TENDER DOCUMENT

FOR

OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3) AND EBENEZER WATER TREATMENT WORKS AND PUMP STATION

VOLUME 1 - BOOK 1: TENDERING PROCEDURES AND CONTRACT

CLOSING DATE: 27 JUNE 2023

TENDER NUMBER: GTAC 003-2023-24 (Re-Advert)

CIDB GRADE 9 ME OR 9 EP

SUPPLY CHAIN

Government Technical Advisory Centre (GTAC)
240 Madiba Street (corner Thabo Sehume Street)
National Treasury Building
Pretoria, 0002

Contact Person:
Ms Nolubabalo Tokwe
Tel: (012) 315 5549
E-mail: psp@gtac.gov.za

EMPLOYER

Lepelle Norther Water (LNW)
1 Landros Mare Street
Polokwane, 0700

Contact Person
Mr Gundo Motsoare
Tel: (015) 295 1800
E-mail: gundom@lepelle.co.za

NAME OF TENDERER : _____

Structure of Tender Document

Volume 1	**Book 1 of 2: Tender Procedures and Contract – This Document**
	Book 2 of 2: Scope of Work, Technical Specifications and Site Information
Volume 2	Drawings and Details (issued separately)

VOLUME 1: TABLE OF CONTENTS

BOOK 1 of 2: TENDER PROCEDURES AND CONTRACT – *THIS DOCUMENT*

NUMBER	HEADING	COLOUR	PAGE
PORTION 1	**TENDER**		
PART T1	**TENDERING PROCEDURES**		
T1.1	Tender Notice and Invitation to Tender	White	T1.1-1
T1.2	Tender Data	Pink	T1.2-1
T1.3	Standard Conditions of Tender	White	T1.3-1
T1.3	Guidance Document for the Calculation of Local Content	White	T1.4-1
T1.5	Preferential Procurement Regulations	White	T1.5-1
Part T2	**RETURNABLE DOCUMENTS AND SCHEDULES**		
T2.1	SBD Forms	Yellow	T2.1-1
T2.2	Returnable Schedules required for tender evaluation purposes	Yellow	T2.2-1
T2.3	Other documents required for tender evaluation purposes	Yellow	T2.3-1
T2.4	Other documents that will form part of the Contract	Yellow	T2.4-1
T2.5	Checklist	Yellow	T2.5-1
PORTION 2	**CONTRACT**		
Part C1	**AGREEMENTS AND CONTRACT DATA**		
C1.1	Form of Offer and Acceptance	Yellow	C1.1-1
C1.2	Contract Data	Yellow	C1.2-1

Part C2	PRICING DATA		
C2.1	Pricing Instructions	Yellow	C2.1-1
C2.2	Bill of Quantities	Yellow	C2.2-1
C2.3	Summary of Bill of Quantities	Yellow	C2.3-1
C2.4	Banking Details	Yellow	C2.4-1
C2.5	Pumps, Motors, VFDs/VSDs, Pipework and Valves Schedules	Blue	C2.5.1

Volume 1 (Continued)

BOOK 2 of 2: SCOPE OF WORK, TECHNICAL SPECIFICATIONS AND SITE INFORMATION

NUMBER	HEADING	COLOUR	PAGE
PORTION 2	**CONTRACT**		
Part C3	**SCOPE OF WORK**		
C3.1	Description of the Works	Blue	C3.1-1
C3.2	Engineering	Blue	C3.2-1
C3.3	Procurement	Blue	C3.3-1
C3.4	Construction	Blue	C3.4-1
C3.5	Management	Blue	C3.5-1
C3.6	Specifications	Blue	C3.6-1
Part C4	**SITE INFORMATION**		
C4.1	Atmospheric/Climatic	Green	C4.1-1
C4.2	Environmental	Green	C4.2-1
C4.3	Induction	Green	C4.3-1
Part C5	**ANNEXURES**		
C5.1	Occupational Health and Safety Baseline Risk Assessment	White	
C5.2	Generic Environmental Management Plan (EMP)	White	

LEPELLE NORTHERN WATER

PROJECT REF NO.: GTAC 003-2023-24

OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3) AND EBENEZER WATER TREATMENT WORKS AND PUMP STATION

TENDER SUMMARY PAGE

NAME OF TENDERER: _____

TENDER AMOUNT EXCLUSIVE OF VAT: _____

TENDER AMOUNT INCLUSIVE OF VAT: _____

TIME FOR COMPLETION OFFERED: _____

Note: This page is used for tender opening purposes only. Where there is a discrepancy between this page and the Form of Offer and Acceptance, then the latter will be taken as the valid offer.

LEPELLE NORTHERN WATER

PROJECT REF NO.: GTAC 003-2023-24

OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3) AND EBENEZER WATER TREATMENT WORKS AND PUMP STATION

PORTION 1: TENDER

PART T1: TENDERING PROCEDURES

PORTION 1: TENDER

PART T1: TENDERING PROCEDURES

INDEX

Section	Description	Page No
PART T1.1	TENDER NOTICE AND INVITATION TO TENDER (English Version)	T1.1-1
PART T1.2	TENDER DATA	T1.2-1
PART T1.3	STANDARD CONDITIONS OF TENDER	T1.3-1
PART T1.4	GUIDANCE DOCUMENT FOR THE CALCULATION OF LOCAL CONTENT	T1.4-1
PART T1.5	PREFERENTIAL PROCUREMENT REGULATIONS	T1.5-1

T1.1 TENDER NOTICE AND INVITATION TO TENDER

Government Technical Advisory Centre (GTAC) and Lepelle Northern Water (LNW) hereby invites tenders for the project ~ Olifantspoort and Ebenezer Water Supply Schemes Upgrade – Bid No.: GTAC 003-2023-24: Electromechanical Refurbishment of Olifantspoort Pump Stations (PS1, PS2 & PS3) and Ebenezer Water Treatment Works and Pump Station

Bid documents will be available as from **6th June 2023** from the e-tender portal, free of charge.

A COMPULSORY BRIEFING SESSION *will be held on 15th June 2023 at 11h00 a.m. at the NEW PETER MOKABA STADIUM; Corner Webster Street and Magasyn Street, Polokwane 0700 (GPS Location: -23.92477, 29.46880), before the prospective bidders will be taken to the site.*

Bidders attending the SITE INSPECTION (Non-compulsory) should have an ID, full PPE (personal protective equipment) and vehicles suitable for access to site. Bidders to note that LNW schemes are National Key Point. The site inspection session shall last more than 6 hours - drive to all the sites.

PLEASE NOTE: Only technical competent persons should represent the tenderers during the compulsory site briefing and site inspection.

THE CLOSING TIME for receipt of tenders is 11:00 a.m. on 27th June 2023 at GTAC Tender Box, Ground Floor, Reception Area, National Treasury Building, 240 Madiba Street (corner Thabo Sehume Street), Pretoria 0002. (GPS Location -25.74440, 28.190076) Sealed bids, clearly marked Tender No.: GTAC 003-2023-24 for

BID: **GTAC 003-2023-24 :**

OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3) EBENEZER WATER TREATMENT WORKS & PUMP STATION.

Tenders may only be submitted on the issued tender documentation. Responsive tenders will be evaluated on the basis of mandatory requirements, functionality (technical and quality) and price & specific goals requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

Bidders must ensure that the submissions are received at the address specified above not later than the closing time stated. Proof of posting shall not be accepted as proof of delivery. GTAC will not accept submissions submitted by telegraph, facsimile or e-mail.

Bids will be opened on the closing date at 11:00 a.m. in public and no late bids shall be accepted.

The procurement related enquiries may be directed to Ms. Nolubabalo Tokwe at 012 315 5549 (e-mail psp@gtac.gov.za) and technical related enquiries may be directed to Mr. Gundo Motsoare at 015 295 1800 (e-mail gundom@lepelle.co.za) from 08h00 to 16h00.

The lowest or any bid will not necessarily be accepted, and Lepelle Northern Water reserves the right not to consider any bid suitably endorsed or comprehensively completed, as well as the right to accept a bid in whole or part. Any bidder not contacted within 90-150 days after the closing date must consider their proposal unsuccessful.

The tenderers should have a CIDB contractor grading designation of **9ME or 9EP**.

Preferential Points System will be used to evaluate this bid in line with the Preferential Procurement Regulation, 2022 (Specific Goals Preferential Procurement Regulation 2022).

NB - Evaluation of received bids shall be conducted as follows:

- ✓ Mandatory Requirements (Pre-Qualification)
- ✓ Functionality (only bidders meeting the minimum cut-off points of 70% will be evaluated further)
- ✓ Administrative compliance (including local content compliance)
- ✓ Price and Specific Goals in terms of Preferential Procurement Regulation (PPR) 2022.

T1.1.1 MANDATORY REQUIREMENTS (PRE-QUALIFICATION)

Only bidders who have adhered to or submitted the following documents will be considered for further evaluation, namely:

a. Active CIDB Grading, of **9 ME/9 EP**. In case of a Joint Venture bid, the combined grading should be at least 9 ME/9 EP; otherwise, the bid will be disqualified. Any 8 ME/8 EP PE will not be considered for further evaluations. CIDB grading shall be verified online, online verification shall take precedence.

b. Compulsory site briefing attendance *[technical competent person is highly recommended to attend the briefing session]* (fill attendance register, one (1) JV member to attend and fill the register).

c. The JV agreement for JV partners to be submitted indicating percentage split up to 100% for partners to render agreement valid.

d. Registration on the Central Suppliers Database (CSD). CSD report shall be used to verify specific goals Preferential Procurement Regulation (PPR) 2022 - 90/10.

e. Completion and submission of SBD 4. The following definitions should be considered when completing the SBD 4 form:

- ''Person'' means a bidder or supplier or shareholder, director, trustee, partner, member of a bidder or supplier having the controlling interest in the bidder or supplier.
- ''State'' means a National or Provincial Department, National or Provincial Public Entity or Constitutional institution, a Municipality or Municipal Entity, a Provincial Legislature or Parliament.

f. All bid documents must be completed in BLACK ink (No tampering of bid documents with either correction fluid, sticky papers or any other thing which can indicated that the bid document that has been tampered with).

g. Fully completed schedules of pumps and motors offered, which must comply with the required specifications. Schedules to be included in the returnable file/document.

h. Fully completed schedules of pipes, fittings and valves offered, which must comply with the required specifications. Schedules to be included in the returnable file/document.

NB: Failure to comply with any of the above requirements will lead to disqualification of the tenderer.

T1.1.2 ADMINISTRATIVE COMPLIANCE

The following administrative requirements must be met before a preferred bidder is appointed:

a. Volume 1 – book 1: Tendering Procedures and Contract shall be bound separately; the returnable documents file shall be accurately divided with file dividers and clear index as per the evaluation process. e.g.: (1) Volume 1 – book 1: Tendering Procedures and Contract; (2) Returnable documents [JV agreements, company documents, bank guarantees, CVs, qualifications, methodologies, etc.]; (3) Volume 2 – book 2: Specification document.

b. Bidders must submit two hard copies (one original and one copy) and a soft copy (in a form USB) of the tender/bid document submission.

c. Municipal current rates account not more than three months old should be submitted (Proof of address for operational office. Lease agreement with lease account statement or a dated stamped letter form tribal authority or shareholders address acceptable as proof of office address (confirmation letter endorsed by commission of Oath)

d. Letter of Good standing, COIDA applicable to Construction Works.

e. Company registration documents (CIPC or CK documents).

f. Certified valid ID copies not older than 3 months for the company shareholders and proposed key personnel.

g. The JV partners must submit both mandatory and administrative documents for each Company.

h. Preferred JV bidder will be required to submit a JV bank account and VAT number on instruction by LNW before award.

i. Completed all other SBD forms stipulated in the tender document.

j. Minimum threshold percentage stipulated for local production and content (relevant annexure forms and SBD 6.2 available in the tender document must all be completed).

k. Valid Tax Clearance Certificate or SARS pin.

l. Proof of availability or ready access to working capital of minimum of R 40 Million. The availability or ready access to this working capital shall remain available for the duration of the project until completion.

m. CV, Qualification and proof of Professional Registration of an Electrical Design Engineer with minimum B-Tech/BSc Degree or higher in Electrical Engineering, Pr. Eng./Pr.Tech Eng. (ECSA), with experience in design electrical & electronic systems for water treatment works of at least 1000kW power (motor) capacity.

n. CV, Qualification and proof of Professional Registration of a Mechanical Design Engineer with minimum B-Tech/BSc Degree or higher in Mechanical Engineering, Pr. Eng./Pr.Tech Eng. (ECSA), with experience in design mechanical systems for water treatment works and pump stations of at least 10ML/day flow capacity.

o. The BOQ must be completed in FULL to render the bid complaint. If any section of the BOQ is left incomplete or omitted in printing and/or submission. Non-numerical (N/A, Nil or dash (-) or included or incomplete space) completion of BOQ items will be considered non-complaint.

The BOQ will be clarified, balanced and confirmed by the bidder within the required time. Risk assessment will be conducted prior final award.

p. Completion of contract participation for targeted enterprises section T2.2.21.1

q. Detailed programme of works limited to 12 months and the associated cashflow projections.

N.B : Please note that the above required documents will be deemed as mandatory to the preferred top 3 bidders. Required documents will be requested for submission within forty-eight (48) hours and failure to submit will be deemed as non-responsive.

The following rights of LNW shall be enforced:

a) LNW reserves the right to verify any information provided by the bidder. Falsified references/experience will lead to disqualification and restricting in terms of the SCM process in conjunction with any other legal processes.

b) The bidders must comply with all terms and condition including requirements as stipulated in the Tender Documents to be evaluated further and consideration.

c) The JV partners must submit both mandatory and administrative documents for each Company.

d) The JV agreement for JV partners to be submitted indicating percentage split up to 100% for partners to render agreement valid (Points will be allocated as per pro rata *[proportional]* JV percentage split). This is only applicable on company experience under functionality.

e) The bidders must comply with all terms and condition including requirements as stipulated in the Tender Documents to be evaluated further.

f) LNW is not compelled to accept the lowest or any bid.

g) LNW reserves the right to reduce the scope of works by more than 50%.

h) LNW reserves the rights to negotiate pricing with the recommended bidder.

i) LNW reserves the right to increase or reduce the scope of the project.

j) Preferred JV bidder will be required to submit a JV bank account and VAT number.

T1.1.3 DTI REQUIREMENTS

Local content will be assessed in terms of the revised PPPFA and measured in terms of the SATS 1286:2011, “Technical specification on the measurement and verification of local content”. The designated products as specified in SBD 6.2: Declaration certificate for local production and content for designated sectors, Declaration C: Local Content Declaration must meet the minimum local thresholds as specified to qualify for further evaluation.

The following Industry/sectors/sub-sectors have been designated for Minimum threshold for local:

a)	Valves products:	70%
b)	Flow Meters:	30%
c)	Conveyance Pipes:	80-100%

d)	Transformers and Shunt Reactors	70%
e)	Street Light Steel Poles / Steel Substation Structures	100%
f)	Electrical and telecom cables	90%
g)	Pumps, Medium Voltage (MV) Motor and Associated Accessories	70%
h)	Air insulated MV Switchgear	50%
i)	Industrial lead-acid/nickel-cadmium batteries	50%
j)	Instrument transformers	15%
k)	Bus bars	5%
l)	Housing	25%
m)	Switching Devices	5%
n)	Steel Value-added Products	100%

T1.1.4 FUNCTIONALITY

Under functionality, Bidders must achieve a minimum of 70% of functionality in order to be considered for further evaluation.

NB: Only the combined Price & Specific Goals Preferential Procurement Regulation (PPR) 2022 - 90/10 points will determine the highest point scoring bidder to be awarded the contract.

END OF SECTION

T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity as published in Government Gazette No 42622 of 8 August 2019 and as amended and supplemented by the Tender Data in this Part T1.2. The complete extract entitled "Annex C" of the CIDB Standard for Uniformity as published in Government Gazette No 42622 of 8 August 2019 with its originally published page numbers "21" to "31" is bound into Part T1.3.

These Conditions of Tender are furthermore subject to the requirements of the Preferential Procurement Framework Act, 2000: Preferential Procurement Regulations, 2022 published in Government Gazette No. 47452 dated 04 November 2022.

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 preference in the interpretation of any ambiguity or inconsistency between it and the Standard Conditions of Tender.

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

Clause	Addition or Variation to Standard Conditions of Tender
C.1.1.1	The employer is **Lepelle Northern Water (LNW)**
C.1.1.3	*Replace the contents of the clause with the following:* "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, in accordance with the provisions of C.1.5."
C.1.2	The tender documents issued by the employer comprise of **Volume 1** split in two separate Documents consisting of the following: ***DOCUMENT 1 of 2 – Part T1 to Part C2 (This Document)*** **PORTION 1: TENDER** **Part T1: Tendering Procedures** Part T1.1 Tender Notice and Invitation to Tender Part T1.2 Tender Data Part T1.3 Standard Conditions of Tender Part T1.4 Annexure A: Preferential Procurement Regulations **Part T2: Returnable Documents and Schedules** Part T2.1 SBD Forms Part T2.2 Returnable schedules required for tender evaluation purposes Part T2.3 Other documents required for tender evaluation purposes Part T2.4 Other documents required for tender evaluation purposes Part T2.5 Checklist **PORTION 2: CONTRACT** **Part C1: Agreements and Contract Data** Part C1.1 Form of Offer and Acceptance Part C1.2 Contract Data **Part C2: Pricing Data** Part C2.1 Pricing Instructions Part C2.2 Bill of Quantities Part C2.3 Summary of Bill of Quantities Part C2.4 Banking Details ***DOCUMENT 2 of 2: Part C3 to Part C5:*** **PORTION 2: CONTRACT** **Part C3: Scope of Work** Part C3.1 Description of the Works Part C3.2 Engineering Part C3.3 Procurement Part C3.4 Construction Part C3.5 Specifications **Part C4: Site Information** Part C4.1 Geotechnical Part C4.2 Atmospheric/Climatic Part C4.3 Environmental Part C4.4 Induction

Clause	Addition or Variation to Standard Conditions of Tender
	Part C5: Annexures **VOLUME 2: BOOK OF DRAWINGS AND DETAILS** These shall be read together with any Addenda issued in accordance with Clause C3.2 of these Instructions to Tenderers. Upon receipt of the Tender Documents and prior to the submission of any Tender, the Tenderer shall check the documents issued and the number of pages contained in each document and if any are found to be missing or duplicated or any figure or wording is indistinct the Tenderer shall apply to the Employer at once to have the same rectified. No liability will be entertained by the Employer or the Employer's Agent in respect of errors in any Tender arising out of any matter referred to in this paragraph.
C.1.3.4	*Add the following new clause:* "The Tender documents have been drafted in English. The contract arising from the invitation of tender shall be interpreted and construed in English"
C.1.4	The Employer's Agent is: Name: Sigodi Marah Martin Management Support (Pty) Ltd Address: 16 Blue Jay Street, Rooihuiskraal, Centurion, 0157 Postal address: 16 Blue Jay Street, Rooihuiskraal, Centurion, 0157 Tel: 27 12 945 9009 email: info@sigodimarah.co.za or alternatively fchinyowa@sigodimarah.co.za
C.1.6.1	*Replace the contents of the clause with the following:* The employer reserves the right, within unambiguous and justifiable reasoning, and subject to C.3.13, to not necessarily conclude a contract 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. The employer reserves the right to accept, where applicable, a part or portion of any bid, or where possible, accepts bids or proposals from multiple bidders.
C.1.6.2	The competitive negotiation procedure shall be applied. The Employer may negotiate the final terms of a contract with tenderers identified through a competitive tendering process as preferred tenderers provided that such negotiation: a) Does not allow any preferred tenderer a second or unfair opportunity; b) Is not to the detriment of any other tenderer; and c) Does not lead to a higher price than the tender as submitted. Minutes of any such negotiations shall be kept for record purposes.
C.1.6.3	The two stage-system shall not be applied.
C.2.1	*Add the following to the clause:* Tenderers are to note the following eligibility criteria: **1. CIDB Registration and Grading** a) Only those tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, 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

Clause	Addition or Variation to Standard Conditions of Tender
	Development Regulations, for a **9ME/9EP** class of construction work, are eligible to have their tenders evaluated. b) Joint ventures are eligible to submit tenders provided that: (i) every member of the joint venture is registered with the CIDB; (ii) the lead partner has a contractor grading designation in the **9ME/9EP** class of construction work; or not lower than one level below the required grading designation in the class of works construction works under considerations and possess the required recognition status; or (iii) 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 **9ME/9EP** class of construction work or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations. c) Accept that all returnable documents and schedules which are required to be certified are done so by a **registered Commissioner of Oaths** of the Republic of South Africa. d) The **bidder's primary business** is to provide supplies or services as per the bid invitation **2. The Tenderer has not:** a) Abused the Construction Industry Development Board System; or b) Failed to perform on any previous contracts and has been given a written notice to this effect. c) The Tenderer or any of its Directors is **not listed on the Register of Tender Defaulters** in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector. d) Only **authorised signatories** may sign the original and all copies of the tender offer where required in terms of Clause C.2.13.4 of these conditions of tender. e) **Certified original valid tax clearance certificate**: f) Tenderers shall be registered and in good standing with the South African Revenue Services (SARS) and shall submit an original tax clearance certificate issued by SARS. Each party to a Consortium/Joint Venture shall submit a separate valid Tax Clearance Certificate and attach it to the schedule. g) The tenderer shall complete the **Compulsory Enterprise Questionnaire** and confirm that there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are not permitted to submit tenders or participate in the contract. **3. Standard Bidding Documents (SBD)** The following standard SBDs shall be completed (if applicable) legibly and in full in terms of the requirements of the Department of National Treasury of the Republic of South Africa: a) SBD1: Invitation to bid and company information b) SBD2: Tax Clearance Certificate/ SARS Pin c) SBD4: Bidder's Disclosure d) SBD5: The National Industrial Participation (NIP) Programme ~ The National Industrial Participation (NIP) Programme e) SBD 6.1: Preference Points Claim Form in terms of the Specific Goals Preferential Procurement Regulations 2022

Clause	Addition or Variation to Standard Conditions of Tender
	f) SBD 6.2: Declaration certificate for local production and content for designated sectors g) Declaration C: Local Content Declaration. **4. The tenderer shall submit the following:** a) Certified copy of certificate of Incorporation if tenderer is a company b) Certified copy of founding statement if tenderer is a closed corporation c) Certified copy of Partnership agreement if tenderer is a partnership d) Certified copy of Identity document if tenderer is a one-man concern e) Certified copy of joint venture agreement if tenderer is a joint venture. **4.1 Certified Copy of VAT Registration Certificate (if VAT No not stated on original tax clearance):** The tenderer shall submit a Certified copy of his VAT registration Certificate if his VAT number is not stated on the original tax clearance and attach it to the schedule. **4.2 Certified copy of latest Unemployment Insurance Fund (UIF) return (if not stated on original tax clearance):** The tenderer shall submit a certified copy of his latest UIF return if his UIF contributions are not stated on the original tax clearance and attach it to the schedule. **4.3 Original (or certified copy) rates clearance certificate:** The tenderer shall submit original (or certified copy) rates clearance certificates or a certified copy of the lease agreement and attach it to the schedule. **4.4** The Tenderer shall attach certified proof of expenditure on **skills development** as per the Skills Development Levies Act, 1999. **4.5** The tenderer shall attach certified proof of registration and in Good Standing with the **Compensation Commissioner** or with a licensed compensation insurer. **4.6** The Tenderer shall attach a certified copy of confirmation from the Department of Labour that their **Employment Equity Policy** has been submitted in terms of Employment Equity Act, 55 of 1998. **4.7** The tenderer shall provide **financial statements** prepared in accordance with Generally Accepted Accounting Practice (GAAP) or the International Financial Reporting Standard (IFRS) for the preceding financial year within 6 months of the financial year end, and in terms of Clause C.2.18.1 of these conditions. Tenderers should have in their employ management and supervisory staff satisfying the requirements of the scope of work for labour intensive competencies for supervisory and management staff.
	Add the following to the clause: Accept that the Employer will not compensate the tenderer for any costs incurred in attending interviews in the office of the employer or the employer's agent (if required).
C.2.5	*Add the following to the clause:* Reference documents include, but are not limited to, the following: • "South African Bureau of Standards: Standardized Specifications for Civil Engineering Construction", (SANS 1200)

Clause	Addition or Variation to Standard Conditions of Tender
	• "General Conditions of Contract for Construction Works, Third Edition, 2015, displaying (Print 3 or later)" on the frontispiece • "Standard Specifications for Road and Bridge Works for State Road Authorities", Committee of Land Transport Officials (COLTO), 1998 Edition. • "Preferential Procurement Regulations, 2022" published in Government Gazette No 47452 dated 04 November 2022 • "Construction Regulations, 2014" • "Occupational Health and Safety Act", 1993 (Act No. 85 of 1993) • SATS 1286:2011, "Technical specification on the measurement and verification of local content"
C.2.6	*Add the following to the clause:* Extension of time will only be allowed at the discretion of the Employer.
C.2.7	The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. Tender documents will not be made available at the site visit or clarification meeting. Detail relating to the collection of tender documents is indicated in the Tender Notice and Invitation to Tender (Section T1.1 of the document). Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list.
C.2.8	*Replace the contents of the clause with the following:* Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in Clause C 2.15.
C.2.10.5	*Add the following new clause:* If it has not been issued with the tender documents, a digital copy of the Bill of Quantities in MS-Excel format may be obtained from the Employer's Agent at the office of the Employer's Agent upon sufficient notice.
C.2.11	*Add the following to the clause*: To correct errors made, draw a line through the incorrect entry and write the correct entry above in black ink and place the full signatures of the authorised signatories next to the correct entry. Corrections in terms of price may not be made by means of a correction fluid such as Tippex or a similar product. If correction fluid has been used on any specific item price, such item will not be considered. No correction fluid may be used in a Bill of Quantities where prices are calculated to arrive at a total amount. If correction fluid has been used the tender as a whole will not be considered. The bid will be rejected if corrections are not made in accordance with the above.
C.2.12.1	*Add the following to the clause:* All alternative tender offers shall be referred to in the applicable form in the returnable schedules section of the tender – Alterations to Tender.
C.2.12.2	*Add the following to the clause:* Should the Tenderer wish to offer alternative designs and/or construction materials, he shall include with these Tender full details thereof, including a complete bill of quantities, formal

Clause	Addition or Variation to Standard Conditions of Tender
	design calculations, and full details of all alternative components proposed to be included in the Works. Refer also to Clause 4.1.2 of GCC 2015 of the Contract Data in this regard. Failure to properly comply with this clause, thereby preventing the Employer and/or the Employer's Agent to properly assess the full implications of the alternative tender, is likely to disqualify the alternative offered from further consideration. No submission by the Contractor after award for additional payment or time for completion of Works relating to the alternative offer will be considered, the tendered rates submitted shall be considered to reflect the full and final cost implications of the alternative offer. Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements. The modified pricing data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs in confirming the acceptability of the detailed design.
C.2.13.1	*Add the following to the clause:* No claim will be entertained for faults in the tender price resulting from any discrepancies, omissions or indistinct figures.
C.2.13.2	*Replace the contents of the clause with the following:* Return all volumes of the tender document to the Employer after completion of the relevant sections of each volume in their entirety, electronically (if they were issued in electronic format) and by writing legibly in black ink. All volumes are to be left intact in its original format and no pages shall be removed or re-arranged.
C.2.13.3	Parts of each tender offer communicated on paper shall be submitted as two hard copies (one original and one copy) and a soft copy (in a form USB) of the tender/bid document submission .
C.2.13.4	*Add the following to the clause:* Only authorised signatories may sign the original and all copies of the tender offer where required in terms of the tender data 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 certified copy of the Certificate of Incorporation of such company shall, together with 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 **CLOSED CORPORATION** submitting a tender, include a certified copy of the Founding Statement of such corporation, together with 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** 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.

Clause	Addition or Variation to Standard Conditions of Tender
C.2.13.5	The Employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package with the name and address of the tender entered on the back of the envelope are: **Location of Tender Box:** GTAC Tender Box **Physical address:** Ground Floor Reception Area National Treasury Building 240 Madiba Street (corner Thabo Sehume street) Pretoria, 0002 **Identification details:** BID NO.: GTAC 003-2023-24 **Bid Title:** ***OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A:*** **ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3) AND EBENEZER WATER TREATMENT WORK & PUMP STATION.**
C.2.13.6	A two-envelope procedure will not be followed.
C2.13.10	*Add the following new clause:* Accept that all conditions, which are printed or written upon any stationary used by the tenderer for the purpose of or in connection with the submission of a tender offer for this Contract, which are in conflict with the conditions laid down in this document shall be waived, renounced and abandoned.
C.2.13.11	*Add the following new clause:* Accept that the Employer shall in the evaluation of tender offers take due account of the tenderer's past performance in the execution of similar engineering works of comparable magnitude, and the degree to which he possesses the necessary technical, financial and other resources to enable him to complete the Works successfully within the stipulated contract period. Satisfy the Employer and the Employer's Agent as to his ability to perform and complete the Works timeously, safely and with satisfactory quality, and furnish details of contracts of a similar nature and magnitude which they have successfully executed in the past. Accept that the Employer is restricted in accordance with clause 5(1)(h) of the Construction Regulations, 2014, and subject to Clause 3.13, to only appoint a contractor whom he is satisfied has the necessary competencies and resources to carry out the work safely. Accept that the tenderer shall prepare an approach paper to be evaluated in terms of the tenderers ability to relate to the proposed scope of work/project design as described in Section T2.3, Form T2.3.5.
C.2.14	*Add the following to the clause:* The tenderer is required to enter information in the following sections of the document: Section T2 : Returnable Documents and Schedules Section C1.1 : Form of Offer Section C1.2 : Contract Data Section C2.2 : Bill of Quantities Section C2.3 : Summary of Bill of Quantities Section C2.4 : Banking Details

Clause	Addition or Variation to Standard Conditions of Tender
	The above sections shall be signed by the tenderer (and witnesses where required). Individual pages should only be initialled by the successful tenderer and by the witnesses after acceptance by the employer of the tender offer. The tenderer shall complete and sign the Form of Offer prior to the submission of a tender offer. Accept that failure on the part of the tenderer to submit any one of the Returnable Documents listed in clause C.3.8 may result in a tender offer being regarded as non-responsive. The Schedule of Deviations (if applicable) shall be signed by the successful tenderer after acceptance by the employer of the tender offer.
C.2.15.1	The closing time and location for the submission of tender offers are: **Closing date and time:** 27 June at 11h00 a.m. **Identification details:** BID NO.: GTAC 003-2023-24 **Location:** GTAC Tender Box Ground Floor Reception Area National Treasury Building 240 Madiba Street (corner Thabo Sehume street) Pretoria, 0002
C.2.16.1	The tender offer validity period is 150 days from the closing date of the tender. *Add the following to the clause:* If the tender validity expires on a Saturday, Sunday or public holiday, the tender shall remain valid and open for acceptance until the closure of business on the following working day.
C.2.16.5	*Add the following new clause:* Accept that should the tenderer unilaterally withdraw his tender during the tender validity period as specified in the tender data, the Employer shall, without prejudice to any other rights he may have, be entitled to accept any less favourable tender for the Works from those received, or to call for fresh tenders, or to otherwise arrange for execution of the Works, and the tenderer shall pay on demand any additional expense incurred by the Employer on account of the adoption of the said courses, as well as either the difference in cost between the tender withdrawn (as corrected in terms of Clause C.3.9 of the Standard Conditions of Tender) and any less favourable tender accepted by the Employer, or the difference between the tender withdrawn (as corrected) and the cost of execution of the Works by the Employer as well as any other amounts the Employer may have to pay to have the Works completed.
C.2.17	*Replace the contents of the clause with the following:* 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 or re-balancing of imbalanced rates, 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. Accept that the Employer may, at its sole discretion, accept a less favourable tender from those already received or invite fresh tenders if a tenderer, at any time after the opening of his tender offer but prior to entering into a contract based on his tender offer: a) withdraws his tender; b) gives notice of his inability to execute the contract in terms of his tender; or c) fails to comply with a request made in terms of C.2.17 or C.2.18.1,

Clause	Addition or Variation to Standard Conditions of Tender
	in which case such tenderer shall be automatically barred from tendering on any of the Employer's future tenders for a period to be determined by the Employer, but not less than six (6) months, from the date of tender closure. The Employer may fully or partly exempt a tenderer from the provisions of this condition if he is of the opinion that the circumstances justify the exemption. **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 decide.
C.2.18.1	*Add the following to the clause:* Accept that if requested, the Tenderer shall within 7 working days of the date upon which he is requested to do so, submit a full report from his banker as to his financial standing. The Employer may, in its discretion, and subject to the provisions of Section 4(1)(d) of the State Tender Board Act 86 of 1968, condone any failure to comply with the foregoing condition. Accept that the Employer or his agent, reserves the right to approach the Tenderer's banker or guarantor(s) as indicated in the tender document, or the bankers of each of the individual members of any joint venture that is constituted for purposes of this Contract, with a view to ascertaining whether required guarantee will be furnished, and for purposes of ascertaining the financial strength of the Tenderer or of the individual member of such venture. The tenderer must submit to the Employer, names of all management and supervisory staff that will be employed to supervise the labour-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.
C.2.19	Access shall be provided for the following inspections, tests and analysis: Inspection during the compulsory Tender clarification meeting
C.2.20	The tenderer is required to submit with his tender a letter of intent from an approved insurer undertaking to provide the Performance Bond to the format included in the returnable schedules section of this procurement document.
C.2.22	Return all retained tender documents (including drawings) prior to the closing time for the submission of tender offers.
C.2.23	Refer eligibility criteria as noted in Clause C.2.1, information and data to be completed in all respects as per Clause C.2.14, and the test for responsiveness as specified in Clause C3.8.1
C.3.1.1	*Replace the contents of the clause with the following:* Respond to a request for clarification received up to seven (7) working days before the Tender closing time stated in the Tender Data and notify all Tenderers who drew procurement documents within five (5) working days of the same date. Except as above, neither the Employer nor his employees nor any agents of the Employer have any authority to explain to Tenderers the meaning of the Tender Documents or any other matter such as to bind the Employer or to bind or fetter the judgment or discretion of the Employer's Agents in the exercise of their powers and duties in terms of the Contract.

Clause	Addition or Variation to Standard Conditions of Tender
C.3.4	The time and location for opening of the tender offers are: **DATE AND TIME:** 27 June at 11h00 a.m. **LOCATION:** Ground Reception Area **PHYSICAL ADDRESS:** National Treasury Building 240 Madiba Street (corner Thabo Sehume street) Pretoria, 0002 **IDENTIFICATION DETAILS:** BID NO.: GTAC 003-2023-24 **BID TITLE:** ***OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A:* ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3) AND EBENEZER WATER TREATMENT WORK & PUMP STATION.**
C.3.5	A two-envelope procedure will not be followed.
C.3.8.1	*Add the following to the clause:* A responsive tender will be evaluated in terms of the following: • the eligibility requirements of Clause C.2.1, • acknowledge addenda as per Clause C.2.6, • attendance at the clarification meeting as per Clause C.2.7, • all required documents signed by the authorised signatories as per Clause C.2.13.4, • approach paper to be evaluated in terms of the tenderers ability to relate to the proposed scope of work/project design as per Clause C2.13.11 • *information and data to be completed in all respects as per the requirements of Clause C.2.14, of these conditions of tender, summarised below:* **T2.1 SBD Forms** **T2.2 Returnable Schedules required for tender evaluation purposes:** T2.2.1 Compulsory Enterprise Questionnaire T2.2.2 Commissioner of Oaths T2.2.3 Certificate of Attendance at Clarification Meeting T2.2.4 Record of Addenda to Tender Documents T2.2.5 Certified Registration Certificate/Agreement/Powers of Attorney / ID T2.2.6 Certified Proposed Joint Venture T2.2.7 Certificate of Authority of Signature T2.2.8 Certified Original Tax Clearance Certificate T2.2.9 Certified copy of VAT Registration Certificate T2.2.10 Certified copy of latest UIF Return T2.2.11 Original (or certified copy) of Municipal Rates and Taxes Clearance certificate or certified copy of valid Lease Agreement. T2.2.12 Certified Proof of confirmation of Employment Equity Policy from the Department of Labour

Clause	Addition or Variation to Standard Conditions of Tender
	T2.2.13 Certified Proof of expenditure for Skills Development T2.2.14 Certified copy of Letter of good standing with Compensation Commissioner or with a licensed compensation insurer T2.2.15 Certified copy of CIDB Registration Certificate T2.2.16 Preferential Procurement Regulations, 2022 published in Government Gazette, No 47452, dated 04 November 2022) T2.2.17 Pro-forma Certificate of Insurance Cover T2.2.18 Size of Enterprise T2.2.19 Current Workload T2.2.20 Form Concerning fulfilment of the Construction Regulation, 2014 T2.2.21 Tax Compliance on CSD report T2.2.22 Determination of Targeted Procurement T2.2.22 Contract Participation for Targeted Enterprises (EME and QSE) Section C1.1: Form of Offer Section C1.2: Contract Data Section C2.2: Bill of Quantities Section C2.3: Summary of Bill of Quantities Section C2.4: Banking Details
C.3.9.2	*Replace the contents of the clause with the following:* Check all responsive tenders prior to 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	*Add the following new clause:* Consider the rejection of a tender offer if the tenderer does not accept the correction of the arithmetical errors in the manner described in C.3.9.2.
C.3.11.1	Evaluation of tender offers will then be done in accordance with the following: **Functionality, Price and Specific Goals evaluation.** The procedure for the evaluation of responsive tenders is: 1. Local content and functionality; and then 2. Price and preference point system. Local content will be assessed in terms of the revised Preferential Procurement Policy Framework Act. The designated products as specified in SBD6.2: Declaration certificate for local production and content for designated sectors, Declaration C: Local Content Declaration must meet the minimum local thresholds as specified to qualify for further adjudication.

Clause	Addition or Variation to Standard Conditions of Tender
	Tenderers may submit, if applicable, their written authorisation from the Department of Trade and Industry of any exemptions as applicable. This Project is designated for local production with minimum local content thresholds. The following Industry/sectors/sub-sectors have been designated for Minimum threshold for local: • Valves products: 70% • Flow Meters: 30% • Conveyance Pipes: 80-100% • Transformers and Shunt Reactors 70% • Street Light Steel Poles / Steel Substation Structures 100% • Electrical and telecom cables 90% • Pumps, Medium Voltage (MV) Motor and Associated Accessories 70% • Air insulated MV Switchgear 50% • Industrial lead-acid/nickel-cadmium batteries 50% • Instrument transformers 15% • Bus bars 5% • Housing 25% • Switching Devices 5% • Steel Value-added Products 100% The requirement of this tender is that the Contractor must: 1. first meet the minimum mandatory requirements as specified above; and then 2. score at least **seventy** (**70%) percent for functionality** to qualify for further evaluation. Functionality shall be scored by the appointed Bid Evaluation Committee in accordance with the following schedules and scoring systems: **T2.3 Other Documents required for tender evaluation purposes:** T2.3.1 Experience of Key Staff and Curriculum Vitae Key Personnel T2.3.2 Schedule of Previous Work Carried out by Tenderer T2.3.3 Form of Intent to Provide a Performance Guarantee T2.3.4 Tenderer's Bank Rating Letter T2.3.5 Approach and Methodology Paper T2.3.6 Tenderer's Construction Equipment Scores will be allocated to each of the criteria and sub-criteria based on the indicators contained in these schedules.

FUNCTIONALITY EVALUATION CRITERIA

- Under functionality, Bidders must achieve a minimum of 70% of functionality in order to be considered for further evaluation.

No	CRITERIA	CRITERIA DESCRIPTION	SUB-CRITERIA	POINTS ALLOCATION	SCORE
1	Key Personnel: Technical Qualifications and Experience (Company Organogram to be attached, clearly showing the role of the nominated official. Bidders are to utilize the CV format template provided.) **Form T2.3.1**	**CONSTRUCTION PROJECT MANAGER** with minimum B-Tech/BSc Degree or higher in Electrical or Mechanical or Civil Engineering, and professionally registered as Pr. Eng, or Pr. Tech Eng, with ECSA or as Pr. CPM or Pr. CM with SACPCMP or GCC (Factories/Mines), and must have relevant experience in **CONSTRUCTION SITE MANAGEMENT** (Construction Project Manager/Contracts Manager) position/role of water pump stations and/or water treatment plants construction and/or refurbishment projects of capacities of not less than 10ML/day flow capacity. **Points will be allocated as follows:**	Over 5 projects as Construction Project Manager of relevant projects.	10	
			Over 4 – 5 projects as Construction Project Manager of relevant projects.	8	
			Over 2 - 4 projects as Construction Project Manager of relevant projects.	4	
			Less than 2 projects as Construction Project Manager of relevant projects or Not Fully Compliant.	0	
		SITE MANAGER with minimum National Diploma or higher in Electrical or Mechanical Engineering, with experience in **CONSTRUCTION SITE MANAGEMENT** (Site Agent/Manager) position/role of water pump station and/or water treatment plants construction or refurbishment projects of capacities of not less than 10ML/day flow capacity. **Points will be allocated as follows:**	Over 5 projects as Site Manager of relevant projects.	8	
			Over 4 - 5 years as Site Manager of relevant projects.	6	
			Over 2 - 4 years as Site Manager of relevant projects.	4	
			Less than 2 projects as Site Manager or Not Fully Compliant	0	

No	CRITERIA	CRITERIA DESCRIPTION	SUB-CRITERIA	POINTS ALLOCATION	SCORE
		CONSTRUCTION FOREMAN with minimum N5 or higher in Electrical, Millwright or Mechanical Engineering, TRADE TEST CERTIFICATE and experience in construction and installation pumps, valves, electric motors, control and instrumentation equipment, electrical switchgear and control gear, reference to be attached including an academic qualification and a clear indications of job title to be occupied by the nominated official in this project must be incorporated into the organogram attached. **Points will be allocated as follows:**	Over 5 projects as Construction Foreman	4	
			Over 4 - 5 projects as Construction Foreman	3	
			Over 2 - 4 projects as Construction Foreman	2	
			Less than 2 projects as Construction Foreman or Not Fully Compliant	0	
		OHS OFFICER/MANAGER with minimum National Diploma in Safety Management and registration as Pr. CHSA with experience in construction as Health and Safety Officer/Manager construction project. **Points will be allocated as follows:**	Over 5 projects as OHS Officer/Manager	2	
			Over 3 - 5 projects as OHS Officer/Manager	1	
			Less than 3 projects as OHS Officer/Manager or Not Fully Compliant	0	
				Sub-Total 1: (24 Pts Maximum)	
2	Tenderer's Experience	Successfully completed traceable projects in South Africa in the last ten (10) years, for the construction and/or refurbishment of a **PUMP STATION** with	Five (5) or more projects completed	40	
			Four (4) projects completed	32	

No	CRITERIA	CRITERIA DESCRIPTION	SUB-CRITERIA	POINTS ALLOCATION	SCORE
	Form T2.3.2	capacities of not less than **10ML/day** including all mechanical, electrical, control and instrumentation equipment. ✓ Tenderers to provide appointment letter, completion certificate and reference letter on Client's letter head. ✓ No points will be allocated for projects with no completion certificates, practical completion certificates will not be acceptable. Reference forms to be in a format provided in the bid. ✓ Reference form to be completed in full with details of the Employer's Agent (Engineer) registered with recognized professional body such as ECSA or SACPCMP. ✓ Reference form to be completed in full with Clients/Employers details. ✓ Complete Project Experience form in T2.3.2. ✓ Completed reference forms shall be verified with the engineer or employer/client.	Three (3) projects completed	24	
			Two (2) projects completed	16	
			One (1) project completed	8	
			No project or project not fully compliant on set criteria	0	

No	CRITERIA	CRITERIA DESCRIPTION	SUB-CRITERIA	POINTS ALLOCATION	SCORE
				Sub-Total 2: (40 Pts Maximum)	
3	**Financial Position** **Form T2.3.3** and **Form T2.3.4**	Contractor's ability to raise 10% Fixed Performance Guarantee with a Bank registered in terms of the Banks Act (Act No.94 of 1990 or an insurance-based performance guarantee in terms of the FAIS Act.	Certified Letter of Intent from a Bank registered in terms of the Banks Act (Act No. 94 of 1990)	10	
			Bidder only providing an insurance-based performance guarantee in terms of the FAIS Act.	3	
			No Letter provided or letter issued by other financial institutions that is neither a bank registered in terms of Banks Act (Act No. 94 of 1990) nor an institution complying with the FAIS Act.	0	
		Bank Rating: This is to establish the Tenderer's financial capability to meet all contractual obligations and to successfully execute the works within the specified timeframes. **Points will be allocated as follows:**	Code A	10	
			Code B	8	
			Code C	6	
			Code D	4	
			Code E to H	0	
				Sub-Total 3: (20Pts Maximum)	

No	CRITERIA	CRITERIA DESCRIPTION	SUB-CRITERIA	POINTS ALLOCATION	SCORE
4	**Approach and Methodology** **Form T2.3.5**	The tenderer's detailed proposed methodology to execute the scope of work/project, including but not limited to their proposed Construction Method Statements, Proposed Project Schedule, Health and Safety Plan and Quality Management Systems (QA/QC). for a **Pump Station Project of at Least 10 ML/Day Flow And 1000 kW Capacity.** **Points will be allocated as per the sub-items below**			
4.1	**Construction Method Statements**	Specific functionality requirements: a) Procedures for procurement and handling of materials b) Procedures for setting out of works c) Procedures for execution of works d) Schedule of resources required (tools, equipment, and labour)	Four requirements for specific functionality met	4	
			Three requirements for specific functionality met	3	
			Two requirements for specific functionality met	2	
			One requirement for specific functionality met	1	
			None or Not addressed or Not relevant	0	
4.2	**Construction Programme** ▪ Limited to only 12 months for	Specific functionality requirements: a) Activity are linked to show the programme constraints and are logically sequenced. b) Key milestones dates show the completion dates of each work package.	Four requirements for specific functionality met	4	
			Three requirements for specific functionality met	3	

No	CRITERIA	CRITERIA DESCRIPTION	SUB-CRITERIA	POINTS ALLOCATION	SCORE
	practical completion. ▪ Programme above 12 months shall score 0 (zero) points in this section.	c) Continuous critical path present. d) The programme should include a detailed cashflow forecast and in line with the phasing of the project. Bidder to submit in MS or primavera schedule that includes costing of resources on each activity, to demonstrate understanding, the total of which must be the same as the BOQ.	Two requirements for specific functionality met	2	
			One requirement for specific functionality met	1	
			None or Not addressed or Not relevant	0	
4.3	**Quality Control**	Specific functionality requirements: a) Comprehensive quality control plan provided. b) Acceptance test procedures provided. c) Documentation control and management procedures provided. d) Commissioning procedures provided.	Four requirements for specific functionality met	4	
			Three requirements for specific functionality met	3	
			Two requirements for specific functionality met	2	
			One requirement for specific functionality met	1	
			None or Not addressed or Not relevant	0	
4.4	**Project OHS Management Plan Project OHS Management Plan**	Specific functionality requirements: a) Comprehensive project safety management plan b) Project safe working procedures c) Project risk assessment and mitigation strategies.	Four requirements for specific functionality met	4	
			Three requirements for specific functionality met	3	
			Two requirements for specific functionality met	2	

No	CRITERIA	CRITERIA DESCRIPTION	SUB-CRITERIA	POINTS ALLOCATION	SCORE
		d) Schedule of proposed legal and statutory appointments	One requirement for specific functionality met	1	
			None or Not addressed or Not relevant	0	
Sub-Total 4: (16 Pts Maximum)					
TOTAL				**100**	

- ✓ * The letter of undertaking will not oblige the financial institution to issue a performance guarantee, but merely serves as an indication of the Tenderers ability to obtain a performance guarantee.
- ✓ The JV agreement for JV partners to be submitted indicating percentage split up to 100%for partners to render agreement valid (Point will be allocated as per pro rata(proportional) JV percentage split). This is only applicable on company experience under functionality evaluation.
- ✓ Items not allocated (0 points) but allocated – Disqualification shall constitute complete disqualification from the bid and no further evaluation.
- ✓ Minimum points to be scored is 70% (70 points out of 100 points), failure will lead to disqualification from further evaluation.

