TENDER NO 222/2024 – APPOINTMENT OF CONTRACTOR FOR THE CONSTRUCTION OF THORNHILL RESERVOIR AND FEEDER MAIN

CONTRACT NO: 222/2024

4CE CIDB Grading Required

NOVEMBER 2024

VOLUME 1

SERVICE PROVIDER		
TELEPHONE / FACSIMILE		
CLOSING DATE	**Monday, 25 November 2024 at 12:00**	

ISSUED BY:
Kouga Local Municipality
Physical Address:
16 Woltemade Street
Jeffreys Bay

Postal Address:
P O Box 21
Jeffrey Bay
6330

Contact Person: Mr. Jacques du Toit
Tel: 042 – 200 2200 / 042 - 200 8300

PREPARED BY:

Lukhozi Consulting Engineers (Pty) Ltd
36 Pickering Street
Newton Park
Port Elizabeth

Contact Person: Mr. Nyasha Godoka
Tel: 041 – 363 1984

GENERAL TENDER INFORMATION

TENDERS INVITED	:	05 November 2024
ESTIMATED CIDB CONTRACTOR GRADING	:	4CE or higher
CLARIFICATION MEETING	:	A compulsory clarification meeting to be held on **Friday, 15 November 2024 @09:00am**
VENUE FOR CLARIFICATION MEETING & SITE VISIT	:	Room 30, Kouga LM Woltemade Str Office, Jeffreys Bay followed by Site Inspection, Thornhill
CLOSING DATE	:	**25 November 2024**
CLOSING TIME	:	12H00
CLOSING VENUE	:	Tender Box at the Municipal Office, Room 122 16 Woltemade Street (front) / 21 St. Croix Street (back), Jeffreys Bay
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.

KOUGA LOCAL MUNICIPALITY

BID No.: 222/2024

THORNHILL RESERVOIR AND FEEDER MAIN

PARTICULARS OF BIDDER

Name of Bidder		
Contact Person:		
Postal Address		
Street Address		
Telephone Number	Code:	Number:
Cell phone Number		
Facsimile Number	Code:	Number:
E-Mail Address		
CSD Supplier Number (National Treasury)		
CIDB CRS Number		
Vat Registration Number		

CONTENTS

SECTION	DESCRIPTION	PAGE NUMBER(S)
	THE TENDER	
PART 1	**TENDERING PROCEDURES**	**5**
T1.1	Tender Notice and Invitation to Tender	6
T1.2	Tender Data	9
PART 2	**RETURNABLE DOCUMENTS**	**30**
T2.1	List of Returnable Documents	31
T2.2	Returnable Schedules	32
	THE CONTRACT	
PART 1	**AGREEMENT AND CONTRACT DATA**	**77**
C1.1	Form of Offer and Acceptance	74
C1.2	Contract Data	84
C1.3	Form of Guarantee	97
C1.4	Health and Safety Agreement	100
C1.5	Disclosure Statement	103
C1.6	Adjudication Board Member Agreement	104
PART 2	**PRICING DATA**	**107**
C2.1	Pricing Instructions	108
C2.2	Bill of Quantities	110
C2.3	Summary Page for Bill of Quantities	126
PART 3	**SCOPE OF WORK**	**127**
C3.1	Description of the Works	128
C3.2	Employer's Agenting	132
C3.3	Procurement	133
C3.4	Construction	138
C3.5	Management	197
PART 4	**SITE INFORMATION**	**203**
C4.1	Scope	204
C4.2	Finishing-off of the Site	204
	APPENDICES	
APPENDIX A	**List of Tender Drawings**	**205**

THE TENDER

PART 1 (OF 2): TENDERING PROCEDURES

T1.1 Tender Notice and Invitation to Tender

T1.2 Tender Data

T1.1: TENDER NOTICE AND INVITATION TO TENDER

KOUGA LOCAL MUNICIPALITY (EC108)
DIRECTORATE: WATER & SANITATION
NOTICE NO: 222/2024
APPOINTMENT OF CONTRACTOR FOR THE CONSTRUCTION OF THORNHILL RESERVOIR AND FEEDER MAIN

Suitably qualified, capable and experienced Contractors are hereby invited to submit tenders for the Appointment of a contractor for the construction of Thornhill reservoir and feeder main for Kouga Municipality.

Tenders

An electronic copy of the tender document will be available on E-Tender portal www.etender.gov.za or the municipal website www.kouga.gov.za as from **Tuesday, 05 November 2024**. After downloading the tender document from the website each prospective bidder **MUST** ensure that all the pages of the tender document are printed.

A compulsory site clarification session will be arranged for **Friday, 15 November 2024 @ 9h00am at 16 Woltemade Street, Jeffreys Bay, Room 42. Please take note that no attendee arriving 15 minutes late or more will be allowed to attend the clarification meeting.**

Please note:

- Telegraphic, telephonic, telex, facsimile, email or late tenders will not be accepted.
- This contract will be evaluated on the 80 (price)
- The specific goals would be for a maximum of 20 points. To claim for specific goals prospective bidders MUST submit proof/required documents.
- **An electronic copy of the completed tender document with returnable documents must be submitted with tender submission saved a in a flash drive or CD. Failure to submit AN ORIGINAL HARD COPY AND A COPY ON EITHER USB or CD will deem the bid non-responsive. One electronic device must be submitted per contract**
- **An estimated contractor CIDB Grading of 4CE or higher is required.**
- **A minimum functional assessment score of 75% will apply to this contract.**
- A valid Tax compliance Status pin must be submitted.
- Prospective Service Providers must register on Kouga Municipality's Supplier database as per the registration requirements.
- The National Treasury Central Supplier Database Summary report must be submitted.
- The Council reserves the right to accept any tender and, or part thereof, appoint more than one contractor, and does not bind itself to accept the lowest or any tender. The Council reserves the right to appoint any contractor.
- The validity period for submission will be 90 days from the closing date.
- Tenders that are deposited in the incorrect box or delivered to any other venue will not be considered.

Any inquiries relating to this tender must be submitted in writing via e-mail to tenders@kouga.gov.za and copied to melsgerber@kouga.gov.za.

Completed documents in a sealed envelope endorsed "**NOTICE NO: 222/2024: "APPOINTMENT OF CONTRACTOR FOR THE CONSTRUCTION OF THORNHILL RESERVOIR AND FEEDER MAIN"** must be placed in the Tender Box at 16 Woltemade Street (front entrance), Jeffrey's Bay, Room 122 on or before **MONDAY, 25 NOVEMBER 2024 at 12:00.**

C. DU PLESSIS

MUNICIPAL MANAGER

P.O. Box 21

JEFFREYS BAY
6330

For Placement:
Herald/Municipal Website/ Municipal Notice Boards in all offices/areas – 05 November 2024

PART A

INVITATION TO BID

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE (*NAME OF MUNICIPALITY/ MUNICIPAL ENTITY*)					
BID NUMBER:	**222/2024**	CLOSING DATE:	**25 November 2024**	CLOSING TIME:	**12h00**
DESCRIPTION	**THORNHILL RESERVOIR AND FEEDER MAIN**				

THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (MBD7).
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE TENDER BOX SITUATED AT:
KOUGA LOCAL MUNICIPALITY, 16 WOLTEMADE STREET, JEFFREYS BAY – ROOM 122

SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
TAX COMPLIANCE STATUS	TCS PIN:		**OR**	CSD No:	
B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	☐ Yes ☐ No		B-BBEE STATUS LEVEL SWORN AFFIDAVIT	☐ Yes ☐ No	

[A B-BBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR B-BBEE]			
1. ARE YOU THE ACCREDITED REPRESENTATIVE **IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?**	☐Yes ☐No [IF YES ENCLOSE PROOF]	**2.** ARE YOU A FOREIGN BASED SUPPLIER FOR **THE GOODS /SERVICES /WORKS OFFERED?**	☐Yes ☐No [IF YES, ANSWER PART B:3]
3. TOTAL NUMBER OF ITEMS OFFERED		**4. TOTAL BID PRICE**	
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	Supply Chain Management	CONTACT PERSON	Mr. Pieter Felix
TELEPHONE NUMBER	042-200-2200	TELEPHONE NUMBER	081 373 2698
E-MAIL ADDRESS	tenders@kouga.gov.za	E-MAIL ADDRESS	pfelix@kouga.gov.za

T1.2: TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in the CIDB Standard for Uniformity in Employer's Agenting and Construction Works Contracts as published in Board Notice 423 of 2019 of 08 August 2019. (See www.cidb.org.za).

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

"Bid" should read "tender," and vice versa, throughout the document – implying both words have the same meaning.

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

Clause Number **Tender Data**

C.1 General

C.1.1 Actions

The Employer is **Kouga Local Municipality**.

C.1.1.2 Tenderers shall declare any perceived, known and potential conflict of interest under Returnable Documents, Form T2.1.14 Declaration of Intent of Persons in Service of State and Form T2.1.16 Declaration of Tenderers Supply Chain Management Practices.

C.1.2 Tender Documents

Add the following:

The following documents form part of this tender:

A. Available from the S.A. Federation of Civil Engineering Contractors, the S.A. Institute of Civil Engineering, the S.A. Bureau of Standards and the Government printers, as applicable:

1. Annex C, of the Standard Conditions of Tender of Government Gazette No. 42622 dated 8 August 2019.
2. The General Conditions of Contract for Construction Works 2015, as amended by the Contract Data.
3. S.A. Bureau of Standardised Specifications for Civil Engineering Construction as amended by the Specification Data.

The Tender Documents issued by the Employer comprise:

VOLUME 1: The Tender Document (this document), in which are bound:

THE TENDER
Part T1: Tendering Procedures
T1.1 Tender Notice and Invitation to Tender
T1.2 Tender Data

Part T2: Returnable documents
T2.1 List of Returnable Documents
T2.2 Returnable Schedules

THE CONTRACT

Part C1: Agreements and Contract Data
C1.1 Form of Offer and Acceptance
C1.2 Contract Data
C1.3 Form of Performance Guarantee
C1.4 Occupational Health and Safety Agreement
C1.5 Disclosure Statement
C1.6 Adjudication Board Member Agreement

Part C2: Pricing data
C2.1 Pricing Instructions
C2.2 Bill of Quantities
C2.3 Summary Page of Bill of Quantities

Part C3: Scope of Work
C3.1 Description of the Works
C3.2 Employer's Agenting
C3.3 Procurement
C3.4 Construction
C3.5 Management

Part C4 : Site Information
C4.1 Scope
C4.2 Finishing-off of the Ste

Appendix A : List of Tender Drawings

C.1.3 Interpretation

C.1.3.1 *Delete the clause and replace with the following:*
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.1.4 Communication

Delete the first sentence of the clause and replace with the following:
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 director: Supply Chain Management or his nominee.

The Employer's Agent, for the purposes of any communication between the Employer and Tenderer is:

Name	:	Lukhozi Consulting Engineers PTY (Ltd)
Represented By	:	Conrad Bezuidenhout
Address	:	36 Pickering Street, Newton Park Port Elizabeth
Telephone	:	041 363 1984

C.1.5 Cancellation and Re-Invitation of Tenders

Delete the full stop at the end of C.1.5.1 c) and replace with, or
Add the following after C.1.5.1 c):

d) there is a material irregularity in the tender process.

C.1.6 Competitive negotiation procedure

Add the following to C.1.6.2.1:
A competitive negotiation procedure will not be followed.

C.1.6.3 Proposal procedure using the two-stage system

Add the following between C.1.6.3 and C.1.6.3.1:
A two-stage system will not be followed.

Add the following after C.1.6.3.2.2

C.1.6.4 Objections, complaints, queries, and disputes/ Appeals in terms of Section 62 of the Systems Act/ Access to court

C.1.6.4.1 Disputes, objections, complaints, and queries

In terms of Regulations 49 and 50 of the Local Government: Municipal Finance Management Act, 56 of 2003 – Municipal Supply Chain Management Regulations (Board Notice 868 of 2005):

a) Persons aggrieved by decisions or actions taken by the Kouga Local Municipality in the implementation of its supply chain management system, may lodge within fourteen (14) days of the decision or action, a written objection or complaint or query or dispute against the decision or action.

C.1.6.4.2 Appeals

a) In terms of Section 62 of the Local Government: Municipal Systems Act, 32 of 2000 a person whose rights are affected by a decision taken by the Municipality, may appeal against that decision by giving written notice of the appeal and reasons to the Municipal Manager within 21 days of the date of the notification of the decision.
b) An appeal must contain the following:
   i) Must be in writing
   ii) It must set out the reasons for the appeal
   iii) It must state in which way the Appellant's rights were affected by the decision.
   iv) It must state the remedy sought; and
   v) It must be accompanied with a copy of the notification advising the person of the decision

C.1.6.4.3 Right to approach the courts and rights in terms of Pro**motion of Administrative Justice Act, 3 of 2000 and Promotion of Access to Information Act, 2 of 2000**

The sub- clauses above do not influence any affected person's rights to approach the High Court at any time or its rights in terms of the Promotion of Administrative Justice Act and Promotion of Access to Information Act.

C.1.6.4.4 All requests referring to sub clauses C.1.6.4.1 and C.1.6.4.2 must be submitted in writing to:

The Municipal Manager, Kouga Local Municipality, PO Box 21, Jeffreys Bay, 6330.

C.1.6.4.5 All requests referring to clause C.1.6.4. 3 regarding access to information or reasons must be submitted in writing to:

The Municipal Manager, Kouga Local Municipality, PO Box 21, Jeffreys Bay, 6330.

C.1.7 **Kouga Local Municipality Supplier Database Registration**

Tenderers are required to be registered on the Kouga Local Municipality's Supplier Database 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.

Tenderers who wish to register on the Kouga Local Municipality's Supplier Database may collect registration forms from the Supplier Management Unit located within the Supplier Management / Registration Office, *16 Woltemade Road, Jeffreys Bay*.

C.1.8 **National Treasury Web Based Central Supplier Database (CSD) Registration**

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.

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**.

It is each tenderer's responsibility to keep all the information on the National Treasury Web Based Central Supplier Database (CSD) updated.

C.2 Tenderer's obligations

C.2.1 **Eligibility**

*Delete the heading **Eligibility** and Replace with **Responsiveness Criteria***

C.2.1.1 *Delete the clause and replace with the following:*

Tenderers must submit a tender offer that complies in all aspects to the conditions as detailed in this document. Only those tenders that comply in all aspects with the tender conditions, specifications, pricing instructions and contract conditions will be declared responsive.

Add the following after C.2.1.2:

C.2.1.2 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.

C.2.1.3 Only those tenders that satisfy the following criteria will be declared responsive:

C.2.1.3.1 **Construction Industry Development Board (CIDB) Registration**

Only those tenders submitted by tenderers who are registered, or capable of being registered, with an active status with the CIDB, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for a CE class of construction work, will be declared responsive. Tenderers must obtain such active status upon being requested to do so in writing and within the period contained in such a request, failing which their tenders will be declared non-responsive.

Joint Ventures are eligible to submit tenders provided that:

a) every member of the joint venture is registered with an active status with the CIDB.
b) the lead partner has a contractor grading designation of not lower than one level below the required grading designation in the CE class of construction work: and
c) the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 4CE class of construction work or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations.
d) The CIDB grading is extended to Potentially Emerging (PE) Contractors one grade lower i.e. 3CE PE in the tender value range in terms of Regulation 25.(8).

For alpha-numeric associated with the contractor Grading Designations see Annex G attached.

C.2.1.4.2 **Compliance with requirements of Kouga Local Municipality's SCM Policy and procedures**

Only those tenders that are compliant with the requirements below will be declared responsive:

a) Full name of entity submitting tender to be provided.
b) Identification number or company or other registration number to be provided.
c) Tax reference number to be provided.
d) VAT registration number to be provided.
e) A completed **Certificate of Authority for Partnerships/ Joint Ventures/ Consortiums** to be provided authorising the tender to be made and the signatory to sign the tender on the partnership /joint venture/consortium's behalf (applicable schedule to be completed).
f) A copy of the partnership / joint venture / consortium agreement to be provided.
g) A completed **Declaration of Interest – State Employees** to be provided and which does not indicate any non-compliance with the legal requirements relating to state employees (applicable schedule to be completed).
h) A completed **Declaration – Conflict of Interest** and **Declaration of Bidder's past Supply Chain Management Practices** to be provided and which does not indicate any conflict or past practises that renders the tender non-responsive (applicable schedules to be completed).
i) A completed **Certificate of Independent Bid Determination** to be provided and which does not indicate any non-compliance with the requirements of the schedule (applicable schedule to be completed).
j) The tenderer (including any of its directors or members), has not been restricted in terms of abuse of the Supply Chain Management Policy.
k) The tenderer's tax matters with SARS are in order.
l) The tenderer is not an advisor or consultant contracted with the Employer.
m) The tenderer is not a person, advisor, corporate entity, or a director of such corporate entity, involved with the bid specification committee.

C.2.1.4.3 **Minimum score for functionality compliance**

In order to be considered for a contract in terms of this tender, tenderers must achieve the minimum score for functionality as stated below. Verifiable proof of similar Scope of Work contracts successfully completed, must be submitted in the applicable Returnable Schedule, these must be substantiated with completion certificates and most recent contact information

The description of the functionality criteria and the maximum possible score for each is shown in the table below. The score achieved for functionality will be the sum of the scores achieved, in the evaluation process, for the individual criteria.

CRITERIA	APPLICATION OF THE CRITERIA	WEIGHT
Company Experience Schedule 1H	Demonstrated experience of the tendering entity with respect to comparable projects (Water Reservoir construction) by completing each row in the Returnable Schedule of work experience in full (below contract value ranges are VAT inclusive): • 4 x completed projects > R4m • 3 x completed projects > R4m • 2 x completed projects > R4m	(Max 40 points) 40 points 30 points 20 points

	• 1 x completed projects > R4m	10 points
Key Personnel Schedule O-1	**Contracts Manager** Civil and Structural Engineering Qualifications: PrEng / PrTech: B Eng / BSc / B Tech No Qualification (s) or CV attached Relevant Experience: • 10+ years • 6 – 10 years • 3 – 5 years • 0 - 2 years	(Max 10 points) 3 points 2 points 0 points 7 points 6 points 3 points 0 points
Key Personnel Schedule O-2	**Construction Manager (Site Agent)** Civil and Structural Engineering Qualifications: PrEng / PrTech: B Eng / BSc / B Tech No Qualification (s) or CV attached Relevant Experience: • 10+ years • 6 – 10 years • 3 – 5 years • 0 - 2 years	(Max 10 points) 3 points 2 points 0 points 7 points 6 points 2 points 0 points
Key Personnel Schedule O-3	**General Foreman** Relevant Experience: • 10+ years • 6 – 10 years • 3 – 5 years • 0 - 2 years	(Max 10 points) 10 points 8 points 5 points 0 points
Key Personnel Schedule O-4	**OH&S Agent (SACPCMP Registered – Proof required)** Relevant Experience: • 10+ years • 6 – 10 years • 3 – 5 years • 1 - 2 years	(Max 10 points) 10 points 8 points 6 points 2 points
Maximum possible score for Functionality		**80 points**

The minimum score for functionality is **75%**. Tenderers that fail to achieve the minimum score for functionality will be declared as non-Responsive.

Where the entity tendering is a Joint Venture, the tender must be accompanied by a statement describing exactly what aspects of the work will be undertaken by each party to the joint venture (appended to Schedule 10, Part T2.2: Returnable Schedules).

Where the tenderer intends to sub-contract any of the work components listed above, full details of the intended sub-contractor and portions of work to be undertaken by them shall be provided with the tender. The verifiable experience of the sub-contractor relevant to the component of work to be performed by them will be taken into consideration when allocating scores. Intention to go into sub-consultancy agreement to be included else no points will be scored.

Tenderers shall ensure that all relevant information has been submitted with the tender offer in the prescribed format to ensure optimal scoring of functionality points for each Evaluation Criteria. Failure to

provide all information **IN THIS TENDER SUBMISSION** could result in the tenderer not being able to achieve the specified minimum scoring.

C.2.1.4.5 **Compulsory clarification meeting**

Tenderers are required to attend a compulsory clarification meeting and site visit at which they may familiarise themselves with aspects of the proposed work, services or supply and pose questions.

Details of the meeting(s) are stated in the General Tender Information.

Only those tenders submitted by tenderers who have signed the attendance register will be declared responsive.

C.2.1.4.6 **Good Standing with Bargaining Council**

Only those tenders submitted by tenderers who are in good standing with the Bargaining Council for the Civil Engineering Industry (BCCEI) at the time of the tender award will be declared responsive. Tenderers must attach such proof to the schedule titled Declaration in Respect of Compliance with Labour Legislation or obtain such upon being requested to do so in writing and within the period contained in such a request, failing which their tenders will be declared non-responsive. Refer to Schedule 21 of the Returnable Schedules.

C.2.3 **Check documents**

C.2.3 *Amend the clause to read:*

".....and notify the Employer's **Agent** of any discrepancy....."

Tenderers must examine the documents upon receipt to ensure that all pages and drawings (if applicable) are included and are to report any missing pages or drawings. Drawings which are illegible or indistinct, and errors or ambiguities in the Specifications, Schedule of Rates and Drawings or any contradictions between the specifications, Schedule of Rates and Drawings in order to obtain rulings on such errors, ambiguities or discrepancies. No claim for extras based on such errors, ambiguities or discrepancies will be considered after the opening of Tenders. Tenderers having any queries relating to discrepancies in, or omissions from the document shall contact the Employer or Employer's Agent immediately.

C.2.7 **Clarification meeting**

Add the following after the second sentence:

The arrangements for the compulsory site visit/clarification meeting are as stated on the General Tender Information page and in the Responsiveness Criteria (if applicable).

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.

Tenderers must sign the attendance list in the name of the tendering entity. Only Certificates of Attendance of Tenderers that attended the compulsory clarification meeting will be signed by the Employer or Employer's representative, after the compulsory clarification meeting has been completed. Addenda may be issued to and **tenders will be received only from those tendering entities appearing on the attendance list if their Certificate of Attendance was signed by the Employer or Employer's representative at the compulsory clarification meeting.**

Tender documents will not be made available at the site visit and/or clarification meeting.

C.2.8 **Seek Clarification**

Add the following after the first sentence:

The tenderer warrants that it has:

a) inspected the Specifications and read and fully understood the Conditions of Contract.

b) read and fully understood the whole text of the Specifications and Price Schedule and thoroughly acquainted itself with the nature of the goods proposed and generally of all matters which may influence the Contract.
c) visited the site(s) where delivery of the proposed works will take place, carefully examined existing conditions, the means of access to the site(s), the conditions under which the delivery is to be made, and acquainted itself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials, plant and equipment to and from the site(s) and made the necessary provisions for any additional costs involved thereby.
d) requested the Employer to clarify the requirements contained in the Specifications and Price Schedule, the exact meaning or interpretation of which is not clearly intelligible to the tenderer.
e) received any notices to the tender documents which have been issued in accordance with the Employer's SCM Policy.

The Employer will therefore not be liable for the payment of any extra costs resulting from any claim submitted by the tenderer arising from any alleged ambiguity or uncertainty contained in the tender document.

C.2.11 *Add the following to the clause:*

"In the event of a mistake having been made on the Schedule of Rates, it shall be crossed out in non-erasable ink and be accompanied by a full signature of each signatory to the Tender at each and every price alteration."

Correction fluid shall not be used in the Schedule of Rates where prices are calculated to derive a total amount. If correction fluid has been used, the tender as a whole will be classified **non-responsive** and not be considered.

The Employer will reject and classify the tender **non-responsive** if corrections are not made in accordance with the above."

C.2.12 **Alternative tender offers**

C.2.12.1 *Add the following to C.2.12.1 at the end of the first sentence:*

If a tenderer wishes to submit an alternative tender offer, he shall do so as a separate offer on a separate set of tender documents. The alternative tender offer shall be submitted in a separate sealed envelope on a separate Form of Offer, both clearly marked "Alternative Tender" in order to distinguish it from the main tender offer.

While it is not necessary to duplicate all parts of the main tender offer, the alternative tender offer shall be supported by the following documents as applicable:

a) the schedule that compares the alternative(s) offered with the requirements of the issued tender documents
b) preliminary designs, calculations, drawings and all other pertinent technical information and characteristics must be submitted with the alternative tender offer, in order to enable the Employer to evaluate the efficacy of the alternatives proposed
c) revised Bills of Quantities, or parts thereof, highlighting the changes made, together with a revised Summary, the total of which has been carried to the Form of Offer
d) details of any proposed amendments to the Pricing Assumptions

C.2.12.3 *Add the following to C.2.12.1 at the end of the first sentence:*

An alternative of the highest ranked acceptable main tender offer that is priced higher than the main tender offer may be recommended for award, provided that the ranking of the alternative tender -offer is higher than the ranking of the next ranked acceptable main tender offer.

The Employer's costs in confirming the acceptability of the alternative offer will be, *inter alia*, taken into account in considering the alternative offer.

The Employer will not be bound to consider alternative tenders and shall have sole discretion in this regard.

In the event that the alternative is accepted, the Contractor shall accept full responsibility that the alternative offer complies in all respects with the Employer's standards and requirements.

C.2.13 **Submitting a tender offer**

Add the following to C.2.13.1 at the end of the first sentence:

C.2.13.1 Where the tendering entity is a joint venture it is recommended that the standard CIDB Joint Venture Agreement be used.

Add the following to C.2.13.3 at the end of the first sentence:

C.2.13.3 Each Tenderer is required to return the original completed tender documents, including drawings with all the required information supplied, duly completed in non-erasable ink in all respects **together with one (1) copy of Parts T2, C1 and C2.**

An original Bill of Quantities and Form of Offer and Acceptance (Form C1.1), duly completed and signed by the tenderer, must be returned in respect of the project for which a tender is submitted.

Add the following to clause C.2.13.4:

C.2.13.4 "Only authorised signatories may sign the original and all copies of the tender offer where required in terms of C.2.13.3

In the case of a **ONE-PERSON CONCERN** submitting a tender, this shall be clearly stated.

In case of a **COMPANY** submitting a tender, include a copy of a **resolution by its board of directors** authorising a director or other official of the company to sign the documents on behalf of the company.

In the case of a **CLOSE CORPORATION** submitting a tender, include a copy of a **resolution by its members** authorising a member or other official of the corporation to sign the documents on each member's behalf.

In the case of a **PARTNERSHIP** submitting a tender, **all the partners** shall sign the documents, unless one partner or a group of partners has been authorised to sign on behalf of each partner, in which case **proof of such authorisation** shall be included in the Tender.

In the case of a **JOINT VENTURE/CONSORTIUM** submitting a tender, include **a resolution** of each company of the Joint Venture together with a resolution by its members authorising a member of the Joint Venture to sign the documents on behalf of the Joint Venture.

Accept that failure to submit proof of authorisation to sign the tender, shall result in a Tender Offer being regarded as non-responsive."

Add the following to C.2.13.5 at the end of the first sentence:

C.2.13.5 The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:

Employer:	**KOUGA LOCAL MUNICIPALITY.**
Physical address:	16 Woltemade Street, Jeffreys Bay.
Identification details:	Bid Number: 222/2024 Title of Contract: THORNHILL RESERVOIR AND FEEDER MAIN

Sealed tenders with the Tenderer's name and address and the endorsement "**BID NO. 222/2024: THORNHILL RESERVOIR AND FEEDER MAIN**" on the envelope, must be placed in the appropriate official tender box at the abovementioned address.

Add the following to C.2.13.6:

C.2.13.6 A two-envelope procedure will **not** be followed (C.3.5).

Add the following to C.2.13.9:

C.2.13.9 Telephonic, telegraphic, telex, facsimile, e-mailed or posted tender offers will not be accepted.

Add the following after C.2.13.9:

C.2.13.10 By signing the offer part of C1.1 Form of Offer and Acceptance the tenderer declares that all information provided in the tender submission is true and correct.

C.2.13.11 The Employer shall not formally issue tender documents in electronic format 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 issued tender documents, or parts thereof, will only be provided to tenderers who have been issued with the tender documents as contemplated in C.1.2 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. Only those tenders that have been completed on the issued hard copy tender document shall be considered, provided that printed Bills of Quantities, in the same format (that is, layout, billed items and quantities) as those issued electronically by the Employer, may be submitted with the tender as stated in C.2.13.2.
d) Where Addenda have been issued which amend the Bills of Quantities, then the printed Bills of Quantities shall take these into account. The pages of the issued Bills of Quantities should not be removed from the tender document.
e) The Employer accepts no responsibility or liability arising from any reliance on or use of the electronic version provided in terms of this clause. 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.
f) Any non-compliance with these provisions, including effecting any unauthorised alterations to the tender documents as contemplated in C.2.11, shall render the tender non-responsive. 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.
g) In requesting the electronic version of the tender documents or parts thereof, the tenderer is deemed to have read, understood, and accepted all the above conditions.

C.2.15 **Closing time**

Add the following to C.2.15.1 after the first sentence:

C.2.15.1 The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.

C.2.16 **Tender offer validity**

Add the following to C.2.16.1 after the first sentence:

C.2.16.1 The tender offer validity period is **(90 calendar days)**.

C.2.16.2 *Delete the clause and replace with the following:*

Tender offers shall be deemed to remain valid until formal acceptance by the Employer of an offer at any time after the expiry date of the original tender offer validity period, unless the Employer is notified in writing of anything to the contrary, including any further conditions, by the tenderer.

Any further conditions introduced by the tenderer will be considered at the sole discretion of the Employer.

C.2.17 **Clarification of tender offer after submission**

Add the following to C.2.17 at the end of the third sentence:

A tender will be rejected as non-responsive if the tenderer fails to provide any clarification or supporting documents requested by the Employer within the time for submission stated in the Employer's written request for such clarification or documents.

C.2.18 **Provide other material**

Delete the following word in C.2.18.1:

C.2.18.1 notarized

Add the following to C.2.18.1 at the end of the first paragraph:
Provide, on written request by the Employer, where the transaction value (tendered amount) inclusive of VAT **exceeds R 10 million**:

a) audited annual financial statement for the past 3 years, or for the period since establishment if established during the past 3 years, if required by law to prepare annual financial statements for auditing.
b) a certificate signed by the tenderer certifying that the tenderer has no undisputed commitments for municipal services towards a municipality or other service provider in respect of which payment is overdue for more than 30 days.
c) particulars of any contracts awarded to the tenderer by an organ of state during the past five years, including particulars of any material non-compliance or dispute concerning the execution of such contract.
d) a statement indicating whether any portion of the goods or services are expected to be sourced from outside the Republic, and, if so, what portion and whether any portion of payment from the municipality or municipal entity is expected to be transferred out of the Republic.

Each party to a Consortium/Joint Venture shall submit separate certificates/statements in the above regard.

Add the following after C.2.18.2:

C.2.18.3 Tenderers shall fully cooperate with the Employer's external service provider appointed to perform a due diligence review and risk assessment upon receipt of such written instruction from the Employer.

Failure to fully cooperate could result in a tender being declared as non-responsive.

C.2.18.4 **Compliance with Occupational Health and Safety Act, 85 of 1993**
Tenderers are to note the requirements of the Occupational Health and Safety Act, 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 submit with his tender or upon request, appended to Schedule 16: Health and Safety Plan in T2.2: Returnable Schedules, a draft Health and Safety Plan in respect of the Works in sufficient detail to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act, Regulations and Health and Safety Specification in Part C3.7 Health and Safety Specifications for the works detailed in Part C3 Scope of Work.

C.2.20 The successful Tenderer will be required to submit a Performance Guarantee in the prescribed format from an approved insurer or financial institution prior to the commencement of work on this contract.

C.2.23 **Certificates**
Add the following after the first sentence:
The tenderer is required to submit the following:

C.2.23.1 **Evidence of tax compliance**
Tenderers shall be registered with the South African Revenue Service (SARS) and their tax affairs must be in order and they must be tax compliant. In this regard, it is the responsibility of the Tenderer to submit evidence in the form of a valid Tax Clearance Certificate issued by SARS to the Employer at the Supplier Management Unit located within the Supplier Management / Registration Office, *16 Woltemade Street, Jeffreys Bay*, or included with this tender. The tenderer must also provide its Tax Compliance Status PIN number on the **Compulsory Enterprise Questionnaire**

Each party to a Consortium/Joint Venture shall submit a separate Tax Clearance Certificate.

Tenderers are to note that the Employer will not award a contract to a Tenderer whose tax matters are not in order.

C.2.23.2 **Broad-Based Black Economic Empowerment Status Level Documentation**

In order to qualify for preference points, it is the responsibility of the tenderer to submit documentary proof, either as certificates, sworn affidavits or any other requirement prescribed in terms of the B-BBEE Act, of its B-BBEE status level of contribution in accordance with the applicable Codes of good practise as issued by the Department of Trade and Industry, to the Kouga Local Municipality at the Supplier Management Unit located within the Supplier Management / Registration Office, *16 Woltemade Street, Jeffreys Bay* or included with the tender submission.

Consortiums/Joint Ventures will qualify for preference points, provided that the **entity** submits the relevant certificate/scorecard in accordance with the applicable codes of good practise. Note that, in the case of unincorporated entities, a verified consolidated B-BBEE scorecard must be submitted in the form of a certificate with the tender.

Tenderers are further referred to the content of the **Preference Schedule** for the full terms and conditions applicable to the awarding of preference points.

The applicable code for this tender is the **Amended Codes for Measuring Broad-Based Black Economic Empowerment in the Construction Sector) unless in possession of a valid certificate in terms of the transitional arrangements contained in these Codes.**

The tenderer shall indicate in Section 4 of the **Preference Schedule** the Level of Contribution in respect of the enterprise status or structure of the tendering entity (the supplier).

Add the follow new clause after C.2.23.2

C.2.24 **Proposed Deviations and Qualifications**

Where the tenderer cannot tender in all respects in accordance with the provisions contained in the tender documents, all deviations therefrom shall be clearly and separately listed in the schedule titled **Proposed Deviations and Qualifications by Tenderer** in T2.2 Returnable Schedules, or in a tenderer's covering letter expressly referenced in this schedule.

The tenderer accepts that the Employer will examine such deviations in terms of clause C.3.8.2 and shall not be bound to accept any such deviations or qualifications.

It must be clearly stated by the tenderer whether the sum tendered in the Tender Offer includes for all such deviations or qualifications listed or referred to in the schedule titled **Proposed Deviations and Qualifications by Tenderer** or not.

C.2.25 **Employment Contracts**

Accept that successful tenderers shall be obliged to conclude employment contracts with their employees failing which the Municipality reserves the right to terminate the awarded contract.

C.2.26 **Remuneration**

Accept that successful tenderers shall pay their workers in accordance with SAFCEC rates or Civil Engineering Bargain Council.

C.2.27 **Scope of Mandatory Subcontract Works**

The Kouga Local Municipality will enforce CIDB Contractor grading designation of 4CE to subcontract a percentage of the work as per Clause C3.3.2.1 (sliding scale), that excludes the Main Contractor's Preliminary and General Costs, VAT and contingencies to specified entities such as EE's, the rand value which is based on the goods, services and work undertaken by the specified entities.

C.3 The Employer's undertakings

C.3.2 **Issue Addenda**

Delete the words "three days" from the first sentence and replace with:

"Five working days where possible"

Add the following to C.3.2 at the end of the paragraph:
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.

C3.4 **Opening of tender submissions**

Add the following to C.3.4.2 at the end of the paragraph:
The location for opening of the tender offers is the Tender Submission Office at the address as stated on the General Tender Information page.

C.3.8 **Test for responsiveness**

C.3.8.2 *Delete par C.3.8.2 (c)*

Replace the final sentence of C.3.8.2 with the following:
Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the material deviation.

Add the following after clause C.3.8.2

C.3.8.3 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.

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

Add the following after clause C.3.9.2

C.3.9.3 In the event of tendered rates or lump sums being declared by the Employer to be unacceptable to it because they are not priced, either excessively low or high, or not in proper balance with other rates or lump sums, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the tendered rates or lump sums objected to, it may request the tenderer to amend these rates and lump sums along the lines indicated by it.

The Tenderer will then have the option to alter and/or amend the rates and lump sums objected to and such other related amounts as are agreed on by the Employer, but this shall be done without altering the tender offer in accordance with this clause.

Should the Tenderer fail to amend his tender in a manner acceptable to and within the time stated by the Employer, the Employer may declare the tender as non-responsive.

C.3.10 **Clarification of a tender offer**

Delete the clause and replace with the following:

C.3.10 The Employer may, after the closing date, request additional information or clarification from tenderer, in writing on any matter affecting the evaluation of the tender offer or that could give rise to ambiguity in a contract arising from the tender offer.

C.3.11 **B-BBEE specific goals**

Up to 100 minus $\mathbf{W_1}$ tender evaluation points will be awarded to tenderers on the basis of the data supplied in Part 2: Returnable Documents of the Tender Portion.

Tenders shall be evaluated in terms of the Preferential Procurement Regulations 2017. The value of the tender is estimated not to exceed R50 000 000-00 and therefore the 80/20 system shall be applicable. The financial offer will be scored using Formula 2 (Option 1) where the value of W1 is 80 points. Up to a maximum of 20 points for this tender will be awarded in terms of the tenderers B-BBEE status level of contribution.

Preference points shall be scored in accordance with Regulation 6 (2) or 7 (2) of the Preferential Procurement Regulations, 2017 therefore preference points will be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below, but **points can only be obtained by submitting a certified B-BBEE Certificate**:

The value of this bid is estimated not to exceed R50 000 000.00 and therefore the (80/20) system shall be applicable

B-BBEE Status Level of Contributor	Number of Points for Preference (80/20)	Number of Points for Preference (90/10)
1	10	5
2	8	4
3	6	3
4	4	2
5	3	1
6	2	1
7	2	1
8	2	1
Non-compliant contributor	0	0

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.

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 tender.

No	Specific Goals Categories	Max points allocation	Evaluation Indicators
1	B-BBE Status Level Contributor	10	As for B-BBEE points allocation table above.
2	The promotion of enterprises located in a specific province for work to be done or services to be rendered in that province.	10	10 Points= Located within the boundaries of the Kouga Local Municipality
			6 Points- Located within the boundaries of Sarah Baartman District Municipality
			4 Points- Located within the boundaries of the Eastern Cape
			1 Point- Outside of the boundaries of the Eastern Cape
Bidders MUST submit valid B-BBEE sworn affidavit/ certificate AND Latest Municipal Billing Clearance Certificate/ Copy of Municipal Account / Rental Documentation in the name of the bidding entity, to claim points for specific goals. Virtual offices will not be accepted.			

Annex C
(normative)
Standard Conditions of Tender

Standard Conditions of Tender

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 fulfil 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 agent

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

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 Employer's Agenting 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

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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 work, 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 BBBEE 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 BBBEE 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.

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 work 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.

Annexure G
(normative)

Alpha-numerics associated with the Contractor Grading Designations

Table G1: Contractor grading designations and associated parameters, as per Government Notice 357 of 2019 [Notice No.42561], dated 23 May 2019.

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	10 500 000
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

THE TENDER

PART 2 (OF 2): RETURNABLE DOCUMENTS

T2.1 List of Returnable Documents

T2.2 Returnable Documents

T2.1: LIST OF RETURNABLE DOCUMENTS

The original completed tender document (refer clauses 3.2 and 4.13 of the Tender Data), excluding Drawings, shall be returned with all the required information supplied, duly completed in non-erasable ink in all aspects.

The following documents and schedules are to be completed and returned, as they constitute the tender. Whilst many of the returnables 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 submit, return, complete and sign all the information, documents and schedules, as requested.**

1. RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES

1A Status of Concern Submitting Tender
1B Authority for Signatory
1C Certificate of Attendance at Clarification Meeting
1D Declaration of Interest in Tender of Persons in Service of the State
1E Compulsory Enterprise Questionnaire
1F Declaration of Tenderer's Past Supply Chain Management Practises
1G Form MBD6: Preference Points Claim Form in Terms of the Preferential Procurement Regulations 2022
1H Schedule of Work Satisfactorily carried out by the Tenderer for Private Clients or Organs of State
1I Schedule of Contracts Awarded to Tenderer by Organs of State
1J Company Information Required for Tenders greater than R 5 million
1K Certificate of Independent Bid Determination
1L Proposed Amendments
1M Proof or Registration and good standing with the Construction Industry Development Board (CIDB)
1N Proof of Registration with the Supplier Database
1O Available personnel for this project:
Details of Experience and Qualifications for Contracts Manager, Construction Manager, General Foreman and OH&S Agent
1P Project Program and cashflow
1Q Certificate of Good Standing with the Bargaining Council for the Civil Engineering Industry (BCCEI)

2. RETURNABLE DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES (

2A Original Valid Tax Clearance Certificate/ Tax Pin
2B Municipal Billing Clearance Certificate
2C B-BBEE Status Level Certificates / Consolidated Scorecard

3. RETURNABLE SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT (

3A Record of Addenda to Tender Documents
3B Personnel Schedule
3C Declaration Concerning Fulfilment of the Construction Regulations
3D Schedule of Construction Equipment
3E Schedule of Proposed Subcontractors

4. OTHER SCHEDULES AND DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

C1.1 Form of Offer and Acceptance
C1.2 Contract Data
C2.2 Bill of Quantities

T2.2: RETURNABLE DOCUMENTS

1A: STATUS OF CONCERN SUBMITTING TENDER

1. General

State whether the tenderer is a company, a closed corporation, a partnership, a sole practitioner or a joint venture:

(Mark the appropriate option below)

Public Company	
Private Company	
Closed Corporation	
Partnership	
Sole Proprietary	
Joint Venture	
Co-operative	

2. Information to be provided (Attached to the tender)

If the Tendering Entity is a:		Documentation to be submitted with the tender
1	Closed Corporation, incorporated under the Close Corporation Act, 1984, Act 69 of 1984	CIPRO CK1 or CK2 (Copies of the founding statement) and list of members
2	Private Company incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 (Including Companies incorporated under Art 53 (b))	Copies of: a) CIPRO CM 1 – Certificate of Incorporation b) CIPRO CM 29 – Contents of Register of Directors, Auditors and Officers c) CIPRO CM 39 – Notice of Change of Directors for private companies d) Shareholders Certificates of all Members of the Company.
3	Private Company incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 in which any, or all, shares are held by another Closed Corporation or company with, or without, share capital	Copies of documents referred to in 1 and/or 2 above in respect of all such Closed Corporations and/or Companies.
4	Public Company incorporated with share capital, under the companies Act, 1973, Act 61 of 1973 (Including Companies incorporated under Art 21)	A signed statement by the Company's Secretary confirming that the Company is a Public Company. Copy of CM 29
5	Sole Proprietary or a Partnership	Certified Copy of the Identity Document of: a) Such Sole Proprietary, or b) Each of the Partners in the Partnership c) Copy of the Partnership agreement
6	Co-operative	CIPRO CR 2 – Copies of Company registration document.

If the Tendering Entity is a:		Documentation to be submitted with the tender
		(The percentage of work to be done by each partner must clearly be indicated on Form RDB 1 (or RDB 2 as applicable) of the tender document: MBD 6 Preference Points Claim Form in terms of the Preferential Procurement Regulations 2022).
7	Joint Venture	All the documents (as described above) as applicable to each partner in the JV as well as a copy of the Joint Venture agreement. (The percentage of work to be done by each partner of the joint venture must clearly be indicated in the Joint Venture Agreement).

Note:

(i) If the shares are held in trust provide a copy of the Deed of Trust (only the front page and pages listing the trustees and beneficiaries are required) as well as the Letter of Authority as issued by the Master of the Supreme Court, wherein trustees have been duly appointed and authorised, must be provided.

(ii) Include a copy of the Certificate of Change of Name (CM 9) if applicable. No. CM 9: name change certificate will be accepted as proof alone, for registration.

3. Bidders Must Register for VAT or be Registered for VAT Purposes in Terms of the Value-Added Tax Act, (Act No. 89 of 1991)

(Make an X in the appropriate space below)

Yes	
No	

REGISTRATION NO: ……

1B: 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 / Consortium	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 ……, and who will sign as follows: …….. be, and is hereby authorized to sign the tender and all documents and correspondences in connection with this tender as well as any contract resulting from it on behalf of the company.

NAME	CAPACITY	SIGNATURE

Note:
* Delete which is not applicable.
This resolution must be signed by all the Directors / Members / Partners of the Bidding Enterprise.
Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

As witnesses:

1. …….... Chairman: ……....

2. …….... Date: ……....

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 ……, and who will sign as follows: …….. be, and is hereby authorized to sign the tender and all documents and correspondences in connection with this tender as well as any contract resulting from it on behalf of the company.

NAME	ADDRESS	SIGNATURE	DATE

Note:
* Delete which is not applicable.
This resolution must be signed by all the Directors / Members / Partners of the Bidding Enterprise.
Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

As witnesses:

……..... Signature: …….....

……..... Date: …….....

C Certificate for Joint Venture or Consortia

We, the undersigned, are submitting this tender offer in a * Joint Venture / Consortium and hereby authorise * Mr / Ms …….., acting in the capacity of lead partner, and who will sign as follows: ……..…….…….. be, and is hereby authorized to sign the tender and all documents and correspondences in connection with this tender as well as any contract resulting from it on behalf of the company.

This authorisation is evidenced by the attached power of attorney signed by legally authorised signatories of all partners to the * Joint Venture / Consortium.

NAME OF FIRM	ADDRESS	% OF CONTRACT VALUE	AUTHORISING SIGNATURE, NAME AND CAPACITY
(Lead Partner):			

Note:
* Delete which is not applicable.
This resolution must be signed by all the Members / Partners of the Bidding Enterprise.
Should the number of Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

As witnesses:

……..... Signature: ……...

……..... Date: ……...

D Certificate for Sole Proprietor

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

As witnesses:

1. ……..... Signature: …….....

2. ……..... Date: …….....

E. Certificate for Close Corporation

We, the undersigned, being the key members in the business trading as ……,

hereby authorize * Mr / Mrs ……, acting in the capacity of ……, to sign all documents in connection with this tender and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

Note:
* Delete which is not applicable.
This resolution must be signed by all the Directors / Members / Partners of the Bidding Enterprise.
Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

As witnesses:

1. ……..... Chairman: ……....

2. ……..... Date: ……....

1C: 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 Clarification Meeting and Site Visit held for all tenderers at …… (location) on

…… (date), starting at …… (time).

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 on behalf of **the tenderer**:

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 ……..

1D: DECLARATION OF INTEREST IN TENDER OF PERSONS IN SERVICE OF THE STATE

1. Where the tenderer is a natural person, state / declare whether the tenderer or an employee is in the service of the state, or has been in the service of the state during the past twelve months.

YES / NO (INDICATE)

If so, state particulars:

……

If so and where applicable, state the date of resignation:

……

2. Where the tenderer is not a natural person, state / declare whether any of its directors, managers, principal shareholders or stakeholders is in the service of the state, or have been in the service of the state during the past twelve months.

YES / NO (INDICATE)

If so, state particulars:

……

3. State / declare whether a spouse, child or parent of the tenderer or any of its directors, managers, shareholders or stakeholders referred to in subparagraph 2 is in the service of the state, or have been in the service of the state during the past twelve months.

YES / NO (INDICATE)

If so, state particulars:

……

4. State / declare whether the tenderer or any of its directors, managers, shareholders, stakeholders or employees referred to in subparagraph 2 is a person who is an advisor or consultant contracted with the municipality or municipal entity.

YES / NO (INDICATE)

If so, state particulars:

……

5. State / declare whether the tenderer or any of its directors, managers, shareholders or stakeholders referred to in subparagraph 2 is involved in another entity for this particular tender.

YES / NO (INDICATE)

If so, state particulars:

……

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed …….. Date ……..…….

Name ……..….. Position …….

Tenderer …….

1E: COMPULSORY ENTERPRISE QUESTIONNAIRE

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

SECTION 1: NAME OF ENTERPRISE: …….

SECTION 2: VAT REGISTRATION NUMBER, IF ANY ……..

SECTION 3: CIDB REGISTRATION NUMBER, IF ANY: ……

SECTION 4: 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:

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

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:

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

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 authorised to do so on behalf of the enterprise:

(i) authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Services that my / our tax matters are in order;
(ii) confirms that 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.

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed …….. Date …….

Name ……..... Position …….

Enterprise name …….

1F: DECLARATION OF TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTISES

1. This form serves as a declaration to be used by the Employer 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.

2. The tender of any Tenderer may be rejected if that Tenderer, or any of its directors have:

   a) abused the Municipality's / Municipal entity's supply chain management system or been guilty of any improper conduct in relation to such system;
   b) been convicted for fraud or corruption during the past five years;
   c) wilfully neglected, reneged on or failed to comply with any government, Municipal or other public sector contract during the past five years; or
   d) been listed in the Register for Tender Defaulters in terms of Section 29 of the Prevention and Combating of Corrupt Activities Act, 2004 (Act 12 of 2004).

3. In order to give effect to the above, this form and the questionnaire must be completed in full and signed. Failure to comply will result in the tender being declared non-responsive.

ITEM	QUESTION	RESPONSE	
4.1	**Is the Tenderer or any of its directors listed on the National Treasurer's database as a company or persons prohibited from doing business with the public sector?** (Companies for persons who are listed on this database were informed in writing of this restriction by the National Treasury after the *audi alteram partem* rule was applied) The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za)	Yes	No
	If so, furnish particulars:		
4.2	**Is the Tenderer 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, 2004 (Act 12 of 2004)?** (To access this Register enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number 012-326-5445)	Yes	No
	If so, furnish particulars:		
4.3	**Was the Tenderer or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?**	Yes	No

ITEM	QUESTION	RESPONSE	
	If so, furnish particulars:		
4.4	**Was any contract between the Tenderer and the Municipality / Municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?**	Yes	No
	If so, furnish particulars:		
4.5	**Does the tenderer or any of its directors owe any Municipal rates and taxes or Municipal charges to the Municipality/Municipal entity, or to any other Municipality/Municipal entity, that is in arrears for more than three months?**	Yes	No
	If so, furnish particulars:		

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed …….. Date ……..…….

Name ……..….. Position …….

Tenderer …….

1G: FORM MDB 6.1 – PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

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

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

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1. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

(*delete whichever is not applicable for this tender*).

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

b) The 80/20 preference point system will be applicable in this tender. The lowest/highest acceptable tender will be used to determine the accurate system once tenders are received

B-BBEE Status Level of Contributor	Number of Points for Preference (80/20)
1	10
2	8
3	6
4	4
5	3
6	2
7	2
8	2
Non-compliant contributor	0

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**

SPECIFIC GOALS

No	Specific Goals Categories	Max points allocation	Evaluation Indicators
1	B-BBE Status Level Contributor	10	As for B-BBEE points allocation table above.
2	The promotion of enterprises located in a specific province for work to be done or services to be rendered in that province.	10	10 Points= Located within the boundaries of the Kouga Local Municipality
			6 Points- Located within the boundaries of Sarah Baartman District Municipality
			4 Points- Located within the boundaries of the Eastern Cape
			1 Point- Outside of the boundaries of the Eastern Cape
Bidders MUST submit valid B-BBEE sworn affidavit/ certificate AND Latest Municipal Billing Clearance Certificate/ Copy of Municipal Account / Rental Documentation in the name of the bidding entity, to claim points for specific goals. Virtual offices will not be accepted.			

