 ° BEND				
300	1300	1100	575	400
250	1100	950	500	350
200	900	750	475	275
150	700	550	400	200
100	500	400	250	150

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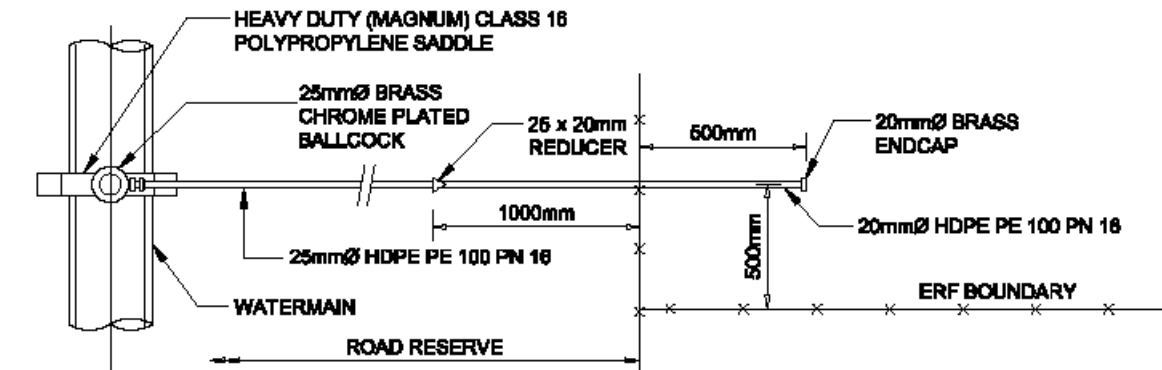
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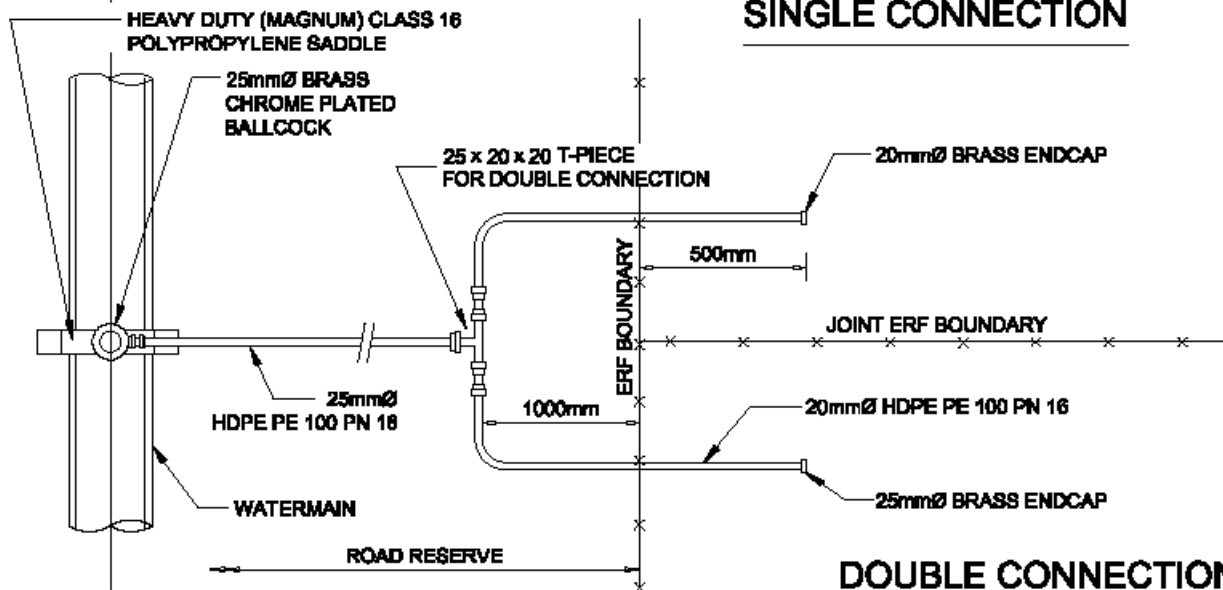
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PROJECT	VILLIERSDORP TRANSPORT INTERCHANGE AND MARKET ACCESS
TITLE	DETAIL OF THRUST BLOCKS