C.3.12.

Minimum points to be scored is **70 points out of 100 points**, failure will lead to disqualification.

90/10 preference point system for acquisition of good or service with Rand value above R50 million, as per Specific Goals - Preferential Procurement Regulations, 2022

5.(1) The following formula must be used to calculate the points out of 90 for price in respect of an invitation for tender with Rand value above R50 million, inclusive of all applicable taxes:

The 90/10 Specific Goals Preferential Procurement Regulation (PPR) 2022 will be used to evaluate the bid.
Financial offer and Preferential Point System:

a) Score tender evaluation points for financial offer.

b) Confirm that tenderers are eligible for the Preference points claimed, and if so, score tender evaluation points.

c) Calculate total tender evaluation points.

d) Rank tender offers from the highest number of tender evaluation points to the lowest.

e) Recommend tenderer with the highest number of tender evaluation points for the award of the contract, unless there are compelling and justifiable reasons not to do so.

Scoring Financial Offers

Score the financial offers of remaining responsive tender offers using the following formula:

$$N_{FQ} = 90 \times \left(1 + \frac{P - P_m}{P_m}\right)$$

Where:

N_{FQ} is the number of tender evaluation points awarded for the financial offer.

P_m is the comparative offer of the most favorable tender offer.

P is the comparative offer of tender offer under consideration.

The 90/10 Preferential Point System will be used to evaluate the bid.
Preference Points Allocation (As per the specific goals Preferential points regulations

The points scored by the tenderer in respect must be added to the points scored for price according to the following formula:

$T_{EV} = N_{FQ} + N_P$

Where:

T_{EV} is the total number of tender evaluations points.

N_{FQ} is the number of tender evaluation points awarded for the financial offer.

N_P is the number of tender evaluation points awarded for preference in accordance with Preferential Procurement Regulations.

Note: Subject to section 2(1)(f) of the Act, the contract must be awarded to the tenderer scoring the highest points

SCORING PREFERENCE:

The tenderer is required to be registered on the CSD in order to score points for specific goals as indicated below:

Table C.2: Preferential Points System

Specific Goals	Means of verification	90/10 Points
Disability (Minimum of 1 shareholder ownership in the company	CSD Report	2,5
Black women (100% Black women ownership in the company)	CSD Report	2,5
Black ownership (100% black ownership in the company)	CSD Report	2,5
Black Youth (Minimum of 1 shareholder Black youth ownership in the company)	CSD Report	2,5
Total points		**10**

C.3.13

Add the following to the clause:

g) the Employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely

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

In terms of Clause C.3.13, the client (Employer) shall be responsible for the following in order to ensure compliance with the provisions of the Act:

(i) to prepare a health and safety specifications for the construction work and provide any principal contractor who is making a bid or appointed to perform construction work for the client with the same.

(ii) to ensure that every principal contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to work commencing on site; and

(iii) to ensure that potential principal contractors (Contractors) submitting tenders, have made provision for the cost of health and safety measures during the construction process.

In terms of Clause C.3.13.(g), the Tenderer shall submit with his tender a detailed Health and Safety Plan in respect of the Works in order to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act and Regulations. Such Health and Safety Plan shall cover inter-alia the following details:

(i) Management structure, site supervision and responsible persons including a succession plan.

(ii) Contractor's induction training programme for employees, sub-contractors and visitors to the Site.

(iii) Health and safety precautions and procedures to be adhered to in order to ensure compliance with the Act, Regulations and Safety Specifications.

(iv) Regular monitoring procedures to be performed.

(v) Regular liaison, consultation and review meetings with all parties.

(vi) Site security, welfare facilities and first aid.

(vii) Site rules and fire and emergency procedures.

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

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

The Contractor is required to submit to the Employer the Occupational Health and Safety Agreement (included in C1.2 of the Contract Document) within 14 days from the Commencement Date of the contract.

1 Only Contractors capable of testing and commissioning of plant and equipment to the quality standards required under this tender will be considered. Materials and components used by the Contractor shall comply with the requirements of the specification and, in addition, shall be of demonstrated quality for the purpose for which they are intended. Tenderers will be required, to understand and demonstrate compliance with these requirements by the submission of their Quality System at the time of tendering

	The Quality System shall take the form of a coordinated and formally documented statement and shall include quality management objectives, policies, organisation, procedures and work instructions that demonstrate the Contractor's implementation of the requirements of IS0 9001/2000 Code for Quality Management Systems. The Tenderer shall submit an assessment report on his Quality System with his tender. The assessment report shall be issued by an independent quality assurance authority and shall have been carried out not more than 12 months prior to the date of submission of this tender. The Tenderer shall also provide evidence of any valid ISO/SABS accreditations at the time of tender submission.
C.3.17	The number of paper copies of the signed Contract to be provided by the Employer is 1.
C.4.2	**Invalid Tenders** Tenderers shall be considered invalid and shall be endorsed and recorded as such in the tender opening record, by the responsible official who opened the tender, in the following circumstances: a) If the tender offer is not submitted on the Form of Offer and Acceptance bound into this tender document (form C1.1, Part C1: Agreements and Contract Data). b) If the tender is not completed in non-erasable ink. c) If the offer has not been signed d) If the offer is signed, but the name of the Tenderer is not stated or is indecipherable.
C.4.3	**Claims arising after submission of Tender** No claim for any extras arising out of any doubt or obscurity as to the true intent and meaning of anything shown on the Contract Drawings or contained in the Conditions of Contract, Scope of Work and Pricing Data, will be admitted by the Employer/Employer's Agent after the submission of any tender and the Tenderer shall be deemed to have: 1) inspected the Contract drawings and read and fully understood the Conditions of Contract, 2) read and fully understood the whole text of the Scope of Work and pricing data and thoroughly acquainted himself with the nature of the works proposed and generally of all matters which may influence the Contract, 3) visited the site of the proposed works, carefully examined existing conditions, the means of access to the Site, the conditions under which the work is to be done, and acquainted himself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials and plant to and from the site and made the necessary provisions for any additional costs involved thereby, and 4) requested the Employer or his duly authorised agent to make clear the actual requirements of anything shown on the Contract Drawings or anything contained in the

	Scope of Work and Pricing Data, the exact meaning or interpretation of which is not clearly intelligible to the Tenderer. Before submission of any tender, the Tenderer should check the number of pages, and if any are found to be missing or duplicated, or the figures or writing indistinct, or if the pricing data contain any obvious errors, the Tenderer must apply to the Employer/Employer's Agent at once to have the same rectified, as no liability will be admitted by the Employer/Employer's Agent in respect of errors in any tender due to the foregoing.
C.4.4	**General** 1. This contract will be governed by Lepelle Northern Water "Conditions of TENDER" as outlined in this document only and not any condition supplied by the Tenderer. 2. The quantities called for in this tender are an estimated quantity and Lepelle Northern Water reserves the right to take more or less than the quantity specified. 3. Full details of items offered and or drawings / pamphlets etc. must be supplied together with the return documents. All additional drawings / pamphlets returned with the tender documents must be firmly bound and marked as "Additional" to the specific tender reference number. 4. All items offered on this tender must be new and of the latest design. 5. Only tenders on Lepelle Northern Water official tender document will be accepted and the original document must be returned, fully completed and signed, in the form presented. Failure to do so will invalidate such tender. 6. It must be clearly understood by the Tenderer, that no order/s for such commodities or services required by the Lepelle Northern Water will be recognized by the Tenderer unless an Lepelle Northern Water official order is issued and it is further understood that Lepelle Northern Water will not accept responsibility for any payment to the Tenderer unless the delivery notes and invoices for such goods or services quote the relevant order number and is sent to Lepelle Northern Water, Finance Department. 7. Should it be considered necessary by the Tenderer, in the interest of design, quality or inspection for whatever reason that Lepelle Northern Water official should proceed to other canters for inspection purposes, such costs shall be for the account of the Tenderer. 8. SERVICE PROVIDER (SP) TAX STATUS WILL BE VERIFIED ON CSD; IN THE EVENT THAT YOUR TAX STATUS INDICATE NON-COMPLIANT YOUR TENDER WILL BE DISQUALIFIED 9. TENDERER'S FINANCIAL DETAIL a. In terms of the standard conditions of Tender, the Tenderer shall provide information about its commercial position, which includes information necessary for the Employer to evaluate the Tenderer's financial standing. b. A third-party credit bureau check will be used to determine the credit worthiness of the Tenderer. c. The financial standing of the Tenderer will be assessed by third party credit checks on the main contractor d. An analysis of the Tenderer financial standing will be conducted by third party for the purposes of establishing the Tenderers financial viability and ability to meet all

	of its contractual obligations for the duration of the contract, should the Tenderer be awarded the contract. e. Tenders that do not meet Lepelle Northern Water's financial requirements as per third party assessment, will be disqualified from further assessment
C.4.5	**Demonstrations and Inspections** 1. All Tenderers must be prepared to demonstrate where required, free of charge and obligation, at Lepelle Northern Water or any other area within the boundary of Lepelle Northern Water, any items offered in this tender. 2. Where officials are required to attend demonstrations or inspections outside the Provincial Municipality boundary of Limpopo, all costs to attend such demonstration must be borne by the Tenderer.
C.4.6	**Deliveries, Completion and Penalties** 1. Delivery date to be negotiated on placing the order. 2. Tenderers shall furthermore note that goods or services will not be considered acceptable and consequently their obligations not fulfilled should goods or services fail to comply with the specifications in the tender document. 3. Where the supplier fails to deliver within the scope of the specifications of this tender, Lepelle Northern Water reserves the right to obtain services from any other supplier that complies with the specifications and the tenderer will be held responsible for all costs involved.
C.4.7	**Payments** 1. Payment will be made within 30 days from statement invoice date subject to satisfactory execution of the contract conditions and provided that the statement/invoice is without error. 2. Tenders must clearly state all settlement and trade discounts. 3. Any additional payment for extra work carried out on a contract will only be made provided that the contractor is issued with a variation order by the delegated official of Lepelle Northern Water. 4. Lepelle Northern Water hereby indemnifies itself from any claims whatsoever, which may arise as a result of loss of income suffered by the tenderer for any reason directly or indirectly during the course of this tender and Lepelle Northern Water reserves the right to consider compensation at its own terms.
C4.8	**Contract Condition** a) The contract shall abide by the CIDB B.U.I.L.D Programme for sub-contractor and skills development and targeted procurement as per the Government Gazette of RSA Vol. 661 of 3 July 2022 No.43495.

b) The both JV partners and especially the lead partner shall be present on site for the duration of the project until completion.

c) The contract be limited to 12 months for practical completion.

d) LNW reserves the right to reduce the scope of works by more than 50%. Furthermore, LNW reserves to the right to remove the items for supply and delivery of pumps and motors and to free issue the same.

e) LNW reserves the right to free issue the pumps and motors which might be procured before the award of the contractor's contract (the bidder). The bidder is to provide a price for taking ownership of the free issued materials/equipment from LNW for installation and commissioning as per the BOQ item and specifications. The rate only item shall be as stated in the particular specifications, the pricing schedule and pricing instructions.

f) The specifications of pumps and motors free issued by LNW, shall be accepted by the bidder before the contract award is finalised. LNW reserves the right to move to the next bidder if an agreement is not reached regarding the pump and motors.

g) For bids of an amount of R 30 Million, and above, the contractor is to subcontract part of his/her works of the project. The works to be sub-contracted to the designated groups of locals (51% black owned companies) within the relevant Local, District Municipalities and Province as required by the respective tender. Local sub-contractors are to comply with applicable regulations. The works to be subcontracted includes but not limited to building works, civil works, plant hire, supply of non-strategic material, etc. Targeted Procurement ratio will be calculated based on the tendered sum of the works less the following:

- VAT
- Contingencies
- Preliminary and General
- Contract Price Adjustment (CPA)
- Value of the deductible materials as listed in Table T2.2.22-1 below

- **Table T2.2.22-1 Schedule of items excluded in the calculation of the TARGETED PROCUREMENT**

Section	Description	Amount
1	High Lift Pumps	
2	MV (6.6kV) Motors	

3	PLCs, HMI Units, Telemetry and SCADA System	
4	MV (6.6kV) Variable Speed Drives	
5	Valves > 250mm diameter	
6	Pipe fitting > 250mm diameter	
7	Other (Please Specify)	
	Sub Total (exc. VAT)	

h) LNW reserves the right to request the contractor to subcontract works within the project to locals in the relevant Local Municipality, District Municipality and Province as required by the respective tender.

i) The contractor shall under no circumstances interrupt the operations of the plant as a result of his/her activities in, or around the Scheme without approval by LNW which shall be limited to 48 hours and 30 days' notice prior the date of the shutdown.

j) All construction activities shall be executed on operational (live) pump station and plant.

k) Full adherence to the Occupational and Health and Safety Act, Act 85 of 1993 and other applicable Acts will be applicable during the course of the contract; and

l) Labour desk to be created for employing local labour. All unskilled labour will be from local communities, skills transfer to be considered and where skilled locals are available, they are to be given first preference.

m) All rates are to be fully priced on the project BOQ. LNW reserves the right to instruct the recommended bidder(s) to balance the rates and price all BOQ items before award of the contract.

n) Form of contract shall be GCC 2015.

o) Risk analysis will be conducted for the top 3 recommended bidders by Lepelle Northern Water through verifying company experience and personnel as submitted by the bidder including the arithmetic checks on the contract amount.

p) LNW reserves the right to conduct a site assessment for any of the listed completed projects by the bidder before award as part of the risk assessment by discretion.

q) All sections of the contract document shall be fully initialled by the contractor.

- ✓ *All certified copies must not be older than three months from tender closing date.*
- ✓ *Lepelle Northern Water reserves the right to verify any information provided by the bidder and any Service Provider submitting a proposal for this tender is automatically giving Lepelle consent for to verify or use any information/ documents submitted.*

NOTE:

i. *The JV partners must submit both mandatory and administrative documents for each Company.*
ii. *Preferred JV bidder will be required to submit a JV bank account and VAT number*
iii. *The JV agreement for JV partners to be submitted indicating percentage split up to 100% for partners to render agreement valid (Point will be allocated as per pro rata (proportional) JV percentage split). This is only applicable on company experience under functionality evaluation.*
iv. *The client reserves the right to verify any information provided by the bidder. Falsified references/experience will lead to disqualification and restriction with the National Treasury in terms of the SCM process in conjunction with legal processes.*
v. *The bidders must comply with all terms and condition including requirements as stipulated in the Tender Documents to be evaluated further.*
vi. *LNW is not compelled to accept the lowest quote or any bid.*
vii. *LNW reserves the right to reduce the scope of works by more than 50% reference to scope of work.*
viii. *LNW reserves the rights to negotiate pricing with the recommended bidder.*
ix. *LNW reserves the right to increase or reduce the scope of the project.*

END OF SECTION

T1.3 STANDARD CONDITION OF TENDER

The Standard Conditions of Tender that shall govern, shall be the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity as published in Government Gazette No 42622 of 8 August 2019 as amended and supplemented by the Tender Data in Part T1.2.

The complete extract entitled “Annex C” is bound hereafter into this volume and may not have been edited where found in electronic format by any tender document compiler or tenderer. However, where differences between the original published edition and the edition bound in this document are evident, the original published edition shall govern.

Annex C
(normative)

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 positin 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 which 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 engineering and construction works specified in the invitation; or

(b) funds are no longer available to cover the total envisaged expenditure; or

(c) no acceptable tenders are received; or

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

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

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

C.1.6 Procurement procedures

C.1.6.1 General

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

C.1.6.2 Competitive negotiation procedure

C.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be

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

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

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

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

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

C.1.6.3 Proposal procedure using the two stage-system

C.1.6.3.1 Option 1

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

C.1.6.3.2 Option 2

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

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

C.2 TENDERER'S OBLIGATIONS

C.2.1 Eligibility

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

C.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements

used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

C.2.2 Cost of tendering

C2.2.1 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 comply with requirements.

C2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

C.2.3 Check documents

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

C.2.4 Confidentiality and copyright of documents

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

C.2.5 Reference documents

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

C.2.6 Acknowledge addenda

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

C.2.7 Clarification meeting

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

C.2.8 Seek clarification

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

C.2.9 Insurance

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

C.2.10 Pricing the tender offer

C.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes except

Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the tender data.

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

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

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

C.2.11 Alterations to documents

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

C.2.12 Alternative tender offers

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

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

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

C.2.13 Submitting a tender offer

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

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

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

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

C.2.13.5 Seal the original and 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, policies, etc.

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 preferential points system 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 preferential points system. 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 nonconforming deviation or reservation.

C.3.9 Arithmetical errors 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:

C3.9.2 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.

C3.9.3 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.

C3.9.3 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

a) If bills of quantities or pricing schedules apply and there is an error in the line-item total resulting from the product of the unit rate and the quantity, the line-item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line-item total as quoted shall govern, and the unit rate shall be corrected.

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

C.3.10 Clarification of a tender offer

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

C.3.11 Evaluation of tender offers

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

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

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

The activities associated with evaluating tender offers are as follows:

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

C.3.11.1 General

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

C.3.12 Insurance provided by the employer

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

C.3.13 Acceptance of tender offer

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

a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement;

b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;

c) has the legal capacity to enter into the contract;

d) is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing;

e) complies with the legal requirements, if any, stated in the tender data; and

f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

C.3.14 Prepare contract documents

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

a) addenda issued during the tender period,

b) inclusion of some of the returnable documents and

c) other revisions agreed between the employer and the successful tenderer

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

C.3.15 Complete adjudicator's contract

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

C.3.16 Registration of the award

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

C.3.17 Provide copies of the contracts

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

C.3.18 Provide written reasons for actions taken

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

END OF SECTION

T1.4 GUIDANCE DOCUMENT FOR THE CALCULATION OF LOCAL CONTENT

These Conditions of Tender are subject to the requirements of the SATS 1286:2011, “Technical specification on the measurement and verification of local content”.

The “Guidance Document for the calculation of Local Content” is bound hereafter into this volume and may not have been edited where found in electronic format by any tender document compiler or tenderer. However, where differences between the original published edition and the edition bound in this document are evident, the original published edition shall govern.

the dti
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Trade and Industry
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Guidance Document for the Calculation of Local Content

1. DEFINITIONS

Unless explicitly provided in this guideline, the definitions given in SATS 1286:2011 apply.

2. GENERAL

2.1. Introduction

This guideline provides tenderers with a detailed description of how to calculate local content of products (goods, services and works) by components/material/services and enables them to keep an updated record for verification requirements as per the SATS 1286:2011 Annexure A and B.

The guideline consists of two parts, namely:

- a written guideline; and
- three declarations that must be completed:
  - Declaration C: "Local Content Declaration – Summary Schedule" (see Annexure C);
  - Declaration D: "Imported Content Declaration – Supporting Schedule to Annex C" (see Annexure D); and
  - Declaration E: "Local Content Declaration – Supporting Schedule to Annex C" (see Annexure E).

The guidelines and declarations should be used by tenderers when preparing a tender. A tenderer must complete Declarations D and E, and consolidate the information on Declaration C.

Annexure C must be submitted with the tender by the closing date and time as determined by the Tender Authority. The Tender Authority reserves the right to request that Declarations D and E also be submitted.

If the tender is successful, the tenderer must continuously update Declarations C, D and E with actual values for the duration of the contract.

NOTE:

Annexure A is a note to the purchaser in SATS 1286:2011; and
Annexure B is the Local Content Declaration IN SATS 1286:2011.

2.2. What is local content?

According to SATS 1286:2011, the local content of a product is the tender price less the value of imported content, expressed as a percentage. It is, therefore, necessary to first compute the imported value of a product to determine the local content of a product.

2.3. Categories: Imported and Local Content

The tenderer must differentiate between imported content and local content.

Imported content of a product by components/material/services is separated into two categories, namely:

- products imported directly by the tenderer; and
- products imported by a third party and supplied to the tenderer.

2.3.1. Imported Content

Identify the imported content, if any, by value for products by component/material/services. In the case of components/materials/services sourced from a South African manufacturer, agent, supplier or subcontractor (i.e. third party), obtain that information and Declaration D from the third party.

Calculate the imported content of components/materials/services to be used in the manufacture of the total quantity of the products for which the tender is to be submitted.

As stated in clause 3.2.4 of SATS 1286:2011: "If information on the origin of components, parts or materials is not available, it will be deemed to be imported content."

2.3.1.1. Imported directly by the tenderer:

When the tenderer import products directly, the onus is on the tenderer to provide evidence of any components/materials/services that were procured from a non-domestic source. The evidence should be verifiable and pertain to the tender as a whole. Typical evidence will include commercial invoices, bills of entry, etc.

When the tenderer procures imported services such as project management, design, testing, marketing, etc and makes royalty and lease payments, such payments relating to the tender must be included when calculating imported content.

2.3.1.2. Imported by a third party and supplied to the tenderer:

When the tenderer supplies components/material/services that are imported by any third party (for example, a domestic manufacturer, agent, supplier or subcontractor in the supply chain), the onus is on the tenderer to obtain verifiable evidence from the third party.

The tenderer must obtain Declaration D from all third parties for the related tender. The third party must be requested by the tenderer to continuously update Declaration D. Typical evidence of imported content will include commercial invoices, bills of entry etc.

When a third party procures imported services such as project management, design, testing, marketing etc. and makes royalty and lease payments, such payments relating to the tender must be included when calculating imported content.

2.3.1.3. Exempt Imported Content:

Exemptions, if any, are granted by the Department of Trade and Industry (**the dti**). Evidence of the exemptions must be provided and included in Annexure D.

2.3.2. Local Content

Identify and calculate the local content, by value for products by components/materials/services to be used in the manufacture of the total quantity of the products.

3. ANNEXURE C

3.1. Guidelines for completing Annexure C: Local Content Declaration – Summary Schedule

Note: The paragraph numbers correspond to the numbers in Annexure C.

C1. Tender Number

Supply the tender number that is specified on the specific tender documentation.

C2. Tender description

Supply the tender description that is specified on the specific tender documentation.

C3. Designated products

Supply the details of the products that are designated in terms of this tender (i.e. buses).

C4. Tender Authority

Supply the name of the tender authority.

C5. Tendering Entity name

Provide the tendering entity name (for example, Unibody Bus Builders (Pty) Ltd).

C6. Tender Exchange Rate

Provide the exchange rate used for this tender, as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

C7. Specified local content %

Provide the specified minimum local content requirement for the tender (i.e. 80%), as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MDB) 6.2.

C8. Tender item number

Provide the tender item number(s) of the products that have a local content requirement as per the tender specification.

C9. List of items

Provide a list of the item(s) corresponding with the tender item number. This may be a short description or a brand name.

Calculation of local content

C10. Tender price

Provide the unit tender price of each item excluding VAT.

C11. Exempted imported content

Provide the ZAR value of the exempted imported content for each item, if applicable. These value(s) must correspond with the value(s) of column D16 on Annexure D.

C12. Tender value net of exempted imported content

Provide the net tender value of the item, if applicable, by deducting the exempted imported content (C11) from the tender price (C10).

C13. Imported value

Provide the ZAR value of the items' imported content.

C14. Local value

Provide the local value of the item by deducting the Imported value (C13) from the net tender value (C12).

C15. Local content percentage (per item)

Provide the local content percentage of the item(s) by dividing the local value (C14) by the net tender value (C12) as per the local content formula in SATS 1286.

Tender Summary

C16. Tender quantity

Provide the tender quantity for each item number as per the tender specification.

C17. Total tender value

Provide the total tender value by multiplying the tender quantity (C16) by the tender price (C10).

C18. Total exempted imported content

Provide the total exempted imported content by multiplying the tender quantity (C16) by the exempted imported content (C11). These values must correspond with the values of column D18 on Annexure D.

C19. Total imported content

Provide the total imported content of each item by multiplying the tender quantity (C16) by the imported value (C13).

C20. Total tender value

Total tender value is the sum of the values in column C17.

C21. Total exempted imported content

Total exempted imported content is the sum of the values in column C18. This value must correspond with the value of D19 on Annexure D.

C22. Total tender value net of exempted imported content

The total tender value net of exempt imported content is the total tender value (C20) less the total exempted imported content (C21).

C23. Total imported content

Total imported content is the sum of the values in column C19. This value must correspond with the value of D53 on Annexure D.

C24. Total local content

Total local content is the total tender value net of exempted imported content (C22) less the total imported content (C23). This value must correspond with the value of E13 on Annexure E.

C25. Average local content percentage of tender

The average local content percentage of tender is calculated by dividing total local content (C24) by the total tender value net of exempted imported content (C22).

4. ANNEXURE D

4.1. Guidelines for completing Annexure D: "Imported Content Declaration – Supporting Schedule to Annexure C"

Note: The paragraph numbers correspond to the numbers in Annexure D.

D1. Tender number

Supply the tender number that is specified on the specific tender documentation.

D2. Tender description

Supply the tender description that is specified on the specific tender documentation.

D3. Designated products

Supply the details of the products that are designated in terms of this tender (i.e. buses).

D4. Tender authority

Supply the name of the tender authority.

D5. Tendering entity name

Provide the tendering entity name (i.e. Unibody Bus Builders (Pty) Ltd).

D6. Tender exchange rate

Provide the exchange rate used for this tender, as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

<u>Table A. Exempted Imported Content</u>

D7. Tender item number

Provide the tender item number(s) of the product(s) that have imported content.

D8. Description of imported content

Provide a list of the exempted imported product(s), if any, as specified in the tender.

D9. Local supplier

Provide the name of the local supplier(s) supplying the imported product(s).

D10. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the exempted imported product(s).

D11. Imported value as per commercial invoice

Provide the foreign currency value of the exempted imported product(s) disclosed in the commercial invoice accepted by the South African Revenue Service (SARS).

D12. Tender exchange rate

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D13. Local value of imports

Convert the value of the exempted imported content as per commercial invoice (D11) into the ZAR value by using the tender exchange rate (D12) disclosed in the tender documentation.

D14. Freight costs to port of entry

Provide the freight costs to the South African Port of the exempted imported item.

D15. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the exempted imported product(s) as stipulated in the SATS 1286:2011.

D16. Total landed costs excl VAT

Provide the total landed costs (excluding VAT) for each item imported by adding the corresponding item values in columns D13, D14 and D15. These values must be transferred to column C11 on Annexure C.

D17. Tender quantity

Provide the tender quantity of the exempted imported products as per the tender specification.

D18. Exempted imported value

Provide the imported value for each of the exempted imported product(s) by multiplying the total landed cost (excl. VAT) (D16) by the

tender quantity (D17). The values in column D18 must correspond with the values of column C18 of Annexure C.

D19. Total exempted imported value

The total exempted imported value is the sum of the values in column D18. This total must correspond with the value of C21 on Annexure C.

Table B. Imported Directly By Tenderer

D20. Tender item numbers

Provide the tender item number(s) of the product(s) that have imported content.

D21. Description of imported content:

Provide a list of the product(s) imported directly by tender as specified in the tender documentation.

D22. Unit of measure

Provide the unit of measure for the product(s) imported directly by the tenderer.

D23. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the imported product(s).

D24. Imported value as per commercial Invoice

Provide the foreign currency value of the product(s) imported directly by tenderer disclosed in the commercial invoice accepted by the South African Revenue Service (SARS).

D25. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D26. Local value of imports

Convert the value of the product(s) imported directly by the tenderer as per commercial invoice (D24) into the ZAR value by using the tender exchange rate (D25) disclosed in the tender documentation.

D27. Freight costs to port of entry

Provide the freight costs to the South African Port of the product(s) imported directly by the tenderer.

D28. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the product(s) imported directly by the tenderer as stipulated in the SATS 1286:2011.

D29. Total landed costs excl VAT

Provide the total landed costs (excluding VAT) for each item imported directly by the tenderer by adding the corresponding item values in columns D26, D27 and D28.

D30. Tender quantity

Provide the tender quantity of the product(s) imported directly by the tenderer as per the tender specification.

D31. Total imported value

Provide the total imported value for each of the product(s) imported directly by the tenderer by multiplying the total landed cost (excl. VAT) (D29) by the tender quantity (D30).

D32. Total imported value by tenderer

The total value of imports by the tenderer is the sum of the values in column D31.

Table C. Imported by Third Party and Supplied to the Tenderer

D33. Description of imported content

Provide a list of the product(s) imported by the third party and supplied to the tenderer as specified in the tender documentation.

D34. Unit of measure

Provide the unit of measure for the product(s) imported by the third party and supplied to tenderer as disclosed in the commercial invoice.

D35. Local supplier

Provide the name of the local supplier(s) supplying the imported product(s).

D36. Overseas supplier

Provide the name(s) of the overseas supplier(s) supplying the imported products.

D37. Imported value as per commercial invoice

Provide the foreign currency value of the product(s) imported by the third party and supplied to the tenderer disclosed in the commercial invoice accepted by SARS.

D38. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D39. Local value of imports

Convert the value of the product(s) imported by the third party as per commercial invoice (D37) into the ZAR value by using the tender exchange rate (D38) disclosed in the tender documentation.

D40. Freight costs to port of entry

Provide the freight costs to the South African Port of the product(s) imported by third party and supplied to the tenderer.

D41. All locally incurred landing costs and duties

Provide all landing costs including customs and excise duty for the product(s) imported by third party and supplied to the tenderer as stipulated in the SATS 1286:2011.

D42. Total landed costs excluding VAT

Provide the total landed costs (excluding VAT) for each product imported by third party and supplied to the tenderer by adding the corresponding item values in columns D39, D40 and D41.

D43. Quantity imported

Provide the quantity of each product(s) imported by third party and supplied to the tenderer for the tender.

D44. Total imported value

Provide the total imported value of the product(s) imported by third party and supplied to the tenderer by multiplying the total landed cost (D42) by the quantity imported (D43).

D45. Total imported value by third party

The total imported value from the third party is the sum of the values in column D44.

Table D. Other Foreign Currency Payments

D46. Type of payment

Provide the type of foreign currency payment. (i.e. royalty payment for use of patent, annual licence fee, etc).

D47. Local supplier making the payment

Provide the name of the local supplier making the payment.

D48. Overseas beneficiary

Provide the name of the overseas beneficiary.

D49. Foreign currency value paid

Provide the value of the listed payment(s) in their foreign currency.

D50. Tender rate of exchange

Provide the exchange rate used for this tender as per the Standard Bidding Document (SBD) and Municipal Bidding Document (MBD) 6.2.

D51. Local value of payments

Provide the local value of each payment by multiplying the foreign currency value paid (D49) by the tender rate of exchange (D50).

D52. Total of foreign currency payments declared by tenderer and/or third party

The total of foreign currency payments declared by tenderer and/or a third party is the sum of the values in column D51.

D53. Total of imported content and foreign currency payment

The total imported content and foreign currency payment is the sum of the values in column D32, D45 and D52. This value must correspond with the value of C23 on Annexure C.

5. ANNEXURE E

5.1. Guidelines to completing Annexure E: "Local Content Declaration- Supporting Schedule to Annexure C"

The paragraph numbers correspond to the numbers in Annexure E

E1. Tender number

Supply the tender number that is specified on the specific tender documentation.

E2. Tender description

Supply the tender description that is specified on the specific tender documentation.

E3. Designated products

Supply the details of the products that are designated in terms of this tender (for example, buses/canned vegetables).

E4. Tender authority

Supply the name of the tender authority.

E5. Tendering entity name

Provide the tendering entity name (for example, Unibody Bus Builders (Pty) Ltd) Ltd).

Local Goods, Services and Works

E6. Description of items purchased

Provide a description of the items purchased locally in the space provided.

E7. Local supplier

Provide the name of the local supplier that corresponds to the item listed in column E6.

E8. Value

Provide the total value of the item purchased in column E6.

E9. Total local products (Goods, Services and Works)

Total local products (goods, services and works) is the sum of the values in E8.

E10. Manpower costs:

Provide the total of all the labour costs accruing only to the tenderer (i.e. not the suppliers to tenderer).

E11. Factory overheads:

Provide the total of all the factory overheads including rental, depreciation and amortisation for local and imported capital goods, utility costs and consumables. (Consumables are goods used by individuals and businesses that must be replaced regularly because they wear out or are used up. Consumables can also be defined as the components of an end product that are used up or permanently altered in the process of manufacturing, such as basic chemicals.)

E12. Administration overheads and mark-up:

Provide the total of all the administration overheads, including marketing, insurance, financing, interest and mark-up costs.

E13. Total local content:

The total local content is the sum of the values of E9, E10, E11 and E12. This total must correspond with C24 of Annexure C.

ANNEXURE A

INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR VALVES PRODUCTS AND ACTUATORS

national treasury
Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

TO: ACCOUNTING OFFICERS OF ALL NATIONAL DEPARTMENTS AND CONSTITUTIONAL INSTITUTIONS

ACCOUNTING OFFICERS OF ALL MUNICIPALITIES AND MUNICIPAL ENTITIES

ACCOUNTING AUTHORITIES OF ALL SCHEDULE 2 AND 3 PUBLIC ENTITIES

HEAD OFFICIALS OF PROVINCIAL TREASURIES

NATIONAL TREASURY DESIGNATED SECTORS INSTRUCTION NUMBER 11 OF 2016/2017

INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR VALVES PRODUCTS AND ACTUATORS

1. PURPOSE

1.1 The purpose of this Instruction is to regulate the environment within which Accounting Officers (AOs) and Accounting Authorities (AAs) may procure valves products and actuators which have been designated as a sector for local production and content.

2. BACKGROUND

2.1 The Preferential Procurement Regulations, 2011("the Regulations") issued in terms of Section 5 of the Preferential Procurement Policy Framework Act, 2000 (Act No 5 of 2000) which came into effect on 7 December 2011, make a provision for the Department of Trade and Industry (**the dti**) to designate sectors in line with the national development and industrial policies for local production.

2.2 Regulation 9 (1) of the Regulations prescribes that, in the case of designated sectors, wherein the award of bids for local production and content is of critical importance, such bids must be advertised with a specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.

2.3 **The dti** has designated and determined the stipulated minimum threshold for valves products, manual actuators (gearbox) and pneumatic actuators for local production and content.

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NATIONAL TREASURY DESIGNATED SECTORS INSTRUCTION NUMBER 11 OF 2016/2017
INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR VALVES PRODUCTS AND ACTUATORS

3.2 To ensure that local production and content is discharged on manufacturing activities, the following valves products, manual actuators (gearbox) and pneumatic actuators which have been designated must be included in bid invitations:

Types of Valves	Pressure type	Size	Pressure Rating (or imperial equivalent)	% Local Content per unit
Check Valves (Non-Return valves, Reflux valves, Tilting Disk valves Double Door, Multi Door, Swing Check)	Low pressure	80mm-3500mm	PN6-PN25	70%
	High pressure	80mm-2500mm	Class 150 -1500 Metric PN25 - PN250	70%
Butterfly Valves (Rotating Disk valves, Rotary Control valve, Quarter Turn Gate valve)	Low pressure	80mm-3500mm	PN6-PN25	70%
	High pressure	80mm-3500mm	Class 150 -1500 Metric PN25 - PN250	70%
Ball Valves (Spherical valves, Rotary valves)	Low pressure	20-300mm	PN10-PN25	70%
	High pressure	20-600mm	Class 150 - 4500 Metric PN25 - PN450	70%
Gate Valves (RSVs, Wedge Gates, Sluice valves, Parallel Slides, Penstocks, Bonnet Gates, Scour valves)	Low pressure	15mm-1800mm	PN6 - PN25	70%
	High pressure	80mm-1800mm	Metric PN 25 - PN100	70%
Diaphragm Valves (Slurry valve or Saunders valve)	Low pressure	15mm-350mm	PN10, PN16 & PN 25	70%
Knife Gate Valves	Low pressure	40mm-1200mm	PN10 & PN16	70%
Safety or Relief Valves (Pressure valve or Vacuum valve)	Low pressure	15mm-32mm	PN16	70%
Taps, Cocks	Low pressure	Full range	N/A	70%
Pneumatic Actuators - Double acting (Vein type, Linear Type, Scotch Yolk Type, Rotary Type, Double Crank Type, Rack & Pinion Type)	Low pressure	-392 000nm torque	N/A	70%
Pneumatic Actuators - spring return (Vein type, Linear Type, Scotch Yolk Type, Rotary Type, Double Crank Type, Rack & Pinion Type)	Low pressure	-215 000nm torque	N/A	70%

NATIONAL TREASURY DESIGNATED SECTORS INSTRUCTION NUMBER 11 OF 2016/2017
INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR VALVES PRODUCTS AND ACTUATORS

Types of Valves	Pressure type	Size	Pressure Rating (or imperial equivalent)	% Local Content per unit
Manual Actuators (Gearboxes)	Low pressure	~200 000nm torque	N/A	70%
Fire Hydrants (Underground) Fire Deluge valve	Low pressure	65mm inlet	PN16	70%
Pressure Reducing Valve (PRV) (Self-Regulating valve)	Low pressure	Full range	Full range	70%
Plug Valves (excluding expanding plug valves) (Double Block & Bleed valve)	Low pressure	20-600mm	PN10-PN26	70%
	High pressure	20-600mm	PN25-PN100	
Control Valve (Globe Control valve, Piston Type Control valve)	Low pressure	25-600mm	PN10-PN25	70%
	High pressure	25-600mm	Class 150 -4500 Metric PN25 - PN750	
Air Valve (Vacuum release valve)	Low pressure	50-300mm	PN10-PN25	
	High pressure	50-300mm	PN25-PN40	
Pinch Valve (slurry valve)	Low pressure	50 -800mm	PN10 -PN40	
Disc Valve	Low pressure	50-600mm	PN10-PN16	
Sleeve Valve (Fixed Cone valves, Discharge valves, Scour valves, Howell Bunger valves Energy Dissipating valve)	Low pressure	Full range	PN 10 - PN25	

3.3 The minimum of 70% local content in the case of each individual valve, manual actuator (gearbox) and pneumatic actuator designated, must be made up of the following:

3.3.1 a combination of the use of locally produced and certified castings, forgings and/or fabrications, and

3.3.2 verifiable manufacturing activities that shall include as a minimum, machining, drilling, coating, assembling and testing of the valves in question.

3.4 The averaging out of local content either across any number of valve and gearbox/actuator combinations, or locally made and imported valves/other items, is not allowable.

3.5 Each individual valve, manual actuator (gearbox) or pneumatic actuator is subject to the minimum of 70% Local Content threshold.

NATIONAL TREASURY DESIGNATED SECTORS INSTRUCTION NUMBER 11 OF 2016/2017
INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR VALVES PRODUCTS AND ACTUATORS

3.4 The averaging out of local content either across any number of valve and gearbox/actuator combinations, or locally made and imported valves/other items, is not allowable.

3.5 Each individual valve, manual actuator (gearbox) or pneumatic actuator is subject to the minimum of 70% Local Content threshold.

3.6 For further information, bidders and procuring State Organs may contact the Metals Fabrication, Capital and Rail Transport unit within **the dti** at telephone 012 394 1356 or email Thandi Phele at tphele@thedti.gov.za.

3.7 Bid specifications for the valves products and actuators referred to above may be done in collaboration with **the dti**.

4. INVITATION OF BIDS FOR VALVES PRODUCTS AND ACTUATORS

4.1 Bids in respect of valves products and actuators must be advertised with a specific bidding condition that:

4.1.1. Only locally manufactured valves products, manual actuators (Gearboxes) and pneumatic actuators with a stipulated minimum threshold for local production and content will be considered.

4.1.2. If the quantity; input materials; and/or components of valves products and actuators required cannot be wholly sourced from South African (SA) based manufacturers to achieve the designated local content threshold of 70% on a fully-built valve and/or manual actuator (gearbox) or pneumatic actuator at any particular time, bidders should request and obtain written exemption from **the dti**. Such exemption applications should be submitted and approvals should be obtained prior to the closure of the bid(s) concerned. **The dti**, in consultation with the procuring organ of state and the local industry, will consider the exemption applications on a case-by-case basis and will consider the following:

- required volumes in the particular bid;
- available collective SA industry manufacturing capacity at that time;
- delivery times;
- availability of input materials and components;
- technical considerations including operating conditions; and
- materials of construction

4.1.3. Bidders must clearly indicate in their bids the quantities of designated valves, manual actuators (gearboxes) and pneumatic actuators to be supplied and the level of local content for each product

4.1.4. Organs of state may contact **the dti** in instances where the stipulated minimum threshold for local content cannot be met in order for **the dti** to verify and in consultation with the AO/AA provide directives in this regard.

4.2 AOs/AAs must stipulate in bid invitations that:

4.2.1. the exchange rate to be used for the calculation of local production and content must be the exchange rate published by the South African Reserve Bank (SARB) on the date of advertisement of the bid; and

4

NATIONAL TREASURY DESIGNATED SECTORS INSTRUCTION NUMBER 11 OF 2016/2017
INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR VALVES PRODUCTS AND ACTUATORS

4.2.2. only the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 must be used to calculate local content

4.3 The Local Content (LC) expressed as a percentage of the bid price must be calculated in accordance with the following formula which must be disclosed in the bid documentation:

$$LC = \left(1 - \frac{x}{y}\right) * 100$$

Where
x is the imported content in Rand
y is the bid price in Rand excluding value added tax (VAT)

- In the case of turnkey products/projects x and y will only refer to the designated valve products, manual actuators (gearboxes) and pneumatic actuators in the project – refer to Clause 3.1 above
- Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by the SARB on the date of advertisement of the bid.

4.4 AOs/AAs must clearly stipulate in the bid documentation that the SABS approved technical specification number SATS 1286:2011 and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [**Annexure C** (Local Content Declaration: Summary Schedule), *D* (Imported Content Declaration: Supporting Schedule to **Annexure C**) and **E** (Local Content Declaration: Supporting Schedule to Annex C)] are accessible to all potential bidders on the dti's official website http://www.thedti.gov.za/industrial development/ip.jsp at no cost.

4.5 For the purpose of paragraphs 4.1, 4.2 and 4.3 above, the attached Declaration Certificates for Local Production and Content (SBD/MBD 6.2) must form part of the bid documentation. The SBD 6.2 is for use by all national and provincial departments, constitutional institutions and public entities listed in Schedules 2, 3A, 3B, 3C and 3D to the Public Finance Management Act whilst the MBD 6.2 is for use by all municipalities and municipal entities to which the Municipal Finance Management Act (MFMA) apply.

4.6 AOs/AAs must stipulate in the bid documentation that:

4.6.1 the Declaration Certificate for Local Production and Content (SBD / MBD 6.2) together with the **Annexure C** (Local Content Declaration: Summary Schedule) must be completed, duly signed and submitted by the bidder at the closing date and time of the bid; and

4.6.2 the rates of exchange quoted by the bidder in paragraph 4.1 of the Declaration Certificate will be verified for accuracy.

5. EVALUATION OF BIDS FOR VALVES PRODUCTS AND ACTUATORS

5.1 A two stage evaluation process may be followed to evaluate the bids received.

5.1.1 **First stage: Evaluation in terms of the stipulated minimum threshold for local production and content**

5

NATIONAL TREASURY DESIGNATED SECTORS INSTRUCTION NUMBER 11 OF 2016/2017
INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR VALVES PRODUCTS AND ACTUATORS

(a) Bids must be evaluated by line item (***no averaging allowed***) in terms of the minimum threshold stipulated in the bid documents.

(b) The declaration made by the bidder in the Declaration Certificate for Local Content (SBD / MBD 6.2) and **Annexure C** (Local Content Declaration: Summary Schedule) must be used for this purpose. If the bid is for more than one product (i.e. more than one valve type, size or pressure rating or different model of manual actuator (gearbox) or pneumatic actuator, the local content percentages for each product contained in **Annexure C** must be used.