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

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

2. DEFINITIONS

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

(b) **"price"** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;

(c) **"rand value"** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

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

(e) **"the Act"** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

80/20 **or** **90/10**

$$Ps = 80\left(1 - \frac{Pt - P\,min}{P\,min}\right) \text{ or } \qquad Ps = 90\left(1 - \frac{Pt - P\,min}{P\,min}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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

3.2.1. POINTS AWARDED FOR PRICE

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

80/20 **or** **90/10**

$$Ps = 80\left(1 + \frac{Pt - P\,max}{P\,max}\right) \text{ or } \qquad Ps = 90\left(1 + \frac{Pt - P\,max}{Pmax}\right)$$

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system, then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

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

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

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

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)

5. DECLARATION WITH REGARD TO COMPANY/FIRM

5.1. Name of company/firm…….

5.2. Company registration number: ……...

5.3. 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]

5.4. 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 TENDERERS(S) SURNAME AND NAME: …… DATE: ……..…….. ADDRESS ……..……..

1H: SCHEDULE OF WORK SATISFACTORILY CARRIED OUT BY THE TENDERER FOR PRIVATE CLIENTS OR ORGANS OF STATE

(Organs of State include any Local, Provincial or National Government Authority)

The following is a statement of **similar work** (Water Reservoirs) successfully executed by myself/ourselves:

Employer, Contact Person and Telephone Number	Description of Contract	Value of Work Inclusive of VAT (Rand)	Date Completed (State current if not yet complete)

Please note that the above needs to be supported by:

a) Copy of Appointment Letter
b) Copy of Completion Certificate
c) Contact details of the Employer or Employer's Agent. If the Reference cannot be contacted, to verify the information supplied, the Contract will not be considered.

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed …….. Date ……..…….

Name ……..….. Position …….

Tenderer …….

1I: SCHEDULE OF CONTRACTS AWARDED TO THE TENDERER BY ORGANS OF THE STATE
(Organs of State include any Local, Provincial or National Government Authority)

In terms of Clause 21(d)(iii) of the Supply Chain Management Policy, the tenderer shall list hereunder, particulars of contracts awarded to him by any Organ of State, during the past 5 years. **Any material non-compliance or dispute concerning the execution of any of these contracts must be mentioned.**

Include only those contracts where the tenderer identified in the signature block below was directly contracted by the Employer. Tenderers must not include services provided in terms of a sub-contract agreement. Where contracts were awarded in the name of a joint venture and the tenderer formed part of that joint venture, indicate in the column entitled "Title of the contract for the service" that the contract was in joint venture and provide the name of the joint venture that contracted with the employer. In the column for the value of the contract for the service, record the value of the portion of the contract performed (or to be performed) by the tender.

Organ of state, i.e. national or provincial department, public entity, municipality or municipal entity	Title of contract for the service	Value of Work Inclusive of VAT (Rand)	Date Completed (State current if not yet complete)

Any material non-compliance or dispute concerning the execution of any of these contracts?	Yes	No
If so, furnish particulars:		

Please note that the above needs to be supported by:

d) Copy of Appointment Letter
e) Copy of Completion Certificate
f) Contact details of the Employer or Employer's Agent. If the Reference cannot be contacted, to verify the information supplied, the Contract will not be considered.

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed …….. Date ……..…….

Name ……..….. Position ……

Tenderer …….

1J: COMPANY INFORMATION REQUIRED FOR TENDERS GREATER THAN R 5 MILLION

1. Is the tenderer is required by law to prepare audited annual financial statements? YES / NO

2. If so, provide audited annual financial statements:

   - for the past three years; or
   - since their establishment if established during the past three years.

Indicate whether these have been included in the tender. YES / NO

3. If answer for Question No.1 is NO, does the tenderer have annual financial statements? YES / NO

4. If so, provide audited annual financial statements:

   - for the past three years; or
   - since their establishment if established during the past three years.

Indicate whether the annual financial statements have been included in the tender. YES / NO

5. If answer for Question No.1 is NO, the tenderer shall attach to this form a letter from the tenderer's bank; in which the bank declares how the tenderer conducts its account. The contents of the bank's letter must state the credit rating that it accords to the tenderer for the business envisaged by this tender. The minimum acceptable credit rating applicable to tenderers for this tender is a C credit rating. The value of the bank rating must be calculated and checked with R2.5 million. Failure to provide the required letter with the tender submission may render the tenderer's offer unresponsive in terms of Clause 5.8 of the tender condition.

Indicate whether a credit rating letter from the bank has been included in the tender. YES / NO

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

   YES / NO

If so, state particulars:

……

……

……

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

   YES / NO

If so, state particulars:

……

……

……

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

YES / NO

If so, state particulars:

……

……

……

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

YES / NO

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

……

……

……

……

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed …….. Date ……..…….

Name ……..….. Position …….

Tenderer ……

1K: CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

……
(Bid Number and Description)

in response to the invitation for the bid made by:

……
(Name of Municipality / Municipal Entity)

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

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

1. I have read and I understand the contents of this Certificate;

2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;

3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;

4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;

5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:

   (a) has been requested to submit a bid in response to this bid invitation;
   (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
   (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium* will not be construed as collusive bidding.

7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:

   (a) prices;
   (b) geographical area where product or service will be rendered (market allocation)
   (c) methods, factors or formulas used to calculate prices;
   (d) the intention or decision to submit or not to submit, a bid;
   (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
   (f) bidding with the intention not to win the bid.

8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.

*** Joint Venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.**

9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

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

Signed …….. Date ……..…….

Name ……..….. Position ……

Tenderer …….

1L: PROPOSED AMENDMENTS

The Tenderer should record any deviations or qualifications he may wish to make to the tender documents in this Returnable Schedule. Alternatively, a tenderer may state such deviations and qualifications in **a covering letter to his tender and reference such letter in this schedule.**

The Tenderer's attention is drawn to Clause 3.8 of the Standard Conditions of Tender referenced in the Tender Data regarding the Employer's handling of material deviations and qualifications.

Page Number	Clause / Item	Proposal

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed …….. Date ……..…….

Name ……..….. Position …….

Tenderer …….

1M: PROOF OF REGISTRATION WITH THE CONSTRUCTION INDUSTRY DEVELOPMENT BOARD

Tenderers must attach to this page, proof of registration and good standing with the CIDB. (In the case of Joint Ventures, proof must be provided for each partner).

1N: PROOF OF REGISTRATION WITH THE CENTRAL SUPPLIER DATABASE (CSD)

All existing and prospective service providers/creditors to the Kouga Municipality's supplier database should note that registration with the electronic Central Suppliers Database (CSD www.csd.gov.za for self-registering), developed by National Treasury, is a requirement.

Prospective tenderers are to attach the ***Certificate of Registration with CSD*** to this page.

1O: DETAILS OF EXPERIENCE AND QUALIFICATIONS FOR CONTRACTS MANAGER, CONSTRUCTION MANAGER (SITE AGENT), GENERAL FOREMAN AND OH&S AGENT

Tenderers shall set out in the Schedules hereunder details of the Experience and Qualifications for the Contract Manager, the Construction Manager (Site Agent), General Foreman and the OHS Safety Officer Experience in work of a similar nature to that for which their Tender is submitted.

The tenderer is reminded that the information provided with this Schedule shall be used in terms of Clauses C.2.1.4.3 in Part T.1.2 Tender Data to confirm the tendering entity's eligibility to tender, and the responsiveness of the Tender submitted. The tenderer is therefore required to supply detailed information relating to previous projects, and projects to date, to clearly illustrate that the tendering entity meets key staff experience requirements stipulated in Clause C.2.1.4.3.

Note: Only the information provided on this Schedule, or attached hereto, will be considered. Failure to complete this Schedule, with supporting documents (Qualification or Registration with Professional Institution), may result in the tender being non-responsive.

RETURNABLE SCHEDULE O-1 CONTRACTS MANAGER	NAME & SURNAME : …… YEARS ACCRUED RELEVANT EXPERIENCE: …… QUALIFICATIONS :……..				
CONTRACT & CLIENT	**NATURE OF WORK**	**POSITION HELD**	**VALUE OF WORK R(m)**	**DATE COMPLETED**	**EMPLOYER AND CONSULTING EMPLOYER'S AGENT (NAME, TEL No.)**

NOTE : Attach CV and Proof of Qualifications as per Tender's Obligations clause C2.1.4.3, in order to score ANY Functionality Points. The CV should confirm that the person is <u>currently</u> employed by the Bidder, alternatively the CV should be accompanied by an Employment Contact between the parties.

Also add this person to the Company's Organogram structure.

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

RETURNABLE SCHEDULE O-2 CONSTRUCTION MANAGER (SITE AGENT)	NAME & SURNAME : …… YEARS ACCRUED RELEVANT EXPERIENCE : …… QUALIFICATIONS :……..				
CONTRACT & CLIENT	**NATURE OF WORK**	**POSITION HELD**	**VALUE OF WORK R(m)**	**DATE COMPLETED**	**EMPLOYER AND CONSULTING EMPLOYER'S AGENT (NAME, TEL No.)**

NOTE : Attach CV and Proof of Qualifications as per Tender's Obligations clause C2.1.4.3, in order to score ANY Functionality Points. The CV should confirm that the person is currently employed by the Bidder, alternatively the CV should be accompanied by an Employment Contact between the parties.

Also add this person to the Company's Organogram structure.

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

RETURNABLE SCHEDULE O-3 GENERAL FOREMAN	NAME & SURNAME : …… YEARS ACCRUED RELEVANT EXPERIENCE : …… QUALIFICATIONS :……..				
CONTRACT & CLIENT	**NATURE OF WORK**	**POSITION HELD**	**VALUE OF WORK R(m)**	**DATE COMPLETED**	**EMPLOYER AND CONSULTING EMPLOYER'S AGENT (NAME, TEL No.)**

NOTE : Attach CV and Proof of Qualifications as per Tender's Obligations clause C2.1.4.3, in order to score ANY Functionality Points. The CV should confirm that the person is currently employed by the Bidder, alternatively the CV should be accompanied by an Employment Contact between the parties.

Also add this person to the Company's Organogram structure.

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

RETURNABLE SCHEDULE O-4 OHS SAFETY OFFICER	NAME & SURNAME : …… YEARS ACCRUED EXPERIENCE AS **OHS SAFETY OFFICER** : …… QUALIFICATIONS :…….. SACPCMP REGISTRATION NO :……				
CONTRACT & CLIENT	**NATURE OF WORK**	**POSITION HELD**	**VALUE OF WORK R(m)**	**DATE COMPLETED**	**EMPLOYER AND CONSULTING EMPLOYER'S AGENT (NAME, TEL No.)**

NOTE : Attach CV and Proof of Qualifications as per Tender's Obligations clause C2.1.4.3, in order to score ANY Functionality Points. The CV should confirm that the person is currently employed by the Bidder, alternatively the CV should be accompanied by an Employment Contact between the parties.

Also add this person to the Company's Organogram structure.

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

1P: PROJECT PROGRAM AND CASHFLOW

Tenderers **must attach to this page**, the preliminary works programme and the cashflow projections for the project duration.

1Q: PROOF OF REGISTRATION WITH THE BARGAINING COUNCIL FOR THE CIVIL ENGINEERING INDUSTRY (BCCEI)

Tenderers **must attach to this page**, proof of registration and good standing with the Bargaining Council for the Civil Engineering Industry (BCCEI). (In the case of Joint Ventures, proof must be provided for each partner).

2A: ORIGINAL VALID TAX CLEARANCE CERTIFICATE

In terms of Clause 43 of the Municipal Supply Chain Management Policy, tenderers must ensure that they are up-to-date with their payments of taxes.

It is a condition of 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.

The tenderer must attach to this page an **original(s)** of a **valid** Tax Clearance Certificate(s) and the Tax compliance Status pin must be submitted.

Note:

1. In order to meet this requirement bidders are required to complete in full the form TCC 001 "Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The Tax Clearance 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 Certificate that will be valid for a period of 1 (one) year from the date of approval.

3. The original Tax Clearance Certificate must be submitted together with the bid. Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be acceptable.

4. In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate.

5. Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website www.sars.gov.za

6. Applications for the Tax Clearance 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

2B: MUNICIPAL BILLING CLEARANCE CERTIFICATE

In terms of Clause 38 of the Municipal Supply Chain Management Policy, tenderers must ensure that they are up-to-date with their payments of municipal accounts.

The tenderer shall attach to this page a Municipal Billing Clearance Certificate, which provides proof that his payment of Municipal accounts is up-to-date.

These certificates are obtainable from:

Kouga Local Municipality
33 Da Gama Road
Jeffreys Bay.

Should the tenderer not be based in the Kouga Local Municipality, he shall submit a Municipal Billing Clearance Certificate issued by the municipality in which he is based.

2C: B-BBEE STATUS LEVEL CERTIFICATES / CONSOLIDATED B-BBEE SCORECARD

Bidders who qualify as EMEs in terms of the B-BBEE Act shall submit and attach to this page 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.

Bidders other than EMEs shall submit and attach to this page 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.

A trust, consortium or joint venture acting as a legal entity shall submit and attach to this page their B-BBEE status level certificate.

A trust, consortium or joint venture acting as an unincorporated entity shall submit and attach to this page their consolidated B-BBEE scorecard as if they were a group structure and such a consolidated B-BBEE scorecard shall be prepared for every separate bid.

Tertiary institutions and public entities shall submit and attach to this page their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.

All EME / B-BBEE certificates must reflect the B-BBEE status level of the bidder and must be certified.

3A: RECORD OF ADDENDA TO TENDER DOCUMENTS

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

Addendum Number	Date	Title or Details
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

Attach additional pages if more space is required.

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed …….. Date ……..…….

Name ……..….. Position …….

Tenderer …….

3B: PERSONNEL SCHEDULE

The tenderer shall insert the number of personnel he proposes to employ on this tender/Contract:

JOB DESCRIPTION	NON-LOCAL (Key Personnel) (Permanently employed by Contractor	LOCAL			
		Women	Men	Youth	SMME
Contract Manager**					
Site Agent**					
Mechanical Employer's Agent					
Civil Employer's Agent					
Quantity Surveyor					
Surveyors					
General Foreman					
Foremen					
Operators					
Bricklayers					
Mechanics					
Electricians					
Watchmen					
Gang Bosses					
Pipe Layers					
Labourers					
* Other					
Total					

* To be filled in / completed by tenderer.

The CV's of the Contracts Manager and Site Agent must be attached, in which they highlight their previous experience. The Company Profile of the proposed Sub Contractor is also to be submitted.

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed …….. Date ……..…….

Name ……..….. Position …….

Tenderer …….

3C: DECLARATION CONCERNING FULFILMENT OF THE CONSTRUCTION REGULATIONS

In terms of Regulation 4(3) of the Construction Regulations (2014), hereinafter referred to as the Regulations, promulgated on 7 February 2014 in terms of Section 43 of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), the Employer shall not appoint a Contractor to perform construction work unless the Contractor can satisfy the Employer that his/her firm has the necessary competencies and resources to carry out the work safely and has allowed adequately in his/her tender for the due fulfilment of all the applicable requirements of the Act and the Regulations.

Tenderers shall answer the questions below:

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

	(Tick)
Yes	
No	

2. Indicate which approach shall be employed to achieve compliance with the Regulations.

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

3. **<u>Provide details of proposed key persons, competent in terms of the Regulations, who will form part of the Contract team as specified in the Regulations (CVs to be attached):</u>**

……

……

……

……

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

……

……

……

……

……

5. List potential key risks identified and measures for addressing risks:

……

……

……

……

……

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

	(Tick)
Yes	
No	

SIGNATURE OF PERSON(S) AUTHORISED TO SIGN THIS TENDER:

1. …….. ID NO: ……
(Name in Print):

2. …….. ID NO: ……
(Name in Print):

3D: SCHEDULE OF CONSTRUCTION EQUIPMENT

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

(a) Details of major equipment that is owned by and immediately available for use on this Contract should my / our tender be accepted.

Quantity	Description, Size, Capacity, etc.

(b) Details of major equipment that will be **hired in**, or acquired, for use on the Contract should my / our tender be accepted.

Quantity	Description, Size, Capacity, etc.

Attach additional pages if more space is required.

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed …….. Date ……..…….

Name ……..….. Position …….

Tenderer …….

3E: SCHEDULE OF PROPOSED SUBCONTRACTORS

We notify you that it is our intention to employ the following Subcontractors to work on this Contract.

If we are awarded a Contract we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the Contract for such appointments. If there are no such requirements in the Contract, then your written acceptance of this list shall be binding between us.

Name and Address of Proposed Subcontractor	Nature and Extent of Work	Previous Experience with Subcontractor

I, the undersigned, warrant that I am duly authorised to do so on behalf of the enterprise and confirm that the contents of this schedule are, to my personal knowledge and best belief, both true and correct.

Signed …….. Date ……..…….

Name ……..….. Position …….

Tenderer …….

CONTRACT

PART 1 (OF 4): AGREEMENT AND CONTRACT DATA

C1.1 Form of Offer and Acceptance

C1.2 Contract Data

C1.3 Form of Guarantee

C1.4 Health and Safety Agreement

C1.5 Disclosure Statement

C1.6 Adjudication Board Member Agreement

C1.1: FORM OF OFFER AND ACCEPTANCE

(Agreement)

1. OFFER

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

TENDER NO 222/2024: THORNHILL RESERVOIR AND FEEDER MAIN

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

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

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

……

……

……

..... 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 terms of the Conditions of Contract identified in the Contract Data.

For the **Tenderer:**

……..
Signature

……..
Name

……..
Capacity

Name and Address of Organisation:

……..

……..

……..

……..

……..

Signature and Name of Witness:

……..
Signature

……..
Name

Date: ……..……..

2. ACCEPTANCE

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

The terms of the contract are contained in

Part C1: Agreements and Contract Data (which includes this Agreement)

Part C2: Pricing Data

Part C3: Scope of Work

Part C4: Site Information

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

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

The tenderer shall within two weeks after receiving a completed copy of this Agreement, including the Schedule of Deviation (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data at, or just after, the date this Agreement comes into effect. Failure to fulfil any of the 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 (5) days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding contract between the parties.

For the **Employer:**

……..
Signature

……..
Name

……..
Capacity

Name and Address of Organisation:

……..

……..

……..

……..

Signature and Name of Witness:

……..
Signature

……..
Name

Date: ……..……..

3. SCHEDULE OF DEVIATIONS

Notes:

1. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.

2. A Tenderer's covering letter shall not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, become the subject of agreements reached during the process, of offer and acceptance, the outcome of such agreement shall be recorded here.

3. Any other matter arising from the process of offer and acceptance, either as a confirmation, clarification or change to the tender documents, and which it is agreed by the Parties becomes an obligation of the contract, shall also be recorded here.

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

1. Subject: ……

   Details: ……

2. Subject: ……

   Details: ……

3. Subject: ……

   Details: ……

4. Subject: ……

   Details: ……

5. Subject: ……

   Details: ……

6. Subject: ……

   Details: ……

7. Subject: ……

   Details: ……

By the duly authorised representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and Addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or 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:		**For the Employer:**
.....	Signature	.....
.....	Name	.....
.....	Capacity	.....
Name and Address of Organisation		Name and Address of Organisation
.....		.....
.....		.....
.....		.....
.....		.....
.....		.....
.....		.....
.....	Witness Signature	.....
.....	Witness Name	.....
.....	Date	.....

4. CONFIRMATION OR RECEIPT

The Tenderer, (now Contractor), identified on the Offer part of this Agreement, hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) today:

the ……..…….. (day)

of ……..…….. (month)

20 …… (year)

at …….. (place)

For the **Contractor**:

……..
Signature

……..
Name

……..
Capacity

Signature and Name of Witness:

……..
Signature

……..
Name

C1.2: CONTRACT DATA

The General Conditions of Contract for Construction Works, Third Edition, (2015) published by the South African Institution of Civil Employer's Agents (SAICE), Private Bag X200, Halfway House, 1685, are applicable to this Contract and are obtainable from www.saice.org.za.

Copies of these Conditions of Contract may be obtained on the tenderer's own cost from the South African Institution of Civil Engineering (SAICE). (Tel: 011 – 055 947).

PART 1: DATA PROVIDED BY THE EMPLOYER

The following amendments and additions to the Clauses are the contract specific data applicable to this Contract:

Clause	Description / Wording
1.1.1.5	The commencement date shall be the date on which the Contractor receives a copy of the signed form of offer and acceptance and schedule of deviations if applicable.
1.1.1.13	The Defects Liability Period is 12 months, measured from the date of the Certificate of Completion.
1.1.1.14	The time for achieving Practical Completion is **120 days**, calculated from the Commencement Date.
1.1.1.15	The Employer is the **Kouga Local Municipality, represented by Mr. J du Toit** and/or such other person or persons duly authorised thereto by the Employer in writing.
1.1.1.16	The Employer's Agent is **Lukhozi Consulting Engineers**, hereinafter also refer to as "Lukhozi", represented by an employee duly authorised thereto in writing. Any reference to the term "Engineer" in this Contract shall mean "Employer's Agent" and vice versa.
1.1.1.17	Any reference to the term "Engineers Representative" in the Contract shall mean "Employers Agent Representative" and vice versa.
1.1.1.26	The Pricing Strategy is: **Re-measurable Contract**
1.2.1.2	The Employer's address for receipt of communications is: 33 Da Gama Road Jeffreys Bay Postal Address: P O Box 21 Jeffrey Bay 6330 Telephone: 042 200 2200 email: tenders@kouga.gov.za
1.2.1.2	The Employer's Agent's address for receipt of communications and notices is: Lukhozi Consulting Engineers 36 Pickering Street Newton Park Port Elizabeth

Clause	Description / Wording
	6045 *Telephone: 041 363 1984*
3.2.3	The Employer's Agent shall obtain specific approval from the Employer before executing any of his functions or duties according to the following Clauses of the General Condition of Contract: 1. **New Clause 3.2.3.1** "For expenditure on the Contract to exceed the Contract Sum"; 2. **Existing Clauses:** 3.3.1 - Nomination of person as Employer's Agent's Representative. 5.7.2 - Work at night as well as by day 5.8 – Non-working times 5.12 - Granting of extension of time excluding Clause 5.12.2.2 (Abnormal climatic conditions) 5.13 - Reduction of penalty for delay. 5.14.2 - The issue of a Certificate of Practical Completion. 5.14.4 - The issue of a Certificate of Completion. 5.16.1 - The issue of a Final Approval Certificate. 6.3 – Variation Orders which may exceed R 20 000 6.6 - Instruction to expend on Provisional and Prime Cost Sums 6.11 - Adjustment of General Items & Approval of Claims 8.2.2.2 - Order to repair and make good damage arising from any "excepted" risk.
3.2.4	The Employer's Agent has been appointed as Agent on this contract, in terms of Clause 5 of the Construction Regulations, 2014 as promulgated in terms of Section 43 of the Occupational Health and Safety Act, 1993. The duly appointed H&S Officials has been appointed as Client Agents on this contract, in terms of Clause 5 of the Construction Regulations, 2014 as promulgated in terms of Section 43 of the Occupational Health and Safety Act, 1993. The Principal Contractor shall perform a preliminary assessment of the project generated H&S plan and submit such to the employers agent for legal compliance reassessment & verification / approval prior to any works commencing. The duly appointed H&S Officials will be responsible for further monitoring and the auditing of the approved H&S plan for legal compliance.
4.1.3	**Add the following new clauses at the end of clause 4.1.2:** "The Employer and the Contractor hereby agree, in terms of the provisions of Section 37(2) of the Occupational Health and Safety Amendment Act, 1993 (Act 85 of 1993), hereinafter referred to as 'the Act', that the following arrangements and procedures shall apply between them to ensure compliance by the Contractor with the provisions of the Act: (i) The Contractor undertakes to acquaint the appropriate officials and employees of the Contractor with all relevant provisions of the Act and the Regulations promulgated in terms of the Act. (ii) The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the Act and Regulations on the Contractor will be fully complied with. (iii) The Contractor accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and Regulations and expressly absolves the Employer from himself being obliged to comply with any of the aforesaid duties, obligations and prohibitions, with the exception of such duties, obligations and prohibitions expressly assigned to the Employer in terms of the Act and its associated Regulations.

Clause	Description / Wording
	(iv) The Contractor agrees that any duly authorised officials of the Employer shall be entitled, although not obliged, to take such steps as may be necessary to monitor that the Contractor has conformed to his undertakings as described in paragraphs (i) and (ii) above, which steps may include, but will not be limited to, the right to inspect any appropriate site or premises occupied by the Contractor, or any appropriate records or safety plans held by the Contractor. (v) The Contractor shall be obliged to report forthwith to the Employer and Employer's Agent any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act and Regulations, pursuant to work performed in terms of this Contract, and shall, on written demand, provide full details in writing, to the Employer and Employer's Agent, of such investigation, complaint or criminal charge
4.1.4	The Contractor shall furthermore, in compliance with Constructional Regulations 2014 to the Act: (i) Acquaint himself with the requirements of the Employer's health and safety specification as laid down in regulation 5(1)(b) of the Construction Regulation 2014, and prepare a suitably and sufficiently documented health and safety plan as contemplated in regulation 7(1)(a) of the Construction Regulation 2014 for approval by the Employer or his assigned agent. The Contractor's health and safety plan and risk assessment shall be submitted to the Employer for approval within fourteen (14) days after receiving a completed copy of the Agreement and shall be implemented and maintained from the Commencement of the Works. (ii) The Employer, or his assigned agent, reserves the right to conduct periodic audits, as contemplated in the Construction Regulations, 2014, to ensure that the Contractor is compliant in respect of his obligations. Failure by the Contractor to comply with the requirements of these Regulations shall entitle the Employer's Agent, at the request of the Employer or his agent, to suspend all or any part of the Works, with no recourse whatsoever by the Contractor for any damages incurred as a result of such suspension, until such time that the Employer or his agents are satisfied that the issues in which the Contractor has been in default have been rectified."
4.3.1	**Add the following** to the clause: "The Contractors attention is drawn to the following: • The Basic Conditions of Employment Act of 1997 (Act No 75 of 1997); • The National Environmental Management Act (NEMA), Act 107 of 1998; • Basic Conditions of Employment Act of 1997 (Act No 75 of 1997) as per Government Notice R63 of 25 January 2002, shall apply to works described in the Scope of Work as being labour intensive and which are undertaken by unskilled or semi-skilled workers; • Occupational Health and Safety Act of 1993 (Act No 85 of 1993); • The Occupational Health and Safety Specification prepared by the Employer in terms of the Construction Regulations, 2014 promulgated in terms of Section 43 of the Occupational Health and Safety Act (Act No. 85 of 1993); • Construction Regulation 2014; • All other relevant applicable laws, regulations, statutory provisions and agreements. Without limiting the Contractor's obligations in terms of the Contract, the Contractor shall before commencement of the Works or any part thereof, be in the possession of an approved Health and Safety Plan, Waste License, etc."
4.3	Add the following at the end of Clause 4.3: "4.3.3 The Employer and the Contractor hereby agree, in terms of the provisions of Section 37(2) of the Occupational Health and Safety Amendment Act, 1993 (Act 85 of 1993), hereinafter referred to as 'the Act', that the following arrangements and procedures shall apply between them to ensure compliance by the Contractor with the provisions of the Act: (i) The Contractor undertakes to acquaint the appropriate officials and employees of the Contractor with all relevant provisions of the Act and the Regulations promulgated in terms of the Act.

Clause	Description / Wording
	(ii) The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the Act and Regulations on the Contractor will be fully complied with. The Contractor accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and Regulations and expressly absolves the Employer from himself being obliged to comply with any of the aforesaid duties, obligations and prohibitions, with the exception of such duties, obligations and prohibitions expressly assigned to the Employer in terms of the Act and its associated Regulations. (iii) The Contractor agrees that any duly authorised officials of the Employer shall be entitled, although not obliged, to take such steps as may be necessary to monitor that the Contractor has conformed to his undertakings as described in paragraphs (i) and (ii) above, which steps may include, but will not be limited to, the right to inspect any appropriate site or premises occupied by the Contractor, or any appropriate records or safety plans held by the Contractor. (iv) The Contractor shall be obliged to report forthwith to the Employer and Employer's Agent any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act and Regulations, pursuant to work performed in terms of this Contract, and shall, on written demand, provide full details in writing, to the Employer and Employer's Agent, of such investigation, complaint or criminal charge. 4.3.4 The Contractor shall furthermore, in compliance with Constructional Regulations 2014 to the Act: (i) Acquaint himself with the requirements of the Employer's health and safety specification as laid down in regulation 5(1)(b) of the Construction Regulation 2014, and prepare a suitably and sufficiently documented health and safety plan as contemplated in regulation 7(1)(b) of the Construction Regulation 2014 for approval by the Employer or his assigned agent. The Contractor's health and safety plan and risk assessment shall be submitted to the Employer for approval within fourteen (14) days after **the Commencement Date** and shall be implemented and maintained from the Commencement of the Works. (ii) The Employer, or his assigned agent, reserves the right to conduct periodic audits, as contemplated in the Construction Regulations 2014, to ensure that the Contractor is compliant in respect of his obligations. Failure by the Contractor to comply with the requirements of these Regulations shall entitle the Employer's Agent, at the request of the Employer or his agent, to suspend all or any part of the Works, with no recourse whatsoever by the Contractor for any damages incurred as a result of such suspension, until such time that the Employer or his agents are satisfied that the issues in which the Contractor has been in default have been rectified."
5.3.1	The documentation required before the commencement of the Works is: a) Health and Safety Plan (Refer Clause 4.3) The Contractor shall deliver his health and safety plan, complete with Risk Assessment, in terms of Regulation 5(1) of the Construction Regulations (2014). b) Initial Programme (Refer Clause 5.6) including Cash Flow forecast The Contractor shall deliver his Initial Programme of carrying out the Works. c) Security (Refer Clause 6.2) The Contractor shall submit a Performance Guarantee from an Insurance Company or Bank to be jointly and severally bound with the Contractor, in accordance with the provisions of the Form of Guarantee, in a sum equal to ten per cent (10%) of the Contract Sum. The wording of the Guarantee shall be identical to the pro-forma provided under Clause C1.3: Form of Guarantee of the Contract Data. d) Insurance (Refer Clause 8.6) The Contractor shall submit a "Letter of Confirmation" from the approved Insurance Company certifying that:

Clause	Description / Wording
	i) that the applicable Contractor complies in full with all the requirements and stipulations of Clause 8.6 of the Conditions of Contract, as amended in the Contract Data and, ii) the Insurance Company will immediately notify the Employers Agent of any changes or amendments to the policy / policies and, iii) the Insurance Company will immediately notify the Employers Agent of any non-payment or default relating to the premiums and or policy / policies and, iv) the Insurance Company will immediately notify the Employers Agent should any of the applicable insurances expire or be cancelled before the issue of the "Certificate of Completion" or the "Final Approval Certificate", as the case may be." v) Letter of Good Standing from the Compensation Commissioner (if not insured with a Licensed Compensation Insurer) also be submitted, and vi) A copy of the Health and Safety Mandatory Agreement required in terms of Section 37(2) of the Occupational Health and Safety Act 85 of 1993 as amended, per the proforma in C1.4 e) Letter of Good standing with the Building Industry Bargain Council The Contractor shall commence executing the Works within twenty-eight (28) days after the Commencement Date.
5.3.2	The documentation shall be submitted within 14 days from the Commencement Date.
5.3.3	Add the following to Clause 5.3.3 after the last sentence: "The Contractor shall not commence working until they have an approved project specific health and safety plan in terms of the Occupational Health and Safety Act 1993: Construction Regulations 2014 and complied with the initial requirements thereof."
5.4.1	Between the wording "… Site," and "the location …." In the third line, add the following: "subject to the Contractor having an approved project specific health and safety plan in terms of the Occupational Health and Safety Act 1993: Construction Regulations 2014 and complied with the initial requirements thereof,"
5.4.2	Access to and possession of Site shall not be exclusive to the Contractor but as set out in the Scope of Work and Site Information.
5.6.1	The Contractor shall deliver his Works programme within fourteen (14) days after the Commencement Date.
5.8.1	Delete the words "between sunset and sunrise" in the first line and replace with "outside normal working hours". Non-working days are Saturdays and Sundays. Special non-working days are all applicable gazetted public holidays, election day of the local government elections and national elections (when applicable) and the year-end break. For the purposes of this Contract the year-end break shall be as declared by SAFCEC. The work done by the Contractor should be done at hours of the day so as not to influence the normal operation of the existing infrastructure in any manner.
5.8.3	Add the following new Clause: "5.8.3 The additional cost of supervision and monitoring by the Employers Agent or his representatives, outside non-working times, in accordance with Clause 5.8.1 shall be for the Contractor's account."

Clause	Description / Wording
5.12.2.2	Add the following to Clause 5.12.2.2: The time period specified as the time for completion includes allowances for delays and days on which it is expected that work, on the critical path items of the Works, would be prevented due to normal weather conditions such as wind, rainfall or the subsequent waterlogged condition. Based on average weather conditions of wind, rain and sunshine the allowances are actual and consequential delays shall be as follows: • 3 working days per month for the months of May to October • 2 working days per month for the months of November to April If the Contractor has been prevented by these weather conditions from working on the critical path items of the works, then he must notify the Employer's Agent in writing. The submission shall be made within five calendar days of the resumption of work. The Employer's Agent shall upon considering all the relevant factors determine the extension of time to be granted on the basis that an extension of time to the contract will only be granted if the total number of days upon which work on the critical items was prevented, exceeds the total number of days calculated in terms of the above allowance and considering the official contract period as a whole. The tendered sums of the appropriate time-related items shall be increased to take account of the extensions of time granted.
5.12.2.4	In the event of any disruption which is entirely beyond the Contractor's control, the only compensation will be under the rates tendered for under items 1.2.9 through to 1.2.12.
5.12.3	Delete the entire subclause 5.12.3.
5.12.5	**Add the following** to Clause 5.12 5.12.5 Critical Path Provision A delay in so far as extension of time is concerned, will be regarded as a delay only if, on a claim by the Contractor in accordance with the General Conditions of Contract, the Employer's Agent rules that all progress on an item or items of work on the critical path of the approved programme for the execution of the Works by the Contractor, has been brought to a halt. Delays on normal working days only, based on a working week, of five normal working days, will be taken in account for the extension of time.
5.13.1	The penalty for failing to complete the Works is R5 000 per day.
5.14.1	The requirements for Practical Completion are that the Works reach a state of readiness, fit for the intended purpose and occupation without danger or undue inconvenience to the Employer. • The installation, testing and backfilling of all sewer pipes, including manholes. • The tie into Arcadia Pumpstation.
5.14.2	Issue of Certificate of Practical Completion Replace "the Employer's Agent" in the second line with the following: ", the Contractor shall notify the Employer's Agent, who shall inspect the works and the Employer's Agent"
5.14.4	Add the following to Clause 5.14.4: "The work listed in terms of Clause 5.14.2 shall however be completed within 21 days from the date of issue of the Certificate of Practical Completion. Should the Contractor fail to complete all the work so listed within the stated period of 21 days, the date

Clause	Description / Wording
	of issue of the Certificate of Practical Completion shall be amended and extended in respect of the outstanding work by the amount of additional time taken by the Contractor to complete all such work."
5.14.5.5	Delete the contents of Clause 5.14.5.5 and replace with: "Insurance of the Works shall continue until the expiration of the Defects Liability Period, in terms of the new Clause 8.6 contained in this Contract Data".
5.16.3	The latent defect period is 10 years and shall commence on the date of the Final Completion Certificate.
6.2.1	Replace the wording "as selected" in Clause 6.2.1 with "as stated". The security to be provided by the Contractor shall be: • a Fixed Performance Guarantee of **ten per cent (10%)** of the Contract Sum, plus • Retention Money amounting to **five per cent (5%)** of the Contract Price. Retention monies due shall be subjected to Clauses 6.10.1.3 and 6.10.3. The Performance Guarantee shall be from an approved Insurance Company or Bank to be jointly and severally bound with the Contractor, in accordance with the provisions of the Performance Guarantee. The wording of the Performance Guarantee shall be identical to the pro-forma provided under Clause C1.3: Performance Guarantee of the Contract Data The time to deliver the Performance Guarantee is within fourteen (14) days after the Commencement Date.
6.2.2	Replace the entire contents of Clause 6.2.2 with the following: "If the Contractor fails in his obligations to provide the stated security within the period stated in Clause 5.3.2, or if the Performance Guarantee shall differ from the pro-forma provided under Clause C1.3: Performance Guarantee of the Contract Data, the Employer may terminate the Contract in terms of Clause 9.2."
6.2.3	Replace the entire contents of Clause 6.2.3 with the following: "The Contractor shall ensure that the Fixed Performance Guarantee remains valid and enforceable until the issue of the Certificate of Completion."
6.5.1.2.3	The percentage allowance shall be seven percent (7%).
6.8.2	Contract Price adjustment will not be applicable to this contract.
6.8.3	Price adjustments for variations in the costs of special materials are **not** allowed.
6.10.1	In subclause 6.10.1 delete "monthly".
6.10.1.5	The percentage advance on materials on site not yet built into the Permanent Works is 80%.
6.10.1.9	Add the following new clause: "The Contractor is required to submit completed, accurate and signed monthly Expanded Public Works Programme (EPWP) reports, together with all monthly payment certificates. Payment to the Contractor will not be processed until the EPWP reporting for a specific month is provided. In addition, a penalty for late submission of R1500.00 per day will be applicable for every day after the 5th working day of the subsequent month to the reporting month."
6.10.3	Replace the entire contents of Clause 6.10.3 with the following:

Clause	Description / Wording
	"Payment of the amounts referred to in Clauses 6.10.1.1, 6.10.1.2, 6.10.1.3 and 6.10.1.4 shall be subject to a retention by the Employer of an amount (called the "retention money"), being the percentage retention stated in the Contract Data, of the said amounts due to the Contractor, until the retention money reaches the "Limit of retention money" stated in the Contract Data." The percentage retention shall be ten per cent (10%) and the "Limit of retention money" shall be five per cent (5%) of the Contract Price, excluding Value Added Tax.
6.10.4	**Replace** the wordings "within 7 days" and "within 28 days" in Clause 6.10.4 with the wording "within 5 working days: and "within 30 days".
6.10.6.2	**Replace** the contents of Clause 6.10.6.2 with the following: "No interest shall be payable to the Contractor upon any moneys retained or overdue in terms of the Contract."
6.11.1	Delete this clause.
7.2.1	Add the following at the end of Clause 7.2.1: "Unless otherwise directed in writing by the Employers Agent, all materials for the Permanent Works shall be new and unused."
7.8	The Defects Liability Period shall be twelve (12) months, measured from the date of Certificate of Completion.
7.8.1	In subclause 7.8.1 delete the following: "(fair wear and tear excepted)"
7.8.2.2	In sub-subclause 7.8.2.2 add the following: ", subject to such work being done on a written instruction by the Employer's Agent."
8.6	**Delete Clause 8.6. and replace with the following:**
8.6.1	Notwithstanding the provisions contained in the General Conditions of Contract regarding insurance, and without limiting the obligations, liabilities and responsibilities of the Contractor in any way whatsoever and on the understanding that the Contractor is not relieved from his obligations towards the Employer regarding the provision (by the Contractor) of any other insurances, the Contractor shall effect and maintain for the duration of the Contract until the expiry of the Defects Liability Period, including initial transit to the Contract site ⇨ Contract Works Insurance (including SASRIA Insurance) and ⇨ Public Liability (Third Party) Insurance both in the joint names of the Employer and the Contractor (including all Sub-Contractors whether nominated or otherwise), and those on whose behalf the Employer has authority to arrange insurance. The Contractor shall pay for all deductibles incurred as a result of claims made under the Contact.
8.6.2	The Policy will be subject to the normal Terms, Exceptions and Conditions applicable to such insurance and will provide the following cover: **Section 1 – The Contract Works** (a) The Contract Works to be undertaken in terms of the Insured Contract, including all temporary works erected or in the course of erection and all materials for incorporation therein.

Clause	Description / Wording
	"Temporary Works" shall mean all constructional aids, equipment or structures (not being part of the permanent works) used or intended for use on the Insured Contract and which (i) do not comprise mobile plant, (ii) the Insured does not intend to remove from the Contract Site on completion of the Contract, and/or (iii) have no residual value at the completion of the Contract (other than scrap value) solely due to their specialized nature, to the extent that the value has been included in the Contract price. (b) Surrounding property (as defined in the Policy) not included in nor forming part of the property insured under Item 1 above. **Section 2 – Contract Liability** Indemnity against the insured parties legal liability in the event of accidental death of or injury to third party persons and/or accidental loss of or damage to third party property arising directly from the execution of the contract.
8.6.3	**THE SUMS INSURED/LIMIT OF LIABILITY** **Section 1 – CONTRACT WORKS** (a) Property insured under Section 1(a) The Contract Works The Agreed and Accepted Contract Value (subject to a maximum of R100M) in respect of any one Contract plus a maximum of 25% escalation, unless the Insurers' agreement to amend these limits is obtained in writing. (b) Property insured under Section 1(b) Surrounding Property R2,500,000 each and every loss **SECTION 2 - CONTRACT LIABILITY** Limit of Indemnity R10 000 000 (Ten Million Rand) for any one occurrence or series of occurrences arising out of one event.
8.6.4	**INCLUDED CONTRACTS** The following Contracts are specifically included in the "blanket" cover arranged by the Contractor. The Contractor shall arrange with the Insurer for specific insurance cover for these contracts, and shall confirm such arrangement and all specific Terms & Conditions of such policy with the Contractor in writing. 1. Any Contract with a Contract Price at award of over R100,000,000 2. Any Contract with a construction period at award exceeding 24 months 3. Any Contract with a Maintenance or Defects Liability Period exceeding 12 months 4. Any Contract involving 4.1 Underground Mine or Colliery Working' 4.2 Tunnelling 4.3 Foul Berthing 4.4 Stevedoring Work 4.5 "Wet" work at or about or connected with dams, docks, harbours, piers, breakwaters or otherwise involving construction in water
8.6.5	**THE DEDUCTIBLES**

Clause	Description / Wording

The first amount payable by the Insured in respect of each and every occurrence giving rise to a claim under the Policy shall be as follows:

(A) STANDARD BUILDING CONTRACTS

	Description	Existing		Renewal	
		Gross rate	Excess	Gross rate	Excess
A1	Contract Value up to R10M	0.205%	R 10,000	0.205%	R 10,000
A2	Contract Value above R10M up to R25M	0.255%	R15,000	0.255%	R15,000
A3	Contract Value above R25M	0.255%	R25,000	0.255%	R25,000

(B) CIVIL & ALL OTHER CONTRACTS

	Description	Existing		Renewal	
		Gross rate	Excess	Gross rate	Excess
B1	Contract Value up to R1M	0.350%	0.25% of claim minimum R10 000	0.350%	R 10,000
	Canals/water channels & bridges		R35,000		
B2	Contract Value above R1M up to R5M	0.350%	0.25% of claim minimum R20 000	0.350%	0.25% of claim minimum R15,000
	Canals/water channels & bridges		R35,000		Minimum R35,000
B3	Contract Value above R5M	0.350%	0.25% of claim minimum R50 000	0.350%	0.25% of claim minimum R50,000
	Canals/water channels & bridges		R50,000		

<table>
<tr><th>Clause</th><th>Description / Wording</th></tr>
<tr><td></td><td>
(C) <u>LIABILITY RISKS</u>
Liability limit: R10,000,000
<table>
<tr><th rowspan="2">Description</th><th colspan="2">Existing</th><th colspan="2">Renewal</th></tr>
<tr><th>Gross rate</th><th>Excess</th><th>Gross rate</th><th>Excess</th></tr>
<tr><td>All Contracts</td><td>0.10%</td><td>R25,000 in respect of loss or damage caused by Fire and damage to Underground Services.
R20,000 in respect of all other losses.</td><td>0.15%</td><td>R25,000 in respect of loss or damage caused by Fire and damage to Underground Services.
R10,000 in respect of all other losses.</td></tr>
</table>
(D) <u>SASRIA</u>
Rate : 1.00%
</td></tr>
<tr><td>8.6.6</td><td>The Contractor will pay all premiums in connection with the insurance affected by the Contractor.</td></tr>
<tr><td>8.6.7</td><td>In the event of any occurrence which is likely to give rise to a claim under the insurance arranged by the Contractor, the Contractor or sub-Contractor shall
(a) in addition to any statutory requirement or other requirements contained in the Conditions of Contract, immediately notify the Employer’s Insurance Brokers by telephone or in writing giving the circumstances, nature and an estimate of the loss or damage;
(b) complete a Claims Advice Form available from the Insurance Brokers to whom the form shall be returned without delay – a copy shall be sent to the Employer’s Agent;
(c) negotiate the settlement of claims with the Insurers through the Employer’s Insurance Brokers, subject to the settlement being approved by the Employer.</td></tr>
<tr><td>8.6.8</td><td>The Employer and Insurers shall have the right to make all and any enquiries, either on the site or elsewhere, as to the cause and results of any such occurrence and the Contractor shall give full facilities for carrying out such enquiries.</td></tr>
<tr><td>8.6.9</td><td>Any amount which becomes payable as a result of a claim by the Contractor under the insurance effected by the Contractor shall be paid net of the deductibles to the Employer, who shall pay the said amount to the Contractor upon rectification, repair or reinstatement of the loss or damage, but this provision shall not in any way affect the Contractor’s obligations, liabilities and responsibilities in terms of the Contract.</td></tr>
<tr><td>8.6.10</td><td>Submission of a Tender shall be deemed as acceptance by the Contractor that he is satisfied with the scope of the insurances effected by the Employer.</td></tr>
<tr><td>8.6.11</td><td>The Contractor and/or Sub-Contractor shall provide, as a minimum, the following:</td></tr>
</table>

Clause	Description / Wording
	(a) Proof of registration with the Department of Labour as an employer, in terms of the Compensation for Occupational Injuries and Diseases Act 1993, as amended (b) Common Law Liability Insurance for the duration of the Contract Period and with a minimum Limit of Indemnity of not less than R1 000 000 for any one accident; (c) Insurance on an All Risks basis for construction plant, equipment and other things (except those intended to incorporation into the works) brought onto the site to the full value of such construction plant, equipment and other things; (d) Motor Vehicle Liability Insurance, comprising a minimum of Balance of Third Party motor risks, including Passenger Liability, subject to a minimum limit of R2,5 million; (e) 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. (f) Imported equipment or component parts or materials to be supplied in terms of this Contract which require any process of assembly or finishing in South Africa prior to delivery to the site are to be insured by the Contractor up to the commencement of transit to site of the assembled or finished equipment, component parts or materials, unless special arrangements are made with the Employer.
8.6.12	These insurances shall be maintained in force for the duration of the Contract, including any Defects Liability Period and in respect of Sub-Contractors, the Contractor shall be deemed to have complied with the provisions of the requirements relating to insurance by ensuring that the Sub-Contractors have affected such insurance.
8.6.13	The Contractor may affect, at his own cost, any insurance additional to that affected by the Employer which he deems necessary in his own interests. The Employer reserves the right to call for full information regarding such insurances.
8.6.14	The insurances to be provided by the Contractor and Sub-Contractor shall be affected with Insurers and on terms approved by the Employer (which approval shall not be unreasonably withheld) and the Contractor shall, if required by the employer, produce to the employer the Policy or Policies of insurance and the receipts for payment of the current premiums.
8.6.15	If the Contractor fails to effect and keep in force the insurances referred to, then the employer may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and, from time to time, deduct the amount paid by the Employer from any monies due or which may become due to the Contractor or recover same as a debt from the Contractor.
8.6.16	Where the Contractor is responsible for the appointment of Sub-Contractors, then the Contractor shall (a) ensure that potential and appointed Sub-Contractors are aware of the whole content of this Special Conditions of Contract Clause; and (b) Ensure the compliance of Sub-Contractors with this Special Conditions of Contract clause, where applicable.
8.6.17	The Contractor warrants that he shall give all notices and shall observe all the Terms and Conditions and requirements of all insurances applicable to this Contract.
9.1.4	<u>Replace the contents of Clause 9.1.4 with the following:</u> "Up to the time of termination of the Contract by either party in terms of this Clause, or until the

Clause	Description / Wording
	Contractor gives notice in terms of this Clause to terminate the Contract and the Contractor is precluded from exercising his right to terminate the Contract because the Employer agrees to bear any resultant additional costs provided for in Clause 9.1.2.2 hereof, the Contractor: a) will be entitled to an extension of calendar time for working days lost as may be approved by the Employer's Agent, and b) will be reimbursed the cost of delays per working day, where the number of working days will be determined pro rata the effect the delays have on the progress of the work as agreed with the Employer's Agent. Payment in full and final settlement will be made at the rates tendered for the payment items specially provided in the Bill of Quantities Where the circumstances described in Clauses 9.1.1 and 9.1.2 are applicable only to a certain portion of the contract, the Employer's Agent will decide after consulting the Contractor, to what extent the contract as a whole is affected and whether or not a claim in terms of this Clause can be submitted. No payment will be made in terms of this Clause after the expiry of the Due Completion Date.
9.2.1.3	Add the following after Clause 9.2.1.3.8: "9.2.1.3.9 Has failed to provide the required insurances or fixed performance guarantee within the prescribed time; 9.2.1.3.10 Has committed a corrupt or fraudulent act during the tender process or the execution of the Contract; or 9.2.1.3.11 Has benefitted from an official or other role player committing any corrupt or fraudulent act during the tender process or in the execution of the Contract."
9.2.1.3.7	*Delete* "or" *at the end of this clause.*
10.3.2	Dispute resolution shall be by amicable settlement.
10.5.1	Dispute resolution shall be by ad-hoc adjudication.
10.5.3	The number of Adjudication Board Members to be appointed is one (1).
10.7.1	The determination of disputes which are unresolved in terms of Clause 10.5.3 shall be by arbitration.
10.11	Add the following additional clause: "**Details to be confidential** The Contractor shall treat the details of the Works comprised in this Contract as private and confidential (save in so far as may be necessary for the purposes hereof) and shall not publish or disclose the same or any particulars thereof in any trade or technical paper elsewhere without the prior written consent of the Employer's Agent."
10.13	*Add the following additional clause:* "**Mandatory Subcontract Works** Clause C3.3.2.1 shall be used to determine the minimum percentage of the value of the Contract excluding the Main Contractor's Preliminary and General Costs, VAT and contingencies that shall be subcontracted to EEs as stated in Part C3: Scope of Works, Section C3.3: Procurement. The percentage allowance shall include EE Preliminary and General and Profit. Refer to PSA 8.10."

Clause	Description / Wording
10.16	*Add the following new clause:* "**Expanded Public Works Programme (EPWP) reports** The Contractor is required to submit completed, accurate and signed monthly Expanded Public Works Programme (EPWP) reports, attached to this tender document as Annexure B, together with all monthly payment certificates. Payment to the Contractor will not be certified until the EPWP reporting for a specific month is provided. In addition, a penalty for late submission of R1500.00 per day will be applicable for every day after the 5th working day of the subsequent month to the reporting month."