SCALE	1:50	SHEET	1 OF 1
CONTRACT No.		PROJECT No.	23175
DRAWING No.	23175-C-004-205	REV	A
DATE OF FIRST ISSUE:	WG884 / Ld 19'		



SINGLE CONNECTION



DOUBLE CONNECTION

NOTES

1. ALL PIPE SIZES ARE NOMINAL DIAMETER (DN)
2. BALL VALVES TO BE OPEN AT ALL TIMES.
3. ERF CONNECTIONS MAY ONLY BE COVERED AFTER INSPECTION BY MUNICIPAL REPRESENTATIVES.
4. WATER METERS TO BE INSTALLED IN THE ROAD RESERVE - AS CLOSE AS PRACTICALLY POSSIBLE TO THE ERF BOUNDARY.
5. READ IN CONJUNCTION WITH SECTION B OF DESIGN GUIDELINES AND MINIMUM STANDARDS FOR CIVIL ENGINEERING SERVICES.

NOMINAL DIA (DN) VS INSIDE DIA (ID)

SANS 150 4427 : 1998
PE 100 PN 16

DN (mm)	ID (mm)
20	15.10
25	20.10
32	25.60
40	32.20
50	40.20

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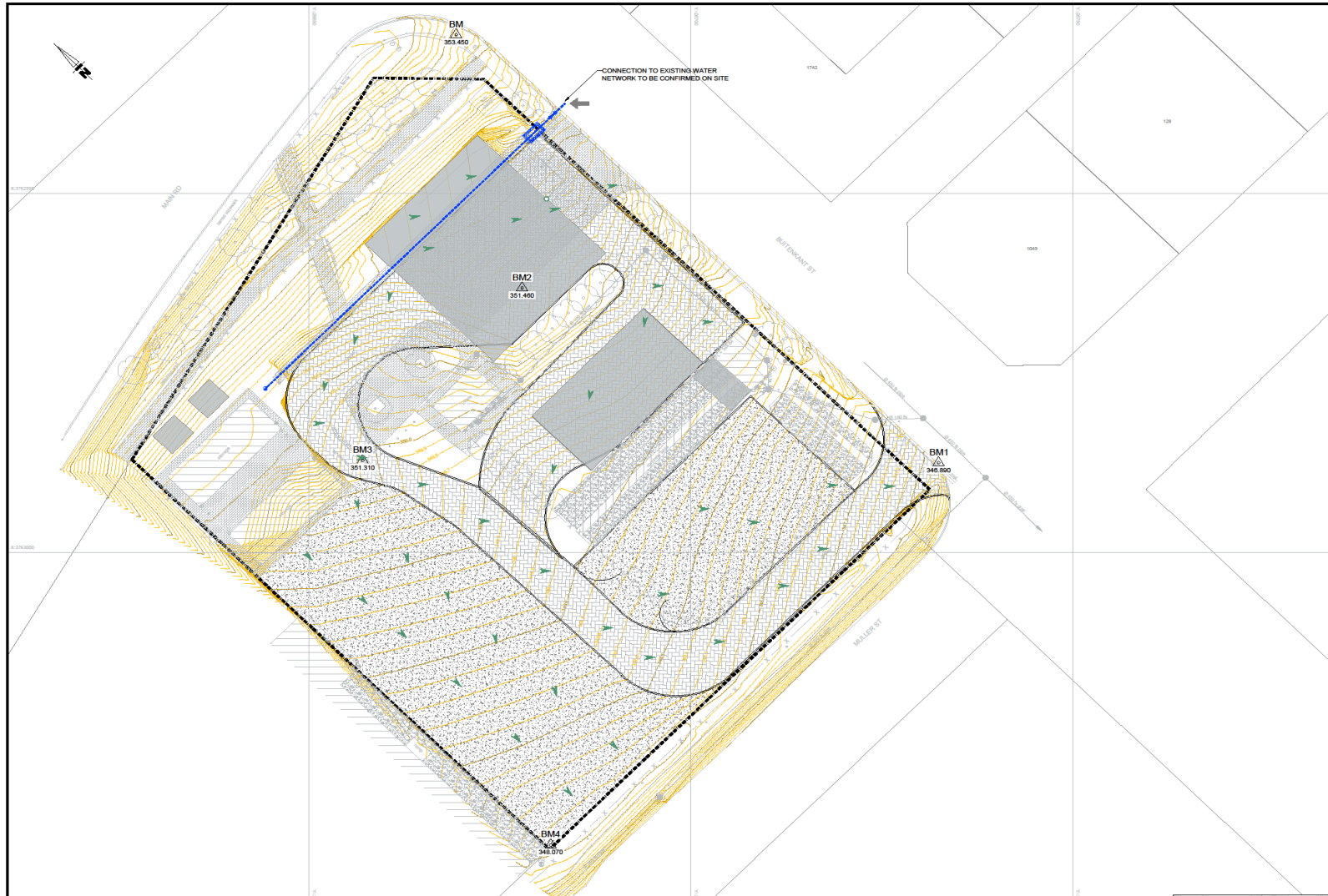
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A	FOR APPROVAL	24-02-06	CVH	CK
REVISIONS				