(c) The amendment of the stipulated minimum threshold for local production and content is not allowed.

(d) AOs / AAs must verify the accuracy of the rates of exchange quoted by the bidder in paragraph 4.1 of the Declaration Certificate for Local Content (SBD / MBD 6.2)

5.1.2 Second stage: Evaluation in terms of the 80/20 or 90/10 preference point systems

(a) Only bids that achieve the minimum stipulated threshold for local production and content may be evaluated further. Unless otherwise exempted by the Minister of Finance, the evaluation must be done in accordance with the 80/20 or 90/10 preference point systems prescribed in Preferential Procurement Regulations, 2011.

(b) AOs/AAs must ensure that contracts for valves products and actuators / components are awarded at prices that are market related taking into account, among others, the dti's pre-determined benchmark prices, value for money and economies of scale.

(c) Where appropriate, prices may be negotiated with short listed or preferred bidders. Such negotiations must not prejudice any other bidders.

5.2 Benchmark / market related prices

5.2.1 AOs/AAs are required to ensure that reasonable or market related prices are secured for the valves, manual actuators (gearbox) and pneumatic actuators being procured taking into account factors such as benchmark prices, value for money and economies of scale.

5.2.2 For this purpose, AOs/AAs may approach **the dti** for assistance, where possible, with benchmark prices for the different classes and components of valves products and manual actuators (gearbox) and pneumatic actuators that have been designated for local production and content. **The dti** will be in a position to provide price references for the different products that have been designated for local production and content.

6. EVALUATION OF BIDS BASED ON FUNCTIONALITY

6.1 Whenever it is deemed necessary to evaluate bids on the basis of functionality, the prescripts contained in Regulation 4 of the Preferential Procurement Regulations, 2011 and paragraphs 6 and 11 of the Implementation Guide must be followed.

7. POST AWARD AND REPORTING REQUIREMENTS

7.1 Once bids are awarded, **the dti** must be:

6

NATIONAL TREASURY DESIGNATED SECTORS INSTRUCTION NUMBER 11 OF 2016/2017
INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR VALVES PRODUCTS AND ACTUATORS

7.1.1 notified of all the successful bidders and the estimated value of the contracts; and

7.1.2 provided with copies of the contracts, the SBD/MBD 6.2 Certificates together with the Declaration C submitted by the successful bidders.

7.2 The purpose of the requirements of paragraph 7.1 above is for **the dti** to among others conduct compliance audits with a view to monitor the implementation of the industrial development strategies.

7.3 Contractors must not be allowed to sub-contract in such a manner that the local production and content of the individual products is reduced to below the stipulated minimum threshold.

7.4 Where, after the award of a bid, contractors experience challenges in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

8. CONTACT INFORMATION

8.1 Any enquiries in respect of Local Production and Content and all documents to be submitted to the dti must be directed as follows:

The Department of Trade and Industry
Private Bag X84
Pretoria
0001
For Attention:
Dr Tebogo Makube
Chief Director: Industrial Procurement
Tel: (012) 394 3927
Fax: (012) 394 4927
EMAIL: TMakube@thedti.gov.za

9. APPLICABILITY

9.1 This Instruction applies to all national and provincial departments, constitutional institutions; public entities listed in Schedules 2 and 3 to the PFMA, and, municipalities and municipal entities to which the MFMA apply.

10. DISSEMINATION OF INFORMATION CONTAINED IN THIS INSTRUCTION

10.1 Heads of provincial treasuries are requested to bring the contents of this Instruction to the attention of Accounting Officers and supply chain management officials of their respective provincial departments.

10.2 Accounting Officers of national and provincial departments are requested to bring the contents of this instruction to the attention of Accounting Authorities and the supply chain management officials of Schedule 3A and 3C public entities reporting to their respective executive authorities.

NATIONAL TREASURY DESIGNATED SECTORS INSTRUCTION NUMBER 11 OF 2016/2017
INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR VALVES PRODUCTS AND ACTUATORS

10.3 Accounting Officers of municipalities and municipal entities are requested to bring the contents of this instruction to the attention of the supply chain management officials of their municipalities and municipal entities.

10.4 Accounting Authorities of Schedule 2, 3B and 3D public entities are requested to bring the contents of this instruction to the attention of the supply chain management officials of their public entities.

11. NOTIFICATION TO THE AUDITOR-GENERAL

11.1 A copy of this Instruction will be forwarded to the Auditor-General for notification.

12. REPEAL OF INSTRUCTION DATED 6 FEBRUARY 2014

This Instruction repeals Instructions on invitation and evaluation of bids based on a stipulated minimum threshold for local production and content for valves products and actuators dated 21 July 2015 and effective on the date of issue and the similar Instruction issued on 11 February 2016 effective on 18 February 2016.

13. AUTHORITY FOR THIS INSTRUCTION AND EFFECTIVE DATE

13.1 This Instruction is issued in terms of Regulation 9(2) of the Preferential Procurement Regulations, 2011 and takes effect from the date of issue.

Mkhutangano

KENNETH BROWN
CHIEF PROCUREMENT OFFICER
DATE: 12/7/2016

8

ANNEXURE B:

INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR ELECTRICAL AND TELECOM CABLE PRODUCTS

national treasury
Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

Private Bag X115, Pretoria, 0001

TO: ACCOUNTING OFFICERS OF ALL NATIONAL DEPARTMENTS AND CONSTITUTIONAL INSTITUTIONS

ACCOUNTING OFFICERS OF ALL MUNICIPALITIES AND MUNICIPAL ENTITIES

ACCOUNTING AUTHORITIES OF ALL SCHEDULE 2 AND 3 PUBLIC ENTITIES

HEAD OFFICIALS OF PROVINCIAL TREASURIES

INSTRUCTION: INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR ELECTRICAL AND TELECOM CABLE PRODUCTS

1. PURPOSE

1.1 The purpose of this instruction is to regulate the environment within which accounting officers (AOs) and accounting authorities (AAs) may procure electrical and telecom cable products which have been designated as products for local production and content.

2. BACKGROUND

2.1 The Preferential Procurement Regulations, 2011 ("the Regulations"), made in terms of section 5 of the Preferential Procurement Policy Framework Act, 2000 (Act No 5 of 2000), which came into effect on 7 December 2011 make provision for the Department of Trade and Industry (dti) to designate sectors in line with national development and industrial policies for local production.

2.2 Regulation 9 (1) of the Regulations prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.

2.3 To this end, the dti has designated and determined the stipulated minimum threshold for local production and content for power and telecom cable products.

3. SECTOR DESIGNATION

3.1 The stipulated minimum threshold percentage for local production and content for the different types of electrical and telecom cables is 90%.

1

3.2 To ensure that local production and content is discharged on manufacturing activities, the following cables which have been designated must be included in bid invitations:

Electrical Cables: cables used for power transmission

Cable Products	Stipulated minimum threshold
Low Voltage	90%
Low Cost Reticulation	90%
Medium & High Voltage	90%
ACR	90%

Telecom Cables: cables used for telecommunications

Cable Products	Stipulated minimum threshold
Optical Fibre Cables	90%
Copper Telecom Cables	90%

3.3 Excluded in the designation are mainly primary steel, copper, aluminium, polyvinyl chloride (PVC), cross-linked polyethylene (XLPE), aramid yarn, and optical fibre used for fabrication of cable products. This is to encourage local manufacturers to seek the best global competitive prices for primary materials hence the competitive imported materials used in the manufacture of cables will be deemed to have been sourced locally for the purposes of calculating local content.

4. INVITATION OF BIDS FOR ELECTRICAL AND TELECOM CABLES

4.1 Bids in respect of electrical and telecom cables must contain a specific bidding condition that only locally produced or locally manufactured cables with a stipulated minimum threshold for local production and content will be considered.

4.2 AOs/AAs must stipulate in bid invitations that:

(i) the exchange rate to be used for the calculation of local production and content must be the exchange rate published by the South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid; and

(ii) only the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 must be used to calculate local content

4.3 The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the following formula which must be disclosed in the bid documentation:

$LC = (1 - x/y) * 100$

Where

x is the imported content in Rand

y is the bid price in Rand excluding value added tax (VAT)

2

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by the SARB at 12:00 on the date of advertisement of the bid.

4.4 **AOs/AAs must clearly stipulate in the bid documentation that the SABS approved technical specification number SATS 1286:2011 and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)] are accessible to all potential bidders on the dti's official website http://www.thedti.gov.za /industrial development/ip.jsp at no cost.**

4.5 For the purpose of paragraphs 4.1, 4.2 and 4.3 above, the attached Declaration Certificates for Local Production and Content (SBD/MBD 6.2) must form part of the bid documentation. The SBD 6.2 is for use by all national and provincial departments, constitutional institutions and public entities listed in schedules 2, 3A, 3B, 3C and 3D to the Public Finance Management Act whilst the MBD 6.2 is for use by all municipalities and municipal entities to which the Municipal Finance Management Act (MFMA) apply.

4.6 AOs/AAs must stipulate in the bid documentation that:

(a) the Declaration Certificate for Local Production and Content (SBD / MBD 6.2) together with the Annex C (Local Content Declaration: Summary Schedule) must be completed, duly signed and submitted by the bidder at the closing date and time of the bid; and

(b) the rates of exchange quoted by the bidder in paragraph 4.1 of the Declaration Certificate will be verified for accuracy.

4.7 **Benchmark / market related prices**

4.7.1 AOs/AAs are required to ensure that reasonable or market related prices are secured for the cables / components being procured taking into account factors such as benchmark prices, value for money and economies of scale.

4.7.2 For this purpose, AOs/AAs may approach the dti to assist, where possible, with benchmark prices for the different classes and components of cables that have been designated for local production and content. The dti will be in a position to provide price references for the different products that have been designated for local production and content.

4.8. Bid specifications for the sub-sectors referred to in paragraph 3 above and the price benchmarking referred to in paragraph 4.7 above must be done in collaboration with the dti. **Contact information in this regard is provided in paragraph 8 below.**

5. EVALUATION OF BIDS FOR CABLES

5.1 A two stage evaluation process may be followed to evaluate the bids received.

5.1.1 **First stage: Evaluation in terms of the stipulated minimum threshold for local production and content**

5.1.1.1 Bids must be evaluated in terms of the minimum threshold stipulated in the bid documents.

5.1.1.2 The declaration made by the bidder in the Declaration Certificate for Local Content (SBD / MBD 6.2) and Annex C (Local Content Declaration: Summary Schedule) must be used for this purpose. If the bid is for more than one product, the local content percentages for each product contained in Declaration C must be used.

5.1.1.3 The amendment of the stipulated minimum threshold for local production and content is not allowed.

5.1.1.4 AOs / AAs must ensure that the Declaration Certificate for Local Content (SBD / MBD 6.2) and the Annex C (Local Content Declaration: Summary Schedule) referred to in paragraphs 4.6 (a) and (b) above are submitted as part of the bid documentation.

5.1.1.5 The dti has the right, as and when necessary, to request for auditors certificates confirming the authenticity of the declarations made in respect of local content.

5.1.1.6 AOs/ AAs must verify the accuracy of the rates of exchange quoted by the bidder in paragraph 4.1 of the Declaration Certificate for Local Content (SBD / MBD 6.2)

5.1.2 Second stage: Evaluation in terms of the 80/20 or 90/10 preference point systems

5.1.2.1 Only bids that achieve the minimum stipulated threshold for local production and content may be evaluated further. The evaluation must be done in accordance with the 80/20 or 90/10 preference point systems prescribed in Preferential Procurement Regulations, 2011.

5.1.2.2 AOs/AAs must ensure that contracts for cable products are awarded at prices that are market related taking into account, among others, the dti's pre-determined benchmark prices, value for money and economies of scale.

5.1.2.3 Where appropriate, prices may be negotiated with short listed or preferred bidders. Such negotiations must not prejudice any other bidders.

6. EVALUATION OF BIDS BASED ON FUNCTIONALITY

6.1 Whenever it is deemed necessary to evaluate bids on the basis of functionality, the prescripts contained in regulation 4 of the Preferential Procurement Regulations, 2011 and paragraphs 6 and 11 of the Implementation Guide must be followed.

7. POST AWARD AND REPORTING REQUIREMENTS

7.1. Once bids are awarded, the dti must be:
(i) notified of all the successful bidders and the value of the contracts; and
(ii) provided with copies of the contracts, the SBD/MBD 6.2 Certificates together with the Declaration C submitted by the successful bidders.

4

7.2 The purpose of the requirements of paragraph 7.1 above is for the dti to among others conduct compliance audits with a view to monitor the implementation of the industrial development strategies.

7.3 Contractors must not be allowed to sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.

7.4. Where, after the award of a bid, contractors experience challenges in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

8. CONTACT INFORMATION

8.1 Any enquiries in respect of Local Production and Content and all documents to be submitted to the dti must be directed as follows:

The Department of Trade and Industry
Private Bag X84
Pretoria
0001

For Attention:

Chief Director: Industrial Procurement
Tel: (012) 394 3927
Fax: (012) 394 4927

9. APPLICABILITY

9.1 This instruction applies to all national and provincial departments, constitutional institutions, public entities listed in schedules 2 and 3 to the PFMA and municipalities and municipal entities to which the MFMA apply.

9.2 **This instruction applies to all bids (written price quotations and advertised competitive bids) in excess of R30 000.00 (all applicable taxes included).** Products may not deliberately be split into parts or items of lesser value merely for the sake of procuring the products otherwise than through the directives contained in this instruction.

10. DISSEMINATION OF INFORMATION CONTAINED IN THIS INSTRUCTION

10.1 Heads of provincial treasuries are requested to bring the contents of this instruction to the attention of accounting officers and supply chain management officials of their respective provincial departments.

10.2 Accounting officers of national and provincial departments are requested to bring the contents of this instruction to the attention of accounting authorities and the supply chain

management officials of Schedule 3A and 3C public entities reporting to their respective executive authorities.

10.3 Accounting officers of municipalities and municipal entities are requested to bring the contents of this instruction to the attention of the supply chain management officials of their municipalities and municipal entities.

10.4 Accounting authorities of Schedule 2, 3B and 3D public entities are requested to bring the contents of this instruction to the attention of the supply chain management officials of their public entities.

11. NOTIFICATION TO THE AUDITOR-GENERAL

11.1 A copy of this instruction will be forwarded to the Auditor-General for notification.

12. AUTHORITY FOR THIS INSTRUCTION AND EFFECTIVE DATE

12.1 The Minister of Finance has approved the issuance of this instruction in terms of regulation 9(2) of the Preferential Procurement Regulations, 2011 (published under Government Notice R502 of 8 June 2011).

12.2 This instruction takes effect on 13 May 2013.

KENNETH BROWN
CHIEF PROCUREMENT OFFICER
DATE: 8/5/2013

ANNEXURE C:

INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR PUMPS, MEDIUM VOLTAGE (MV) MOTORS AND ASSCIATED ACCESSORIES

national treasury
Department:
National Treasury
REPUBLIC OF SOUTH AFRICA

TO: ACCOUNTING OFFICERS OF ALL NATIONAL DEPARTMENTS AND CONSTITUTIONAL INSTITUTIONS

ACCOUNTING OFFICERS OF ALL MUNICIPALITIES AND MUNICIPAL ENTITIES

ACCOUNTING AUTHORITIES OF ALL SCHEDULE 2 AND 3 PUBLIC ENTITIES

HEAD OFFICIALS OF PROVINCIAL TREASURIES

NATIONAL TREASURY DESIGNATED SECTORS CIRCULAR NUMBER 3 OF 2017/2018: INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR PUMPS, MEDIUM VOLTAGE (MV) MOTORS AND ASSOCIATED ACCESSORIES

1. PURPOSE

1.1 The purpose of this circular is to provide information to accounting officers (AOs) and accounting authorities (AAs) in terms of which they may procure Pumps, Medium voltage (MV) motors and associated accessories that have been designated as a sector for local production and content.

2. BACKGROUND

2.1 The Preferential Procurement Regulations, 2017 ("the regulations") issued in terms of section 5 of the Preferential Procurement Policy Framework Act, 2000 (Act No 5 of 2000) which came into effect on the 1 April 2017, make provision for the Department of Trade and Industry (**the dti**) to designate sectors in line with national development and industrial policies for local production.

2.2 Regulation 8 (2) of the Preferential Procurement Regulations 2017 prescribes that in the case of a designated sector, an organ of state must advertise the invitation to tender with a specific condition that only locally produced services or goods or locally manufactured goods with a stipulated minimum threshold for local production and content, will be considered.

2.3 **The dti** has designated and determined the stipulated minimum threshold for Pumps, Medium voltage (MV) motors and associated accessories for local production and content.

INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR PUMPS, MEDIUM VOLTAGE (MV) MOTORS AND ASSOCIATED ACCESSORIES

3. SECTOR DESIGNATION

3.1 A **Pump** is a mechanical device used to raise or move liquids, compress gas or force air into inflatable objects such as tires. Pumps are commonly used in the power generation industry, petroleum refineries, mining industry, waste water industry, portable drinking water industry and other industries for different applications. Pumps are generally classified by the way they add energy to a fluid. Broadly speaking there are two types of pumps, namely centrifugal and positive displacement pumps.

A **Medium Voltage (MV) motor** is an electrical device which converts electrical energy into mechanical energy, with a power rating of between 185 kW and 20 000 kW and greater than 1000 volts. These devices are used to drive capital equipment such as pumps, compressors, fans, conveyor belts, mill etc. Capital equipment is operated in environments and industries such as: power generation, petrochemical, water reticulation, mining and general purpose processes. MV motors have a design life of 25 years, provided that it they efficiently used and serviced.

3.2 This Circular provides information about Pumps and MV motors, which are both designated. These two products in most cases are procured as a system and can be procured, repaired, overhauled or maintained individually. Therefore, the designation applies in both circumstances.

3.3 Table 1 and 2 provides the stipulated minimum threshold for local content and production for Pumps, MV motors and associated accessories. Pumps are categorised by type of pumps whilst MV motors are categorised by components and manufacturing processes.

INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR PUMPS, MEDIUM VOLTAGE (MV) MOTORS AND ASSOCIATED ACCESSORIES

Table 1: Minimum Local Content Designated for Pumps

Category	Type of Pumps	% local content per unit	Minimum Pressure	Maximum Pressure	Sizes
End Suction Centrifugal	Single Stage End Suction Centrifugal Pumps	70%	1 bar	16 bar	DN25 -DN300
	Single Stage End Suction Centrifugal Solid Handling Pumps	70%	0,5 bar	16 bar	DN40 - DN400
Multistage Centrifugal	Multi Stage Centrifugal Pumps: medium - high	70%	10 bar	63 bar	DN32 - DN350
Horizontal split casing Pumps	Horizontal split casing Pumps	70%	1 bar	18 bar	DN80-DN300
Vertical Turbine Pumps	Vertical Turbine Pumps: Radial, Mixed, and Axial	70%	0.3 bar	40 bar	DN 100 - DN500
Positive Displacement	Positive displacement Pumps	70%	5 bar	45 bar	DN25-DN150
	Diaphragm Pumps	70%	2.5 bar	7 bar	DN25 -DN50
Self Priming Centrifugal Pumps	Single Stage End Suction Self-Priming Pumps	70%	0,3 bar	16 bar	DN25-DN150
Slurry Pumps	Vertical Cantilever Slurry Pumps	70%	1 bar	10 bar	DN40-DN300
	Single stage Slurry Pumps	70%	0,5 bar	50 bar	DN32-DN300
Vaccuum Pumps	Liquid ring vacuum Pumps	70%	1.13 CFM	950 CFM	
Centrifugal Process Pumps	Vertical Spindle Centrifugal Process Pumps	70%	0.3 bar	40 bar	DN25-DN300
	Single Stage Centrifugal Process Pumps	70%	0.3 bar	40 bar	DN25-DN300
	Single Stage Centrifugal Chemical Pumps	70%	0.3 bar	25 bar	DN25 -DN300

INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR PUMPS, MEDIUM VOLTAGE (MV) MOTORS AND ASSOCIATED ACCESSORIES

Table 2: Minimum Local Content Designated on a Fully-Built Unit and components and manufacturing processes against which the overall Local Content must be discharged, per Medium voltage (MV) motor

Type of MV motor	Power rating	Components and manufacturing processes	% local content
Medium Voltage electric motor	185kW to 20 000kW and greater than 1 000 Volts	Casting or Frame Fabrication	100%
		Fabrication and winding of the Stator Core	100%
		Fabrication and winding of the Rotor Core	100%
		Accessories	100%
		Assembly and testing of the fully-built unit	100%
		Total Minimum Local Content (per unit)	**70%**

3.4 Each individual Pump and/or MV Motor, designated above, is subject to the minimum 70% local content threshold.

3.5 The averaging out of local content either across any number of Pumps and/or MV motors combinations, or locally made and imported Pumps, MV motors and other items, is not allowable.

3.6 the minimum of 70% local content in the case of each individual Pump must be made up of the following:

3.6.1. a combination of the use of locally produced and certified castings, forgings and/or fabrication, and

3.6.2. verifiable manufacturing activities that shall include as a minimum: machining; drilling; application of wear coatings and lining; painting; assembly and testing with a full material traceability.

3.7 All Pumps and MV motors manufacturers may have to adhere, *inter alia*, to appropriate and reasonable safety, quality, manufacturing processing standards and accreditation as required by the procuring entities at the time of the procurement based on the required application.

3.8 The following primary input materials and components used in the manufacture of Pumps, MV motors and associated accessories are exempted upfront in this designation.

3.8.1 Pumps:

(a) Ball and Roller bearings
(b) Rubber for lining pumps
(c) Mechanical seals

4

(d) Steel billets and/or bars used in the fabrication of the shafts

3.8.2 MV Motors:

(a) Anti-friction bearings
(b) Electrical steel
(c) Special copper alloys, insulation material and resin

3.9 The designated local content thresholds stipulated in Table 1 and 2 under paragraph 3.3 (on the components/manufacturing processes and on the overall in case of MV motors) apply to new purchases, refurbishments, replacements and general overhauls.

4. INVITATION OF BIDS FOR PUMPS, MV MOTORS AND ASSOCIATED ACCESSORIES

4.1 Bids in respect of Pumps and MV motors as stipulated in table 1 and 2 above must contain a specific bidding condition which states that:

4.1.1. Only locally manufactured Pumps and MV motors with a stipulated minimum threshold for local production and content (in paragraph 3.3) will be considered.

4.1.2. If a certain type and/or a number of Pumps and MV motors for any transaction required cannot be wholly sourced from South African (SA) based manufacturers and/or at the designated local content threshold, both on the overall and at the components levels, stipulated in paragraph 3.3 at any particular time of procurement or order placement, bidders and/or the procuring entities should obtain written approval from **the dti** to supply the remaining portion at a lower local content threshold. Such approval requests must be submitted and approval be obtained prior to the closure of the bid(s) concerned. **the dti**, in consultation with the SA industry and procuring organ of state, may grant such approval on a case-by-case basis and will consider the following:

(a) required volumes in the particular bid;
(b) available collective SA industry manufacturing capacity at that time;
(c) delivery times;
(d) availability of input materials and components;
(e) technical considerations including operating conditions and technical compliance protocol;
(f) quality and reliability;
(g) materials of construction;
(h) security of supply and emergencies;
(i) localisation plans aimed at establishing and/or increasing local manufacturing capacity through ramping-up of capital investments in the initial phases;
(j) replacements of components on the existing fleet (i.e. Pumps and MV motors procured prior to the implementation of this Practice Note) in order to honour the warranties and guarantees.

INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR PUMPS, MEDIUM VOLTAGE (MV) MOTORS AND ASSOCIATED ACCESSORIES

4.1.3. Bidders must clearly indicate in their bids the quantities of Pumps, MV motors and associated accessories to be supplied and the level of local content for each product.

4.1.4. Organs of state may contact **the dti** in instances where the stipulated minimum threshold for local content cannot be met in order for **the dti** to verify and in consultation with the AO/AA provide directives in this regard.

4.1.5. For further information, bidders and procuring state organs may contact the Metals Fabrication, Capital and Rail Transport Equipment unit within **the dti** at telephone 012 394 1356/5868/5577 or email Thandi Phele at tphele@thedti.gov.za.

4.2 AOs/AAs must stipulate in bid invitations that:

4.2.1. the exchange rate to be used for the calculation of local production and content must be the exchange rate published by the South African Reserve Bank (SARB) on the date of advertisement of the bid; and

4.2.2. only the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 must be used to calculate local content

4.3 The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the following formula which must be disclosed in the bid documentation:

LC = [1 – x/y] * 100
Where
x is the imported content in Rand
y is the bid price in Rand excluding value added tax (VAT)

(in the case of turnkey products/projects x and y will only refer to the value of Pumps, Medium Voltage (MV) motor and associated accessories in the project)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by the SARB on the date of advertisement of the bid.

4.4 **AOs/AAs must clearly stipulate in the bid documentation that the SABS approved technical specification number SATS 1286:2011 and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)] are accessible to all potential bidders on the dti's official website http://www.thedti.gov.za /industrial development/ip.jsp at no cost.**

4.5 For the purpose of paragraphs 4.1, 4.2 and 4.3 above, Declaration Certificates for Local Production and Content (SBD/MBD 6.2) must form part of the bid documentation. The SBD 6.2 is for use by all national and provincial departments, constitutional

institutions and public entities listed in schedules 2, 3A, 3B, 3C and 3D to the Public Finance Management Act whilst the MBD 6.2 is for use by all municipalities and municipal entities to which the Municipal Finance Management Act (MFMA) applies.

4.6 AOs/AAs must stipulate in the bid documentation that:

(a) the Declaration Certificate for Local Production and Content (SBD / MBD 6.2) together with the Annex C (Local Content Declaration: Summary Schedule) must be completed, duly signed and submitted by the bidder at the closing date and time of the bid;

(b) the rates of exchange quoted by the bidder in paragraph 4.1 of the Declaration Certificate will be verified for accuracy.

4.7. Bid specifications for the sub-sectors referred to in paragraph 3 above may be done in collaboration with **the dti**. Contact information in this regard is provided in paragraph 8 below.

5. EVALUATION OF BIDS FOR PUMPS, MEDIUM VOLTAGE (MV) MOTOR AND ASSOCIATED ACCESSORIES

5.1 An evaluation process in line with Preferential Procurement Regulations, 2017 must be followed.

6. EVALUATION OF BIDS BASED ON FUNCTIONALITY

6.1 Whenever it is deemed necessary to evaluate bids on the basis of functionality, the provisions contained in the regulations and paragraph 6 of the Implementation Guide must be followed.

7. POST AWARD AND REPORTING REQUIREMENTS

7.1. Once bids are awarded, **the dti** must be:

(i) notified of all the successful bidders and the estimated value of the contracts; and

(ii) provided with copies of the contracts, the SBD/MBD 6.2 Certificates together with the Declaration C submitted by the successful bidders.

7.2 The purpose of the requirements of paragraph 7.1 above is for **the dti** to among others conduct compliance audits with a view to monitor the implementation of the industrial development strategies.

7.3 Contractors may not be allowed to sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the minimum threshold as stipulated in regulation 8 of the Preferential Procurement Regulations, 2017.

INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR PUMPS, MEDIUM VOLTAGE (MV) MOTORS AND ASSOCIATED ACCESSORIES

8. CONTACT INFORMATION

8.1 Any enquiries in respect of Local Production and Content and all documents to be submitted to the dti must be directed as follows:

The Department of Trade and Industry
Private Bag X84
Pretoria
0001

For Attention:

Dr Tebogo Makube
Chief Director: Industrial Procurement
Tel: (012) 394 3927
Fax: (012) 394 4927
EMAIL: TMakube@thedti.gov.za

9. APPLICABILITY

9.1 This circular applies to all national and provincial departments, constitutional institutions; public entities listed in schedules 2 and 3 to the PFMA, and, municipalities and municipal entities to which the MFMA applies.

10. DISSEMINATION OF INFORMATION CONTAINED IN THIS CIRCULAR

10.1 Heads of provincial treasuries are requested to bring the contents of this circular to the attention of accounting officers and supply chain management officials of their respective provincial departments.

10.2 Accounting officers of national and provincial departments are requested to bring the contents of this circular to the attention of accounting authorities and the supply chain management officials of Schedule 3A and 3C public entities reporting to their respective executive authorities.

10.3 Accounting officers of municipalities and municipal entities are requested to bring the contents of this circular to the attention of the supply chain management officials of their municipalities and municipal entities.

10.4 Accounting authorities of Schedule 2, 3B and 3D public entities are requested to bring the contents of this circular to the attention of the supply chain management officials of their public entities.

INVITATION AND EVALUATION OF BIDS BASED ON A STIPULATED MINIMUM THRESHOLD FOR LOCAL PRODUCTION AND CONTENT FOR PUMPS, MEDIUM VOLTAGE (MV) MOTORS AND ASSOCIATED ACCESSORIES

11. NOTIFICATION TO THE AUDITOR-GENERAL

11.1 A copy of this Circular will be forwarded to the Auditor-General for notification.

12. AUTHORITY FOR THIS CIRCULAR AND EFFECTIVE DATE

12.1 This circular is issued in terms of regulation 8(3) of the Preferential Procurement Regulations, 2017 and takes effect on 10 January 2018

WILLIE MATHEBULA

ACTING CHIEF PROCUREMENT OFFICER

DATE: 12-12-2017

ANNEXURE C

LOCAL CONTENT DECLARATION: SUMMARY SCHEDULE

SATS 1286.2011

Annex C

Local Content Declaration - Summary Schedule

(C1)	Tender No.			
(C2)	Tender description:			
(C3)	Designated product(s)			
(C4)	Tender Authority:			
(C5)	Tendering Entity name:			
(C6)	Tender Exchange Rate:	Pula	EU	GBP
(C7)	Specified local content %			

Note: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender item no's	List of items	Tender price - each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
(C8)	(C9)	(C10)	(C11)	(C12)	(C13)	(C14)	(C15)	(C16)	(C17)	(C18)	(C19)

(C20) Total tender value	R 0	
(C21) Total Exempt imported content		R 0
(C22) Total Tender value net of exempt imported content		R 0
(C23) Total Imported content			R 0
(C24) Total local content			R 0
(C25) Average local content % of tender			

Signature of tenderer from Annex B

Date:

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

ANNEXURE D

LOCAL CONTENT DECLARATION – SUPPORTING SCHEDULE TO ANNEXURE C

SATS 1286.2011

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1)	Tender No.					
(D2)	Tender description:					
(D3)	Designated Products:					
(D4)	Tender Authority:					
(D5)	Tendering Entity name:					
(D6)	Tender Exchange Rate:	Pula		EU	GBP	

Note: VAT to be excluded from all calculations

A. Exempted imported content

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Exempted imported value
(D7)	(D8)	(D9)	(D10)	(D11)	(D12)	(D13)	(D14)	(D15)	(D16)	(D17)	(D18)

(D19) Total exempt imported value R 0

This total must correspond with Annex C - C 21

B. Imported directly by the Tenderer

				Calculation of imported content						Summary	
Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Foreign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Tender Qty	Total imported value
(D20)	(D21)	(D22)	(D23)	(D24)	(D25)	(D26)	(D27)	(D28)	(D29)	(D30)	(D31)

(D32) Total imported value by tenderer R 0

C. Imported by a 3rd party and supplied to the Tenderer

Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Summary: Quantity imported	Total imported value
(D33)	*(D34)*	*(D35)*	*(D36)*	*(D37)*	*(D38)*	*(D39)*	*(D40)*	*(D41)*	*(D42)*	*(D43)*	*(D44)*

(D45) **Total imported value by 3rd party** R 0

D. Other foreign currency payments

Type of payment	Local supplier making the payment	Overseas beneficiary	Calculation of foreign currency payments: Foreign currency value paid	Tender Rate of Exchange	Summary of payments: Local value of payments
(D46)	*(D47)*	*(D48)*	*(D49)*	*(D50)*	*(D51)*

(D52) **Total of foreign currency payments declared by tenderer and/or 3rd party**

Signature of tenderer from Annex B

(D53) **Total of imported content & foreign currency payments - *(D32), (D45) & (D52)* above** R 0

This total must correspond with Annex C - C 23

Date:

ANNEXURE E

LOCAL CONTENT DECLARATION – SUPPORTING SCHEDULE TO ANNEXURE C

SATS 1286.2011

Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	Tender No.	
(E2)	Tender description:	
(E3)	Designated products:	
(E4)	Tender Authority:	
(E5)	Tendering Entity name:	

Note: VAT to be excluded from all calculations

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	(E6)	(E7)	(E8)
	(E9) Total local products (Goods, Services and Works)		R 0

(E10)	Manpower costs	(Tenderer's manpower cost)	R 0
(E11)	Factory overheads	(Rental, depreciation & amortisation, utility costs, consumables etc	R 0
(E12)	Administration overheads and mark-up	(Marketing, insurance, financing, interest etc.)	R 0
		(E13) Total local content	R 0
		This total must correspond with Annex C - C24	

Signature of tenderer from Annex B

Date:

T1.5 PREFERENTIAL PROCUREMENT REGULATIONS

These Conditions of Tender are furthermore subject to the requirements of the Preferential Procurement Framework Act, 2000: Preferential Procurement Regulations, 2022 published in Government Gazette No. 47452 dated 04 November 2022.

The complete extract is bound hereafter into this volume, and may not have been edited where found in electronic format by any tender document compiler or tenderer. However, where differences between the original published edition and the edition bound in this document are evident, the original published edition shall govern

NATIONAL TREASURY

NO. 47452 **4 November 2022**

PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000: PREFERENTIAL PROCUREMENT REGULATIONS

The Minister Finance has, in terms of section 5, read with section 2(1)(b)(i) and (ii) and 2(1)(c), of the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000), and with effect from 16 January 2023, made the regulations set out in the Schedule.

SCHEDULE

PREFERENTIAL PROCUREMENT REGULATIONS, 2022

Contents

1. Definitions
2. Application
3. Identification of preference point system
4. 80/20 preference point system for acquisition of goods or services with Rand value equal to or below R50 million
5. 90/10 preference point system for acquisition of goods or services with Rand value above R50 million
6. 80/20 preference points system for tenders to generate income or to dispose of or lease assets with Rand value equal to or below R50 million
7. 90/10 preference point system for tenders to generate income or to dispose of or lease assets with Rand value above R50 million
8. Criteria for breaking deadlock in scoring
9. Remedies
10. Repeal of regulations
11. Short title and commencement
12.

Definitions

1. In these Regulations, unless the context indicates otherwise, any

word or expression to which a meaning has been assigned in the Act must bear the meaning so assigned—

"highest acceptable tender" means a tender that complies with all specifications and conditions of tender and that has the highest price compared to other tenders;

"lowest acceptable tender" means a tender that complies with all specifications and conditions of tender and that has lowest price compared to other tenders;

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

"Rand value" means the total estimated value of a contract in Rand, calculated at the time of the tender invitation;

"specific goals" means specific goals as contemplated in section 2(1)*(d)* of the Act which may include contracting with persons, or categories of persons, historically disadvantaged by unfair discrimination on the basis of race, gender and disability including the implementation of programmes of the Reconstruction and Development Programme as published in *Government Gazette* No. 16085 dated 23 November 1994;

"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;

"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

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

Application

2. These Regulations apply to organs of state as defined in section 11 of the Act.

Identification of preference point system

3.(1) An organ of state must, in the tender documents, stipulate—

(a) the applicable preference point system as envisaged in regulations 4, 5, 6 or 7;

(b) the specific goal in the invitation to submit the tender for which a point may be awarded, and the number of points that will be awarded to each goal, and proof of the claim for such goal.

(2) 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.

80/20 preference point system for acquisition of goods or services with Rand value equal to or below R50 million

4.(1) The following formula must be used to calculate the points out of 80 for price in respect of an invitation for a tender with a Rand value equal to or below R50 million, inclusive of all applicable taxes:

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

Where-

Ps = Points scored for price of tender under consideration;

Pt = Price of tender under consideration; and

Pmin = Price of lowest acceptable tender.

(2) A maximum of 20 points may be awarded to a tenderer for the specific goal specified for the tender.

(3) The points scored for the specific goal must be added to the points scored for price and the total must be rounded off to the nearest two decimal places.

(4) Subject to section 2(1)*(f)* of the Act, the contract must be awarded to the tenderer scoring the highest points.

90/10 preference point system for acquisition of goods or services with Rand value above R50 million

5.(1) The following formula must be used to calculate the points out 90 for price in respect of an invitation for tender with a Rand value above R50 million, inclusive of all applicable taxes:

$$Ps = 90\left(1 - \frac{Pt - Pmin}{Pmin}\right)$$

Where-

Ps = Points scored for price of tender under consideration;

Pt = Price of tender under consideration; and

Pmin = Price of lowest acceptable tender.

(2) of 20 points may be awarded to a tenderer for the specific goal specified for the tender.

(3) The points scored for the specific goal must be added to the points scored for price and the total must be rounded off to the nearest two decimal places.

(4) Subject to section 2(1)*(f)* of the Act, the contract must be awarded to the tenderer scoring the highest points.

80/20 preference points system for tenders for income-generating contracts with Rand value equal to or below R50 million

6.(1) The following formula must be used to calculate the points for price in respect of an invitation for tender for income-generating contracts, with a Rand value equal to or below R50 million, inclusive of all applicable taxes:

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

Where-

Ps = Points scored for price of tender under consideration;

Pt = Price of tender under consideration; and

Pmax = Price of highest acceptable tender.

(2) A maximum of 20 points may be awarded to a tenderer for the specific goal specified for the tender.

(3) The points scored for the specific goal must be added to the points scored for price and the total must be rounded off to the nearest two decimal places.

(4) Subject to section 2(1)*(f)* of the Act, the contract must be awarded to the tenderer

scoring the highest points.

90/10 preference point system for tenders for income-generating contracts with Rand value above R50 million

7.(1) The following formula must be used to calculate the points for price in respect of a tender for income-generating contracts, with a Rand value above R50 million, inclusive of all applicable taxes:

$$Ps = 90\,(1 + \frac{Pt - Pmax)}{Pmax}$$

Where-

Ps = Points scored for price of tender under consideration;

Pt = Price of tender under consideration; and

Pmax = Price of highest acceptable tender.

A maximum of 10 points may be awarded to a tenderer for the specific goal specified for the tender.

(2) The points scored for the specific goal must be added to the points scored for price and the total must be rounded off to the nearest two decimal places.

(3) Subject to section 2(1)*(f)* of the Act, the contract must be awarded to the tenderer scoring the highest points.

Criteria for breaking deadlock in scoring

8.(1) If two or more tenderers score an equal total number of points, the contract must be awarded to the tenderer that scored the highest points for specific goals.

(2) If two or more tenderers score equal total points in all respects, the award must be decided by the drawing of lots.

Remedies

9.(1) If an organ of state is of the view that a tenderer submitted false information regarding a specific goal, it must—

(a) inform the tenderer accordingly; and

(b) give the tenderer an opportunity to make representations within 14 days as to why the tender may not be disqualified or, if the tender has already been awarded to the tenderer, the contract should not be terminated in whole or in part.

(2) After considering the representations referred to in sub-regulation (1)*(b)*, the organ of state

may, if it concludes that such information is false—

(a) disqualify the tenderer or terminate the contract in whole or in part; and

(b) if applicable, claim damages from the tenderer.

Repeal of regulations

10.(1) Subject to this regulation, the Preferential Procurement Regulations, 2017 published in Government No. 40553 of 20 January 2017, are hereby repealed with effect from the date referred to in regulation 11.

(2) Any tender advertised before the date referred to in regulation 11 must be dealt with in terms of the Preferential Procurement Regulations, 2017.

Short title and commencement

11. These Regulations are called the Preferential Procurement Regulations, 2022 and take effect on 16 January 2023.

END OF SECTION

LEPELLE NORTHERN WATER

BID No.: GTAC 003-2023-24

OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: ELECTROMECHANICAL REFURBISHMENT OF OLIFATSPOORT PUMP STATIONS (PS1, PS2 & PS3) AND EBENEZER WATER TREATMENT WORKS AND PUMP STATION

PORTION 1: TENDER

PART T2: RETURNABLE DOCUMENTS AND SCHEDULES

INDEX

Section	Description	Page No
T2.1	SBD FORMS…….……..……..	T2.1-1
T2.2	RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES…….…….....	T2.2-1
T2.3	OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES.…	T2.3-1
T2.4	OTHER DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT…….....……	T2.4-1
T2.5	CHECKLIST.....	T2.5-1

T2.1 SBD FORMS

- ☐ SBD 1: INVITATION TO BID & COMPANY INFORMATION
- ☐ SBD 2: TAX CLEARANCE CERTIFICATE
- ☐ SBD 4: BIDDER'S DISCLOSURE
- ☐ SBD 5: THE NATIONAL INDUSTRIAL PARTICIPATION PROGRAMME
- ☐ SBD 6.1: PREFERENCE POINTS CLAIM FORM
- ☐ SBD 6.2: DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT

SBD1

PART A

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF LEPELLE NORTHERN WATER					
BID NUMBER	**GTAC 003-2023-24**	CLOSING DATE	**27 JUNE 2023**	CLOSING TIME	**11:00am**
DESCRIPTION	OLIFANTSPOORT AND EBENEZER WATER SUPPLY SCHEMES REFUBISHMENT PHASE 1A: ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATAIONS (PS1, PS2 & PS3) AND EBENEZER WATER TREATMENT WORKS AND PUMP STATION				
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT *(STREET ADDRESS)*					
GTAC Tender Box - NATIONAL TREASURY BUILDING					
240 MADIBA STREET (CORNER THABO SEHUME STREET)					
PRETORIA, 0002					

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO		**TECHNICAL ENQUIRIES MAY BE DIRECTED TO**	
CONTACT PERSON	Ms. Nolubabalo Tokwe	CONTACT PERSON	Mr Gundo Motsoare
TELEPHONE NUMBER	(012) 315 5549	TELEPHONE NUMBER	015 295 1834
FACSIMILE NUMBER		FACSIMILE NUMBER	086 260 1328
E-MAIL ADDRESS	psp@gtac.gov.za	E-MAIL ADDRESS	gundom@lepelle.co.za

SUPPLIER INFORMATION				
NAME OF BIDDER				
POSTAL ADDRESS				
STREET ADDRESS				
TELEPHONE NUMBER	CODE		NUMBER	
CELLPHONE NUMBER				
FACSIMILE NUMBER	CODE		NUMBER	
E-MAIL ADDRESS				
VAT REGISTRATION NUMBER				
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN	**OR**	CENTRAL SUPPLIER DATABASE No	MAAA
BBBEE STATUS LEVEL VERIFICATION CERTIFICATE	TICK APPLICABLE BOX] ☐ Yes ☐ No		BBBEE STATUS LEVEL SWORN AFFIDAVIT	[TICK APPLICABLE BOX] ☐ Yes ☐ No

INVITATION TO BID

A BBBEE STATUS LEVEL VERIFICATION CERTIFICATE/ SWORN AFFIDAVIT (FOR EMES & QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR BBBEE]			
ARE YOU THE ACCREDITED REPRESENTATIVE IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES ENCLOSE PROOF]	ARE YOU A FOREIGN BASED SUPPLIER FOR THE GOODS /SERVICES /WORKS OFFERED?	☐ Yes ☐ No [IF YES, ANSWER THE QUESTIONNAIRE BELOW]
QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS			
IS THE ENTITY A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)?	☐ Yes	☐ No	
DOES THE ENTITY HAVE A BRANCH IN THE RSA?	☐ Yes	☐ No	
DOES THE ENTITY HAVE A PERMANENT ESTABLISHMENT IN THE RSA?	☐ Yes	☐ No	
DOES THE ENTITY HAVE ANY SOURCE OF INCOME IN THE RSA?	☐ Yes	☐ No	
IS THE ENTITY LIABLE IN THE RSA FOR ANY FORM OF TAXATION?	☐ Yes	☐ No	

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

SBD1

PART B

TERMS AND CONDITIONS FOR BIDDING

1.	**BID SUBMISSION**
1.1.	BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS.
1.2.	LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.
1.3.	**ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED *(NOT TO BE RE-TYPED)* OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.**
1.4.	THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2017, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.
1.5.	**THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).**
2.	**TAX COMPLIANCE REQUIREMENTS**
2.1	BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.
2.2	BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.
2.3	APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.
2.4	BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.
2.5	IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.
2.6	WHERE NO TCS PIN IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.
2.7	NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE."

NB: FAILURE TO PROVIDE / OR COMPLY WITH ANY OF THE ABOVE PARTICULARS MAY RENDER THE BID INVALID.

SIGNATURE OF BIDDER: ……..

CAPACITY UNDER WHICH THIS BID IS SIGNED: …….

(Proof of authority must be submitted e.g. company resolution)

DATE: ……..

SBD2

TAX CLEARANCE CERTIFICATE REQUIREMENTS

1. 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.

2. In order to meet this requirement bidders are required to complete in full the attached 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.

3. 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.

4. 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.

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

6. 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.

7. 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.

SBD 3.1

PRICING SCHEDULE – FIRM PRICES (PURCHASES)

NOTE: ONLY FIRM PRICES WILL BE ACCEPTED. NON-FIRM PRICES (INCLUDING PRICES SUBJECT TO RATES OF EXCHANGE VARIATIONS) WILL NOT BE CONSIDERED

IN CASES WHERE DIFFERENT DELIVERY POINTS INFLUENCE THE PRICING, A SEPARATE PRICING SCHEDULE MUST BE SUBMITTED FOR EACH DELIVERY POINT

Name of bidder……Bid number: **GTAC 003-2023-24**

Closing Time: **11:00 a.m.** Closing date: **27 JUNE 2023**

OFFER TO BE VALID FOR…….. DAYS FROM THE CLOSING DATE OF BID.