PART 2: DATA PROVIDED BY THE CONTRACTOR

Clause	Description / Wording
1.1.1.9	The Contractor is: …….. ……..
1.2.1.2	The Contractor's address for receipt of communications and notices is: **Address (Postal):** …… …… …… …… **Address (Physical):** …… …… …… …… Telephone Number (Work): …… Telephone Number (After Hours): …… Facsimile Number: …… Electronic Mail Address (E-mail): ……..

PRO FORMA

PERFORMANCE GUARANTEE

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means: .....

Physical address: .....

"Employer" means: .....

"Contractor" means: .....

"Employers Agent" means: .....

"Works" means: .....

"Site" means: .....

"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": This Performance Guarantee shall remain in full force and effect **until the issue of the Certificate of Completion of the Works** in terms of the Contract. (Refer Clause 2 hereunder).

CONTRACT DETAILS

Employers Agent 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 date of issue by the Employers Agent of the **Certificate of Completion of the Works** or the date of payment in full of the Guaranteed Sum, whichever occurs first unless the Guarantor is advised in writing by the Employer of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated. The Employers Agent and / or the Employer shall inform the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.

3. 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 suretyship;

3.2 its obligation under this Performance Guarantee is restricted to the payment of money.

4. 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 Employers Agent in an Interim or Final Payment Certificate has not been made in term of the Contract and failing such payment within (7) seven 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.

5. 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.

6. 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.

7. 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 zero percent (0%) interest.

8. 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.

9. Payment by the Guarantor in terms of 5 will only be made against the return of the original Performance Guarantee by the Employer.

10. 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.

11. The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.

12. 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) .....

C1.4: HEALTH AND SAFETY AGREEMENT

ARTICLE OF AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL SAFETY ACT (1993)

BETWEEN

THE KOUGA LOCAL MUNICIPALITY
(Hereinafter referred to as the "EMPLOYER")

AND

……
……
……

Herein represented by …….. in his/her capacity as ……..……., duly authorised by virtue of a resolution dated ……..……, attached hereto as Annexure A, of the said
(Herein after referred to as the "CONTRACTOR")

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

……
……
……
Contract number: …….

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

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

NOW THEREFORE the parties agree as follows:

(a) The CONTRACTOR undertakes to acquaint the appropriate officials and employees of the CONTRACTOR with all relevant provisions of the ACT and the regulations promulgated in terms thereof.
(b) The CONTRACTOR undertakes that all relevant duties, obligations and prohibitions imposed in terms of the ACT and Regulations will be fully complied with. Provided that should the EMPLOYER prescribe certain arrangements and procedures, that same shall be observed and adhered to by the CONTRACTOR, his officials and employees. The CONTRACTOR shall bear the onus of acquainting himself/herself/itself with such arrangements and procedures.
(c) The CONTRACTOR hereby accepts sole liability for such due compliance with the relevant duties, obligations, prohibitions, arrangements and procedure, if any, imposed by the ACT and Regulations and the EMPLOYER expressly absolves the EMPLOYER from itself being obliged to comply with any of the aforesaid duties, obligations, prohibitions, arrangements and procedure as the case may be.

(d) The CONTRACTOR agrees that any duly authorised officials of the EMPLOYER shall be entitled, although not obliged, to take such steps as may be necessary to ensure that the CONTRACTOR has complied with the undertakings as more fully set out in paragraphs (a) and (b) above, which steps may include, but shall not be limited to, the right to inspect any appropriate site or premises occupied by the CONTRACTOR, or to inspect any appropriate records held by the CONTRACTOR or to take such steps it may deem necessary to remedy the default of the CONTRACTOR at the cost of the CONTRACTOR.

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

Signature(s) of authorised agents:

…… ……

Name(s) (in block letters):

…… ……

Capacity of authorized agents:

…… ……

for and on behalf of the Contractor:

……..……..……..……

……..……..……..……

……..……..……..……

(Name and address of organization)

Witness:

……..……

(Full name in block letters as well as signature)

……..

(Signature)

Date: ……..

for and on behalf of the Employer:

Signature of authorised agent: ……..

Name of authorised agent: ……..……..

Capacity of authorised agent: ……..……..

for the **Employer**:

KOUGA LOCAL MUNICIPALITY
P O Box 21
Jeffreys Bay
6330

Witness:

…….....…….……
(Full name in block letters as well as signature)

……..
(Signature)

Date: ……..……..

PRO FORMA

DISCLOSURE STATEMENT

Date: …….

Contract: ……..……..
(Name)

Contractor: …..……..
(Name)

Employer: ……..……..
(Name)

Employers Agent: …..……..
(Name)

Dear Sirs

I am willing and available to serve as (ad-hoc / standing) Adjudication Board Member in the above-mentioned Contract.

In accordance with the General Conditions of Contract for Construction Works Adjudication Board Rules relating to the disclosure statements by selected or nominated persons to the adjudication, I hereby state that:

- I shall act with complete impartiality and know of nothing at this time, which could affect my impartiality.
- I have had no previous involvement in this project.
- I do not have any financial interest in this project.
- I am not currently employed by the Contractor, Employer or Employers Agent.
- I do not have any financial connections with the Contractor, Employer or Employers Agent.
- I do not have or have not had a personal relationship with any authoritative member of the Contractor, Employer or the Employers Agent which could affect my impartiality.
- I undertake to immediately disclose to the parties any changes in the above position which could affect my impartiality or be perceived to affect same.

Should there be any deviation from the foregoing statements, details shall be given.

I further declare that I am experienced in the work which is carried out under the Contract and in interpreting the contract documentation.

Name in full: ……

Signature: …….

PRO FORMA

ADJUDICATION BOARD MEMBER AGREEMENT

This Agreement is entered into between:

Adjudication Board Member: …….

Name: ……

Physical Address: ……

Postal Address: ……

E-mail Address: …….....

Facsimile Number: ……..

Telephone Number: ……

Mobile Number: ……

Contractor: ……..

Name: ……

Physical Address: ……

Postal Address: ……

E-mail Address: …….....

Facsimile Number: ……..

Telephone Number: ……

Mobile Number: ……

Employer: ……..

Name: ……

Physical Address: ……

Postal Address: ……

E-mail Address: …….....

Facsimile Number: ……..

Telephone Number: ……

Mobile Number: ……

The Contractor and the Employer will hereinafter be collectively referred to as the Parties.

The Parties entered into a Contract for ……

…… (Name of project) which provides that a dispute under or in connection with the General Conditions of Contract for Construction Works, Second Edition 2015 (GCC), must be referred to **ad-hoc / standing adjudication.**

The undersigned natural person has been appointed to serve as Adjudication Board Member and together with the

undersigned Parties agree as follows:

1. The Adjudication Board Member accepts to perform his duties in accordance with the terms of the Contract, the General Conditions of Contract for Construction Works Adjudication Board Rules and this Agreement.

2. The Adjudicator undertakes to remain independent and impartial of the Contractor, Employer and Employers Agent for the duration of the Adjudication Board proceedings.

3. The Adjudication Board Member agrees to serve for the duration of the Adjudication Board proceedings.

4. The parties may at any time, without cause and with immediate effect, jointly terminate this Agreement.

5. Unless the Parties agree, the Adjudication Board Member shall not act as arbitrator or representative of either Party in any subsequent proceedings between the Parties under the Contract. No Party may call the Adjudication Board Member as a witness in any such subsequent proceedings.

6. The standing Adjudication Board's duties shall end upon the Adjudication Board Member(s) receiving notice from the Parties of their joint decision to disband the Adjudication Board.

7. The Adjudication Board Member shall be paid in respect of time spent upon or in connection with the adjudication including time spent travelling:

a. A monthly retainer of ……..……..…… (amount) for ……. (number) of months, and/or

b. A daily fee of …….. (amount) based on a ….…… (number) hour day, and/or

c. An hourly fee of ……..…….. (amount), and/or

d. A non-recurrent appointment fee of ……. (amount) which shall be accounted for in the final sums payable

8. The Adjudication Board Member's expense incurred in adjudication work shall be reimbursed at cost.

Upon submission of an invoice for fees and expenses to the Parties, the **(Contractor / Employer) *** shall pay the full amount within 28 days of receipt of the invoice and shall be reimbursed by the other party by half the amount so that fees and expenses are borne equally by the Parties. Late payment of such invoice shall attract interest at prime plus 3% points compounded monthly at a prime rate charged by the Adjudication Board Member's bank.

This Agreement is entered into by:

Contractor's signature: ……..

Contractor's name: ……..

Place: ……..

Date: ……..

Employer's signature: ……..

Employer's name: ……..

Place: ……..

Date: ……..

Adjudication Board Member's signature: ……..

Adjudication Board Member's name: ……..

Place: ……..

Date: ……..

*** Delete the inapplicable party**

CONTRACT

PART 2 (OF 4): PRICING DATA

C2.1 Pricing Instructions

C2.2 Bill of Quantities

C2.3 Summary Page for Bill of Quantities

C2.1: PRICING INSTRUCTIONS

C2.1.1 PREAMBLE TO THE BILL OF QUANTITIES

C2.1.1.1 The method of measurement published by the South African Bureau of Standards in Clause 8 of the Standardized Specifications for Civil Employers Agenting Construction is applicable, subject to the variations and amendments contained in the section "Applicable SABS 1200 Standardized Specifications".

C2.1.1.2 Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standardized Specifications. Clause 8 of each Standardized 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 Standardized Specification, or the Scope of Work, conflict with the terms of the Bill, the requirements of the Standardized or Scope of Work, as applicable, shall prevail.

C2.1.1.3 The reference clauses in a specification in which further information regarding the bill item can be obtained appear under the "Reference Clause" or "Payment Refers" column in the Bill. The reference clauses indicated are not necessarily the only sources of information in respect of schedule/billed items. Further information and set specifications may be found elsewhere in the contract documents. Standardized Specifications are identified by the letter or letters which follow SABS in the SABS 1200 series of specifications, e.g. G for SABS 1200 G.

C2.1.1.4 Work reserved for Labour Intensive construction methods will be numbered with a prefix "LI" in the Bill to distinguish them from the conventional construction works. Such work shall be constructed using local labour who is temporarily employed in terms of the Scope of Work.

C2.1.1.5 Unless otherwise stated, items are measured nett in accordance with the Drawings, and no allowance is made for waste. The Bill has to be completed in black non-erasable ink and the tenderer is referred to the Conditions of Tender as well as the Tender Data with regard to the correction of errors.

C2.1.1.6 The quantities set out in the Bill of Quantities are the estimated quantities of the work. The tenderers attention is directed to Clause 6.7 of the Conditions of Contract and the Contractor will be required to determine the actual and final quantities of the Works to be executed and the Contractor shall undertake whatever quantities may be directed by the Employers Agent 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.

C2.1.1.7 The prices and rates to be inserted in the Bill 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.

C2.1.1.8 A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price / rate is entered will be considered to be covered by the other prices or rates in the Bill.

C2.1.1.9 Except where rates only are required, the tenderer shall insert all amounts to be included in his total tendered price in the "Amount" column and show the corresponding total tendered price.

C2.1.1.10 All prices or rates inserted in the Bill of Quantities shall be EXCLUDING VAT. Provision has been made on the Summary Page of the Bill of Quantities, for the addition of VAT.

C2.1.1.11 Arithmetical errors of responsive tenders shall be corrected in the manner specified under the Conditions of Tender as well as the Tender Data. **(Refer also CIDB Practice Note No. 2 dated February 2008)**

C2.1.1.12 The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

mm	=	Millimetre	h	=	hour
m	=	Metre	kg	=	kilogram
km	=	kilometre	t	=	ton (1 000kg)
m^2	=	square metre	No	=	Number
m^2.pass	=	square metre-pass	Sum	=	Lump Sum
ha	=	hectare	MN	=	MegaNewton
m^3	=	cubic metre	MN.m	=	MegaNewton-metre
m^3.km	=	cubic metre-kilometre	PC Sum	=	Prime Cost Sum
ℓ	=	Litre	Prov Sum	=	Provisional Sum
kℓ	=	kilolitre	Lab.month		Labourer.Month
MPa	=	Mega Pascal	%	=	per cent (percentage)
Mℓ	=	Mega litre	kW	=	kilowatt

C2.1.1.13 The quantities set out in the Bill are the estimated quantities of the Works but the Contractor will be required to undertake whatever quantities as may be directed by the Employers Agent 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.

C2.1.1.14 An item against which no price / rate is entered or where a word or phrase such as "included" or "provided elsewhere" will be accepted as a rate of nil (R 0,00) having been entered against such items and covered by the other prices or rates in the Bill. Any work executed to which such a payment item applies, shall be measured under the appropriate items in the Priced Bill and valued at a rate of nil (R 0,00). The rate of nil shall be valid irrespective of any change in the quantities during the execution of the Contract.

NOTE: CORRECTION OF ENTRIES MADE BY TENDERER

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

C2.2: BILL OF QUANTITIES

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Price
	SABS 1200 A	**SECTION A : PRELIMINARY AND GENERAL**				
A1		**FIXED CHARGE ITEMS**				
A1.1	8.3.1	Contractual requirements	Sum	1		
A1.2	8.3.2	**Establishment of facilities on the Site**				
A1.2.1	8.3.2.3 PSA8.3.2.1 PSAB8.3	**Facilities for Engineer:**				
A1.2.1.1		Furnished offices (1 No)	Sum	1		
A1.2.1.3		Nameboards (2 No)	Sum	2		
A1.2.2	8.3.2.3 PSA8.8.2 PSA8.9	Facilities for Contractor including offices, storage sheds, workshops, laboratories, living accommodation, ablution and latrine facilities, tools and equipment, water supplies, electric power, communications, setting out of Works, dealing with traffic and access and dealing with water*	Sum	1		
A1.3	8.3.3	Other fixed-charge obligations	Sum	1		
A1.4	8.3.4	Removal of Site establishment on completion	Sum	1		
A1.5	8.2.1 PSA8.12	Health and safety:				
A1.5.1		General safety obligations, implementation and maintenance of health and safety plan, risk assessments, construction safety officer, appointments, auditing and all costs of complying with current Occupational Health and Safety legislation and specifications.	Sum	1		
A1.6		Environmental Management				
A1.6.1		General environmental obligations, implementation and maintenance of environmental plan, environmental control officer, appointments, auditing and all costs of complying with Environmental Management Specification and Record of Decision.	Sum	1		
Total Carried Forward						

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Price
Brought Forward						
A2		**TIME RELATED ITEMS**				
A2.1	8.4.1	Contractual requirements	Sum	1		
A2.2		Operation and maintenance of facilities on the Site for duration of construction except where otherwise stated				
A2.2.1	8.4.2.3	Facilities for Engineer:				
A2.2.1.1		Furnished offices (.... No)	Sum	1		
A2.2.1.2		Cell phone if ordered and airtime for engineer	Sum	1		
A2.2.1.3		Nameboards (2 No)	Sum	1		
A2.2.2	8.4.2.3 PSA8.8.2 PSA8.9	Facilities for Contractor as for Item A1.2.2	Sum	1		
A2.3	8.4.3	Supervision for duration of construction	Sum	1		
A2.4	8.4.4	Company and Head Office overhead costs for the duration of the Contract	Sum	1		
A2.5	8.4.5	Other time-related obligations	Sum	1		
A2.6	8.2.2 PSA8.12	Health and safety:				
A2.6.1		General safety obligations, implementation and maintenance of health and safety plan, risk assessments, construction safety officer, appointments, auditing and all costs of complying with current Occupational Health and Safety legislation and specifications.	Month	4		
		Environmental Management				
		General environmental obligations, implementation and maintenance of environmental plan, environmental control officer, appointments, auditing and all costs of complying with Environmental Management Specification and Record of Decision.	Month	4		
A3	8.5 PSA8.5	**SUMS STATED PROVISIONALLY BY THE ENGINEER**				
A3.1		Provisional sum for Community Liaison Officer	Prov Sum	1	50 000,00	50 000,00
A3.2		Contractor's overheads, charges and profit on Item A3.1	%	50 000,00		
Total Carried Forward						

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Price
Brought Forward						
A3.3		Additional work as instructed by the Engineer	Prov Sum	1	25 000,00	25 000,00
A3.4		Contractor's overheads, charges and profit on Item A1.4.3)	%	25 000,00		
A4	8.8	**TEMPORARY WORKS**				
A4.1	PSA8.8.1	Main access road to works (construct and maintain)	Sum	1		
A5	8.8.4	**EXISTING SERVICES**				
A5.1	8.8.4 c) PSA8.8.4.1	Excavation by hand in soft materials to expose services not shown on the drawings or known services that are further than 3.0m from the position indicated on the drawings	m^3	5		
A5.2		Temporary protection of services	Sum	1		
A5.3		Attendance to and liaison with Nelson Mandela Bay Municipality regarding connection to existing pipe	Sum	1		
A6		**TESTING OF MATERIALS AND WORKMANSHIP (ACCEPTANCE TESTING)**				
A6.1		Provide plant, labour, tools and materials for the collection and delivery of material samples for additional acceptance testing at a SANAS accredited laboratory as required and where instructed by the Engineer for :				
A6.1.1		Bedding Sand tests comprising of sieve analysis, soil mortar analysis, Atterberg limits and compactibility factor	No.	5		
A6.1.2		Determine dry density of gravels and soils for pipe bedding, trench backfill, road layers, etc.	No.	5		
A6.1.3		Allow for the cost of additional materials testing to be undertaken at the request of the Engineer.	Prov Sum	1	10 000,00	10 000,00
A6.1.4		Mark-up on item A1.8.9 for Contractor's overheads, charges and profit (state % and extend as an amount)	%	10 000,00		
		TOTAL Carried forward to Summary				

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Price
		SECTION B : WATER MAINS				
B1	SABS 1200DB 8.3.1	**SITE CLEARANCE**				
B1.1		Clear vegetation and trees of girth up to 1 m	m	465		
B1.2		Clear trees of girth over 1 m	No	10		
B1.3		Remove topsoil to depth of 150 mm	m^2	465		
B1.4	1200C 8.2.5	Take down existing fences and reinstate	m	400		
B2	SABS 1200DB PSA8.8.4.1 PSA8.10	**TRENCH EXCAVATION**				
B2.1	8.3.2 PSDB8.3.2 PSL8.1	**Excavate in all materials for trenches, backfill, compact and dispose of surplus material for watermains up to 200mm diameter**				
		Over and Up to				
B2.1.1		0,0 m 1,0 m	m	292		
B2.1.2		1,0 m 2,0 m	m	173		
B2.2		Extra over Items DB2.1 for hard rock excavation	m^3	20		
B2.3		Excavate and dispose of unsuitable material from trench bottom (Provisional)	m^3	10		
B2.4	8.3.3	Excavation ancillaries				
B2.4.1	8.3.3.1	Make up deficiency in backfill material:				
B2.4.1.1		From other necessary excavations on Site	m^3	10		
B2.5	8.3.5 PSDB8.3.5	Existing services that intersect or adjoin a trench				
B2.5.1	8.3.5 a)	Services that intersect a trench:				
B2.5.1.1		Watermains up to 1200 mm dia	No	1		
B2.5.2	8.3.5 b)	Services that adjoin a trench:				
B2.5.2.1		Watermains up to 1200 mm dia	m	10		
Total Carried Forward						

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Price
Brought Forward						
B2.6	1200 D 8.3.8.1	Location of existing services:				
B2.6.1		Excavate by hand in soft material to expose 1200mm Bulk Water main	m^3	20		
B3	SABS 1200LB PSLB8.1.3 PSLB8.1.6	**BEDDING (PIPES)**				
B3.1	8.2.2	**Supply only of bedding by importation:**				
B3.1.1	8.2.2.3	**From commercial sources: (Provisional)**				
B3.1.1		Selected granular material	m^3	118		
B3.1.2		Selected fill material	m^3	71		
B3.1.3	8.2.2.3	Crushed stone Bedding Layer and Geotextile: (Provisional)				
B3.1.3.1		13mm crushed stone from commercial sources	m^3	5		
B3.1.3.2		A4 Bidim or similar approved Geotextile	m^2	95		
B4	SABS 1200L	**MEDIUM PRESSURE PIPELINES**				
B4.1	8.2.1 PSL8.2.1	**Supply, lay, joint, bed (bedding for flexible pipes) pipes, and test, complete with couplings and including disinfection:**				
B4.1.1		160mm diameter uPVC Class 9	m	465		
B4.2	8.2.2	**Extra over Items B4.1 for the supplying, laying, jointing, bedding and testing of specials :**				
B4.2.1		uPVC bends class 9				
B4.2.1.1		160mm diameter 11¼º	No	2		
B4.2.1.2		160mm diameter 22½º	No	1		
B4.2.1.3		160mm diameter 45º	No	1		
B4.2.1.4		160mm diameter 90º	No	2		
B4.2.2		CI reducers (socketed) :				
B4.2.2.1		150mm x 100mm diameter	No	2		
Total Carried Forward						

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Price
Brought Forward						
B4.2.3		Flanged Tee 316L SS to SANS 1123 Table 16, FBE Coated or two pack epoxy coated inside and outside :				
B4.2.3.1		150mm x 150mm diameter	No	3		
B4.2.4		150mm x 110mm	No	1		
B4.2.4.1		160mm diameter	No	1		
B4.2.5		Flange adaptors				
B4.2.5.1		160mm diameter	No	3		
B4.2.6	PSL8.2.18	Supply and install new Water meter including tees and spacers as per drawing 1811-WAT-006	No	1		
B4.3	8.2.3 PSL8.2.3	**Extra over Items E1.1 for the supplying, fixing, bedding and testing of valves and hydrants :**				
B4.3.1		Supply and install complete air valve including tees and spacers as per drawing 1811-WAT-005	No	1		
		Supply and install complete scour valve including tees and spacers with headwall as per drawing 1811-WAT-006	No	1		
B5		**ANCILLARIES**				
B5.1	8.2.11 PSL8.2.11	**Anchor/thrust blocks and pedestals:**				
B5.1.1		160mm diameter x 11¼º bend	No	2		
B5.1.2		160mm diameter x 22½º bend	No	1		
B5.1.3		160mm diameter x 45º bend	No	1		
B5.1.4		160mm diameter x 90º bend	No	2		
B5.1.5		Construct Anchor Blocks in 25MPa concrete where instructed by the engineer including all necessary preparations, excavation and formwork	m^3	5		
Total Carried Forward						

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Price
Brought Forward						
B5.2	8.2.13	**Valve and Reservoir chambers:**				
B5.2.1		Scour Valve chamber complete to contract drawings	No	1		
B5.2.2		Reservoir outlet chamber including bases, cover slabs and all cored holes		1		
B5.4	PSL8.2.17	**Markers**				
B5.4.1		Valve markers to details on contract drawings	No	3		
B5.4.3		Pipeline route markers	No	6		
B5.5	PSL8.2.16	**Connect into existing main. (Excavate, backfill, dispose of surplus material, cut into main, supply and install all fittings, and all operations and materials necessary to complete connection to main of):**				
B5.5.1		1200mm diameter Prestressed Concrete pipe	No	1		
TOTAL Carried forward to Summary						

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Price
		SECTION C : 1 ML RESERVOIR				
C1	SABS 1200C	**SITE CLEARANCE**				
C1.1	8.2.1 PSC8.2.1	Clear and grub vegetation and trees of girth up to 1 m	ha	0,14		
C1.2	8.2.2	Remove and grub large trees and tree stumps of girth				
		Over and Up to				
C1.2.1		1 m 2 m	No	10		
C1.2.2		2 m 3 m	No	2		
C1.3	8.2.5	Take down existing fences and reinstate	m	10		
C1.4	8.2.8	Demolish and remove structures/ buildings	Sum	1		
C2	SABS 1200D PSA8.8.4.1 PSA8.10 PSD8.3.6 PSD8.3.14	**EXCAVATION**				
C2.1	8.3.2	**Bulk excavation**				
C2.1.1		Excavate in all materials and use for embankment or backfill or dispose, as ordered for steel reservoir platform	m^3	95		
C2.1.1.1		Fill from stockpile to reservoir platform	m^3	35		
C2.1.2		Extra-over Item C2.1.1 for :				
D2.1.2.1		Hard rock excavation	m^3	10		
C2.2	8.3.8	**Existing Services**				
C2.2.1	8.3.8.1	Location of existing services:				
C2.2.1.1		Excavate by hand in soft material to expose Bulk Water service	m^3	20		
C2.3	8.3.9	Extra-over for backfill or for fill material against structures				
C2.3.1		Provision of Fine Sand from commercial sources for construction of 100mm sand bed under the Reservoir	m^3	22,7		
Total Carried Forward						

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Price
Brought Forward						
C2.3.2		Provision of G5 material from commercial sources for the construction of a 300mm layer under the reservoir (Provisional)	m^3	68,1		
C2.3.3		Provision of 19mm crushed stone to be placed against the reservoir	m^3	1,03		
C3		**FINISHINGS**				
D9.1	8.3.10 PSD8.3.10	Topsoiling	m^2	1032		
C4		**STEEL RESERVOIR**				
C4.1	PPS1	Supply, installation and commissioning of a 1ML prefabricated steel tank/reservoir including all internal fittings and piping, foundation and supports (ring beam).	Sum	1		
C4.2		Construction of an earth berm for stormwater management around the prefabricated steel reservoir. Rate to include excavation shaping and compacting.	Sum	1		
C5	**PRC**	**FENCING**				
C5.1	SANS 1200C PSC; PRC	**SITE CLEARANCE**				
C5.1.	PRC5.1	Clear and grub				
C5.1.1		Along Fenceline (6m wide strip) and removal of existing fence	m	132		
C5.1.2	8.2.2	Remove and grub large trees and tree stumps of girth at:				
C5.1.2.1		(a) Over 1,0 m up to and including 2,0m	No	6		
C5.1.2.2		(b) Over 2,0 m up to and including 3,0m	No	3		
C5.1.3	PRC5.2	Maintenance on items PRC5.1 at quarterly intervals to completion including clearing of regrowth and trees within 6m wide strip	m	132		
C5.1.4	PRC5.3	Supply and erect temporary fence in proximity of existing fence line	m	132		
Total Carried Forward						

Item No	Payment Clause	Short Description	Unit	Quantity	Rate	Price
Brought Forward						
		Stormwater Management from cleared material				
C5.1.5	PRC5.2	(a) Use tree stumps removed as per items PRC5.1 to be placed and anchored with wooden pegs to serve as outer boundary for cleared area around fencing for stormwater control:	m	132		
C5.1.6	PRC5.4	Excavate in all materials, backfill and shape to provide an even grade ground level along fence line	m	132		
C5.2		**FENCING &ACCESS GATES**				
C5.2.1		Construction of proposed fencing				
F2.1.1	PRC5.5	Supply, Delivery and Installation of fence posts along the designated fence line	No	40		
C5.2.1.1	PRC5.6	Supply, Delivery and Installation of fence panels along the designated fence line	No	40		
F2.1.5	PRC5.11	Extra-over for the supply, delivery and installation of high security fence panels for items:				
		(a) PRC 5.6	No	40		
F2.1.6	PRC5.12	Supply, Delivery and Installation of Gates:				
		(b) Type B Vehicle - 6 m sliding gate	No	1		
F2.1.7	PRC5.13 / PSGA	Grade 15/19 Concrete foundations for posts	m³	5		
F2.1.8	PRC5.14 / PSGA	Grade 15/19 Concrete ground Beams underneath fence (400mm wide, 350mm including expansion joints	m	132		
F2.1.9	PRC5.15	Construction of grade 15/19 concrete bases for stormwater channel reinforcement	m³	6		
		TOTAL Carried forward to Summary				

C2.3: SUMMARY OF THE BILL OF QUANTITIES

SECTION A: PRELIMINARY AND GENERAL	R ……..
SECTION B: WATER PIPELINE	R ……..
SECTION C: PREFABRICATED STEEL RESERVOIR	R……..
NETT TOTAL OF TENDER	R ……..
ADD 15% FOR VALUE ADDED TAX	R ……..
OFFER AMOUNT CARRIED FORWARD TO FORM OF OFFER	**R ……..**

Notes:

1. Contract Price is not subject to Contract Price Adjustment (Clause 6.8.2 of the Conditions of Contract).
2. The undersigned, who warrants that he / she is duly authorised to do so on behalf of the enterprise, confirms that the contents of this schedule are within my personal knowledge and are to the best of my belief both true and correct.

Signed …….. Date ……..…….

Name ……..….. Position ……

Tenderer …….

CONTRACT

PART 3 (OF 4): SCOPE OF WORK

C3.1 Description of the Works

C3.2 Employer's Agenting

C3.3 Procurement

C3.4 Construction

C3.5 Management

C3.1: DESCRIPTION OF THE WORKS

STATUS

In the event of any discrepancy between the Scope of Work and any part of the SABS 1200 Standardized Specifications, the Bill of Quantities or the Drawings, the Scope of Work shall take precedence and prevail in the Contract.

C3.1.1 EMPLOYER'S OBJECTIVES

The objective of the Employer (Kouga Local Municipality) is to improve the bulk water supply in the Thornhill Development Zone area. The project specific objective is to provide additional storage in the form of a 1ML prefabricated steel reservoir.

C3.1.2 OVERVIEW OF THE WORKS

The project comprises the:

- Construction of 465m of 160mm water pipeline
- Construction of 1ML prefabricated steel reservoir.
- Connection to the Summit Bulk Water Main

C3.1.3 EXTENT OF THE WORKS

The works will take place within the Thornhill area of the Kouga Local Municipality.

The Scope of this Contract includes as briefly set out as per C3.1.2.

The scope of work listed above is not necessarily complete and shall not limit the work to be undertaken by the Contractor. For a more detailed description of the works, as well as estimated quantities associated with the respective activities, refer to the tender drawings and the bill of quantities.

C3.1.4 LOCATION OF THE WORKS

The location of the work will be carried out in Thornhill, Eastern Cape.

The location of the reservoir is indicated on the locality plan shown below.
Latitude: 33° 53'41.14"S
Longitude: 25°07'59.85"E.

Locality Plan

Site Located in Ward 7

C3.1.5 TEMPORARY WORKS

Temporary works that are envisioned on this contract will include an access road to the reservoir site.

The Contractor's attention is however directed to:

- Locating, dealing with and protection of existing services.
- The requirements, principals and responsibilities specified within the various specifications contained under the Contract Part 3: Scope of Work.

C3.1.6 EXISTING SERVICES

The Contractor shall ensure that the position of all existing services affected by the works have been verified before construction works commence. The Contractor shall take all necessary steps to ascertain the location of existing services before commencing any portion of the Works and shall exercise the greatest care when working in the vicinity of such services.

Should it be necessary to lower or relocate a service, the Contractor will be required to make the necessary arrangements with the relevant service provider and to inform the Employer's Agent accordingly.

C3.1.7 PROVIDING ACCESS TO PRIVATE PROPERTIES, BUILDING AND FACILITIES

Access to properties, buildings and businesses must be provided by the Contractor at all times during the course of the contract. The Contractor shall provide suitable provision for pedestrians and vehicles to maintain such access. Such temporary access shall be in the form of portable bridges, temporary backfill or other approved means and shall always allow for the safe passage of vehicles, pedestrians and goods. The Contractor shall be responsible for maintaining such crossings and removing the same when they are no longer required.

The full extent of all areas in which plant and personnel are operating shall be at all times be clearly demarked and barricaded to prevent access by members of the public.

C3.1.8 ACCOMMODATION OF TRAFFIC

The Contractor should note that no existing roads or traffic lanes may be closed to traffic without prior written permission of the Employer's Agent and the approval of the KLM and or the Municipal Traffic Employer's Agent's office.

Every effort shall be made by the Contractor to keep disruption of existing traffic and pedestrian movements to the absolute minimum during construction. Where existing roads are used, they shall be protected from damage by construction traffic and repaired where instructed by the Employer's Agent.

The safety and convenience of the travelling public is to be considered of utmost importance and every effort must be made to ensure that all temporary road signs, cones, flagmen and speed controls are maintained and effective, and that courtesy is extended to the public at all times.

It is important that the traffic accommodation requirements described in these specifications are adhered to and that all installations meet with the approval of the relevant traffic authority.
Work, including the erection and removal of traffic control facilities, shall be executed between sunrise and sunset on Monday to Saturday, inclusive. Occupation of existing traffic lanes will only be allowed during daylight hours on normal working days, which are defined as Monday to Saturday, inclusive.

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

Failure to maintain road signs, warning signs or flicker lights, and the like, in good condition shall constitute ample reason for the Employer's Agent to bring the works to a stop until the road signs, etc., have been repaired / reinstated to his satisfaction.

The Contractor may not commence construction activities before adequate provision has been made to accommodate traffic in accordance with the requirements of these specifications and Chapter 13 of Volume 2 of the South African Road Traffic Signs Manual (SARTSM).

The Contractor shall submit proposals in connection with all signs and accommodation of traffic to the Employer's Agent for approval.

C3.2: EMPLOYER'S AGENTING

C3.2.1 DESIGN SERVICES AND ACTIVITY MATRIX

Works designed by, per design stage:

Concept, feasibility and overall process	Employer's Agent
Basic Employer's Agenting and detail layout to tender stage	Employer's Agent
Final design to be approved for construction stage	Employer's Agent
Temporary works	Contractor
Preparation of as-built drawings & GIS information	Contractor/Employer's Agent
1ML Steel Reservoir (excluding foundations)	Contractor

C3.2.2 DESIGN PROCEDURES

The Contractor shall take all statutory requirements, as well as the Site-Specific Health and Safety Specification and Basic Risk Assessment (refer to particular specification PB) into consideration when designing the Temporary Works.

Where the Contractor is to supply the design of designated parts of the permanent Works such as the prefabricated steel reservoir but not limited to or temporary Works he shall supply full working drawings supported by a professional Employer's Agent's design certificate.

C3.2.3 DRAWINGS

The drawings are listed under **Appendix A** and are bound at the back of the document.

C3.3: PROCUREMENT

C3.3.1 PREFERENTIAL PROCUREMENT

C3.3.1.1 Requirements

Refer to Clauses 5.11.1, 5.11.7 and 5.11.8 of the Tender Data and Form 1G: Form MBD 6: Preference Points Claim form in terms of the Preferential Procurement Regulations 2022 (80/20 version) of the Tender Data.

C3.3.1.2 Resources Standards pertaining to targeted procurement

Tenders will be evaluated in terms of the Employer's Procurement Points system. The criteria for allocation of procurement points are stated in Clauses 5.11.7 and 5.11.8 of the Tender Data.

C3.3.2 SUBCONTRACTING

C3.3.2.1 Scope of mandatory subcontract works

The Contractor shall note that the Employer is committed to local Emerging Enterprise development and this forms part of this.

The sub-contracting of work is required for all CIDB-related projects in the following ranges:
a) R 5M >, but < R 10M requires Bidder to sub-contract 10% of the value of the project
b) R 10M >, but < R 15M requires Bidder to sub-contract 15% of the value of the project
c) R 15M >, but < R 20 requires Bidder to sub-contract 20% of the value of the project
d) R 20M >, but < R 30M requires Bidder to sub-contract 25% of the value of the project
e) R 30M > requires Bidder to sub-contract 30% of the value of the project

IV. The sub-contracting value will be based on the estimated value of the project either determined by the director or project manager. Where the successful bidder's price falls within any other range, the sub-contracting range included in the Bid Document will be applied.

V. The municipality may include sub-contracting for any other none CIDB related project as may be requested by the Director of the Department to promote local development.

VI. Community Based Suppliers or service providers/ward-based suppliers or service providers must be considered for subcontracting by the main contractor. The first preference for subcontracting must be given to community or ward-based suppliers of that particular ward where the project is taking place. If the required skill or expertise is not available from the ward / area where the project is taking place, the main contractor is permitted to accept service provers or suppliers within the KLM jurisdiction. Those service provider or suppliers would then contract directly with the main contractor.

C3.3.2.2 Preferred subcontractors / suppliers

Local Emerging Enterprises registered on the Kouga Local Municipality Database and/or nominated by the municipality.

C3.3.2.3 Subcontracting procedures

All matters pertaining to subcontractors and the work executed by them shall be dealt with directly between the Employer's Agent and the Contractor in the context of all subcontract work being an integral part of the Works for which the Contractor is responsible.

Subcontractors shall comply in full to all aspects of the Contract.

The Employer's Agent will not liaise directly with any subcontractors nor will he issue instructions concerning the subcontract works directly to any subcontractor.

The Contractor shall remain responsible for providing the subcontracted portion of the works as if the work had not been subcontracted.

Subcontractors shall comply in full, to all aspects of the Contract.

C3.3.2.4 Attendance on subcontractors

The Contractor shall guide, assist, advise and mentor the local EE subcontractor/s and guidance on how to establish and determine rates.

The Contractor shall be responsible for ensuring that the prospective local EE subcontractor/s fully comprehend the:

- Implications of the liabilities and responsibilities inherent in the contract into which the tenderer entered.
- Implications of the tendered rates.
- Scope and extent of the Works.
- Proper procedures for the submission of a tender.
- Procedures and basis on which tenders will be evaluated and awarded.

The Contractor shall closely manage, mentor, supervise, guide and assist the EE in all aspects of management, planning, execution and the completion of work.

The above shall include inter alia, but is not limited to, the following:

(i) Planning and programming of the Works.
(ii) The sourcing, ordering, purchasing, hiring all the necessary Construction Equipment, Materials, tools and accidentals necessary and required for the successful execution and completion of the Permanent as well as the Temporary Works.
(iii) Labour relations and employment.
(iv) Monthly measurements, costing and invoicing.
(v) General safety, occupational health and safety matters.
(vi) Functions of civil Employer's Agenting infrastructure, structures, services and systems.
(vii) Interpreting and understanding the contract.
(viii) Construction and maintenance methods and procedures.
(ix) Communication.
(x) Cash-flow control, submitting invoices and payment certificates.
(xi) Planning, programming, scheduling, critical path control and acceleration.
(xii) Maintenance planning.
(xiii) Material procurement and control.
(xiv) Risk limitation and management.
(xv) Quality assurance and procedures.
(xvi) Compliances with all applicable laws, regulations, statutory provisions and agreements.
(xvii) General Conditions of Contract and Contract Data.

(xviii) Contractual claims, if situations arise that entitle a contractor to claims in terms of the Conditions of Contract.
(xix) Profit and loss.
(xx) Replacement and running costs of Construction Equipment.

The extent and level of management, mentorship, supervision, guidance and assistance to be provided by the Contractor shall be in commensuration with the expertise of the relevant EE and should be so directed as to enable the EE to achieve the successful execution and completion of the respective works.

C3.3.3 SANCTIONS

In the event that the Tenderer fails to substantiate that any failure to achieve the Contract Participation Goal (CPG) outcomes was due to quantitative under runs, the elimination of items, or any other reasons beyond the Contractor's control which may be acceptable to the Employer, the Contractor shall be liable to pay to the Employer a financial penalty calculated in the following manner:

$$P = 0{,}50 \times \frac{(D - D_o)}{(100)} \times N_A$$

Where D = tendered Contractor participation goal percentage.

D_o = the Contract Participation Goal, which the Employer's Representative based on the credits passed, certifies as being achieved upon completion of the contract.

N_A = Net Amount of the Tender

P = Rand value of penalty payable.

The penalties will be calculated with each certificate, based on the information provided under the monitoring indicated in clause C3.3.4 below.

C3.3.4 MONITORING / REPORTING

The reporting requirements below will be adhered to.

CPG attainment will be monitored on a monthly basis, and for this the Contractor will supply the relevant information at a time set by the Employer's Agent.

C3.3.4.1 The Contractor shall submit all the documentation required in terms of details of his plan to achieve CPG, compliance with the contract and C3.3.4.2 timeously and, together with his programme of activities, a schedule which indicates clearly the expected commencement and completion dates of work and services to be performed by all the targeted enterprises engaged on the contract for the purpose of securing credits towards the contract participation goal. This schedule shall be updated by the Contractor whenever a change in date occurs.

C3.3.4.2 The Contractor shall prepare and attach to his claim for payment, in a form approved by the Employer, the following:

a) a brief report which describes the commercially useful functions performed by the targeted enterprises in the performance of the contract, both over the interim period and on a cumulative basis;
b) a schedule reflecting the estimated total value of the contracts, the cumulative value of the contracts and the value of supplies provided or work and services performed (or both) over the period for which payment is claimed in respect of each and every targeted enterprise performing commercially useful functions;

C3.3.4.3 Should random inspections conducted by the Employer's Agent on targeted enterprise activities indicate that such enterprises are not performing in accordance with the requirements of this part, the Contractor shall provide, in addition to the requirements of C3.3.4.2, separate weekly resource returns and any other relevant information in respect of such targeted enterprises in a format approved by the Employer's Agent.

C3.3.4.4 The Employer's Agent shall certify the value of the credits counted towards the contract participation goal whenever a claim for payment is issued to the employer and shall notify the Contractor of this amount.

C3.3.4.5 The Contractor shall, upon completion of each individual targeted enterprise's contract, issue a completion certificate and certify the amount paid to such targeted enterprises. He shall submit the certificates, counter-certified by the relevant targeted enterprise, to the Employer's Agent for record-keeping purposes. The Contractor shall furnish reasons to the Employer whenever it is not possible to obtain such counter certification.

C3.3.5 CONTRACTOR'S OBLIGATIONS TO SUBCONTRACTED EEs

(1) Dispute Avoidance and Resolution Procedures

The Contractor shall at all times

(a) apply the terms and conditions of the subcontract fairly and justly, taking due cognisance of the level of sophistication and experience of the EE subcontractor concerned.

(b) closely monitor all EE subcontracts and issue reasonable warnings when any contravention of the terms of the subcontract has occurred or appears likely to occur. The Contractor shall give EEs reasonable opportunity to avoid or make good any such contravention.

When taking any disciplinary actions or imposing any penalties provided for in the subcontract, the Contractor shall explain fully that such actions are in accordance with the conditions of subcontract.

Should any dispute arise between the Contractor and an EE, such dispute shall be resolved in accordance with the provisions of the subcontract.

Should an EE subcontractor be terminated, the Contractor shall replace such subcontractor with a local EE subcontractor listed on the KLM database.

(2) **Quality of Work and Performance of EE subcontractors**

If, in the opinion of the Employer's Agent, an EE Subcontractor fails to comply with any of the criteria listed below, he/she shall issue a written warning to the Contractor stating all the areas of non-compliance.

(a) Acceptable standard of work as set out in the subcontract specifications.
(b) Progress in accordance with the time constraints in the subcontract.
(c) Site safety.

The circumstances that may warrant the issue of a written warning are, however, not limited to those listed above.

A copy of the letter of warning shall be forwarded to the Employer.

C3.3.6 ISSUING OF COMPLETION CERTIFICATE

The Contractor shall, within 7 days of the completion of each subcontract completed in accordance with the provisions of this specification, issue free of charge to the EE a Certificate of Completion co-signed by the Employer's Agent and a senior representative of the Contractor who has been duly authorised to do so.

C3.3.7 MEASUREMENT AND PAYMENT

No direct payment will be made for the cost of dealing with EE's. Payment will be deemed to be covered by the rates and sums tendered and paid for the various items of work included under the contract.

C3.4.1 WORKS SPECIFICATION

C3.4.1.1 Applicable SANS standards

The applicable SABS 1200 Standardised Specifications for Civil Employer's Agenting Construction read in conjunction with the SABS 0120 Code of Practise for use with standardised specifications for Civil Employer's Agenting Construction and Contract Documents will apply until such time as the SANS standards for civil Employer's Agenting are finalised.

C3.4.1.2 Other standards

Not applicable.

C3.4.1.3 Applicable national and international standards

For the purpose of this Contract the latest issues of the following Standardized Specifications for Civil Employer's Agenting Construction, applicable at the date of the tender advertisement shall apply:

SANS 1200 A	-	General
SANS 1200 AB	-	Employer's Agent's Office
SANS 1200 C	-	Site Clearance
SANS 1200 DB	-	Earthworks (Pipe trenches)
SANS 1200 LB	-	Bedding (Pipes)
SANS 1200 L	-	Medium Pressure Pipes
SANS 10400	-	Building Regulations South Africa

Notes to tenderer:

1. Should any variation and/or addition conflict with the requirements of the standardized specification, the variation or addition will prevail.

2. The term "project specifications" appearing in any of the SANS1200 standardised specifications must be replaced with the term "scope of work".

3. The General Conditions of Contract applicable to this contract are the "Conditions of Contract for Construction Works (3rd Edition) 2015" published by the South African Institute of Civil Employer's Agenting, together with the Special Conditions of Contract form part of the contract.

4. The terms "Schedule of Quantities", (used throughout the Standard Specifications) and "Bill of Quantities", (used in all other documents forming part of this contract), and "Pricing Schedule" are synonymous.

The variations and additions to the specifications are listed in C3.4.11.

In addition, the following Particular Specifications for work not covered by the SABS 1200 Standardized Specifications are also bound in the Scope of Work.

C3.4.1.4 Particular/Generic Specifications

The particular and/or generic specifications listed below are applicable to this contract. These specifications are also bound into this document.

PA	**Environmental Management**
PD	**Health and Safety Specifications**

C3.4.1.5 Certification by recognised bodies

Not applicable

C3.4.1.6 Agreement certificates

Not applicable.

C3.4.2 PLANT AND MATERIALS

C3.4.2.1 Plant and materials supplied by the employer

The Employer will not supply any plant or materials on this contract. The Contractor shall provide all plant and materials.

C3.4.2.2 Materials, samples and shop drawings

Materials or work, which does not conform to the approved samples submitted in terms of Clause 7.4 of the Conditions of Contract, will be rejected. The Employer's Agent reserves the right to submit samples to tests to ensure that the material represented by the sample meets the specification requirements.

The costs of any such test conducted by or on behalf of the Employer's Agent, the results of which indicate that the samples provided by the Contractor do not conform to the requirements of the Contract, shall, in accordance with the provisions of Clause 7.4.4 of the Conditions of Contract, be for the Contractor's account.

C3.4.3 CONSTRUCTION EQUIPMENT

C3.4.3.1 Requirements for equipment

All construction plant and equipment used on this contract shall be in good working order, well maintained, of adequate size and fit for purpose. No plant or equipment that leaks oil, fuel or hydraulic fluids may be used on site.

Any plant or equipment that, in the opinion of the Employer's Agent, is not of adequate size or fit for use shall be removed from the site and replaced with acceptable plant and equipment, all at the Contractor's cost.

C3.4.3.2 Equipment provided by the Employer

The Employer shall not supply any equipment.

C3.4.4 EXISTING SERVICES

The Contractor shall familiarize himself with all existing services and liaise with all relevant authorities for the location and detection of existing services. The Contractor shall also use all necessary means to locate and expose services without damage to such services. The Contractor shall protect any services which are visible or can be reasonably expected to be in certain positions. If the Employer's Agent rules that the Contractor has negligently damaged services, the Contractor shall pay the amount certified by the Employer's Agent to the Employer. The Employer's Agent ruling shall be final.

If the Employer's Agent rules that the damage was not due to the Contractor's negligence, the Employer shall pay for the repair of the services so damaged. The responsibility shall remain with the Contractor to establish the position of existing services prior to commencing any excavation.

C3.4.5 SITE ESTABLISHMENT

C3.4.5.1 Location of site camp and materials storage area

The Contractor shall establish his Site camp and materials storage area at a mutually acceptable location. Written confirmation of the owner's permission to occupy the chosen location shall also be issued to the Employer's Agent if it falls outside the bounds of the site.

The site of the camp must be kept clean and tidy, and on completion of the works the Contractor shall remove all temporary offices, sheds, etc. and shall reinstate the area to the Employer's Agent and/or the owner's satisfaction.

The Employer shall not provide any services to the site during construction. The Contractor shall be responsible for arranging, at his own cost, for the provision of all services he may require in the area, as well as elsewhere on the Site.

The Contractor shall not use the area nor allow it to be used for any purposes not directly associated with the execution of the Contract.

The conditions of the EIA RoD will apply to Site Establishment as much as to any other aspect(s) of the Project. The Contractor shall adhere to the conditions as stipulated in the environmental management specification (PA).

C3.4.5.2 Water Supply

The Contractor shall make his own arrangements regarding the supply of water.

The Contractor shall, at his own expense, be responsible for obtaining and distributing all water as may be required for the purposes of executing the Contract, including water for both construction purposes and domestic use as well as for making all arrangements in connection therewith. The Contractor shall further, at his own expense, be responsible for providing all necessaries for procuring, storing, transporting and applying water required for the execution of the Contract, including but not limited to all piping, valves, tanks, pumps, meters and other plant and equipment, as well as for all work and superintendence associated therewith.

The Contractor shall make himself thoroughly acquainted with the regulations relating to the use of water and shall take adequate measures to prevent the wastage of water.

The sources of all water utilised for the purposes of the Contract shall be subject to the prior approval of the Employer's Agent, which approval shall not be unreasonably withheld. The Contractor shall comply with all prevailing legislation in respect of drawing water from natural and other sources and shall, when required by the Employer's Agent, produce proof of such compliance.

The distribution of water shall be carried out by the Contractor strictly in accordance with the applicable laws and regulations. All water provided by the Contractor for construction purposes shall be clean, free from undesirable concentrations of deleterious salts and other materials and shall comply with any further relevant specifications of the Contract.

The Contractor shall, whenever reasonably required by the Employer's Agent, produce test results demonstrating such compliance. Water provided by the Contractor for human consumption shall be healthy and potable to the satisfaction of the health authorities in the area of the Site.

The Employer accepts no responsibility for the shortage of water due to any cause whatsoever or for the additional costs incurred by the Contractor as a result of such shortage.

The Contractor shall take note that no separate or direct payment of any kind whatsoever will be made for any cost incurred to obtain, distribute, consume and use water or for the provision of a water supply point or for the cost of water drawn. Payment for the aforementioned shall be deemed to be covered by the rates and prices tendered and paid for the various items of work included under the Contract.

C3.4.5.3 Power / Electricity Supply

The Contractor shall make his own arrangements with the Electricity Department for a supply of electricity if required and shall pay establishment and consumption costs at the tariffs ruling at the time.

The Contractor shall, at his own expense, be responsible for obtaining and distributing all electricity as he may require for the purposes of executing the Contract, including electricity for both construction purposes and domestic use as well as for making all arrangements in connection therewith.

The distribution of electricity shall be carried out by the Contractor strictly in accordance with the applicable laws and regulations. No separate payment will be made to the Contractor for the obtainment, distribution and consumption of electricity, the costs of which will be deemed to be in the Contractor's tendered rates and prices.

C3.4.5.4 Sanitary facilities

The Contractor shall, at his own expense, be responsible for safely and hygienically dealing with and disposing of all human excrement and similar matter generated on the Site during the course of the Contract, all to the satisfaction of the responsible health authorities in the area of the Site as well as the Employer's Agent.

All such excrement shall be removed from the Site and shall not be disposed of by the Contractor on the Site. The Contractor shall further comply with any other requirements in this regard as may be stated in the Contract.