DESIGNED	JLS
DRAWN	CVH
CHECKED	CK

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TYGERVALLEY
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Tel: 021 014 0300 Fax: 021 014 0457
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PROJECT	VILLIERSDORP TRANSPORT INTERCHANGE AND MARKET ACCESS
TITLE	DETAIL OF WATER HOUSE CONNECTIONS

SCALE	NTS	SHEET	1 OF 1
CONTRACT No.		PROJECT No.	23175
DRAWING No.	23175-C-004-208	REV	A
DATE OF FIRST ISSUE:	WG084 / Lo 19'		



LEGEND EXISTING SERVICES

- FENCE
- FOUL SEWER COVER LEVEL
- INVERT LEVEL
- DEPTH
- TREES
- BENCHMARKS
- WATER VALVE
- WATER FIRE HYDRANT

LEGEND PROPOSED SERVICES

- 110mmØ PVC-U CLASS 12 PIPELINE
- WATER FIRE HYDRANT
- WATER METER CHAMBER
- WATER ISOLATION VALVE
- CONNECTION TO SERVICES
- STORMWATER RUNOFF TO DISCHARGE INTO EXISTING CHANNEL
- RAINWATER DOWNPIPE
- ROAD EDGE
- ROADWAY PAVED
- PARKING
- PLANTER BOX (AREA = 2m²)

- Notes:**
- Contractor must verify location and extent of all existing services prior to commencement of work.
 - For typical detail of Valve Chamber see City of Cape Town drawing no. W1.
 - For typical detail of Hydrant Chamber see City of Cape Town drawing no. W2.
 - For typical detail of Connection Detail see City of Cape Town drawing no. W3.
 - For typical detail of Bulk Water Meter see City of Cape Town drawing no. W4A and W4B.

Survey Reference Marks

ID	Y Coordinate	X Coordinate	Level	Description
BM1	351.400	342.600		BENCHMARK
BM2	351.400	342.600		BENCHMARK
BM3	351.310	342.600		BENCHMARK
BM4	346.070	342.600		BENCHMARK

The reference made to Engineer will also refer to Employer's Agent for GCC 2015 Contracts

SCALEBAR

0 7.5 15
Meters
1:250

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All dimensions must be verified on site before the works commence. Refer any discrepancies to the Engineer.

REV	DESCRIPTION	DATE	BY	CHK
A	FOR APPROVAL	24.02.05	CVH	CK

REVISIONS

DESIGNED	JLS
DRAWN	CVH
CHECKED	CK

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APPROVED

ENGINEERS:

DATE: 2024-02-01

APPROVED

CLIENT: _____

DATE: _____

CLIENT

Theewaterskloof
Municipality

PROJECT

VILLIERSDORP TRANSPORT INTERCHANGE
AND MARKET ACCESS

TITLE

SERVICES LAYOUT PLAN

SCALE	ON A1	SHEET
1:250		1 OF 1
CONTRACT No.	PROJECT No.	
	C23175	
DRAWING No.	REV	
23175-C-010-01	A	
COORDINATE SYSTEM: WGS84 / UTM		