ITEM QUANTITY DESCRIPTION BID PRICE IN RSA CURRENCY NO

** (ALL APPLICABLE TAXES INCLUDED)

- Required by: ……
- At: ……
- Brand and model ……
- Country of origin ……
- Does the offer comply with the specification(s)? *YES/NO
- If not to specification, indicate deviation(s) ……
- Period required for delivery ……

*Delivery: Firm/not firm

- Delivery basis ……

Note: All delivery costs must be included in the bid price, for delivery at the prescribed destination.

**"all applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies.

*Delete if not applicable

SBD 4

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

Where a person/s are listed in the Register for Tender Defaulters and / or the List of Restricted Suppliers, that person will automatically be disqualified from the bid process.

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest[1] in the enterprise, employed by the state? **YES/NO**

i. If so, furnish particulars of the names, individual identity numbers, and, if applicable, state employee numbers of sole proprietor/ directors / trustees / shareholders / members/ partners or any person having a controlling interest in the enterprise, in table below.

Full Name	Identity Number	Name of State institution

[1] the power, by one person or a group of persons holding the majority of the equity of an enterprise, alternatively, the person/s having the deciding vote or power to influence or to direct the course and decisions of the enterprise.

2.2 Do you, or any person connected with the bidder, have a relationship with any person who is employed by the procuring institution? **YES/NO**

2.2.1 If so, furnish particulars:

……

……

2.3 Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not they are bidding for this contract? **YES/NO**

2.3.1 If so, furnish particulars:

……

……

3 DECLARATION

I, the undersigned, (Name)……..
in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:

3.1 I have read and I understand the contents of this disclosure;

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

3.3 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[2] will not be construed as collusive bidding.

3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.

[2] 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.

3.4 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.

3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.

3.6 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.

I CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 1, 2 and 3 ABOVE IS CORRECT.
I ACCEPT THAT THE STATE MAY REJECT THE BID OR ACT AGAINST ME IN TERMS OF PARAGRAPH 6 OF PFMA SCM INSTRUCTION 03 OF 2021/22 ON PREVENTING AND COMBATING ABUSE IN THE SUPPLY CHAIN MANAGEMENT SYSTEM SHOULD THIS DECLARATION PROVE TO BE FALSE.

…… ……

Signature Date

…… ……

Position Name of bidder

SBD 5

This document must be signed and submitted together with your bid

THE NATIONAL INDUSTRIAL PARTICIPATION PROGRAMME

INTRODUCTION

The National Industrial Participation (NIP) Programme, which is applicable to all government procurement contracts that have an imported content, became effective on the 1 September 1996. The NIP policy and guidelines were fully endorsed by Cabinet on 30 April 1997. In terms of the Cabinet decision, all state and parastatal purchases / lease contracts (for goods, works and services) entered into after this date, are subject to the NIP requirements. NIP is obligatory and therefore must be complied with. The Industrial Participation Secretariat (IPS) of the Department of Trade and Industry (DTI) is charged with the responsibility of administering the programme.

1 PILLARS OF THE PROGRAMME

1.1 The NIP obligation is benchmarked on the imported content of the contract. Any contract having an imported content equal to or exceeding US$ 10 million or other currency equivalent to US$ 10 million will have a NIP obligation. This threshold of US$ 10 million can be reached as follows:

(a) Any single contract with imported content exceeding US$10 million.

or

(b) Multiple contracts for the same goods, works or services each with imported content exceeding US$3 million awarded to one seller over a 2 year period which in total exceeds US$10 million.

or

(c) A contract with a renewable option clause, where should the option be exercised the total value of the imported content will exceed US$10 million.

or

(d) Multiple suppliers of the same goods, works or services under the same contract, where the value of the imported content of each allocation is equal to or exceeds US$ 3 million worth of goods, works or services to the same government institution, which in total over a two (2) year period exceeds US$10 million.

1.2 The NIP obligation applicable to suppliers in respect of sub-paragraphs 1.1 (a) to 1.1 (c) above will amount to 30 % of the imported content whilst suppliers in respect of paragraph 1.1 (d) shall incur 30% of the total NIP obligation on a *pro-rata* basis.

1.3 To satisfy the NIP obligation, the DTI would negotiate and conclude agreements such as investments, joint ventures, sub-contracting, licensee production, export promotion, sourcing arrangements and research and development (R&D) with partners or suppliers.

1.4 A period of seven years has been identified as the time frame within which to discharge the obligation.

2 REQUIREMENTS OF THE DEPARTMENT OF TRADE AND INDUSTRY

2.1 In order to ensure effective implementation of the programme, successful bidders (contractors) are required to, immediately after the award of a contract that is in excess of **R10 million** (ten million Rands), submit details of such a contract to the DTI for reporting purposes.

2.2 The purpose for reporting details of contracts in excess of the amount of R10 million (ten million Rands) is to cater for multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as provided for in paragraphs 1.1.(b) to 1.1. (d) above.

3 BID SUBMISSION AND CONTRACT REPORTING REQUIREMENTS OF BIDDERS AND SUCCESSFUL BIDDERS (CONTRACTORS)

3.1 Bidders are required to sign and submit this Standard Bidding Document (SBD 5) together with the bid on the closing date and time.

3.2 In order to accommodate multiple contracts for the same goods, works or services; renewable contracts and multiple suppliers for the same goods, works or services under the same contract as indicated in sub-paragraphs 1.1 (b) to 1.1 (d) above and to enable the DTI in determining the NIP obligation, successful bidders (contractors) are required, immediately after being officially notified about any successful bid with a value in excess of R10 million (ten million Rands), to contact and furnish the DTI with the following information:

- Bid / contract number.
- Description of the goods, works or services.
- Date on which the contract was accepted.
- Name, address and contact details of the government institution.
- Value of the contract.
- Imported content of the contract, if possible.

3.3 The information required in paragraph 3.2 above must be sent to the Department of Trade and Industry, Private Bag X 84, Pretoria, 0001 for the attention of Mr Elias Malapane within five (5) working days after award of the contract. Mr Malapane may be contacted on telephone (012) 394 1401, facsimile (012) 394 2401 or e-mail at Elias@thedti.gov.za for further details about the programme.

4 PROCESS TO SATISFY THE NIP OBLIGATION

4.1 Once the successful bidder (contractor) has made contact with and furnished the DTI with the information required, the following steps will be followed:

a. the contractor and the DTI will determine the NIP obligation;
b. the contractor and the DTI will sign the NIP obligation agreement; the contractor will submit a performance guarantee to the DTI;
c. the contractor will submit a business concept for consideration and approval by the DTI;
d. upon approval of the business concept by the DTI, the contractor will submit detailed business plans outlining the business concepts;
e. the contractor will implement the business plans; and
f. the contractor will submit bi-annual progress reports on approved plans to the DTI.

4.2 The NIP obligation agreement is between the DTI and the successful bidder (contractor) and, therefore, does not involve the purchasing institution.

Bid number …….. Closing date:……

Name of bidder……

Postal address ……

……

Signature…….. Name (in print)……..

Date……..

Js475wc

SBD 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

1. GENERAL CONDITIONS

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

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

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

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

a) The applicable preference point system for this tender is the 90/10 preference point system.

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

c) Either the 90/10 or 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.

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	
SPECIFIC GOALS	
Total points for Price and SPECIFIC GOALS	**100**

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

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

2. DEFINITIONS

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

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

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

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

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

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

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

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**

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

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 (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm…….

4.4. Company registration number: ……...

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company

☐ (Pty) Limited

☐ Non-Profit Company

☐ State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I acknowledge that:

i) The information furnished is true and correct;

ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;

iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;

iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

(a) disqualify the person from the tendering process;

(b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;

(c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;

(d) recommend that the tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and

(e) forward the matter for criminal prosecution, if deemed necessary.

.....

SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME: .....

DATE: .....

ADDRESS: .....

.....

.....

.....

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

SBD 6.2

DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

This Standard Bidding Document (SBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2011, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

1.1. Preferential Procurement Regulations, 2011 (Regulation 9) makes provision for the promotion of local production and content.

1.2. Regulation 9.(1) prescribes that in the case of designated sectors, where in the award of bids local production and content is of critical importance, such bids must be advertised with the specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.

1.3. Where necessary, for bids referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and preferential point system.

1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.

1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where

x is the imported content in Rand
y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) at 12:00 on the date of advertisement of the bid as indicated in paragraph 4.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on http:/www.thedti.gov.za/industrial development/ip.jsp at no cost.

1.6 A bid may be disqualified if –

(a) this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation; and

(b) the bidder fails to declare that the Local Content Declaration Templates (Annex C, D and E) have been audited and certified as correct.

2. Definitions

2.1. **"bid"** includes written price quotations, advertised competitive bids or proposals;

2.2. **"bid price"** price offered by the bidder, excluding value added tax (VAT);

2.3. **"contract"** means the agreement that results from the acceptance of a bid by an organ of state;

2.4. **"designated sector"** means a sector, sub-sector or industry that has been designated by the Department of Trade and Industry in line with national development and industrial policies for local production, where only locally produced services, works or goods or locally manufactured goods meet the stipulated minimum threshold for local production and content;

2.5. **"duly sign"** means a Declaration Certificate for Local Content that has been signed by the Chief Financial Officer or other legally responsible person nominated in writing by the Chief Executive, or senior member / person with management responsibility(close corporation, partnership or individual).

2.6. **"imported content"** means that portion of the bid price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or its subcontractors) and which costs are inclusive of the costs abroad (this includes labour or intellectual property costs), plus freight and other direct importation costs, such as landing costs, dock duties, import duty, sales duty or other similar tax or duty at the South African port of entry;

2.7. **"local content"** means that portion of the bid price which is not included in the imported content, provided that local manufacture does take place;

2.8. **"stipulated minimum threshold"** means that portion of local production and content as determined by the Department of Trade and Industry; and

2.9. **"sub-contract"** means the primary contractor's assigning, leasing, making out work to, or employing another person to support such primary contractor in the execution of part of a project in terms of the contract.

3. The stipulated minimum threshold(s) for local production and content
(Refer to Annex A of SATS 1286:2011) for this bid is/are as follows:

Description of services, works or goods	Stipulated minimum threshold
• Valves products:	70%
• Flow Meters:	30%
• Conveyance Pipes:	80-100%
• Transformers and Shunt Reactors	70%
• Street Light Steel Poles / Steel Substation Structures	100%
• Electrical and telecom cables	90%
• Pumps, Medium Voltage (MV) Motor and Associated Accessories	70%
• Air insulated MV Switchgear	50%
• Industrial lead-acid/nickel-cadmium batteries	50%
• Instrument transformers	15%
• Bus bars	5%
• Housing	25%
• Switching Devices	5%
• Steel Value-added Products	100%

4. Does any portion of the services, works or goods offered have any imported content?
(***Tick applicable box***)

YES		NO	

4.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency at 12:00 on the date of advertisement of the bid.

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011).

Currency	**Rates of exchange**
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

The relevant rates of exchange information is accessible on **www.reservebank.co.za**.

5. Were the Local Content Declaration Templates (Annex C, D and E) audited and certified as correct?

(***Tick applicable box***)

YES		NO	

5.1. If yes, provide the following particulars:

(a) Full name of auditor: ……

(b) Practice number: ……..

(c) Telephone and cell number: …….

(d) Email address: ……..

(Documentary proof regarding the declaration will, when required, be submitted to the satisfaction of the Accounting Officer / Accounting Authority)

6. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the dti must be informed accordingly in order for the dti to verify and in consultation with the AO/AA provide directives in this regard.

LOCAL CONTENT DECLARATION (REFER TO ANNEX B OF SATS 1286: 2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO. .....

ISSUED BY: (Procurement Authority / Name of Institution):

.....

NB

1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thdti.gov.za/industrial

development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C.

Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below. Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, ... (full names),

do hereby declare, in my capacity as ……..

of .....(name of bidder entity), the following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have satisfied myself that:

(i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and

(ii) the declaration templates have been audited and certified to be correct.

(c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	
Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.

The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.

(d) I accept that the Procurement Authority / Institution has the right to request that the

local content be verified in terms of the requirements of SATS 1286:2011.

(e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 13 of the Preferential Procurement Regulations, 2011 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____ **DATE:** _____

WITNESS No. 1 _____ **DATE:** _____

WITNESS No. 2 _____ **DATE:** _____

T2.2 RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES

The tenderer must complete **VOLUME 1: TENDER DOCUMENT** in its entirety.

The documents and schedules the tenderer shall submit with the tender shall include, but not be limited to those set out below. Documents that will become part of the Contract.

INDEX

Section	Description	Page No
Form T2.2.1	Compulsory Enterprise Questionnaire	T2.2-1
Form T2.2.2	Commissioner of Oaths	T2.2-4
Form T2.2.3	Certificate of Attendance at Clarification Meeting	T2.2-5
Form T2.2.4	Record of Addenda to Tender Documents	T2.2-6
Form T2.2.5	Certified Registration Certificate/Agreement/Powers of Attorney / ID	T2.2-7
Form T2.2.6	Certified Proposed Joint Venture Agreement	T2.2-8
Form T2.2.7	Certificate of Authority of Signature	T2.2-10
Form T2.2.8	Certified Original valid Tax Clearance Certificate (in terms of the Preferential Procurement Regulations, 2011 published in Government Gazette, No 34350, dated 8 June 2011)	T2.2-15
Form T2.2.9	Certified copy of VAT Registration Certificate	T2.2-16
Form T2.2.10	Certified copy of Latest UIF Return	T2.2-17
Form T2.2.11	Original (or certified copy) of latest Municipal Rates and Taxes Clearance certificate or copy of valid Lease Agreement	T2.2-18
Form T2.1.12	Certified Proof of Confirmation of Employment Equity Policy from the Department of Labour	T2.2-19
Form T2.2.13	Certified Proof of Expenditure for Skills Development	T2.2-20
Form T2.2.14	Certified copy of Letter of good standing with Compensation Commissioner or with a licensed compensation insurer	T2.2-21
Form T2.2.15	Certified copy of CIDB Registration Certificate	T2.2-22
Form T2.2.17	Size of Enterprise	T2.2-24
Form T2.2.18	Current Workload	T2.2-25
Form T2.2.19	Form Concerning fulfilment of the Construction Regulation, 2014	T2.2-27
Form T2.2.20	Tax Compliance Status Form	T2.2-30
Form T2.2.21	Determination of Targeted Procurement	T2.2-31
Form T2.2.22	Contract Participation for Targeted Enterprises (EME and QSE)	T2.2-32
Form T2.2.15	Certified copy of CIDB Registration Certificate	T2.2-22

T2.2.1 COMPULSORY ENTERPRISE QUESTIONNAIRE

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

Section 1: Name of enterprise: . . . . . .

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

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

Section 4: 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 in the 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 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)
- ☐ a member of an accounting authority of any national or provincial public entity
- ☐ an employee of Parliament or a provincial legislature

If any of the above boxes are marked, disclose the following:

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 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)
- ☐ a member of an accounting authority of any national or provincial public entity
- ☐ an employee of Parliament or a provincial legislature

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

iv) confirms that the contents of this questionnaire are within my personal knowledge and are to the best of my belief both true and correct.

Signed ---------- Date ----------

Name ---------- Position ----------

Enterprise name ----------

T2.2.2 COMMISSIONER OF OATHS

COMMISSIONER OF OATHS:

Signed and sworn to before me at _____ (Place)

on this the _____ day of _____ by the Deponent, who has acknowledged that he/she knows and understands the full contents of all information inserted and provided in this Contract ……., that it is true and correct to the best of his/her knowledge and that he/she has no objection to taking the prescribed oath, and that the prescribed oath will be binding on his/her conscience.

Commissioner of Oaths _____ Name: _____

Stamp

Signature _____

T2.2.3 CERTIFICATE OF ATTENDANCE AT CLARIFICATION MEETING

This is to certify that (tenderer)…….....…….....

of (address).....…….……..

.....……..... was represented by the person(s) named below at

the compulsory meeting held for all tenderers at (location)……..

..... on (date)..... starting at (time) …….....

I / We acknowledge that the purpose of the meeting was to acquaint myself / ourselves with the Site of the Works and its surroundings and / or matters incidental to doing the work specified in the Tender Documents in order for me / us to take account of everything necessary when compiling our rates and prices included in the tender. I / We also acknowledge that I / we have examined the Site Data made available by the Employer (including borehole cores and related information).

Particulars of person(s) attending the meeting:

Name: .....…….. Signature: .....….....

Capacity: .....

Name: .....…….. Signature: .....….....

Capacity: .....

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

Name: .....……..... Signature: .....

Capacity: .....……..... Date and Time: .....

T2.2.4 RECORD OF ADDENDA TO TENDER DOCUMENTS

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

Attach additional pages if more space is required.

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

T2.2.5 REGISTRATION CERTIFICATE / AGREEMENT / POWERS OF ATTORNEY / ID DOCUMENT (IF APPLICABLE)

Important note to Tenderer: Registration Certificates for Companies, Close Corporation and Partnerships, or Agreements and Powers of Attorney for Joint Ventures, or ID Document for Sole Proprietor, all as referred to in the foregoing forms and in T2.2.6 must be inserted here.

T2.2.6 PROPOSED JOINT VENTURE AGREEMENT

The following legal business entities agree to deliver the services and/or goods as required under this Contract as a Joint Venture as follows:

Name and Addresses of Joint Venture: …….

…….

…….

Consisting of the following businesses (Joining Entities)

Name Joining Entity	TAX No	Proportional Payment that will be Received Under this Contract
		%
		%
		%
		%
		%

The above-mentioned Joint venture will execute the Contract under the management of (full name)

.....

who is an employee of (name of joining entity) .....;

and in accordance with any further agreements as attached to this document, titled

.....

and dated …….. (if applicable).

Bank guarantees and retention money (where required) will be provided or paid by (name of joining entity)

.....

who will be responsible for the fulfilment of the retention obligations (where required) asset out in the Contract Document.

Joining Entity and Position	Full Name (Position)	Signature	Date

WITNESSES: 1. ....

2. ....

T2.2.7 CERTIFICATE OF AUTHORITY OF SIGNATURE

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.

(I) COMPANY	(II) CLOSE CORPORATION	(III) PARTNERSHIP	(IV) JOINT VENTURE	(V) SOLE PROPRIETOR

All signatories, including sole proprietors, shall confirm their authority by ***attaching to this page of this tender*** a duly signed and ***dated original or certified copy*** of the relevant resolution of their members or their board of directors, as the case may be

(i) Certificate for Company

I, ……, chairperson of the Board of Directors of ……

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

Chairman: .....

As Witnesses: 1.....

2.....

Date: .....

(ii) Certificate for Close Corporation

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

..... hereby authorize Mr/Ms …….. , acting in the capacity of

....., to sign all documents in connection with the

tender for ……. and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

Note: This certificate is to be completed and signed by all key members upon whom rests the direction of the affairs of the Close Corporation as a whole.

(iii) Certificate for Partnership

We, the undersigned, being the key partners in the business trading as, ...

.....……., hereby authorize Mr/Ms .....……. ,

acting in the capacity of ……... , to sign all documents in connection

with the tender for…… and any contract resulting from it on our behalf.

NAME	ADDRESS	SIGNATURE	DATE

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

(iv) Certificate of Authority for Joint Ventures

This Returnable Schedule is to be completed by joint ventures.

We, the undersigned, are submitting this tender offer in Joint Venture and hereby authorise:

Mr/Ms …… authorised signatory of the company…….. ,

acting in the capacity of lead partner, to sign all documents in connection with the tender offer and any contract resulting from it on our behalf.

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

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

(v) Certificate for Sole Proprietor

I, ..., hereby confirm that I am the sole owner of the Business

trading as …….....

Signature of sole owner: ..... Date: .....

As Witnesses:

.

1..... Date: .....

2. ..... Date: .....

.

T2.2.8 VALID TAX CLEARANCE CERTIFICATE

The tenderer shall attach to this page a current Tax Clearance certificate which shall be obtained by the tenderer from the South African Revenue Service (SARS).

In the event of a joint venture each member shall comply with the above requirement.

Where such certificates are no longer issued by SARS (as described in National Treasury Instruction Number 3 of 2014/2015 – Tax compliance measures for persons conducting business with the State), the Tenderer shall complete the declaration below.

I, ... (name) the undersigned in my capacity as

..... (position) on behalf of ..... (name of company)

herewith grant consent that SARS may disclose to the Lepelle Northern Water our tax compliance status. For this purpose, our unique security personal identification number (PIN) is …....

Failure to submit an original and valid Tax Clearance Certificate will invalidate the tender.

T2.2.9 CERTIFIED COPY OF VAT REGISTRATION CERTIFICATE

The Tenderer must attach hereto a certified copy of VAT registration certificate.

T2.2.10 CERTIFIED COPY OF LATEST UIF RETURN

The Tenderer must attach hereto a copy of the latest Unemployment Insurance Fund return.

Unemployment Insurance Contributions Act, No. 4 of 2002

CHAPTER 2

Duty to contribute and recovery of contributions

5. Duty to contribute to Fund

1. Every employer and every employee to whom this Act applies must, on a monthly basis, contribute to the Unemployment Insurance Fund.

2. The contributions must be paid by the employer either to the Commissioner in terms of section 8 or to the Unemployment Insurance Commissioner in terms of section 9, whichever is applicable to the particular employer.

T2.2.11 CERTIFIED COPY OF LATEST MUNICIPAL RATES AND TAXES CLEARANCE CERTIFICATE OR COPY OF VALID LEASE AGREEMENT (IF RENTING)

The Tenderer must attach hereto a certified copy of their latest municipal rates and taxes clearance certificate or a copy of a valid lease agreement (if renting)

T2.2.12 CERTIFIED PROOF OF CONFIRMATION OF EMPLOYMENT EQUITY POLICY FROM THE DEPARTMENT OF LABOUR

The Tenderer must attach hereto a copy of the confirmation from the department of labour that their Employment Equity Policy has been submitted.

Employment Equity Act, 55 of 1998

Employment Equity Plan: Section 20

a. A designated employer must prepare and implement a plan to achieve employment equity, which must:
   - have objectives for each year of the plan;
   - include affirmative action measures;
   - have numerical goals for achieving equitable representation;
   - have a timetable for each year;
   - have internal monitoring and evaluation procedures, including internal dispute resolution mechanisms; and
   - identify persons, including senior managers, to monitor and implement the plan

T2.2.13 CERTIFIED PROOF OF EXPENDITURE FOR SKILLS DEVELOPMENT

The Tenderer must attach hereto proof of expenditure on skills development as required.

SKILLS DEVELOPMENT LEVIES ACT, 1999

3. Imposition of levy

(1) Every Employer must pay a skills development levy

T2.2.14 CERTIFIED COPY OF LETTER OF GOOD STANDING WITH THE COMPENSATION COMMISSIONER OR WITH A LICENSED COMPENSATION INSURER

The Tenderer must attach hereto certified copy of Letter of good standing with Compensation Commissioner or with a licensed compensation insurer

T2.2.15 CONTRACTOR'S CERTIFIED COPY OF CIDB REGISTRATION CERTIFICATE

Provide CRN Number of CIDB Certificate of Registration: ……..

The Tenderer shall attach hereto the Contractor's Certificate of Registration with CIDB. Failure to submit the certificate with the tender document will lead to the conclusion that the Tenderer is not registered with the CIDB and therefore not eligible to tender.

Tenderers who have made application to CIDB for registration and are capable of being so registered prior to the evaluation of submissions must attach a notification from CIDB that their application is being considered.

T2.2.16 PRO-FORMA CERTIFICATE OF INSURANCE COVER

NOTE TO TENDERER:

In the event of the tenderer being a joint venture/consortium, the following details of the individual members must also be provided after award of Contract.

The tenderer shall provide the following details of this insurance cover:

1. Name of Tenderer: ……..

2. Period of Validity: …….

3. Value of Insurance:

   (a) Insurance for Works and Contractor's Equipment:

   Company: …….

   Value: ……

   (b) Insurance for Contractor's Personnel:

   Company: …….

   Value: ……

   (c) General Public Liability:

   Company: …….

   Value: ……

   (d) South African Special Risks Insurance Association (SASRIA):

   Company: …….

   Value: ……

Tenderer/ (Authorised Signatory Signature): …….

T2.2.17 SIZE OF ENTERPRISE

What was your turnover in the previous financial year? R_____

What is the estimated turnover for your current financial year? R_____

Physical facilities:

Provide information on offices, factories, yards, warehouses and workshops occupied by your enterprise (attach details if the space provided is not enough)

	Description	Address	Area (m²)
1.			
2.			
3.			
4.			
5.			
6.			

.

Signed ---------- Date ----------

Name ---------- Position ----------

Tenderer ----------

T2.2.18 CURRENT WORKLOAD

List your current contracts and obligations:

	Description	Value (R)	Start date	Duration	Expected completion date
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					

Do you have the capacity to supply the goods and services described in this tender, should the contract be awarded to you? (Tick)

YES	
NO	

Signed ---------- Date ----------

Name ---------- Position ----------

Tenderer ----------

T2.2.19 FORM CONCERNING FULFILMENT OF THE CONSTRUCTION REGULATIONS, 2014

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

1. Is the Contractor familiar with the OHSA (ACT 85 OF 1993) and its Regulations? YES / NO
2. Who will prepare the Contractors Health and Safety Plan? (Provide a copy of the person/s curriculum vitae/s or company profile).
3. Does the Contractor have a health and safety policy? (If yes, provide a copy). YES / NO
   How is this policy communicated to all employees?
4. Does the Contractor keep records of safety aspects of each construction site? YES / NO
   If yes, what records are kept?
5. Does the Contractor conduct monthly safety meetings? If yes, who is the chairperson of the meeting, and who attends these meetings? YES / NO
6. Does the Contractor have a safety officer in his employment, responsible for the overall safety of his company? If yes, please explain his duties and provide a copy of his CV. YES / NO
7. Does the Contractor have trained first aid employees? If yes, indicate who. YES / NO
8. Does the Contractor have a safety induction training programme in place? (If yes, provide a copy). YES / NO

In terms of Clause 4(4) of the Occupational Health and Safety Act, Act no 85 of 1993 (OHSA) Construction Regulations 2014 (referred to as "the Regulations" hereafter), a Contractor may only be appointed to perform construction work if the Employer is satisfied that the Contractor has the necessary competencies and resources to carry out the work safely in accordance with the Occupational Health and Safety Act No 85 of 1993 and the OHSA 1993 Construction Regulations 2014.

To that effect a person duly authorized by the tenderer must complete and sign the declaration hereafter in detail.

Declaration by Tenderer

I, the undersigned hereby declare and confirm that I am fully conversant with the Occupational Health and Safety Act No 85 of 1993 (as amended by the Occupational Health and Safety Amendment Act No 181 of 1993), and the OHSA 1993 Construction Regulations 2014.

I hereby declare that my company has the competence and the necessary resources to safely carry out the construction work under this contract in compliance with the Construction Regulations and the Employer's Health and Safety Specifications.

I hereby confirm that adequate provision has been made in my tendered rates and prices in the Bill of Quantities to cover the cost of all resources, actions, training and all health and safety measures envisaged in the OHSA 1993 Construction.

Tables to be completed by Tenderer:

TABLE 1: COST OF SAFETY PERSONNEL

PERSONNEL	COSTS AS ALLOWED IN TENDER	NOMINATED PERSON/S
Construction Supervisor		
Construction Safety Manager		
Construction Safety Officer		
Health and Safety Representatives		
Health and Safety Committee		

TABLE 2: COST OF SAFETY EQUIPMENT

EQUIPMENT	STATE YES or NO	COST ALLOWED FOR IN TENDER
Hard hats		
Safety boots		
Harnesses		
Gas detectors		
Add items as per risk assessment:		
Medicals		
Training		
Barricading		
Security		

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

I confirm that copies of my company's approved Health and Safety Plan, the Employer's Safety Specifications as well as the OHSA 1993 Construction Regulations 2014 will be provided on site and will at all times be available for inspection by the Contractor's personnel, the Employer's personnel, the Engineer and his Agents, visitors, and officials and inspectors of the Department of Labour.

I hereby confirm that I will be liable for any penalties that may be applied by the Employer in terms of the said Regulations (Regulation 30) for failure on the Contractor's part to comply with the provisions of the Act and the Regulations.

I agree that my failure to complete and execute this declaration to the satisfaction of the Employer will mean that I am unable to comply with the requirements of the OHSA 1993 Construction Regulations 2014, and accept that my tender will be prejudiced and may be rejected at the discretion of the Employer.

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

T2.2.20 TAX COMPLIANCE STATUS FORM

The Tenderer must complete the following form in full:

Information required	Numbers (reference and pin)
What is your business tax reference number?	
What is your Tax Company status PIN number?	

By providing us (Lepelle Northern Water) with the above information, you are in compliant with terms and conditions which are issued by SARS (South African Revenue Services), effectively with regard to your companies' compliant and the verification thereof.

It is the service provider's responsibility to provide the Lepelle Northern Water with paper tax clearance certificate, tax clearance reference number and tax compliance status pin and failure to provide tax compliance status information will render the bid invalid.

Signed ..... Date .....

Name ..... Position .....

Tenderer .....

T2.2.21 DETERMINATION OF VALUE OF SUB-CONTRACTING IN-LINE TARGETED PROCUREMENT POLICY.

1. The implementation strategy to fulfill the obligation of sub-contracting as condition for contracts in excess of R30 million in construction value. The Targeted Enterprises referred to is the Targeted Procurement Strategy. The targeted Procurement ratio will be calculated based on the tendered sum of the works less the following:

   1.1 VAT
   1.2 Contingencies
   1.3 Preliminary and General
   1.4 Contract Price Adjustment (CPA)
   1.4 Value of the deductible materials as listed in Table T2.2.22-1 below

2. Tenderers must provide the rates for quantities and the value of items earmarked for exclusion from the targeted procurement calculation as depicted in Table T2.2.22-1. All other **quantities and amounts contained in the BOQ will be deemed to be eligible for application of targeted procurement.**

Table T2.2.22-1 ***Schedule of items excluded in the calculation of the TARGETED PROCUREMENT***

Section	Description	Amount
1	High Lift Multistage Pumps	
2	MV (6.6kV) Motors	
3	PLCs, HMI Units, Telemetry and SCADA System	
4	MV (6.6kV) Variable Speed Drives	
5	Valves > 250mm diameter	
6	Pipe fitting > 250mm diameter	
7	Other (Please Specify)	
	Sub Total (exc. VAT)	

T2.2.21.1 CONTRACT PARTICIPATION FOR TARGETED ENTERPRISES

Contract Participation for Targeted Enterprise

Tenders are required to employ Targeted Enterprise on this contract; **failure to do so may lead to tenderer being completely disqualified**. The Targeted Enterprises to be utilized should meet strategic objectives and registered with CIDB with minimum grading 2ME/EP/CE/GB to 8ME/EP/CE/GB, EME or QSE that is a least 51% Black owned. A prescribed percentage (%) of contract value less items listed in **Table T2.2.22-1. The objective is to bring about meaningful transformation in the Construction Industry through the following:**

- Meaningful economic participation
- Transfer of technical, management and entrepreneurial skills
- Creation of sustainable Black Enterprises

Total value of Contract excluding VAT, Contingencies, CPA, Preliminary and General, Specialists Items (Deductible Materials): ……..

Total value of contract participation by Targeted Enterprise: ……

Percentage (%) contract participation by Targeted Enterprise: ……

Broad description of work to be performed by the targeted enterprise (Bidders to complete):

	Proposed extend of works to be allocated to Targeted Enterprises	**Include value of works allocated to Targeted Enterprises**	**CIDB Grading**
1			
2			
3			
4			
5			
6			
7			

NB: Failure to complete this schedule will lead to the assumption that the 30% of the contract value to be sub-contracted to the Targeted Enterprises will be without exclusion of any items.

Lepelle Northern Water (LNW) will make available the list of all sub-contractors registered on the CSD database for Capricorn District Municipality (Nkumpi-Lepelle and Polokwane Local Municipalities) and Mopani District Municipality (Greater Tzaneen Local Municipality) jurisdictions and Limpopo Province in general, to provide the required goods and services of the applicable designated groups to the recommended bidder as part of the contract award process. The bidder is however expected to complete the table above in full pending contract signing with various sub-contractors. Each supplier shall be expected to be eligible or qualify to upgrade to the next CIDB grading at the completion of the identified scope of works.

T2.2.21.2 ADEQUACY AND QUALITY OF MENTORSHIP AND SKILLS TRANSFER PROGRAMME

1. Tenderers are required to employ designated Subcontractors on this contract with the targeted enterprise(s). The designated sub-contractors to be utilized should be black owned business and registered with CIDB with minimum grading of 2ME/EP/CE/GB to 8ME/EP/CE/GB.

2. A Contract Participation Goal of a prescribed percentage (%) for subcontracting to these designated subcontractors has to be achieved by the Tenderer. The objective is to bring about meaningful transformation in the construction industry through the following:

    - Meaningful economic participation
    - Transfer of technical, management and entrepreneurial skills
    - Creation of sustainable Black Enterprises

3. In pursuance of the above objectives, the Tenderer must develop a mentoring and skills transfer programme which is a practical training programme for targeted black owned SMME construction companies preferably located in Capricorn District Municipality (Nkumpi-Lepelle and Polokwane Local Municipalities) and Mopani District Municipality (Greater Tzaneen Local Municipality) jurisdictions and Limpopo Province in general.

4. The mentorship programme must clearly specify the role of the targeted enterprise(s) showing the areas of development in relation to the work packages assigned to the targeted enterprise(s)

5. The on-job training is to be organized and managed by the Developed Enterprise; in contracts awarded and managed by LNW, but works are executed with the guidance and assistance of experienced Main Contractors at the tendering, mobilization, construction and completion phases.

6. Depending on the nature of contract, the training programme should among other things cover areas such as: understanding Technical Specifications; Standard Specifications; Interpretation of Technical Drawings; Tendering Procedures; Pricing and Unit Rates Build-up; Construction of Civil Works in the Water Industry: Reinforcement, Formwork and False-work; Clearing and Site Establishment; Site Organization and Administration; Surveying and

    Setting Out; Project Planning and Work Programming/ Scheduling; Contract Supervision and Administration; Environmental Issues; Financial Planning; Project Cost Control; Cash Flow Management; Measurement of Works and Pricing; Preparation of Payment Certificates; Preparation of Claims and Claims Management; Procurement of Equipment and Materials; Personnel Management; Accident and Safety Precaution; Communication. This is just a guide for the design of the mentorship programme.

7. The mentoring and skills transfer programme must indicate what evidence will be produced to show that training did take place. This could for instance be in the form of SAQA accredited modules by relevant SITAs.

8. The Main Contractor (Developed Enterprise) is strongly encouraged to choose relevant SITA accredited modules for training of targeted SMMEs in which case the SITA's NQF level certificates indicating the credits attained could be produced as evidence of the training of the targeted SMMEs. Examples could be NQF Level 2, 3 or 5 in Labour Intensive Construction (LIC} methods

9. The mentorship and skills transfer programme will be assessed based on the submitted methodology or plan. It must be robust, well thought out and should meet most elements of the description given above depending on the nature of work:

10. A capacity building evaluation/ assessment form is to be designed by the main contractor in agreement with the targeted enterprise(s). This must be included in the tender document. The evaluation' assessment form has to be filled in by all the contractors every month and after completion of the project. The form is to be used for assessing progress made with the training as well as identifying additional training (or gaps) requiring more training.

11. THE MENTORSHIP AND SKILLS TRANSFER PROGRAMME (REFER TO {ITEM NO. 5 ABOVE) AS WELL AS THE CAPACITY BUILDING EVALUATION FORM (REFER TO ITEM NO. 10 ABOVE) MUST BE ATTACHED BELOW

T2.2.21.3 DETERMINATION OF TARGETED PROCUREMENT

1. The targeted procurement ratio will be calculated based on the tendered sum of the works less the following:
   - VAT
   - Contingencies
   - Value of the deductible materials as listed in T2.2.21-1 above
2. Tenderers must provide the rates for quantities and value of items earmarked for exclusion from the targeted procurement calculation.

   Failure to do so will lead to the assumption that all quantities contained in the BOQ are eligible for application of the targeted procurement.

T2.2.21.4 TENDER'S DECLARATION WITH RESPECT TO PARTICIPATION IN JOB CREATION USING LOCAL LABOUR

The Tenderer shall be required to participate in job creation (employment of local labour) by executing various portions of the Works using local labour (unskilled or semi-skilled), recruited from the local community, who are South African Citizens or foreigners in possession of a work visa issued by the Department of Home Affairs (only one such foreigner may be employed on any project). Proof of citizenship or work visa may be audited during the contract period.

The creation of one job shall mean the temporary employment, for any period of time, of one such unskilled or semi-skilled labourer from the local community.

The Tenderer shall note the requirements for Job Creation Reporting for EPWP as set out in the Requirements of the Expanded Public Works Programme (EPWP) of the project specifications.

The number of jobs to be created using such local labour is inclusive of the local labour employed to execute various portions of the Works by both the main Contractor and any subcontractors, including the small development subcontractors.

The number of jobs to be created using such local labour shall include for a minimum percentage allocation to the following individual targeted groups:

- 30% Women;
- 70% Youth; and
- 2% Disabled.

The minimum required content of such local labour for this project shall be calculated as follows: Minimum required content of such local labour (%)

$$= \frac{\text{(100 x amount spent on wages for such local labour (excluding VAT))}}{\text{(total value of the project (excluding VAT))}}$$

The minimum required content of such local labour for this project shall be 15%.
(Compiler to insert the target minimum percentage based on detailed calculations of the local labour component anticipated for each scheduled pay item, including the pay items contributing to the provisional sum associated with the construction Works carried out by Targeted Enterprise subcontractors appointed).

For purposes of completing the table on the next page containing the Tenderer's declaration with respect to participation in job creation using local labour, the total value of the project shall be the amount of the Tender Offer.

TENDERER'S DECLARATION WITH RESPECT TO PARTICIPATION IN JOB CREATION USING LOCAL LABOUR:

The Tenderer shall complete the table below reflecting the anticipated local labour force to be employed on this contract, including such local labour employed by subcontractors.

We hereby tender to participate in job creation through the employment of local labour by creating the following number of jobs using unskilled or semi-skilled labourers, recruited from the local community, who are South African Citizens or foreigners in possession of a work visa issued by the Department of Home Affairs (only one such foreigner may be employed on any project), including for minimum allocation of 30% Women, 70% Youth and 2% Disabled:

Local labour comprising unskilled or semi-skilled labourers recruited from the local communities	**Anticipated number of jobs to be created**	**Total number of person-days anticipated**	**Wage rate per person-day (excluding VAT) (Rand)**	**Total wage cost (excluding VAT) (Rand)**
Main Contractor's local labour content				
Sub-contractor's local labour content				
Total anticipated wage cost pf local labour content (excluding VAT)				R
Tender Offer (excluding VAT)				R
Hence anticipated labour content expressed as a percentage of the Tender Offer (excluding VAT) ***Note:*** ***Should this percentage not equal or exceed the specified minimum percentage, the tender will be considered non-responsive in terms of sub clause C.3.8.1 of the Conditions of Tender and such a tender shall be rejected.***				
Specified minimum local labour content				15%

A penalty shall be applied to any shortfall in the local labour content achieved, as set out in the Requirements of the Expanded Public Works Programme (EPWP) of the project specifications. The penalty shall not apply to shortfalls in the allocations to the individual target groups (i.e., Women/Youth/Disabled), only to shortfalls in the total local labour content achieved.

END OF SECTION

T2.3 OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

The tenderer must complete **VOLUME 1: TENDER DOCUMENT in its entirety**.

The documents and schedules the tenderer shall submit with the tender shall include, but not be limited to those set out below.

Documents that will become part of the Contract.

INDEX

Section	Description	Page
T2.3.1	Experience of Key Staff and Curriculum Vitae of Key Personnel	T2.3-1
T2.3.2	Schedule of Tenderer's Experience	T2.3-7
T2.3.3	Certified copy of Form of Intent to Provide a Performance Guarantee	T2.3-8
T2.3.4	Certified copy of Tenderers Bank Rating Letter	T2.3-9
T2.3.5	Approach Paper	T2.3-10

T2.3.1 EXPERIENCE OF KEY STAFF

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

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

NOTE: Only those tenderers who have in their employ management and supervisory staff satisfying the requirements of the scope of work for labour intensive competencies for supervisory and management staff are eligible to submit tenders.

The tenderer shall submit the names of all management and supervisory staff that will be employed to supervise the labour-intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.

A CV of the contract manager, site agent and safety officer of not more than 2 pages should be attached hereto. Each CV should be structured under the following headings:

1 Personal particulars

- - name
- - date and place of birth
- - place (s) of tertiary education and dates associated therewith
- - professional awards

2 Qualifications (degrees, diplomas, grades of membership of professional societies and professional registrations)

3 Skills

4 Name of current employer and position in enterprise

5 Overview of postgraduate / diploma experience (year, organisation and position)

6 Outline of recent assignments / experience that has a bearing on the scope of work

Note: An individual may be nominated to serve as the team leader in more than one discipline and as the team leader and a discipline specific leader.

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 ----------

LIST OF KEY PERSONNEL ASSIGNED TO THE TENDER

1. Provide relevant information as prescribed below for the following Key Persons proposed in the tender to fulfil the following positions:
2. Curriculum Vitae of all proposed staff need to be attached.

Name	ID No.	Current Position	No. of Years Employed	Qualifications / Pr Registration
CATEGORY 1 – ELECTRICAL DESIGN ENGINEER				
1				
2				
CATEGORY 1 – MECHANICAL DESIGN ENGINEER				
1				
2				
CATEGORY 1 – CONTRACTS MANAGER				
1.				
2.				
CATEGORY 2 – SITE MANAGER				
3.				
4.				
CATEGORY 3 – FOREMAN: CONSTRUCTION				
5.				
6.				
CATEGORY 4 – HEALTH AND SAFETY MANAGER				
7.				
8.				

Attach a proposed organogram to this page.

SUMMARY RESUME FORMAT:

Category 1: ELECTRICAL DESIGN ENGINEER

Full Name(s)	
Surname	
ID Number	

Experience History (Summary)	**Tertiary Qualifications** (Highest order)
1. .. 2. .. 3. .. 4. .. 5. .. 6. ..	1. .. 2. .. 3. .. 4. ...

Professional Affiliation (Most relevant)

Category	Organization	Reg. No.	Date

Relevant Projects Completed Recently

No.	Name of Project ▪ **Pump Station Power (Motor) Installed**	**Type:** Design /Assessment/ Testing/Commissioning	Name of Client	Start and End dates	**Position/Role** (on the project)
1.					
2.					
3.					
4.					
5.					
6.					

Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes me, my qualifications and my experience.

……. …….
Signature of person named in the schedule Date

SUMMARY RESUME FORMAT:

Category 1: MECHANICAL DESIGN ENGINEER

Full Name(s)	
Surname	
ID Number	

Experience History (Summary)	**Tertiary Qualifications** (Highest order)
1. .. 2. .. 3. .. 4. .. 5. .. 6. ..	1. .. 2. .. 3. .. 4. ...

Professional Affiliation (Most relevant)

Category	Organization	Reg. No.	Date

Relevant Projects Completed Recently

No.	**Name of Project** ▪ **Pump Station Flow**	**Type:** Design /Assessment/ Testing/Commissioning	**Name of Client**	**Start and End dates**	**Position/Role** (on the project)
1.					
2.					
3.					
4.					
5.					
6.					

Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes me, my qualifications and my experience.

…… …….....
Signature of person named in the schedule Date

SUMMARY RESUME FORMAT:

Category 1: CONSTRUCTION PROJECT MANAGER

Full Name(s)	
Surname	
ID Number	

Experience History (Summary)	**Tertiary Qualifications** (Highest order)
1. .. 2. .. 3. .. 4. .. 5. .. 6. ..	1. .. 2. .. 3. .. 4. ...

Professional Affiliation (Most relevant)

Category	Organization	Reg. No.	Date

Relevant Projects Completed Recently

No.	**Name of Project** ▪ **Pump Station Flow and Power Capacity**	**Type:** Refurbishment /Construction/ Testing/Commissioning	**Name of Client**	**Start and End dates**	**Position/Role** (on the project)
1.					
2.					
3.					
4.					
5.					
6.					

Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes me, my qualifications and my experience.

…… ……..
Signature of person named in the schedule Date

SUMMARY RESUME FORMAT:

Category 2: Site Manager

Full Name(s)	
Surname	
ID Number	

Experience History (Summary)	**Tertiary Qualifications** (Highest order)
1. ..	1. ..
2. ..	2. ..
3. ..	3. ..
4. ..	4. ...
5. ..	**Professional Affiliation** (Most relevant)
6. ..	

Category	Organization	Reg. No.	Date

Relevant Projects Completed Recently

No.	**Name of Project** ▪ **Pump Station Flow and Power Capacity**	**Type:** Refurbishment /Construction / Testing/Commissioning	**Name of Client**	**Start and End dates**	**Position/Role** (on the project)
1.					
2.					
3.					
4.					
5.					
6.					

Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes me, my qualifications and my experience.

…… ……..
Signature of person named in the schedule Date

SUMMARY RESUME FORMAT:

Category 3: Construction Foreman

Full Name(s)	
Surname	
ID Number	

Experience History (Summary)	**Tertiary Qualifications** (Highest order)
1. ..	1. ..
2. ..	2. ..
3. ..	3. ..
4. ..	4. ...
5. ..	**Professional Affiliation** (Most relevant)
6. ..	

Category	Organization	Reg. No.	Date

Relevant Projects Completed Recently

No.	**Name of Project**	**Type:** Refurbishment /Construction / Testing/Commissioning	**Name of Client**	**Start and End dates**	**Position/Role** (on the project)
1.					
2.					
3.					
4.					
5.					
6.					

Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes me, my qualifications and my experience.

…… ……..
Signature of person named in the schedule Date

SUMMARY RESUME FORMAT:

Category 4: Health and Safety Manager

Full Name(s)	
Surname	
ID Number	

Experience History (Summary)	**Tertiary Qualifications** (Highest order)
1. .. 2. .. 3. .. 4. .. 5. .. 6. ..	1. .. 2. .. 3. .. 4. ...