The Contractor shall further, as a minimum, supply and maintain chemical toilets for use by his workmen. The number of toilets shall be based on one toilet per fifteen personnel on site.

Under no circumstances will the Contractor's staff be allowed to use any other toilet facilities in and around the Site.

C3.4.5.5 Accommodation of employees

The Contractor shall make his own arrangements for the accommodation of his employees. Where field accommodation is required, the Contractor shall comply fully with the wishes of the various landowners, as in their agreement with the Employer, to the satisfaction of both land owner and Employer.

C3.4.6 SITE USAGE

Access to site shall be limited to the Contractor and his personnel. The Contractor shall be responsible to control unauthorized entry to the site and shall inform the Employer's Agent of any breach of such rules. The site shall be managed and used for its intended purpose. The Contractor is required to keep a visitors log, and ensure full compliance with site safety standards.

C3.4.7 SURVEY CONTROL AND SETTING OUT OF THE WORKS

Benchmarks shall be used to set out the works and to control designed levels.

Before commencement of work, the Contractor shall liaise with the Employer's Agent in order to establish the exact status of all survey control and boundary pegs on the Site.

The position and level of all benchmarks shall be checked, recorded and protected.

On completion of the Contract, all pegs that have unavoidably been disturbed shall be replaced by the Employer. Pegs which have, in the opinion of the Employer's Agent, been disturbed due to the negligence of the Contractor will be replaced at the Contractor's expense.

C3.4.8 PERMITS AND WAY LEAVES

The Employer's Agent is responsible for obtaining all necessary permits and way leaves from all relevant authorities.

C3.4.9 FACILITIES PROVIDED BY THE CONTRACTOR

C3.4.9.1 Office for the Employer's Agent

An office for the Employer's Agent staff is required. The type of office required for the Employer's Agent is specified in PSA 8.3.2.1. Site meetings will be held in the contractors site office.

C3.4.9.2 Sanitary facilities

No latrines are available and therefore the Contractor shall supply portable chemical toilets for use by his workmen. The number of toilets shall be based on one toilet per fifteen personnel on site. Under no circumstances will the Contractor's staff be allowed to use private or public toilet facilities.

The Contractor shall provide water and soap for his staff to be able to wash with at each site of the Works. The waste water shall be disposed of off-site.

C3.4.9.3 Security on site

The Contractor shall make provision for security on site (including site camp) against theft, robbery, and riots as his sole responsibility. The cost for providing adequate security, as and when required, must be borne by the Contractor.

C3.4.10 FEATURES REQUIRING SPECIAL ATTENTION

C3.4.10.1 Site maintenance

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

C3.4.10.2 Testing and quality control

a) Contractor to engage services of an independent laboratory

Notwithstanding the requirements of the Specifications pertaining to testing and quality control, the Contractor shall engage the services of an approved independent laboratory to undertake all testing of materials, the results of which are specified in, or may reasonably be inferred from, the Contract.

These results will be taken into consideration by the Employer's Agent in deciding whether the quality of materials utilised and workmanship achieved by the Contractor comply with the requirements of the Specifications.

The above shall apply irrespective of whether the specifications indicate that the said testing is to be carried out by the Employer's Agent or by the Contractor.

The Contractor shall be responsible for arranging with the independent testing laboratory for the timeous carrying out of all such testing specified in the Contract, at not less than the frequencies and in the manner specified. The Contractor shall promptly provide the Employer's Agent with copies of the results of all such testing carried out by the independent laboratory.

For the purposes of this clause, an "independent laboratory" shall mean an "approved laboratory" (as defined in subclause PSA 7.2) which is not under the management or control of the Contractor and in which the Contractor has no financial interest, nor which has any control or financial interest in the Contractor.

b) Additional testing required by the Employer's Agent

In addition to the provisions of subclause C3.4.10.2 (a): Contractor to engage services of an independent laboratory, the Employer's Agent shall be entitled at times during the Contract to require that the Contractor arrange with the independent laboratory to carry out any such tests, additional to those described in subclause C3.4.10.2 (a), at such times and at such locations in the Works as the Employer's Agent shall prescribe. The Contractor shall promptly and without delay arrange with the independent laboratory for carrying out all such additional testing as required by the Employer's Agent, and copies of the test results shall be promptly submitted to the Employer's Agent.

c) Costs of testing

(i) Tests in terms of subclause C3.4.10.2(a)

The costs of all testing carried out by the independent laboratory in accordance with the requirements of subclause C3.4.10.2 (a) above shall be borne by the Contractor and shall be deemed to be included in the tendered rates and prices for the respective items of work as listed in the Bill of Quantities and which require testing in terms of the Specifications.

No separate payments will be made by the Employer to the Contractor in respect of any testing carried out in terms of subclause C3.4.10.2 (a).

Where, as a result of the consistency of the materials varying or as a result of failure to meet the required specifications for the work it becomes necessary to carry out additional tests (e.g. re-tests on rectified work and/or replacement materials), the costs of such additional testing shall be for the Contractor's account

(ii) Additional tests required by the Employer's Agent

The costs of any additional tests required by the Employer's Agent in terms of subclause C3.4.10.2.(b): Additional testing required by the Employer's Agent, shall be reimbursed to the Contractor against substitution of the Provisional Sum allowed therefore in the Bill of Quantities; provided always that the costs of any such additional tests ordered by the Employer's Agent, the results of which indicate that the quality of the materials utilised and/or the standard of workmanship achieved are/is not in accordance with the specifications, shall not be reimbursable to the Contractor.

C3.4.10.3 Subcontractors

All matters pertaining to subcontractors (including Selected Subcontractors appointed in terms of Clause 6.3 of the Conditions of Contract) and the work executed by them shall be dealt with directly between the Employer's Agent and the Contractor in the context of all subcontract work being an integral part of the Works for which the Contractor is responsible.

The Employer's Agent will not liaise directly with any subcontractors nor will he issue instructions concerning the subcontract works directly to any subcontractor.

All matters arising from the subcontract agreements shall be dealt with directly between the Contractor and the subcontractors and the Employer's Agent will not be involved.

C3.4.10.4 Opening up and closing down of designated borrow pits

Not applicable.

C3.4.10.5 Access to properties (where relevant)

The Contractor shall organise the work to cause the least possible inconvenience to the public and to the property owners adjacent to or affected by the work, and except as hereunder provided, shall at all times provide and allow pedestrian and vehicular access to properties within or adjoining or affected by the area in which he is working. In this respect the Contractor's attention is drawn to Clause 8.1.1 of the Conditions of Contract.

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

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

C3.4.10.6 Employment of local labour

It is the intention that this Contract should make maximum use of the local labour force that is presently under-employed. To this end the Contractor shall limit the utilisation on the Contract of non-local employees to that of key personnel only and to employ and train local labour to the extent necessary for the execution and completion of this Contract.

The Contractor shall fill in the form entitled Key Personnel in the Forms to be completed by the Tenderer. The data stated on the above-mentioned form will be strictly monitored during the Contract period and any deviations therefrom shall be subject to the prior approval of the Employer's Agent, which approval shall not be unreasonably withheld.

C3.4.10.7 Monthly statements and payment certificates

The statement to be submitted by the Contractor in terms of Clause 6.10 of the Conditions of Contract shall be prepared by the Contractor at his own cost, strictly in accordance with the standard payment certificate prescribed by the Employer's Agent, in digital electronic computer format. The Contractor shall, together with a copy of the digital electronic computer file of the statement, submit two (2) A4 size paper copies of the statement.

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

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

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

C3.4.10.8 Construction in restricted areas

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

C3.4.10.9 Notices, signs, barricades and advertisements

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

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

C3.4.10.10 Workmanship and quality control

The Employer, the Contractor and the Employer's Agent shall operate and maintain their own individual contract administration and quality assurance systems.

The Contractor shall implement his own Quality Assurance plan for executing the works for compliance with the aforementioned standards and specifications.

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

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

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

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

C3.4.10.11 Public Safety

The Contractor shall at all times ensure that his operations do not endanger any member of the public.

As the area is adjacent to a residential area the Contractor shall take special precautions to prevent public access to any danger areas on the Works, e.g. by temporary barricades and/or fencing.

C3.4.10.12 Sand and Dust Control

The Contractor shall, for the duration of the contract, take appropriate measures to control the dust and soil movement which may arise due to his operations.

C3.4.11 EXTENSION OF TIME DUE TO ABNORMAL RAINFALL

A claim for extension of time in respect of delays suffered by the Contractor in consequence of abnormal wet climatic conditions will be considered by the Employer's Agent in terms of Clause 5.12 of the Conditions of Contract and in accordance with provisions set out hereunder.

For the purposes of extension of time, a delay caused by abnormal wet climatic conditions will be regarded as a delay only if, in the opinion of the Employer's Agent, all progress on an item or items of work on the critical path of the Contractor's working programme as approved in terms of Clause 5.6 of the Conditions of Contract has been brought to a halt.

Unless it is customary to carry out the work, in respect of which a delay was suffered, by rotary shifts or by day and by night, only delays to critical path items experienced as a result of wet climatic conditions during normal working hours (as defined in Clause 5.8 of the Conditions of Contract) will be taken into account for extension of time. This will apply notwithstanding the fact that a delay may have occurred on a portion of the Works on the critical path due to wet climatic conditions, which work was being executed outside the said normal hours with the permission of the Employer's Agent, granted in terms of Clause 5.8 of the Conditions of Contract.

The Contractor shall make due allowance within his programme submitted in terms of Clause 5.6 of the Conditions of Contract, for the total delay to work items on the critical path resulting from normal wet climatic conditions. The specified allowances for this Contract are defined in Clauses 5.12.2.2 of the Contract Data.

Extension of time, if granted by the Employer's Agent, will be determined as the aggregate number of normal working hours for which all progress on the item or items on the critical path was brought to a halt as a result of wet climatic conditions, less the number of normal working days specified in Clause 5.12 of the Contract Data.

In determining the revised Due Completion Date of the Contract, the Employer's Agent shall add the equivalent number of normal working days delay determined in accordance with this Clause and all intervening normal non-working days to the prevailing Due Completion Date.

C3.4.12 VARIATIONS AND ADDITIONS TO SABS 1200 STANDARDIZED SPECIFICATIONS AND PARTICULAR SPECIFICATIONS

The following variations and additions to the SABS 1200 Standardized Specifications referred to shall apply to this Contract. The prefix "PS" indicates an amendment to SABS 1200. The prefix "PSA" indicates an amendment to SABS 1200 A, "PSDB" to SABS 1200 DB and so on. The letters and numbers following these prefixes respectively

indicate the relevant Standardized Specification and clause numbers in SABS 1200 to which the variation or addition thereto applies.

An asterisk (*) placed next to a PS Subclause number denotes the inclusion of an additional Subclause for which no equivalent appears in SABS 1200.

The term “project specifications” appearing in any of the SABS 1200 Standardized specifications must be replaced with the term “Scope of Work”.

Further to the above it should be noted that where in a specific Standardized Specification reference is made to a Subclause in another Standardized Specification, any amendment or addition to the Subclause referred to, as provided for in the Specification, shall apply. The aforementioned shall also apply with respect to Clauses referred to in a Particular Specification.

PROJECT SPECIFIC SPECIFICATIONS

PSA GENERAL (SABS 1200 A)

PSA 2 INTERPRETATIONS

PSA 2.3 Definitions and abbreviations

"SABS'" shall mean "SANS", except for references to the official SABS mark.

PSA 2.8 Items in Schedule of Quantities

PSA 2.8.1 Principle

In the fourth line of Clause 2.8.1, after the word "specification", add: "or in the measurement and payment clause of the standard specification or Scope of Works".

PSA 3 MATERIALS

PSA 3.1 Quality

Where applicable, materials shall bear an official standardisation mark. Where it is specified that a material shall comply with the requirements of an SABS specification, the material shall bear the official SABS mark, unless the Contractor can prove that such material is not available with the mark.

PSA 4 PLANT

PSA 4.1 Silencing of plant

Replace the reference to "Machinery and Occupational Safety Act, 1983 (Act No.6 of 1983) with "Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).

PSA 4.2 Contractor's offices, stores and services

The Contractor's offices, buildings, sheds, stores and other facilities erected for the purposes of the contract shall be fenced off, and shall be kept in a neat and tidy condition at all times.

No personnel may reside on the site, except for night-watchmen.

The Contractor shall provide one chemical toilet for every 15 workers, which shall be easily accessible to workers at all areas of the site, and shall be effectively screened from public view. The Contractor shall strictly enforce the use of the toilets, and shall ensure that the toilets are serviced/replaced on an acceptable, regular basis.

The Contractor shall provide a first aid cabinet fully equipped and maintained with at least the minimum contents as listed in the Annexure (Regulation 3) to the General Safety Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993). The Contractor shall also provide personal protective equipment and facilities as required by Regulation 2 of the General Safety Regulations of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).

PSA 5 CONSTRUCTION

PSA 5.1 Survey

PSA 5.1.1 Setting out of the Works

In addition to the requirements of Clause 5.1.1, the Contractor shall check the positions and levels of all setting out pegs and bench marks before commencing any construction, and advise the Engineer of any discrepancies.

PSA 5.2 Watching, Barricading and Lighting

The Contractor shall comply in all aspects with the requirements of the Occupational Health and Safety Act (Act 85 of 1993). Refer also to PSA5.10.

PSA 5.3 Protection of structures

Replace the reference to "Machinery and Occupational Safety Act, 1983 (Act No.6 of 1983) with "Occupational Health and Safety Act, 1993 (Act No. 85 of 1993).

PSA 5.4 Protection of overhead and underground services

Existing services are known to exist along the route of the feeder main. The approximate position of known services is shown on the drawings according to the best information available. It is also likely that other services that are not shown on the drawings exist along the route of the feeder main. Neither the employer nor the Engineer gives any warranty for the accuracy or completeness of the information provided.

PSA 5.4.1 Locating existing services *

As existing services can seldom be reliably located from drawings, the Contractor shall locate all existing services with the co-operation of the relevant authority, and carefully excavate by hand, expose and survey such services before commencing any excavation. The requirements of Clauses 4.4 and 5.1.2.2 of SABS 1200D shall also apply. If the information regarding any existing service as given in the drawings is missing, incomplete or incorrect, the Contractor shall, as soon as the service has been located, submit details of the exact location, depth and type of service in writing to the Engineer. This procedure shall also be followed for services not shown on the drawings, but which may reasonably be anticipated by an experienced contractor to be present on, under, over or within the Site.

PSA 5.4.3 Alterations and repair of existing services

Unless specified otherwise by the Engineer, the Contractor shall not carry out alterations to services, or repairs of damaged services. Where any such alteration or repair become necessary, the Contractor shall immediately inform the Engineer, who will make arrangements for the alterations or repair to be carried out by the owner of the service, or instruct the Contractor to make such arrangements.

PSA 5.4.4 Disconnection procedure

Before carrying out any work that involves the disconnection of a service to a property, the Contractor shall serve written notice on the resident/occupier and/or owner of every property, at least 5 working days before any temporary disconnection, advising the nature, time and duration of the disconnection.

PSA 5.9 Drawings

Construction drawings and additional detailed information will be made available to the Contractor as

and when required by him. Tender drawings shall not be used for construction.

PSA 5.10 Safeguarding and accommodation of traffic *

The existing roads within and around the Site shall remain operational throughout the Contract period. To this end the Contractor shall provide and maintain all temporary works, temporary road signs, temporary bridges, culverts, barriers, kerb ramps, flagmen, drums, lighting, deviations and all other incidentals that are necessary to maintain the normal, safe and easy flow of all vehicular and pedestrian traffic.

Temporary road signs and road markings shall comply with the Site Manual entitled "Safety at Roadworks in Urban Areas", as published by the Department of Transport. Road signs shall have a yellow background with either a red or black border.

The Contractor shall accommodate and maintain through traffic, traffic at crossings and vehicle access to houses and buildings at all times, unless the closing of streets and thoroughfares has been approved by the local authority,

The Contractor shall arrange his work at …..Road such that only half of the roadway is closed to traffic during normal working hours. Both lanes of the roadway shall be open to traffic outside normal working hours, and suitable barricading, lighting and protection shall be provided to maintain safe passage at night.

PSA 5.9 Accommodation of Traffic*

Temporary traffic signs shall be erected at all diversions.

The **number and layout** of the traffic signs shall comply with the Site Manual entitled **"Safety at Roadworks in Urban Areas"**, as published by the Department of Transport.

Traffic signs shall have a yellow background with either a red or black border.

PSA 7 TESTING

PSA 7.2 Approved laboratories

In addition to the approved laboratories stated in Clause 7.2, a 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, will also be regarded as an approved laboratory.

PSA 8 MEASUREMENT AND PAYMENT

PSA 8.3.1 Contractual Requirements

Add to sub-clause 8.3.1 :

"In addition, the sum tendered shall cover all initial costs incurred in complying with the requirements of the Special Conditions of Contract.

PSA 8.3.2.1 Facilities for Engineer (Clauses 8.3.2.1 and 8.4.2.1)

The sums tendered for Items A1..... and A2..... shall cover the costs of providing and maintaining all the facilities as detailed in Clause 3.4.5.5 of the Scope of Works.

PSA 8.4.1 Contractual Requirements

The Contractor shall tender a lump sum in the Schedule of Quantities to cover his time-related establishment costs. The amount tendered and paid shall be full compensation to the Contractor for :

(i) The maintenance of his whole organisation as established for this Contract.
(ii) The maintenance of all insurances, indemnities and guarantees required in terms of the Conditions of Contract or Tender where applicable.
(iii) Compliance with all general conditions and requirements which are not specifically measured elsewhere for payment in these Contract Documents.

The Contractor shall tender a lump sum for the abovementioned items.

Payment of the lump sum shall be made monthly in compliance with the method laid down in Sub-clause 8.2.2 of SABS 1200:A.

The Contractor will not be paid Time-Related Preliminary and General charges for any Special Non-Working Days, as stipulated in the Appendix, which shall be deemed to have been allowed for in his rates.

PSA 8.4.2 Adjusted Payment for Time-Related Items

The payment to the Contractor for Time-Related Items shall be adjusted in accordance with the following formula in the event of the Contract being extended by means of a variation order :

$$\text{Sum of Tendered amounts for Time Related Items} \times \frac{\text{Extension of Time authorised by variation order}}{\text{Tender contract period}}$$

*For the purposes of applying this formula "Extension of Time" will exclude the Contractor's December/January close-down period, if applicable.

The abovementioned adjustment of the payment for Time-Related Items shall be made in the Completion Payment Certificate and shall be the only payment for additional Time-Related costs irrespective of the actual period required to complete the Contract including its authorised extensions.

In the case of fixed price contracts, the amount by which the Time-Related Items is adjusted shall not be subject to the Contract Price Adjustment formula.

In the case of contracts subject to Contract Price Adjustment the amount by which the time-related items is adjusted shall be subject to the Contract Price Adjustment formula.

PSA 8.4.6 Compensation in terms of Clause 5.12.2.4 of the General Conditions of Contract - 2010 and Clause 9.1.4 of the Contract Data, for delays incurred

a) Plant — Unit : Sum per working day
b) Labour — Unit : Sum per working day
c) Supervision — Unit : Sum per working day
d) Other services, facilities etc. not covered by (a), (b) and (c) — Unit : Sum per working day

The sum tendered for each item shall cover the full and final standing cost per day of delaying the specified resource or facility and no additional compensation shall apply, notwithstanding any provisions to the contrary in the contract documents, or in respect of any extension of time granted in relation to the circumstances described in Clauses 5.12.2.4, 9.1.1 and 9.1.2 of the General Conditions of Contract - 2010.

For the purposes of calculating the total delay, a working week shall be held to consist of five working

days and a working day 9 hours.

Payment for partial standing of any of the scheduled resources for a day or part thereof, or the standing of a complete resource for a part day, will be made pro-rata in proportion to an appropriate factor assessed by the Engineer.

The amount by which compensation for delays is adjusted shall be subject to the contract price adjustment formula as defined in the General Conditions of Contract - 2010.

This payment item shall only apply to delays which in the opinion of the Engineer are due to the circumstances described in Clauses 5.12.2.4, 9.1.1 and 9.1.2 of the General Conditions of Contract - 2010.
The cost of delays incurred for all other circumstances shall be treated as provided for in the General Conditions of Contract -2010.

The provision of this clause shall in no way prejudice the rights of either the Employer or the Contractor to terminate the contract in terms of the provisions in clause 9 of the General Conditions of Contract - 2010.
The Contractor shall take note that no payment will be considered for any additional cost incurred in protecting his plant and site establishment, as well as for costs incurred in respect of damage to constructional plant and equipment.

PSA 8.5 Sums stated provisionally by Engineer

Insert after the last sentence of Clause 8.5:

"Payment will be made on the basis of the sums actually paid for such work."

PSA 8.6 Prime cost items

Insert before the last sentence of Clause 8.6:

"Payment will be made on the basis of the sums actually paid for such goods or materials."

PSA 8.7 Daywork

Provisional items for Daywork are scheduled as follows:

Labour at hourly rates for skilled, semi-skilled and unskilled labourers.

Material as a Provisional Sum with a percentage allowance on the net cost.

The Contractor's own plant at hourly rates for various types. The rates for the Contractor's own plant shall be all inclusive, covering the cost of plant operators, consumable stores, fuel and maintenance.

Hired plant as a Provisional Sum with a percentage allowance on the net cost. The Contractor will be paid the actual net cost of plant hired by him for Daywork and in addition will be paid a percentage allowance on the net cost of such hire, which allowance will cover the Contractor's own overhead costs and profit.

PSA 8.8.1 Main access

The sum tendered shall cover the cost of constructing and maintaining the main access road to the reservoir site and, unless the access road is specified to be handed over in good condition, the removal of the road and the reinstatement of the area on completion.

PSA 8.8.2 Dealing with traffic

The sums tendered for Items A1.2.2 and A2.2.2 shall cover all costs of dealing with traffic (safeguarding and accommodation of traffic), the maintenance of access, protection at crossings and all other requirements of PSA5.10.

PSA 8.8.4.1 Dealing with existing services

The cost of locating and exposing existing services by careful excavation will be held to be included in the rates for excavation.

Where it is necessary for the Contractor to locate and expose existing services that are not shown on the drawings, or where the existing service is found to be further than 3m from the position indicated on the drawings, the cost of locating and exposing such services will be measured by volume. The rate shall cover all costs of materials, labour and plant, including specialist detecting equipment, required to locate and expose the service.

PSA 8.8.4.2 Existing services

A Provisional Sum is included in Item A5.1.1 of the Schedule of Quantities for work on existing services by the relevant authorities.

The Contractor shall pay for work ordered by the Engineer and carried out by the relevant authorities, such as locating, protecting or diversion of existing services. The Contractor shall arrange with the relevant authority for invoices to be addressed to him. The Contractor will be paid in Item A5.1.1 upon submission of proof of payment of the relevant authority's invoice.

The Contractor's costs in connection with work carried out by service authorities will be measured and paid separately under Item A5.1.2 as a percentage of the actual amount paid, excluding VAT. The percentage shall cover the costs of all administrative and supervisory costs and profit, as well as the cost of the Contractor's liaison and aid to the authorities in locating and protecting the abovementioned services and any other costs resulting from the work of the authorities.

PSA 8.9 Dealing with water

The cost of supplying and operating the equipment for dewatering of excavations and controlling of stormwater will be held to be included in the tendered sums for Items A1.3 and A2.3 and no separate payment will be made for this work.

PSA 8.10 Freehaul and overhaul *

Notwithstanding any clauses in the Standardized Specifications dealing with transport, freehaul and/or overhaul, no measurement or payment will be made for overhaul. All haulage will be regarded as freehaul and the cost thereof will be deemed to be covered by the rates for the provision or disposal of the applicable material.

PSA 8.11 Miscellaneous items *

The sum or rate for any item which refers to this clause shall cover the cost of all materials, labour and plant required to execute and complete the work as specified, described in the Bill of Quantities or shown on the drawing(s), including the Contractor's overheads and profit.

PSA 8.12 Compliance with safety requirements *

The sums tendered shall cover all costs associated with compliance with all the requirements of the OHS Act and Regulations (including the Construction Regulations 2003) at all times for the full duration

of the Contract.

PSA 8.9 Compliance with OHS Act And Regulations (Including The Construction Regulations 2003) *

Unit: sum

The tendered sum shall include full compensation to the Contractor for compliance with all the requirements of the OHS Act and Regulations (including the Construction Regulations 2003) at all times for the full duration of the Contract, as described in PS 8.7 of Portion 1 of the Project Specifications. The successful tenderer shall provide the Engineer with a complete breakdown of this tendered sum.

This sum will be paid to the Contractor in equal monthly amounts subject to proper/substantial compliance."

PSC SITE CLEARANCE (SABS 1200 C)

PSC 3 MATERIALS

PSC 3.1 Disposal of material

The Contractor shall dispose of all cleared vegetation, rubble and construction waste at the site described in C3.4.5.2.5, unless instructed otherwise by the Engineer.

PSC 5 CONSTRUCTION

PSC 5.1 Areas to be cleared and grubbed

The Contractor shall ensure that the areas cleared and grubbed are kept to the minimum area necessary for the execution of the Works.

The Contractor shall clear and grub the area required for the Works, areas on which material will be stockpiled for later use and areas where material is to be dumped and spread, unless instructed otherwise by the Engineer.

PSC 5.2 Cutting of trees

The Contractor shall not remove trees with a trunk girth of more than 1m without the written permission of the Engineer.

PSC 5.6 Conservation of topsoil

Topsoil shall be removed from the cleared areas up to a depth of 150 mm (if available) and
* either
spread and neatly trimmed on adjacent erven to a maximum depth of 75 mm.
* or
stockpiled on approved sites for later reuse. Until required for spreading, the stockpiles of topsoil material shall be stabilized by watering or other approved means.

PSC 8 MEASUREMENT AND PAYMENT

PSC 8.2.1 Clear and grub

Site clearance for pipe trenches will not be measured where such trenches lie within the carriageway of any road.
The rate tendered for clearing and grubbing shall cover the cost of disposal of the material on the Site by approved means at places indicated by the Engineer, and for finally covering the disposal area with 75mm of topsoil.

PSC 8.2.7 Dismantle and remove pipelines, etc

In addition to the requirements of Clause 8.2.7, the rate shall cover the cost of locating the pipeline and any additional costs of excavation and backfilling not covered by other normal rates for excavation and backfilling under SABS 1200 DB.

PSC 8.2.8 Demolish and remove structures, etc

In addition to the requirements of Clause 8.2.8 the rate shall cover the cost of excavation and demolition of the scheduled unit, salvaging and delivery of metal fittings, complete removal of all rubble

from the Site, and the supply of material for and backfilling of the voids so formed, including compaction, all to the satisfaction of the Engineer.

PSC 8.2.10 Removal and conservation of topsoil

The rate tendered for the removal of in situ topsoil shall, in addition to the items listed in Clause 8.2.10, also cover the cost of stabilizing, watering and protecting the stockpiles of topsoil.

PSD EARTHWORKS (SABS 1200 D)

PSD 2 INTERPRETATIONS

PSD 2.3 Definitions

Replace the definition of "restricted excavation" with:

"Notwithstanding the definition in Clause 2.3, and irrespective of the method of excavation employed by the Contractor, all excavation for ……. above the level of ….. will be regarded as "bulk excavation". All excavations below this level and or outside the envelope of the ……will be regarded as "restricted excavation"."

PSD 3 MATERIALS

PSD 3.1 Classification for excavation purposes

PSD 3.1.1 Method of classifying

Replace the third sentence of Clause 3.1.1 with

"The classification will be based on the Engineers inspection of the material to be excavated and on the criteria given in PSD3.1.2".

PSD 3.1.2 Classes of excavation

All materials encountered in any excavation for any purpose including restricted excavation will be classified as follows:

(a) Hard rock excavation

Hard rock excavation shall be excavation in material (including undecomposed boulders exceeding 0.17 cubic metres in individual volume) that cannot be efficiently removed without blasting, wedging and splitting, or hydraulic hammers.

This classification includes materials such as:

- solid unfractured rock occurring in bulk
- solid ledges thicker than 200mm
- igneous rock intrusions
- cemented sedimentary rocks.

(b) Soft Excavation

Any material which can be removed by bulldozers or backhoes, shall be classified as soft excavation. Soft excavation shall be material not falling into the category of hard rock excavation.

Notwithstanding Clause 3.1.2, intermediate excavation and boulder excavation (class A and B) will be classified as soft excavation.

Solid calcified calcrete will be classified as hard rock excavation only if it complies with the definition of hard rock stated in Clause 3.1.2(c). The decision whether or not any material is solid calcified calcrete rests with the Engineer.

For excavation that is required to be carried out using labour intensive methods the excavation of material will be classified as follows for purposes of measurement and payment:

Shovel excavation: Shovel excavation shall be excavation in material that can be removed by hand shovelling using foot pressure to make the shovel dig into the material if necessary.

Pickable excavation: Pickable excavation shall be excavation in material that requires to be picked with a hand pick to loosen it sufficiently for shovelling by hand.

PSD 5 CONSTRUCTION

PSD 5.2 Methods and procedures

PSD 5.2.1.2 Conservation of topsoil

Until required for spreading, the stockpiles of topsoil material shall be stabilized by watering or other approved means.
Topsoil shall not be stockpiled higher than 2,0m. Care shall be taken to prevent the compaction of topsoil in any way especially by vehicles.

PSD 5.2.2.3 Disposal

The Contractor shall remove all surplus and/or unsuitable material from excavations and clearing and grubbing operations and dispose of it at the site described in C3.4.5.2.5, unless instructed otherwise by the Engineer.

Should the Engineer instruct the disposal of selected material on the Site, the coarsest material shall be placed at the bottom and covered with finer material, with the finest material at the top. The surface profile of the material shall be shaped to free draining slopes. The disposal site shall be finished off to the satisfaction of the Engineer.

PSD 5.2.3.2 Backfilling against structures

In addition to the requirements of Clause 5.2.3.2, the backfill material shall be placed and compacted on all four sides of the structure in equal layer heights, to prevent overturning or sliding.

PSD 5.2.4.6 Reinstatement of disturbed areas *

Where the Site has been disturbed by construction activities, and the Engineer has instructed that these areas shall be reinstated, the reinstatement shall, after the final grading defined in Clause 5.2.4.1 of SABS 1200D, include the spreading of thatch grass over the surface at a rate sufficient to prevent wind erosion, as approved by the Engineer.

PSD 8 MEASUREMENT AND PAYMENT

PSD 8.3.6 Overhaul

Notwithstanding Clause 8.3.6, PSA 8.10 shall apply.

PSD 8.3.10 Topsoiling

In addition to the provisions of Clause 8.3.10, the rate for topsoiling shall cover the cost of watering, and stabilising the topsoil on slopes to avoid erosion and slipping where necessary, to the approval of the Engineer.

PSD 8.3.14 Extra-over payment for excavation classification *

The unit rate for soft excavation shall cover the cost of excavation in all classes of excavation except hard rock. An extra-over item has been scheduled for excavation in hard rock. The rate for the extra-

over item shall include all costs associated with excavation of rock, over and above the cost of soft excavation.
(Alternative)
No separate measurement or payment will be made for any variations in materials. The tendered rate for excavation in all materials shall include for the cost of excavation of all types of materials classified in Clause 3.1.2.

PSD 8.3.15 Reinstatement of disturbed areas

The rate shall cover the cost of final trimming and preparation of the disturbed areas, and the supply and installation of thatch grass over the areas.

PSDB EARTHWORKS (PIPE TRENCHES) (SABS 1200 DB)

PSDB 3 MATERIALS

PSDB 3.1 Classes of excavation

Delete the contents of Clause 3.1 and replace with the following:

"The classification of excavation shall be as specified in PSD3.1".

For trench excavation that is required to be carried out using labour intensive methods the excavation of material will, for purposes of measurement and payment, be classified as specified in PSD3.1.2.

PSDB 3.5 Backfill material

Delete the contents of Clause 3.5(b) and replace with the following:

"Materials used in the reinstatement of trenches beneath or within a new roadway, up to underside of the road layers, shall be 37,5mm basecourse quality material conforming to SABS 1200 MF compacted in 150mm layers to 98% of mod. AASHTO max. density."

PSDB 3.7 Selection

Notwithstanding Clause 3.7, the Contractor is required to use selective methods of excavating. The Contractor shall selectively remove and keep separate topsoil, unsuitable material, and material suitable for reuse as backfill, selected fill, selected granular material or for other use as ordered by the Engineer.

Material which, in terms of Clause 6.2 of SABS 1200 D or Clause 6.1 of SABS 1200 LB, is too wet for immediate use in the trench (but which is otherwise suitable) will not be regarded as "unsuitable" material and, if so ordered by the Engineer, the Contractor shall spread such material in a suitable area until it has dried sufficiently for later use. Should the material which is replaced in the trench become too wet again, due to the fact that the Contractor made insufficient provision for the handling and removal of groundwater in accordance with Clause 5.5 of SABS 1200 A, the Contractor shall replace the material at his own cost with material which is, in the opinion of the Engineer, suitable.

PSDB 3.8 Geotextile blanket

The Contractor shall use "Bidim" or "Kaymat" or similar approved geotextile.

PSDB 5 CONSTRUCTION

PSDB 5.1 Precautions

PSDB 5.1.2.3 Sloping ground

On slopes steeper than 1:4, the Contractor shall excavate by hand. No additional payment will be certified for such excavation.

PSDB 5.2 Minimum base widths

The minimum base width for flexible pipes shall be as follows:

External diameter of pipe barrel (mm)		Minimum base width (mm)
Over	Up to and including	
-	50	400
50	110	600
110	300	800
300	450	1,000

Otherwise the provisions of clause 5.2 shall apply.

PSDB 5.1.4 Existing services that intersect or adjoin trenches

Where the proximity of existing services or the lack of space prohibits the use of a mechanical excavator for trench excavation, the Engineer may order or permit the use of hand excavation. No additional payment will be certified for such excavation, as any additional costs will be held to be covered in the rates.

PSDB 5.5 Trench bottom

Should the Engineer consider the trench bottom to be unstable, he may instruct the Contractor to replace unsuitable material with a 19 mm single-sized crushed stone layer in order to provide a stable platform for the placing of the pipe bedding. The stone layer shall be 150mm thick over the full width of the trench, and shall be wrapped in a geotextile blanket with 150mm overlap at the joint.

PSDB 5.6 Backfilling

PSDB 5.6.2 Material for backfilling

The Contractor shall ensure that all excavated material is kept within the pipe servitude until backfilling is complete. The toe of the heap of excavated material next to the trench shall be kept a minimum of 500mm from the edge of the trench, and this strip shall be kept clear of excavated material at all times.

PSDB 5.6.6 Completion of backfilling

Within the residential areas, the length of trench open at any one time shall not exceed 100 m per pipe-laying team or 200m in total, whichever is the greater.

If in the opinion of the Engineer, insufficient progress is being made with the backfilling of trenches, the Engineer may order that no further excavation may take place until the backfilling of trenches has caught up. No additional payment will be made for any delay that this may cause.

In the open veld the Contractor shall limit the length of trenches open, at any time, to a maximum of 500 m or between fence crossings, whichever is the smaller.

PSDB 5.7 Compaction

PSDB 5.7.2 Areas subject to traffic loads

All trenches within the road reserves will be considered to be subject to traffic loads and the backfill material and compaction in these trenches shall comply with the requirements of PSDB3.5 and 5.7.2.

PSDB 5.9 Reinstatement of surfaces

The reinstatement of the existing road layers shall be to the following minimum thicknesses and compaction:

Clause 5.9.4	Subbase : depth of cover to crown of pipe : 95% of mod. AASHTO max. density
Clause 5.9.4	Base : ..... mm minimum : 98% of mod. AASHTO max density
Clause 5.9.5	Surfacing : 30 mm minimum : As specified in Clause 5.9.5.2
Clause 5.9.3	Gravel wearing course : ... mm minimum : 95% of mod. AASHTO max. density

PSDB 7 TESTING

PSDB 7.1 Density testing

In addition to clause 7.1 the Contractor shall also carry out density tests to determine the compaction of the trench bottom. The Contractor will be required to carry out as many density tests that are necessary to achieve the required material control, with a minimum testing frequency of:

- Every 100m on the trench bottom
- Every 50m on the bedding
- Every 50m on the backfill

Notwithstanding Clause 7.1, the Contractor will be responsible for the cost of all testing.

PSDB 8 MEASUREMENT AND PAYMENT

PSDB 8.3.2 Excavation

Notwithstanding Clause 8.3.2, the rate for excavation in all materials shall cover the cost of excavation in all classes of excavation, except hard rock. An extra-over item has been scheduled for excavation in hard rock. The rate for the extra-over item shall include all costs associated with excavation of rock, over and above the cost of excavation in all materials.

The rates for excavation of trenches shall also cover the cost of the activities with respect to areas subject to traffic loads as set out in Clause 8.3.3.3, the cost of accommodation of traffic and all costs of density testing to be borne by the Contractor.

PSDB 8.3.3.1 Deficiency in Backfill Material

Add the following to sub-clause 8.3.3.1(c):

The rate shall also include for compaction of base course quality backfill as per PSDB 3.5.

PSDB 8.3.5 Existing services that intersect or adjoin a pipe trench

Add the following item at the end of the clause:

"v) all hand excavation that may be necessary, whether ordered by the Engineer or elected by the Contractor."

PSDB 8.3.9 Crushed stone bedding layer and geotextile blanket *

Where the use of a layer of crushed stone in the trench bottom has been authorized by the Engineer, it will be measured by volume according to the length, the specified thickness of the layer, and the specified trench width.

The rate shall cover the cost of all additional excavation, preparation of the trench bottom, removal and disposal of unsuitable material, the supply and placing of a layer of stone.

Where the Engineer has authorized the use of geotextile filter blanket, this will be measured by area according to the specified thickness, specified trench width and the net length.

The rate shall include the cost of supply, placing and wastage as a result of overlap and over excavated trench widths.

PSL MEDIUM-PRESSURE PIPELINES (SABS 1200 L)

PSL 2 INTERPRETATIONS

PSL 2.1 References

PSL 2.1.3 Drawings *

Drawings numbered L1, L2 and L3 are withdrawn and replaced by the Construction Drawings.

PSL 3 MATERIALS

PSL 3.1 General

Pipes for water mains shall be

PVC-U Class …. pipes complying with the requirements of SABS 966.
(and / or)
mPVC Class …. pipes complying with the requirements of SABS 966 Part 2.
(and / or)
high density polyethylene (HDPE) Class 10, type PE100 pipes complying with the requirements of SABS ISO 4427. HDPE pipes shall be joined using of the "Plasson" compression type, or equivalent, approved couplings which have a polypropylene body, nut and compression ring with rubber O-ring. *ALT.* HDPE pipes shall be joined using fusion welding techniques or "Frialen" or equivalent, approved electro-fusion fittings.

Subject strictly to the requirements of Clause 3.1 pipes may be offloaded and strung out in the servitude.

All pipes, specials and valves arriving on site shall be marked clearly with the item number appearing in the Bill of Quantities. Furthermore the nuts, bolts, washers and other ancillary equipment for each individual item shall be kept separate in a bag which shall also bear the respective reference number of that item. The cost of such marking will be held to have been included in the rates tendered for the items.

The Contractor shall satisfy the Engineer that the manufacturers' recommendations for transporting, handling, stacking, storing and installing pipes, pipe fittings, sealing rubbers etc. are being followed. The Engineer shall be given the opportunity to inspect all materials immediately prior to installation and shall have the right to reject any materials which, in his opinion, have suffered damage which may impair the long term durability or strength of said items.

Pipes and specials shall be protected against damage during all stages of manufacture, delivery, storage and handling. The ends of all steel pipes and specials shall be protected against denting. Steel pipes shall be transported and stacked in such a manner that the pipe barrel is not deformed by more than 2% of its diameter. Dents which cause a protrusion of more than 1 mm on the inside of the steel special, may result in the special being rejected.

PSL 3.3 Cast iron pipes, fittings and specials

Cast iron specials shall be used with AC and PVC-U mains, and shall be provided with standard couplings, unless otherwise specified or shown on the drawings.

All cast iron fittings and specials shall be class 16 and shall be coated according to PSL 3.9.1.

PSL 3.4 Steel pipes, fittings and specials

PSL 3.4.1 General

Steel pipes shall be manufactured as specified in BS 534. Steel plate to BS 4360 Grade 43A is acceptable. The manufacturer of the pipes shall submit to the Engineer the steel maker's certificates covering all steel used as required in Clause 3.4 of SABS 719.

The steel pipes shall be manufactured exclusively at the works of such manufacturers as may be approved by the Engineer and at only one works unless otherwise agreed by the Engineer in writing.

All steel pipes and specials shall be clearly marked with the grade and thickness of the steel, the series number of the pipe or special, the item number in the Bill of Quantities, the nominal diameter and the working pressure.

If applicable, the drilling pattern shall be stamped on all flanges.

PSL 3.7 Other types of pipes

PSL 3.7.1 PVC-U Pipes

In addition to Clause 3.7.1, solvent welded joints or fittings shall not be used.

PSL 3.7.3 Specials for PVC-U pipes *

All specials (except flanges) shall be suitable for working pressure of not less than 1,600kPa.

Standard specials such as tees, flange adaptors, reducers etc. for PVC-U pipelines shall be fabricated from cast iron. Unless otherwise shown on the drawings, all bends shall be PVC-U.

PSL 3.8 Jointing materials

PSL 3.8.3 Flanges and accessories

Flanges shall comply with SABS 1123 and have a minimum working pressure of 1,600kPa. Holes shall be drilled to Table 1600/3 of SABS 1123.

Any item of pipework or special or valve, of which the flanges are incorrectly drilled, will be rejected. The reaming of bolt-holes to oversized dimensions to enable a particular item to fit will not be allowed.

All flanges shall be provided complete with bolts, nuts and washers compliant with SABS 135, and 2mm thick rubber insertions. The insertion piece shall cover the full face of the flange between the ID and OD.

PSL 3.8.4 Loose Flanges

With regard to Clause 3.8.4 the following standard shall apply :

"Bolts and nuts shall comply with requirements of SABS 135".

PSL 3.9 Corrosion protection

Unless otherwise specified or indicated on the drawings, all bolts, nuts and washers shall be hot-dip galvanized to SABS 763 after threading. All bolts, nuts and washers within water retaining structures

or exposed to rain water shall be fabricated from stainless steel.

PSL 3.9.1 CI Pipes

Cast iron pipes, specials, valves and hydrants shall be fusion bonded epoxy coated in accordance with Clause 3.9.2.2(b)(4) as amended by PSL 3.9.2.2(b)(4).

PSL 3.9.2 Steel pipes and specials

Steel pipes and specials with a nominal bore up to 150mm shall be hot-dip galvanised after fabrication, in accordance with the Clause 3.9.2.1 and the requirements of SABS 763 for heavy duty applications. Further machining, cutting or welding after hot-dip galvanizing will not be allowed.

Steel pipes and specials with a nominal bore over 150mm shall be coated with a polyamide-cured epoxy system ("Copon EP 2300" or similar approved) internally and externally as specified in Clause 3.9.2.2(b)(2) as amended by PSL3.9.2.2(b)(2).

PSL 3.9.2.2(b)(2)Polyamide-cured epoxy system

The internal and external surfaces of the fitting shall be grit blasted to at least SIS Standard Sa 3 with an anchor profile between 45 micrometres (minimum) to 75 micrometres (maximum). Thereafter the complete fitting including the flange faces but except for the sealing areas and bolt holes shall be coated with a two-pack solvent-free epoxy paint in accordance with Clause 3.9.2.2(b)(2), applied by means of a hot airless machine to a total dry film thickness of not less than 250 micrometres.

Alternatively an approved sintered epoxy powder to a total dry film thickness of at least 450 micrometres may be applied after cleaning as specified above in accordance with Clause 3.9.2.2(b)(4).

The above specified painting shall be applied after the fitting has passed its hydraulic test. The sealing area of the flanges shall be treated with an approved zinc rich primer.

All damaged paint areas (if any) caused by the transport and handling of the fitting shall be repaired in accordance with the above specification, prior to installation. Any damaged paint area caused by the installation of the fittings shall also be repaired as specified above. The grinding down of the damaged area to Sa 2 1/2 and the feathering of the edges are an acceptable alternative to re-blast cleaning.

PSL 3.9.2.2(b)(4)Fusion bonded epoxy

Fusion bonded epoxy (FBE) coating shall comply with the provisions of SABS 1217 as for a Type 2 powder coating, and may only be carried out by an applicator that is approved by the Engineer.

The entire surface to be coated must be free of dust and moisture and must comply with the provisions of Clause 4.1.1 of SABS 1217.

The total dry film thickness shall be at least 400 micrometres ($\pm$ 50 micrometres). The sealing area of the flanges shall be treated to a dry film thickness of 150 micrometres ($\pm$ 25 micrometres) (i.e. masked off before the second coat is applied).

The painting shall be such that all trimmings are covered by paint for a distance of at least 5 mm to discourage bi-metal corrosion.

No field repairs of damaged paint areas (if any) are allowed. Should any damage of the coating occur, the fitting shall be re-coated in the applicators workshop.

PSL 3.9.2.2(c) Corrosion protection: concrete lining and coating

i) Cleaning

The steel pipes and special fittings must be properly cleaned as specified in Subclause 3.9.2.2.

ii) Preparation of ends

The plain and flanged ends shall be thoroughly cleaned by grit blasting to a finish complying with the requirements of SIS 05 59 00 and shall be sprayed with zinc, followed by a primer and two layers of epoxy paint. The zinc shall be applied to the workpiece before the application of the cement coating in such a way that a minimum overlap of 50 mm with the cement will be obtained.

The zinc shall have a purity of not less than 99,995%, shall be applied within 4 hours after grit blasting and have a minimum thickness of 0,20 mm.

iii) Mortar

Cement and water shall comply with the requirements of SABS 1200 G.

Fine aggregate which meets the requirements of SABS 1083 for concrete sand shall be used except that the grading shall be such that not more than 5% of the mass passes a sieve with 150 micrometre openings and 100% passes a 2,36 mm sieve.

The mortar shall be at least 1 part cement to 1,5 parts aggregate, shall be measured by mass and mixed with mechanical mixers for not less than 2 minutes. No additives may be used. The mixture must have a density and sufficient plasticity and workability so that a compact homogeneous coating is obtained. Only fresh mortar shall be used and any mortar which has begun to set shall be discarded. The total water content shall not be more than 50% by mass of the cement content and the minimum amount of water shall be used to obtain suitable workability.

iv) Application

The nominal thickness of the coating shall be 20 mm. The mortar shall be applied within 24 hours of grit blasting. Where it is built up in layers to obtain the required thickness, the time period between applications shall be such that the previous layer does not set. At the end of a pipe section or where application is temporarily stopped and the mortar sets resulting in a construction joint, a right angle shoulder shall be formed by cutting back the mortar to form a neat even edge. At plain ends the mortar shall be cut back for 150 mm from the end. A suitable method shall be used to control the thickness of the coating.

v) Curing

The work shall be sealed immediately after the cement application to prevent loss of moisture and the cement shall be kept moist for at least 7 days.

(vi) Painting of ends

After the application and curing of the cement coating, the plain ends and flanges shall be coated with an epoxy zinc chromate primer followed by two layers of approved non-toxic epoxy paint with a total dry film thickness of 0,20 mm. The primer and paint shall have a minimum overlap with the cement coating of 50 mm.

PSL 3.9.6 Corrosive Soil

All buried flanged joints, saddles, bolts and nuts shall be protected by means of Denso paste and then wrapped to give a covering of at least three layers of Denso impregnated tape or other means of inhibiting corrosion approved by the Engineer. Denso tape must be carefully moulded over the paste and fitting to expel all air pockets.

PSL 3.10 Valves

Delete the contents of this Clause and replace by:

"Two types of valves are acceptable:

a) Wedge gate type valve,
b) Resilient seal gate type valve.

Valves shall comply with the requirements of SABS 664 1989 as amended, and shall bear the SABS quality mark. A test certificate as per Clause 3.5.20 of compliance with SABS 664 will be acceptable.

Valves shall display the following features;

- A minimum of 250 microns coating of fusion bonded epoxy or Rilsan Nylon 11.
- Class 9
- Anti-clockwise closing
- Non-rising spindle type with cap.
- May have spigotted, socketted or flanged end connections. When flanged valves are specified, the drilling shall be to Table 16/11 of BS 4504".
- In the case of resilient seal valves, valve gates shall be fully EPDM rubber lined, internally and externally and the spindle shall be Grade 316 Stainless Steel or equivalent with a double o-ring seal."

PSL 3.10.1 Gate valves

Gate valves shall comply with SABS 664 and shall bear the SABS mark, the trade name and the nominal diameter and class of the valve. A test certificate as per Clause 3.5.20 of compliance with SABS 664 will be acceptable.
Gate valves shall be resilient seal ("RSV") Class 16, clockwise closing, with non-rising spindle, and shall be drop-tight when tested in accordance with BS 5163. The direction of closing must be shown clearly on the valve. The design of the stuffing box shall be such that the O-rings can be replaced while the valve is in service without having to remove the valve dome. Valve gates shall be fully EPDM rubber lined, internally and externally and the spindle shall be Grade 316 Stainless Steel or equivalent with a double o-ring seal."

Gate valves shall be fitted with cap-tops (Alt) handwheels and shall be either flanged or spigotted or socketed, as scheduled. Gate valves shall be supplied with couplings and all materials necessary for complete installation.

PSL 3.10.3 Air valves

25mm and 50mm (where scheduled) double acting air valves "Ventomat RBX" (or similar, approved), suitable for a working pressure of 1 600 kPa, shall be used.

Each air valve or air valve branch shall be fitted with a separate brass gate valve that closes clockwise, and, if required, an extension pipe.

PSL 3.10.4 Check valves *

Check (reflux or non-return) valves shall be "AVK" or similar, approved. Check valves shall close

immediately the velocity in the pipeline is zero, in order to prevent any reversal of flow.

PSL 3.11 Manholes and surface boxes

PSL 3.11.6 Surface boxes

All cast-iron surface boxes for valves and hydrants shall be fitted with chains as per SABS 558.

PSL 3.12 Water meters

All water meters, from 15 mm to 100 mm diameter, inclusive, shall be approved in terms of SABS 1529-1 and marked with the SABS number as per the approval certificate, and shall have been tested to verify their accuracy by an approved SABS 0259 accredited laboratory. The Test Facility Accreditation Certificate shall be provided.

PSL 5 CONSTRUCTION

PSL 5.1 Laying

PSL 5.1.1 General

Add to Clause 5.1.1

"The centre line of the pipeline shall normally be 2,5m from the road reserve boundary inside the road reserve. The pipeline is to be laid continuously and leaving gaps for fittings will not be allowed.

For uPVC/mPVC pipelines the pipe shall be laid to within 2,0m of the connection point. For HDPE pipelines the Contractor is to lay at least 300mm past the connection point. In both cases the Water Division will complete the connection providing their own materials unless these have been ordered by the Engineer's Representative."

PSL 5.1.3 Keeping pipelines clean

In addition to the requirements of Clause 5.1.3, the Contractor shall ensure that both ends of all pipes and specials strung out above ground along the line of the trench are closed by means of an adequately fixed plastic cap or other approved material, in order to prevent the ingress of foreign material.

Unless otherwise directed by the Engineer, the Contractor shall, when filling the pipeline with water for the first time, use suitable pipe pigs driven by a flush of water to aid the cleaning of all sections of the pipeline(s). If necessary, the pig shall be passed through a section more than once. If necessary, the Contractor shall install special temporary fittings in the pipeline for the insertion and recovery of the pigs. Such temporary fittings shall be removed after the pipeline has been cleaned to the satisfaction of the Engineer. The Contractor shall satisfy the Engineer that every pig inserted into the pipeline is recovered after use.

PSL 5.1.4 Depths and cover

Water pipelines shall be laid to the levels indicated on the drawings. Where no such levels are provided, the following cover shall be provided:

Water mains under roads	:	Minimum cover of 1.0m measured from the finished road level to the crown of the pipe. Maximum cover of 1.25m
Water mains elsewhere	:	Minimum cover 750mm, maximum cover 1.25m

PSL 5.1.4.3 Minimum clearance between services

Where the minimum clearance between services would be less than that specified in Clause 5.1.4.3, the water main shall be laid beneath the service crossed, at an invert level which allows for the clear space as specified. The water main shall be laid horizontally at this level for a distance of at least 1.0 m on either side of the centreline of the service crossed and the transition to the specified cover levels obtained as specified in Clause 5.1.4.2.

The Contractor may, at his own expense, increase the cover levels by a maximum of 200 mm. No decrease in cover level or clear space between pipe barrels as specified will be permitted unless otherwise instructed by the Engineer in writing.

PSL 5.3 Setting of valves, specials and fittings

All valves and hydrants shall be positioned so that the valve spindle or hydrant outlet is directly opposite an erf boundary or splay corner peg to within 150 mm, and directly above the main, or as otherwise dimensioned on the drawing.

The Contractor shall ensure that upon completion of the Works, all gate valves in the reticulation (other than scour valves) are, unless otherwise instructed by the Engineer, in the "open" position.

PSL 5.6 Valve and hydrant chambers

Delete the references to drawings L1, L2 and L3 in Clauses 5.6.1 and 5.6.2 and replace with “the construction drawings”.

Surface boxes shall be painted with two coats of white (valves) or bright yellow (hydrants) oil paint on an approved undercoat.

Markers for valves, fire hydrants and water pipelines are to be supplied and installed by the Contractor at each vale, hydrant and bend on main pipelines. The markers shall be manufactured in accordance with the drawings.

PSL 5.7 Manholes

PSL 5.7.1 General

In order to avoid damage to pipes due to differential movement where the pipes enter chambers or other structures, all pipes built, cast or grouted into such structures shall be provided with flexible connections to the details shown on the drawings.

PSL 5.10 Disinfection of pipelines

Notwithstanding the requirements of Clause 5.10, the Contractor shall disinfect the pipelines before connecting into the reticulation.

PSL 5.11 Connection into existing main *

Before commencing the excavation of pipe trenches in the vicinity of a proposed connection, the Contractor shall excavate for, expose, survey and record the position and level of the connection point on the existing water main.

The Contractor shall be responsible, through the Engineer, for liaison with the Municipality (or relevant authority) to arrange for turning off the water in order to carry out the connection. These arrangements shall be made at least 10 working days prior to the proposed connection date so that affected consumers can be notified in advance.

The Contractor is not allowed to cut into the existing water main unless he has received a written instruction from the Engineer to do so.

Before the connection is made, the new pipes must be laid to within 2.0m of the connecting point, and must be temporarily blanked off, anchored, tested and disinfected.

All connections of new pipelines to the existing water network will by carried out once all new pipework has been laid, successfully tested and disinfected. Valves on the existing network may only be opened or closed by the Nelson Mandela Bay Municipality. The Contractor shall make arrangements with the relevant officials for the connection at least 10 working days in advance.

The Contractor shall arrange all the necessary work involved with the connections, including liaising with the Municipality, locating existing services, breaking out anchor blocks (if necessary), and removal of existing pipe fittings and couplings.

PSL 5.12 Maintenance and repairs during defects liability period *

Should leaks or defects develop during the Defects Liability Period they will be rectified by the Municipality at the Contractor's expense. This will include the cost of re-testing and subsequent disinfection.

PSL 6 TOLERANCES

PSL 6.3 Alignment (plan and level)

Add to last sentence : ", provided this does not result in a reversal of the grade of the pipeline."

PSL 7 TESTING

PSL 7.3 Standard hydraulic pipe test

PSL 7.3.1 Test pressure and time of test

Testing of water mains shall be carried out after the installation of erf connections up to and including the meter assembly. The stopcock shall be open for the test and a temporary end cap shall be fitted to the outlet end of the assembly. The permissible leakage rate specified in Clause 7.3.3 shall be that applicable to the length of water main only, and the length shall therefore not include the length of erf connections.

The Contractor's test equipment shall be connected directly to the flange of a hydrant tee and not through the hydrant's screwed outlet, or through a specially adapted end cap, or a short length of pipe.

Notwithstanding Clause 7.3.1.2 and Clause 7.3.1.3, the test pressure for field testing shall be:

1.35MPa for Class 9 PVC-U , Class 10 HDPE pipes;
1.80MPa for Class 12 PVC-U and Class 12 HDPE pipes.

Delete Clause 7.3.1.4.

In addition to the requirements of Clause 7.3.1.5 water used to fill the reticulation and during testing shall be water drawn from the Municipal mains and transported in a clean container. Test sections shall be filled from the lowest point of the test section, by a suitably sized pump with sufficient head to

lift the water to the highest point of the test section. Test sections may not be filled at the highest point of the test section. The bleeding off of air trapped within the reticulation shall only be carried out via the fire hydrants, erf connections or at the prescribed connection points to the existing reticulation by a bleeder system fitted to the end caps, or a bleeder system fitted to a short length, say 500mm, of a pipe included at the end of the new reticulation.
The restrictions pertaining to the maximum allowable length of open trench may result in certain lengths of the pipeline being backfilled before they can be tested as specified in Clause 7. The pipeline may be tested in short sections provided the method of such testing is approved by the Engineer.

PSL 7.5 Testing and repairs during defects liability period *

Should leaks or defects develop during the Defects Liability Period they will be rectified by the Municipality at the Contractor's expense. This will include the cost of re-testing and subsequent disinfection. During the Defects Liability Period the Municipality may carry out further pressure tests on the whole or part of the new reticulation and any necessary remedial work will be carried out by the Municipality at the Contractor's expense.

PSL 8 MEASUREMENT AND PAYMENT

PSL 8.1 General

Notwithstanding Clause 8.1, no payment will be made for depths of excavation in excess of those specified or shown on the drawings, unless ordered in writing by the Engineer.

PSL 8.2.1 Supply, lay and bed pipes complete with couplings

In addition to Clause 8.2.1, the rates for supplying, laying and bedding pipes shall also cover:

i. the cost of work covered by Clause 8.2.4,
ii. cleaning and disinfecting the pipeline as specified in Clause 5.10 and PSL5.1.3 including the provision and removal of temporary fittings required for the insertion and recovery of the pigs,
iii. testing the pipelines, including the supply of all water
iv. the cost of testing in short sections in accordance with PSL7.3.1.

The rates for the supplying and laying of metal pipes shall include for the cost of corrosion protection as specified.

Notwithstanding Clauses 8.2.7 and 8.2.15, the rates for pipes, valves, specials and couplings shall also cover the cost of mortar lining and sheathing, mortar encasing, wrapping and all other corrosion protection as specified.

Up to a maximum of 75% of the measured lengths of pipes will be certified for payment until such lengths have successfully passed the field test.

PSL 8.2.3 Supplying, fixing and bedding of valves

Hydrants will be measured by number.

The rate shall cover the cost of the supply and installation of all materials from and including the tee (and its joints) on the main up to and including the hydrant outlet and a 0.2m length of flanged 100mm diameter steel pipe between the tee and the gate valve.

PSL 8.2.11 Anchor/thrust blocks and pedestals

Notwithstanding Clause 8.2.11 anchor/thrust blocks and pedestals will be measured by number of each type.

The rate shall cover the cost of excavation, concrete, formwork and steel reinforcement (allowing for 0.1t of high tensile steel per cubic metre of concrete).

PSL 8.2.14 Manholes

Where a pipe is to be built into an existing structure, the rate shall cover the cost of casting in the pipe with flexible couplings and cutting out and making good the hole.

PSL 8.2.16 Connection(s) to existing water main

Connections to existing pipework will be measured by number of connection points.

The rate shall cover the cost of locating, exposing and backfilling the water main, liaising with the Municipality (authority concerned) to arrange for turning off the water, cutting into the pipe, dealing

with water, cutting pipes to fit, including turning if necessary, dealing with water, and the supply and fitting of long collar repair couplings to complete the connection and, if required, the temporary sealing and anchoring of pipe ends for testing purposes and subsequent removal of seals and anchors. The specials required to make the connection will be measured separately.

PSL 8.2.17 Markers

Valve, hydrant and pipeline markers will be measured by the number of each type.

The rate shall include for the cost of supply and installation of the markers in the verge as shown on the drawings.

PSL 8.2.18 Water meters

Water meters will be measured by number.

The rate shall cover the supply and installation of the water meters including all reducers, adaptors, couplings and other fittings required to complete the installation on the specified size of pipeline.

PSLB BEDDING (PIPES) (SABS 1200 LB)

PSLB 3 MATERIALS

PSLB 3.1 Selected granular material

Replace Clause 3.1 with the following:

"Selected granular material shall be a granular, free-draining, non-cohesive material with a grading analysis that shows 100% passing a 9.5 mm sieve and less than 5% passing a 0.425mm sieve. The Compactability Factor shall not exceed 0.4."

PSLB 3.2 Selected fill material

Where rock or expansive clay is encountered in the trench bottom, the material in the selected fill blanket shall be selected granular material.

PSLB 3.4 Selection

Notwithstanding any references to the contrary in Clause 3.4, the Contractor is required to use selective methods of excavating. The Contractor shall selectively remove and keep separate topsoil, unsuitable material, and material suitable for reuse as backfill, selected fill, selected granular material or for other use as ordered by the Engineer.

PSLB 5 CONSTRUCTION

PSLB 5.2.2 Class B and Class C bedding

Concrete stormwater pipes shall be bedded as specified for rigid pipes with Class C bedding unless otherwise shown on the drawings or ordered by the Engineer.

PSLB 5.2.2 Class B Bedding

1. The dimension "x" for all rigid and flexible pipes (except for HDPE erf connections) as referred to in drawing LB-1 and LB-2 shall be 150mm.
2. The dimension "x" for HDPE erf connections shall be 100 mm.

PSLB 5.3 Placing and compacting of flexible pipes

All PVC-U and HDPe water pipes, sewers and erf connections shall be classified as flexible pipes.

PSLB 7 TESTING

PSLB 7.1 Density testing

Density tests shall be as per PSDB7.1.

PSLB 8 MEASUREMENT AND PAYMENT

PSLB 8.1.3 Volume of bedding materials

Where the minimum base widths specified in PSDB 5.2 apply, then the volume of bedding material shall be computed from the specified minimum base width.

In addition to Clause 8.1.3, additional bedding required for overbreak, and the volume of bedding material displaced by the pipe will not be measured for payment.

PSLB 8.1.6 **Freehaul**

Notwithstanding any references to 0.5km freehaul in Clauses 8.2.1, 8.2.2 and 8.2.5, Clause PSA 8.10 shall apply.

PPS 1 PREFABRICATED STEEL RESERVOIRS

PPS 1.1 TYPE OF TANK

PPS 1.1.1 Circular, bolted, roofed high tensile steel panel tank with multi-layer woven scrim base liner.

PPS 1.2 DIMENSIONS OF TANK

PPS 1.2.1 The tank diameter shall be 16.38m.

PPS 1.2.2 The nominal wall height of the tank shall be 5.24m.

PPS 1.2.3 The roof structure shall be domed with a centre height not less than 200mm above the tank wall and the roof sheets shall overhang the tank walls by 100mm nominally, unless otherwise specified by the procuring authority.

PPS 1.3 MATERIALS

PPS 1.3.1 Panels shall be fabricated from high tensile, G300 Zincalume® steel sheets or sheet laminates from steel sheet conforming to SANS 9364.

PPS 1.3.2 Roof Trusses, ladders, and other steel components shall, where applicable, be of carbon steel that complies with the relevant requirements of SANS 1431. Fabricated items, without exception will be hot dipped galvanized in accordance with SANS121:2011 after fabrication, no items will be welded on site. When specified, stainless steel items such as ladders and tank connectors shall be fabricated in accordance with SANS 10162-4.

PPS 1.3.3 The tank liner material shall comprise of multiple layers fabricated from a heavy duty, approved non-toxic food grade material such as PVC, polyethylene, polypropylene or a combination of such materials, and shall have a multi-filament base scrim, of no less than 8 x 8 threads per cm².
Liners for consideration of use must be factory fabricated, and welded by means of an RF welding or hot air/wedge welding process. The operational temperature range of the liner should be -30°C to +70°C.

PPS 1.3.4 Steel sheeting used for roofs shall be fabricated from high tensile steel sheets conforming to SANS 9364, profiled to an approved profile, and with a minimum thickness of 0.47mm.

PPS 1.4 COMPONENTS

PPS 1.4.1 Panels

PPS 1.4.1.1 The nominal size of each panel shall be 2 250 mm × 1 191 mm of a thickness to comply with the requirements of 1.3.1.

PPS 1.4.1.2 The panels shall be profiled to an approved profile and shall be factory pre-curved by the manufacturer for each reservoir model /size.

PPS 1.4.1.3 The profiling of the panels shall be such as to comply with deflection limits. (In other words, bulging shall not cause the material to stretch beyond its elastic limit/ yield).

PPS 1.4.1.4 The steel grade shall be G300 AZ150 minimum with single panel thickness not less than 0.8mm. The panels shall be designed and tested to withstand all anticipated applied loadings including wind and earthquake in conjunction with the associated vertical stiffeners. Vertical stiffeners (wind girts) will be of minimum 2.4mm galvanized material and formed into a suitably engineered profile to withstand bending. Panels shall be increased in thickness and/or laminated to provide the sufficient strength to cater for hydrostatic pressure increases proportional to tank height increases in nominal 1.1m steps to the maximum tank height of 9.39m.

PPS 1.4.1.5 The minimum wind speed and earthquake loadings must comply with SANS 10160. The minimum design wind speed shall be 40m/s

PPS 1.4.1.6 External tank pipework shall be installed so as not to impose additional loading on the tank. If inlets or outlets greater than 150NB are required by the engineer, either the panel thickness must be increased and/or extra panels must be laminated at that position to safely support the connector.

PPS 1.4.1.7 Panels must be overlapped in both the horizontal and vertical planes.

PPS 1.4.1.8 The vertical panel edge overlap shall be sufficient so as to include 2 rows of bolt holes. These bolt holes must be spaced a maximum of 60mm apart in the vertical plane, and no more than 45mm apart in the horizontal plane.

PPS 1.4.1.9 A galvanised strengthening rib (wind girt) shall be used at the vertical panel edge joints and bolted as an integrated part to the panel overlap using the same bolts utilised for joining the panels.

PPS 1.4.1.10 The tank design shall be such that the vertical strengthening rib from the panel immediately above shall overlap the lower panel and form part of the lower panels bolted panel join. The overlap section must be no less than 180mm and must 'join' with no less than 6 bolts being common to both vertical strengtheners/wind girts

PPS 1.4.1.11 Panels shall be joined to the panel above in the horizontal plane by means of a continuous panel overlap of at least 115mm, and shall be bolted together at a minimum of 5 equispaced points along this overlap.

PPS 1.4.1.12 The panel bolt holes shall be of a diameter at least 1.5 mm larger than the nominal bolt size.

PPS 1.4.1.13 The vertical joint bolt sizes must be proportional to the height and model of the tank and must be equal to the bolts used on the corresponding vertical stiffener joints

PPS 1.4.1.14 All bolts used in the tank wall panel construction shall be grade 8.8, hot dipped galvanized with serrated face flanged head nuts to match. All fasteners must be of traceable origin with test certificates to support chemical composition and grade

PPS 1.4.2 Roof trusses

PPS 1.4.2.1 The roof trusses and/or truss sections shall be fabricated from hot rolled first class weldable steel square tube or angle iron. SHS will be of minimum grade / type S355. All joints shall be welded, and the completed truss shall be hot dipped galvanised 150g/m2 to SANS 121 (ISO 1461) after fabrication. Trusses fabricated from sheet metal which is folded and then riveted or screwed or bolted together to form a truss member will not be acceptable.

PPS 1.4.2.2 Where bridges and/or bracing between truss members are used, these items shall be bolted to the main truss members at both ends and at all intersecting points.

PPS 1.4.2.3 Truss to wall attachment plates shall be of a fixed mating angle type allowing for correct and accurate alignment of trusses. At point of attachment the truss must be bolted to the reservoir body with a minimum of four grade 8.8 M10 bolts. The truss attachment should also have a strengthening plate bolted to it externally measuring no less than 200mm x 70mm

PPS 1.4.2.4 Loading of the roof shall be provided for by suitable structural design and shall comply with the relevant requirements of SANS 10160. The roof shall be designed to prevent the accumulation (or ponding) of water on its surface.

PPS 1.4.2.5 Steel used in the truss manufacture shall have a minimum yield strength of 355MPa.

PPS 1.4.2.6 All bolts used in the truss assembly shall be grade 8.8 with nuts and washers to match.

PPS 1.4.3 Top and Bottom Hoops

PPS 1.4.3.1 The tank shall be provided with strengthening hoops at the upper outer edge of the top panel and lower outer edge of the bottom panel. These hoops shall be fabricated from steel rectangular tube, pre-curved to suit the reservoir diameter and hot dipped galvanised 150g/m2 to SANS 121 after fabrication.

PPS 1.4.3.2 The hoop sections shall be joined together with galvanised joiners inserted into the hoop sections. There shall be a minimum of 100mm overlap in two adjacent sections and the joiners shall be securely fixed to the respective hoop sections.

PPS 1.4.3.3 These hoops must be securely fixed to the top and bottom of the reservoir.

PPS 1.4.4 Tank Hold-Down Brackets

PPS 1.4.4.1 The tank shall be secured to an engineer designed and approved steel reinforced concrete ring beam or slab base by means of original manufacturers equipment suitable steel hold down brackets. These brackets shall be designed taking into account all anticipated loadings on the tank.

PPS 1.4.4.2 The hold down brackets shall be bolted to the tank wall at the panel joins at the base of the tank by no less than 6 x M12, 8.8 grade HDG bolts and nuts, and provision shall be made to allow for fixing to the concrete base by means of suitably approved sleeve anchors / expansion bolts.

PPS 1.4.4.3 For tanks of different sizes there should be a range of different sized brackets used to ensure proportional loading through the brackets in accordance with the tank model.

PPS 1.4.4.4 Provision shall be made in the bracket design to allow for expansion and contraction of the tank.

PPS 1.4.5 Liner

PPS 1.4.5.1 The liner shall be comprised of multiple layers fabricated from a heavy duty, approved non-toxic food grade material such as PVC, polyethylene, polypropylene or a combination of such.

PPS 1.4.5.2 The liner material must be internationally certified by a recognised authority or testing body for use in contact with drinking water. All liners must be 'supported' by way of an internal central layer / scrim. No unsupported liners will be acceptable.

PPS 1.4.5.3 The liners shall be factory fabricated in a controlled environment with all seams homogenously welded by means of an RF or hot air/wedge welding process under controlled conditions to form a watertight seal.

PPS 1.4.5.4 Suitable stiffening shall be provided around the top perimeter of the liner to provide an adequate base for the fastening of the liner to the tank wall.

PPS 1.4.5.5 Reinforced attachment straps fabricated from the same material as the liner shall be welded at suitable intervals to the outer face of the liner complete with eyelets to allow fastening to the panel joint bolts.

PPS 1.4.5.6 If required by the procuring body, the liner material must demonstrate that the seams will not leak or permanently deform by undergoing a flume test using a tube made up of the relevant liner material and with a standard welded seam along its length. The sample must withstand a constant pressure of 3 bar for 30 minutes without evidence of leaks/weeping or permanent deformation.

PPS 1.4.5.7 The completed liner must be provided with a non-leak guarantee backed by the manufacturer for a minimum of ten years.

PPS 1.4.5.8 The liner material must be capable of being easily repaired on site in the event of damage.

PPS 1.4.6 General

PPS1.1.6.1 All tanks must be supported by a Certificate issued by a Professional Engineer to the effect that the tanks are structurally stable and satisfactory for use under the conditions listed in the Certificate.

PRC SECURITY FENCING

PRC 1 SCOPE

This specification covers the requirements for a reinforced high tensile mesh type security fence.

The fence shall be installed in the positions shown on the drawings or as directed by the Employer or his Agent on site.

Alternative fence designs to suit a fencing manufacturer's standard components will be considered and may be approved, provided that they are not in any way inferior to the requirements of this specification and provided that the Engineer's prior approval is obtained.

It is a requirement that the Contractor undertaking the construction work is an approved installation contractor by the fence supplier. The contractor shall provide a 10-year guarantee backed by the manufacturer/supplier of the fence.

PRC 2 MATERIALS

PRC 2.1 General

The security fence shall be of the industrial type with all components manufactured by an approved manufacturer.

The fence shall comprise of high tensile steel panel & post cast into a concrete foundation and ground beam.

PRC 2.2 Posts

Main Posts shall be tapered locking posts 2400mm height with a minimum width/depth of 85mm.The panel and posts shall be connected by means of a combination of single and double bolt comb clamps. The posts shall have a “locking recess mechanism” to secure the panel edges. The panel / post interface is to have a flush finish with no climbing aid present. Posts shall be provided at approximately 3,3 m spacings on flat sections (typically flatter than 1 in 3).

Where the fence is to be constructed on steep terrain (typically steeper than 1 in 3), the height of the posts shall be confirmed by the Contractor on site to suit the panel fence step details prior to fabrication. Cutting of posts on site shall not be permitted. The posts on steep terrain will be provided at approximately 1,5 m spacings.

PRC 2.3 Panels

Reinforced high tensile mesh steel panels shall be manufactured to be approximately 3305 mm long x 2400 mm high and shall be manufactured from galvanised wire of minimum diameter 3.5 mm. Panels shall be reinforced with a minimum of 4 No. 50mm deep “V” formation horizontal recessed bands for rigidity. The spacing of the “V” formation bands shall be approximately equidistant. Each vertical edge of the panel shall incorporate 70° flanges for internal fixing to the posts. All fixtures shall be incorporated on the inside of the fence line. The horizontal top edge of the of the panel shall incorporate a 90° flange and the bottom edge shall incorporate a 30° flange.

Panels shall be fixed to posts with a minimum of 45 No. line wires and using a minimum of 8 No.

double bolt comb clamps, 8 No. single bolt comb clamps and 24 No. anti-vandal bolts.

Where the fence is to be constructed on moderately steep terrain (typically steeper than 1 in 3 but flatter than 1 in 2), panels 1552 mm long x 2400 mm high shall be manufactured. Where the fence is to be constructed on very steep terrain (typically steeper than 1 in 2) panels 1100 mm long x 2400 mm high shall be manufactured.

The mesh at the base of the panel is to be embedded 50 mm into a concrete ground beam. A flat bar is to be welded to the mesh panel at the base where it is to be embedded into concrete.

Panels are to be provided with 3 rows of shark tooth spikes manufactured from galvanised mild steel. The 3 rows of shark tooth spikes are to be located on the front of the panel and positioned at the top of the panel. The shark tooth spikes are to be sloped downwards to prevent the use of the spikes as a climbing aid. No gap is permitted in the shark tooth spikes where two panels are joined with a post.

The panels are also to be provided with a row of shark tooth spikes at the top of the fence, facing vertically upwards.

On steep terrains, where the posts extend by more than 150mm above a stepped panel configuration, 3 No. additional shark tooth spikes are to be provided on the post.

All shark tooth spike strips are to be fixed and secured to fence panels in such a manner that vandalism or theft is prevented.

Where scheduled separately, panels are to be reinforced with toughened steel strips at 150mm vertical intervals, with a reinforced strip running horizontally at the top and bottom of the panel.

PRC 2.4 Foundations for Posts

Each post shall be encased in concrete for a depth of the foundation hole which shall be of the following dimensions:

(a) for posts:
400 mm x 400 mm and a depth of 500 mm. The dimensions of the post foundations are to be confirmed by the Employer or his Agent on site prior to casting due to the varying nature of in-situ soil conditions along the fence lines.

(b) for gate posts:
600 mm x 600 mm and a depth of 800 mm and brought up to a height approximately 50 mm above ground level.

PRC 2.5 Ground Beams

If scheduled or shown on the drawings, ground beams shall be constructed of cast in-situ grade 15 (15 MPa) and 19mm aggregate stone concrete placed continuously between foundation blocks. The beams shall be 400 mm wide x 350 mm deep with the top floated surface 50 mm above finished ground level. The ground beams may be omitted, where in the opinion of the Engineer, the ground is sufficiently rocky to make them unnecessary.

PRC 2.6 Gates

There are 4 difference types of gates which are to be used:

Type A Personnel gates (1,1 m wide)
Type B Vehicle gates (6,0 m sliding)
Type C – Type A Personnel (1,1m swing) & Type B Vehicle (6,6 m sliding) combination gates
Type D – Vehicle (3,9m double leaf swing)

Details of the gate Types are shown on the drawings.

Gates shall be steel hollow sections having continuously welded seams. The height of the gate(s) shall be the same as that of the fence, and the spikes on rows on the front and top of the gates shall coincide approximately with the corresponding sections of the fence. The main frame shall be at least 150 mm x 75 mm x 4,5 mm hollow section supported by 150 mm x 150 mm x 6 mm hollow section gate post. The final gate post sizing is to be determined by the manufacturer to ensure the gate is sufficiently rigid. The gate post shall be filled with Grade 15 concrete. The gate leaves shall be constructed with the same high tensile steel mesh as the fence panels.

Double leaf gateways shall have a maximum 3.9 m wide clear opening, with each leaf being of equal width. Single leaf gateway shall have a maximum clear opening of 1,1 m. Sliding gates are to have a clear opening of 6,0 m

The frame of the single leaf gate shall be of 75 mm x 25 mm x 3,0 mm hollow section supported by 150 mm x 150 mm x 6 mm hollow section gate post.

The final gate post sizing is to be determined by the manufacturer to ensure the gate is sufficiently rigid. The gate post shall be filled with Grade 15 concrete. The gate leaves shall be constructed with the same high tensile steel mesh as the fence panels.

Gates shall be of welded construction with all corners of the main frame members mitred. Gates shall have at least one horizontal hollow section bracing member of size 75 mm x 75 mm x 3,0 mm for double gates and 50 mm x 25 mm x 3,0 mm for single gates. Extension arms shall be provided for each vertical main frame member and these shall be attached by welding. All welds shall be continuous.

Each leaf of the double leaf gate is to be equipped with a round bar drop bolt which slides into the concrete ground beam. The gate leaf's when closed are to have a locking device fitted with a T -slide lock and lock box approximately at the mid-point of the gate height. Each leaf is to be fitted with a grab handle just above the locking mechanism.

Each gate leaf of the double leaf gate and corresponding post is to be fitted with 3 hinges, 1 at the bottom and 2 adjacent hinges at the top. Hinges are to be medium duty. Hinges are to be orientated so that the gates open inwards.

The leaf of the single leaf gate, when closed, is to have a locking device fitted with a T -slide lock and lock box approximately at the mid-point of the gate height and secured to the post. The leaf is to be fitted with a grab handle just above the locking mechanism.

The leaf of the single leaf gate and corresponding post is to be fitted with 2 hinges. Hinges are to be heavy duty. Hinges are to be orientated so that the gates open inwards and outwards.

PRC 2.7 Galvanising (and coating)

All steelwork comprising fences panels, posts, fixtures, shark tooth spikes, gate frames, gate post bracing members, etc shall be treated in the following manner after all fabrication work has been completed:

(a) The surface shall be prepared for galvanising by being shot/grit blasted to SA 2 standard in accordance with Swedish Standard SIS 05-59-00, or alternatively be treated by some other method to achieve the same standard of preparation.
(b) The items shall then be hot dipped galvanised to the requirements of SANS 121 for heavy duty applications.
(c) The items shall be marine fusion coated to a minimum thickness of 600 microns.

PRC 2.8 Concrete Bases

Concrete shall be at least Grade 15 (15 MPa).

PRC 2.9 Reinforcement Bars

Where the fence crosses stormwater channels, reinforcement bars cast into concrete shall be required to prevent access through the channels. The reinforcement bars are to be constructed from 16 mm high yield deformed bars (Y16) and are to be hot dipped galvanised prior to installation.

PRC 3 CONSTRUCTION AND ERECTION

PRC 3.1 Clearing and Grubbing

The existing fence, poles and gates are to be carefully dismantled loaded and transported to a municipal site located no more than 15 kilometres from the site and carefully off-loaded and placed there. All holes left by the removed fence and posts are to be filled in.

A 6 m wide strip (3m on inside and 3m outside of the fence centre line) shall be cleared and grubbed along the entire length of the fence, removing boulders, grubbing of trees and tree stumps, cutting of trunks and branches, backfilling of cavities and cut down into wood chip mulch on site. The wood-chip mulch to be spread onto 3m cleared area along new fence line.

The 6m corridor along the fence line is to be evenly graded after clearing in order to eradicate any uneven steps.

PRC 3.2 Erection of Temporary Fence

The Contractor shall supply, install, and maintain, temporary fencing on the approximate position of the original fence within the working area (servitude). The fencing shall comprise 1,8 m high 2 mm diameter wire mesh fencing with a mesh spacing not exceeding 100 mm in both the vertical and horizontal directions and with intermediate posts and straining posts and straining wires according to supplier's recommendations. Chevron tape shall be interwoven in a zig zag pattern from the top to the bottom of the fence thereby clearly marking off the working areas. Gates shall be provided by the Contractor at all points as required for construction access purposes. The Contractor shall be held responsible for the control of access at these gates at all times, as well as to the worksite during removal and re-erection of fencing. No other opening in the fence shall be permitted and the Contractor shall be responsible for monitoring the fencing on a daily basis and repairing any such opening within the same day that it is detected.

Notices in two official languages (English and isiZulu/Xhosa) shall be attached to the fence where appropriate to indicate that the site is for personnel employed on the Contract only and that unauthorised entry is forbidden.

A Childproof Barrier in the proximity to residential areas, and wherever ordered, the Contractor shall provide and fix to the demarcation fencing described in above, approved and substantial plastic square mesh to act as an additional childproof barrier and shall remove it on the completion of the works.

PRC 3.3 Spacing of Posts

Spacing of the posts are to be consistent with the lengths of the panels, that is 3305mm on relatively flat grades (flatter than 1 in 3), 1552mm on moderately steep grades (steeper than 1 in 3 but flatter than 1 in 2) and 1100 mm (steeper than 1 in 2).

Any minor repairs to coatings or otherwise that need to be undertaken, must be done so on the ground prior to erection of the posts.

PRC 3.4 Panel Attachment to Posts

The tapered gate posts shall be joined to fence panels by means of fixing to the 70° flanges and be fixed by means of the double and single anti-vandal comb clamps. The fixings are to be on the inside of the fence and a flush finish is to be provided.

The placing of the shark tooth spike rows along the panel/post are to be continuous so that there is no interruption.

The gate posts will be independent of the fence post but would share the same foundation.

The double leaf gate would be attached to the gate post by means of two hinges welded onto the gate post and frame as detailed on the drawings.

Any minor repairs to coatings or otherwise that need to be undertaken, must be done so on the ground prior to erection of the posts.

PRC 3.5 Foundations

(a) Fence Posts

Each post shall be encased in a concrete foundation block approximately 500 mm wide x 500 mm long x 500 mm deep, unless otherwise specified by the Employer or their Agent. Foundation dimensions are subject to the ground conditions determined on site. Fence post foundations are to be cast integral with fence ground beams.

A letter box shutter system is to be used to prevent concrete residue from splashing on the fence posts during casting.

(b) Ground Beams

The bottom of the fence panel and flat bar is to be cast 50 mm into a concrete ground beam.

The ground beam is to have dimensions 350 mm wide x 200 mm deep. Ground beams are to be case integral with post foundations.

A letter box shutter system is to be used to prevent concrete residue from splashing on the fence panels during casting.

A hard board expansion joint is to be provided at either end of the ground beams, approximately 800 mm from the centre of each fence post.

(c) Gate Posts

The gate post and fence post will share a foundation. The size of the combined foundation is to be determined by the sum fence post foundation and the gate post foundation less any overlap between the foundations.

A letter box shutter system is to be used to prevent concrete residue from splashing on the fence panels during casting.

PRC 3.6 Gates

Gates shall be erected such that:

(a) there is a gap of not less than 35 mm and not more than 75 mm between the hinge stile(s) and the gate post;

(b) there is a clearance of not less than 50 mm and not more than 75 mm between the bottom horizontal frame member(s) and the ground; and

(c) when closed, there is a space of not more than 15 mm between the closing stile and the gate post in the case of single-leaf gates, and between the two closing stiles in the case of double-leaf gates.

Except where gates are installed over surfaced roadways, a full length concrete sill, rectangular in section having a width of at least 400mm and depth of at least 225mm, shall be installed under and on the line of the gates, with its top at ground level. The concrete shall be well vibrated to prevent voids being formed, and the top surface shall be floated and trowelled to an acceptable smoothness. The sleeves for the drop bolts shall be so set in the concrete sill, or concreted into the roadway (as relevant), that their tops are just above the level of the sill or roadway. The sill is to be cast integral with gate post foundations.

PRC 3.7 Marking

Each fence shall bear the manufacturer's name on the main gate at eye level.

PRC 3.8 Reinforcement Bars at Stormwater Channels

Where fences cross over stormwater channels, reinforcement bars are to be cast into concrete to prevent access through the channels. The reinforcement bars fabricated in PRC 2.9 are to be measured and cut on site to suit the dimensions of the channel opening. Once the dimensions are confirmed, the bars are to be sent for hot dipped galvanising. Upon return of the galvanised bars, they are to be installed vertically and cast into a concrete base at 150 mm centres along the complete

opening of the channel. Separate items shall be measured for the reinforcement bars and the concrete base.

PRC 4 TOLERANCES

PRC 4.1 Out-of-straightness of any member shall not exceed 3 mm/m length of the component.

PRC 5 MEASUREMENT AND PAYMENT

The prices tendered shall include for the provision of all labour, plant and materials necessary to complete the work specified.

PRC 5.1 Clearing and Grubbing Line of Fence ..... Unit: m

The rate for clearing and grubbing shall cover the cost of carefully dismantling, loading and transporting the material to a municipal site located no more than 15 kilometres from the site and carefully off-loaded and placed there for the existing fences, poles and or gates.

The rate shall also cover the cost for filling in any holes left by the removed fence, clearing a 6m wide strip (3m on inside and 3m outside of the fence centre line) along the entire length of the fence, removing boulders of size up to 0,15 m³, grubbing of trees of girth up to 1 m, grubbing of tree stumps, cutting of trunks and branches exceeding 0,5 m girth, backfilling of cavities and cut down into wood chip mulch on site. The wood-chip mulch to be spread onto 3m cleared area along new fence line.

Boulders exceeding 0,15 m³ and removal and grubbing of trees exceeding 1 m girth shall be paid for separately.

PRC 5.2 Stormwater Management from Cleared Material ..... Unit: m

Payment shall be made for the re-use of cut down tree stumps. The cut down tree stumps shall be cleaned of branches to a smooth surface to be utilised for stormwater and erosion control. The tree stumps to be anchored with wooden pegs made from the branches of the cut down trees. The wooden pegs to be spaced at 1m intervals. The tree stumps will also serve as outer boundary of the 6m stripped area along the newly installed fence. Payment will be made for per meter of installation and include the cleaning, placement and anchoring of the trees along the boundary of the cleared fence area.

PRC 5.3 Demarcation fencing ..... Unit: m

Payment will be made per linear metre of temporary fencing installed in the manner specified in PRC 3.2 above, and the rate shall include for maintaining such fencing in good condition, including daily surveillance and repair, throughout the duration of construction and removal on completion of the works.

PRC 5.4 Even Grading Along Fence ..... Unit : m

The rate shall cover the cost for all plant, labour, materials and equipment required for performing any earthworks excavation and fill to shape as necessary to provide an even grade of the ground along the fence line for the full working corridor.

PRC 5.5 Fence Posts ..... Unit: No

The rate for fence posts shall include for all setting out, supplying, transporting and erection of the fence posts, all as specified and to the requirements of the fence panels (approximately 3305 mm spacings). Rate to include all fixings.

PRC 5.6 Fence Panels ..... Unit: No

The rate for fencing shall include for all setting out, supplying, transporting and erection of the fence panels, all as specified and the requirements of fixing to the fence posts. Rate to include all panel reinforcement, shark tooth spikes and fixtures.

PRC 5.7 Fence Posts on Moderately Steep Terrain ..... Unit: No.

The rate for fence posts on moderately steep terrain shall include for all setting out, confirming measurements on site, supplying, transporting and erection of the fence posts, all as specified and to the requirements of the fence panels (approximately 1552 mm spacings). Rate to include all fixings and additional shark tooth spikes.

PRC 5.8 Fence Panels on Moderately Steep Terrain ..... Unit: No.

The rate for fencing for fence panels on moderately steep terrain shall include for all setting out, supplying, transporting and erection of the fence panels (approximately 1552 mm spacings), all as specified and the requirements of fixing to the fence posts. Rate to include all panel reinforcement, shark tooth spikes and fixtures.

PRC 5.9 Fence Posts on Very Steep Terrain ..... Unit: No.

The rate for fence posts on moderately steep terrain shall include for all setting out, confirming measurements on site, supplying, transporting and erection of the fence posts, all as specified and to the requirements of the fence panels (approximately 1552 mm spacings). Rate to include all fixings and additional shark tooth spikes.

PRC 5.10 Fence Panels on Very Steep Terrain ..... Unit: No.

The rate for fencing for fence panels on moderately steep terrain shall include for all setting out, supplying, transporting and erection of the fence panels (approximately 1552 mm spacings), all as specified and the requirements of fixing to the fence posts. Rate to include all panel reinforcement, shark tooth spikes and fixtures.

PRC 5.11 Panels ..... Unit: No.

The extra-over PRC 5.6, PRC 5.8 and PRC 5.10 rate for high security fencing shall include for all setting out, supplying, transporting and erection of the fence panels (approximately 1552 mm spacings), all as specified and the requirements of fixing to the fence posts. The rate is to include all panel reinforcement with toughened steel strips at 150 mm vertical intervals and a horizontal strip on the top and bottom of the panel, shark tooth spikes and fixtures.

PRC 5.12 Supply, transport and erect gates:

Type A Personnel gates (1,1 m wide) ..... Unit: No.
Type B Vehicle gates (6,0 m sliding) ..... Unit: No.
Type C Personnel (1,1m swing) & Type B Vehicle (6,6m sliding)
combination gate ..... Unit: No.
Type D - Vehicle (3,9m double swing) ..... Unit: No.

The rate for gates shall include supplying, transporting and erection of single gates and pairs of double gates as applicable and all gate posts and gate ancillaries including the hinges, bolts and nuts.

PRC 5.13 Concrete bases for posts .....Unit: m³

The rate shall include for excavation, letterbox type formwork, placing concrete and setting in and finishing exposed surface.

PRC 5.14 Concrete sill/ground beam .....Unit: m

The rate for concrete sill/ground beams includes excavation in all materials, formwork (letterbox), placing of hard board expansion joints, mixing and placing concrete and surface finishing.

PRC 5.15 Concrete Base for Stormwater Channel reinforcement .....Unit: m³

The rate for casting of the concrete foundations for reinforcement bars through stormwater channels shall include all excavation, materials, formwork, placement and curing. The concrete shall be the same as that of PRC 2.8 (15 MPa).

PRC 5.16 Supply and cutting of Reinforcement Bars to suit .....Unit: kg

The rate for shall cover the cost of supplying reinforcement bars as detailed in PRC 2.9 and measuring and cutting the bars to suit the desired stormwater channel dimensions.

PRC 5.17 Hot Dipped Galvanising of Reinforcement Bars .....Unit: kg

The rate for shall cover the cost of supplying reinforcement delivering the cut reinforcement bars to a suitable hot dip galvanising plant, hot dip galvanising and returning the bars to site.

PRC 5.18 Installation of Reinforcement Bars .....Unit: kg

The rate for shall cover the cost of positioning the hot-dipped galvanising bars at the desired spacing and casting into concrete to suit the stormwater channel.

PARTICULAR SPECIFICATIONS

The following particular specifications are included:

- **PA: Environmental Management**
- **PB: Health & Safety Specifications**

PARTICULAR SPECIFICATION: PA

PA ENVIRONMENTAL MANAGEMENT (COMPREHENSIVE)

PA 1 SCOPE

This Specification covers the requirements for controlling the impact of construction activities on the environment. It contains clauses that are generally applicable to the undertaking of civil Employer's Agenting works in areas where it is necessary to impose pro-active controls on the extent to which the construction activities impact on the environment.

All construction activities shall observe any relevant environmental legislation and in so doing shall be undertaken in such a manner as to minimise impacts on the natural and social environment.

PA 2 NORMATIVE REFERENCES

PA 2.1 SUPPORTING REFERENCES

Where this Specification is required for a project the following specifications shall, inter alia, form part of the Contract Document.

a) Scope of Work;
b) Construction Regulations, 2014, and
c) Kouga Local Municipality Health and Safety Specification

PA 3 DEFINITIONS

For the purposes of this Specification the definitions and abbreviations given in the applicable specifications listed in 2.1 and the following definitions shall apply:

Environment:

The surroundings within which humans exist and that are made up of:
i) the land, water and atmosphere of the earth;
ii) micro-organisms, plant and animal life;
iii) any part or combination of (i) and (ii) and the interrelationships among and between them; and
iv) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

Potentially hazardous Substance:

A substance that, in the reasonable opinion of the Employer's Agent, can have a deleterious effect on the environment.

Method Statement:

A written submission by the Contractor to the Employer's Agent in response to the Specification or a request by the Employer's Agent, setting out the plant, materials, labour and method the Contractor proposes using to carry out an activity, identified by the relevant specification or the Employer's Agent when requesting the Method Statement, in such detail that the Employer's Agent is enabled to assess whether the Contractor's proposal is in accordance with the Specifications and/or will produce results in accordance with the Specifications.

The Method Statement shall cover applicable details with regard to: construction procedures, materials and equipment to be used, transportation of equipment/materials to and from site, movement of equipment/material on site, storage of materials on site, containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material

that may occur, timing and location of activities, areas of non-compliance with the Specifications, and any other information deemed necessary by the Employer's Agent.

Reasonable :

Unless the context indicates otherwise, reasonable in the opinion of the Employer's Agent after he has consulted with a person, not an employee of the Employer, suitably experienced in "environmental implementation plans" and "environmental management plans" (both as defined in Act No107,1998).

Solid waste:

All solid waste, including construction debris, chemical waste, excess cement/concrete, wrapping materials, timber, tins and cans, drums, wire, nails, food and domestic waste (e.g. plastic packets and wrappers).

Contaminated water:

Water contaminated by the Contractor's activities, e.g. concrete water and runoff from plant/ personnel wash areas.

Top material:

The top 150 mm of soil (topsoil) and root material of cleared vegetation.

PA 4 REQUIREMENTS

PA 4.1 MATERIALS

PA 4.1.1 Materials handling, use and storage

The Contractor shall ensure that any delivery drivers are informed of all procedures and restrictions (including "no go" areas) required to comply with the Specifications. The Contractor shall ensure that these delivery drivers are supervised during off loading, by someone with an adequate understanding of the requirements of the Specifications.

Materials shall be appropriately secured to ensure safe passage between destinations. Loads including, but not limited to sand, stone chips, fine vegetation, refuse, paper and cement, shall have appropriate cover to prevent them spilling from the vehicle during transit. The Contractor shall be responsible for any clean-up resulting from the failure by his employees or suppliers to properly secure transported materials.

PA 4.1.2 Hazardous substances

Procedures detailed in the Material Safety Data Sheets (MSDSs) shall be followed in the event of an emergency situation.

Petroleum, chemicals, harmful and hazardous waste shall be stored in an enclosed and bunded area. This area shall be subject to the approval of the Employer's Agent. The waste shall be disposed of at a hazardous waste disposal site as approved by the Employer's Agent.

PA 4.1.2.1 Shutter oil and curing compound

Shutter oil and curing compound pose a risk of causing water and soil contamination and accordingly are regarded as potential hazardous substances. The Contractor shall ensure that shutter oil and curing compound containers in use are stored within the fuel bund. The remaining containers shall be inspected regularly to ensure that no leakage occurs. When shutter oil or curing compound is dispensed, the proper dispensing equipment shall be used, and the storage container shall not be tipped in order to dispense the oil/compound. The dispensing mechanism of the shutter oil/curing compound storage container shall be stored in a waterproof container when not in use.

Shutter oil and curing shall be used in moderation and shall be applied under controlled conditions using appropriate equipment. The Contractor shall take all reasonable precautions to prevent accidental and incidental spillage during the application of these compounds.

In the event of a shutter oil or curing compound spill, the source of the spillage shall be isolated, and the spillage contained. The Contractor shall clean up the spill, either by removing the contaminated soil or by the application of absorbent material in the event of a larger spill. Treatment and remediation of the spill area shall be undertaken to the reasonable satisfaction of the Employer's Agent.

PA 4.1.2.2 Bitumen

The Employer's Agent shall be advised of the area that the Contractor intends using for the storage of bitumen drums/ products. The storage area shall have a smooth impermeable (concrete or 250 µm plastic covered in sand) floor. The floor shall be bunded and sloped towards a sump to contain any spillages of substances. The bund shall be inspected and emptied daily, and serviced when necessary. The bund shall be closely monitored during rain events to ensure that it does not overflow.

PA 4.2 PLANT

PA 4.2.1 Ablution facilities

The Contractor shall ensure that no spillage occurs when the toilets are cleaned or emptied and that the contents are properly stored and removed from Site. Discharge of waste from toilets into the environment and burial of waste is strictly prohibited. The Contractor shall prevent any littering on site and ensure that staff disposes of all litter (including leftover foodstuff) in the bins provided.

Washing, whether of the person or of personal effects and acts of excretion and urination are strictly prohibited other than at the facilities provided.

PA 4.2.2 Solid waste management

The Contractor shall provide sufficient bins with lids on Site to store the solid waste produced on a daily basis. Solid, non-hazardous waste shall be disposed of in the bins provided and no on-site burying, dumping or burning of any waste materials, vegetation, litter or refuse shall occur. Bins shall not be allowed to become overfull and shall be emptied a minimum of once daily. The waste may be temporarily stored on Site in a central waste area that is weatherproof and scavenger-proof, and which the Employer's Agent has approved.

All solid waste shall be disposed of offsite at an approved landfill site. The Contractor shall supply the Employer's Agent with a certificate of disposal.

PA 4.2.3 Contaminated water

The Contractor shall set up a contaminated water management system, which shall include collection facilities to be used to prevent pollution, as well as suitable methods of disposal of contaminated water. The Contractor shall prevent the discharge of water contaminated with any pollutants, such as soaps, detergent, cements, concrete, lime, chemicals, glues, solvents, paints and fuels, into the environment.

The Contractor shall notify the Employer's Agent immediately of any pollution incidents on Site. The Employer's Agent approval is required prior to the discharge of contaminated water to the Municipal sewer system.

PA 4.2.4 Site structures

All site establishment components (as well as equipment) shall be positioned to limit visual intrusion on neighbours and the size of area disturbed. The type and colour of roofing and cladding materials to the Contractor's temporary structures shall be selected to reduce reflection.

PA 4.2.5 Noise control

The applicable regulations framed under the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), and the provisions of SANS 1200 A Subclause 4.1 regarding "built-up areas" shall apply to all areas within audible distance of residents whether in urban, peri-urban or rural areas.

Appropriate directional and intensity settings are to be maintained on all hooters and sirens, and the Contractor shall provide and use suitable and effective silencing devices for pneumatic tools and other plant such that the noise level in inhabited areas and dwellings adjacent to the work areas will not increase by more than 7 dB(A)Leq 60 above residual background sound levels. Similarly in habituated areas adjacent to access roads maximum noise levels shall not exceed 60 dB(A)Leq 60 and maximum sound pressure level of 70 dB(A).

Where excess noise generation is unavoidable, the Contractor shall, by means of barriers, effectively isolate the source of any such noise in order to comply with the said regulations. The Contractor shall restrict any of his operations that may result in undue noise disturbance to those communities and dwellings abutting the Site to the hours of 08:00 to 17:00 on weekdays and Saturdays. No work will be permitted on Sundays unless otherwise agreed to with the Employer's Agent.

No amplified music shall be allowed on Site. The use of radios, tape recorders, compact disc players, television sets etc. shall not be permitted unless the volume is kept sufficiently low as to avoid any intrusion on members of the public within range. The Contractor shall not use sound amplification equipment on Site unless in emergency situations.

PA 4.2.6 Lights

The Contractor shall ensure that any lighting installed on the site for his activities does not interfere with road traffic or cause a reasonably avoidable disturbance to the surrounding community or other users of the area.

PA 4.2.7 Fuel (petrol and diesel) and oil

Unless otherwise specified in the Specification Data, fuel may be stored on site in an area approved by the Employer's Agent. The Contractor shall ensure that all liquid fuels (petrol and diesel) are stored in tanks with lids, which are kept firmly shut or in bowsers. The tanks/bowsers shall be situated on a smooth impermeable surface (concrete or 250 µm plastic) with an earth bund (plastic must have a 5 cm layer of sand on top to prevent damage and perishing). The impermeable lining shall extend to the crest of the bund and the volume inside the bund shall be 130% of the total capacity of all the storage tanks/ bowsers. The bunded area shall be covered to protect it from rain. Provision shall be made for refuelling at the fuel storage area, by protecting the soil with 250 µm plastic covered with a minimum of a 5 cm layer of sand.

If fuel is dispensed from 200 litre drums, only empty externally clean drums may be stored on the bare ground. All empty externally dirty drums shall be stored on an area where the ground has been protected. The proper dispensing equipment shall be used, and the drum shall not be tipped in order to dispense fuel. The dispensing mechanism of the fuel storage drum shall be stored in a waterproof container when not in use.

The Contractor shall prevent unauthorised access into the fuel storage area. No smoking shall be allowed within the vicinity of the fuel storage area. The Contractor shall ensure that there is adequate fire-fighting equipment at the fuel stores.

Where reasonably practical, plant shall be refuelled at the fuel storage area or at the workshop as applicable. If it is not reasonably practical then the surface under the refuelling area shall be protected against pollution to the reasonable satisfaction of the Employer's Agent prior to any refuelling activities. The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb/ breakdown and where possible be designed to encapsulate minor hydrocarbon spillage. The quantity of such materials shall be able to handle a minimum of 200 ℓ of hydrocarbon liquid spill. The Contractor shall obtain the Employer's Agent prior approval for any refuelling or maintenance activities.