Professional Affiliation (Most relevant)

Category	Organization	Reg. No.	Date

Relevant Projects Completed Recently

No.	**Name of Project**	**Type:** Refurbishment /Construction / Testing/Commissioning	**Name of Client**	**Start and End dates**	**Position/Role** (on the project)
1.					
2.					
3.					
4.					
5.					
6.					

Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data correctly describes me, my qualifications and my experience.

…… ……..
Signature of person named in the schedule Date

T2.3.2 SCHEDULE OF TENDERER'S EXPERIENCE

Employer, contact person and tele-phone number, where available	Description of work (service)	Value of work (i.e. the service provided) inclusive of VAT (Rand)	Start Date and Completed Date

Signed ---------- Date ----------

Name ---------- Position ----------

Tenderer ----------

T2.3.2 SCHEDULE OF PREVIOUS WORK CARRIED OUT BY TENDERER

ATTACH AT LEAST FIVE (5) ORIGINALLY SIGNED OR CERTIFIED COPIES OF THIS PROJECT REFERENCE FORM FOR SIMILAR PROJECTS CARRIED OUT OVER THE PAST 10 YEARS

PROJECT REFERENCE FORM TEMPLATE

Project Name:……..…….

Project Number:…… ……

Name of Service Provider :

……

Name of Organisation/Employer:

…….....

Start Date: ……. Completion Date: ……

Activity	Excellent	Good	Fair	Poor
Management of Programme, Works, finances and Contract: Contractor demonstrated sufficient competence in executing the project within set Practical Completion timeframes. Notices and claims done within contract framework. Instructions implemented as directed by the Employer's Agent, submitted IPC with supporting documents in time, submitted signed diaries, etc.				
Management of Occupational Health and Safety on-site: Contractor fully complied with the requirements of the OHS specifications. OHS 16 (2), Construction Manager, CR 8 (1) and Construction Supervisors, CR 8 (2) performed exceptionally well in terms of OHS specifications.				
Quality Assurance and Control on-site: Contractor demonstrated competence in implementing and aligning quality assurance processes and techniques with the project specifications and clearly defined quality hold points for decision making. Contractor ultimately implemented project in-line with specifications, kept records, etc				

Construction Value of Works (R)	
Pump Brand Name	
Motor Size (kV and kW)	
Total Number of Motors Installed	
Total Head (m) per pump	
Pump Duty per pump set (head ~ m) & (flow ~ ML/day)	
Total Flow Rate of Pump Station (ML/day)	
Starting Method (DOL, VFD/VSD or Soft Starters)	

Project Description/Brief:

……

……

……

Engineers/Clients Details:

Full Name of Referee:……

Telephone:…….. Email:……

Certification:

I, the undersigned, certify that, to the best of my knowledge and belief, this data is correct and a true reflection of our company experience. This information is verifiable and traceable.

……. ……..
Name and Signature of bidder Date

TENDERER MUST ATTACH CERTIFIED APPOINTMENT LETTERS AND COMPLETION CERTIFICATES FOR EACH PROJECT.

T2.3.4 FORM OF INTENT TO PROVIDE A PERFORMANCE GUARANTEE

The Tenderer must attach hereto a certified letter from the bank or institution with whom he has made the necessary arrangements, to the effect that the said bank or institution will be prepared to provide the required performance guarantee when asked to do so.

The letter of undertaking will not oblige the financial institution to issue a performance guarantee, but merely serves as an indication of the Tenderers ability to obtain a performance guarantee.

T2.3.4 TENDERERS BANK RATING LETTER

The Tenderer must attach hereto a certified letter from the Tenderers bank rating.

T2.3.5 APPROACH PAPER

Tenderers are expected to demonstrate their competence and experience in satisfying stated employer's objectives and managing project risks. Tenderers should outline their broad understanding of the scope of work and their capabilities to undertake the work. The approach/methodology must therefore respond to the scope of work and outline the tenderer's proposed Construction Method Statements, Proposed Project Schedule, Health and Safety Plan and Quality Management Systems (QA/QC. The approach/methodology should demonstrate the tenderer's competence, experience and capability to successfully execute the project.

The scoring of the Approach/Methodology is shown below;

Item	Activity	Specific functionality requirements	Points
4.1	Construction Method Statements	• Procedures for procurement and handling of materials • Procedures for setting out of works • Procedures for executing of works • Schedule of resources required (tools, equipment and labour)	4
4.2	Construction Programme	• Activity are linked to show the programme constraints and are logically sequenced. • Key milestones dates show the completion dates of each work package • Continuous critical path present • The programme should include a detailed cashflow forecast in line with the phasing of the project	4
4.3	Quality Control	Specific functionality requirements: • Comprehensive quality control plan provided • Acceptance test procedures provided • Documentation control and management procedures • Commissioning procedures provided	4
4.4	Project OHS Management Plan	Specific functionality requirements: • Comprehensive project safety management plan • Project safe working procedures • Project risk assessment and mitigation strategies • Schedule of proposed legal and statutory appointments	4

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 ----------

T2.3.6 TENDERERS CONSTRUCTION EQUIPMENT

The Tenderer must prove that the following construction equipment will be available for the project. For his own equipment he must provide proof of ownership and may be subjected to an inspection of his premises. For equipment that will be hired, a letter of undertaking is required from the proposed construction equipment hire company. The minimum construction requirement for this project is:

Not Applicable to this Tender

T2.4 OTHER DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

The tenderer must complete **VOLUME 1: TENDER DOCUMENT in its entirety**.

The documents and schedules the tenderer shall submit with the tender shall include, but not be limited to those set out below.

Documents that will become part of the Contract.

INDEX

Section	Description	Page
T2.4.1	Prospective Tenderer's registration form/change of registration form	T2.4-1
T2.4.2	Alterations by Tenderer	T2.4-2
T2.4.3	Forms of Security (Indexed separately)	T2.4-3

T2.4.1 PROSPECTIVE TENDERER'S REGISTRATION FORM / CHANGE OF REGISTRATION FORM

The Main Tenderers, Subcontractors or Joining Entities listed in Table 1 of the Schedule No 7 must complete this form despite the fact that they must register as a Registered Tenderer separately.

All Tenderers (Main Contractor, Subcontractors or Joining Entities) intending to tender, or a Registered Tenderer whose registration information has changed in the meantime, must complete this form and submit it to the client not later than 7 days before the closing of the relevant tender.

* **Complete in full (indicate N/A where not available or applicable) and indicate if the information is submitted for the first time (F), it is unchanged (U) or has changed (C) since the previous submission.**

Name of Business (or person, in case of goods/services provided by a person):

..... ( )*

Official physical address of business, e-mail, telephone and Email:

Address: ..... ( )*

E-mail: ..... ( )*

Telephone: ..... ( )*

Electricity account no. if a local business……( )*

Type of business (Company, cc, etc.)……( )*

Main business activity (Stationary Dealer, Building Contractor, etc.):

..... ( )*

Estimated annual turnover (to remain confidential): R……( )*

Full name of controlling shareholder if not a one-man business (to remain confidential):

…….

T2.4.2 ALTERATIONS BY TENDERER

Should the Tenderer desire to make any departures from or modifications to the General or Special Conditions of Contract, the Specifications, the Schedule of Quantities or the Drawings, or to qualify his/her tender in any way, he/she shall set out his/her proposals clearly hereunder or alternatively state them in a covering letter attached to his tender and referred to hereunder, failing which the tender will be deemed to be unqualified. See also condition of tender and Tender Data C.2.11

Page	Clause or Item

SIGNATURE OF TENDERER: ..... DATE: .....

PART T2.4.3: FORMS OF SECURITY

INDEX

Item	Description
T2.4.3.1	DISCLOSURE STATEMENT
T2.4.3.2	ADJUDICATION BOARD MEMBER AGREEMENT
T2.4.3.3	DECLARATION OF INSURANCES
T2.4.3.4	BLASTING INDEMNITY

T2.4.3.1 DISCLOSURE STATEMENT

PRO FORMA

BID NO.: GTAC 003-2023-24

Date:……

Contract: ……

Contractor: ……

Employer: ……

Engineer: ……

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 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 with this project.

I do not have any financial interest in this project.

I am not currently employed by the Contractor, Employer or Engineer.

I do not have any financial connections with the Contractor, Employer or Engineer.

I do not have or have not had a personal relationship with any authoritative member of the Contractor, Employer or the Engineer 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 contract documentation.

Name in full: _____

Signature: _____

T2.4.3.2 ADJUDICATION BOARD MEMBER AGREEMENT

PRO FORMA

BID NO. : GTAC 003-2023-24

This Agreement is entered into between:

Adjudication Board Member: *(Name, physical address, postal address, e-mail address, telephone number and mobile number).*

Contractor: *(Name, physical address, postal address, e-mail address, telephone number and mobile number).*

Employer: *(Name, physical address, postal address, e-mail address, telephone number and 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, 2010, must be referred to (*ad-hoc adjudication/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 Engineer 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 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 traveling:
    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 expenses 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 he shall be reimbursed by the other party by half the amount so that the 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 the 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*

T2.4.3.3 DECLARATION OF INSURANCES

I/We hereby declare that the insurance policies enumerated below have been effected by me/us in accordance with the Contract Data.

Cover effected	Clause	Insurer	Policy	Expiry date
Construction Plant				
Provisions of the COID Act				
Common Law Liability				
Motor Vehicle Liability				
Other deemed necessary				
Professional Indemnity	as applicable			

Copies of the abovementioned policies are attached

NOTE: In respect of COID, a copy of the current receipt and letter of good standing is attached

For and on behalf of the Contractor: _____

Official Capacity: _____

Date: _____

NOTE : This schedule shall be completed and submitted to Lepelle Northern Water within 14 days from the Commencement Date of the contract and will serve as a condition precedent. The Contractor shall ensure that all policies are in place for the full period under contract, and where policies need to be renewed and or any changes effected, Lepelle Northern Water is to be provided with the renewal confirmation and/or details of changes within 14 days of such renewal or changes.

T2.4.3.4 BLASTING INDEMNITY

BID NO.: GTAC 003-2023-24

Given by _____

*Company Registration No.: _____

Address: _____

A *Company incorporated with limited liability according to the company laws of the Republic of South Africa, *Partnership, *Close Corporation, *Public Company (hereinafter called the Contractor), represented herein

by _____ in his capacity as the Contractor _____ duly authorized.

Hereto by a resolution of the Contractor dated _____ a certified copy of which resolution is attached to this indemnity.

WHEREAS the Contractor has entered into a Contract with Lepelle Northern Water (hereinafter called the Company) for, _____ and the Company required this Indemnity from the Contractor.

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

THUS DONE AND SIGNED for and on behalf of the Contractor at_____

on the _____ day of _____ 20____in the presence of the subscribing witnesses.

AS WITNESSES

1. _____ _____
SIGNATURE DESIGNATION OF SIGNATORY

2. _____ _____
SIGNATURE DESIGNATION OF SIGNATORY

* Delete where not applicable

END OF SECTION

PART T2.5 CHECKLIST

The following information MUST be completed in full and attached to the tender document:

DESCRIPTION	FORM	PLEASE TICK :		OUTCOME IF NOT COMPLIED WITH
		COMPLETED/ ATTACHED	NOT COMPLETED/ ATTACHED	
Compulsory Enterprise Questionnaire	Form T2.2.1	❒	❒	Non-responsive
Commissioner of Oaths	Form T2.2.2	❒	❒	Non-responsive
Certificate of Attendance at Clarification Meeting	Form T2.2.3	❒	❒	Non-responsive
Record of Addenda to Tender Documents	Form T2.2.4	❒	❒	Non-responsive
Certified Registration Certificate/Agreement/Powers of Attorney / ID	Form T2.2.5	❒	❒	Non-responsive
Certified Proposed Joint Venture Agreement	Form T2.2.6	❒	❒	Non-responsive
Certificate of Authority of Signature	Form T2.2.7	❒	❒	Non-responsive
Certified Original valid Tax Clearance Certificate (in terms of the Preferential Procurement Regulations, 2011 published in Government Gazette, No 34350, dated 8 June 2011)	Form T2.2.8	❒	❒	Non-responsive
Certified copy of VAT Registration Certificate	Form T2.2.9	❒	❒	Non-responsive
Certified copy of Latest UIF Return	Form T2.2.10	❒	❒	Non-responsive

DESCRIPTION	FORM	PLEASE TICK :		OUTCOME IF NOT COMPLIED WITH
		COMPLETED/ ATTACHED	NOT COMPLETED/ ATTACHED	
Original (or certified copy) of latest Municipal Rates and Taxes Clearance certificate or copy of valid Lease Agreement (if renting)	Form T2.2.11	❒	❒	Non-responsive
Certified Proof of Confirmation of Employment Equity Policy from the Department of Labour	Form T2.2.12	❒	❒	Non-responsive
Certified Proof of Expenditure for Skills Development	Form T2.2.13	❒	❒	Non-responsive
Certified copy of Letter of good standing with Compensation Commissioner or with a licensed compensation insurer	Form T2.2.14	❒	❒	Non-responsive
Certified copy of CIDB Registration Certificate	Form T2.2.15	❒	❒	Non-responsive
CSD Report – Preferential Point System	Form T2.2.16	❒	❒	The tenderer will score zero (0) out of a maximum of 10 points for preference points
Pro-forma Certificate of Insurance Cover	Form T2.2.17	❒	❒	Non-responsive
Size of Enterprise	Form T2.3.18	❒	❒	Non-responsive
Current Workload	Form T2.2.19	❒	❒	Non-responsive
Form Concerning fulfilment of the Construction Regulation, 2014	Form T2.2.20	❒	❒	Non-responsive
Tax Compliance Status Form	Form T2.2.21	❒	❒	Non-responsive
Determination of Targeted Procurement	Form T2.2.22	❒	❒	Non-responsive

DESCRIPTION	FORM	PLEASE TICK :		OUTCOME IF NOT COMPLIED WITH
		COMPLETED/ ATTACHED	NOT COMPLETED/ ATTACHED	
Contract Participation for Targeted Enterprises (EME and QSE)	Form T2.2.23	❒	❒	Non-responsive
Experience of key staff and Curriculum Vitae of key personnel	Form T2.3.1	❒	❒	Regarded as tenderer with limited resources available for the scope of works
Schedule of Previous Work carried out by the Tenderer	Form T2.3.2	❒	❒	Regarded as tenderer with limited experience and understanding of the contract scope
Form of Intent to provide a Performance Guarantee	Form T2.3.3	❒	❒	Regarded as tenderer with limited financial stability required for the scope of works
Tenderers Bank Rating Letter	Form T2.3.4	❒	❒	Regarded as tenderer with limited financial stability required for the scope of works
Approach Paper	Form T2.3.5	❒	❒	Regarded as tenderer with limited experience and understanding of the contract scope and/or with limited resources available for the scope of works.
Tenderers Construction Equipment	Form T2.3.6	❒	❒	Regarded as tenderer with limited resources available for the scope of works

`

Reasons for non-compliance:

……

……

Contact Details:

Office Phone No: ……

Cell phone No: ……

Email: ……

……..

NAME IN CAPITAL (BLOCK) LETTERS SIGNATURE

END OF SECTION

LEPELLE NORTHERN WATER

BID No.: GTAC 003-2023-24

OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: ELECTROMECHANICAL REFURBISHMENT OF OLIFATSPOORT PUMP STATIONS (PS1, PS2 & PS3) AND EBENEZER WATER TREATMENT WORKS AND PUMP STATION

PORTION 2: CONTRACT

PART C1: AGREEMENTS AND CONTRACT DATA

INDEX

Section	Description	Page No
C1.1	FORM OF OFFER AND ACCEPTANCE….. ……..……	C1.1-1
C1.2	CONTRACT DATA…….	C1.2-1
	PART 1: Data provided by the Engineer……..	C1.2-3
	PART 2: Data provided by the Contractor……	C1.2-17
	ANNEXURE A: Form of Guarantee	C1.2-18
	ANNEXURE B: Ministerial Determination – Special Public Works Programmes	C1.2-20
	ANNEXURE C: Health and Safety Specifications by the Employer	C1.2-29
	ANNEXURE D: Guidelines for the Implementation of Labour Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)	C1.2-30
	ANNEXURE E: Environmental Management Plan	C1.2-31

C1.1 FORM OF OFFER AND ACCEPTANCE
(Agreement)

OFFER

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

BID NO.: GTAC 003-2023-24: FOR OLIFANTSPOORT AND EBENEZER WATER SUPPLY SCHEMES UPGRADE: TENDER FOR ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3) AND EBENEZER WATER TREATMENT WORKS & PUMP STATION

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and any 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 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: ……

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, including drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C5:

Part T1	Tendering Procedures
Part T2	Returnable Documents and Schedules
Part C1	Agreements and Contract Data, (which includes this Agreement)
Part C2	Pricing Data
Part C3	Scope of Work
Part C4	Site Information
Part C5	Annexures

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 Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the Conditions of Contract identified in the Contract Data at, or just after, the date this Agreement comes into effect.

Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

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

For the Employer:

Signature: ……

Name(s): ……

Capacity: ……..

Name and address of organisation:

……

……

Signature and name of witness:

Signature: ……

Name: ……

Date: ……

Signature: ……

Name: ……

Date: ……

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 *:

a) Subject ……..……..

Details……

b) Subject ……

Details……

c) Subject ……

Details……

d) Subject ……

Details……

Please attach additional if applicable.

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

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

For the Tenderer:		**For the Employer:**
……	Signature	……
……	Name	……
……	Capacity	……
Name and address of organisation:		Name and address of organisation:
……		……
……		……
……		……
……..	**Witness signature**	……
……	**Witness name**	……
……..	**Date**	……

CONFIRMATION OF RECEIPT

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

the _____ (day) of _____(month) 20_____ (year) at _____ (place)

For the Contractor:

_____
Signature

_____
Name

_____
Capacity

Signature and name of witness

_____
Signature

_____
Name

_____
Signature

_____
Name

Annexure A:

Form of Tenderers Offer for the Time for Completion of the Whole of the Works

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

CONTRACT NO.: GTAC 003-2023-24: FOR OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A : ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3) AND EBENEZER WATER TREATMENT WORKS & PUMP STATION

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

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

THE OFFERED TIME FOR COMPLETION OF THE WHOLE OF THE WORKS IS:

……in words);

……(in figures and words)

Signature(s)		
Name(s)		
Capacity		
For the tenderer:		
	(Insert name and address of organisation)	
Name & signature of witness		Date

END OF SECTION

C1.2 CONTRACT DATA

INDEX

Section	Description	Page No
C1.2.1	GENERAL CONDITIONS OF CONTRACT	C1.2-1
C1.2.2	VARIATIONS AND ADDITIONS TO THE GENERAL CONDITIONS OF CONTRACT (PARTICULAR CONDITIONS)	C1.2-2

C1.2.1 GENERAL CONDITIONS OF CONTRACT

The Conditions of Contract are:

- the "General Conditions of Contract"

  as they appear in the commercially-available publication "General Conditions of Contract for Construction Works, Third Edition (2015)", published by the South African Institution of Civil Engineering (SAICE) as the August 2015 print edition, hereinafter referred to as "GCC 2015"; and

- specific data as contained in this Contract Data

Each party to the Contract shall purchase its own copy of the GCC 2015, from a duly authorised commercial vendor or directly from the publisher:

South African Institution of Civil Engineering
Private Bag X200
Halfway House 1685
South Africa
Tel +27 (0)11 805 5947

All of the following Notes shall apply:

Note 1

- The GCC 2015 makes several references to the Contract Data. The Contract Data shall take precedence over the GCC 2015 in the interpretation of any ambiguity or inconsistency.
- Each item of data below is cross-referenced to the clause in the GCC 2015 to which it applies.
- The documents forming the Contract are to be taken as mutually explanatory of one another.

Note 2

Certain pro-forma forms and pro-forma agreements contained in the GCC 2015 have been adapted for this particular contract. Those pro-forma forms and pro-forma agreements contained in the GCC 2015 do not apply where replaced by similar pro-forma forms and pro-forma agreements in this procurement document.

CORRIGENDA TO GCC 2015 BY SAICE

All updates, errata, corrections and other amendments to GCC 2015 published or prepared and released to purchasers of the GCC 2015 publication by SAICE, either on their website or otherwise, prior to the base month of this Contract, shall be deemed to form part of GCC 2015.

Each party to the Contract shall purchase its own copy of such updates, errata, corrections and other amendments to GCC 2015.

CORRIGENDA TO GCC 2015 BY THE EMPLOYER

None.

C1.2.2 CONTRACT DATA

In terms of ***Clause 1.1.1.8*** of the GCC 2015, the following Contract Data apply to this Contract.

The Contract Data consists of two parts:

- Part 1: Information provided by the Employer,
- Part 2: Information to be provided by the Contractor.

Part 1: Data Provided by the Employer

CLAUSE No	HEADING
1	**GENERAL**
1.1.1.12	The special non-working days are all South African statutory holidays and as further defined in Clause 5.8.1.
1.1.1.13	The Defects Liability Period is 365 days.
1.1.1.14	The time for achieving Practical Completion for the whole of the Works is **twelve (12) months**.
1.1.1.15	The name of the Employer is ***Lepelle Northern Water (LNW)***
1.1.1.16	**Full names of the Employer's Agent:** Family name: Francis Chinyowa Contact No.: 012 945 9009 E-mail: fchinyowa@sigodimarah.co.za In terms of the Council for the Built Environment Act, Act 43 of 2000, the full name of all relevant statutory councils where the Employer's Agent is registered as a professional person, and the relevant category: • Engineering Council of South Africa (ECSA), established by the Engineering Profession Act, 2000; • Category of professional registration of the Employer's Agent: Professional Engineer
1.1.1.26	The Pricing Strategy is Re-measurement Contract.
1.2.1.2	**The address of the *Employer*:** ***PHYSICAL*** Lepelle Northern Water 1 Landros Mare Street Polokwane ***POSTAL*** Lepelle Northern Water 1 Landros Mare Street Polokwane, 0699

CLAUSE No	HEADING
	The address of the *Employer's Agent* is : PHYSICAL Sigodi Marah Martin . Management Support (Pty) Ltd 16 Blue Jay Street Rooihuiskraal Centurion, 0157 Tel: +27 12 945 9009 POSTAL Sigodi Marah Martin Management Support (Pty) Ltd 16 Blue Jay Street Rooihuiskraal Centurion, 0157 E-MAIL: info@sigodimarah.co.za
1.2.1.3	Sent by facsimile, electronic or any like communication irrespective of it being during office hours or otherwise.
1.2.1.4	Posted to the Contractor's address and delivered by the postal authorities.
1.2.1.5	Delivered by a courier service and signed for by the recipient or his representative.
1.3.2	The governing law is the law of the Republic of South Africa
1.3.3	The language of contract and for all written communication is English
1.3.6	The copyright in all documents, drawings and records (prepared by the Employer's Agent) related in any manner to the Works shall vest in the Employer or the Employer's Agent or both (according to the dictates of the Contract that has been entered into by the Employer's Agent and the Employer for the Works and as accorded by law), and the Contractor shall not furnish any information in connection with the Works to any person or organisation without the prior approval of the Employer to this effect.
4.3.1.1	**Expanded Public Works Programmes** The current Ministerial Determination (also downloadable at www.epwp.gov.za), Expanded Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice, shall apply to works described in the scope of work as being labour-intensive and which are undertaken by unskilled or semi-skilled workers.
4.3.1.2	**OHS Requirements** The Contractor shall comply with 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). 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. The Contractor shall submit an approved Health and Safety Plan to the Employer's Agent within 14 days of the Commencement Date.
4.3.1.3	Notwithstanding any actions which the Employer may take, the Contractor accepts sole liability for due compliance with the relevant duties, obligations, prohibitions, arrangements and procedures imposed by the Occupational Health and Safety Act, 1993 (Act 85 of 1993), and all its regulations, including the Construction regulations, 2014, for which he is liable as mandatory. By entering into this Contract it shall be deemed that the parties have agreed in writing to the above provisions in terms of Section 37 (2) of the Act.

CLAUSE No	HEADING
4.3.1.4	**Contractor to notify Employer** The Employer retains an interest in all inquiries conducted under this Contract in terms of Section 31 and/or 32 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and its Regulations following any incident involving the Contractor and/or Sub-Contractor and/or their employees. The Contractor shall notify the Employer in writing of all investigations, complaints or criminal charges which may arise pursuant to work performed under this Contract in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and Regulations.
4.3.1.5	**Contractor's Designer** The Contractor and his/her designer shall accept full responsibility and liability to comply with the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and the Construction regulations, 2014 for the design of the Temporary Works and those part of the Permanent Works which the Contractor is responsible to design in terms of the Contract.
4.4.2	The Employer's Agent's consent in respect of any particular subcontractor may be withdrawn at any time should reasonable grounds be given therefore in writing to the Contractor by the Employer's Agent's, in which event the Contractor shall forthwith terminate the engagement of that subcontractor on the Works. The withdrawal by the Employer's Agent of his consent in respect of any particular sub-contractor that is engaged in the execution of any portion of the works, including any portions of the Works which are sub-let by the Contractor in accordance with Clause 4.4.3 shall not relieve the Contractor of any of his obligations under the Contract, nor of any of his obligations to sub-let the particular portions of the Works concerned.
4.10	The Contractor shall use local labour in accordance with the requirements contained within the Scope of Work.
5	**TIME AND RELATED MATTERS**
5.3.1	The Contractor shall commence executing the works within a period of 21 working days from the date of the written instruction by the Employer's Agent unless otherwise agreed. The documentation required before commencement with Works execution are: • Health and Safety Plan (Refer to Clause 4.3) • A signed Agreement between the Employer and the Contractor for the Works to be completed by the Contractor in terms of the provisions of Section 37(2) of the Occupational Health and Safety Act (Act No 85 of 1993) and the Construction Regulations promulgated thereunder (Refer to Clause 4.3). • Proof of payment to the Employer, that the Contractor has paid all contributions required in terms of the Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (Refer to Clause 4.3). • Initial programme (Refer to Clause 5.6) • Insurance (Refer to Clause 8.6) • Training Program • Letter of Good Standing from the Compensation Commissioner (if not insured with a Licensed Compensation Insurer) • Performance Guarantee (Refer to Clause 6.2.1)

CLAUSE No	HEADING
5.3.1	The documentation to be provided by the Employer to the Contractor before commencement with Works execution are: • Construction Permit in terms of the Construction Regulations, 2014
5.3.2	The time to submit the documentation by either party required before commencement with Works execution is 14 Days.
5.6.2.6	The Contractor shall deliver his/her detailed cash flow forecast within 14 days of the Commencement Date or as requested by the Employer's Agent.
5.7.1	No such instruction by the Employer's Agent to expedite progress shall be the subject of additional compensation to the Contractor unless the instruction explicitly states that the Contractor is entitled to additional compensation and cites the amount of such compensation or the basis upon which it is to be determined.
5.8.1	The non-working Days are Sundays. The special non-working Days are: • Any statutory public holiday in terms of the Public Holidays Act, and, where such statutory public holiday falls on a Sunday, and the next Monday subsequently becomes a statutory public holiday in terms of the Public Holidays Act, then both the relevant Sunday and the relevant Monday shall be special non-working days under the contract; • proclaimed statutory day of mourning which is proclaimed as a statutory public holiday • any proclaimed statutory election day which is proclaimed as a statutory public All annual year-end shutdown periods as recommended by the South African Federation of Civil Engineering Contractors (SAFCEC), and which commence after the Commencement Date and which commence before the Due Completion Date.
5.13.1	The penalty for failing to complete the Works is 0.02% of the Contract Price per calendar day or 0.02% of the Contract Price of the portion for which Practical Completion has not been certified. All penalties for which the Contractor becomes liable in terms of Clause 5.13.1 shall be accumulative. The Employer may, without prejudice to any other method of recovery, deduct the amounts of all such penalties from any monies in his/her possession that are or may become due to the Contractor. The imposition of penalties in terms of Clause 5.13.1 shall not relieve the Contractor from his/her obligation to complete the Works, nor from any of his/her obligations and liabilities under the Contract. The imposition of any penalties in terms of Clause 5.13.1 shall not limit the right of the Employer's Agent to act in terms of Clause 9.2.1.3.5.
5.16.3	The latent defect period is 10 years for the civil and structural engineering works The latent defect period is 3 years for the mechanical and electrical engineering works commencing on the Day after the date of certification of Practical Completion.
6	**PAYMENT AND RELATED MATTERS**
6.1.1	Payment for works identified in the Scope of Work as being labour-intensive shall only be made in accordance with the provisions of the Contract if the works are constructed strictly in accordance with the provisions of the Scope of Work. Any non-payment for such works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

CLAUSE No	HEADING
6.1.2	The Contractor's payment invoices shall be accompanied by labour information for the corresponding period in a format specified by the Employer. If the contractor chooses to delay submitting payment invoices, labour returns shall still be submitted as per frequency and timeframe stipulated by the Employer.
6.2.1	The form of Security for this Contract will be a Performance Guarantee. The Contractor shall deliver his/her guarantee within 14 days of the Commencement Date. The amount of the guarantee will be 10% of the Purchase Order as per Engineers instruction (including Value Added Tax) at the time that the Guarantee comes into effect. The guarantee shall remain valid until the issue of the Certificate or Certificates of Completion in respect of the whole of the Purchase Order. The Form of Guarantee is appended to the Contract Data as Annexure A. The Guarantee shall be returned to the Contractor within 14 days after the issue of the Certificates or Certificates of Completion in respect of the whole of the Permanent Works as per Purchase Order.
6.2.2	Delete this Clause
6.2.4	No cancellation or expiry shall be implemented without prior written consent by the LNW Chief Executive Officer.
6.5.1.2.3	The percentage allowance to cover overhead charges is 10% for labour and materials.
6.8.2	**Contract Price adjustment Schedule for the works** *Replace the descriptions of all the indices with the following descriptions:* "L" is the "Labour Index" and shall be the Consumer Price Index for the urban area nearest to the Site, as stated in the Contract Data, and as published in the Statistical News Release, P0141, Additional Tables: Table 14 "CPI – all items according to area" of Statistics South Africa. "P" is the "Plant Index" and shall be the Producer Price Index applicable to the appropriate Construction Equipment as stated in the Contract Data and as published in the Statistical Release P0151, Table 4 of Statistics South Africa. "M" is the "Materials Index" and shall be the Producer Price Index applicable to the appropriate materials as stated in the Contract Data and as published in the Statistical Release P0151, Table 3 or Table 4 of Statistics South Africa. "F" is the "Fuel Index" and shall be the Producer Price Index for Diesel at wholesale level for the area as stated in the Contract Data and as published in the Statistical News Release P0151, Table 4 of Statistics South Africa.' The values of the certificates issued shall be adjusted in accordance with the Contract Price Adjustment Schedule with the following values: The value of "x" is 0.15 The values of the coefficients are: a = 0.35 b = 0.30 c = 0.25 d = 0.10 The base month shall be taken as 30 days before the closing date for tenders.

CLAUSE No	HEADING
	The Site or largest part thereof shall be deemed to be located in the national province of Limpopo.
6.10.1.5	The percentage advance on materials not yet build into the Permanent Works is 80% in terms of Clause 6.10.2. Proof of ownership is required.
6.10.3	The percentage retention money is 10 % of the Certificate Value The limit of retention money 10% of Contract Price
6.10.4	**Payments** Add the following at the end of Sub-Clause 6.10.4: *"No minimum amount of interim payment certificate will be applicable."*
6.10.5.3	Defects Liability Period will be 12 months.
8	**RISKS AND RELATED MATTERS**
8.6.1.1.3	The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is R 5 000 000.
8.6.1.3	The limit of indemnity for liability insurance is the contract value plus 20% of the contract value. The number of claims during the construction and Defects Liability Period shall be unlimited.
8.6.1.5	In addition to the insurance required in terms of General Conditions of Contract Clause 8.6.1.1 to 8.6.1.3 the following insurance is also required: i. Insurance cover against any damages or loss against production due to political unrest. The Employer shall not be held responsible for such damages or losses. *ii.* The insurance shall be in the joint names of LNW and the bidder. No cancellation or expiry shall be permitted without written instruction by LNW CEO to the insurance company.
8.6.6	Proof of insurance shall be submitted to the Employer prior to Commencement of the Works (Clause 5.3.1), and copies of the policies and proof of due payment of all premiums shall be presented to the Employer within fourteen (14) days of the Date of Commencement.
8.6.8	**Manufacturing and/or fabrication and storage at premises other than the Site** *Add the following new Sub-Clause 8.6.8:* "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."
10	**CLAIMS AND DISPUTES**
10.5.3	The number of Adjudication Board Members to be appointed: one.

CLAUSE No	HEADING
10.7.1	The determination of disputes shall be by arbitration

Additional clauses to the General Conditions of Contract applicable to this contract

Clause	Data
1.1	**Definitions** *Add the following at the end of Sub-Clause 1.1.1:*
1.1.1.35	"Client", as used in the Occupational Health and Safety Act - Construction Regulations, means "Employer".
1.1.1.36	"Principal Contractor", as used in the Occupational Health and Safety Act - Construction Regulations, means "Contractor".
1.1.1.37	"Designer", as used in the Occupational Health and Safety Act - Construction Regulations, means "Employer's Agent".
4.12	**Contractor's superintendence** *Add the following at the end of Sub-Clause 4.12:*
4.12.4	**Health & Safety Officer** "It is a requirement of this Contract that the Contractor provides a Health & Safety Officer (HSO) on the project. The duties and qualifications of the HSO are described in the Scope of Work (Section C3.5). The CV and credentials shall be submitted for approval by the Employer's Health & Safety agent. Failure by the Contractor to provide a suitable HSO shall be deemed to be a reason justifying termination by the Employer under Sub-Clause 9.2.1, with specific reference to Sub-Clause 9.2.1.3.5."
6.2	**Security** *Add the following at the end of Sub-Clause 6.2:* "The Performance Guarantee shall have the same wording as the document included as Form T2.2.21 (Performance Guarantee) under Part T2.2 of the document. The amount of the Guarantee is to be 10% of the Contract Price.
6.2.4	Failure by the Contractor to provide a suitable Guarantee within this timeframe shall be deemed to be a reason justifying termination by the Employer under Sub-Clause 9.2.1, with specific reference to Sub-Clause 9.2.1.3.5."

Clause	Data
11.1	The Contractor shall price the standing time items included in the Pricing Data and set out all labour and equipment he proposes to use in the execution of the Contract and their respective daily rates in a Schedule attached to this tender. These rates shall only be subject to escalation if the Contract is subject to escalation, failing which they will be fixed for the duration of the Contract including any extension of time that may be granted in accordance with the provisions of the Contract.
11.1	**Contractor's Plant:** The standing time rates shall be the total cost to the Employer in respect of any standing time incurred by the Contractor and shall include for all Contractor's profits, overheads, transport to site, establishment on site, removal from site, supervision, hire rates, fuel, oil, maintenance and servicing, associated items such as slings, jackets, etc. test certificates, operator costs (including overtime and Sunday time), accommodation, travelling, subsistence and other costs relative to the employment by the Contractor of the personnel. **Contractor's Labour:** The standing time rates shall be the total cost to the Employer in respect of standing time of labour and shall include for all Contractor's profits, overheads, establishments, supervision, wages, accommodation, travelling, subsistence and other costs relative to the employment by the Contractor of the categories of labour detailed, and for hand and small tools such as cutting and welding torches, angle grinders, drilling machines, etc. and consumables normal to the trade or labour category.
11.2	Where the Contractor has not inserted rates for specific labour or plant, that could reasonably have been foreseen at tender stage, the Engineer shall have the sole discretion, in the event of such foreseeable labour and plant becoming necessary, to set a rate that is in his opinion the most appropriate for such labour or tradesmen. No additional Preliminary and General costs shall be paid for standing time as these costs shall be deemed to be covered for in the rates and prices for Preliminary and General items
11.3	The payment of any standing time by the Employer shall be subject to the Contractor demonstrating that it has a valid claim in terms of Sub-Clause 10.1 'Contractor's claim'.

Part 2: Data provided by the Contractor.

The Contractor is advised to read the General Conditions of Contract, as specified in Part 1, in order to understand the implications of this Data which is required to be completed.

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

CLAUSE NUMBER	HEADING
1	**GENERAL**
1.1.1.9	The name of the Contractor is:
1.2.1.2	The address of the Contractor is: Physical address: ……..... ……..... ……..... Postal address: ……..... ……..... ……..... e-mail address: ……..... Contact numbers: Corporate: ..... Direct: ..... Mobile: ..... E-mail: .....

Signature of Tenderer **.....**

END OF SECTION

Annexure A: Form of Guarantee

WHEREAS the LEPELLE NORTHERN WATER
(Hereinafter referred to as "the Employer") entered into a Contract with

_____

(Hereinafter called "the Contractor") on the …… day of ……..

CONTRACT NO.: GTAC 003-2023-24: OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A : FOR ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3), EBENEZER WATER TREATMENT WORKS AND PUMP STATION

at the Capricorn District Municipal area

AND WHEREAS it is provided by such Contract that the Contractor shall provide the Employer with security by way of a guarantee for the due and faithful fulfilment of such Contract by the Contractor;

AND WHEREAS _____
has/have at the request of the Contractor, agreed to give such guarantee.

NOW THEREFORE WE, _____
Do hereby guarantee and bind ourselves jointly and severally as Guarantor and Co-principal Debtors to the Employer under renunciation of the benefits of division and excussion for the due and faithful performance by the Contractor of all the terms and conditions of the said Contract, subject to the following conditions:

1. The Employer shall, without reference and/or notice to us, have complete liberty of action to act in any manner authorised and/or contemplated by the terms of the said Contract, and/or to agree to any modifications, variations, alterations, directions or extensions of the Completion Date of the Works under the said Contract, and that its rights under this guarantee shall in no way be prejudiced nor our liability hereunder be affected by reason of any steps which the Employer may take under such Contract, or any modification, variation, alterations of the Completion Date which the Employer may make, give, concede or agree to under the said Contract.

2. This guarantee shall be limited to the payment of a sum of money.

3. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor.

4. This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate 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.

5. Our total liability hereunder shall not exceed the sum of R ……
6. The Guarantor reserves the right to withdraw from this guarantee by depositing the Guaranteed Sum with the beneficiary, whereupon the Guarantor's liability hereunder shall cease.

7. We hereby choose our address for the serving of all notices for all purposes arising here from as:

Address of Contractor:

In witness where of this guarantee has been executed by us

at _____ on this _____ day of _____ 20___

Signature _____ Date_____

Name _____

Duly authorised to sign on behalf of _____

Address _____

_____

AS WITNESSES

Witness 1

Signature _____ Date _____

Name _____

Witness 2

Signature _____ Date _____

Name _____

GUARANTEE FOR EXECUTION OF THE CONTRACT TO BE ATTACHED

Annexure B:
Ministerial Determination
Special Public Works Programmes

No. 35310

GOVERNMENT GAZETTE, 4 May 2012

DEPARTMENT OF LABOUR

No. R 347 **4 May 2012**

BASIC CONDITIONS OF EMPLOYMENT ACT, 1997,

MINISTERIAL DETERMINATION: EXPANDED PUBLIC WORKS PROGRAMMES

I, Nelisiwe Mildred Oliphant, Minister of Labour, hereby in terms of section 50 of the Basic Conditions of Employment Act, 1997, make a Ministerial Determination establishing conditions of employment for employees in Special Public Works Programmes, South Africa, in the Schedule hereto and determine the second Monday after the date of publication of this notice as the date from which the provisions of the said ministerial Determination shall become binding.

NM Oliphant
Minister of Labour

SCHEDULE

MINISTERIAL DETERMINATION No 3: EXPANDED PUBLIC WORKS PROGRAMMES

Index

1. Definitions
2. Application of this determination
3. Sections not applicable to public works programmes
4. Conditions

1. Definitions

1.1 In this determination –

"expanded public works programme" means a programme to provide public or community assets tor services through a labour intensive programme initiated by government and funded from public resources.

1.2 Without limiting subsection (1), the following programmes constitute expanded public works programmes:

(a) Environment and Culture Sector Programmes including: Working for water, Working for Fire, Working for Wetlands, People and Parks, Working for Energy, Working for Woodlands, Working for Coast, Land care, Working for Waste, Working for Tourism, Investing in Culture Programmes.

(b) Infrastructure Sector Programmes and Projects declared as part of EPWP which may include the construction, rehabilitation and maintenance of: rural and low-volume roads, storm-water drains, water reticulation, basic sanitation, footpaths, sidewalks, bicycle paths, schools and clinics.

(c) Social Sector Programmes including Early Childhood Development, Home, Community Based Care, Community Safety and other community based projects.

(d) All projects and programmes accessing the EPWP wage incentive including those implemented by Non-governmental organisations (NGO) and Community Based Organisations (CBO) and Community Works Programme.

(e) Any other programme deemed to be part of the EPWP as determined by the Department of Public Works.

2. Application

This Determination applies to all employers and employees engaged in expanded public works programmes.

3. The following provisions of the Basic Conditions of Employment Act do not apply to public works programmes:

3.1	Section 10(2)	(Overtime rate)
3.2	Section 14(3)	(Remuneration required for meal intervals of longer than 75 minutes)3.12 Section 29(h) to (p) (Written particulars of employment)
3.13	Section 30	(Display of employee's rights)
3.17	Section 37	(Notice of termination)
3.21	Section 41	(Severance pay)
3.23	Section 51 – 58	(Sectoral Determinations)

4. Conditions

As set out in the Annexure:

ANNEXURE

CONDITIONS OF EMPLOYMENT FOR SPECIAL PUBLIC WORKS PROGRAMMES

1. Introduction

1.1 This document contains the standard terms and conditions for workers employed in elementary occupations on an Expanded Public Works Programme (EPWP). These terms and conditions do NOT apply to persons employed in the supervision and management of an EPWP.

In this document –

(a) "department" means any department of the State, implementing agent of contractor;
(b) "employer" means any department, implementing agency or contractor that hires workers to work in elementary occupations on a EPWP;
(c) "worker" means any person working in an elementary occupation on a EPWP;
(d) "elementary occupation" means any occupation involving unskilled or semi-skilled work;
(e) "management" means any person employed by a department or implementing agency to administer or execute an EPWP;
(f) "task" means a fixed quantity of work;
(g) "task-based work" means work in which a worker is paid a fixed rate for performing a task;
(h) "task-rated worker" means a worker paid on the basis of the number of tasks completed;
(i) "time-rated worker" means a worker paid on the basis of the length of time worked.

2. Terms of Work

2.1 Workers on a EPWP are employed on a temporary basis.

3. Normal hours of Work

3.1 An employer may not set tasks or hours of work that require a worker to work –
(a) more than forty hours in any week;
(b) on more than five days in any week; and for more than eight hour on any day

3.2 An employer and worker may agree that a worker will work four days per week. The worker may then work up to ten hours per day.

3.3 A task-rated worker may not work more than a total of 55 hours in any week to complete the tasks allocated (based on a 40-hour week) to that worker.

4. Meal Breaks

4.1 A worker may not work for more than five hours without taking a meal break of at least thirty minutes duration.

4.2 An employer and worker may agree on longer meal breaks.

4.3 A worker may not work during a meal break. However, an employer may require a worker to perform duties during a meal break if those duties cannot be left unattended and cannot be performed by another worker. An employer must take reasonable steps to ensure that a worker is relieved of his or her duties during the meal break.

4.4 A worker is not entitled to payment for the period of a meal break. However, a worker who is paid on the basis of time worked must be paid if the worker is required to work or to be available for work during the meal break.

5. Special Conditions for Security Guards

5.1 A security guard may work up to 55 hours per week and up to eleven hours per day.

5.2 A security guard who works more than ten hours per day must have a meal break of at least one hour or two breaks of at least 30 minutes each.

6. Daily Rest Period

Every worker is entitled to a daily rest period of at least eight consecutive hours. The daily rest period is measured from the time the worker ends work on one day until the time the worker starts work on the next day.

7. Weekly Rest Period

Every worker must have two days off every week. A worker may only work on their day off to perform work which must be done without delay and cannot be performed by workers during their ordinary hours of work ("emergency work").

8. Sick Leave

8.1 Only workers who work four or more days per week have the right to claim sick-pay in terms of this clause.

8.2 A worker who is unable to work on account of illness or injury is entitled to claim one day's paid sick leave for every full month that the worker has worked in terms of a contract.

8.3 A worker may accumulate a maximum of twelve days' sick leave in a year.

8.4 Accumulated sick-leave may not be transferred from one contract to another contract.

8.5 An employer must pay a task-rated worker the worker's daily task rate for a day's sick leave.

8.6 An employer must pay a time-rated worker the worker's daily rate of pay for a day's sick leave.

8.7 An employer must pay a worker sick pay on the worker's usual payday.

8.8 Before paying sick-pay, an employer may require a worker to produce a certificate stating that the worker was unable to work on account of sickness or injury if the worker is:

(a) absent from work for more than two consecutive days; or

(b) absent from work on more than two occasions in any eight-week period

8.9 A medical certificate must be issued and signed by a medical practitioner, a qualified nurse or a clinic staff member authorised to issue medical certificates indicating the duration and reason for incapacity.

8.10 A worker is not entitled to paid sick-leave for a work-related injury or occupational disease for which the worker can claim compensation under the Compensation for Occupational Injuries and Disease Act.

9. Maternity Leave

9.1 A worker may take up to four consecutive months' unpaid maternity leave.

9.2 A worker is not entitled to any payment or employment-related benefits during maternity leave.

9.3 A worker must give her employer reasonable notice of when she will start maternity leave and when she will return to work.

9.4 A worker is not required to take the full period of maternity leave. However, a worker may not work for four weeks before the expected date of birth of her child or for six weeks after the birth of their child, unless a medical practitioner, midwife or qualified nurse certifies that she is

fit to do so.