PA 4.2.8 Workshop, equipment maintenance and storage

Leaking equipment shall be repaired immediately or removed from the Site. Where practical, all maintenance of equipment and vehicles on Site shall be performed off Site or in the workshop. If it is necessary to do maintenance outside of the workshop area, the Contractor shall obtain the approval of the Employer's Agent prior to commencing activities. The Contractor shall ensure that in his workshop and other plant maintenance facilities, including those areas where, after obtaining the Employer's Agent approval, the Contractor carries out emergency plant maintenance, there is no contamination of the soil or vegetation. The workshop shall have a smooth impermeable (concrete or 250 µm plastic covered with sand) floor. The floor shall be bunded and sloped towards an oil trap or sump to contain any spillages of substances (e.g. oil).

When servicing equipment on site, drip trays shall be used to collect the waste oil and other lubricants. Drip trays shall also be provided in construction areas for stationary plant (such as compressors) and for "parked" plant (such as scrapers, loaders, vehicles). Drip trays shall be inspected and emptied daily. Drip trays shall be closely monitored during rain events to ensure that they do not overflow. Where practical, the Contractor shall ensure that equipment is covered so that rainwater is excluded from the drip trays.

The washing of equipment shall be restricted to urgent or preventative maintenance requirements only. All washing shall be undertaken off Site or in the workshop. The use of detergents for washing shall be restricted to low phosphate and nitrate containing, low sudsing-type detergents.

PA 4.2.9 Dust

The Contractor shall take all reasonable measures to minimise the generation of dust as a result of construction activities to the satisfaction of the Employer's Agent. The Contractor's dust management planning shall, as a minimum, take cognisance of the following:

- Schedule of spraying water on unpaved roads paying due attention to control of runoff.
- Speed limits for vehicles on unpaved roads and minimisation of haul distances.
- Measures to ensure that material loads are properly covered during transportation.
- Schedule for wheel cleaning and measures to clean up public roads that may be soiled by construction vehicles.
- Minimisation of the areas disturbed at any one time and protection of exposed soil against wind erosion, e.g. by dampening with water or covering with straw
- Location and treatment of material stockpiles taking into consideration prevailing wind directions and location of sensitive receptors.
- Controlled blasting techniques to minimise dust and fly rock during blasting.
- Adherence to the dust loads and protective gear stipulated in the Occupational Health and Safety Act.
- Reporting mechanism and action plan in case of excessive wind and dust conditions.

During summer, a water tanker shall be permanently available for the control of dust generation, and the Contractor shall ensure that the sprays do not generate excess run off. During winter, provision shall be made for a tanker, as required by the Employer's Agent.

During high wind conditions, the Contractor shall comply with the Employer's Agent instructions regarding dust-damping measures. The Employer's Agent may request the temporary cessation of all construction activities where wind speeds are unacceptably high, and until such time as wind speeds return to acceptable levels.

Vehicle speeds should not exceed 20km/h on dirt roads or when traversing unconsolidated or non-vegetated areas. Contractors shall develop and implement a programme for the monitoring of dust fallout in areas where dust generation may be expected.

PA 4.2.10 Trimming of the Site

The Contractor shall include the reinstatement of the owners verges when trimming the site.

PA 4.3 METHODS AND PROCEDURES

PA 4.3.1 Method Statements

Any Method Statement required by this Specification, the Specification Data or the Employer's Agent shall be produced within such reasonable time as is required by this Specification, the Specification Data or the Employer's Agent. The Contractor shall not commence the activity until the Method Statement has been approved. Except in the case of emergency activities, the Contractor shall allow a period of two weeks for approval of the Method Statement by the Employer's Agent. Such approval shall not unreasonably be withheld.

Method Statements in respect of environment management that shall be provided by the Contractor within 14 days of receipt of the letter of acceptance and prior to the activity covered by the Method Statement being undertaken, include:

1) Location and structure of the fuel storage site, including the type and volume of storage container and the design and capacity of the bund.

2) Contaminated water management system, including an indication of the source and volume of contaminated water and how this would be disposed of.

3) Dust control, including methods to prevent dust generation and methods to reduce dust where its generation is unavoidable.

4) Location and layout of the construction camp in the form of a plan showing offices, stores for fuels and explosives, vehicle parking, access point, equipment cleaning areas and staff toilet placement.

5) Location of proposed site access routes and proposed traffic safety measures.

6) Emergency procedures for fire, and accidental leaks and spillages of hazardous materials.

7) Location, layout and preparation of cement/ concrete batching facilities including the methods employed for the mixing of concrete and the management of runoff water from such areas. An indication shall be given of how concrete spoil will be minimised and cleared.

8) Method of undertaking earthworks, including spoil management, erosion, dust and noise controls.

9) Motivation and method for undertaking any construction related activities within a "no-go" area, including requisite emergency procedures. Unless need clearly motivated and proposed methodology exhibits clear focus on environmentally sensitive construction practice, no activity will be permitted within the defined "no-go" areas.

PA 4.3.2 Environmental awareness training

Not applicable on this Contract.

PA 4.3.3 Construction personnel information posters

Not applicable on this Contract.

PA 4.3.4 Site clearance

The Contractor shall ensure that the clearance of vegetation is restricted to that required to facilitate the execution of the Works. Site clearance shall occur in a planned manner and cleared areas shall be stabilised as soon as possible. The detail of vegetation clearing shall be to the Employer's Agent approval. All cleared vegetation shall either be mulched and mixed into the topsoil stockpiles or disposed of at an approved disposal site. The disposal of vegetation by burying or burning is prohibited without the requisite permit from the local authority.

The Contractor shall strip the Top material within the working areas. The Top material shall be stockpiled separately from subsoil and used for subsequent rehabilitation and revegetation. Top material stockpiles shall not be compacted.

Should fauna be encountered during site clearance, earthworks shall cease until fauna have been safely relocated.

PA 4.3.5 Site division

The Employer's Agent shall be advised of the area that the Contractor intends using for his site establishment. The Contractor's camp shall occupy as small an area as possible, and no site establishment shall be allowed within 50 m of any watercourse unless otherwise approved by the Employer's Agent.

The Contractor shall inform the Employer's Agent of the intended actions and programme for site establishment. The site layout shall be planned to facilitate ready access for deliveries, facilitate future works and to curtail any disturbance or security implications for neighbours.

PA 4.3.6 Site demarcation

As required by the Specification Data, the Contractor shall erect and maintain permanent and/or temporary fences of the type and in the locations directed by the Employer's Agent. Such fences shall, if so specified, be erected before undertaking designated activities.

PA 4.3.7 "No go" areas

If so required by the Specification Data, certain areas shall be considered "no go" areas. The Contractor shall ensure that, insofar as he has the authority, no unauthorised entry, stockpiling, dumping or storage of equipment or materials shall be allowed within the demarcated "no go" areas.

"No go" areas shall be demarcated with fencing consisting of wooden or metal posts at 3 m centres with 1 plain wire strand tensioned horizontally at 900 mm from ground level. Commercially available danger tape shall be wrapped around the wire strand. The Contractor shall maintain the fence for the duration of construction and ensure that the danger tape does not become dislodged.

PA 4.3.8 Protection of natural features

The Contractor shall not deface, paint, damage or mark any natural features (e.g. rock formations) situated in or around the Site for survey or other purposes unless agreed beforehand with the Employer's Agent. Any features affected by the Contractor in contravention of this clause shall be restored/ rehabilitated to the satisfaction of the Employer's Agent.

The Contractor shall not permit his employees to make use of any natural water sources (e.g. springs, streams, open water bodies) for the purposes of swimming, personal washing and the washing of machinery or clothes.

PA 4.3.9 Protection of flora and fauna

Except to the extent necessary for the carrying out of the Works, flora shall not be removed, damaged or disturbed nor shall any vegetation be planted without authorisation.

Trapping, poisoning and/ or shooting of animals is strictly forbidden. No domestic pets or livestock are permitted on Site.

Where the use of herbicides, pesticides and other poisonous substances has been specified, they shall be stored, handled and applied with due regard to their potential harmful effects.

PA 4.3.10 Protection of archaeological and paleontological remains

The Contractor shall take reasonable precautions to prevent any person from removing or damaging any fossils, coins, articles of value or antiquity and structures and other remains of archaeological interest discovered on the Site, immediately upon discovery thereof and before removal. The Contractor shall inform the Employer's Agent immediately of such a discovery and carry out the Employer's Agent instructions for dealing therewith. All construction within the vicinity of the discovery shall cease immediately and the area shall be cordoned off until such time as the Employer's Agent authorises resumption of construction in writing.

The Employer's Agent will contact the relevant heritage authority.

PA 4.3.11 Access routes/ haul roads

Access to the Construction camp and working areas shall utilise existing roads or tracks. Entry/exit points onto public roads shall take cognisance of traffic safety. Traffic safety measures shall include appropriate signage and signalmen where relevant.

On the Site, and, if so required by the Specification Data, within such distance of the Site as may be stated, the Contractor shall control the movement of all vehicles and plant including that of his suppliers so that they remain on designated routes, are distributed so as not to cause an undue concentration of traffic and that all relevant laws are complied with. In addition such vehicles and plant shall be so routed and operated as to minimise disruption to regular users of the routes not on the Site. On gravel or earth roads on Site and within 500 m of the Site, the vehicles of the Contractor and his suppliers shall not exceed a speed of 20 km/h.

Mud and sand deposited onto public roads by construction activities shall be cleared on a daily basis.

PA 4.3.12 Cement and concrete batching

Where applicable, the location of the batching plant (including the location of cement stores, sand and aggregate stockpiles) shall be as approved by the Employer's Agent. The concrete/cement batching plant shall be kept neat and clean at all times.

No batching activities shall occur directly on unprotected ground. The batching plant shall be located on a smooth impermeable surface (concrete or 250 µm plastic covered with 5 cm of sand). The area shall be bunded and sloped towards a sump to contain spillages of substances. All wastewater resulting from batching of concrete shall be disposed of via the contaminated water management system and shall not be discharged into the environment. Contaminated water storage areas shall not be allowed to overflow and appropriate protection from rain and flooding shall be implemented

Empty cement bags shall be stored in weatherproof containers to prevent windblown cement dust and water contamination. Empty cement bags shall be disposed of on a regular basis via the solid waste management system, and shall not be used for any other purpose. Unused cement bags shall be stored so as not to be affected by rain or runoff events. In this regard, closed steel containers shall be used for the storage of cement powder and any additives. The Contractor shall ensure that sand, aggregate, cement or additives used during the mixing process are contained and covered to prevent contamination of the surrounding environment.

The Contractor shall take all reasonable measures to prevent the spillage of cement/ concrete during batching and construction operations. During pouring, the soil surface shall be protected using plastic and all visible remains of concrete shall be physically removed on completion of the cement/ concrete pour and appropriately disposed of. All spoiled and excess aggregate/ cement/ concrete shall be removed and disposed of via the solid waste management system.

Where “readymix” concrete is used, the Contractor shall ensure that the delivery vehicles do not wash their chutes directly onto the ground. Any spillage resulting from the “readymix” delivery shall be immediately cleared and disposed of via the solid waste management system.

PA 4.3.13 Earthworks

All earthworks shall be undertaken in such a manner so as to minimise the extent of any impacts caused by such activities, particularly with regards to erosion and dust generation. No equipment associated with earthworks shall be allowed outside of the Site and defined access routes unless expressly permitted by the Employer’s Agent.

PA 4.3.14 Pumping

Pumps shall be placed over a drip tray in order to contain fuel spills and leaks. The Contractor shall take all reasonable precautions to prevent spillage during the refuelling of these pumps.

The Contractor shall ensure that none of the water pumped during any dewatering activities, including well points, is released into the environment without the Employer’s Agent approval. The Employer’s Agent approval is required prior to the discharge of this water into the Municipal sewer system.

PA 4.3.15 Bitumen

Over spray of bitumen products outside of the road surface and onto roadside vegetation or the surrounding environment shall be prevented using a method approved by the Employer’s Agent.

When heating bitumen products, the Contractor shall take cognisance of appropriate fire risk controls. Heating of bitumen products shall only be undertaken using LPG or similar zero emission fuels and appropriate firefighting equipment shall be readily available.

Stone chip/gravel excess shall not be left on road / paved area verges. This shall be swept / raked into piles and removed to an area approved by the Employer’s Agent.

Water quality from runoff from new/ fresh bitumen surfaces will be monitored visually by the Employer’s Agent and remedial actions taken where necessary by the Contractor.

PA 4.3.16 Fire control

No fires may be lit on site. Any fires that occur shall be reported to the Employer’s Agent immediately. Smoking shall not be permitted in those areas where it is a fire hazard. Such areas shall include the workshop and fuel storage areas and any areas where the vegetation or other material is such as to make liable the rapid spread of an initial flame. In terms of the Atmospheric Pollution Prevention Act (No. 45 of 1965), burning is not permitted as a disposal method.

The Contractor shall ensure that there is basic fire-fighting equipment available on Site at all times. This shall include at least rubber beaters when working in urban open spaces and fynbos areas, and at least one fire extinguisher of the appropriate type when welding or other “hot” activities are undertaken.

PA 4.3.17 Emergency procedures

The Contractor’s procedures for the following emergencies shall include:

i) Fire

The Contractor shall advise the relevant authority of a fire as soon as one starts and shall not wait until he can no longer control it. The Contractor shall ensure that his employees are aware of the procedure to be followed in the event of a fire.

ii) Accidental leaks and spillages

The Contractor shall ensure that his employees are aware of the emergency procedure(s) to be followed for dealing with spills and leaks, which shall include notifying the Employer's Agent and the relevant authorities. The Contractor shall ensure that the necessary materials and equipment for dealing with spills and leaks is available on Site at all times. Treatment and remediation of the spill areas shall be undertaken to the reasonable satisfaction of the Employer's Agent.

In the event of a hydrocarbon spill, the source of the spillage shall be isolated, and the spillage contained. The area shall be cordoned off and secured. The Contractor shall ensure that there is always a supply of absorbent material readily available to absorb/ breakdown and where possible be designed to encapsulate minor hydrocarbon spillage. The quantity of such materials shall be able to handle a minimum of 200 ℓ of hydrocarbon liquid spill.

PA 4.3.18 Community relations

Where applicable, the Contractor shall erect and maintain information boards in the position, quantity, design and dimensions specified. Such boards shall include contact details for complaints by members of the public in accordance with details provided by the Employer's Agent.

Where applicable, the Contractor shall keep a "Complaints Register" on Site. The Register shall contain all contact details of the person who made the complaint, and information regarding the complaint itself. The Contractor shall erect and maintain an information board at the access gate to the Site Office.

PA 4.3.19 Erosion and sedimentation control

The Contractor shall take all reasonable measures to limit erosion and sedimentation due to the construction activities. Where erosion and/or sedimentation, whether on or off the Site, occurs despite the Contractor complying with the foregoing, rectification shall be carried out in accordance with details specified by the Employer's Agent. Where erosion and/or sedimentation occur due to the fault of the Contractor, rectification shall be carried out to the reasonable requirements of the Employer's Agent.

Any runnels or erosion channels developed during construction or during the defects liability period shall be backfilled and compacted. Stabilisation of cleared areas to prevent and control erosion shall be actively managed. Consideration and provision shall be made for various methods, namely, brushcut packing, mulch or chip cover, straw stabilising (at a rate of one bale/ 20 m2 and rotovated into the top 100 mm of the completed earthworks), watering, soil binders and anti-erosion compounds, mechanical cover or packing structures (e.g. Hessian cover).

Traffic and movement over stabilised areas shall be restricted and controlled, and damage to stabilised area shall be repaired and maintained to the satisfaction of the Employer's Agent.

PA 4.3.20 Aesthetics

The Contractor shall take reasonable measures to ensure that construction activities do not have an unreasonable impact on the aesthetics of the area.

PA 4.3.21 Recreation

If so required by the Specification Data, the Contractor shall take measures to reduce disruption to recreational users of the area abutting the Site.

PA 4.3.22 Access to site

The Contractor shall ensure that access to the Site and associated infrastructure and equipment is off-limits to the public at all times during construction. If so required, as directed by the Employer's Agent, the Contractor shall fence the site to ensure effective control of access to the site. This fence shall be a diamond mesh fence or similar with a minimum height of 1.8 m, and it shall be erected around the site and shall be maintained for the duration of construction.

PA 4.3.23 Crane operations

Drive plants shall be well maintained and drip trays shall be positioned at potential leak areas. Over-greasing of crane cables shall be avoided.

Movement and lifting of hazardous materials shall be undertaken such that they do not cause a pollution, spillage or safety risk (in particular were concrete buckets are in use).

PA 4.3.24 Trenching

Trenching for services shall be undertaken in accordance with the Employer's Agenting specifications with the following environmental amplifications, where applicable:

a) Soil shall be excavated and used for refilling trenches i.e. soil from the first trench shall be excavated and stockpiled, thereafter soil from the second excavated trench length shall be used to backfill the trench behind it once the services have been laid. The last trench shall be filled using the soil stockpiled from the first trench.

b) Trench lengths shall be kept as short as practically possible before backfilling and compacting.

c) Trenches shall be re-filled to the same level as (or slightly higher to allow for settlement) the surrounding land surface to minimise erosion.

PA 4.3.25 Demolition

Hazardous and non-hazardous materials shall be separated at site and disposed of in a manner approved by the Employer's Agent.

All buildings older than 60 years require a permit from South African Heritage Resources Agency in terms of the National Heritage Resources Act (no. 25 of 1999). A demolition permit is also required from the local authority in terms of the National Building Regulations.

PA 4.3.26 Drilling and jack hammering

The Contractor shall take all reasonable measures to limit dust generation and noise as a result of drilling operations. The Contractor shall ensure that no pollution results from drilling operations, either as a result of oil and fuel drips, or from drilling fluid.

Any areas or structures damaged by the drilling and associated activities shall be rehabilitated by the Contractor to the satisfaction of the Employer's Agent.

PA 4.3.27 Stockpiling

The Employer's Agent will identify suitable sites for stockpiling. Stockpiles shall be convex in shape, shall be no higher than 2 m and shall be located so as to cause minimal disturbance. Stockpiles shall be so placed to occupy minimum width compatible with the natural angle of repose of material, and measures shall be taken to prevent the material from being spread over too wide a surface. Where required, appropriate precautions shall be taken to prevent the erosion and limit the compaction of the stockpiles. The Contractor shall ensure that all stockpiles do not cause the damming of water or run off, or is itself washed away.

Top material stockpiles shall not be covered with any material (e.g. plastic) that may kill seeds or cause it to compost. If the stockpiles start to erode significantly or cause dust problems, they shall be covered with hessian. Where practical, Top material shall not be left for longer than six to eight months before being used for rehabilitation. If stored for longer than six months, the Top material shall be analysed and, if necessary, upgraded before placement.

PA 4.3.28 Site closure and rehabilitation

Any areas that the Employer's Agent believes may have been impacted upon or disturbed, shall be rehabilitated to the satisfaction of the Employer's Agent, which includes all areas where Top material has been stripped. Once construction is complete the Contractor shall clear everything from the Site not forming part of the Permanent Works. The area to be rehabilitated shall first be landscaped to match the topography of the surrounding area as it was prior to construction. The composition of vegetation to be used for any rehabilitation shall be as specified in the Specification Data.

The Contractor may not use herbicides, pesticides, fertilisers or other poisonous substances for the rehabilitation process unless otherwise agreed with the Employer's Agent.

All rehabilitated areas shall be considered "no go" areas and the Contractor shall ensure that none of his staff or equipment enters these areas.

The Contractor shall undertake to remove all alien vegetation re-establishing on the area and shall implement the necessary temporary or permanent measures to combat soil erosion.

PA 4.3.29 Temporary revegetation of the areas disturbed by construction.

Where there is likely to be a delay of greater than two weeks in the landscaping and revegetation of a disturbed area or where that site is likely to be the subject of further construction activities at a later stage, the Contractor shall ensure that the area is temporarily revegetated to combat dust generation and prevent erosion. This revegetation shall occur incrementally immediately upon completion of the construction activities at the subject location.

Prior to revegetation structures and material not forming part of the Permanent Works, including remnants of building materials, concrete foundations, timber and other foreign debris, shall be removed and disposed of via the solid waste management system. The area shall be revegetated as follows:

a) The surface shall be levelled by hand or machine as far as practically possible.
b) Alien vegetation shall be cleared by cutting the plants off at ground level and painting the stump with 0.5% Garlon in diesel.
c) For areas with a slope of greater than 1:3, straw shall be utilised as a binding material to stabilise the soil during revegetation and rehabilitation of the site. Straw shall consist of natural, dried fibres of hay or chaff of various lengths between 50 mm and 400 mm, delivered to Site in bales and shall be applied evenly by hand or machine at a rate of 1 bale per 20 m2 over the area to be revegetated. It shall then immediately be rotovated into the upper 100 mm layer of soil.
d) The prepared area shall be hydro- or hand-seeded at a rate of 40 kg/ha using Rye grass (Loliummultiflorum). In the event of hand-seeding, the seed mixture as specified shall be mixed with two parts per volume of clean dry plaster sand, then divided in half and applied evenly in two successive applications, one after the other, by means of an approved hand seeding machine (known colloquially as a "tefsaaier"). On completion of the seeding the surface shall be lightly raked to cover the seed with no more than 5 mm of soil.
e) Water used for the irrigation of vegetated areas shall be free of pollutants that will have a detrimental effect on the plants. The vegetated area shall only be watered once, immediately following seeding. Watering should be carried out from a tanker, using a fine nozzle spray to avoid erosion and disturbance of the vegetation. Water for irrigation purposes may not be drawn from any water body.

No construction equipment, vehicles or unauthorised personnel shall be allowed onto areas that have been vegetated. Only persons or equipment required for the preparation of areas, application of fertiliser and maintenance of revegetated area shall be allowed to operate on these areas.

PA 4.3.30 Temporary site closure

If the site is closed for a period exceeding one week, the Contractor, in consultation with the Employer's Agent shall carry out the following checklist procedure.

Hazardous materials stores

Outlet secure/ locked
Bund empty (where applicable)
Fire extinguishers serviced and accessible
Secure area from accidental damage e.g. vehicle collision
Emergency and contact details displayed
Adequate ventilation

Safety

All trenches and manholes secured
Fencing and barriers in place as per the Occupational Health and Safety Act (No 85 of 1193)
Emergency and management contact details displayed
Pipe stockpile wedged/ secured

Erosion

Wind and dust mitigation in place
Slopes and stockpiles at stable angle
Revegetated areas watering schedules and supply secured

Water contamination and pollution

Cement and materials stores secured
Toilets empty and secured
Refuse bins empty and secured
Drip trays empty and secure (where possible)
Structures vulnerable to high winds secure

PA 5 COMPLIANCE WITH REQUIREMENTS AND PENALTIES

PA 5.1 COMPLIANCE

Environmental management is concerned not only with the final results of the Contractor's operations to carry out the Works but also with the control of how those operations are carried out. Tolerance with respect to environmental matters applies not only to the finished product but also to the standard of the day-to-day operations required to complete the Works.

It is thus required that the Contractor shall comply with the environmental requirements on an ongoing basis and any failure on his part to do so will entitle the Employer's Agent to certify the imposition of a penalty as detailed below.

PA 5.2 Penalties

Penalties will be issued for certain transgressions. Penalties may be issued per incident at the discretion of the Employer's Agent. Such penalties will be issued in addition to any remedial costs incurred as a result of non-compliance with this Specification. The Employer's Agent will inform the Contractor of the contravention and the amount of the penalty, and shall be entitled to deduct the amount from monies due under the Contract.

Penalties will be issued for the transgressions listed below. Penalties may be issued per incident at the discretion of the Employer's Agent. Such penalties will be issued in addition to any remedial costs incurred as a result of non-compliance with the environmental specifications. The Employer's Agent will inform the Contractor of the contravention and the amount of the fine, and will deduct the amount from monies due under the Contract.

Penalties for the activities detailed below, will be imposed by the Employer's Agent on the Contractor.

a)	Any employees, vehicles, plant, or thing related to the Contractor's operations operating within the designated boundaries of a "no-go" area.	R 2 000
b)	Persistent and un-repaired oil leaks from machinery.	R 1 000
c)	Persistent failure to monitor and empty drip trays timeously.	R 1 000
d)	The use of inappropriate methods for refuelling.	R 1 000
e)	Litter on site associated with construction activities.	R 500
f)	Deliberate lighting of fires on site.	R 5 000
g)	Failure to implement specified noise controls, particularly during blasting	R 1 000
h)	Failure to empty waste bins on a regular basis.	R 1 000
i)	Inadequate dust control.	R 2 500
j)	Employees urinating or defecating anywhere on site other than the site ablution facilities.	R 500
k)	A spillage, pollution, fire or any damage to any water course or surrounding environment resulting from negligence on the part of the Contractor or his staff.	R 5 000

For each subsequent similar offence the fine will be doubled in value to a maximum value of R 30 000.

The Employer's Agent shall be the judge as to what constitutes a transgression in terms of this clause, subject to the provisions of Clause 10.2.1 of the General Conditions of Contract. In the event that transgressions continue the Contractor's attention is drawn to the provisions of Subclauses 4.11 and 9.2.1 of the General Conditions of Contract under which the Employer's Agent may remove an individual from site or terminate the Contract.

PA 5.3 Removal from site and suspension of Works

The Employer's Agent may instruct the Contractor to remove from Site any person(s) who in their opinion is guilty of misconduct, or is incompetent, negligent or constitutes an undesirable presence on Site. Subclause 4.1.9 of this Specification requires that all Plant be in good working order, and accordingly the Employer's Agent may order that any Plant not complying with the Specifications be removed from Site. Where the Employer's Agent deems the Contractor to be in breach of any of the requirements of this Specification, he may order the Contractor to suspend the progress of the Works or any part thereof.

PA 6 TOLERANCES

Not applicable.

PA 7 TESTING/QUALITY CONTROL

Not applicable.

PA 8 MEASUREMENT AND PAYMENT

PA 8.1 BASIC PRINCIPLES

PA 8.1.1 General

Except as specified below, or as billed, no separate measurement and payment will be made to cover the costs of complying with the provisions of this Specification and such costs shall be deemed to be covered by the rates tendered for the items in the Bill of Quantities completed by the Contractor when submitting his tender.

PA 8.1.2 All requirements of the environmental management specification

All work not measured elsewhere, associated with complying with any requirement of this Environmental Management specification will be measured and paid as a sum.

The tendered sum shall cover the cost of with complying with the environmental management specification and shall include for all materials, labour and plant required to execute and complete the Works as specified, described in the Bill of Quantities or shown on the Drawing(s).

PA 8.1.3 Work "required by the Specification Data"

Where a clause in this Specification includes a requirement as "required by the Specification Data", measurement and payment for compliance with that requirement shall be in accordance with the relevant measurement and payment clause of the Specification Data.

PA 8.2 BILLED ITEMS

PA 8.2.1 Method Statements: Additional work ……...Unit: No

No separate measurement and payment will be made for the provision of Method Statements but, where the Employer's Agent requires a change on the basis of his opinion that the proposal may result in, or carries a greater than warranted risk of damage to the environment in excess of that warranted by the Specifications, then any additional work required, provided it could not reasonably have been foreseen by an experienced contractor, shall be valued in accordance with the Clause in the General Conditions of Contract dealing with Provisional Sums.

A stated sum is provided in the Bill of Quantities to cover payment for such additional work.

PA 8.2.2 All requirements of the environmental management specification..... Unit: Sum

All other work not measured elsewhere, associated with complying with any requirement of the environmental management specification shall be measured as a sum.

The tendered rate shall cover any cost associated with complying with the environmental management specification and shall include for all materials, labour and plant required to execute and complete the work as specified, described in the Bill of Quantities or shown on the drawing(s).

PA 8.2.3 Trimming of the Site ..... Unit: Sum

A lump sum shall be tendered for trimming of site. Payment shall only be effected after issuing of the practical completion certificate and under no circumstances will part payments be made while construction works is still in progress.(PA 4.2.10)

PARTICULAR SPECIFICATION: PB

PB HEALTH AND SAFETY SPECIFICATIONS

HEALTH AND SAFETY SPECIFICATION

Issued in terms of the Occupational Health and Safety Act, No 85 of 1993 and Construction Regulations 2014

Project:

Thornhill Reservoir: Construction of a new Steel reservoir and a section of pipes in Thornhill

For:

The Kouga Municipality

FOREWORD

This Health and Safety specification has been compiled under the guidelines of the Occupational Health & Safety Act, Act no.85 of 1993 as amended (the Act) and in particular in terms of the Construction Regulations (2014).

It must be clear that this document is a management tool and should be used and transformed by the PRINCIPAL CONTRACTOR into a ***project-specific*** construction Health and Safety plan for work in order to comply with the aforementioned Act and regulations.

Should there be any contradiction between the document and the Act, the Act must take preference except where explicitly stated or where requirements are more stringent than the Act. Where this document is silent on a specific Health & Safety requirement, the Act and regulations must be used as the minimum requirement.

TABLE OF CONTENTS

1. Introduction and Background

1.1 Background to the Construction Health and Safety Specification.
1.2 Purpose of the Construction Health and Safety Specification.
1.3 Implementation of the Health and Safety Specification.

2. Health and Safety Specification

2.1 Scope
2.1.1 Hazards and Risks involved in the scope of works
2.1.2 Limitation of Liability

2.2 Interpretations

2.2.1 Applications
2.2.2 Definitions

2.3 Minimum Administrative Requirements

2.3.1 Application of Construction Work
2.3.2 Notification of Construction Work
2.3.3 Duties of Principal Contractor and Contractors
2.3.4 Management and Supervision of Construction Work
2.3.5 Compensation of Occupational Injuries and Diseases Act (COIDA) Act 130 of 1993.
2.3.6 Occupational Health and Safety Policy
2.3.7 Health and Safety Organogram
2.3.8 Preliminary Hazard Identification and Risk Assessment and Progress Hazard Identification and Risk Assessments
2.3.9 Health and Safety Representatives
2.3.10 Health and Safety Committee
2.3.11 Medical Certificates of Fitness
2.3.12 Health and Safety Training
2.3.12.1 Inductions
2.3.12.2 Awareness
2.3.12.3 Competency
2.3.13 General Record Keeping
2.3.14 Health and Safety Audits, Monitoring and Reporting
2.3.15 Emergency Procedures
2.3.16 First Aid Box and First Aid Equipment
2.3.17 Accident / Incident Reporting, Investigation and Statistics
2.3.18 Hazards and Potential Situations
2.3.19 Personal Protective Equipment and Clothing
2.3.20 Occupational Health and Safety Signage
2.3.21 Contractors and Sub-Contractors
2.3.22 Health and Safety Officer

2.4 Physical Requirements

2.4.1 Excavation, Shoring, Dewatering and Drainage
2.4.2 Tunnelling
2.4.3 Stacking of Materials
2.4.4 Speed Restrictions and Traffic Accommodation
2.4.5 Hazardous Chemical Substances (HCS)
2.4.6 Structures

2.5 Plant and Machinery

2.5.1 Construction Plant

2.5.2 Pressure Equipment (gas bottles including operations)
2.5.3 Fire Extinguishers and Fire Fighting Equipment
2.5.4 Construction Vehicles
2.5.5 Temporary Works
2.5.6 Lifting Machine and Tackle
2.5.7 Ladders and Ladder Work
2.5.8 General Machinery
2.5.9 Portable Electrical Tools, Explosive Power Tools and Hand Tools
2.5.10 Electrical Equipment and Installations
2.5.11 Public and Site Visitor Health and Safety
2.5.12 Night Works
2.5.13 Transport of Workers

2.6 Occupational Health

2.6.1 Occupational Health and Hygiene
2.6.2 Alcohol and Drugs

Annexure A Example of the required contents of the Health and Safety Plan/File
Annexure B Required Appointment Letters

1. INTRODUCTION AND BACKGROUND

1.1 BACKGROUND TO THE HEALTH AND SAFETY SPECIFICATION

The Construction Regulations (2014) places the onus on the KOUGA MUNICIPALITY, to submit a sufficiently documented and coherent site specific health and safety specification, highlighting the minimum requirements which forms the framework of the health and safety plan to be developed and submitted by the PRINCIPAL CONTRACTOR to the KOUGA MUNICIPALITY, or appointed Health and Safety Agent for approval before commencement of the construction work/project.

The approved, site specific health and safety plan, in turn, needs to be successfully implemented by the PRINCIPAL CONTRACTOR and any appointed SUB-CONTRACTOR to ensure that identified health and safety risks are managed effectively and that full adherence to the minimum prescribed corporate and legal requirements (as pertained herein) are ensured at all times and are verified during regular audits by the PRINCIPAL CONTRACTOR and the KOUGA MUNICIPALITY.

These specifications cannot be seen as an exhaustive list of legal and corporate compliance requirements, as health and safety is a dynamic aspect of our working life and prevailing site conditions, possibly unknown at the time of specification development, may impact on the anticipated risk profiles and thus on these specifications. Constant assessment of risks and review of control/management measures by SEBENZA RISK MANAGEMENT, the PRINCIPAL CONTRACTORS and other CONTRACTORS are vital components of effective risk control.

1.2 PURPOSE OF THE HEALTH AND SAFETY SPECIFICATION

To assist in achieving compliance with the Occupational Health and Safety Act, Act 85/1993 (OHS Act) and the promulgated Construction Regulations (2014) in order to reduce damage, incidents and injuries. These specifications shall act as the basis for the drafting of the Health and Safety plan by the PRINCIPAL CONTRACTOR and all subsequent Health and Safety plans by CONTRACTORS.

The specification sets out the requirements to be followed by the PRINCIPAL CONTRACTOR and other CONTRACTORS so that the Health and Safety of all employees and other persons potentially at risk may receive the same priority as other facets of the project e.g. cost, programme, environment, quality etc.

This specification will be applicable to all construction work during the Construction of a new Steel reservoir and a section of pipes in Thornhill.

1.3 INTRODUCTION TO THIS THE HEALTH AND SAFETY SPECIFICATION

This specification forms an integral part of the contract, and the PRINCIPAL CONTRACTOR is required to use it when compiling its project-specific Health and Safety plan.

This specification does not replace the Construction Regulations 2014, but is a supplementary specification as required in terms of the Regulations. Partial references to or quotes from the Regulations do not imply that the sections not referred to or quoted from are of lesser importance or are not applicable.

The Principal Contractor is, at all times required to and will remain responsible to fully address all requirements and standards of the Occupational Health and Safety Act (85 of 1993), and the Construction Regulations (2014).

2. HEALTH AND SAFETY SPECIFICATION

2.1 SCOPE OF WORK

This project specific health and safety specifications covers the general requirements for addressing, mitigating and controlling Occupational Health and Safety related risks, problems, incidents and injuries on projects constructed or executed for the KOUGA MUNICIPALITY.

The scope addresses legal compliance, hazard identification, risk assessment, risk control methodology and the promotion of a health and safety culture amongst those working on the Kouga Municipality projects.

The project specific health and safety specifications contains clauses that are generally applicable to building, engineering and construction and imposes controls associated with activities that impact on human health and safety.

The Principal Contractor is required to comply with the provisions of the OHS Act, all applicable Regulations and this project specific health and safety specifications.

Scope of work includes:

Construct a new 2 ML bulk concrete water storage reservoir or as an alternative, a steel 2 ML bulk water storage reservoir. Both reservoirs are to have an elevated tank with an effective capacity of 194kl.
Install a new feeder main (Ø 200mm).
Connect to existing bulk pipeline.
Construct associated valve chambers.
Construct earthworks platform.
Install new fence and access gate.
Construct access road to the reservoir site.

2.1.1 HAZARDOUS AND RISKS ADDRESSED FROM SCOPE OF WORK

From the above scope you are required to identify all activities and the safe controls towards eliminating or mitigating the hazardous or risks which may be encountered during the construction phase.

The scope also addresses legal compliance, hazard identification and risk assessment, risk control and promoting a Health and Safety culture amongst those working on the project. The specification also makes provision for the protection of those persons other than employees, thus including visitors and other members of the public.

Risks to be covered, but should not be limited to the below list:

- Site establishment
- Public safety
- Use of a crane
- Use of construction and earth moving vehicles.
- Working in / near excavations.
- Exposed to hazardous material.
- Height work
- Use of lifting tackle and equipment.
- Ergonomics

2.1.2 LIMITATIONS OF LIABILITY

The KOUGA MUNICIPALITY and its agent shall not be responsible for any acts or omissions of any Contractor which may directly or indirectly result from the application of the General Health and Safety Specifications or the Project Specific Health and Safety Specifications.

Contractors must ensure that work, equipment, machinery, plant and work practices are, at all times, compliant to the legal requirements as these apply.

The KOUGA MUNICIPALITY and its agent shall limit its responsibility to the application of the Construction Regulations' KOUGA MUNICIPALITY Requirements only.

Any other potential responsibility shall be dealt with in a Mandatory Agreement, as defined in Section 37(2) of the OHS Act. The signed contract must be included in the Health and Safety File.

2.2 INTERPRETATIONS

2.2.1 APPLICATION

This specification is a compliance document compiled in terms of the South African legislation and is therefore binding. It must be read in conjunction with all relevant legislation/regulations and SABS/SANS Codes of Practice.

2.2.2 DEFINITIONS

The definitions as listed in the Occupational Health and Safety Act, Act 85/1993 (OHS Act) and the Construction Regulations (2014) thereto shall mainly apply with minimal additions. All definitions are not referred to in this version of the health and safety specification, but are included for easy reference during future reviews.

Occupational Health and Safety Act, Act 85/1993

1) **"chief executive officer",** in relation to a body corporate or an enterprise conducted by the State, means the person who is responsible for the overall management and control of the business of such body corporate or enterprise;

2) **"danger"** means anything which may cause injury or damage to persons or property;

3) **"employee"** means, subject to the provisions of subsection (2), any person who is employed by or works for an employer and who receives or is entitled to receive any remuneration or who works under the direction or supervision of an employer or any other person;

4) **"hazard"** means a source of or exposure to danger.

5) **"health and safety committee"** means a committee established under section 19 ;

6) **"health and safety equipment"** means any article or part thereof which is manufactured, provided or installed in the interest of the health and safety of any person;

7) **"health and safety representative"** means a person designated in terms of section 17 (1);

8) **"healthy"** means free from illness or injury attributable to occupational causes;

9) **"incident"** means an incident as contemplated in section 24 (1);including other less serious/minor incidents and therefore used as a generic term as well;

10) **"plant"** includes structures, buildings, fixtures, fittings, implements, equipment, tools and appliances, and also anything which is used for any purpose in connection with such plant;

11) **"risk"** means the probability that injury or damage will occur;

12) **"safe"** means free from any hazard;

13) **"substance"** includes any solid, liquid, vapour, gas or aerosol, or combination thereof;

14) This Act" includes any Regulations;

Construction Regulations (2014)

15) **"AGENT"** means a competent person who acts as a representative for a KOUGA MUNICIPALITY.

16) **"Angle of repose"** means the steepest angle of surface at which a mass of loose or fragmented material will remain stationary in a pile on the surface, rather than sliding or crumbling away;

17) **"Bulk mixing plant"** means machinery, appliances or other similar devices that are assembled in such a manner so as to be able to mix materials in bulk for the purposes of using the mixed product for construction work;

18) **"Client"** means any person for whom construction work is being performed; in this instance, it is the KOUGA MUNICIPALITY.

19) **"competent person"** means a person who –

(a) Has in respect of the work or task to be performed the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training; and

(b) Is familiar with the Act and with the applicable regulations made under the Act;

20) **"construction work"** means any work in connection with -

(1) (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;

(2) (b) the installation, erection, dismantling or maintenance of a fixed plant where such work includes the risk of a person falling;

(3) (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or

(d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;

(4)

21) **"construction manager"** means a competent person responsible for the management of the physical construction processes and the coordination, administration and management

of resources on a construction site;

22) **"construction site"** means a work place where construction work is being performed;

23) **"construction supervisor"** means a competent person responsible for supervising construction activities on a construction site;

24) **"construction vehicle"** means a vehicle used as a means of conveyance for transporting person or material, or persons and material, on and off the construction site for the purposes of performing construction work;

25) **"construction work"** means any work in connection with-
(a) The construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to building or any similar structure; or
(b) 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 nay similar civil engineering structure or type of work;

26) **"construction work permit"** means a document issued in terms of regulation 3

27) **"contractor"** means an employer who performs construction work;

28) **"demolition wor**k" means a method to dismantle, wreck, break, pull down or know down a structure or part thereof by way of manual labour, machinery, or the use of explosives;

29) **"design"** in relation to any structure, includes drawings, calculations, design details and specifications;

30) **"designer"** means –

(a) A competent person who –
(i) Prepares a design,
(ii) Checks and approves a design; or
(iii) Arranges for any 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
(iv) Designs temporary work, including its components,
(b) An architect or engineer contributing to, or having overall responsibility for a design;
(c) A building services engineer designing details for fixed plant;
(d) A surveyor specifying articles or drawing up specifications;
(e) A contractor carrying out design work as part of a design and building project; or
(f) An interior designer, shop-fitter or landscape architect.

31) **"excavation work"** means the making of any man-made cavity, trench, pit or depression formed by cutting, digging or scooping;

32) **"explosive actuated fastening device"** means a tool that is activated by an explosive charge and that is used for driving bolts, nails and similar objects for the purpose of providing fixing.

33) **"fall arrest equipment"** means equipment used to arrest a person in a fall, including personal equipment such as body harness, lanyards, deceleration devices, lifeline or similar equipment.

34) **"fall prevention equipmen**t" means equipment used to prevent persons from falling from a fall risk position, including personal equipment, a body harness, lanyards, lifelines or physical equipment such as guardrails, screens, barricades, anchorages or similar equipment;

35) **"fall protection plan"** means a documented plan, which includes and provides for –

(a) All risks relating to working from a fall risk position, considering the nature of work undertaken;
(b) The procedures and methods to be applied in order to eliminate the risk of falling; and
(c) A rescue plan and procedures

36) **"fall risk"** means any potential exposure to falling either from, off or into:

37) "health and safety file" means a file or other record containing the information in writing required by these Regulations;

38) **"health and safety plan"** means a site, activity or project specific documentation plan in accordance with the KOUGA MUNICIPALITY's health and safety specification;

39) **"health and safety specification"** means a site, activity or project specific document prepared by the KOUGA MUNICIPALITY pertaining to all health and safety requirements related to construction work;

40) **"material hoist"** means a hoist used to lower or raise material and equipment, excluding passengers;

41) **"medical certificate of fitness"** means a certificate contemplated in regulation 7(1)(8);

42) **"mobile plant"** means any machinery, appliance or other similar device that is able to move independently, and is used for the purpose of performing construction work on a construction site;

43) **"National Building Regulations"** means the National Building Regulations made under the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), and promulgated by Government Notice No. R. 2378 of 30 July 1990, as amended by Government Notices No's R. 432 of 8 March 1991, R. 919 of 30 July 1999 and R. 547 of 30 May 2008.

44) **"person day"** means one normal working shift of carrying out construction work by a person on a construction site;

45) **"Professional Engineer or Professional Certificated Engineer"** means a person holding registration as either a Professional Engineer or Professional Certificated Engineer in terms of the Engineering Professions Act, 2000 (Act No. 46 of 2000);

(5)

46) **"Professional Technologist"** means a person holding registration as a Professional Engineering Technologist in terms of the Engineering Profession Act, 2000;

47) **"Provincial Director"** means the provincial director as defined in regulation 1 of the General Administrative Regulations, 2003;

48) **"Scaffold"** means a temporary elevated platform and supporting structure used for providing access to and supporting workmen or materials or both;

49) **"Shoring"** means a system used to support the sides of an excavation and which is intended to prevent the cave-in or the collapse of the sides of an excavation;

50) **"Structure"** means –

a) Any structure, steel or reinforced concrete structure (not being a building), railway line or siding, bridge, waterworks, reservoir, pipe or pipeline, cable, sewer, sewerage works, fixed vessels, road, drainage works, earthworks, dam, wall, mast, tower, tower

crane, bulk mixing plant, pylon, surface and underground tanks, earth retaining structure or any structure designed to preserve or alter any natural feature, and any other similar structure;

b) Any false work, scaffold or other structure designed or used to provide support or means of access during construction work; or

c) Any fixed plant in respect of construction work which includes installation, commissioning, decommissioning or dismantling and where any construction work involves a risk of a person falling;

(6)

51) **"Suspended Platform"** means a working platform suspended from supports by means of one or more separate ropes from each support;

52) **"Temporary Works"** means any false work, formwork, support work, scaffolding, shoring or other temporary structure designed to provide support or means of access during construction work;

53) **"The Act"** means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993);

54) **"Tunnelling"** means the construction of any tunnel beneath the natural surface of the earth for a purpose other than the searching for or winning of a mineral.

2.3 MINIMUM ADMINISTRATIVE REQUIREMENTS

2.3.1 APPLICATION FOR CONSTRUCTION WORK (CR3) (Not applicable)

A KOUGA MUNICIPALITY who intends to have construction work carried out, must at least 30 days before that work is to be carried out apply to the Provincial Director in wring for a construction work permit to perform construction work if the intended construction work will –

a) Exceed 180 days
b) Will involve more than 1800 person days of construction work; or
c) The works contract is of a value equal to or exceeding thirteen million rand or Construction Industry Development Board (CIDB) grading level 6.

Government Notice dated 7 July 2015: *1. A Client who intends to have construction work carried out, must at least 30 days before that work is to be carried out apply to the provincial director in writing for a construction work permit to perform construction work if the intended construction work starts after the 7th of August 2015 and the works contract if of a value exceeding one hundred and thirty million rand or Construction Industry Development Board (CIDB) grading level 9.) – Must apply for a construction work permit.*

2.3.2 NOTIFICATION OF INTENTION TO COMMENCE CONSTRUCTION WORK (CR4)

A contractor who intends to carry out any construction work other than work contemplated in regulation 3(1), must at least 7 days before that work is to be carried out notify the provincial director in writing in a form similar to Annexure 2 if the intended construction work will –

a) Include excavation work;
b) Include working at a height where there is a risk of falling;
c) Include the demolition of a structure; or
d) Include the use of explosives to perform construction work.

2.3.3 DUTIES OF PRINCIPAL CONTRACTOR AND CONTRACTORS (CR7)

A principal contractor must –

a) Provide and demonstrate to the KOUGA MUNICIPALITY a suitable, sufficiently documented and coherent site specific health and safety plan, based on the KOUGA MUNICIPALITYS documented health and safety specifications.
b) 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 KOUGA MUNICIPALITY, the KOUGA MUNICIPALITY's agent or a contractor.

c) 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;
d) Ensure the CONTRACTOR is registered and in good standing with the Compensation Fund.
e) Appoint each CONTRACTOR in writing for the part of the project on the construction site;
f) Take reasonable steps to ensure that each CONTRACTORS health and safety plan is implemented and maintained on the construction site.
g) Ensure that period 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.

2.3.4 MANAGEMENT AND SUPERVISION OF CONSTRUCTION WORK (CR8)

A principal must in writing appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed by the PRINCIPAL CONTRACTOR.

A PRINCIPAL CONTRACTOR must upon having considered the size of the project, in writing appoint one or more assistant construction managers for different sections thereof: Provided that the designation of any such person does not relieve the construction manager of any personal accountability for failing in his or her management duties in terms of this regulation.

CR8(5) Due to the size of the project, the degree of danger likely to be encountered or the accumulation of hazards or risks on the site, appoint a part-time construction health and safety officer in writing to assist in the control of all health and safety related aspects on the site. The contractor must be reasonably satisfied that the construction health and safety officer he/she intends to appoint is registered with a statutory body approved by the Chief Inspector and has necessary competencies and resources to assist the contractor.

The Safety Officer will be registered with the SACPCMP.

2.3.5 COMPENSATION OF OCCUPATIONAL INJURIES AND DISEASES ACT 130 OF 1993 (COIDA)

The PRINCIPAL CONTRACTOR shall submit a letter of good standing with its Compensation Insurer to the KOUGA MUNICIPALITY as proof of registration before construction work commences. CONTRACTORS shall submit proof of registration to the PRINCIPAL CONTRACTOR before they commence work on site.

2.3.6 OCCUPATIONAL HEALTH AND SAFETY POLICY

The PRINCIPAL CONTRACTOR and all CONTRACTORS shall submit a Health and Safety policy signed by their Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented by the Company / CONTRACTOR.

2.3.7 HEALTH AND SAFETY ORGANOGRAM

The PRINCIPAL CONTRACTOR and all CONTRACTORS shall submit an organogram, outlining the Health and Safety site Management Structure including the relevant appointments / competent persons. In cases where appointments have not been made, the organogram shall reflect the intended positions. The organogram shall be updated when there are any changes in the site management structure.

2.3.8 RISK ASSESSMENT FOR CONSTRUCTION WORK (CR9)

The PRINCIPAL CONTRACTOR must, before the commencement of any construction work and during such construction work, have risk assessments performed by a competent person appointed in writing, which risk assessments form part of the health and safety plan to be applied on the site, and must include –

The baseline risk assessment must be included in the health and safety plan.

All risk assessments shall be conducted in terms of an acceptable and documented methodology, prior to commencement of work and in accordance with the provisions of the Construction Regulations.

Issue based risk assessment, risk monitoring and risk review shall be done during the Daily Safe Task Instructions (DSTI) which require:

a) A daily documented listing of hazardous events;
b) A daily documented listing of controls;
c) Proof of communication of the above to all employees.

A CONTRACTOR must ensure that that all employees under his or her control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures and or control measures before any work commences.

2.3.9 HEALTH AND SAFETY REPRESENTATIVE(S) (OHS Act Section 17)

The PRINCIPAL CONTRACTOR and all CONTRACTORS must ensure that for any workplace where more than 20 employees work, the minimum legislative prescribed number of Health and Safety Representatives in a ratio of 1:50 employees be nominated, elected, designated in writing and trained to carry out his/ her functions in his/ her area of responsibility. In addition it is required that in areas where twenty (20) or less employees are engaged in an activity, at least one Health and Safety Representative be designated in writing in the same manner.

The PRINCIPAL CONTRACTOR /CONTRACTOR must consult in good faith, with registered trade unions where applicable, prior to elections and conclude an agreement on procedures outlined in General Administrative Regulations 6 (1) (a-e).

The PRINCIPAL CONTRACTOR / CONTRACTOR must ensure that all Health and Safety Representatives carry out their functions in their area of responsibility, in accordance with Section 18 of the Occupational Health and Safety Act, Act 85 of 1993.

Health and Safety Representatives shall be required to conduct monthly inspections within their area of responsibility; the records must be kept for KOUGA MUNICIPALITY auditing purposes. All deviations recorded must immediately be reported to the appointed Construction Supervisor and Safety Officer, where applicable, within the designated person's area. Appropriate action must immediately be taken to eliminate the identified health and safety hazard.

2.3.10 HEALTH AND SAFETY COMMITTEES

The PRINCIPAL CONTRACTOR shall ensure that Health and Safety meetings are held monthly and meetings must be organized and chaired by the PRINCIPAL CONTRACTOR'S Responsible Person.

All CONTRACTOR'S Responsible Persons and Health and Safety Representatives shall attend the monthly Health and Safety meetings. CONTRACTORS shall also have their own internal Health and Safety committees in accordance with the OHS Act 85/1993 and minutes of their meetings shall be forwarded to the PRINCIPAL CONTRACTOR on a monthly basis.

The number of persons nominated to serve on the Health and Safety Committee may not exceed the number of Health and Safety Representatives on that Committee.

All members required to be in attendance shall be notified of such meeting by means of a formal agenda that must be made available to the KOUGA MUNICIPALITY upon request. The PRINCIPAL CONTRACTOR / CONTRACTOR shall ensure an attendance register and minutes are kept for auditing purposes by the KOUGA MUNICIPALITY. A copy of all minutes must be forwarded to the KOUGA MUNICIPALITY monthly.

2.3.11 MEDICAL CERTIFICATES OF FITNESS

All employees on site, must have a valid medical certificate of fitness applicable to the specific construction work being performed on site. Medical certificates to be signed by an Occupational Health Practitioner in the form of Annexure 3.

2.3.12 HEALTH AND SAFETY TRAINING

2.3.12.1 Induction

The PRINCIPAL CONTRACTOR and subsequent CONTRACTORS must provide site specific, risk based health and safety induction training on commencement of work on site. The KOUGA MUNICIPALITY in turn may offer induction on the legislative overview as it relates to generic health and safety principles and requirements, which complements the required induction training by the PRINCIPAL CONTRACTOR and by no means replaces it.

A record of attendance shall be kept in the Health and Safety file. A suitable venue must be supplied to house this training.

2.3.12.2 Awareness

The PRINCIPAL CONTRACTOR shall ensure that, on site, periodic toolbox talks take place at least once per week and before hazardous work is carried out. These talks should deal with risks relevant to the construction work at hand. A record of attendance shall be kept in the Health and Safety file. All CONTRACTORS have to comply with this minimum requirement and records must be made available to the KOUGA MUNICIPALITY on request.

Daily Safety Task Instructions (DSTI's) to be communicated to employees.

2.3.12.3 Competency

All competent persons shall have the knowledge, experience, training and qualifications specific to the work they have been appointed to supervise, control, and carry out. This must be assessed on a regular basis (e.g. periodic audits by the KOUGA MUNICIPALITY, progress meetings, etc). The PRINCIPAL CONTRACTOR is responsible to ensure that competent CONTRACTORS are appointed to carry out construction work.

The typical training courses include, but not limited to:

- SAMTRAC / Health and Safety Management Course
- Fist Aid Level 1 Course
- Basic- Fire Fighting Course
- Safety Representative Course
- Risk Assessment Course
- Construction Supervisor Safety Course
- At least half a day of Management Health and Safety training (compulsory for "responsible

persons" appointed relevant to corresponding level).

- Work at heights Certificates
- Scaffold Erectors and Inspectors Course

2.3.13 GENERAL RECORD KEEPING

The PRINCIPAL CONTRACTOR and all CONTRACTORS must keep and maintain Health and Safety records to demonstrate compliance with this Specification, with the OHS Act 85/1993, and with the Construction Regulations (2014).

The PRINCIPAL CONTRACTOR shall ensure that all records of incidents / accidents, emergency procedures training, inspections, audits, etc. are kept in a Health and Safety file kept at the site office.

The PRINCIPAL CONTRACTOR must ensure that every CONTRACTOR keeps its own Health and Safety file, maintains the file and make it available on request (The file must include the CONTRACTOR'S health and safety plan). These records are crucial for inclusion in the PRINCIPAL CONTRACTOR'S consolidated health and safety file for handover to the KOUGA MUNICIPALITY on completion of construction work.

Checklists and Registers to be maintained, but not limited to:

- Daily Safe Task Instructions (daily)
- Daily excavations checklists
- Daily traffic accommodation checklists
- Construction vehicles and mobile plant (daily)
- Portable electrical tools (daily)
- Hand tools (monthly)
- PPE checklist (monthly)
- Lifting equipment/tackle inspection checklists.
- Scaffolding
- Daily Excavations
- Stacking and Storage
- Housekeeping
- Facilities

2.3.14 HEALTH AND SAFETY AUDITS, MONITORING AND REPORTING

The KOUGA MUNICIPALITYs appointed Health and Safety Agent (SEBENZA RISK MANAGEMENT) shall conduct monthly Health and Safety compliance audits of the work operations including two site inspections of physical site activities on site.
The PRINCIPAL CONTRACTOR / CONTRACTOR must ensure a copy of all Health and Safety records generated during the course of construction, are handed over to the KOUGA MUNICIPALITY upon completion of construction, which should include design drawings of formwork, false work and other permanent and temporal structures.

2.3.15 EMERGENCY PROCEDURES

The PRINCIPAL CONTRACTOR shall submit a detailed Emergency Procedure for approval by the KOUGA MUNICIPALITY prior to commencement on site. The procedure shall detail the response plan including the following key elements, which needs to be reviewed on a monthly basis:

- List of key competent personnel,
- Details of emergency services envisaged to be used to be available on file and on display. Liaison *with the relevant service providers responsible for emergency procedures essential to ensure that PRINCIPAL CONTRACTOR/CONTRACTORS plan is aligned with the overall emergency plan of the KOUGA MUNICIPALITY,*
- Actions or steps to be taken in the event of the specific types of emergencies,
- Information on hazardous material / situations.
- Information on evacuation routes, periodic drills and assembly points to be displayed and otherwise documented and implemented.

Emergency procedure(s) shall include, but shall not be limited to fire, spills, accidents to employees, use of hazardous substances, bomb threats, major incidents / accidents, etc. The PRINCIPAL CONTRACTOR shall advise the KOUGA MUNICIPALITY in writing forthwith, of any emergencies, together with a record of action taken. A list of all services providers (Fire Department, Ambulance, Police, Medical and Hospital, etc) must be maintained and displayed to site personnel.

2.3.16 FIRST AID BOXES AND FIRST AID EQUIPMENT

The PRINCIPAL CONTRACTOR and all CONTRACTORS must ensure that all working areas are adequately provided with first aid attendants, appointed in writing, whether there are ten (10) employees or less engaged on the contract. The First Aid attendants must be trained in accordance with the requirements set out in the Act with a recognized and accredited service provider. Valid first aid certificates are to be kept on the site safety file.

The PRINCIPAL CONTRACTOR / CONTRACTOR must ensure that first aid boxes are adequately filled as per the annexure listing of General Safety Regulation 3 of the Act and checked monthly of which record must be kept. This is the *minimum* requirement and additional needs be considered in terms of prevailing risk/activities and the first-aid equipment to be available at all times and accessible to all. The KOUGA MUNICIPALITY shall inspect the contents of the first aid box and dressing record from time to time.

2.3.17 ACCIDENT / INCIDENT REPORTING, INVESTIGATION AND STATISTICS

Injuries are to be categorized into first aid, medical, disabling and fatal. The PRINCIPAL CONTRACTOR must stipulate in its Health and Safety plan how it will handle each of these categories.

The appointed investigators of the PRINCIPAL CONTRACTOR or CONTRACTORS must investigate and report on all incidents to the PRINCIPAL CONTRACTOR at least monthly. However, the PRINCIPAL CONTRACTOR and all CONTRACTORS must ensure that incidents are fully investigated within seven days of the incident in the form on Annexure 1 (General Administrative Regulations) and immediately forward a copy of the completed investigation report to the KOUGA MUNICIPALITY, with the original report to be kept on the site Health and Safety file, where it may be accessed by an Inspector of the Department of Labour, Health and Safety Representatives or other interested parties.

All serious incidents reportable in terms of the provision of Section 24 of the OHS Act, 85/1993 must be reported to the local Department of Labour and to the KOUGA MUNICIPALITY in the prescribed manner ***without delay and before disturbing the scene of the accident***. Injured persons may however be removed by qualified emergency personnel**.** Photographs and witness statements need to be taken and sketches made to gather as much information possible during such an emergency and the PRINCIPAL CONTRACTORS must make this available to the KOUGA MUNICIPALITY, who must also be ***notified immediately*** of such an event and the KOUGA MUNICIPALITY reserves the right to participate in all investigations of incidents.

The PRINCIPAL CONTRACTOR and CONTRACTORS must keep updated statistics reflecting on their Disabling Incident Frequency Rate *(DIFR) and Disabling Injury Severity Rate (DISR) and number and type of injury. Record of all injuries other than lost time injuries, such as near misses, first aid and medically treated incidents are also to be kept.

*DIFR (Disabling Injury Frequency Rate) $\frac{\text{DI's x 1 000 000}}{\text{Man-hours}}$

DISR (Disabling Injury Severity Rate) $\frac{\text{Days Lost x 1 000 000}}{\text{Man-hours}}$

2.3.18 HAZARDS AND POTENTIAL SITUATIONS

The PRINCIPAL CONTRACTOR shall immediately notify the resident engineer of any hazardous or potentially hazardous situations that may arise during the performance of construction activities, which include the placement of warning signs. PRINCIPAL CONTRACTORS shall notify the KOUGA MUNICIPALITY of such situations.

2.3.19 PERSONAL PROTECTIVE EQUIPMENT (PPE) AND CLOTHING

The PRINCIPAL CONTRACTOR must comply with the requirements of the OHS Act's General Safety Regulation 2, to provide PPE and must identify the specific PPE needs per activity and then issue the PPE accordingly. PPE must be provided to visitors as well by the PRINCIPAL CONTRACTOR and adequate quantities of SANS approved PPE must be available on site at all times.

The PRINCIPAL CONTRACTOR must ensure that adequate training in the use of PPE is provided to all employees, and proof of training shall be kept on the Health and Safety file for auditing purposes.

THE PRINCIPAL CONTRACTOR shall clearly outline procedures to be taken when PPE or clothing are:

- Lost or stolen,
- Worn out or damaged

Replacements must be made immediately and in line with the requirements of the Act. The above procedure applies to CONTRACTORS and their SUB-CONTRACTORS, as they are all Employers in their own right.

PPE required: (but not limited to)

- Hard Hats
- Overalls
- Safety shoes
- Hearing protection
- Eye protection
- Reflective vests
- Dust masks
- Safety Harnesses

2.3.20 OCCUPATIONAL HEALTH AND SAFETY SIGNAGE

The PRINCIPAL CONTRACTOR must provide adequate on-site health and safety signage, as per risk identified, including ***but not limited*** to the following signs

- Name of company and project
- Emergency contact telephone numbers
- Names of Supervisor, Health and Safety Representative and First Aider
- no unauthorized entry
- report to site office
- required PPE on site
- site office
- beware of overhead work
- hard hat area
- deep excavations
- "construction work" signage
- Traffic accommodation signage

Signage shall be posted up at all entrances to site as well as on site in strategic locations. The PRINCIPAL CONTRACTOR and CONTRACTORS shall also maintain the signage to ensure its effectiveness at all times and under all conditions. Signage, which cannot be repaired or are lost/stolen, must be replaced.

2.3.21 CONTRACTORS AND SUB-CONTRACTORS

- The PRINCIPAL CONTRACTOR shall ensure that all CONTRACTORS appointed by him/her comply with this Specification, the OHS Act 85/1993, Construction Regulations (2014), and all other relevant legislation that may relate to their activities directly or indirectly. The CONTRACTOR, when appointing other CONTRACTORS as 'SUB-CONTRACTORS", shall mutatis mutandis ensure compliance as if it was the PRINCIPAL CONTRACTOR.
- The PRINCIPAL CONTRACTOR may only appoint a CONTRACTOR after approving the CONTRACTOR'S health & safety plan. The PRINCIPAL CONTRACTOR must audit each of its CONTRACTORS on a monthly basis, with audit reports filed in the health & safety file on site. The audit must include an administrative assessment as well as a physical inspection of the CONTRACTOR'S health & safety system.
- The PRINCIPAL CONTRACTOR must stop any CONTRACTOR from carrying out construction work that is not in accordance with the PRINCIPAL CONTRACTOR'S or CONTRACTOR'S health & safety plan or if there is an immediate threat to the health and safety of persons.
- The PRINCIPAL CONTRACTOR shall take all reasonable steps necessary to ensure co-operation between all CONTRACTORS to enable each of those CONTRACTORS to comply with the provisions of these regulations;
- The PRINCIPAL CONTRACTOR shall take all reasonable steps to ensure that each CONTRACTOR'S health and safety plan is implemented and maintained on the construction site: Provided that the steps taken shall include periodic audits at intervals mutually agreed upon between the PRINCIPAL CONTRACTOR and CONTRACTORS, but at least once every month;
- The PRINCIPAL CONTRACTOR must ensure that where changes are brought about to the design and construction, that sufficient health and safety information and appropriate resources are made available to CONTRACTORS so as to allow them to execute the work safely;
- The PRINCIPAL CONTRACTOR must ensure that every CONTRACTOR is registered and in good standing with a recognized compensation fund or with a licensed compensation insurer prior to work commencing on site;
- The PRINCIPAL CONTRACTOR must ensure that potential CONTRACTORS submitting

tenders have made separate provision for the cost of health and safety measures during the construction process; The PRINCIPAL CONTRACTOR shall discuss and negotiate with the CONTRACTOR the contents of the health and safety plan and shall finally approve that plan for implementation;

- The PRINCIPAL CONTRACTOR shall hand over a consolidated health and safety file to the KOUGA MUNICIPALITY upon completion of the construction work and shall include a record of all drawings, designs, materials used and other similar information concerning the completed structure;
- The PRINCIPAL CONTRACTOR shall not appoint a CONTRACTOR to perform construction work unless the PRINCIPAL CONTRACTOR is reasonably satisfied that the CONTRACTOR he or she intends to appoint has the necessary competencies and resources to perform the construction work safely.
- The PRINCIPAL CONTRACTOR must co-operate with the KOUGA MUNICIPALITY at all times and incorporate in the health and safety plan any additional requirements/ precautionary measures that may become necessary in the interest of health and safety of employees, visitors, members of the public or other affected parties. The anticipation of new or potential risks may therefore necessitate the immediate review of the health and safety plan on realization of such need by the PRINCIPAL CONTRACTOR, subsequent CONTRACTOR or by the KOUGA MUNICIPALITY.

2.3.22 CONSTRUCTION SAFETY OFFICER

The Principal Contractor is to appoint a **part time construction safety officer** in writing to assist in the control of all safety related aspects on site. It is compulsory to provide the name and CV of your appointed, competent construction safety officer to the KOUGA MUNICIPALITY, prior to work commencing on site. The Safety Officer shall have a minimum qualification of SAMTRAC and/or NEBOSH IGCC and relevant site experience and be registered with the SACPCMP.

The construction safety officer must assist with the control of all safety related aspects on site and be utilised to provide input at early stages of the project, to assist in compiling the health and safety plan. In addition his/her duties to include:

a) Health and safety audits and inspections including administrative and physical audits of all CONTRACTOR'S health and safety plans, files and activities, and record findings in the form of audit reports that are to be kept in the health and safety file;

b) Maintain the PRINCIPAL CONTRACTOR'S health and safety plan and file and make documents available on request of the KOUGA MUNICIPALITY;

c) Assist with investigations of near misses, incidents and injuries;

d) Co-ordinate the function of reviewing the hazard identifications and risk assessments;

e) Assisting with method statements (safe work procedures) and checking that the responsible persons follow these procedures**.**

f) Assist with the implementation, monitoring and enforcement of occupational health and safety control measures in order to minimize all risks.

2.4 PHYSICAL REQUIREMENTS

2.4.1 EXCAVATION, SHORING, DEWATERING OR DRAINAGE (CR13)

The PRINCIPAL CONTRACTOR shall make provision in the tender for adjacent barricading, shoring within, and dewatering or drainage of any excavation that requires it, unless otherwise stipulated elsewhere in the contracts. If an excavation is more than 1 meter deep, a safe working procedure shall be submitted to the KOUGA MUNICIPALITY and a permit will be issued to the CONTRACTOR to proceed with the excavation work. The CONTRACTOR shall make sure that:

(1) A contractor must –
   (a) Ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing for that purpose; and
   (b) Evaluate, as far as is reasonably practicable, the stability of the ground before excavation work begins.

(2) A contractor who performs excavation work –
   (a) Must take reasonable and sufficient steps in order to prevent, as far as reasonably practicable, any person from being buried or trapped by a fall or dislodgement of material in an excavation;
   (b) May not require or permit any person to work in an excavation which has not been adequately shored or braced: Provided that shoring and bracing may not be necessary where _
      (i) The sides of the excavation are sloped to at least the maximum angle of repose measured relative to the horizontal plane; or
      (ii) Such an excavation is in stable material: provided that –
      (aa) permission has been given in wiring by the appointed competent person contemplated in sub regulation (1) upon evaluation by him or her of the site conditions; and
      (bb) where any uncertainty pertaining to the stability of the soil still exists, the decision from a professional engineer or a professional technologist competent in excavations is decisive and such a decision must be noted in writing and signed by both the competent person contemplated in sub regulation (1) and the professional engineer or technologist, as the case may be;
   (c) Must take steps to ensure that the shoring or bracing contemplated in paragraph (b) is designed and constructed in a manner that renders it strong enough to support the sides of the excavation in question;
   (d) Must ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it may cause its collapse and consequently endangers the safety of any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing;
   (e) Must cause convenient and safe means of access to provided to every excavation in which persons are required to work, and such access may not be further than six meters from the point where any worker within the excavation is working;
   (f) Must ascertain, as far as is reasonably practicable, the location and nature of electricity, water, gas or other similar services.
   (g) Must ensure that every excavation, including all bracing and shoring, is inspected –
      - Daily, prior to the commencement of each shift;
      - After every blasting operation;
      - After an unexpected fall of ground;
      - After damage to supports; and
      - After rain.

      By the competent person.

   (h) Must cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be –
      - Adequately protected by a barrier or fence of at least one meter in height and

as close to the excavation as is practicable; and
- Provided with warning illuminants or any other clearly visible boundary indicators at night or when visibility is poor.

All excavations to be closed as soon as possible. Detailed planning is required by the Principal Contractor.

2.4.2 TUNNELLING (CR15)

No person may enter a tunnel, which has a height dimension of less than 800 millimetres.

2.4.3 STACKING OF MATERIALS

The PRINCIPAL CONTRACTOR and other relevant CONTRACTORS must ensure that all stacking will be supervised by a competent person that is appointed in writing to supervise over the activities, and that clearly defined and allocated storage areas are provided for and identified. All materials being stored within this area must be stacked in accordance with sound stacking principles of sort-by-sort, maintained access, level surfaces, and a height to base ratio of no more than three. Double handling of material should be avoided and for this purpose, pallets and other stacking options should be used.

Housekeeping must also be maintained at all times as this will be inspected and evaluated by the KOUGA MUNICIPALITY during monthly audits.

2.4.4 SPEED RESTRICTIONS AND TRAFFIC ACCOMODATION

The PRINCPAL CONTRACTOR must develop a detailed traffic management plan which must work in correlation with the South African Road Traffic Manual. The traffic management plan and applicable drawings must be approved by the local traffic department and KOUGA MUNICIPALITYs Agent.

The PRINCIPAL CONTRACTOR shall ensure that all persons in its employ, all CONTRACTORS and all those that are visiting the site are aware and comply with the speed regulations.

Contractor to ensure a traffic management plan be submitted to the OHS Agent to ensure that construction vehicles adhere to the required speeds and access routes.

2.4.5 HAZARDOUS CHEMICAL SUBSTANCES (HCS)

The PRINCIPAL CONTRACTOR and other relevant CONTRACTORS shall provide the necessary training and information regarding the use, transport and storage of HCS. The PRINCIPAL CONTRACTOR shall ensure that the use, transport and storage of HCS are carried out as prescribed by the HCS Regulations. The CONTRACTOR shall ensure that all hazardous chemicals on site have a Material Safety Data Sheet (MSDS) on site and that the users are made aware of the hazards and precautions that need to be taken when using the chemicals. The first aiders must be made aware of the MSDS and how to treat HCS incidents appropriately. The KOUGA MUNICIPALITY must be afforded access to HCS records and MSDS's at all times.

Fuel / Diesel

- Bulk storage areas must be demarcated, secured and signage displayed with the relevant warning pictograms.
- Bulk storage areas must be adequately bunded to ensure containment of 110% of the stored product.
- Re-fuelling must be conducted in designated re-fuelling areas only.
- Receptacles must be earthed during decanting.

- Spill-kits must be available at all times in these designated areas.
- The surface of the bunded areas and walls must be of impermeable material.
- The bunded area must be sloped towards a collection pit.
- Adequate firefighting equipment must be provided at such areas.

2.4.6 STRUCTURES (CR11) AND EXISTING STRUCTURES

(1) A PRINCIPAL CONTRACTOR must ensure that –
   (a) All reasonably practicable steps are taken to prevent the uncontrolled collapse of any new or existing structure or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work;
   (b) No structure or part of a structure is loaded in a manner which would render it unsafe; and
   (c) All drawings pertaining to the design of the relevant structure are kept on site and are available on request to an inspector, other contractors, the KOUGA MUNICIPALITY and the KOUGA MUNICIPALITY's agent for employee.

Any adjacent structures that may be affected by work must be considered in the planning process. The health and safety of occupants must be regarded. Precautionary measures must be detailed and applied to prevent damage and/or loss to property and persons during the entire construction phase. Where a serious risk of damage to existing structures is likely, an assessment by means of a structural inspection and report shall be compiled by a competent person and forwarded to the KOUGA MUNICIPALITY and PRINCIPAL CONTRACTOR before any persons are exposed to the risk. Inspections of these existing structures must be conducted in compliance with the recommendations of the same competent person. All relevant health & safety information must be brought to the attention of the PRINCIPAL CONTRACTOR and CONTRACTORS forthwith.

2.5 PLANT AND MACHINERY

2.5.1 CONSTRUCTION PLANT – CR 23

Construction Plant includes all types of plant including but not limited to cranes, piling rigs, excavators, road vehicles and all lifting equipment.

The PRINCIPAL CONTRACTOR must ensure that all such plant complies with the Requirements of the OHS Act 85/1993, Driven Machinery Regulations and Construction Regulations (2014) in relation to its operation and maintenance thereof.

- Records of service and maintenance of the vehicles must be of a high standard at all times.
- All plant shall, subject to design, be fitted with back-up alarms and audible indicating devices.
- The PRINCIPAL CONTRACTOR and CONTRACTORS shall ensure that all construction plant's moving parts are adequately protected.
- Pre-start inspections shall be conducted on all motorised equipment daily: deviations of such inspections shall be recorded.
- Construction plant identified for use shall only be operated by a trained and authorised operator.
- All construction plant shall be operated under the direct supervision of a person competent to identify potential hazards involved in the work he/she is conducting.
- Work involving the use of construction plant shall be conducted in accordance with an approved Risk Assessment.

- The PRINCIPAL CONTRACTOR and CONTRACTORS shall ensure all operators are equipped with the necessary PPE namely; safety shoes, overall, safety glasses, gloves and additional equipment identified as per risk assessment.
- All Plant shall be fitted with an extinguisher where practicable.
- Washing shall be conducted in the designated washing areas.
- The PRINCIPAL CONTRACTOR and CONTRACTORS shall ensure that all equipment moving to and from site is adequately secured.
- Load test certificates of all lifting equipment must be available on site.

The PRINCIPAL CONTRACTOR and all relevant CONTRACTORS shall inspect and keep records of inspections of the construction plant used on site. Only authorized / competent persons are to use machinery under proper supervision and The PRINCIPAL CONTRACTOR and all relevant CONTRACTORS must provide proof of ***medical and psychological fitness including training of all operators*** engaged in the construction activity. Appropriate PPE and clothing must be provided and maintained in good condition at all times, as legally required.

2.5.2 PRESSURE EQUIPMENT AND GAS BOTTLES

The PRINCIPAL CONTRACTOR and all relevant CONTRACTORS shall comply with the Pressure Equipment Regulations, including:

- Ensuring all vessels owned and hired, comply with the 36-month pressure vessel inspection requirement, and a certificate of testing is available on site for inspection by the KOUGA MUNICIPALITY.
- Ensuring that all personnel who shall use this equipment are competent and trained.
- Ensuring the users of this equipment are issued with the required PPE.
- Ensuring the area is adequately identified as a noise area and warnings are posted.
- Ensuring daily pre-start inspections are carried out on all the equipment and the findings recorded.
- Ensuring the correct fire prevention and fighting equipment is available at all times.
- Noise levels where possible shall be kept within reasonable operating norms.
- Ensure proper use and storage of gas during construction, which may include trolleys upon which bottles are moved and chains to prevent bottles falling over.
- Ensure that flash back arrestors are affixed where applicable.

(7) The inspection of these activities must be included in the PRINCIPAL CONTRACTOR'S monthly safety inspections/audits.

2.5.3 FIRE EXTINGUISHERS AND FIRE FIGHTING EQUIPMENT

The PRINCIPAL CONTRACTOR and relevant CONTRACTORS shall provide adequate and serviced firefighting equipment located at strategic points on site. The appropriate notices and signs must be displayed as required.

The PRINCIPAL CONTRACTOR / CONTRACTOR shall ensure that all fire equipment to be used on site comply with the following:

- Extinguishers shall be placed in positions to ensure that fast and easy access is maintained at all times.
- Placement of all extinguishers shall be depicted with the required pictograms.
- Extinguishers specific to the classes of fire likely to occur to be installed.

- Extinguishers shall be inspected monthly and serviced once annually, and after discharge or visible signs of depressurizations.
- The PRINCIPAL CONTRACTOR / CONTRACTOR shall ensure all employees are adequately trained in the safe use of the extinguishers and proof of training is kept on site for inspection by the KOUGA MUNICIPALITY.
- The PRINCIPAL CONTRACTOR / CONTRACTOR shall ensure a person is appointed to inspect the extinguishers on a monthly basis and the results of which are to be entered into a register designed for that purpose.

2.5.4 CONSTRUCTION VEHICLES AND MOBILE PLANT (CR23)

The PRINCIPAL CONTRACTOR shall ensure that any hired plant and machinery used on site is safe for use. The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations 23 (2014) shall apply**.** The PRINCIPAL CONTRACTOR / CONTRACTOR shall ensure the following criteria is adhered to when considering the use of Construction Vehicles and mobile plant:

A contractor must ensure that all construction vehicles and mobile plant –

(a) Are of an acceptable design and construction;
(b) Are maintained in a good working order;
(c) Are used in accordance with their design and the intention for which they were designed, having due regard to safety and health;
(d) Are operated by a person who –
    (i) Has received appropriate training, is certified competent and in possession of proof of competency and is authorized in wiring to operate those construction vehicles and mobile plant;
    (j) Has a medical certificate of fitness to operate those construction vehicles and mobile plant, issued by an occupational health practitioner in the form of Annexure 3.
(e) Have safe and suitable means of access and egress;
(f) Are properly organized and controlled in any work situation by providing adequate signalling or other control arrangements to guard against the dangers relating to the movement of vehicles and plant, in order to ensure their continued safe operations;
(g) Are prevented from falling into excavations, water or any other area lower than the working surface by installing adequate edge protection, which may include guardrails and crash barriers;
(h) Are fitted with structures designed to protect the operator from falling material or from being crushed should be vehicle or mobile plant overturn;
(i) Are equipped with an acoustic warning device.
(j) Are equipped with an automatic acoustic reverse alarm; and
(k) Are inspected by the authorized operator or driver on a daily basis using a relevant checklist prior to use and that the findings of such inspection are recorded in a register kept in the construction vehicle or mobile plant.

2.5.5 TEMPORARY WORKS (CR12)

The PRINCIPAL CONTRACTOR must appoint a temporary works designer in writing to design, inspect and approve the erected temporary works on site before use.

The PRINCIPAL CONTRACTOR must ensure that the provisions of section 12 of the Construction Regulations (2014) are adhered to. These provisions must include, but not be limited to, ensuring that all equipment used is examined for suitability before use, that all formwork and support work is inspected by a competent person immediately before, during and after placement of concrete or any other imposed load and thereafter on a daily basis until the formwork and support work has been removed. Records of all inspections must be kept in a register on site.

All temporary works structures are done with close reference to the structural design drawings, and

where any uncertainty exists the structural designer should be consulted.

Detailed activity specific drawings pertaining to the design of temporary works structures are kept on the site and are available on request to an inspector, other contractors, the KOUGA MUNICIPALITY, the KOUGA MUNICIPALITY's agent or any employee.

All persons required to erect, move or dismantle temporary works structures are provided with adequate training and instruction to perform those operations safely.

All equipment used in temporary works structure are carefully examined and checked for suitability to a competent person, before being used;

2.5.6 LIFTING MACHINES AND TACKLE

The PRINCIPAL CONTRACTOR and all CONTRACTORS must ensure that lifting machinery and tackle is inspected before use and thereafter in accordance with the Driven Machinery Regulations and Construction Regulation 22 (2014). There must be competent lifting machinery and lifting tackle inspectors who must inspect the equipment daily or before use, taking into account that:

- All lifting machinery and tackle must carry a load test certificate renewed annually and must have an inspection register.
- All lifting machinery and tackle has a safe working load clearly indicated,
- Monthly inspection and servicing is carried out and daily pre-start checks shall also be conducted on all Lifting Machinery and Tackle,
- There is proper supervision in terms of guiding the loads that includes a trained banks man to direct lifting operations and check lifting tackle,
- The tower crane bases have been approved by an engineer,
- The operators are competent as well as physically and psychologically fit to work and in possession of a medical certificate of fitness which shall be available on site.
- A valid logbook shall be maintained for all lifting machinery, which will comply with a minimum six-monthly service and maintenance.

2.5.7 LADDERS AND LADDER WORK

- The PRINCIPAL CONTRACTOR shall ensure that all ladders are clearly numbered, inspected and reflected on a register.
- A competent person shall be identified and appointed as the ladder inspector.
- Where aluminium ladders cannot be used, then wooden ladders shall be straight grained and unpainted to allow for proper inspection of the grain for cracking.
- Ladders shall be secured at the top and chocked at the base to prevent slipping.
- Where chocking of the base is not possible, then the user shall ensure that the ladder is held in position by another employee when ascending the ladder.
- Ladders shall be inspected daily before use and once per month by the person appointed as the ladder inspector, and a record kept.
- Proper storage shall be provided for all ladders when not in use.
- Ladders must be of the correct height for the task, extended at least 1m above the landing, fastened and secured, and at a safe angle.
-

2.5.8 GENERAL MACHINERY

The PRINCIPAL CONTRACTOR and relevant CONTRACTORS shall ensure compliance with the

Driven Machinery Regulations and General Machinery Regulations which include inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE or clothing, and training those who operate machinery.

(8) In accordance with General Machinery Regulation 2(1), The PRINCIPAL CONTRACTOR /CONTRACTOR must:

- Ensure a competent person be appointed as defined in the above clause from the Occupational Health and Safety Act, Act 85 of 1993 and Regulations, to service and maintain all machinery in use on site.
- The PRINCIPAL CONTRACTOR / CONTRACTOR shall appoint additional competent persons to assist the competent person mentioned above in accordance with General Machinery Regulation 2(7)(a), as and when required.
- The PRINCIPAL CONTRACTOR / CONTRACTOR shall ensure that records are maintained of all services conducted.
- The PRINCIPAL CONTRACTOR / CONTRACTOR shall provide to the KOUGA MUNICIPALITY a copy of the above appointments prior to work commencing on site.

2.5.9 PORTABLE ELECTRICAL TOOLS, EXPLOSIVE POWER TOOLS, HAND TOOLS

(9) The PRINCIPAL CONTRACTOR / CONTRACTOR must ensure the following procedure is adhered to regarding Portable Electrical Tools and Hand tools:

(10)

- Minimum compliance with legislation;
- Power tools to be well guarded, not over loaded and earthed.
- No work under wet conditions allowed with power tools.
- Only competent persons shall be permitted to conduct routine and monthly inspections on the equipment.
- Persons competent to inspect the equipment must be appointed in writing.
- Persons must be trained to operate such equipment and must be appointed and shall be the only authorised person to operate the equipment.
- The PRINCIPAL CONTRACTOR / CONTRACTOR must ensure operation of the equipment is in accordance with an approved Risk Assessment and Safe Working Procedure.
- All users must undergo regular awareness training to ensure compliance.
- The PRINCIPAL CONTRACTOR / CONTRACTOR must ensure the required PPE and clothing is provided and maintained.
- No privately owned or home- made hand tools to be used on site.
- All hand tools to be kept in a clean and sound condition.
- The right tools for the task to be used.

2.5.10 ELECTRICAL EQUIPMENT AND INSTALLATIONS (CR24)

If high voltage electrical lines are present on the site perimeter, the PRINCIPAL CONTRACTOR must be aware of the location and have to demarcate their position. These demarcations must be maintained throughout the duration of the construction work. The minimum safety clearances as per Electrical Machinery Regulation 15 must be adhered to. All installation must comply with SANS 10142 and the regulations of the OHS Act 85/1993.

The PRINCIPAL CONTRACTOR / CONTRACTOR must ensure lighting circuits and power circuits

are fitted with suitable earth leakage protection systems and installed by an approved authority.

The PRINCIPAL CONTRACTOR / CONTRACTOR must ensure that

- Earth leakage system will be tested monthly.
- A temporary certificate of compliance is obtained.
- All existing services must be assumed live at all times.
- Malfunctions shall be repaired immediately or replaced.
- Lighting shall be so positioned as not to interfere with construction activities.
- Lighting shall be provided to ensure adequate visibility under all conditions.
- Lighting and electrical installations shall be weatherproof.
- The PRINCIPAL CONTRACTOR / CONTRACTOR must ensure operation of the equipment is in accordance with an approved Risk Assessment and Safe Working Procedure.
- All users must undergo regular awareness training to ensure compliance.
- The PRINCIPAL CONTRACTOR / CONTRACTOR must ensure the required PPE and clothing is provided and maintained.
- The PRINCIPAL CONTRACTOR / CONTRACTOR must ensure the use of flameproof equipment when entering confined spaces where volatile gasses may be present.

2.5.11 PUBLIC AND SITE VISITOR HEALTH AND SAFETY

The PRINCIPAL CONTRACTOR shall ensure that every person working on or visiting the site, as well as the public in general, shall be made aware of the dangers likely to arise from site activities, including the precautions to be taken to avoid or minimise those dangers.

Appropriate Health and Safety notices and signs shall be displayed, but shall not be the only measure taken. The PRINCIPAL CONTRACTOR has a duty in terms of the OHS Act 85/1993 to do all that is reasonably practicable to prevent members of the public and site visitors from being affected by the construction activities. Site visitors must be briefed on the hazards and risks they may be exposed to and what measures are in place or should be taken to control these hazards and risks. A record of these inductions must be kept on site in accordance with the Construction Regulations. The PRINCIPAL CONTRACTOR to ensure that no unauthorized persons enter the construction area.

The contractor to ensure that the public's safety is of the utmost importance. The public must be informed of all expected risk during the construction period. All warning signage and barricading to be in place. Photographic evidence to be maintained of barricaded excavations.

2.5.12 NIGHT WORK

Night work shall only be conducted upon approval of the KOUGA MUNICIPALITY, with the same safety standard being applied for these activities as required for day work activities.

The PRINCIPAL CONTRACTOR must ensure that adequate lighting is provided to allow for work to be carried out safely and to safeguard the health and safety of persons other than employees, e.g. visitors and members of the public. Adequate warning signs e.g. flashing lights and reflectors to be provided to ensure visibility and to serve as warning to employees and other persons in the area of the construction site after dark. In the event where night work is not performed, the construction site may still pose a danger under poor visibility conditions and such warning signs shall then also be displayed.

2.5.12 TRANSPORT OF WORKERS

No worker may be transported in, or on the rear of a construction vehicle (bakkie included), or with plant and materials to, on, or from site. The number of passengers in any vehicle is limited to what is stated on the license disc.

2.6 OCCUPATIONAL HEALTH

2.6.1 OCCUPATIONAL HEALTH AND HYGIENE

As per CR(7) A CONTRACTOR must ensure that all his employees have a valid medical certificate of fitness to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.

(11) Exposure of workers to occupational health hazards and risks is very common in any work environment, especially in construction. Occupational health hazards must also be considered during risk assessments as occupational exposure is a major problem and PRINCIPAL CONTRACTORS and CONTRACTORS must ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards. Prevent inhalation, ingestion, absorption and noise.
(12)
(13)

2.6.2 ALCOHOL AND OTHER DRUGS

The PRINCIPAL CONTRACTOR must not permit any person who is under the influence of an intoxicating liquor or drugs, to enter or remain on site. The PRINCIPAL CONTRACTOR must ensure that no person on site partakes or offer another person the same or is in possession of such intoxicating liquor or drugs.

Any person suspected of being under the influence of alcohol or other drugs must be refused entry and the prescribed disciplinary procedure must be followed by the PRINCIPAL CONTRACTOR and the KOUGA MUNICIPALITY must be informed. Records of such proceedings must be kept and made available to the KOUGA MUNICIPALITY on request.

An alcohol tester to be available on site.

ANNEXURE A - (Example)

Contents and numbering system for the health and safety plan and file

No.	Content			Approved Yes No
1	Index to H&S File			
2	Scope of Works			
3	Notification to Commence Construction Work			
4	H&S Agreement Section 32(2)			
5	Letter of Good Standing			
6	H&S Plan	6.1	Refer to H&S Specification	
		6.2	Environmental Management Plan (Process waste management/spillage control/ disposal certificates)	
		6.3	Fall Protection Plan	
7	Hazard Identification Risk Assessment & Applicable Method Statements	7.1	Baseline Risk Assessment	
		7.2	Issue Based Risk Assessment	
		7.3	Risk Register	
8	Method Statements			
9	Safe Working Procedures			
10	Traffic Management Plan			
11	Emergency Plan and Response			
12	H&S Policy	9.1	Signed by CEO	
13	Organisational Chart			
14	Appointment Letters	11.1	Signed	
15	Medical Certificates	12.1	Mobile plant & equipment	
		12.3	Confined Space entry	
		12.4	All employees involved with construction work.	
16	Training and Competency Management	13.1	CV's	
		13.2	Competency Certificates	
		13.3	Induction	
		13.4	Safety/Tool Box Talks	

		13.5	Safety Awareness Posters	
17	Accident / Incident Management including First Aid Facilities	14.1	Section 24 Procedures – Annexure 1 & WCL2	
		14.2	Injury recording	
		14.3	Incident investigation	
		14.4	Non compliance reporting	
		14.5	Preventative & corrective action	
18	Construction Plant, Machinery & Equipment Management	15.1	Vehicles/ Mobile Crane/ Skyjacks & Material Hoist / Compactors / TLB's / Batch plant etc	
19	Access, Traffic Control & Public Safety Management	16.1	Security	
		16.2	Employee / Visitors / Public	
		16.3	Vehicular	
20	Hazardous & Flammable Substance Management	17.1	MSDS	
		17.2	Storage	
		17.3	Demarcation	
		17.4	Signage	
		17.5	Handling & Decanting	
		17.6	Disposal	
21	Hazardous & Dangerous Work Management & Control	18.1	Confined Spaces	
		18.2	Demolition Work	
		18.3	Electrical Installations, Equipment & Machinery	
		18.4	Explosive & Blasting	
		18.5	Explosive Powered Tools	
		18.6	Excavation / Trenching	
		18.7	Energy Source & Lockout	
		18.8	Elevated Working at Heights	
		18.9	Formwork & Support work	
		18.10	Hot Work	
		18.11	Hazardous Chemical Substances	
		18.12	Moving Equipment	
		18.13	Scaffolding	

22	Facilities Management (male / female)	19.1	Washing	
		19.2	Sanitary	
		19.3	Change Rooms	
		19.4	Sheltered Eating	
		19.5	Accommodation / Transportation	
22	PPE Management	20.1	PPE Needs analysis	
		20.2	PPE Issue	
23	Sub Contractor Management	21.1	H&S Agreement Section 37(2) Signed	
		21.2	Appointments signed	
		21.3	H&S Plan and File approved	
		21.4	Letter of Good Standing	
24	H&S Committee Meeting minutes			
25	Work Instructions			
26	Audits & Inspections		Internal & External	
27	Record keeping management		Completed Audit / Inspections / Registers / Checklists	

ANNEXURE B

APPOINTMENT LETTERS REQUIRED (Example)

No.	DESIGNATION	LEGAL REFERENCES	TYPE OF CONSTRUCTION WORK
1	Assigned Responsibility Designation	OHS Act 16(2) & CR5.3(b)	All construction work
2	Construction Manager	CR8(1)	All construction work
4	Assistant Construction Manager	CR8(2)	All construction work
5	Contractor	CR5(1)(k)	When using a sub contractor
6	Emergency Evacuation Controller	CR29(1)	All construction work
7	Fire extinguisher inspector	CR29(h) – VUPR11	All construction work
8	Fire team member	CR29	All construction work
8	First Aider	GSR3	All construction work
9	Health and Safety Officer	CR8(5)	All construction work
10	Health and Safety Reps	OHS Act Section 17	When more than 20 persons on site for more than 3 months
11	H&S Committee Members	OHS Act Section 19	When more than 20 persons on site for more than 3 months
12	Incident Investigator	GAR9	All construction work
13	Excavation work supervisor	CR13	When excavating
14	Risk Assessor	CR9	All construction work
15	Demolition work supervisor	CR12	When demolishing
16	Explosives Manager	Exp R 12(1)	When using explosives for blasting
17	Explosives Supervisor	Exp R 12(3)	When using explosives for blasting
18	Fall Protection Plan developer	CR8(1)(a)&(b)	When there is a risk of persons falling
19	Fall Protection Plan supervisor	CR8(1)(a)&(b)	When there is a risk of persons falling
20	Bulk Mixing Plant Supervisor	CR20(1)	When operating a batch plant
21	Batch Plant operator	CR20(1)(2)	When operating a batch plant
22	Construction Vehicle & Mobile Plant Inspector	CR23(1)(k)	When using construction vehicles; and when using mobile plant
23	Construction Vehicle & Mobile Plant Operators	CR23(1)	When using construction vehicles; and when using mobile plant
24	Electrical Installation Inspector	CR24	When any electrical installations are brought to site or used on site or installed on site
25	Explosive Powered Tools Inspector	CR21	When explosive powered

			tools are used
26	Explosive Powered Tools Controller / Issuer	CR21	When explosive powered tools are used
27	Explosive Powered Tools Operator	CR21	When explosive powered tools are used
28	Temporary Works Inspector	CR12(3)(f)	When form work is used; and when support work is used
29	Temporary Works Supervisor	CR12(2)	When formwork and support work is being used.
29	Ladder Inspector	GSR13A	When ladders are used
30	Lifting Machine & Equipment Inspector	DMR18(5)	When cranes, block and tackle, gantries or A frames are used for lifting; or when riggings is done
31	Lifting Machine Operator	DMR18	When cranes, block and tackle, gantries or A frames are used for lifting; or when riggings is done
32	Material Hoist Operator	CR19	When material hoist is used
33	Mixer Operator	CR120	When a concrete mixer is used
34	Portable Electrical Equipment Inspector	EMR9	When portable electrical equipment is used
35	Pressure Vessel Inspector	VUPR 17	When compressors with pressure vessels are used
36	Scaffold Erector	SANS 10085-1:2003 Item 16.1(a)	When scaffolds are used / different person to be inspector
37	Scaffold Inspector	SANS 10085-1:2003 Item 16.1(c) CR16(1)	When scaffolds are used / different person to be the erector
38	Scaffold Supervisor	CR16(1)	When scaffolds are used
39	Scaffold Team Leader	SANS 10085-1:2003 Item 16.1(b) and 10.11	When scaffolds are used
40	Suspended Platform Operational Compliance Plan Developer	CR15(2)(c)	When suspended platforms are used
41	Suspended Platform Erector	Cr15(2)	When suspended platforms are used
42	Suspended Platform Inspector	CR15(10)	When suspended platforms are used
43	Stacking & Storage Supervisor, including chemicals	CR28	All construction work
44	Hazardous & flammable chemical substances controller	CR25(a)	All construction work
44	Tower Crane Operator	CR22	When tower cranes are used
45	Tower Crane Inspector	DMR18 and CR22	When tower cranes are used

C3.5: MANAGEMENT

C3.5.1 MANAGEMENT OF THE WORKS

C3.5.1.1 Applicable SANS standards

As specified under Clause C3.4

C3.5.1.2 Particular / generic specifications

As specified under Clause C3.4

C3.5.1.3 Planning and Programming

Refer Clause 5.6 of the Conditions of Contract.

If the programme submitted by the Contractor in terms of Clause 5.6 of the Conditions of Contract has to be revised because the Contractor is falling behind in his programme, he shall submit a revised programme of how he intends to regain lost time to ensure completion of the Works within the period defined in Clauses 5.12 of the Conditions of Contract or within a granted extension of time.

Proposal to increase the tempo of work must incorporate positive steps to increase production either by more labour and plant on the Site, or by using the available labour and plant in a more efficient manner.

Failure on the part of the Contractor to submit or to work according to the programme or revised programmes shall be sufficient reason for the Employer's Agent to take steps as set out in Clause 9.2 of the Conditions of Contract.

The approval of a programme by the Employer's Agent shall have no contractual significance other than that the Employer's Agent will be satisfied if the work is carried out according to the programme. The said approval shall not limit the right of the Employer's Agent to instruct the Contractor to vary the programme if necessary.

C3.5.1.4 Sequence of the works

To be determined by the Contractor.

C3.5.1.5 Software application for programming

Not applicable.

C3.5.1.6 Methods and Procedures

The Works shall be executed in terms of the various and applicable specifications, the general health and safety specifications and subsequent health and safety plan, the Conditions of Contract as well as the various clauses within the Scope of Work.

C3.5.1.7 Quality plans and control

Refer the various and applicable specifications, the general health and safety specifications and subsequent health and safety plan, the Conditions of Contract as well as the various clauses within the Scope of Work.

C3.5.1.8 Environment

The Contractor shall, for the duration of the contract, take appropriate measures to control the dust and soil movement which may arise due to his operations.

C3.5.1.9 Accommodation of traffic on public roads occupied by the Contractor

The Contractor shall carry out, erect and maintain such temporary works and provide all temporary road signs, pipes, deviations, warning boards, barricades, signs, lighting and demarcations and the like, as are necessary to maintain and safeguard the normal flow of public and private vehicular and pedestrian traffic.

Work shall be undertaken in accordance with the S.A. Road Traffic Signs Manual and Road Signs Note No. 13, Roadwork (CSRA-CUTA Road Traffic Signs Sub-Committee).

C3.5.1.10 Recording of weather

Refer C3.4.11.

C3.5.1.11 Format of communications

All contractual communication shall be in writing.

The Contractor shall, for the full duration of the Contract Period, supply and maintain the following documentation:

(a) Site Communication and Request Book.
(b) Safety File containing all relevant safety data.
(c) Daily register of all labour, plant and equipment.
(d) Quality Control file containing all quality control/assurance forms and records.
(e) Daily Register of labour and plant status.
(f) One full set of Contract Drawings and documents.
(g) Latest revision of the Construction Programme.

The above-mentioned shall be kept on Site and shall be accessible to the Employer's Agent at all times.

C3.5.1.12 Key personnel

Key personnel shall be on site at all times to control and supervise construction activities.

C3.5.1.13 Management meetings

The Contractor shall have regular site management meeting to coordinate and manage the Works.

Monthly Contract meeting shall be held on site. This meeting shall be chaired by the Employer's Agent.

C3.5.1.14 Forms for contract administration

The Employer, the Contractor and the Employer's Agent shall operate and maintain their own individual contract administration systems.

C3.5.1.15 Electronic payments

The Contractor must ensure that all interim payment certificates are accompanied by a Tax Invoice, with the Contractor's and the Employer's VAT Registration numbers printed thereon, to ensure timeous payment of the certificate. Contractors must allow 30 days from date of invoice for the payment to be effected.

Contractors wishing to be paid electronically must ensure that their correct banking details are also printed on their Tax Invoice.

C3.5.1.16 Daily records

A complete set of daily records indicating labour and plant on site, weather, work performed and any safety incidents, is to be kept on site and must be available for perusal by the Employer's Agent at all times.

C3.5.1.17 Bonds and guarantees

As specified elsewhere.

C3.5.1.18 Payment certificates

As specified elsewhere.

C3.5.1.19 Permits

Not applicable.

C3.5.1.20 Proof of compliance with the law

As specified elsewhere.

C3.5.1.21 Insurance provided by the employer

As specified elsewhere.

C3.5.1.22 "As built information"

As the work progresses, the Contractor shall keep full records of all amendments to and deviations from the drawings as issued to the Contractor at the start of the contract. The true positions, invert levels and ground levels of all services shall be surveyed after construction and indicated on the drawings, for which purpose the Contractor shall receive a separate complete set of drawings at no cost, from the Employer's Agent. The Contractor must provide as-built survey information in digital format. In addition, the Contractor shall provide a copy of all quality control test results signed off by the Employer's Agent as part of the as-built information submission.

The Completion Certificate shall only be issued after the Employer's Agent has received a properly completed set of "As Built" drawings and signed off test results from the Contractor. This set of information shall be approved and signed by the Contractor's Contracts Manager. No additional payment will be entertained as a result of this requirement.

C3.5.1.23 Testing

Process control

The Contractor shall arrange for all tests required for process control to be done by an accredited laboratory acceptable to and approved by the Employer's Agent.

The Contractor may establish his own laboratory on site or he may employ the services of an independent commercial laboratory. Whatever method is used, the Contractor must submit the results of tests carried out on materials and workmanship when submitting work for acceptance by the Employer's Agent. The costs for these tests shall be deemed to be included in the relevant rates and no additional payment will be made for testing as required.

Acceptance control

The process control test results submitted by the Contractor for approval of materials and workmanship may be used by the Employer's Agent for acceptance control. However, before accepting any work, the Employer's Agent may have further control tests carried out by a laboratory of his choice. The cost of such additional tests will be covered by a provisional sum provided in the schedule of quantities, but tests that failed to confirm compliance with the specifications, will be for the account of the Contractor.

C3.5.1.24 Management of EE's/QSE's

The monthly fee shall include full compensation for all guidance, mentoring, training, supervision, setting out and monitoring activities that may be deemed necessary to ensure the Works carried out by EE's/QSE's are in accordance with the technical and OHS specifications and within the agreed timeframes.

C3.5.1.25 Provisional Sum for the Variation in Rates

Works packages will be negotiated with the EEs/QSEs and any variance in the Contractor's agreed rates and the EEs/QSEs rates, both positive and negative will be set off under a provisional item included in the Preliminary and General section of the Bill of Quantities.

C3.5.2 HEALTH AND SAFETY

The Contractor shall comply with the Employers health and safety specifications as specified in Particular Specification PB.