9.5 A worker may begin maternity leave –

(a) four weeks before the expected date of birth;

(b) on an earlier date –

(i) if a medical practitioner, midwife or certified nurse certifies that it is necessary for the health of the worker or that of their unborn child; or

(ii) if agreed to between employer and worker; or

(c) on a later date, if a medical practitioner, midwife or certified nurse has certified that the worker is able to continue to work without endangering her health.

9.6 A worker who has a miscarriage during the third trimester of pregnancy or bears a stillborn child may take maternity leave for up to six weeks after the miscarriage or stillbirth.

10. Family responsibility leave

10.1 Workers, who work for at least four days per week, are entitled to three days paid family responsibility leave each year in the following circumstances:

(a) when the employee's child is born;

(b) when the employee's child is sick;

(c) in the event of a death of –

(i) the employee's spouse or life partner;

(ii) the employee's partner, adoptive parent, grandparent, child, adopted child, grandchild or sibling.

11. Statement of Conditions

11.1 An employer must give a worker a statement containing the following details at the start of employment -

(a) the employer's name and address and the name of the EPWP.

(b) the tasks or job that the worker is to perform; and

(c) the period for which the worker is hired or, if this is not certain, the expected duration of the contract;

(d) the worker's rate of pay and how this is to be calculated;

(e) the training that the worker will receive during the EPWP.

An employer must ensure that these are explained in a suitable language to any employee who is unable to read the statement. An employer must supply each worker with a copy of these conditions of employment.

12. Keeping Records

12.1 Every employer must keep a written record of at least the following:

(a) the worker's name and position,

(b) Copy of an acceptable worker identification

(c) in the case of a task-rated worker, the number of tasks completed by the worker,

(d) in the case of a time-rated worker, the time worked by the worker,

(e) payments made to each worker.

The employer must keep this record for a period of at least three years after the completion of the EPWP.

13. Payment

13.1 An employer must pay all wages at least monthly in cash or by cheque or into a back account.

13.2 A task-rated worker will only be paid for tasks that have been completed.

13.3 An employer must pay a task-rated worker within five weeks of the work being completed and the work having been approved by the manager or the contractor having submitted an invoice to the employer

13.4 A time-rated worker will be paid at the end of each month.

13.5 Payment must be made in cash, by cheque of by direct deposit into a back account designated by the worker.

13.6 Payment in cash or by cheque must take place –

(a) at the workplace or at a place agreed to by the worker;
(b) during the worker's working hours or within fifteen minutes of the start or finish of work.
(c) In a sealed envelope which becomes the property of the worker.

13.7 An employer must give a worker the following information in writing –

(a) the period for which payment is made;
(b) the numbers of tasks completed or hours worked;
(c) the worker's earnings;
(d) any money deducted from the payment;
(e) the actual amount paid to the worker.

13.8 If the worker is paid in cash of by cheque, this information must be recorded on the envelope and the worker must acknowledge receipt of payment by signing for it.

13.9 If a worker's employment is terminated, the employer must pay all monies owing to that worker within one month of the termination of employment.

14. Deductions

14.1 An employer may not deduct money from a worker's payment unless the deduction is required in terms of a law.

14.2 An employer must deduct and pay to the SA Revenue Services any income tax that the worker is required to pay.

14.3 An employer who deducts money from a worker's pay for payment to another person must pay the money to that person within the time period and other requirements specified in the agreement law, court order or arbitration award concerned

14.4 An employer may not require or allow a worker to –

(a) repay any payment except an overpayment previously made by the employer by mistake;

(b) state that the worker received a greater amount of money than the employer actually paid to the worker; or

(c) pay the employer or any other person for having been employed.

15. Health and Safety

15.1 Employers must take all reasonable steps to ensure that the working environment is healthy and safe.

15.2 A worker must –

(a) Work in a way that does not endanger his/her health and safety or that of any other person

(b) Obey and health and safety instruction obey all health and safety rules of the EPWP

(c) Use any personal protective equipment or clothing issued by the employer.

(d) Report any accident, near-miss incident or dangerous behaviour by another person to their employer or manager.

16. Compensation for Injuries and Diseases

16.1 It is the responsibility of the employers (other than a contractor) to arrange for all persons employed on s EPWP to be covered in terms of the Compensation for Occupational Injuries and Diseases Act, 130 of 1993.

A worker must report any work-related injury or occupational disease to their employer or manager. The employer must report the accident or disease to the Compensation Commissioner.

An employer must pay a worker who is unable to work because of an injury caused by an accident at work 75% of their earnings for up to three months. The employer will be refunded this amount to injuries caused by accidents outside the workplace such as road accidents or accidents at home.

17. Termination

17.1 The employer may terminate the employment of a worker for good cause after the following a fair procedure.

17.2 A worker will not receive severance pay on termination.

17.3 A worker is not required to give notice to terminate employment. However, a worker who wishes to resign should advise the employer in advance to allow the employer to find a replacement.

17.4 A worker who is absent for more than three consecutive days without informing the employer of an intention to return to work will have terminated the contract. However, the worker may be re-engaged if a position becomes available.

17.5 A worker who does not attend required training events, without good reason, will have terminated the contract. However, the worker may be re-engaged if a position becomes available.

18. Certificate of Service

18.1 On termination of employment, a worker is entitled to a certificate stating –

(a) the worker's full name;
(b) the name and address of the employer;
(c) the EPWP on which the worker worked;
(d) the work performed by the worker;
(e) any training received by the worker as part of the EPWP;
(f) the period for which the worker worked on the EPWP; and
(g) any other information agreed on by the employer and worker.

Annexure C

Occupational Health and Safety Act:

OH&S Specifications by the Employer

PROJECT AND SCOPE OF WORK DETAILS

Appointment of Health and Safety Agent

Health and Safety Agent has been appointed by Sigodi Marah Martin Management on behalf of Lepelle Northern Water; **CONTRACT NO.: GTAC 003-2023-24: OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: FOR ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3), EBENEZER WATER TREATMENT WORKS AND PUMP STATION**
duties of Health and Safety Manager or Agent.

In terms of Construction Regulations, 2014:

Regulation 5(1), 5(5), 5(6) and 5(7)

Where a construction work permit is required as contemplated 3(1), the client must, without derogating from his or her health and safety responsibilities or liabilities, appoint a competent person in writing as an agent to act as his or her representative;

5 (1) a Client must –

(a) Prepare a baseline risk assessment for an intended construction work project;
(b) Prepare a suitable, sufficiently documented and coherent site-specific health and safety specification for the intended construction work based on the baseline risk assessment contemplated in paragraph (a):

Therefore, a Health and Safety Agent on behalf of Lepelle Northern Water has therefore prepared the following specification below, must be provided and adhered to by Principal Contractor by means of a Health and Safety File, Plan and Health and Safety Compliance on the following project: Lepelle Northern Water: Refurbishment of the Ebenezer Water Treatment Works (WTW), Olifantspoort Water Treatment Works (WTW), Pumpstation PS 1, Pumpstation PS 2 and Pumpstation PS3

Lepelle Northern Water: **CONTRACT NO.: GTAC 003-2023-24: OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: FOR ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3), EBENEZER WATER TREATMENT WORKS AND PUMP STATION**

The objective of this specification is to ensure that Principal Contractor entering into a contract with Lepelle Northern Water achieves and maintains an acceptable level of occupational health, safety and environmental performance and compliance.

NOTE PRINCIPAL CONTRACTOR AND ITS SUB-CONTRACTORS

The SHE specification provided by Health and Safety Agent on behalf of Lepelle Northern Water is the minimum requirement. Principal Contractor must develop an HSE File and Plan that meets all the requirements and all relevant and applicable legislation. Health and Safety Agent and Lepelle Northern Water in No way assumes Principal Contractor Legal responsibilities and liability. Principal Contractor is accountable for the quality, execution of the Health, Safety and Environmental program and management for its employees, sub-contractors, and sub-contractors' employees. The SHE specification provides the minimum requirements and shall not be construed as exhaustive and all encompassing.

Principal Contractor must include a copy of the following documents:

a) Construction Regulation, 2014
b) OHS Act 85 of 1993
c) Appointment Letter from Lepelle Northern Water
d) Form of a Guarantee

Project Title as per Tender Document:

Lepelle Northern Water: **BID NO.: GTAC 003-2023-24: OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: FOR ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3), EBENEZER WATER TREATMENT WORKS AND PUMP STATION**

1.3 Project description/detailed scope of work

The work to be performed under this contract comprises of the following:

Lepelle Northern Water: **CONTRACT NO.: GTAC 003-2023-24: OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: FOR ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3), EBENEZER WATER TREATMENT WORKS AND PUMP STATION.**

The Works – Olifantspoort Pump Stations: PS1, PS2 & PS3

The nature of works for this project includes, among others, the following activities:

a) Site Establishment
b) Site clearance
c) Rehabilitation of access road to WTW/Pump Station 1 (see item C.3.1.6 below)
d) Refurbishment works within the pump stations (PS 1, 2 and 3) inclusive of :
    i) Supply and install electronic pressure gauge (positioned after all throttling valves, and conduct pipe system curve verification tests to determine actual system curve when pumping to destination reservoir. The successful bidder shall provide his own instantaneous flowmeter (possibly a clamp on ultrasonic meter) to do this test. The flow meter shall be mounted on the delivery side. Note: Pump duty (for new pump) may require adjustment on completion of this system curve verification exercise.
    ii) Replacement of all high lift pumps and their associated valves and pipework. All suction and delivery site isolating valves to be electrically actuated

iii) Replacement of all auxiliary mechanical systems including cooling water pumps (all pump stations), service water pumps (only in PS 1) and their associated pipe work and valves

iv) Maintenance and load testing of gantry

v) Replacement of all high lift pump motors and installed of variable frequency/speed drives

vi) Maintenance and testing of all high lift pump MV switchgear

vii) Automation of the entire pump station including upgrading existing instrumentation PLC and HMI systems and SCADA systems

viii) Upgrading of the telemetry systems

ix) Replacement and installation of power and control cables

x) Upgrading of low voltage boards and MCC panels

xi) Minor pump station building modifications including painting, small power and lighting

xii) Construction of VFD/VSD substation building to house new VFDs/VSDs

xiii) Specialist MV protection studies; earthing and lightning protection studies

e) Refurbishment works within the Ebenezer Scheme inclusive of :

f) Replacement of all high lift pumps and their associated valves and pipework. All suction and delivery site isolating valves to be electrically actuated

g) Replacement of all auxiliary mechanical systems including cooling water pumps (all pump stations), service water pumps (only in PS 1) and their associated pipe work and valves

h) Maintenance and load testing of gantry

i) Replacement of all high lift pump motors and installed of variable frequency/speed drives

j) Maintenance and testing of all high lift pump MV switchgear

k) Automation of the entire pump station including upgrading existing instrumentation PLC and HMI systems and SCADA systems

l) Upgrading of the telemetry systems

m) Replacement and installation of power and control cables

n) Upgrading of low voltage boards and MCC panels

o) Minor pump station building modifications including painting, small power and lighting

p) Construction of VFD/VSD substation building to house new VFDs/VSDs

q) Specialist MV protection studies; earthing and lightning protection studies

r) Coordination and planning for shutdown with the Employer and the Consumers.

s) OH&S

t) Environmental Management

u) Community Liaison and stakeholder management

This Contract includes all of the following works only applicable to pump stations, some valve chambers and some reservoirs:

A. Mechanical and Electrical Works

This portion of the Contract includes the following predominantly mechanical and electrical works defined as follows:

This portion of the Contract includes the mechanical and electrical equipping of the Olifantspoort Pump Stations which are collectively defined as Mechanical and Electrical Works. The Contract includes the following in respect of the Mechanical and Electrical Works for Pump Stations: the design, manufacture, supply, delivery, installation, testing, commissioning, training the Employer's staff in the operation and maintenance thereof, Trial Operation, and upholding during the Defects Notification Period. The Mechanical and Electrical Works for Pump Stations shall be designed to function safely and effectively in conjunction with the infrastructure in this Contract which is designed by the Employer.

The principal features of the design works are described in the specifications, but these cannot indicate every detail necessary to meet the requirements of the Contract because the final design is the Contractor's responsibility. The Contractor shall complete the Works so as to achieve correct operation in a stable, reliable and fail-safe manner, to the approval of the Engineer.

Tenderers shall include for all costs involved in carrying out the work described in design works, including programming to accomplish this work during the contract period in conjunction with the Contractor's other duties.

PS9 Engineering: The Mechanical and Electrical Works For Pump Stations, specifies this portion of the Works and associated detailed requirements, as well as references to other sections of C3: Scope of Works and Volume 5: Drawings where further requirements concerning the associated items of the Works are specified.

(i). Olifantspoort Pump Station 1
Mechanical

(ii). Olifantspoort Pump Station 2

(iii). Olifantspoort Pump Station 3

B. Civil Works

This portion of the Contract includes the following civil construction work, defined as the Civil Works:

- Setting out of the Works
- The construction of a Variable Speed Drives Room
- Construction of reinforced concrete pumps , motors plinths and general civil works inside the pump station

C. General Works

In accordance with Sub-Clause 4.1.1 of the General Conditions of Contract, the Contractor is responsible for the following, applicable to the Mechanical, Electrical Works and Civil Works:

- Environmental management of the construction area during construction.
- Compliance with the requirements of the OHS Act and health and safety specifications.
- The liaison with the ward councillors of the local communities.
- All Temporary works required to construct the Permanent Works

PS1.3.2.2 **The Works Ebenezer Water Treatment Works and High Lift Pump Station**

The nature of works for this project includes, among others, the following activities:

v) Site Establishment

w) Site clearance

x) Water Treatment Works and High Lift Pump Station

i) Supply and install electronic pressure gauge (positioned after all throttling valves, and conduct pipe system curve verification tests to determine actual system curve when pumping to destination reservoir. The successful bidder shall provide his own instantaneous flowmeter (possibly a clamp on ultrasonic meter) to do this test. The flow meter shall be mounted on the delivery side. Note: Pump duty (for new pump) may require adjustment on completion of this system curve verification exercise.

ii) Replacement of lime dosing system, refurbishment of polyelectrolyte dosing system, construction pf rapid mix/flocculation channel, installation of actuators on filter valves, partial replacement of filter media, construction of a supernatant sump and pump station at the sludge dam, refurbishment of chlorine house.

iii) Upgrade of WTW control and instrumentation equipment including programmable logic controllers (PLCs), human machine interface unit (HMI), Remote IO cards, metering equipment and SCADA system

iv) Replacement of all high lift pumps and their associated valves and pipework. All suction and delivery site isolating valves to be electrically actuated

v) Upgrade of all auxiliary mechanical systems including cooling water pumps (all Water Treatment Plant and High Lift Pump Station), service water pumps (only in the pump station) and their associated pipe work and valves

vi) Maintenance, refurbishment, and load testing of gantry

vii) Replacement of all high lift pump motors and installation of variable frequency/speed drives

viii) Automation of the entire pump station including upgrading existing control and instrumentation equipment including programmable logic controllers (PLCs), human machine interface unit (HMI), Remote IO cards, metering equipment and SCADA system

ix) Upgrading of the telemetry systems

x) Replacement and installation of power and control cables

xi) Upgrading of low voltage boards and MCC panels

xii) Minor pump station building modifications including painting, small power and lighting

xiii) Specialist MV protection studies; earthing and lightning protection studies

xiv) Supply and installation of power and control cabling and cable supports.

y) OH&S

z) Environmental Management

aa) Community Liaison and stakeholder management

This Contract includes all of the following works only applicable to Ebenezer Water Treatment Plant and High Lift Pump Station, some valve chambers and Rustfontein Reservoir:

D. Mechanical and Electrical Works

This portion of the Contract includes the following predominantly mechanical and electrical works defined as follows:

- This portion of the Contract includes the mechanical and electrical equipping of the Ebenezer Water Treatment Plant and High Lift Pump Station which are collectively

defined as Mechanical and Electrical Works. The Contract includes the following in respect of the Mechanical and Electrical Works for Water Treatment Plant and High Lift Pump Station: the design, manufacture, supply, delivery, installation, testing, commissioning, training the Employer's staff in the operation and maintenance thereof, Trial Operation, and upholding during the Defects Notification Period. The Mechanical and Electrical Works for Ebenezer Water Treatment Plant and High Lift Pump Station shall be designed to function safely and effectively in conjunction with the infrastructure in this Contract which is designed by the Employer.

- The principal features of the design works are described in the specifications, but these cannot indicate every detail necessary to meet the requirements of the Contract because the final design is the Contractor's responsibility. The Contractor shall complete the Works so as to achieve correct operation in a stable, reliable and fail-safe manner, to the approval of the Engineer.
- Tenderers shall include for all costs involved in carrying out the work described in design works, including programming to accomplish this work during the contract period in conjunction with the Contractor's other duties.
- PS9 Engineering: The Mechanical and Electrical Works For Water Treatment Plant and High Lift Pump Station, specifies this portion of the Works and associated detailed requirements, as well as references to other sections of C3: Scope of Works and Drawings where further requirements concerning the associated items of the Works are specified.
  (i). Ebenezer Water Treatment Works
  (ii). Ebenezer High Lift Pump Station
  (iii). Rustfontein Reservoirs

E. Civil Works

This portion of the Contract includes the following civil construction work, defined as the Civil Works:

- Setting out of the Works
- Minor civil works and refurbishment of chlorine room, lime storage building,
- Construction of reinforced concrete pumps, motors plinths and general civil works inside the pump station
- Construction of Flocculation channel, Sump & Valve Chamber and Raising of filter walls
- Modification of Sludge Dam

F. General Works

In accordance with Sub-Clause 4.1.1 of the General Conditions of Contract, the Contractor is responsible for the following, applicable to the Mechanical, Electrical Works and Civil Works:

- Environmental management of the construction area during construction.
- Compliance with the requirements of the OHS Act and health and safety specifications.
- The liaison with the ward councillors of the local communities.
- All Temporary works required to construct the Permanent Works

ROLES AND RESPONSIBILITIES

Lepelle Northern Water Project Manager: GUNDO MOTSOARE

Project Manager on behalf of Lepelle Northern Water, He/she is responsible for managing the contract with the Consulting Engineers, Health and Safety Consultants and Principal Contractor and ensure overall construction works are completed and Compliance with relevant legislation: General Conditions of Contract for Construction Works, 2015 and OHS Act 85 of 1993 and Construction Regulations 2014. In regard Regulation 5 Duties of the Client and Particulars of Contract including but not limited to the following:

The Contractor must comply with the provisions and contractual arrangements of the Occupational Health and Safety Act (OHSA) as well as the Environmental Management Act (NEMA): Waste Management.

All workers of any project undertaken as part of this bid must undergo a medical fitness test by an Occupational Health and Safety Practitioner who is registered with the South African Nursing Council (SANC). The medical test certificates must be presented by the Principal Contractor to Lepelle Northern Water.

Penalties of R15000 per day are applicable on this contract.

Lepelle Northern Water Health and Safety Manager:

Health and Safety Manager at Lepelle Northern Water responsible for implementation of Health and safety in accordance with OHS Act 85 of 1993 and Construction Regulations 2014 on construction site on behalf of LEPELLE NORTHERN WATER

Consulting Engineers: Sigodi Marah Martin Management

Sigodi Marah Martin Management appointed by LEPELLE NORTHERN WATER for overall

implementation and cost management of the Construction Site on behalf of LEPELLE NORTHERN WATER in accordance with General Conditions of Contract for Construction Works, 2015, OHS Act 85 of 1993, Construction Regulations 2014 and other relevant technical specifications in terms of the contract. The Principal Contractor, which is Principal Contractor, executes the construction works as per the tender and relevant legislation. Including duties provided in Regulation 7 of the Construction Regulations, 2014

Health and Safety Consultants:

A Health and Safety Agent has been appointed by Sigodi Marah Martin Management on behalf of Lepelle Northern Water: **BID NO.: GTAC 003-2023-24: OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: FOR ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3), EBENEZER WATER TREATMENT WORKS AND PUMP STATION** to perform the duties of Health and Safety Manager or Agent to ensure that Principal Contractor adheres to all Health and Safety standards, legislation required and must be complied with as per relevant and applicable legislation in terms Health and Safety *Inter Alia* OHS Act 85 of 1993 , National Environmental Management Act 1998 (Act 107 of 1998) and Construction Regulations 2014. Health and Safety Agent shall carryout duties of client in terms of Regulation 5.

Principal Contractor:

Principal Contractor are the appointment principal contractor by LEPELLE NORTHERN WATER to execute the civil works as per tender and the contractor to which compliance with the Health and Safety legislation on site will be required, in executing civil works at the Lepelle Northern Water: **BID NO.: GTAC 003-2023-24: OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: FOR ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3), EBENEZER WATER TREATMENT WORKS AND PUMP STATION**

Principal Contractor carries primarily accountability and responsibility for ensuring full compliance to the provision of the OHS Act as contemplated by Section 37(2) written agreements and Construction Regulation (7). The section 37(2) of the OHS Act agreement must be signed by Lepelle Northern Water and Principal Contractor be part of the Health and Safety File.

COMPLIANCE

Health and Safety Agent on behalf of Lepelle Northern Water requires all of its Contractors to comply with legislation as part of the contract. All expenses to the Contractor, which result from compliance with this legislation as well as special requirements specific to the site, will be for the Contractors account.

No claim or standing time will be accepted as a result of any costs or delays being incurred due to Principal Contractor their sub-contractors not complying with legislation, this SHE specification or their SHE Plan approved by the Lepelle Northern Water and Health and Safety Agent

Should Principal Contractor appoint a sub-contractor, the Principal Contractor would then have the same role and responsibility in relation to the sub-contractors on the contract: **CONTRACT NO.: GTAC 003-2023-24: OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: FOR ELECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3), EBENEZER WATER TREATMENT WORKS AND PUMP STATION**

The requirements within this specification should not be considered to be exhaustive and Health and Safety Agent on behalf of Lepelle Northern Water reserves the right to add, delete or modify conditions where it is considered to be appropriate.

The following applicable legislation has been identified which may impact the Project. The list is not an exhaustive:

- Construction Regulations, 2014
- The Constitution of the Republic of South Africa (particularly Section 24 of the Bill of Rights).
- Occupational Health and Safety Act 1993 (Act 85 of 1993) and its Regulations.
- National Environmental Management Act 1998 (Act 107 of 1998).
- National Road Traffic Act (93 of 1996) National Environmental Management: Waste Act 59 of 2008
- National Environmental Management Act 107 of 1998 and Amendments
- Air Quality Act 39 of 2004
- Hazardous Substances Act 15 of 1973
- National Water Act 36 of 1998
- Conservation of Agricultural Resources Act 1983 (Act 43 of 1983).
- Mine Health and Safety Act 29 of 1996
- Compensation for Occupational Injuries and Diseases Act No 130 of 1993 (COIDA)
- Applicable South African National Standards (SANS).
- ISO 9001:2008 –Quality Management Systems requirements
- ISO 14001:2004–Environment Management Systems requirements
- OHSAS 18001:2007 –Occupational Health and Safety Management Systems Requirements

a) COVID -19

Compliance with the **Occupational Health and Safety Act No.85 of 1993 and the Disaster Management Act, of 2002, and the subsequent regulations.** This specification is compiled in line with the COVID-19 Baseline Risk Assessment. Principal Contractormust use it as a reference document when developing their COVID-19 response plans.

No	Activity	Responsibility	Target date
1	Procurement of thermometers, masks, sanitizers and hand soap and other COVID 19 supplies	Principal Contractor	
2	Review risk assessments to include risks associated with COVID 19	Principal Contractor	
3	Development of COVID 19 standard operating procedures & review SHE plan (in line with these guidelines)	Principal Contractor	

4	Verification of compliance	Principal Contractor	
5	Approval by OHS to resume construction sites	Principal Contractor	
6	Resumption of construction activities	Principal Contractor	
7	Re-induction of all contractors	Principal Contractor	
8	Toolbox talks	Principal Contractor	
9	Regular cleaning and disinfection of surfaces	Principal Contractor	

b) LETTER OF GOOD STANDING – (COIDA)

The Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (**COIDA**) provides for compensation for disablement caused by occupational injuries or diseases sustained or contracted by employees in the course of their employment, or for death resulting from such injuries or diseases.

Principal Contractor must have their Letter of Good Standing in the Health and Safety file including the Section6 (A) Annexure 13 W.CI.2 and other related forms

NOTIFICATION OF CONSTRUCTION WORK

In terms of Construction Regulations, 2014:

4(1) 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 intended construction work will –

a) Include excavation work;
b) Include working at a height where there is risk of failing;
c) Include the demolition of a structure
d) Include the use of explosives to perform construction

Principal Contractor must therefore provide Notification of Construction in terms of Construction Regulations, 2014. Therefore, **No** construction works shall commence before notification of construction work has been submitted at the relevant Department of Labour by the Principal Contractor. The copy of the notification stamped on both pages must be provided in the Safety File.

CONSTRUCTION WORK PERMITT

Regulation 5(1), 5(5) and 5(6)

Where a construction work permit is required as contemplated 3(1), the client must, without derogating from his or her health and safety responsibilities or liabilities, appoint a competent person in writing as an agent to act as his or her representative

Construction Regulation 3 is applicable.

3 (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 will –

(a) Exceed 365 days will involve more than 3600-person days of construction work; or
(b) The tender value limit is grade 6,7,8 or 9 of the Construction Industry Development Board (CIDB) grading

Therefore, in terms of Lepelle Northern Water: **BID NO.: GTAC 003-2023-24: OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: FOR LECTROMECHANICAL REFURBISHMENT OF OLIFANTSPOORT PUMP STATIONS (PS1, PS2 & PS3), EBENEZER WATER TREATMENT WORKS AND PUMP STATION**

The Client or Clients Health and Safety Agent will must apply for a permit due to the requirements of the Construction Regulation fall within scope of this project.

NON-CONFORMANCES / WORK STOPPAGE

Health and Safety Agent reserves the right to stop work and issue a non-conformance report whenever safety, health or environmental violations are observed for both Principal Contractor and their sub-contractors. Expenses incurred as a result of such work stoppage and standing time shall be for the Principal Contractor account. Any non-conformances/findings/observations found in these audits/inspections on sub-contractors shall be raised and discussed with the relevant Principal Contractor.

The conditions that lead to work stoppages are based on but not all encompassing:

Management of change – this is when there are changes to the work environment (e.g.: climatic changes) and/construction work (e.g.: modifications to the design), in any phase of the construction project, and/or amendments with regulations and/or legislative amendments; unsafe acts/behaviors;
Unsafe working conditions: Principal Contractor and subcontractors shall ensure that no other work is being performed during this time. Should the estimated time from the outset to make the area safe where life threatening/imminent danger situations exist, then the area will be barricaded and a sign placed with the wording “Unsafe Area – Authorized Access Only”.
Principal Contractor shall address the unsafe working condition and then revise the relevant sections in the SHE Plan to accommodate the changes.

HSE POLICIES

Principal Contractor and sub-contractor shall each have a SHE Policy authorized by OHS Act Section 16(1) appointee that clearly states overall, SHE objectives and commitment to improving Safety, Health, Environment and Quality performance and Compliance. Including but not limited to:

- HSE Policy
- Disciplinary policy for employees transgressing occupational health, safety and environmental requirements
- Drug, alcohol & substance abuse policy
- Smoking policy
- HIV/AIDS policy

SHE PLAN

a) SHE Plan

In terms of Construction regulation 7(1): Principal Contractor and any sub-contractors appointed must

i) Provide a Health and Safety Plan which must be constantly be reviewed as per regulation:

- Provide and demonstrate to the client a suitable, sufficiently documented and coherent site-specific health and safety plan, based on the clients documented health and safety specifications contemplated in regulation 5(1)(b), which plan must be applied from the date of commencement of and for the duration of the construction work and which must be reviewed and updated by the principal contractor as work progresses;
- Open and keep on site a health and safety file, which must include all documentation required in terms of the Act and these Regulations, which must be available on request to an inspector, the client, the client's agent or a Contractor

Including but not limited to the following documentation:

- Duties and safety responsibilities of all appointed persons on the project.
- Selection, placement and training procedures, including induction and on-going training in 'Basic Safe Work' and Occupational Health and Safety training for newly hired or promoted supervisors.
- Baseline risk assessments, review & monitoring plan & safe work procedures.
- Occupational health and safety goals for the project and arrangements for monitoring and reviewing occupational health and safety performance.
- Occupational Health and Safety communications and meetings, including daily safe task instructions and project safety meetings.
- Assessment of sub-contractors, including requirements for safety plans
- Nomination of personnel to carry out safety inspections. The task may be shared with other duties and provided within the resources of individual gangs and may be rotated
- Rules and regulations including safety procedures the Contractor has in place for recurring work activities.
- Personal protective equipment rules.
- Control of dangerous and hazardous substances.
- Hazard identification and risk control, such as Risk assessments, Daily Safe Task Instructions and communication.
- Audits to ensure compliance with safety plans.
- Daily site safety inspections and audits.
- Inspection of plant, tools and equipment prior to introduction to site and regularly thereafter.
- Accident incident reporting, recording, investigation and analysis, which ensure that corrective action, are taken and this action is communicated to report initiators.

- First aid arrangements.
- Evacuation and emergency planning.
- Substance abuse program
- Record keeping
- Personal Protective equipment arrangements.
- Workers welfare facilities.
- Induction and toolbox talk's arrangements.
- Training arrangements.

b) Fall Protection Plan

Principal Contractor must include a Fall Protection Plan has contemplated in regulation 10. Therefore, must appoint a competent person responsible for the preparation of the plan include the requirements in regulation 10(2), continuously adhere and implement the fall protection plan as per regulation 10(3), 10(4) and 10(5).

c) Traffic Management Plan

The scope - the safe movement of vehicular and pedestrian traffic, protection of workers from passing traffic, provision for access to properties located within the limits of Network Road .The design, construction, maintenance and implementing of any necessary temporary roadways and detours, the provision of traffic controllers, the installation of temporary signs, road markings, lighting , safety , Jersey , temporary speed humps and solid barriers as per Road Traffic Act, 1989 (Act No. 29 of 1989),Road Traffic Sign Applications.

Principal Contractor must provide a comprehensive and detailed a Traffic Management Plan and must include Traffic Control Plans, Emergency Readiness Plan, Objectives of the Traffic Management Plan, Traffic Management Officer, and Communications with community, stakeholders. The traffic Management must be in accordance with the South African Road legislation and Signs Manual as modified to suit site conditions. Application of the Act shall apply throughout the Republic: Provided that any provision thereof shall only apply to those areas of the Republic in respect of which the Road Traffic Act, 1989 (Act No. 29 of 1989), did not apply before its repeal by section 93, as from a date fixed by the Minister by notice in the *Gazette*.

9. APPOINTMENTS AND COMPETENCIES

Principal Contractor must submit in writing the appointments and competences of all competent person appointed, which form part of the SHE Plan in terms of Construction Regulation 8. An organogram must also submit including all legislative appointments, defined responsibility structure, OHS meetings and period of appointment. All appointees and appointers must sign the legislative appointments.

Principal Contractor Chief Executive Officer, in terms of Section 16(1) of the Occupational Health and Safety Act (Act no 85 of 1993), is to ensure that the Employer (as defined in the Occupational Health and Safety Act (Act no. 85 of 1993) – hence the Contractor) complies with the Occupational Health and Safety Act (Act no 85 of 1993) and Construction Regulations (2014) as well as all other applicable legislative requirements.

a) Construction Managers

Principal Contractor, appointed in terms of Construction Regulations is responsible for implementing and maintaining the SHE Plan. Regulation 8 (1) A principal contractor 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.

No construction manager appointed under sub regulation 8(1) may manage any construction work on or in any construction site other than the site in respect of which he or she has been appointed.

Regulation 8(7): Principal Contractor Construction managers, in writing must appoint construction supervisors responsible for activates on site and ensuring compliance with occupational health and safety regulations on site. Regulation 8(8) Principal Contractor considering and depending on the size of the project or construction site must appoint in writing one or more competent employees for different sections to assist the construction supervisor envisaged in sub regulation (7)

REGULATION	**APPOINTMENT /COMPETENCIES /RESPONSIBILTY**
1. 5(1)(K)	Lepelle Norther Water appointment of Principal Contractor
2. 8(1)	Construction Manager – Principal Contractor: Managing Construction works and ensuring Health and Safety Compliance
3. 8(2)	Assistant Construction Manager and Traffic Management Officer – Principal Contractor: Assist the Construction Manager
4. 8(5)	Health and Safety Officer – Principal Contractor: Ensuring Health and Safety Compliance
5. 8(7)	Construction Supervisor – Principal Contractor: Supervision of certain type of construction works
6. 7	Appointment and management of Sub-contractor – Principal Contractor
7. 9(1) Risk Assessor	Risk Assessor to conduct risk assessments – Principal Contractor

REGULATION	**APPOINTMENT /COMPETENCIES /RESPONSIBILTY**
8. 10(1)(a)	Appointee for preparation of fall protection plan – Principal Contractor
9. General Safety Regulation 3	First Aider – Principal Contractor

10.12(1) Temporary works designer	Appointee for inspect and approve erected temporary works on site – Principal Contractor
11.12(2) Temporary works Supervisor	Appointee for Supervision of Temporary works on site – Principal Contractor
12. 12(3)(a) Temporary Works Erector	Erect temporary works on site – Principal Contractor
13. 12(3)(f) Temporary Works Inspector	Inspector of Temporary Works on site – Principal Contractor
14. 13(1)(a) Excavation Supervisor	Excavation Supervision – Principal Contractor
15. 13(2)(h) Excavation Inspector	Excavation Inspection – Principal Contractor

REGULATION	**APPOINTMENT /COMPETENCIES /RESPONSIBILTY**
16.14(1) Supervisor demolition work	Demolition Supervision – Principal Contractor
17. 16(1) and16 (2) Scaffold Supervisor, Erector, Inspector	Supervision, Inspection and Erection of Scaffolding – Principal Contractor
18. 14(11) Competent Person for Explosives	Legally certified competent explosives person Principal Contractor
19. 20(1) Batch Plant Supervisor	Supervision of Batch plant – Principal Contractor
20. 22(a) Crane Supervision	Certified Crane Supervisor Principal Contractor
21. 23(1)(d) Construction Vehicle and Mobile Plants Operator	Certified Plant Operator and Vehicle – Principal Contractor
22.24(d) Electrical Machinery Inspector	Inspection of Electrical Machinery – Principal Contractor
23. 24(e) Temporary Electrical Installations Inspector and Controller	Control all temporary electrical installations – Principal Contractor

REGULATION	**APPOINTMENT /COMPETENCIES /RESPONSIBILTY**
24.28(a) Stacking and Storage Supervisor	Supervision of Stacking and Storing – Principal Contractor

25.29(h) Fire Equipment Inspector	Inspection of Fire Equipment – Principal Contractor
26.29(i) Fire extinguisher Users	Operator of extinguisher – Principal Contractor
27. Hand Tool Inspector	Inspection of Hand tool inspector – Principal Contractor
28. 20(2)(g)(i) Person to control and do the issuing and collection of Cartridges and nails/studs	Certified competent control of explosive equipment – Principal Contractor
29.21(2)(b) Explosive actuated fastening device inspector	Inspection of explosive device fastening- Principal Contractor
30. 21(2)(g)(i) Explosive actuated fastening controller	Controller of explosive device fastening- Principal Contractor
31. Explosive Operator	Operator of explosive device- Principal Contractor
32. General Safety Regulation 13A	Ladder Inspector- Principal Contractor

b) Construction Health and Safety Officers/ Practitioners

Regulation 8(5) and 8(6) Principal Contractor must appoint a full time Health and Safety Officer in writing that is registered with approved statutory body. Therefore, the appointed Construction Safety Officer must be registered with the statutory body approved by Chief Inspector the South African Council for Project and Construction Management Professionals (SACPCMP) and have SAMTRAC or safety diploma and at least 4 years relevant construction safety experience.

c) Occupational Health and Safety Representatives

Section 17 and Section 18 of the OHS Act provides for appointment of the Health and Safety Representative and functions thereof. Every employer who has more than 20 employees in his employment at any workplace, shall designate in writing for a specified period health and Safety representative for such workplace. Principal Contractor must therefore appoint a Health and Safety Representative if Principal Contractor employs on site on than 20 employees including sub-contractors and their employees. Shall appoint one SHE representative for every 50 employees or part thereof.

d) Health and Safety Committee

In regards to section 19 and section 20 of the OHS Act 85 of 1993 Principal Contractor must establish an occupational health and safety committee consisting of all the designated occupational health and safety representatives together with a number of management representatives. The management representatives shall not exceed the number of occupational health and safety representatives on the

committee. The members of the occupational health and safety committee must be appointed in writing. Representatives from Health and Safety Agent will act as co-opted members to the Health and Safety Committee meetings as and when required. Principal Contractor is required to compile a schedule for the statutory occupational health and safety committees for the duration of the project and supply the proposed schedule in the SHE Plan.

10 TRAINING

Inductions and Training must be submitted with SHE Plan and SHE File with all the registers for specific training, which will be conducted. Training is to be carried out as required by the Occupational Health and Safety Act (Act no 85 of 1993) and the Construction Regulations (2014). All training courses required and attended are to be included in the principal contractor's SHE File. All members of Principal Contractor site management as well as all the persons appointed responsible for occupational health, safety and environmental management in terms of the Construction Regulations (2014) and other legislative requirements, will be required to attend a SHE System Induction training

Construction Site induction carried out by the Principal Contractor

The aim of this section is to outline expectations in respective of the scope of the training, which Principal Contractor and Sub Contractor employees receive. The scope of the training includes but is not limited to the type of work being performed and the relevant procedures. Additional to the requirements, will be that Principal Contractor and sub-contractors would have the 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, certificates and are under competent supervision. Records of all training and qualifications of all contractor employees must be kept. Principal Contractor shall maintain comprehensive records of all employees under his control (including all employees of the sub-contractor) attending induction training.
Acknowledgement of receiving and understanding the induction must be signed by all persons receiving the induction respectively and the Induction Register be kept in the Health and Safety File.

When there is an amendment to the Acts and/or to the regulations, SHE specification and SHE plan, all affected staff shall undergo the relevant re-training. For appointees that do not meet the minimum competencies as indicated above: full compliance to the above competencies would be expected. A training plan must be submitted on a monthly basis to reflect progress of meeting the minimum training requirements.

Medicals

Prior to induction all Principal Contractor and Sub-contractor employees must undergo a pre-employment medical examination and found fit for duty. A copy of the certificate of medical fitness must be presented for permanent record at the induction venue and kept at Health and Safety File and site offices for permanent record.

Job specific induction carried out by the Principal Contractor/Sub-Contractor Supervisor on the site

Principal Contractor shall ensure that all his employees and his contractors' employees working on the site are adequately trained in the type of work/tasks to be performed. The training shall extend to include relevant procedures, hazard identification and risk assessment. They shall have the appropriate qualifications, certificates and are under competent supervision. Copies of records of appropriate training and qualifications for all employees must be kept and maintained.

Principal Contractor shall ensure that all his employees, agents and contractors have undergone the Project safety induction program prior to commencing work on site. Appropriate time must be set-aside for training (induction and other) for all employees.
All employees and visitors on site shall carry the proof of induction training. The relevant site Risk Control/SHE Training Officer shall keep a database of all records pertaining to induction and will inform contractors of pending expiry.

Principal Contractor shall ensure that all his employees and sub-contractor employees undergo general work induction with regard to the approved SHE plan, general hazards prevalent on the construction site, construction risk assessment, rules and regulations, and other related aspects. The induction should also include identification of sensitive features such as wetlands areas, red data species, graves, etc.

Principal Contractor will be required to ensure that before an employee commences work on the project that the supervisor in control with responsibility for the employee has informed the employee of his scope of authority, any hazards associated with the work to be performed as well as the control measures to be taken. This will include man- task specifications, the discussion of any standard task procedures or hazardous operational procedures to be performed by the employee. Principal Contractor is to ensure that the supervisor has satisfied himself that the employee understands the hazards associated with any work to be performed by conducting task/job observations.

Other Training

All Operators, Drivers and Users of construction vehicles, mobile plant and other equipment must be in possession of valid proof of training. All employees in jobs requiring training in terms of the Act and Regulations must be in possession of valid proof of training.

The principal contractor is required to have a promotion and awareness program in place to create an occupational health and safety culture within employees E.g.: Toolbox Talks, Videos, Health and Safety circles.

11 CONTRACTOR'S SITE FACILITIES AND ACCESS CONTROL TO THE CONSTRUCTION SITE

Principal Contractor must manage site facilities as per Environmental Regulations for workplaces, Facility Regulation, Security Personnel, General safety regulation as framed under the OHS Act.

Principal Contractor must establish site access rules and implement and maintain these throughout the construction period. Access control must, amongst other, include the rule that non-employees will not be allowed on site unaccompanied.

Principal Contractor shall provide a guardhouse for a security working during the day and at night. The guardhouse should be in good condition and at-least meet minimum requirements as per environmental regulations for workplaces.

Temporary Facility

Ablution facilities, Site Offices and Amenities, lay down and Storage, Site Access, Temporary Site Services Principal Contractor employees are registered on the site access system and are issued with access certificates. Access certificates to be kept with the Contractor at all times within the site.

Principal Contractor and his sub-contractors shall adhere to the site traffic plan to ensure the safe movement of all construction related mobile plant. Principal Contractor shall adhere to the pedestrian and vehicle routings and Traffic Authority.

The project/site security arrangements are: Site Safeguarding: Nets, Canopies, Platforms, Fans, and Barriers etc. to protect members of the public passing / entering the site

12 RISK MANAGEMENT AND ASSESSEMENTS

Regulation 9(1) A 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 site.

Principal Contractor must identify the construction site SHE risks and hazards before commencing any construction works on site as per regulation 9 and his/her subcontractors to identify hazardous and potentially hazardous work operations. Principal Contractor needs to demonstrate that the site hazards and the contractor's activity risks and the mitigating measure have been considered in his risk assessments.
The Occupational Health and Safety Act (Act no. 85 of 1993) specifically requires that employers shall provide and maintain working environments that are safe and without risk to health. The general awareness of hazards needs to be raised as work ethic to maintain a safe and risk-free environment on an on-going basis. This is achieved by continuous risk assessments, a form of risk assessment that takes place as an integral part of day-to-day management.

There must be method statements or written safe work procedures for all the Principal Contractor activities
Emerging risks and hazards must be managed during construction work. Activity based risk assessments must be conducted by an appointed and competent person of the Principal Contractor on a regular basis. Principal Contractor prior to daily work beginning on site shall conduct Preliminary hazard identification.

Site Specific Health and Safety Hazards

Principal Contractor Site-Specific list may not be totally comprehensive and it is the duty of Principal Contractor to ensure that all the hazards are identified, before and during the project, and the necessary activity-based risk assessments are carried out. These risk assessments shall form part of the SHE Plan. The site-specific health and safety hazards are on continuous during the duration of the project.

Hazardous and potentially hazardous work operations and Emerging Risks

Principal Contractor shall identify hazards and potentially hazardous work operations. For each work operation Identified, the Contractor shall supply Risk Assessment, which shall:

1. Describe the operation to be performed in the sequence of the basic job steps.
2. Identify and rank the hazard or potential hazard.
3. A plan to review the risk assessments as the work progresses and changes are introduced;

4. Describe how the hazard will be managed therefore a documented plan and Safe Working Procedures, and its relevance to the risk assessment, to mitigate, reduce or control the risks and hazards that have been identified.
5. A plan to monitor the application of the Safe Working Procedures
6. Signature of appointed competent person conducting risk assessment; and Signature of Principal Contractor management and employees involved in risk assessment.
7. Review plan; Based on the risk assessments, the principal contractor must develop a set of site-specific occupational SHE rules that will be applied to regulate the health, safety and environmental aspects of the construction work.
8. Identify the responsible person for each mitigation action.

The hazards and risk to which persons, plant, vehicles and facilities may be exposed during the construction should be identified and evaluated. The aspects and impacts resulting in environmental pollution or degradation should also be identified and evaluated. Measures to reduce or control these risks or hazards should be defined during this assessment.

Principal Contractor must ensure that all employees under his or her control are informed instructed and trained by a competent person regarding any hazard and the related work procedure and or control measure before any work commences, and thereafter at the times determined in the risk assessment monitoring and review plan of the relevant site.

During construction work, Principal Contractor, his sub-contractors or Lepelle Northern Water representative or agent may identify emerging hazards and risks. For each such newly identified hazard or risk, the Lepelle Northern Water representative or agent shall review the baseline site hazard identification and the relevant section(s) of the Baseline Risk Assessment during Audits. The hazard identification shall be submitted to the Principal Contractor who will review his own risk assessments and relevant sections of the SHE Plan, as well as those of the sub-contractors.

Principal Contractor representative or agent will prepare and submit to the Lepelle Northern Water representative or agent, both documents for approval.

Principal Contractor and his subcontractors shall not proceed with the work/operation in hazardous areas until the Client/Agent's representative has reviewed the Risk Assessment and has approved and signed the revised SHE plan and issued a valid permit to work.

Principal Contractor shall on a daily basis and for every task to be performed, conduct a pre-task risk assessment with all employees involved with the task(s). The pre-task risk assessment will form the basis of the daily pre-job brief/toolbox talks prior to the start of work. Proof of communication as well as confirmation that it was received and understood by all will be noted on a standard form, which will be kept at the job site during the job execution. The completed signed pre-task risk assessment form will be filed in the Principal Contractor **SHE** files.

The Contractor must ensure through his risk management process the hierarchy of controls stipulated as follows, are implemented:

1. ***Eliminate*** - The complete elimination of the hazard.
2. ***Substitute*** - Replacing the material or process with a less hazardous one.
3. ***Redesign*** - Redesign the equipment or work process.
4. ***Separate*** - Isolating the hazard by guarding or enclosing it.
5. ***Administrate*** - Providing control such as training, procedures etc.

6. ***Personal Protective Equipment (PPE)*** - Use of appropriate and properly fitted PPE where other controls are not practical. (PPE as the last resort)

13 SAFE WORK PROCEDURES AND PRACTICES

Principal Contractor is to provide an indication of the activities that require safe work procedures and practices to mitigate the identified risks. There must be written safe work procedures or method statements for all activities. Risk Assessments should refer to the safe work procedures.

- A safe working procedure should be written when
- Designing a new job or task;
- Changing a job or task;
- Introducing new equipment or substances; and
- Reviewing a procedure when problems have been identified, e.g. from near miss incidents or accident/incident investigation. The safe working procedure should identify:
- The supervisor for the task or job and the employees who will undertake the task
- The tasks that are to be undertaken that pose risks
- The equipment and substances that are used in these tasks
- The control measures that have been built into these tasks
- Any training or qualification needed to undertake the task
- The personal protective equipment to be worn;
- Actions to be undertaken to address safety issues that may arise while undertaking the task
- The methodology that will be used to ensure compliance with the method statement/ procedure.

- Any other information deemed to be necessary by the Lepelle Northern Water Project team.
- Associated responsibilities and authorities
- Authorized staff positions to conduct the relevant activities contained in the Safe Work Procedure.

14 EMERGENCY PREPAREDNESS AND RESPONSE

Principal Contractor and his sub-contractors must develop a site-specific emergency response plan and contingency plan, appoint a competent person to act as emergency controller and/or coordinator.
Principal Contractor, together with his sub-contractors, must develop their own emergency response for both site and offices and submit this plan to Lepelle Northern Water representative or agent for approval. Principal Contractor must ensure that his employees and his sub-contractor employees are trained on this plan. Principal Contractor must initiate his own emergency drills and must hold regular practice drills of contingency plans and emergency procedures to test them and familiarize employees with them, have written arrangements in place with his other contractors regarding the responsibility of the other contractors towards their own injured and/or ill employee.

Principal Contractor must provide third parties and other specialized sub-contractors with training of emergency response plan and contingency plan, such training must be writing be part of SHE Plan.

General Safety Regulations promulgated in terms of the Occupational Health and Safety Act (Act no. 85 of 1993) provides for a qualified First Aider and First Aid Equipment regulation 7.

15 ENVIRONMENTAL MANAGEMENT

Principal Contractor must comply with the National Environmental Management Act 107 of 1998 and Amendments, therefore must provide a comprehensive Environmental Management Plan.

Spillage of Hazardous Chemical Substances

Principal Contractor must have register of Hazardous Chemical Substances and Material Safety Data Sheets should be kept on site. Herbicide usage.

Principal Contractor must have an Herbicide register for usage to be compiled and maintained if such will be utilized on site. The application of herbicides to be in accordance with the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act No. 36 of 1947. Only approved and tested herbicides with a low environmental risk shall be used. Only registered pest control operators may apply herbicides on a commercial basis. All staff applying herbicides must be trained in the application of herbicides.

Fire hazard

Principal Contractor shall comply with regulation 29 in terms of Fire precautions on construction site, ensure that staff are educated in fire prevention and will be held responsible to avoid the risk of fire. No area is to be denuded of vegetation to create firebreaks, to prevent or make fires. No open fires are allowed on site. Principal Contractor must ensure that operations are in compliance with statutory requirements at all times.

Waste

Principal Contractor must compile and submitted waste management plan included the SHE File before commencement of construction works on site. Registers of hazardous and non-hazardous waste to be kept on-site. Principal Contractor must include in the SHE File and a record of disposal and continuous updating of records. No waste, whether it be biodegradable or not, is to be left on site once work has ended. Domestic and hazardous waste generated will not be burned, buried, or disposed of on site or other Landowners' property but will be controlled and removed to a registered waste site on a regular basis (Daily/Weekly/Monthly) must be taken to the appropriate local government site.

Principal Contractor and sub-contractor working on site must ensure that oil, fuel, and chemicals are confined to specific and secure areas throughout the construction period and appropriate signage. These materials must be stored in a barricade area with adequate containment for potential spills and leaks. Principal Contractor must ensure that sufficient waste bins / containers are made available for waste control.

Dust and Noise

Principal Contractor shall monitor dust and noise caused by mobile equipment, generators and other equipment during construction must have a Dust and Noise Management Plan. Factors such as wind can often affect the intensity to which these impacts are experienced. To ensure that noise does not constitute a disturbance during construction activities, all construction works shall occur between specific working hours. Dust suppression measures must be in place to reduce the dust caused by the movement of heavy vehicles.

Environmental Incidents

All environmental incidents such as pollution (air, water, land, noise, etc.), bird kills, animals killed, plants destroyed, public complaints etc. must be reported to Lepelle Northern Water or representative or agent within 24 hours of its occurrence. All environmental incidents occurring on site must be recorded; detailing how each incident was dealt with. Proof thereof must be kept in an incident register. Principal Contractor will be held liable for any infringement of statutory requirements of the National Environmental Management Act of 1998 or any other relevant legislation.

Water

Principal Contractor must comply with regulation 26. Should observe and water restrictions on site. Must provide water for consumption for by employees during extreme weather conditions. Should any pollution of the watercourse occur, t Lepelle Northern Water or representative or agent the Department of Water Affairs (DWA) must be notified immediately via the ECO/Corporate Environmental Advisor. Borehole water must be verified for human consumption fitness. All incidents related to water contamination to be reported within 24 hours. Chemical toilets may not be within close proximity of the drainage lines / ways.

Flora

All suitable and rare flora and seeds will be rescued and removed from the site. They must be suitably stored, for future use in rehabilitation. The felling and/or cutting of trees and clearing of bush will be minimized. Bush will only be cleared to provide essential access for construction purposes. The spread of alien vegetation must be minimized. Any incident of unauthorized removal of plant material, as well as accidental damage to priority plants, will be documented.

Fauna

No species of animal may be poached, snared, hunted, captured or wilfully damaged or destroyed. Snakes and other reptiles that may be encountered on the construction site will not be killed unless the animal endangers the life of an employee. Principal Contractorwill ensure that the work site is kept clean and free from rubbish, which could attract pests.

Soil pollution management

Topsoil will be temporarily stockpiled, separately from (clay) subsoil and rocky material, when areas are cleared. If mixed with clay sub-soil the usefulness of the topsoil for rehabilitation of the site will be lost. Stockpiled topsoil will not be compacted but will be replaced as the final soil layer. No vehicles will be allowed access onto the stockpiles after they have been placed. Stockpiled soil will be protected by erosion-control berms if exposed for a period of greater than 14 days during the wet season. The need for such measures will be indicated in the site-specific report. Topsoil stripped from different sites will be stockpiled separately and clearly identified as such. Topsoil obtained from sites with different soil types will not be mixed. Topsoil stockpiles will not be contaminated with oil, diesel, petrol, waste or any other foreign matter, which may inhibit the later growth of vegetation and microorganisms in the soil.

Aesthetic and Visual Impact Management

Damage to the natural environment must be minimized. Trees and tall woody shrubs will be protected from damage to provide a natural visual shield. Excavated material will not be placed on such plants and movement across them will not be allowed, as far as practical.

All above ground structures will be located in areas where the visual impact from roads, houses etc. is minimised. All above ground structures could be treated or painted to blend in with the natural environment. Cut and fill areas, river and stream crossings and other soil stabilization works will be constructed to blend in with the natural environment.

All finds of human remains will be reported to the nearest police station. Human remains from the graves of victims of conflict, or any burial ground or part thereof which contains such graves and any other graves that are deemed to be of cultural significance may not be destroyed, damaged, altered, exhumed or removed from their original positions without a permit from the South African Heritage and Resource Agency (SAHRA).

16 SHE AUDITS AND INSPECTIONS

Compliance with OHS ACT and Construction Regulations

In terms of Construction Regulations 2014, regulation 5(1) (n) to 5(1)(q) the client must take reasonable steps the client must ensure periodic health and safety audits and document verification are conducted at intervals mutually agreed upon between the principal contractor any contractor, but at least once every 30 days. Regulation 5(1) (q) stop any contractor from executing a construction activity which poses a threat to health and safety of persons

Contractor SHE Performance Evaluation

Health and Safety Agent shall evaluate contractor SHE performance on an on-going basis against the requirements of OHS ACT and Construction Regulations. There will be monthly audits/inspections conducted by Health and Safety Agent on Principal Contractor and/or sub- contractors. The contractor's site manager or his representative shall attend these audits. Find SHE Performance Evaluation attached.

17 INCIDENT MANAGEMENT (PRINCIPAL CONTRACTOR AND SUB- CONTRACTORS)

Reporting of Accidents and Incidents

Principal Contractor shall compile and implement procedure for Reporting and investigation of incidents – This document sets out the procedures to be followed when reporting, recording and investigating incidents that occur on a construction site.

Principal Contractor must report to Lepelle Northern Water or representative or agent within 24 Hours and to the Provincial Director of the Department of Labour within seven days from date of incident (Section 24 of the Occupational Health and Safety Act (Act no. 85 of 1993).

Principal Contractor shall report all incidents/accidents as required in terms of legislation including near miss incidents, first aid, medical treatment, lost time incidents (lost time injuries and fatalities); Section

24 and 25 incidents; electrical contact; major equipment damage; chemical spillage and other environmental incidents within 24 hours or before the end of the work shift.

All fatal incidents, employee and contractor incidents, shall be reviewed by the committee within one week after the incident and the members of the Project Progress meeting notified of corrective actions taken. Preliminary investigation information shall be shared.

A comprehensive and detailed investigation report shall be submitted to the Health and Safety Agent manager within 7 -14 days after the incident which shall include: Date, time and place of incident; Description of incident; Root cause of incident/accident; Type of injury (if any); Medical treatment provided (if any); Persons involved; Names of witness/s; Corrective action to prevent recurrence (with clear deadlines and responsible persons). It is required that all corrective action is closed out within 3 months. If this is not practicable within the time frame, then it is to be submitted at a later date agreed to by the Lepelle Northern Water or Occupational Health and Safety Agent.

Health and Safety Agent shall ensure that all accidents/incidents are investigated by him/her and are discussed at the SHE committee meeting held on site. Accidents/incidents shall be investigated and recorded in terms of the requirements of the Occupational Health and Safety Act, the National Environmental Management Act and National Water Act as applicable.

Please note that providing the Accident/incident investigation report does not exempt the Principal Contractor from providing accident reports required by Statutory Authorities, in particular, the Contractors' responsibility for reporting accidents in accordance with the requirements of the OHS Act and COID Act.
Health and Safety Agent will participate in any accident/incident investigation if the accident/incident is directly linked to any activity within the scope of the construction project. Principal Contractor shall keep on site/workplace a record of all accidents and incidents reported in the form of the OHS Act Annexure 1 investigation form as referenced in the OHS Act. (Incident Investigation Report) Health and Safety Agent on behalf of Lepelle Northern Water reserves the right to conduct an independent investigation in any incident
Principal Contractor shall report **all Incidents/Accidents** where an employee is injured on duty to the extent that he:

- Dies
- Becomes unconscious
- Loses a limb or part of a limb
- Is injured or becomes ill to such a degree that he is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he was usually employed

Or where –

- A major incident occurred
- The health or safety of any person was endangered
- Where a dangerous substance was spilled
- The uncontrolled release of any substance under pressure took place
- Machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- Machinery ran out of control

To Lepelle Northern Water or representative or agent within two days and to the Provincial Director of the Department of Labour within seven days from date of incident (Section 24 of the Occupational Health and Safety Act (Act no. 85 of 1993) and General Administrative Regulations), except that, where a person has died, has become unconscious for any reason or has lost a limb or part of a limb or may die or suffer a permanent physical defect, the incident must be reported to both Lepelle Northern Water and the Provincial Director of the Department of Labour forthwith by telephone, telefax or e-mail.

Principal Contractor shall provide Lepelle Northern Water with copies of all statutory reports required in terms of the Occupational Health and Safety Act (Act no. 85 of 1993) within 7 days of the incident occurring.

Principal Contractor shall provide Lepelle Northern Water with copies of all internal and external accident/incident investigation reports, within 7 days of the incident occurring.

Accident and Incident Investigation

Principal Contractor will be responsible for the investigation of all accidents and/or incidents where employees and non-employees were injured to the extent that they had to receive medical treatment other than first aid.

The results of the investigation will be entered into the accident and/or incident register Principal Contractor will be responsible for the investigation of all minor and non-injury incidents as described in Section 24(1)(b) and (c) of the Occupational Health and Safety Act (Act no. 85 of 1993) and for keeping a record of the results of the investigations including the steps taken to prevent similar accidents in future. Principal Contractor will be responsible for the investigation of all road traffic accidents, related to the construction activities, and for keeping a record of the results of the investigations including the steps taken to prevent similar accidents in future.

18 MONTHLY STATISTICAL REPORTING AND WEEKLY STATISTICAL REPORTING

Principal Contractor must report to Health and Safety Agent on the 2nd of every month, each company's performance which includes the following as a minimum: Incidents: Lost time /Disabling Injuries, Medical; first aid, near misses reported; Staff Complement per principal contractor and Sub-Contractor Company; Actual man-hours worked; Status on incidents investigated and recommendations closed out and Status on audits conducted and findings closed out. Principal Contractor Safety Officer where appointed must report all the SHE Matters to Health and Safety Agent on include day and time using the Weekly Report Template.

19 OPERATIONAL CONTROL REQUIREMENTS

Notices and Signs

It's mandatory for Principal Contractor and their sub-contractors to display construction notices and signage.

- The location of every first aid box; fire extinguisher and emergency exit are to be clearly indicated by means of a sign.
- At the entrance to premises where machinery is used: Restricted access on **"Authorized Person Only"** signs on entry. Notices & Signs at entrances and along perimeters indicating "No Unauthorized Entry".

- When in use, an Explosive Power Tool shall have a sign, warning people of its use.
- Principal Contractor shall provide the signage where work is conducted and where unauthorized entry is prohibited and/or where alerting and cautioning passers-by to be aware of potential dangers.
- Notices & Signs at entrance instructing visitors and non - employees what to do, where to go and where to report on entering the site/yard with directional signs. e.g. “Visitors to report to Office”
- Notices & Signs posted to warn of overhead work and other hazardous activities. E.g. **General Warning Sign’s**
- All equipment brought onto the construction site, (including motorized equipment, e.g. bobcat) that requires PPE to be worn during operation, must have the relevant PPE mandatory sign/s attached. The type and use of PPE will be placed at all entry points to the construction site.
- At every place where machinery is used a notice (English & Pictograms) shall be posted.
- Explosive Power Tool shall have a sign warning people when it is in use.
- Electrical Control Gear. A notice shall be posted so as to warn against the re-closing of a switch of control gear whilst a person is working on such equipment.
- Emergency contact telephone numbers.
- Adequate scaffolding signs. (When applicable).
- Adequate firefighting equipment signs.
- Speed limit signs.
- “MEN WORKING ABOVE”
- “MEN WORKING BELOW”
- “ROAD CLOSED - DETOUR”
- “CAUTION - MEN WORKING - DRIVE SLOWLY”
- “EXCAVATION IN PROGRESS”
- “NO WALKWAY”
- “NO CLEARANCE”
- “WALKWAY”
- “RED AND YELLOW DANGER FLAGS”
- “DANGER - LIVE CABLES”
- Warning notices at openings through which people may fall.
- Risk based signage depending on the task being performed i.e. overhead work, hot work etc.

- No-entry signs to incomplete platforms

Barricading

Principal Contractor will erect barricading for any major operations involving site works for approval by Lepelle Northern Water. Examples are Man at work, Narrow, Arrow etc. Where there is a risk of injury, Principal Contractor will erect the area secure solid barricades. The barricade will be constructed a minimum of 1,5m away from the area. All physical barricades must be covered with netting ensuring visibility for personnel and operators of machinery.

Barricading for the prevention of access into areas with a potential risk of injury shall as a minimum be constructed of a handrail, knee-rail and appropriately supported as to prevent any person from falling into the restricted/risk area.

Working in confined spaces (manholes)

Principal Contractor will take adequate steps to eliminate or control hazards when the workers working inside confined space. Before working in an area, which contains dust, the area is to be ventilated and hosed down to settle and dampen the dust.

Principal Contractor shall provide all necessary equipment to manage confined spaces, including all necessary monitoring and rescue equipment (such as tripods, breathing equipment and the like). Principal Contractor shall ensure that all persons working in a confined space or managing entry to a confined space are appropriately trained.

Construction Vehicles and Mobile Plant

In terms of regulation 23(1) to23 (2) provides regulations which Principal Contractor must comply with in regards to construction vehicles and mobile plant:

All lifting equipment and cranes must load test certificates.

All motor vehicles operated by Contractors within the area shall, in all respects, comply with the Road Traffic Ordinance and Road Traffic Act. Designated drivers shall be in possession of a driver's license, valid for the class of vehicle. The person or operator so authorized and shall produce such card on request shall keep the driver's license.

All drivers of construction vehicles and mobile plant to have medical certificates of fitness. Each Project site will have system/ process to manage vehicle access to site.
The speed limit within the bounds of the construction site is 40 km/h.

No drivers or operator may talk on cell phones or two-way radios whilst driving, unless a hands-free kit is used.
It is the responsibility of the driver to ensure:

- He/ She and his/her passengers wear seat belts whilst the vehicle is in motion.
- Comply with all safety, direction and speed signs.
- Ensure that vehicle loads are properly secured and loaded onto vehicles.
- Ensure that vehicles are not overloaded.

The requirements with regard to the transportation of tools/equipment/material and persons on the back of construction vehicles must be adhered to:

- No Personnel to be transported in the back of construction vehicles with tools.
- Tools, equipment and material to be secured in order to prevent movement;
- Fixed and firmly secured seats with seat belts – Number of passengers
- The driver and all passengers must have seatbelts fastened whilst driving

Principal Contractor shall ensure that his employees and those of his subcontractors do not:

- Ride on back of elevators, cranes or other mobile plant equipment. Only competent Machine, Equipment operator in Construction Vehicles.
- Leave vehicles unattended with the engine running.
- Park vehicles in unauthorized zones/areas.

Principal Contractor shall be solely responsible for the safety and security of any of his vehicles (including private vehicles) on the premises.

A current maintenance logbook is required for all cranes and large plant equipment, and shall be available for inspection at any time. The logbook shall be located in the cabin of the crane or plant equipment.

Principal Contractor is to ensure that visibility (e.g.: switching on of lights, reflectors, barricades equipped with lights, etc.) is enhanced on all Construction Vehicles and Mobile plants in order to identify the location of the vehicles or plant.

Principal Contractor must maintain his vehicles in roadworthy condition and a valid license. These vehicles shall be subject to inspection by the Client/Agent's representative. Vehicles, which are not roadworthy, will not be allowed onto the site.

In the event where the Principal Contractor and his sub-contractor do not own the equipment, the Principal Contractor is still responsible for ensuring all conditions are complied with by all of his subcontractors or hire companies. Drivers/operators shall be responsible for the travel-worthiness of all loads conveyed by them.

Cranes and lifting equipment

Regulation 22 provides for requirement for Principal Contractor to provide risk assessments and procedure or method statements in regards cranes and for competent operators with medical certificates of plant and cranes. Compliance with Driven Machinery Regulations promulgated in terms of the Occupational Health and Safety Act (Act no 85 of 1993)

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

Lifting equipment is clearly and conspicuously marked with the maximum mass load (MML) that it is designed to carry safely. Lifting equipment shall be fitted with a load limiting device that automatically arrest the lift when the load reaches its highest safe position or when the mass of the load is greater than the MML. No person may be lifted by a lifting machine not designed for lifting persons unless in a cradle approved by the inspector of the Department of Labour.

All lifting equipment and cranes must load test certificates.

No Crane shall be used without a pre-use check and findings entered on an approved checklist. Before any cranes are established on site the following must be inspected and approved. Certification will be required for record purpose, and shall cover the following:

Brake or other device capable of holding the maximum mass should the power fail, or which is such that it shall automatically prevent the uncontrolled downward movement of the load when the raising effort is interrupted; and Limiting device that shall automatically arrest the driving effort when:

The Hook or Load attachment point of the Power-Driven lifting machine reaches its highest safe position; and in the case of a Winch Operated lifting machine with a lifting capacity of 5000kg or more; the load is greater than the rated mass load of such machine.

Bulk Mixing Plant

Regulation 20 provides:

Principal Contractor must ensure that the operations of a bulk mixing plants are operated and supervised by a competent person who has been appointed in writing and is

a) Aware of all the dangers involved in the operation thereof; and

b) Conversant with the precautionary measures to be taken in the interest of health and safety.

No person supervising or operating a bulk mixing plant may authorize any other person to operate the plant, unless that person is competent to operate a bulk mixing plant.

Principal Contractor must ensure that the placement and erection of a bulk mixing plant complies with the requirements set out by the manufacturer and that such plant is erected as designed.

Structures

In terms of regulation 11 Principal Contractor must comply with regulation –

- He or she prevent uncontrolled collapse of any new/existing structure
- Ensure structures are not overloaded to the extent that it becomes unsafe
- Contractor to ensure all drawing are kept on site and available to interested parties
- Owners of structures to ensure inspections are conducted by competent persons at least once every 6 months for the first 2 years and thereafter annually.
- Owner to retain records to ensure maintenance of a structure and ensure records are kept.

Scaffolding

Principal Contractor compliance with regulation 16(1), 16(2) and usage complies with regulation 44 of the Act. Principal Contractor must appoint a competent person in writing to supervise all scaffolding works, erection, team leaders and inspectors are competent.

A scaffold is a temporary structure for the purpose of creating a work platform, on which workers can carry out their work at varying heights, whether on buildings under construction, or during maintenance of buildings.

The most serious risks associated with scaffolds are firstly that the structure itself may collapse, leading to damage and injuries. Secondly, the items on the scaffold may fall and be damaged or cause damage to items on a lower level or injure or kill people. Thirdly, people may fall from the scaffold and the results are usually serious or fatal.

Personal and other Protective Equipment

In terms of Section 8 of the OHS Act, the duty of the employer is to take steps to eliminate or mitigate (hierarchy of control measures) any hazard or potential hazard to the safety or health of employees before resorting to PPE.

Principal Contractor employees and his sub-contractor employees at the construction site, including visitors, shall use the following SANS or the relevant internationally recognized authority approved risk-based PPE at all times, as a minimum:

- Head protection (Hard hat).
- Steel toe capped safety boots.
- Eye protection.
- Long sleeved and long pants protective clothing.
- High visibility vests

Refer to General Safety Regulation 2 of the OHS Act However, if there are particular activities/areas/risk assessments that require a specific type of PPE, then that specific PPE requirement must be adhered to (e.g.: for dusty environments – eye goggles; for welding – welding helmet; etc.).

Principal Contractor must provide a detailed program on the issuing, maintenance and replacement of PPE for all his employees and subcontractors on site. Principal Contractor required to keep an updated register of all PPE issued to staff, including that of his sub-contractors.

The principal contractor is required continuously to identify the hazards in the workplace and deal with them. He must either remove them or, where impracticable take steps to protect workers and make it possible for them to work safely and without risk to health under the hazardous conditions.

Personal protective equipment should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of personal protective equipment is considered.

Where it is not possible to create an absolutely safe and healthy workplace the principal contractor is required to inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

Suspended Platforms

A contractor must appoint a competent person in writing who must ensure that all suspended platforms work operations are carried out under his or her supervision and that all suspended platform erectors, operators and inspectors are competent to carry out their work. Principal Contractor must adhere to the requirements by regulation17.

No contractor may use or permit the use of a suspended platform, unless –

(a) the design, stability and construction thereof comply with the safety standards incorporated for this purpose into these Regulations under section 44 of the Act;

(b) he or she is in possession of a certificate of system design issued by a professional engineer, certificated engineer or a professional technologist for the use of the suspended platform system; and

(a) he or she is, before the commencement of the work, in possession of an operational compliance plan developed by a competent person based on the certificate of system design contemplated in subparagraph (b) and applicable to the environment in which the system is being used, which operational compliance plan must include proof.

Explosive Actuated Fastening Devices

No contractor may use or permit any person to use an explosive actuated fastening device unless:

- The user is provided with and uses suitable protective equipment
- User is trained in the operation, maintenance and use of such a device
- Firing mechanism designed to ensure no accidental firing

Blasting Operations

No blasting shall be done by Principal Contractor is or subcontractors without the approval and permission of Lepelle Northern Water. The Contractor shall apply in writing to Lepelle Northern Water for permission to blast. All contact with the Inspector of Labour shall be done through the appropriate channels.

Principal Contractor is must furnish the following information to Lepelle Northern Water and OHS Agent before and blasting takes place:

- The blaster must hold a surface-blasting permit for blasting.
- The name of the blaster.
- The number of his blasting permit.
- The registration number of the explosive vehicle.
- The number of the continuous transport permit held.
- The blasting method statement in detail.

Hazard Identification Risk Assessment. The Occupational Health and Safety Act (Act no. 85 of 1993) and Mine Guidelines are to be strictly adhered to at all times. NB: Insofar as those Regulations shall apply in all cases, irrespective of the depth of the hole to be blasted. The Site Manager of Principal Contractor is to be advised each morning as to the blasting program for the day.

Electrical installations and machinery on construction sites

Principal Contractor must, in addition to compliance with the Electrical Installation Regulations, 2009, and the Electrical Machinery Regulations, 1988, promulgated by Government Notice No. R. 1593 of 12 August 1988, ensure that:

- Before construction commences and during the progress thereof, adequate steps are taken to ascertain the presence of and guard against danger to workers from any electrical cable or apparatus which is under, over or on the site;
- All parts of electrical installations and machinery are of adequate strength to withstand the working conditions on construction sites;

Electrical and mechanical lockout

An electrical and mechanical (as applicable) lockout procedure must be developed by the principal contractor and submitted to Lepelle Northern Water or Gatsheni Sizwe (Pty)Ltd for approval before construction commences. All contractors on site must adhere to this lockout procedure.

Fuel Storage

No petrol or fuel oil shall be stored in bulk on the surface in quantities in excess of two thousand liters in any tank above or below ground level except with the prior written approval of the Chief Inspector. No petrol shall be stored in drums in excess of a total of two hundred liters in any building or other place except with

The prior written approval of the Department of Labour Chief Inspector. No fuel oil shall at any time be stored underground unless it is stored in a suitable container or tank, which does not leak.

Every storage tank provided at any filling station on the surface for the purpose of containing petrol or fuel oil shall be suitably constructed to an acceptable standard that would ensure the safe storage thereof. Suitable means for firefighting shall be installed at a safe location for the extinguishing of fire in the event of an incident. Fire equipment supply shall be appropriate to the quantity being stored.
All storage facilities shall be bunded 110% of the quantity contained and bunded areas will be supplied with a drain facility to enable the bunded area to be drained in a receptacle for disposal in the event of a spill or accumulation of water.

Housekeeping and general safeguarding on construction sites

Principal Contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, promulgated by Government Notice No. R. 2281 of 16 October 1987, ensure that suitable housekeeping is continuously implemented on each construction site, including:

- The proper storage of materials and equipment;
- The removal of scrap, waste and debris at appropriate intervals;
- Ensuring that materials required for use, are not placed on the site so as to obstruct means of access to and egress from workplaces and passageways
- Ensuring that materials which are no longer required for use, do not accumulate on and are removed from the site at appropriate intervals;
- Ensuring that waste and debris are not disposed of from a high place with a chute, unless the chute complies with the requirements set out in regulation 14(6);
- Ensuring that construction sites in built-up areas adjacent to a public way are suitably and sufficiently fenced off and provided with controlled access points to prevent the entry of unauthorized persons;
- Ensuring that a catch platform or net is erected above an entrance or passageway or above a place where persons work or pass under, or fencing off the danger area if work is being

performed above such entrance, passageway, or place so as to ensure that all persons are kept safe in the case of danger or possibility of persons being struck by falling objects.

Stacking and storage on construction sites

Principal Contractor must, in addition to compliance with the provisions for the stacking of articles in the General Safety Regulations, 2014, regulation 28 ensure that:

A competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site;

- Adequate storage areas are provided;
- There are demarcated storage areas; and
- Storage areas are kept neat and under control.

Fire precautions on construction sites

The principal contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, ensure that:

- All appropriate measures are taken to avoid the risk of fire;
- Sufficient and suitable storage is provided for flammable liquids, solids and gases;
- Smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials;
- In confined spaces and other places in which flammable gases, vapor's or dust can cause danger –
- Only suitably protected electrical installations and equipment, including portable lights, are used;
- There are no flames or similar means of ignition; There are conspicuous notices prohibiting smoking;
- Oily rags, waste and other substances liable to ignite are without delay removed to a safe place; and
- Adequate ventilation is provided;
- Combustible materials do not accumulate on the construction site;
- Welding, flame cutting and other hot work are done only after appropriate precautions have been taken to reduce the risk of fire;

Excavations

Principal Contractor must ensure compliance regulation 13 amongst other must appoint competent person for supervision of excavation works. Principal Contractor must provide for Excavation and Back Filling Plan.

Principal Contractor who performs excavation work must take reasonable and sufficient steps in order to prevent, as far as is reasonably practicable, any person from being buried or trapped by a fall or dislodgement of material in an excavation. 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 appropriate signage shall be affixed to the barricade indicating the risk

associated (i.e. deep excavation, lifting operations etc.) and the responsible Supervisor and contact details shall be displayed.

The process of excavation and back filling must be carried out as a sequential process following one another as quickly as possible. Excavations must only remain open for a minimum period of time and during this time they must be clearly demarcated. If excavations place the public at risk these sites must be fenced. The residents directly affected by open trenches must be notified of the dangers. This will be done during the site-specific phase.

20 HEALTH AND SAFETY AWARNESS PROGRAME

The awareness program must be provided by Principal Contractor for community awareness, Schools, Clinic, local Vendors etc., must be in place to create an occupational health and safety culture within employees. The following are some of the methods that may be used:

- Toolbox talks;
- Posters;
- Videos;
- Competitions;
- Suggestion schemes;
- Participative employee activities such as “occupational health and safety circles

21 MINIMUM REQUIREMENTS OF THE SHE FILE.

As required by the Construction Regulations (2014), Principal Contractor and other Contractors will each keep an SHE File on site containing the following minimum documentation:

- Approval letter by Lepelle Northern Water on contents of Health and Safety File / SHE Plan;
- Notification of construction work or Construction Permit to the relevant Department of Labour (stamped on each page / no faxed copies);
- Scope of work to be performed;
- OH&S / SHE Policy and other Policies;
- Updated copy of the Occupational Health and Safety Act (Act no. 85 of 1993) and its Regulations.
- Updated copy of the Compensation for Occupational Injuries and Diseases Act (Act no. 130 of 1993) and it’s Regulations;
- Proof of registration and good standing with the Compensation Commissioner or another licensed Insurer;
- SHE plan agreed with Lepelle Northern Water including the underpinning risk assessment(s);

A list of contractors (sub-contractors) including copies of the agreements between the parties and the type of work being done by each contractor;

- Notice of New Projects;
- Designs and/or Drawings;
- Copies of Occupational Health and Safety Committee Meetings and Other Relevant Minutes;
- Copies of Written Designations and Appointments of Competencies;
- Management Structure (Inclusive of OH&S Responsibility & Meeting Structure);
- Induction Training and Site, SHE Rules;
- Occupational Health and Safety Training;
- Arrangements with Contractors and/or Mandatories;
- Description of Security Measures;
- Occupational Health and Safety Rules And Procedures;

The following registers:

- Accident and/or incident register;
- Occupational health and safety representative's inspection register;
- Construction vehicles and mobile plan inspections;
- Daily inspections of construction vehicles, plant and other equipment by the operator, driver and/or user;
- Daily inspections of excavations by competent person;
- Daily inspections of demolition work by competent person;
- Record of entry to confined space;
- Record of training;
- Record of toolbox talks;
- Designer's inspections and structures record;
- Inspection and maintenance of explosive powered tools;
- Inspection of electrical installations (including inspection of portable electrical tools, electrical equipment and other electrical appliances);
- Fall protection inspections;
- First-aid box content;
- Record of first-aid treatment;
- Fire equipment inspection and maintenance;
- Record of hazardous chemical substances kept and used on site;
- Ladder inspection;
- Machine safety inspections (including machine guards, lock-outs etcetera);
- Inspection registers and logbooks for lifting machines and –tackle (including daily inspections by drivers/operators);
- Inspection of temporary work

- Inspection of scaffolding;
- Inspection of excavation
- Inspection of demolition work
- Inspection of tunneling
- Inspection of stacking and storage;
- Inspections of structures;
- Inspection of use and temporary storage of flammable liquids on construction sites
- Inspection of water environments
- Inspection of housekeeping and general safeguarding on construction site
- Inspection of construction employees' facilities
- Inspection of suspended platforms
- Inspection of rope access work
- Inspection of material hoists
- Inspection of bulk mixing plant
- Inspection of explosive actuated fastening device
- Inspection of cranes and Load Test Certificates
- Inspection of construction vehicles and mobile plant Inspections of vessels under pressure;
- Inspection of electrical installations and machinery on construction sites; and
- Records of issuing of Personal Protective Equipment;
- Lepelle Northern Water Master Way Leaves
- Monthly reporting and recording of statistics;
- Keeping of any other record in terms of applicable legislation falling within the scope of SHE Legislation applicable to the project and the Principal Contractor/ Contractor's activities and organization.
- Emergency preparedness and response program;
- Investigation and reporting of incidents and/or accidents (internal to Client and Department of Labour / Compensation Commissioner
- All other applicable records. Principal Contractor duties are to ensure compliance with the Construction Regulation (2014), which are to:
- Provide a suitably documented health and safety plan based on the health and safety specification
- Keep a health and safety file on site, which must include all documentation required in terms of the Act and
- Regulations, and which are made available on request to an inspector, the client, the client's agent or a Contractor
- Ensure appointed contractor complies with the Act

- Perform duties of client with regard to contractors
- Appoint contractors in writing
- Ensure a contractor's health and safety plan is implemented and maintained
- Ensure that potential contractors submitting tenders have made sufficient provision for health and safety
- Ensure Principal Contractor is satisfied that contractor that he/she intends to appoint, is competent and has resources to perform work safely
- Prior to work commencing, every contractor needs to be registered and in good standing with the compensation fund or with a licensed compensation insurer – COID Act, 1993
- Audit contractor monthly
- Stop any contractor from executing work which is not in accordance with health and safety plan for the site or which poses a threat to health and safety of persons
- Where changes are made to the design and construction, make available sufficient health and safety information and resources
- After discussions and negotiations with Principal Contractor on the contents of the health and safety plan, it must be sent for final approval
- Ensure copies of all health and safety plans are available on request to an employee, an inspector, a contractor, the client or the client's agent
- Hand over the consolidated health and safety file to the client on completion of the construction work (include drawings, designs, materials used, etc.)
- Provide updated list and agreements/contracts of all contractors on-site to the client
- Ensure all employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3

- Principal Contractor must ensure cooperation between all appointed contractors.
- Principal Contractor allow or permit any employee or person to enter any site, unless they have undergone a health and safety induction training

Principal Contractor must ensure all visitors to a construction site have personal protective equipment The regulations require that the duties extend through to all levels of responsibility to sub - contractors. For this reason, it is advised that contractors require sub-contractors to be up front on their intent to further sub- contract any aspects of their work. Lepelle Northern

Water will conduct an inspection and evaluation of the principal contractor's SHE File on a monthly basis.

Principal Contractor is required to submit the SHE File after receiving letter of appointment from Lepelle Northern Water. Lepelle Northern Water will allocate a day to evaluate the file and to give feedback on the evaluation report of the file to the contractor.

The approval letter from Lepelle Northern Water must be kept in the SHE File and any letter issued concerning the evaluation of the file.

Annexure D:

Guidelines for the Implementation of Labour Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP)

Each party to the Contract shall purchase its own copy of "Guidelines for the Implementation of Labour Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP), Third Edition, June 2015."

D. REQUIREMENTS OF THE EXPANDED PUBLIC WORKS PROGRAMME (EPWP)

1. EXPANDED PUBLIC WORKS PROGRAMME (EPWP)

1.1 Labour-Intensive Construction (LIC), supervision and management for the Expanded Public Works Programme (EPWP)

The Expanded Public Works Programme (EPWP) is a multi-sectoral government initiative to create jobs. In the case of the infrastructure sector, existing government expenditure is realigned using labour-intensive technologies to create job opportunities. This involves the use of both labour and plant, where labour is preferred and plant is used appropriately.

All work undertaken in terms of the Expanded Public Works Programme (EPWP) shall be implemented using labour-intensive construction methods to the extent economically feasible, in accordance with the "Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP) Third Edition 2015".

The aforementioned guidelines can be downloaded from the EPWP website of the Department of Public Works (http://www.epwp.gov.za/).

Items scheduled for labour-intensive construction are marked with the letters "LI" in the schedule of quantities in the manner described in the Pricing Instructions.

Contractors shall note that they shall employ in labour-intensive works only those supervisory and management staff that have completed the required Skills Programme in terms of Appendix C of the aforementioned guidelines:

- Foremen / Supervisors at NQF level 4 "National Certificate: Supervision of Civil Engineering Construction Processes";

- Site Agent / Construction Manager at NQF level 5 "Manage Labour-Intensive Construction Processes" or equivalent Quality Council for Trades and Occupations (QCTO) qualifications at NQF level 5 or 7.

In addition to their normal supervisory and management functions, the aforementioned supervisory and management staff shall also be responsible for setting the workers' daily tasks in accordance with labour-intensive construction principles, and for ensuring that the EPWP job creation reporting data is accurately recorded on a daily basis and compiled and submitted to the Employer each month in

accordance with clause 3 of this section.

1.2 Labour laws applicable to the Expanded Public Works Programme (EPWP)

The work to be undertaken on this contract by unskilled or semi-skilled workers under the Expanded Public Works Programme (EPWP) shall be implemented in accordance with:

- the Code of Good Practice for Employment and Conditions of Work for Expanded Public Works Programmes (EPWP), issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice No. 129 of 18 February 2011 (Government Gazette No. 34032 of 18 February 2011); and
- Ministerial Determination 4: Expanded Public Works Programmes, issued in terms of the Basic Conditions of Employment Act of 1997 by the Minister of Labour in Government Notice No. R347 of 4 May 2012.

The aforementioned Government Notice No. R347 contains the standard terms and conditions for workers employed in elementary occupations on an Expanded Public Works Programme (EPWP). These terms and conditions do not apply to persons employed in the supervision and management of an Expanded Public Works Programme (EPWP).

The above documents can be downloaded from the EPWP website of the Department of Public Works (http://www.epwp.gov.za/).

1.3 Persons to be employed under the Expanded Public Works Programme (EPWP)

All local labour required for the execution of labour-intensive work shall be engaged strictly in accordance with prevailing legislation

The Contractor shall, through the Project Liaison Committee (PLC) and with the assistance of the Community Liaison Officer (CLO), inform the local community of the labour-intensive works proposed and the employment opportunities thereby presented.

The Contractor shall determine the minimum education level / skills required to undertake the works specified. In consultation with the PLC and the War Room convener for each relevant ward, selection of the local labour shall be made from households on the Operation Sukuma Sakhe (OSS) database profiled through the War Room for each ward. The list obtained from the OSS database must be accompanied by a letter from the War Room convener confirming that all the information provided was sourced from the War Room and that all listed incumbents reside within the relevant ward. The Contractor must maintain records of household profiles as part of the portfolio of evidence for selection. Selection shall be based on the minimum education level / skills required and the neediest households, as determined by the household profiling. Preference shall be given for at least one person from each household in the community to be employed before further persons are considered for selection.

The Contractor shall endeavour to ensure that the number of temporary jobs using local labour (unskilled or semi-skilled), recruited from the local community, who are South African Citizens or foreigners in possession of a work visa issued by the Department of Home Affairs (only one such foreigner may be employed on any project), shall include for a minimum allocation of:

- 55% women;
- 55% youth who are between the ages of 16 and 35; and

- 2% persons with disabilities.

All labour recruitment, employment and associated risks shall remain the sole responsibility of the contractor.

The contractor shall comply with the minimum supervisor to worker ratio stated below, required to ensure the effective supervision of the labour-intensive works for all LI activities undertaken on this project:

Minimum supervisor to worker ratio = 1: 20

1.4 Contract of employment with persons employed under the Expanded Public Works Programme (EPWP)

The Contractor shall enter into a formal contract of employment with each person employed under the Expanded Public Works Programme (EPWP), using the pro forma contract of employment attached at the end of this section: Particular Specifications.

The Contractor shall note that all such formal contracts of employment entered into with persons employed under the Expand Public Works Programme (EPWP) shall expire on 31 March each year, and the Contractor shall therefore be required to enter into new contracts with such persons as of 1 April each year.

1.5 Employment of targeted labour under the Expanded Public Works Programme (EPWP)

The Contractor shall be contractually obliged to:

(a) Brief EPWP workers on the conditions of employment;

(b) Enter into a formal contract of employment with each EPWP worker, which contract will form part of the Employment Agreement;

(c) Keep personnel files for all EPWP workers and make copies available to the Employer if and when requested; and

(d) Ensure that payments to EPWP workers are made in accordance with Government Notice No. R347.

The rate of pay for persons employed under the Expanded Public Works Programme (EPWP) shall be:

R _____208__ per task (for task-rated workers); *(Compiler to insert the rate of pay as agreed with the local community, based on negotiations carried out with the local community in the presence of the Employer during the design phase of the project prior to the invitation of tenders).*

During those periods when an EPWP worker is engaged in formal classroom training (other than in-service training), the rate of pay shall be equal to the minimum wage rate as set on an annual basis in the Ministerial Determination for the Expanded Public Works Programme.

Tasks set by the Contractor shall be such that:

(a) The average EPWP worker completes 5 tasks per week in 40 hours or less; and

(b) The weakest EPWP worker completes 5 tasks per week in 55 hours or less.

The Contractor shall revise the time taken to complete a task whenever it is established that the time taken

per week to complete the tasks set does not fall within the limits indicated in (a) and (b) above.

1.6 Training of persons employed under the Expanded Public Works Programme (EPWP)

The training of persons employed under the Expanded Public Works Programme (EPWP) is described in clause 4 below.

1.7 Contractor's obligations towards persons employed under the Expanded Public Works Programme (EPWP)

Over and above implementing in accordance with Government Notice Nos. 129 and R347 the EPWP work to be undertaken on this contract, it shall be the responsibility of the Contractor to carry out the following functions with respect to the EPWP workers:

(a) Ensure that all participants are covered by the Compensation for Occupational Injuries and Diseases Act, 1993, for as long as they are contracted to the Contractor, and pay in full to the Compensation Commissioner such amounts as are due in terms of the Act;

(b) Pay in full to the Unemployment Insurance Fund for all participants such UIF contribution amounts as are due in terms of the Unemployment Insurance Act, 2001, as amended, and the Unemployment Insurance Contributions Act, 2002, as amended, and provide proof of such UIF payments upon request;

(c) Ensure that all participants are paid their wages on time through the pre-agreed payment method as stipulated in the participant contract of employment;

(d) Implement health and safety procedures with respect to the participants, ensuring that the health and safety regulations are adhered to;

(e) Ensure that all participants receive induction on site safety prior to commencing with work on site;

(f) Provide all participants with the necessary protective clothing and equipment as required by law for the specific tasks in which the participants are involved, in addition to the branded overalls stipulated for EPWP workers;

(g) Provide safe on-site storage facilities for apparel and tools issued to the participants;

(h) Assist in the assessment of participants with regard to their competencies;

(i) Provide overall supervision and day-to-day management of participants; and

(j) Implement strict quality control to ensure that the work carried out by the participants is of the required standard, and, where necessary, to train and mentor the participants to assist them in achieving the standards required.

1.8 Apparel and tools for persons employed under the Expanded Public Works Programme (EPWP)

The Contractor shall provide Personal Protective Equipment (PPE) to all EPWP workers in accordance with the requirements arising from Part E: OHSA 1993 Health and Safety Specification and the Contractor's site specific health and safety plan and accompanying risk assessments.

Where indicated below, certain items of the PPE issued by the Contractor to the EPWP workers shall include branded EPWP markings in accordance with the attached branding requirements.

PPE shall comprise the following:

(a) Compulsory PPE issued to all EPWP workers for use during general work activities:

- Protective overalls (two sets), green in colour, with EPWP branding;
- Lime green reflective safety vest with EPWP branding;
- Protective footwear; and
- Protective gloves.

(b) PPE issued to EPWP workers for specific activities where required in terms of the Contractor's site specific health and safety plan and accompanying risk assessments, such as:

- Protective headwear, green in colour, with EPWP branding;
- Protective eyewear such as spectacles and goggles;
- Protective face shields;
- Protective earplugs and earmuffs;
- Respiratory masks;
- Disposable safety apparel;
- Kidney belts;
- Safety harnesses; and
- Any other protective equipment identified.

The Contractor shall replace any item of issued PPE that becomes unserviceable.

The Contractor shall not charge any fee to the EPWP workers for the prescribed PPE issued except under the following circumstances:

- Where the employee requests the issue of additional PPE in excess of what is prescribed;
- Where the employee has patently abused or neglected the issued PPE leading to early failure; or
- Where the employee has lost the issued PPE.

The Contractor shall instruct and train the EPWP workers in the use of all PPE issued, and shall ensure that they use the prescribed equipment.

EPWP workers shall not have the right to refuse to use or wear the equipment prescribed by the Contractor. If it is not possible for an EPWP worker, through health or any other reason, to use or wear the prescribed PPE issued, such employee shall not be allowed to continue working under the hazardous conditions for which the equipment was prescribed. Under such circumstances an alternative solution shall be found, and this may include relocating or discharging the employee.

The Contractor shall provide each EPWP worker with hand tools of adequate quality and of the type required to carry out the assigned tasks safely and efficiently.

The Contractor shall instruct and train the EPWP workers in the safe and efficient use of all hand tools issued.

The Contractor shall maintain the issued tools in a serviceable and safe working condition.

The EPWP workers shall be responsible for the safe on-site storage of all PPE and tools issued to them, using the storage facilities provided on site by the Contractor.