C3.5.2.1 Health and safety requirements and procedures of the employer

(a) In terms of the provisions of Section 37(2) of the Occupational Health and Safety Amendment Act, 1993 (Act 85 of 1993), hereinafter referred to as the Act, the following arrangements and procedures shall apply between the Contractor and the Employer to ensure compliance by the Contractor with the provisions of the Act:

(i) The Contractor undertakes to acquaint the appropriate officials and employees of the Contractor with all relevant provisions of the Act and the Regulations promulgated in terms of the Act.

(ii) The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the Act and Regulations on the Contractor will be fully complied with.

(iii) The Contractor accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the Act and Regulations and expressly absolves the Employer from himself being obliged to comply with any of the aforesaid duties, obligations and prohibitions, with the exception of such duties, obligations and prohibitions expressly assigned to the Employer in terms of the Act and its associated Regulations.

(iv) The Contractor agrees that any duly authorised officials of the Employer shall be entitled, although not obliged, to take such steps as may be necessary to monitor that the Contractor has conformed to his undertakings as described in paragraphs (i) and (ii) above, which steps may include, but will not be limited to, the right to inspect any appropriate site or premises occupied by the Contractor, or any appropriate records or safety plans held by the Contractor.

(v) The Contractor shall be obliged to report forthwith to the Employer and Employer's Agent any investigation, complaint or criminal charge which may arise as a consequence of the provisions of the Act and Regulations, pursuant to work performed in terms of this Contract, and shall, on written demand, provide full details in writing, to the Employer and Employer's Agent, of such investigation, complaint or criminal charge.

(vi) The Contractor shall furthermore, in compliance with Constructional Regulations 2014 (Notice No 10113, dated 7 February 2013) to the Act acquaint himself with the requirements of the Employer's health and safety specification as laid down in regulation 5(1)(b) of the Construction Regulation 2014, and prepare a suitably and sufficiently documented coherent site specific health and safety plan as contemplated in regulation 7(1)(a) of the Construction Regulation 2014 for approval by the Employer or his assigned agent. The Contractor's health and safety plan and risk assessment shall be submitted for approval, to the Employer or his agent, within 14 days of the Commencement Date and shall be implemented and maintained from the commencement of the Works. The Contractor shall at all times be responsible for full compliance with the approved plan as well as with the Construction Regulations and no extension of time will be considered for delays due to non-compliance with the abovementioned plan or regulations.

(vii) The Employer, or his assigned agent, reserves the right to conduct periodic audits, as contemplated in the Construction Regulations 2014, to monitor that the Contractor is compliant in respect of his obligations. Failure by the Contractor to comply with the requirements of these Regulations shall entitle the Employer's Agent, at the request of the Employer or his agent, to suspend all or any part of the Works, with no recourse whatsoever by the Contractor for any damages incurred as a result of such suspension, until such time that the Employer or his agents are satisfied that the issues in which the Contractor has been in default have been rectified.

(viii) The proposed type of work, materials to be used and potential hazards likely to be encountered on this Contract are detailed in the C3.4: Construction, the Bill of Quantities, the Drawings, and in the Employers' health and safety specification (regulation 5(1) of the Construction Regulations 2014).

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

C3.5.2.2 Protection of the public

The Contractor shall at all times ensure that his operations do not endanger any member of the public.

C3.5.2.3 Barricades and lighting

As specified elsewhere.

C3.5.2.4 Traffic control on roads

As specified elsewhere.

C3.5.2.5 Measures against disease and epidemics

As specified elsewhere.

C3.5.2.6 Aids awareness

Not applicable.

THE CONTRACT

PART 4 (OF 4): SITE INFORMATION

C4.1 Scope

C4.2 Subsoil Investigation

C4.2 Finishing-off of the Site

C4.1 SCOPE

For the purposes of the Contract it will be deemed that, prior to submitting his Tender, the Contractor has acquainted himself fully with the information and data provided within the specifications.

The Contractor shall have no claim against the Employer in respect of geotechnical or subsurface conditions encountered during the course of the Contract.

C4.2 SUBSOIL INVESTIGATION

A Geotechnical investigation will be conducted for the pipeline route which will only be available at the time of construction.

C4.3 FINISHING-OFF OF THE SITE

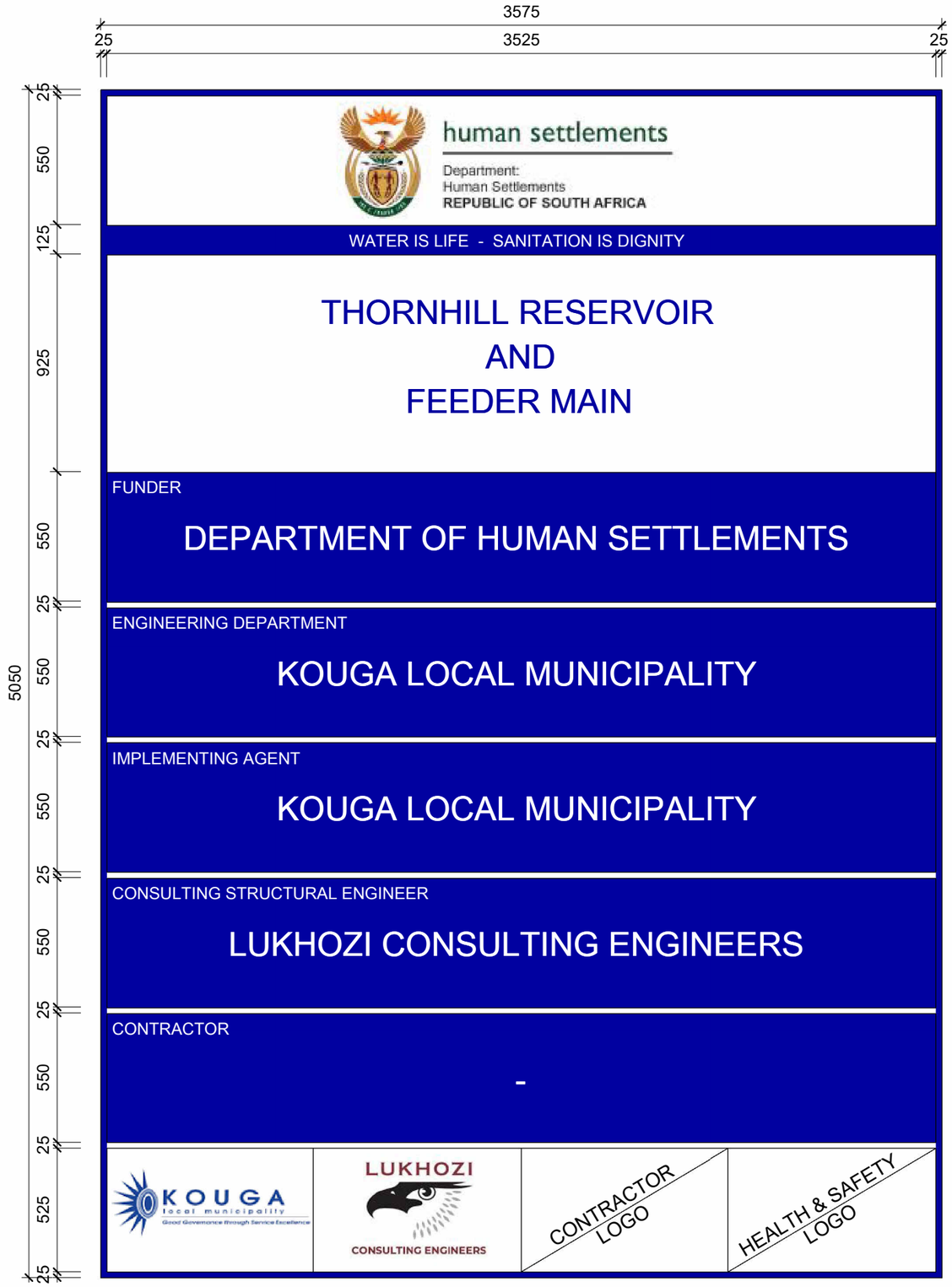
The site shall be finished-off in accordance with the specifications and to the satisfaction of the Employer's Agent.

APPENDIX A

LIST OF TENDER DRAWINGS

List of Tender Drawings:

1. 1811-GEN-A100 – CONTRACT NAMEBOARD
2. 1811-GEN-001 – LOCALITY PLAN
3. 1811-WAT-001 – FEEDER MAIN LAYOUT
4. 1811-WAT-004 – TYPICAL DETAILS (SHEET 1 OF 4)
5. 1811-WAT-005 – TYPICAL DETAILS (SHEET 2 OF 4)
6. 1811-WAT-006 – TYPICAL DETAILS (SHEET 3 OF 4)
7. 1811-WAT-007 – TYPICAL DETAILS (SHEET 4 OF 4)



NOTE:

BLUE BACKGROUND WITH WHITE BLOCKS FOR NAMES OF CONSULTANTS AND CONTRACTORS.

NAME OF CLIENT AND PROJECT DESCRIPTION IN WHITE LETTERING ON BLUE BACKGROUND,
IF REQUIRED THE CLIENT'S LOGO CAN BE PLACED ON A WHITE BACKGROUND IN THE POSITION
AS INDICATED. IF NOT REQUIRED THE BACKGROUND WILL BE BLUE.

THE HEIGHT OF THE BOARD CAN DE INCREASED IN 550mm INCREMENTS TO ALLOW FOR NAMES OF ADDITIONAL CONSULTANTS AND/OR CONTRACTORS E.G. ELECTRICAL ETC.

TYPE FACE TO BE USED SHALL BE NEO SANS OR ARIAL. IT IS RECOMMENDED THAT LETRASIGN, SELF ADHESIVE PVC SIGN LETTERING BE USED.

THE BOARD MATERIAL TO BE 1mm THICK RUST RESISTANT CHROMADEK METAL OR 5mm TEMPERED
HARDBOARD WITH A SMOOTH SURFACE.

THE NOTICE BOARD MUST BE MOUNTED ON A STRONG SUPPORTING WOODEN OR STEEL STRUCTURE,
APPROVED BY THE ENGINEER AND MUST BE PROPERLY MAINTAINED DURING THE CONSTRUCTION PERIOD.
THE BOARD MUST BE REMOVED AFTER THE RETENTION HAS BEEN PAID.

THE LOGO FOR THE CLIENT MUST BE OBTAINED ELECTRONICALLY AND PRINTED IN COLOR ON THE NAME
BOARD. ANY 3 OFFICIAL LANGUAGES OF THE EASTERN CAPE CAN BE USED THROUGHOUT.
THE DIMENSIONS SHALL REMAIN THE SAME.

No	APPR.	AMENDMENTS	DATE
T1		TENDER	30-10-2024

SURVEYED		
DRAWN	IN	
DESIGNED	NG	
CHECKED	CB	
APPROVED	PR REG. NO. DATE:	

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GQEBERTHA, 6045

TEL 041 363-1984
E MAIL pe@lukhozi.co.za
WEB www.lukhozi.co.za

CLIENT

KOUGA local municipality
Good Governance through Service Excellence

PROJECT TITLE

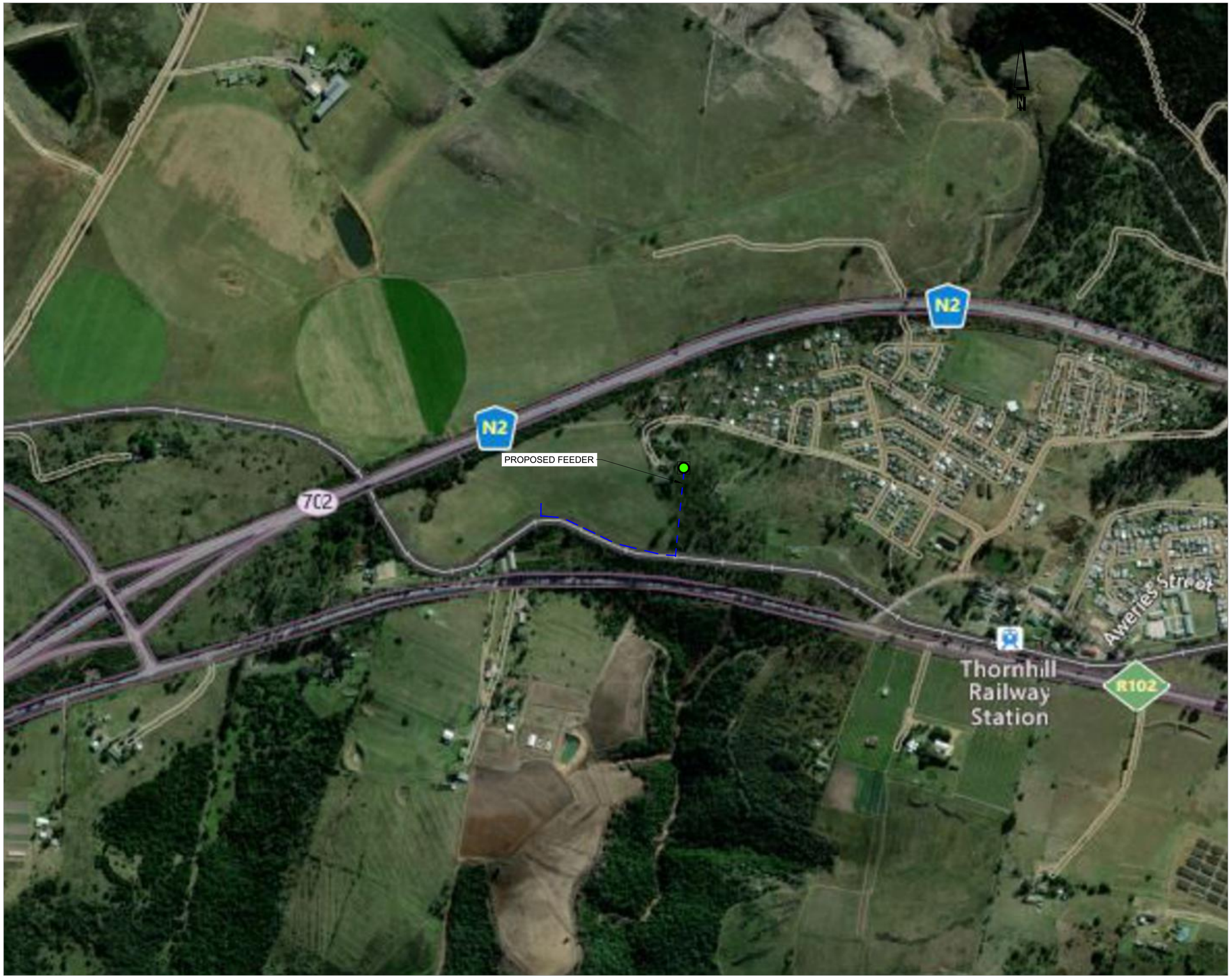
THORNHILL RESERVOIR AND FEEDER MAIN

DRAWING TITLE

NAME BOARD

SCALE	SHEET SET	SHT SIZE
1 : 20	SHEET OF SHEET(S)	A3

DRAWING No	REVISION
1811-A101	T1



LEGEND

PROPOSED INFRSTRUCTURE

WATER PIPELINE

STEEL RESERVOIR

GENERAL NOTES

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9. MINIMUM TRENCH DEPTH TO ALL WATER MAINS:

9.1 IN ROADWAY: PIPE DIAMETER + BEDDING=0.8m
9.2 ELSEWHERE: PIPE DIAMETER + BEDDING=0.6m

VALVES:

10.1 VALVES TO HAVE SOCKETED ENDS FOR uPVC PIPES.
10.2 UNDER NO CIRCUMSTANCES SHOULD SURFACE CHAMBERS BE POSITIONED IN ROADWAYS OR DRIVEWAYS.
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11 ALL CAST IRON FITTINGS TO BE CEMENT MORTAR LINED. "RILLSAN" COATED OR FBE COATING.

No	APPROVED	AMENDMENTS	DATE
0	CB	ISSUED FOR TENDER	OCT 2024

SURVEYED	-	-
DRAWN	P TSHIDI	OCT 2024
DESIGNED	P TSHIDI	OCT 2024
CHECKED	C BEZUIDENHOUT	OCT 2024
APPROVED	PR REGISTRATION NO.	DATE:

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PROJECT TITLE

THORNHILL RESERVOIR

DRAWING TITLE

LOCALITY PLAN

SCALE	SHEET SET	SHEET SIZE
1:5000	SHEET 1 OF 1 SHEETS	A2

DRAWING No.	REVISION
1811-GEN-001	0

2024/10/22 03:46 pm

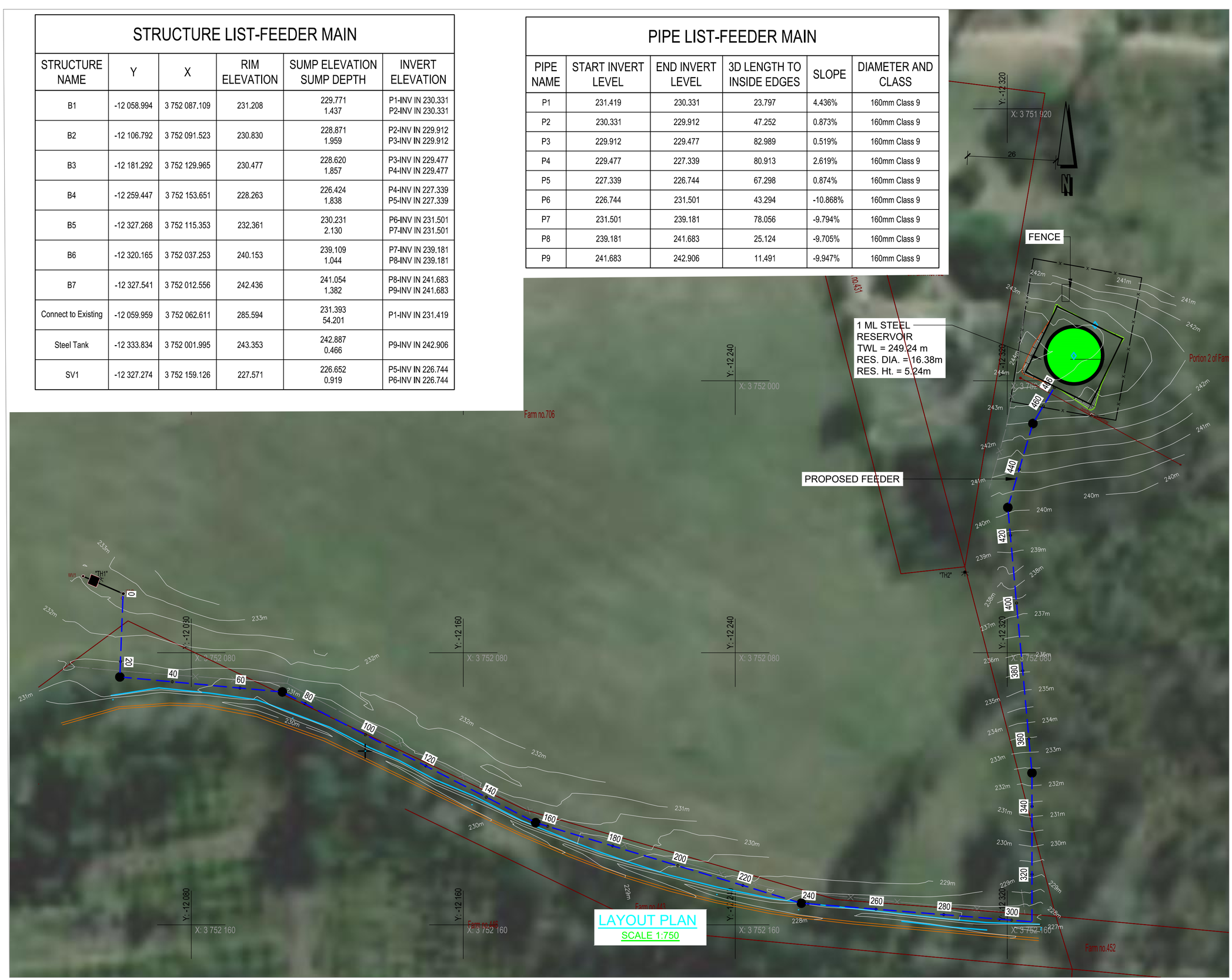
P:\PE\1811 Thornhill reservoir\04 Design & Drawings\06 Water\SS\1811-WAT-002.dwg

STRUCTURE LIST-FEEDER MAIN

STRUCTURE NAME	Y	X	RIM ELEVATION	SUMP ELEVATION SUMP DEPTH	INVERT ELEVATION
B1	-12 058.994	3 752 087.109	231.208	229.771 1.437	P1-INV IN 230.331 P2-INV IN 230.331
B2	-12 106.792	3 752 091.523	230.830	228.871 1.959	P2-INV IN 229.912 P3-INV IN 229.912
B3	-12 181.292	3 752 129.965	230.477	228.620 1.857	P3-INV IN 229.477 P4-INV IN 229.477
B4	-12 259.447	3 752 153.651	228.263	226.424 1.838	P4-INV IN 227.339 P5-INV IN 227.339
B5	-12 327.268	3 752 115.353	232.361	230.231 2.130	P6-INV IN 231.501 P7-INV IN 231.501
B6	-12 320.165	3 752 037.253	240.153	239.109 1.044	P7-INV IN 239.181 P8-INV IN 239.181
B7	-12 327.541	3 752 012.556	242.436	241.054 1.382	P8-INV IN 241.683 P9-INV IN 241.683
Connect to Existing	-12 059.959	3 752 062.611	285.594	231.393 54.201	P1-INV IN 231.419
Steel Tank	-12 333.834	3 752 001.995	243.353	242.887 0.466	P9-INV IN 242.906
SV1	-12 327.274	3 752 159.126	227.571	226.652 0.919	P5-INV IN 226.744 P6-INV IN 226.744

PIPE LIST-FEEDER MAIN

PIPE NAME	START INVERT LEVEL	END INVERT LEVEL	3D LENGTH TO INSIDE EDGES	SLOPE	DIAMETER AND CLASS
P1	231.419	230.331	23.797	4.436%	160mm Class 9
P2	230.331	229.912	47.252	0.873%	160mm Class 9
P3	229.912	229.477	82.989	0.519%	160mm Class 9
P4	229.477	227.339	80.913	2.619%	160mm Class 9
P5	227.339	226.744	67.298	0.874%	160mm Class 9
P6	226.744	231.501	43.294	-10.868%	160mm Class 9
P7	231.501	239.181	78.056	-9.794%	160mm Class 9
P8	239.181	241.683	25.124	-9.705%	160mm Class 9
P9	241.683	242.906	11.491	-9.947%	160mm Class 9



LEGEND

PROPOSED INFRSTRUCTURE

- WATER PIPELINE
- SCOUR VALVE
- AIR VALVE
- JUNCTION/ BEND

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PROJECT TITLE

THORNHILL RESERVOIR AND FEEDER MAIN

DRAWING TITLE

RESERVOIR FEEDER PIPE LAYOUT PLAN

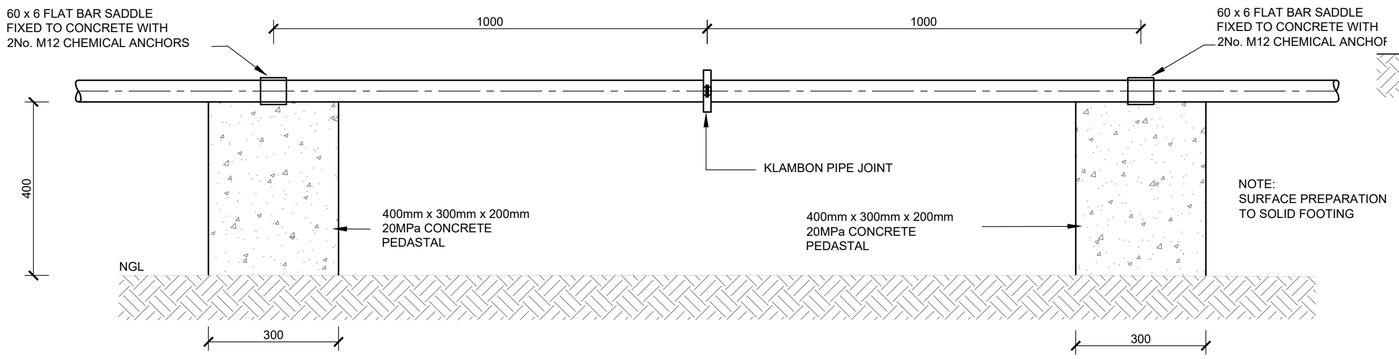
SCALE	SHEET SET	SHEET SIZE
AS SHOWN	SHEET 1 OF 1 SHEETS	A2

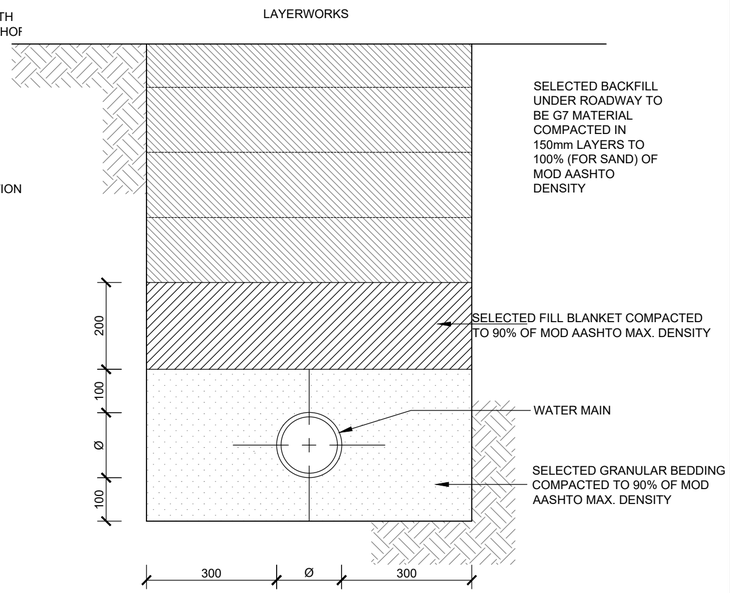
DRAWING No. 1811-WAT-001

REVISION 0

2024/11/02 12:38 pm

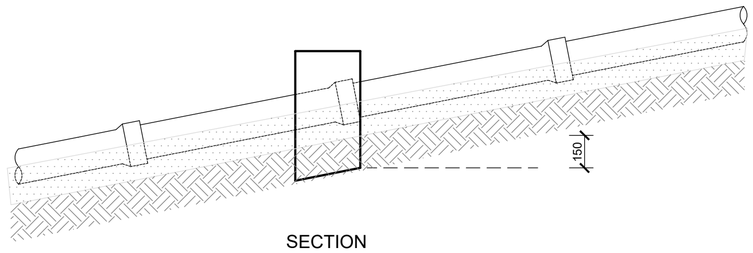
P:\PE\1811 Thornhill reservoir\04 Design & Drawings\06 Water\1811-WAT-FEEDER.dwg



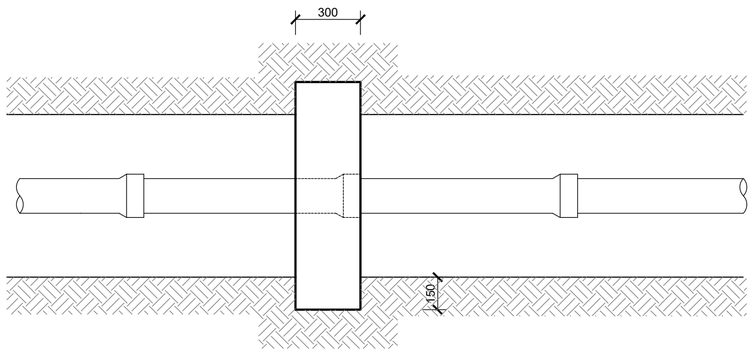


TRENCH DETAIL FOR FLEXIBLE PIPES (TO SABS 1200 LB)

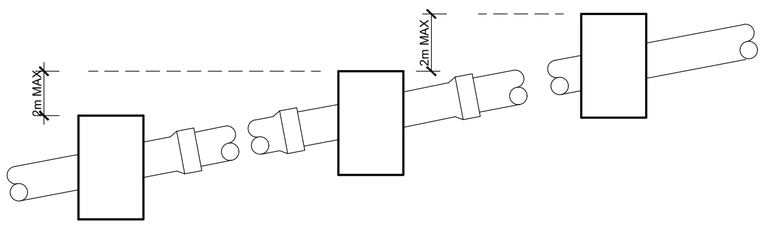
SCALE 1:10



SECTION



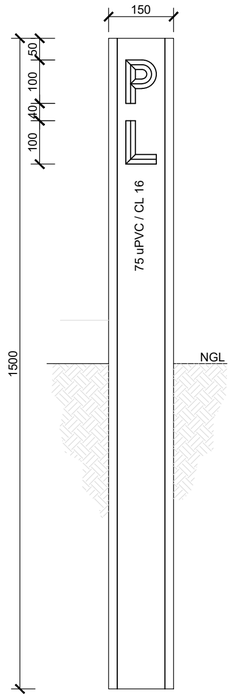
PLAN



SPACING OF ANCHOR BLOCKS

ANCHOR BLOCKS ON SLOPES STEEPER THAN 1 : 10

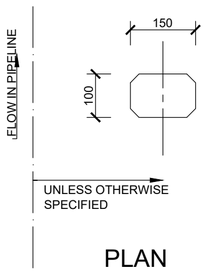
SCALE = NTS



DIAMETER, MATERIAL, AND PRESSURE CLASS OF PIPELINE PAINTED WITH BLACK TYPE 2 OR TYPE 3 ROAD CONCRETE MARKER PAINT TO SANS 731-1 (2006). LETTERING TO BE 50mm HIGH.

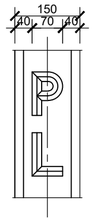
SECTION ABOVE GROUND LEVEL TO BE PAINTED WITH WHITE TYPE 2 OR TYPE 3 ROAD CONCRETE MARKER PAINT TO SANS 731-1 (2006).

BACKFILL AND COMPACT TO 95% MOD ASHTO



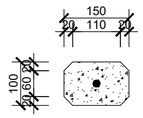
PLAN VIEW

1. ALL DIMENSIONS IN mm UNLESS STATED OTHERWISE.



LETTERING FORMED FEMALE IN CONCRETE AND PAINTED WITH BLACK. TYPE 2 OR TYPE 3 ROAD MARKER PAINT TO SANS 731-1 (2006).LETTER LINES TO BE 22mm WIDE AND 10mm DEEP

LETTERING DETAILS



Y12 REINFORCING BAR
BAR - 1450mm LONG

REINFORCEMENT DETAIL

LEGEND

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- AIR VALVE
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PROJECT TITLE

THORNHILL RESERVOIR AND FEEDER MAIN

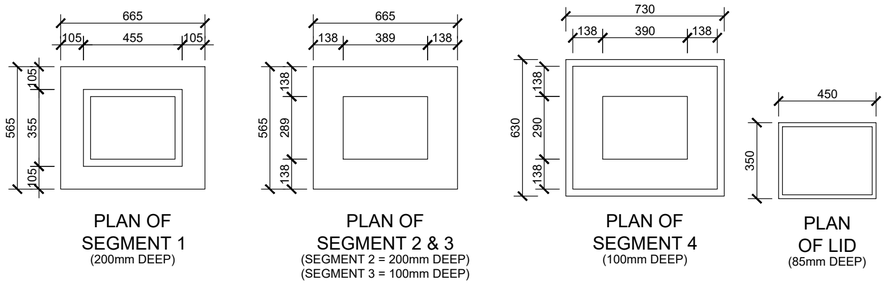
DRAWING TITLE

TYPICAL DETAILS

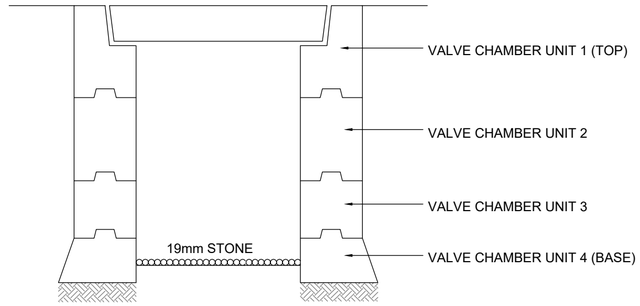
SCALE	SHEET SET	SHEET SIZE
AS SHOWN	SHEET 1 OF 4 SHEETS	A2
DRAWING No. 1811-WAT-004		REVISION 0

2024/11/02 12:39 pm

P:\PE\1811 Thornhill reservoir\04 Design & Drawings\06 Water\1811-WAT-FEEDER.dwg

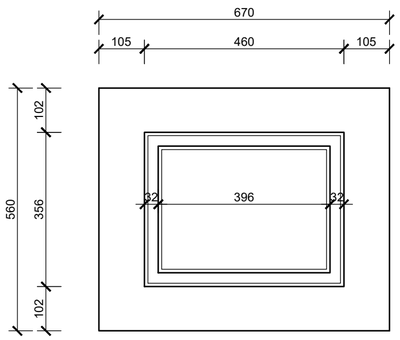


DETAIL OF SEGMENT FOR PRECAST VALVE CHAMBER

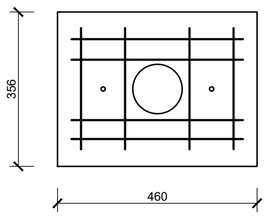


SECTION THROUGH PRECAST VALVE CHAMBER

SCALE 1:20



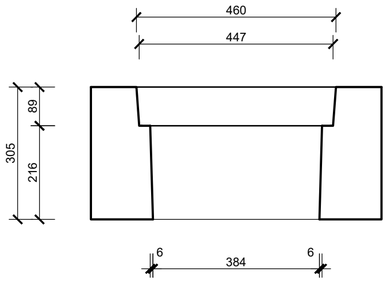
PLAN OF BOX



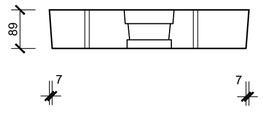
19Ø HOLE FOR LIFTING TOOL

6Ø MILD STEEL REINFORCING BARS

PLAN OF LID



SECTION THROUGH BOX

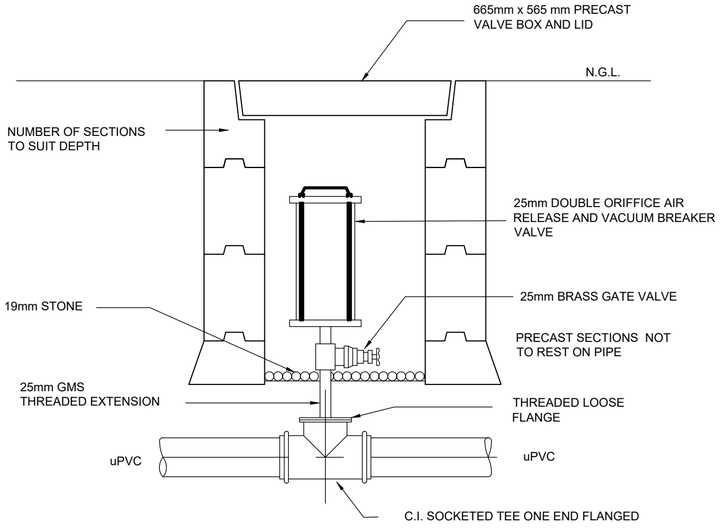


SECTION OF LID

(OMIT PLUG FOR HYDRANTS AND AIR VALVES)

PRECAST CONCRETE COVERS FOR HYDRANTS AND VALVES

SCALE 1:10



AIR VALVE DETAIL OFF uPVC PIPES

SCALE 1:10

LEGEND

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- WATER PIPELINE
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CLIENT

KOUGA local municipality
Good Governance through Service Excellence

PROJECT TITLE

THORNHILL RESERVOIR AND FEEDER MAIN

DRAWING TITLE

TYPICAL DETAILS

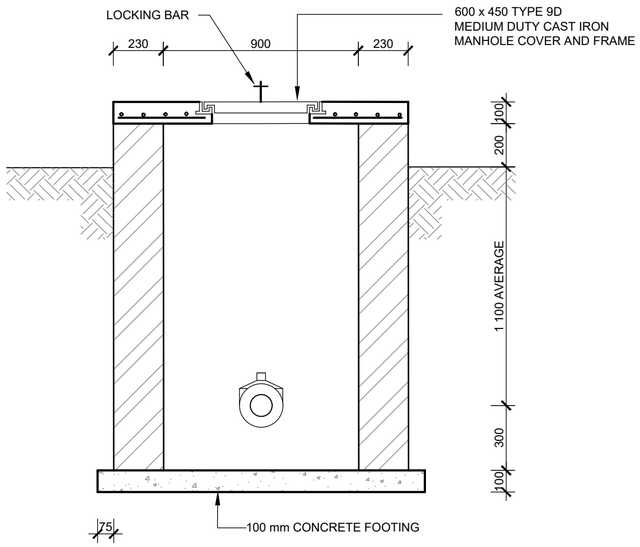
SCALE	SHEET SET	SHEET SIZE
AS SHOWN	SHEET 2 OF 4 SHEETS	A2

DRAWING No. 1811-WAT-005

REVISION 0

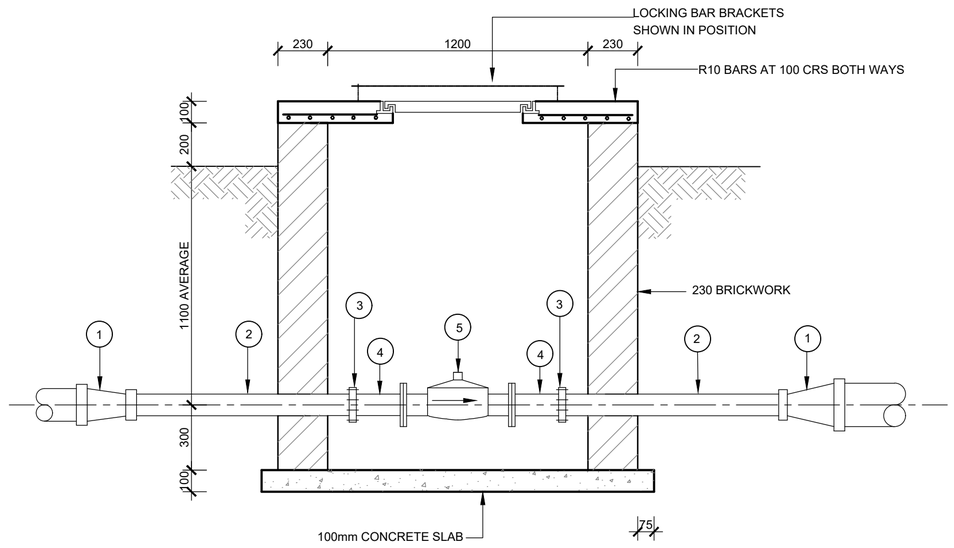
2024/11/02 12:40 pm

P:\PE\1811 Thornhill reservoir\04 Design & Drawings\06 Water\1811-WAT-FEEDER.dwg



SECTIONAL FRONT ELEVATION

SCALE 1 : 20

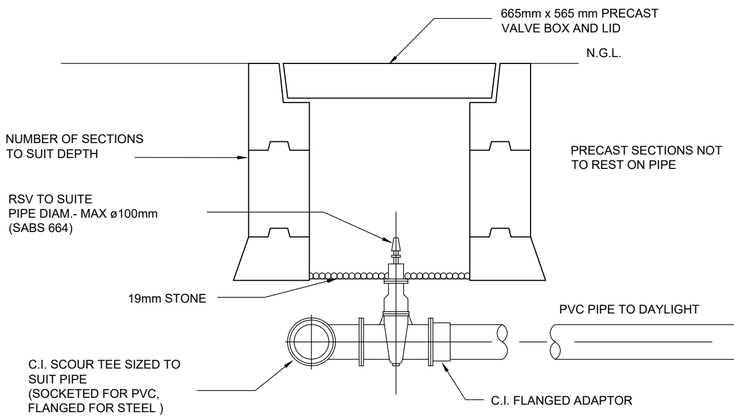


SECTIONAL SIDE ELEVATION

SCALE 1 : 20

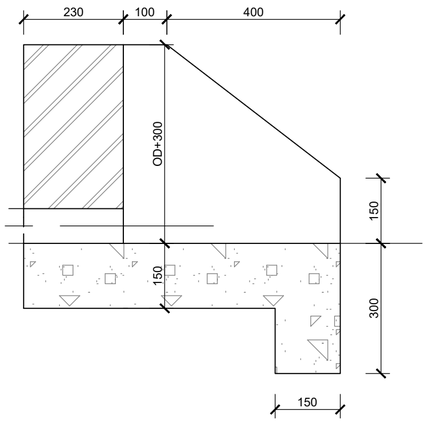
BULK METER CHAMBER

1	CAST IRON REDUCER FOR COD FC PIPES	150Ø x 100Ø
2	FC PIPE	100Ø CLASS E 1,0m LONG
3	CAST IRON SHORT COLLAR COUPLING FOR COD FC PIPES	100Ø
4	CAST IRON FLANGED ADAPTOR FOR FC PIPE	100Ø
5	BULK WATER METER (KENT HELIX 3000 OR SIMILAR CLASS 9	100Ø



SCOUR DETAIL OFF PVC PIPES

SCALE 1:10



OUTLET HEADWALL DETAIL - SECTION

SCALE 1 : 10

LEGEND

PROPOSED INFRSTRUCTURE

- WATER PIPELINE
- SCOUR VALVE
- AIR VALVE
- JUNCTION/ BEND

GENERAL NOTES

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4. ALL MATERIAL TESTS FOR ALL CONSTRUCTION WORKS TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
5. ANY DISCREPANCIES TO BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY.
6. PIPE SIZE AS PER LAYOUT PLAN.
7. PIPES TO BE INSTALLED ACCORDING TO THE SETTING OUT COORDINATES.
8. WATER LINES TO BE TESTED UNDER ENGINEER'S SUPERVISION AND WITNESSED BY WATER SUB-SILO PRIOR TO CONNECTION TO EXISTING WATER MAINS.
9. MINIMUM TRENCH DEPTH TO ALL WATER MAINS:

9.1 IN ROADWAY: PIPE DIAMETER + BEDDING+0.8m

9.2 ELSEWHERE: PIPE DIAMETER + BEDDING+0.6m

VALVES:

10.1 VALVES TO HAVE SOCKETED ENDS FOR uPVC PIPES.

10.2 UNDER NO CIRCUMSTANCES SHOULD SURFACE CHAMBERS BE POSITIONED IN ROADWAYS OR DRIVEWAYS.

10.3 ALL VALVES TO BE ANTI-CLOCKWISE CLOSING, CLASS 16.C.I RESILIENT SEAL VALVES WITH NON-RISING SPINDLE, IN ACCORDANCE WITH SABS 966 OR AS SPECIFIED.

10.4 LOCATE VALVES AT STREET CORNERS OPPOSITE STAND CORNER BOUNDARY (SPLAY) PEGS, AND INETRMEDIATE VALVES OPPOSITE THE COMMON BOUNDARY BETWEEN TWO STANDS.

11 ALL CAST IRON FITTINGS TO BE CEMENT MORTAR LINED. "RILLSAN" COATED OR FBE COATING.

No	APPROVED	AMENDMENTS	DATE
0	CB	ISSUED FOR TENDER	OCT 2024

SURVEYED	-	-
DRAWN	P TSHIDI	OCT 2024
DESIGNED	P TSHIDI	OCT 2024
CHECKED	C BEZUIDENHOUT	OCT 2024
APPROVED	PR REGISTRATION NO. DATE:	

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LUKHOZI CONSULTING ENGINEERS (PTY) LTD

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KOUGA local municipality
Good Governance through Service Excellence

PROJECT TITLE

THORNHILL RESERVOIR AND FEEDER MAIN

DRAWING TITLE

TYPICAL DETAILS

SCALE	SHEET SET	SHEET SIZE
AS SHOWN	SHEET 3 OF 4 SHEETS	A2

DRAWING No.	REVISION
1811-WAT-006	0

2024/11/02 12:42 pm

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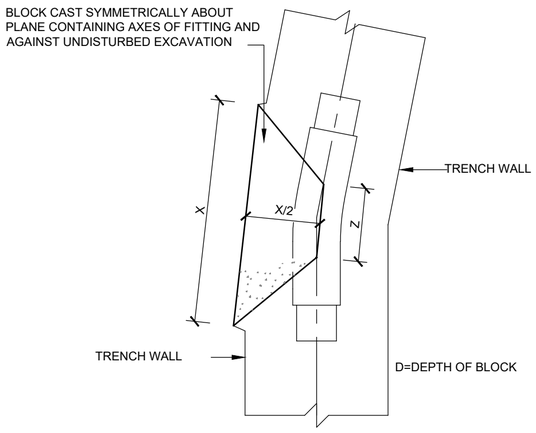
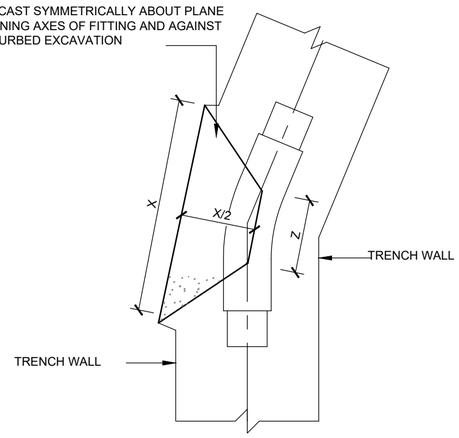


PLAN

D=DEPTH OF BLOCK

PIPE Ø	X	D	Z
250	600	300	500
200	450	300	500
160	300	250	300
110	300	250	300
90	250	250	250
75	250	250	250

THRUST BLOCK DETAIL
FOR 11.25° BEND



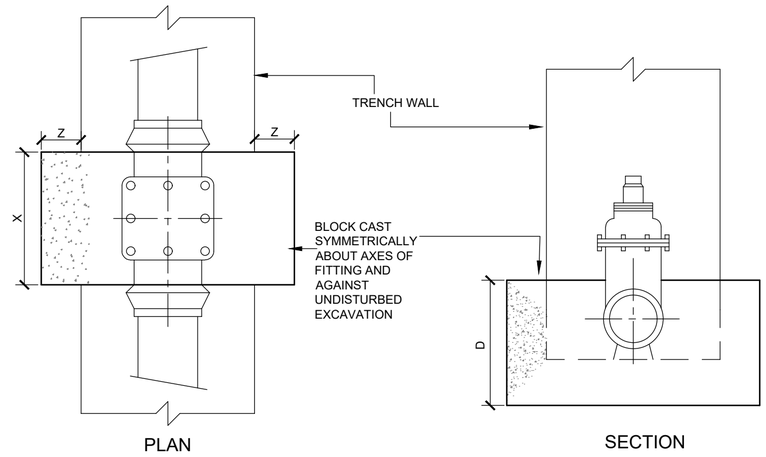
PLAN

PIPE Ø	X	D	Z
250	600	600	500
200	550	400	500
160	500	300	300
110	500	300	300
90	400	300	250
75	400	300	250

THRUST BLOCK DETAIL
FOR 22.5° BEND

NOTE:

1. COUPLING AND FLANGES SHALL BE LEFT CLEAR OF CONCRETE AND THE STRENGTH OF THE CONCRETE TO BE 25MPa.
2. THRUST BLOCKS DESIGNED FOR SOIL WITH 50kN BEARING PRESSURE.

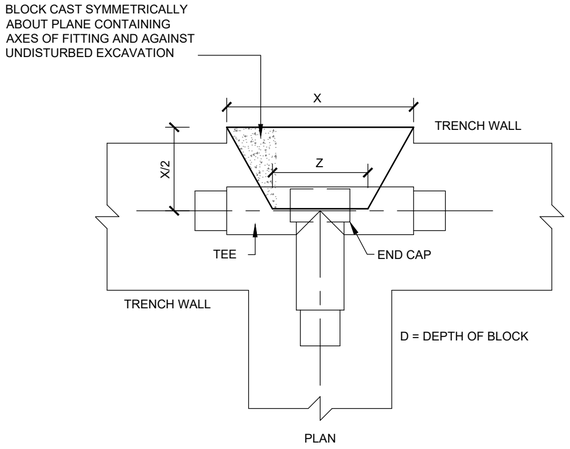


PLAN SECTION

D=DEPTH OF BLOCK

PIPE Ø	X	D	Z
250	1200	750	300
200	1000	600	300
160	800	500	300
110	800	500	300
90	600	400	250
75	600	400	250

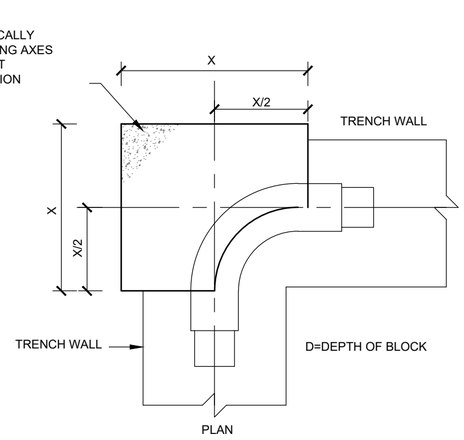
THRUST BLOCK FOR VALVES



PLAN

PIPE Ø	X	D	Z
250	1200	750	400
200	1000	600	350
160	800	500	300
110	600	450	250
90	500	400	250
75	400	350	250

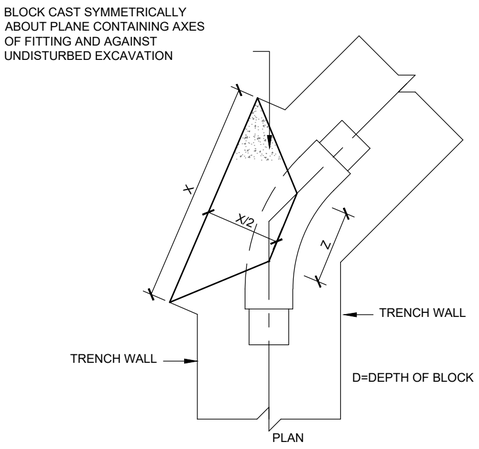
THRUST BLOCK DETAIL
FOR TEE OR END CAP



PLAN

PIPE Ø	X	D	Z
250	1200	750	500
200	1000	600	400
160	800	500	300
110	600	450	250
90	500	400	250
75	400	350	250

THRUST BLOCK DETAIL
FOR 90° BEND



PLAN

PIPE Ø	X	D	Z
250	1000	700	600
200	800	550	500
160	650	450	300
110	500	450	300
90	400	400	250
75	400	400	250

THRUST BLOCK DETAIL
FOR 45° BEND

TYPICAL THRUST BLOCK DETAILS

SCALE 1:10

LEGEND

PROPOSED INFRSTRUCTURE

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DRAWN	P TSHIDI	OCT 2024
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CHECKED	C BEZUIDENHOUT	OCT 2024

APPROVED

PR REGISTRATION NO. DATE:

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CLIENT

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PROJECT TITLE

THORNHILL RESERVOIR AND FEEDER MAIN

DRAWING TITLE

TYPICAL DETAILS

SCALE	SHEET SET	SHEET SIZE
AS SHOWN	SHEET 4 OF 4 SHEETS	A2

DRAWING No. 1811-WAT-007

REVISION 0

2024/11/02 12:42 pm

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