No separate payment shall be made for providing the EPWP workers with PPE, or for providing relevant items of PPE in the specified colours with branded EPWP markings. Furthermore, no separate payment shall be made for providing the EPWP workers with hand tools or for providing them with safe storage facilities on site for PPE and tools. The Contractor shall therefore make provision for all costs related to providing the PPE, tools and safe storage facilities in the tendered rates and prices for the various items of work scheduled throughout the schedule of quantities.

1.9 EPWP contract signboard

The Contractor will be required to erect a contract signboard displaying the EPWP logo, indicating that this project is part of the Expanded Public Works Programme (EPWP). All costs related to the provision, erection and subsequent removal of the contract signboard shall be refunded to the Contractor through the pay item provided in section 1300 of the schedule of quantities for this purpose.

1.10 Payment matters relating to the EPWP work

1.10.1 General

No separate pay items shall be provided in terms of the schedule of quantities for the construction work activities carried out by EPWP participants. Payment for such work activities shall be made only indirectly, in terms of the pay items scheduled for the work activities in which such persons are engaged.

Furthermore, no direct payment will be made to cover the Contractor's costs associated with implementing the on-site work programme for the EPWP participants, for planning, organising, directing, controlling and administrating their day to day activities, including the setting of daily tasks, record keeping and any on-site liaison, training and mentoring required, and for the associated job creation reporting, and such costs shall therefore be built into the rates tendered for the various items of work scheduled throughout the schedule of quantities.

1.10.2 Payment for labour-intensive components of the work

Payment will be made for items which are designated for labour-intensive construction in the schedule of quantities only in those instances where such items are constructed using labour-intensive methods.

Any unauthorised use of plant to carry out work which was scheduled to be carried out using labour-intensive methods will not be condoned and any Works so constructed will not be certified for

payment. Any non-payment for such Works shall not relieve the Contractor in any way from his obligations either in contract or in delict.

During the course of construction, as a result of unforeseen site conditions or operating conditions encountered, it may happen that an item designated for labour-intensive construction can no longer be carried out in a safe and economically feasible manner, either in full or in part, using labour-intensive methods. In such instances the Employer's Agent shall, where necessary, order a variation in terms of clause 6.3 of the of the General Conditions of Contract 2015 with respect to that portion of the item quantity that cannot be carried out using labour-intensive methods.

1.11 Penalty applicable to any shortfall in the local labour content achieved

The amount spent on wages for local labour (excluding VAT) for this project, as certified by the Employer's Agent, shall equal or exceed the specified minimum percentage of the contract amount which is the Contract Price (adjusted to exclude penalties and value added tax).

The Contractor is obliged to commit to or exceed the specified minimum percentage of local labour content stated by the Employer.

In the event that the Contractor fails to substantiate that any failure to achieve the minimum required local labour content for this project is due to quantitative underruns, the elimination of items contracted to local labour, or any other reason beyond the Contractor's control which may be acceptable to the Employer, the Contractor shall be liable for a financial penalty as prescribed in clause SCC 4.1.1 of the Special Conditions of Contract. The financial penalty shall be calculated as follows:

$$P = 0{,}05 \times [(E - E_o)/100] \times C_A$$

where:

- E is the specified minimum percentage for local labour content
- E_o is the local labour content percentage which the Employer's Agent certifies as being achieved upon completion of the contract
- C_A is the contract amount which is the Contract Price (adjusted to exclude penalties and value added tax)
- P is the monetary value of penalty payable

The penalty shall not apply to shortfalls in the allocations to the individual target groups (i.e., Women/Youth/Disabled as per clause 1.3 above), only to shortfalls in the total local labour content achieved.

The evaluation of the Contractor's achievement of the local labour content percentage shall be undertaken monthly by the Employer's Agent, based on the accumulative achievements in comparison to the programmed utilisation of local labour. Failure by the Contractor to achieve the interim target shall result in the Contractor being liable for a financial penalty as prescribed in this clause.

2. NATIONAL YOUTH SERVICE (NYS)

The Employer requires the implementation of National Youth Service (NYS) programmes on this project.

2.1 The National Youth Service (NYS) programme

The National Youth Service (NYS) programme aims to train young people and provide them with

practical work experience. The young people will be allocated tasks by the Contractor that will assist the Contractor with the execution of the contract.

2.2 Applicable labour laws

The work to be undertaken on this contract by unskilled or semi-skilled workers under the National Youth Service (NYS) programme shall be implemented in accordance with the same Code of Good Practice and Ministerial Determination as described in clause 1.2 above for work to be undertaken under the Expanded Public Works Programme (EPWP).

2.3 Employer's Project Manager

The Contractor shall be required to liaise closely with the Employer's Project Manager who is responsible for the recruitment and training of the NYS workers.

2.4 Persons to be employed under the NYS programme

For purposes of this contract, the Contractor shall be required to employ 10 youths aged between 18 and 35 for a period of 6 months each under the NYS programme.

The Employer's Project Manager shall provide the Contractor with a list of the 10 youths to be employed and the training that each of these 10 youths have received to date, and only these 10 youths shall be employed by the Contractor under the NYS programme.

The Contractor shall effect the employment in two separate 6-month cycles, with the employment of 5 youths for the first 6-month cycle only, followed by the employment of 5 different youths for the second 6-month cycle only.

2.5 Contract of employment with persons employed under the NYS programme

The Contractor shall enter into a formal contract of employment with each youth employed under the NYS programme, using the pro forma contract of employment attached at the end of this section: Particular Specifications.

2.6 Employment of NYS workers

The Contractor will be contractually obliged to:

(a) Employ all participants on the list provided by the Employer's project manager;

(b) Brief NYS workers on the conditions of employment;

(c) Enter into a formal contract of employment with each NYS worker, which contract will form part of the Employment Agreement;

(d) Keep personnel files for all NYS workers and make copies available to the Employer's Project Manager if and when requested; and

(e) Ensure that payments to NYS workers are made in accordance with Government Notice No. R347.

During the period when they are engaged in formal classroom training (other than in-service training), the youths employed under the NYS programme shall be paid the minimum wage rate as set by the Department of Labour on an annual basis in the Ministerial Determination for the Expanded Public Works Programme, and should there be an upward adjustment in the rate the Contractor will be compensated accordingly. During the period when they are engaged in productive work activities required for elements of the Works, they shall be paid in terms of the wage rates stated in clause 1.5 above.

2.7 Training of youth workers

All NYS workers will be placed on an extensive training programme that will include:

(a) An induction into NYS and EPWP;

(b) Life skills training;

(c) Technical training focusing on a vocational skill to be used on the project (e.g. painting or carpentry); and

(d) Entrepreneurship and business skills training.

All training will be arranged by the Employer's Project Manager, with whom the Contractor will be required to work closely to schedule the training sessions so that the timing of the training is aligned with the Contractor's work schedule and his demand for workers with specific skills. The Employer's Project Manager will make full details of the training programme available to the Contractor.

The Contractor shall maintain comprehensive records of the training received by each NYS worker throughout the course of the contract, and shall submit to the Employer at each monthly site meeting a summary of the accumulated training received by each NYS worker.

The training of the NYS workers shall take place using the same training facility provided for the training of all other EPWP participants (refer to clause 4 below).

2.8 Contractor's obligations towards persons employed under the NYS programme

Over and above implementing in accordance with Government Notice Nos. 129 and R347 the NYS programme work to be undertaken on this contract, it shall be the responsibility of the Contractor to carry out the following functions with respect to the NYS programme workers:

(a) Ensure that all participants are covered by the Compensation for Occupational Injuries and Diseases Act (COIDA), 1993, for as long as they are contracted to the Contractor, and pay in full to the Compensation Commissioner such amounts as are due in terms of the Act;

(b) Pay in full to the Unemployment Insurance Fund for all participants such UIF contribution amounts as are due in terms of the Unemployment Insurance Act, 2001, as amended, and the Unemployment Insurance Contributions Act, 2002, as amended, and provide proof of such UIF payments upon request;

(c) Ensure that all participants are paid their wages on time through the pre-agreed payment method as stipulated in the participant contract;

(d) Implement health and safety procedures with respect to the participants, ensuring that the health and safety regulations are adhered to;

(e) Ensure that all participants receive induction on site safety prior to commencing with work on site;

(f) Provide all participants with the necessary protective clothing and equipment as required by law for the specific trades in which the participants are involved, in addition to the branded overalls stipulated for NYS workers;

(g) Provide safe on-site storage facilities for apparel and tools issued to the participants;

(h) Assist in the assessment of participants with regard to their competencies in their respective trades;

(i) Provide overall supervision and day-to-day management of participants; and

(j) Implement strict quality control to ensure that the work carried out by the participants is of the required standard, and, where necessary, to train and mentor the participants to assist them in achieving the standards required.

2.9 Apparel and tools for NYS workers

The content of clause 1.8 above with regard to apparel and tools for EPWP workers shall apply equally to NYS workers, except that:

(a) Apparel and tools to be issued to NYS workers shall be determined in conjunction with the Employer's Project Manager;

(b) The required branding of apparel to be issued to NYS workers shall be determined in conjunction with the Employer's project manager, and shall also include the NYS logo;

(c) Additional PPE may be required depending on the NYS worker's specific trade;

(d) Certain specified apparel and tools issued to the NYS workers will become the property of the NYS workers after the completion of their cycle of work on the project, in order to enable them to continue to practise their trade on future projects. Such apparel and tools shall be specified and authorised by the Employer's Agent; and

(e) Separate payment items have been provided in the schedule of quantities to cover all costs associated with the provision of the necessary tools and apparel, including safety apparel, for the NYS workers, and the facilities for the safe storage thereof, all as authorised by the Employer's Agent.

2.10 EPWP-NYS contract signboard

Where work takes place under the National Youth Service (NYS) programme, the NYS logo shall also be displayed on the EPWP contract signboard referred to in clause 1.9 above, indicating that this project is part of both the Expanded Public Works Programme (EPWP) and the NYS programme. All costs related to the provision, erection and subsequent removal of the contract signboard shall be refunded to the Contractor through the pay item provided in section 1300 of the Schedule of Quantities for this purpose.

2.11 Payment matters relating to the NYS work

No direct payment will be made to cover the Contractor's costs associated with implementing the on-site work programme for the NYS workers, for planning, organising, directing, controlling and administrating their day to day activities, including the setting of daily tasks, record keeping and any on-site liaison, training and mentoring required, and for the associated job creation reporting, and such

costs shall therefore be built into the rates tendered for the various items of work scheduled throughout the schedule of quantities.

3. JOB CREATION REPORTING FOR EPWP

In order to assist the Employer in complying with the goal of creating EPWP job opportunities, the Contractor must provide the information specified in clause 3.1 below for reporting purposes.

In addition, the Contractor's payment certificates shall be accompanied by the information specified in clause 3.2 below.

3.1 Type of project data required per project

Every EPWP project shall collect and keep specific project data for the purpose of EPWP progress reporting on a monthly basis, using the EPWP Data Collection Tool template (this will be made available to the Contractor in Microsoft Excel format - refer to the pro forma spreadsheets at the end of this section of the Particular Specifications).

The data that is required to be kept, maintained and reported on a monthly basis for each project includes:

3.1.1 Participant (local labour) data

A participant list of the local labour employed must be maintained for every EPWP project. The data required in this participant list is indicated below. This data shall be recorded, checked and signed off by the Contractor, and shall be submitted to the Employer at each monthly site meeting. The participant list shall contain the following data and shall be kept and maintained on site for audit purposes:

(a) Participant identity – name, surname, initials, date of birth and identity number (or other unique identifier) plus certified copy of ID book.
(b) Participant profiles – nationality, gender, age, and education level and disability status.
(c) Work data for participants – daily wage to be received, number of calendar days training attended and number of calendar days worked.
(d) Records of training – as required in terms of the EPWP Data Collection Tool template.

In addition, the signed contracts of employment between the Contractor and each EPWP participant shall be shall be kept and maintained on site for audit purposes.

3.1.2 Project work data

The project work data generally seeks to confirm the number of people at work daily on the project. This data shall be recorded, checked and signed off by the Contractor, and shall be submitted to the Employer at each monthly site meeting. The data shall be maintained on site by the Contractor, in order that it can be provided by the Employer to the National Department of Public Works upon request when the latter is undertaking sample auditing. The data shall include:

(a) Daily attendance register – register for each day showing all the workers that were registered as being at work on that day. Attendance registers shall be completed on site on a daily basis and signed off by the Contractor on a weekly basis.

(b) Summary of monthly attendance.

3.1.3 Project payment data

The project payment data generally seeks to confirm what was paid, for how much work and to whom.

This data shall be recorded, checked and signed off by the Contractor, and shall be submitted to the Employer at each monthly site meeting.

It is required that the Contractor adopt one of the following methods as standard procedure for recording and maintaining this information:

(a) Payment register – this is a list of the workers showing the wages paid to each worker, and signed off by each worker as proof of receipt and acceptance of payment. Information on this register must include the name of the worker, either an identity number or other unique identifier, the number of calendar days that the pay period covers, the wage rate and the total wages paid; or

(b) Bank records showing the transfers to each worker account, signed off by the Contractor as proof of payment – these bank records must specifically show the name of the worker, either an identity number or other unique identifier, the period which the pay covers and the total wages paid.

The project payment data, as recorded and maintained by the Contractor in terms of either (a) or (b) above, must be available and applicable for the entire period for which the Employer claims an incentive reward for person-days of work created in terms of the project.

3.1.4 Employment output data

The Contractor shall submit to the Employer at each monthly site meeting a progress report detailing production output compared to the programme of works, together with the data necessary to enable the Employer to calculate the following employment output data in accordance with the EPWP Data Collection Tool template:

(a) Number of work opportunities created (where one work opportunity = paid work created for one individual on an EPWP project, for any period of time).

(b) Number of person-days of work created (where one person-day = one day of work carried out by one individual). The total number of person-days of work created on a particular EPWP project shall be obtained by summing the total number of person-days worked by each individual employed during the course of that EPWP project.

(c) Number of Full Time Equivalents (FTE) created (= total number of person-days of work created on the EPWP project divided by 230 working days). In terms of EPWP policy, one year of work created for one individual is assumed to comprise a total of 230 days of paid work carried out by that individual.

(d) Average duration of work opportunities created (= total number of person-days of work created on the EPWP project divided by the number of work opportunities created on that EPWP project).

(e) Average daily wage rates paid (= accumulated total of the wages paid to all individuals employed on an EPWP project divided by the total number of person-days of work created on that EPWP project).

(f) Training information.

3.2 Project data to be submitted with the Contractor's payment certificates

The Contractor's payment certificates shall be accompanied by labour returns providing the labour information for the corresponding period in a format specified by the Employer.

Should the Contractor choose to delay submitting payment certificates, the labour returns shall nevertheless still be submitted as per the frequency and timeframes stipulated by the Employer. The Contractor's payment certificates shall not be paid by the Employer until all pending labour information has been submitted.

The following information shall be maintained on site and submitted with each payment certificate in the format specified by the Employer:

a) Copies of the signed contracts between the Contractor and any new EPWP participants (the Contractor shall note that all such formal contracts of employment entered into with persons employed under the Expanded Public Works Programme (EPWP) shall expire on 31 March each year, and the Contractor shall therefore be required to enter into new contracts with such persons as of 01 April each year, and shall be required to submit copies of all such new contracts with the first payment certificate thereafter);

b) Certified ID copies of all local labour employed as EPWP participants;

c) Attendance registers for the EPWP participants;

d) Proof of payment of EPWP participants; and

e) Information as required in terms of the EPWP Data Collection Tool template.

4. PROVISION OF STRUCTURED TRAINING

4.1 Scope of structured training

In order to avoid duplication of training programmes and training facilities, all structured training, shall be implemented, measured and paid for in accordance with the requirements of this section: Requirements of the Expanded Public Works Programme (EPWP).

The Employer's objectives include the training of local labour and Targeted Enterprises within a structured programme, in order to equip them with skills that will assist them in gaining future employment, and to facilitate targeted EPWP participants in gaining competencies and unit standard credits towards future full learnership qualifications.

Such training shall contain both theoretical and practical components and shall be conducted in accordance with the various laws and regulations contained in the South African Qualifications Authority (SAQA) statutes.

The following aspects of the structured training to be provided are noted:

The Employer has no service agreement or memorandum of understanding with any Education and Training Quality Assurance (ETQA) body, and therefore does not function as the employer as defined under any three-party learnership agreement between the learner, the training provider and the employer.

The structured training programmes implemented on this contract, although comprising several unit standards, are unlikely to total to sufficient credits for a full learnership qualification. Nevertheless, the competencies and credits achieved should contribute to a full learnership through the later acquisition

by the learner of the remaining unit standards required for the full learnership.

The Contractor shall be required to provide a training facility on the Site, or in close proximity thereto, and to provide over the duration of the contract the following structured training for EPWP participants:

(a) Generic skills training;
(b) Entrepreneurial skills training;
(c) Construction skills training; and
(d) In-service training.

Generic skills training and in-service training shall be provided to all EPWP participants.

Entrepreneurial and construction skills training shall be provided to targeted EPWP participants only.

Entrepreneurial skills training comprises both management skills training and business development skills training.

Construction skills training comprises specific on-task skills training.

4.2 Training provider and trainers

The Contractor shall be required to procure the services of a training provider accredited by the Construction Education and Training Authority (CETA).

The training provider shall have in its employ trainers who are registered as assessors with the Construction Education and Training Authority (CETA), and who shall deliver the training.

Proof of the accreditation of the service provider and the registration of the trainers by the CETA shall be submitted to the Employer's Agent. Such accreditation and registration shall be current and valid, and the proof submitted shall include the NQF levels and unit standards for which each trainer is accredited.

4.3 Skills analysis and selection of targeted EPWP participants

Studying for any learnership requires minimum literacy and numeracy competencies as defined by SAQA. The actual literacy and numeracy levels of the persons employed on the Site shall provide a basis to guide the Contractor and the training provider on how to conduct the selection process.

The Contractor shall therefore conduct a skills analysis of the local labour and Targeted Enterprises employed, in order to determine the formal education qualifications of each employee.

The Contractor, in conjunction with the training provider, shall then identify those persons that display the potential to benefit from such structured entrepreneurial and construction skills training as may be provided for in the contract, and shall make recommendations in this regard to the Employer's Agent.

The final candidates selected for such training shall be decided between the Contractor and the Employer's Agent (or by the Project Management Team (PMT) in the case of training for Targeted Enterprises in terms of Part G: Small Contractor Development, where applicable).

4.4 Structured training programmes

The Contractor, supported by the training provider, shall plan then implement structured training programmes for generic, entrepreneurial and construction skills training.

Training courses shall commence within four months of the Contractor taking possession of the Site,

and shall be completed before the Due Completion Date. (Note that training courses cannot commence until the Contractor has fully established his facilities on site, including the required training facilities, and until the labourers that will be the recipients of the intended training have been recruited. The recruitment of labour, in turn, will to a large extent commence only after the initial subcontractors have been procured. A reasonable amount of time must therefore be allowed before the training process can commence).

All training shall take place within normal working hours, or as otherwise agreed with the learners.

The training provider shall design, compile and deliver the structured training programmes, based on the information obtained from the skills analysis.

The structured training programmes designed by the training provider for the generic skills training shall comprise relevant general courses such as basic hygiene and HIV/AIDS awareness, first aid, road safety, managing personal finance, and other courses that would be useful to workers in the road construction industry or as life skills generally.

The structured training programmes designed by the training provider for the entrepreneurial skills training shall comprise unit standards that contribute towards one or more of the following full learnership qualifications, as appropriate taking into consideration the skills analysis information for the selected candidates (details of the learnership qualifications and the applicable unit standards may be found on the website www.saqa.org.za):

ENTREPRENEURIAL SKILLS TRAINING

Qualification title	SAQA qualification ID	NQF level	Minimum credits	Purpose of qualification
National Certificate: Supervision of Construction Processes	49053	Level 4	176	Learners found competent against this qualification will be able to execute the supervision of construction processes, with specialisation in a specific context

The structured training programmes designed by the training provider for the construction skills training shall comprise unit standards that contribute towards one or more of the following full learnership qualifications, as appropriate taking into consideration the skills analysis information for the selected candidates (details of the learnership qualifications and the applicable unit standards may be found on the website **www.saqa.org.za**):

CONSTRUCTION SKILLS TRAINING

Qualification title	SAQA qualification ID	NQF level	Minimum credits	Purpose of qualification
National Certificate: Supervision of Construction Processes	49053	Level 4	176	Learners found competent against this qualification will be able to execute the supervision of construction processes, with specialisation in a specific context
National Certificate: Construction: Roadworks	24173	Level 3	155	This qualification is for persons who work or intend to work within a construction context on a site, and who seek recognition for essential skills in construction operations in roadworks.
National Certificate: Construction: Roadworks	24133	Level 2	120	This qualification is for persons who work or intend to work within a construction context on a site, and who seek recognition for essential skills in construction operations in roadworks.
National Certificate: Occupational Health, Safety and Environment	74269	Level 2	120	This qualification is to equip learners working in any type of workplace with a broad understanding and knowledge of Occupational Health, Safety and Environmental (HSE) concepts and practices with sufficient detail to enable them to function in a safe and healthy way and to deal with health and safety problems and issues.

The Contractor's proposed training programmes shall be subject to the approval of the Employer's Agent, and the Contractor shall, if so instructed by the Employer's Agent, alter or amend the programmes and the course content to meet any additional needs identified.

The Contractor shall be responsible for everything necessary for the delivery of the training programmes, including:

(a) The provision of the trainers;
(b) The provision of a suitable secure venue complete with adequate furniture, lighting, air conditioning, power and ablution facilities;
(c) The provision of all necessary stationery, consumables and study materials;
(d) The transportation of the learners to and from the training facility;

(e) the payment of wages to all learners during the classroom training at a rate equal to the minimum wage rate as set on an annual basis in the Ministerial Determination for the Expanded Public Works Programme;

(f) The provision of any relevant Personal Protective Equipment (PPE) required for the training; and

(g) Additional supervision of the learners during the practical learning stage of the training carried out by constructing relevant elements of the Works (wages for the learners during this stage of the training will be paid through the rates tendered for the relevant scheduled work items for those elements).

At the successful completion of each course, the Contractor's training provider shall, as proof of attendance and completion, issue each learner with a certificate indicating the course content.

The training provider shall also ensure that each unit standard contributing towards a full learnership qualification and successfully completed by the learner is entered onto the national database.

The Contractor shall keep comprehensive records of the training given to each learner and the certificates issued, and shall provide copies of such records to the Employer's Agent when required.

The Contractor shall also complete and submit to the Employer's Agent each month, in a format acceptable to the Employer (using the EPWP Data Collection Tool template), a return detailing the training provided, both for the month and cumulatively for the contract.

4.5 In-service training

The Contractor shall, from the commencement of the contract, implement an in-service training programme in which the various skills required for the execution and completion of the Works are imparted to the EPWP participants engaged thereon.

Throughout the duration of the contract, the EPWP participants shall be trained progressively through the various stages of each particular type of work in which they are engaged, and their work shall be supervised and monitored and their methods corrected where necessary.

The in-service training programme shall be submitted with the initial Works programme. The Contractor shall record the progress in relation to this programme on a monthly basis, and this progress report shall be incorporated in the monthly site meeting minutes and the payment certificate.

The Contractor shall provide sufficient skilled and competent trainers to train all EPWP participants engaged on the contract in the various skills required to enable them to carry out the required construction activities.

The in-service training of EPWP participants shall take place before commencement of the relevant construction activity, and the Contractor shall take into account in his programme the lead time required for such training. All in-service training shall be deemed to be an element of the relevant construction activity.

All formal in-service training shall be documented in terms of the EPWP Data Collection Tool template, and shall be accompanied by an attendance register of the EPWP participants on the applicable days.

All EPWP participants shall be remunerated at their agreed wage rate in respect of the time spent undergoing in-service training. The cost of the Contractor's in-service training obligations shall be deemed to be covered by the sums and rates tendered for items B13.01 (a), (b) and (c) in the schedule of quantities.

On termination of their employment, the Contractor shall provide each EPWP participant engaged on the contract with a certificate of service on which the following information shall be recorded:

- The name of the Contractor;
- The name of the project / contract;
- The name of the employee;
- The nature of the work satisfactorily executed by the EPWP participant and the time spent thereon;
- The nature and extent of training provided to the EPWP participant; and
- The dates of service.

4.6 Training venue facility

The training venue facility to be provided by the Contractor shall be constructed, furnished and fully serviced for the duration of the contract in accordance with section 1400 of the COLTO standard specifications.

In order to minimise the cost of transporting the learners for training, the facility shall be located in secure premises on the Site, or in close proximity thereto.

This facility shall be used to deliver all training.

The facility shall accommodate a class of up to 25 learners and shall comprise the following:

Compiler to adjust the specified quantities below, as necessary, if training for significantly smaller or larger numbers of learners than 25 is required.

(a)	Lecture room (interior area)	=	48 m^2
(b)	Ablutions (male)	=	6 m^2
(c)	Ablutions (female)	=	6 m^2
(d)	Chairs for learners (individual chairs, with backs)	=	25 off
(e)	Desk area for 25 learners (500 mm width)	=	12,5 m^2
(f)	Chairs for trainers and management (individual chairs, with backs)	=	5 off
(g)	Table area for trainers and management	=	3 m^2
(h)	220/250 volt power points	=	6 off
(i)	Double 80 watt fluorescent light fittings complete with ballast and tubes	=	6 off
(j)	Single incandescent light fittings complete with 100 watt globes	=	4 off
(k)	Wash hand basins complete with taps and drains	=	4 off
(l)	Fire extinguishers, 9,0 kg, all purpose dry powder type, complete, mounted on wall with brackets	=	2 off
(m)	Air conditioning units with 2,2 kW minimum capacity, mounted and with own power connection	=	4 off
(n)	Voltage stabilizers	=	2 off
(o)	Floodlights complete with poles and 500 Watt minimum globes and controlled by photocells	=	2 off
(p)	White boards (3 m x 1,5 m)	=	1 off
(q)	Venetian blinds	=	12 m^2

4.7 Construction skills training

The focus of training provided on the contract should be to support the development of the Targeted Enterprise. Construction skills training will be approved by the PMT only when appropriate.

The Targeted Enterprise, their workforce and hired labour that show initiative will be entitled to receive structured training that will improve on-task skills necessary for the execution and successful

completion of the works. The Contractor, in conjunction with the Employer's Agent, shall monitor the progress of the hired labour and each Targeted Enterprise closely and shall identify those who, in their collective opinion, will benefit from structured construction skills training as may be provided for in the contract, and where required by the Employer's Agent shall make recommendations in this regard. The final list of candidates shall be decided between the Contractor and the Employer's Agent, and those selected shall receive formal construction skills training in a programmed and progressive manner throughout the duration of the contract.

The training programme shall offer complete courses that could comprise some or all of the following modules:

(i) Use and maintenance of hand tools;
(ii) Operation of equipment;
(iii) Manufacture and installation of minor precast concrete units;
(iv) Erect, dismantle and maintain formwork;
(v) Basic concrete skills;
(vi) Excavation, backfill and compaction;
(vii) Bricklaying;
(viii) Erosion protection using stone pitching, gabions or renos.

The Contractor shall be responsible for the provision of everything necessary for the delivery of the various training workshops and modules including:

(i) Provision of a suitable fully serviced training venue facility;
(ii) Procurement of suitable accredited trainers;
(iii) Provision, in conjunction with the accredited trainers, of all the necessary training materials, including stationery and study materials; and
(iv) Transportation of the learners to and from the training venue facility (it is therefore in the Contractor's interest that the training venue facility be provided on the site in order to reduce these transportation costs).

In order to avoid duplication of training programmes and training facilities, all structured training, including the training described in this section: Small Contractor Development, shall be measured and paid for in terms of the pay items provided for training in Requirements of the Expanded Public Works Programme (EPWP).

5. COMMUNITY LIAISON

(a) Project Liaison Committee

The process of implementing infrastructure projects will be undertaken by means of structured engagement between those responsible for the delivery of the project and the community.

A Project Liaison Committee (PLC) is a vital means of communication between the parties involved with the project. A PLC may be formed if the project is such that a specific community can be identified.

The PLC comprises representatives of the employer, the engineer and formal structures within the community. The contractor shall make use of these communication channels, and shall appoint from amongst his site personnel a responsible person to participate in the affairs of the PLC, and this representative shall also attend the monthly PLC meetings when so requested.

The PLC shall meet at least once every month until such time as it is of the opinion that it could fulfil its tasks by meeting less frequently.

The PLC deals with local labour on the project, and is tasked with:

- Assisting with community liaison and the resolution of community disputes;

- Devising fair and transparent procedures that will assist the contractor in the engagement of labour;
- Advising on and monitoring labour issues; and
- Assisting in the resolution of labour disputes.

All labour recruitment, employment and associated risks shall remain the sole responsibility of the contractor.

5.1 Community Liaison Officer (CLO)

The contractor, after consultation with the Project Liaison Committee (PLC), shall appoint a ccompetent local person as a Community Liaison Officer (CLO). The contractor shall appoint the CLO as part of his site personnel, and shall direct all his liaison efforts with the local community through the appointed CLO.

The period of employment and the remuneration of the CLO shall be determined jointly by the contractor, the engineer and the employer.

The CLO shall:

(i) Represent the community and assist the contractor, the engineer and the employer with communication between them and the community;

(ii) work an 8-hour day with a total of 40 hours worked per week, and shall be present on site each day except when performing off-site community liaison activities;

(iii) Communicate daily with the contractor on labour related issues such as numbers and skill;

(iv) Assist in the identification and screening of local labourers from the community in accordance with the contractor's requirements;

(v) Inform local labour of their conditions of employment, including their period of employment;

(vi) Attend disciplinary proceedings involving local labour, and ensure that hearings are fair and reasonable;

(vii) Attend all meetings at which the community and/or local labour are present or are required to be represented;

(viii) Attend monthly site meetings to report on community and local labour matters;

(ix) Keep a daily written record of interviews and community liaison;

(x) Submit monthly returns regarding community liaison; and

(xi) Carry out all such other duties as agreed upon between all parties concerned.

A new pay item is included in SECTION 1200A of the schedule of quantities relating to the payment of the CLO on a provisional sum basis. Payment under this item shall be made only for the period for which the duties of the CLO are required, and not necessarily for the full duration of the contract.

6. COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT, 1993

All labour employed on the site shall be covered by the Compensation for Occupational Injuries and Diseases Act (COIDA), 1993, as amended. The Contractor shall pay in full, including the payment of the necessary levies, such amounts as are due in terms of the Act. These amounts shall not be included in the wage rates and shall be payments allowed for by the contractor in addition to the wages paid to labour. The manner in which compensation in terms of this Act shall be handled shall be resolved by the Contractor at the commencement of the contract.

7. Labour

A Project Liaison Committee has been established and is a vital means of communication between all parties involved with the project. The composition of the PLC comprises representatives of the Employer, the Employer's Agent and formal structures within the community.

The Contractor shall make use of these communication channels, and shall appoint from amongst his site personnel a responsible person to participate in the affairs of the PLC, and this representative will be also required to attend the monthly PLC meetings.

It is mandatory that the Contractor shall interact with the community via proactive project liaison and project participation by its leaders and constituted organisations and forums, as well as through the employment of its people, and these activities shall constitute essential facets of the project.

Local labour is to be used and the employment of such labour is to be done in conjunction with the PLC. The PLC has formed a Labour Committee who shall assist the Contractor with the recruitment of local labourers to ensure an equal distribution of people employed between the various Amakhosi in the area.

7.1 Labour-intensive construction methods

Labour-intensive construction shall mean the economically efficient employment of as great a portion of local labour as is technically feasible to produce a standard of construction as demanded by the specifications with completion by the Due Completion Date, where local labour is the primary resource, supported by plant for activities that cannot be carried out feasibly by labour only.

Labour-intensive construction activities are to be planned as task-based work as a general rule. A task means a fixed quantity of work, to be performed to a clearly defined quality. Task-based work means work in which a worker is paid a fixed rate for performing a task, which is clearly defined in terms of quantity and quality. Typically a particular task can be completed within a working day.

Appropriate portions of the Works included in the Contract shall be carried out using labour-intensive construction methods.

Except where the use of plant is essential in order, in the opinion of the Employer's Agent, to meet the specified requirements by the Due Completion Date, or where the use of plant is essential as a result of occupational health and safety considerations, the Contractor shall use only hand tools and equipment in the construction of those portions of the Works that are required in terms of these Project Specifications to be constructed using labour-intensive construction methods.

Such portions of the Works shall be constructed utilizing only the local labour of the Contractor and/or the local labour of subcontractors, supplemented by the Contractor's key personnel to the extent necessary and unavoidable, unless otherwise instructed by the Employer's Agent and in accordance with the further provisions of the relevant sections of Part B of the Project Specifications.

Subject to considerations of occupational health and safety, and subject to the nature of the in situ

materials being such that they can be excavated efficiently by hand, the portions of the Works to be carried out under supervision using labour-intensive construction methods, designated as LI items in the bill of quantities, include, but are not limited to, the following:

- Erection of the contractor's and engineer's site establishment facilities;
- Provision of domestic services at the site establishment facilities;
- Provision of flagmen and labour for erecting traffic accommodation facilities;
- Clearing of the Site;
- Excavation for structures and open drains up to 1,5 m deep where the depth of the water table permits such excavation to be carried out safely, and the subsequent backfilling thereof;
- Bedding, selected fill, backfilling and compaction of all trenches for prefabricated culverts irrespective of depth, but assisted by mechanical compaction equipment in order to achieve the specified densities;
- Transportation and spoiling of all trench materials, where the disposal site is located within 20 metres of the source;
- Mixing and placing of concrete for the channel and backing to the prefabricated kerbs;
- Mixing and placing of concrete for concrete lined drains and sidewalks;
- Mixing and placing of concrete for minor drainage structures and road furniture structures;
- Mixing and placing of concrete for concrete edge beams at gravel road access points;
- Installation of prefabricated kerbs;
- Construction of all brickwork required for drainage structures and manholes;
- Erection of falsework and formwork;
- Fixing of reinforcement;
- Spreading of offloaded earthworks materials to the extent scheduled;
- Spreading of offloaded layer works materials to the extent scheduled;
- Spreading of stabilising agent;
- Maintenance patching of surfacing;
- Slurry seal surfacing;
- Excavation for and construction of stone pitching, and subsequent backfilling;
- Excavation for and construction of gabion boxes and mattresses, and subsequent backfilling;
- Dismantling / erection of fences;

- Excavation and subsequent backfilling for guardrail;
- Dismantling / erection of guardrail;
- Excavation and subsequent backfilling for road signs;
- Dismantling / erection of road signs;
- Spreading of topsoil;
- Planting of grass cuttings, grass sodding and hand sowing of grass seeds; and
- Cleaning and tidying up of the Site.

In respect of those portions of the Works which are not listed above, the construction methods adopted and the plant utilized shall be at the discretion of the Contractor, provided always that the construction methods adopted and the plant utilized by the Contractor are appropriate in respect of the nature of the Works to be executed and the standards to be achieved in terms of the Contract.

8. MATERIAL SOURCES, SPOIL AND STOCKPILE AREAS

Where possible, the contractor shall source material from within 20-40km of the site utilizing local labour. The material which may be sourced from site includes:

5. MEASUREMENT AND PAYMENT

Item		**Unit**
5.01	**Provision of the training venue facility, including the cost of transporting the learners to and from this facility**.....	lump sum (Sum)

The tendered lump sum for sub item 5.01 shall include full compensation for the provision of the training venue facility complete and serviced as specified, including for the provision of power, water, sewerage and cleaning services for the duration of the contract, for lighting, power points and voltage stabilizers, for air conditioning, blinds, fire extinguishers, floodlights, furniture and whiteboards, for the provision of security at the facility, for all other costs necessary to maintain the facility for the duration of the contract, and for the removal of the facility on completion of the contract.

The tendered lump sum shall also include full compensation for transporting the learners on each day of training from their place of work to this training venue facility, and back again after the training for the day has been delivered by the accredited trainers.

Payment of the lump sum shall be made in three instalments as follows:

The first instalment, 50% of the lump sum, shall be paid after the Contractor has met all his obligations regarding the provision of the training venue facility, complete and serviced as specified, and the facility has been successfully commissioned for use.

The second instalment, 35% of the lump sum, shall be paid when 75% of the training courses proposed in accordance with the Contractor's approved structured training programme have been delivered to the learners by the accredited trainers.

The third and final instalment, 15% of the lump sum, shall be paid when all training has been concluded and the facility has been dismantled and removed from the site.

Item		Unit
5.02	**Training of learners employed by the main Contractor or by the Targeted Enterprise subcontractors:**	
	(a) Generic skills:	
	(i) Training costs	provisional sum (Prov sum)
	(ii) Handling costs and profit in respect of sub-item F5.02 (a)(i) above	percentage (%)
	(b) Entrepreneurial skills:	
	(i) Training costs	provisional sum (Prov sum)
	(ii) Handling costs and profit in respect of subitem F5.02(b)(i) above	percentage (%)
	(c) Construction skills:	
	(i) Training costs	provisional sum (Prov sum)
	(ii) Handling costs and profit in respect of subitem F5.02(c)(i) above	percentage (%)
	(d) Transportation and accommodation costs of selected learners only, while receiving off-site training:	
	(i) Transportation and accommodation costs	provisional sum (Prov sum)
	(ii) Handling costs and profit in respect of subitem F5.02(d)(i) above	percentage (%)

Expenditure under subitems 5.02(a)(i), (b)(i), (c)(i) and (d)(i) shall be in accordance with clause 6.6 of the General Conditions of Contract 2015.

The provisional sum for each of subitems 5.02(a)(i), (b)(i) and (c)(i) is provided to cover the total costs of the required training in generic, entrepreneurial and construction skills respectively, including for the procurement of the services of the accredited trainers and their delivery of the training courses to the learners, the provision of all training materials including all stationery and study materials, the wages of the learners for the duration of the courses including the associated COIDA and UIF payments, and the provision of any tools and PPE that may be required during those courses incorporating practical training modules. The payment of wages to learners in terms of subitems 5.02(a)(i), (b)(i) and (c)(i) will only be made to those learners who attend and successfully complete each course of the approved training programme. Payment shall not be made to learners who, once selected, do not attend or only partially complete structured training courses.

The tendered percentage for each of subitems 5.02(a)(ii), (b)(ii) and (c)(ii) is the percentage of the amount actually spent under each of subitems 5.02(a)(i), (b)(i) and (c)(i) respectively, and shall include full compensation for the handling costs of the Contractor and the profit in connection with the provision of the

training in generic, entrepreneurial and construction skills respectively, including for the costs of record keeping and reporting with respect to the training received by each learner.

The provisional sum for subitem 5.02(d)(i) is provided to cover all costs related to the transportation and accommodation costs of selected learners only, while receiving off-site training, where such learners have been specifically selected to receive such off-site training and where such training cannot be delivered using the training venue facility provided by the Contractor in terms of subitem 5.01.

The tendered percentage for subitem 5.02(d)(ii) is the percentage of the amount actually spent under subitem 5.02(d)(i), and shall include full compensation for the handling costs of the Contractor and the profit in connection with the transportation and accommodation costs of selected learners only, while receiving off-site training.

NOTE TO COMPILER:

Item		**Unit**
5.03	**Payments associated with the NYS programme only:**	
(a)	Employment of NYS workers	provisional sum (Prov sum)
(b)	Provision of tools and apparel for the NYS workers	provisional sum (Prov sum)
(c)	Handling costs and profit in respect of sub-items F5.03(a) and (b) above	percentage (%)
(d)	Training of NYS workers:	
	(i) Provision of training for the NYS workers	provisional sum (Prov sum)
	(ii) Handling costs and profit in respect of subitem F5.03(d)(i) above	percentage (%)
(e)	Liaison with the Employer's project manager and the training service provider:	
	(i) Liaison conducted by the Construction Manager	hour (h)
	(ii) Liaison conducted by the senior site foreman	hour (h)

The provisional sums provided under sub-items 5.03(a) and (b) shall be expended in accordance with clause 6.6 of the General Conditions of Contract 2015.

The provisional sum under subitem 5.03(a) shall be used to cover the cost of employment payments made by the Contractor to the NYS workers, including the associated COIDA and UIF payments, all as authorised by the Employer's Agent.

The provisional sum under subitem 5.03(b) shall be used to cover all costs associated with the provision of the necessary tools and apparel, including safety apparel, for the NYS workers, and the facilities for the safe storage thereof, all as authorised by the Employer's Agent.

The tendered percentage under subitem 5.03(c) is a percentage of the total amount of expenditure approved by the Employer's Agent under the provisional sum sub-items 5.03(a) and (b), and shall include full

compensation for attendance by the Contractor, for the handling costs of the Contractor, and for the profit in connection with payments made by the Contractor with respect to the NYS programme implementation.

The provisional sum provided under subitem 5.03(d)(i) shall be expended in accordance with clause 6.6 of the General Conditions of Contract 2015.

The provisional sum under subitem 5.03(d)(i) shall be used to cover all costs associated with the provision of training for the NYS workers, including the cost of procuring the services of the accredited trainers and their delivery of the training courses to the NYS workers, and the provision of all training materials including all stationery and study materials.

The tendered percentage under subitem 5.03(d)(ii) is a percentage of the total amount of expenditure approved by the Employer's Agent under the provisional sum subitem 5.03(d)(i), and shall include full compensation for attendance by the Contractor, for the handling costs of the Contractor, and for the profit in connection with payments made by the Contractor with respect to the provision of training for the NYS workers, including for the costs of record keeping and reporting with respect to the training received by each NYS worker.

The unit of measurement for sub-items 5.03(e)(i) and (ii) shall be the hour. The tendered rates shall include full compensation for all costs related to the Construction Manager and the senior site foreman respectively for time spent at formal liaison meetings authorised and convened by the Employer's Agent for the specific purpose of liaising with the Employer's project manager and / or the training service provider. The payment shall be made only for the time spent in the formal meeting itself. No payment shall be made for time spent during any other on-site liaison, telephonic liaison, e-mail or written correspondence liaison between these parties, or for liaison conducted with the Employer's project manager and / or the training service provider by any other member of the Contractor's site staff or head office personnel, the cost of all of which shall be deemed to be included in the Contractor's time-related obligations under subitem B13.01(c).

Annexure E:

Environmental Management Plan (EMP)

PB: ENVIRONMENTAL MANAGEMENT PLAN

PB.1 INTRODUCTION TO EMP

The EMP shall be bound into all contracts, and shall have contractual standing on the basis that its contents are an integral component of the environmental approval obtained in terms of the National Environmental Management Act, Act 107 of 1998 and shall be provided to the Project Engineer (Developer), Contractor, and Local Authority. The EMP shall be approved by the Department of Agriculture and Environmental Affairs (DAEA – the Authority).

Lepelle Northern Water (LNW) are the **Primary Developers** responsible for the construction of the reservoirs, pump-station, bulk, reticulation and ancillary amenities.

In addition, the Developer is responsible for the preparation of the EMP, and the various Management Plans, and the initial rehabilitation/establishment work.

The Authority is ultimately responsible for ensuring compliance with this EMP by all parties.

PB.2 LAYOUT OF EMP

The Environmental Management Plan identifies the two broad phases of development as:

- Pre-Construction Phase
- Construction Phase

PB.3 ASPECTS AND IMPACTS REGISTER

Environmental aspects are those elements of an organisation's activities, products, services or physical resources, which may have potentially beneficial or harmful effects on the environment. These may include discharges and emissions, raw materials and energy use, waste recycling, noise, dust, and visual pollution.

An environmental impact is the change that takes place from the occurrence of any given aspect. The relationship between the two is causal: an impact is the pollution that would result if an environmental aspect were not properly managed or controlled.

Aspects identification is important, since it is from this identification of the potential to impact the environment that the rest of the system is built. Identification of aspects is a continual process under any EMS system. The aspects identification process includes all past, present and future impacts that an organisation's activities have had, are having, and will have on the environment.

PB.4 OBJECTIVES OF THE EMP

The objectives of the EMP are to:

Ensure that development is in accordance with the "Duty of Care" as per **Section 28 of the National Environmental Management Act, Act 107 of 1998.**

- Ensure that the development process is structured and implemented in a manner that ensures that all necessary approvals (in terms of the EMP requirements) are obtained from the Local Authority prior to development occurring onsite.
- Provide a pro-active, feasible and practical working tool to enable the measurement and monitoring of environmental performance on site.
- Guide and control the implementation of the findings and recommendations of the specialist reports conducted for the project (e.g. Vegetation Report, Engineering Report, Geotechnical Report and Hydrological Report).Ensure that the construction and operational phases of the project continue within the principles of Integrated Environmental Management.
- Provide guidance for the environmental auditing of the project.

PB.5 RESPONSIBLE AUTHORITY

The Project Engineer (Developer), Contractor, appointed to install services or to construct structures, shall be responsible for ensuring that the provisions contained within the EMP are implemented and adhered to, and shall be held accountable in terms of the EMP. The Developer shall appoint an Environmental Consultant (EC) and the Contractor shall appoint an Environmental Control Officer (ECO). All audit reports shall be submitted to the DAEA, and the Lepelle Northern Water.

The ultimate responsibility for compliance rests with the Authority (Department of Agriculture and Environmental Affairs).

PB.6 EMP COMPLIANCE

This EMP is a key component of the management and implementation of the Water Treatment Works development. Non-compliance with the EMP will constitute non-compliance with the requirements of the Authority and therefore of the law.

The EMP will be made binding on all contractors operating within the Project Area and will be included within the Contractual Clauses. Non-compliance with, or any deviation from, the conditions set out in this document constitutes a failure in compliance. The Project Engineer (Developer), Contractor (Developer) shall ensure that the conditions of the Environmental Management Plan are adhered to. Should the Contractor (Developer) require clarity on any aspect of the EMP the Contractor shall contact the Environment Consultant for advice.

It should be noted that in terms of the National Environmental Management Act No 107 of 1998 (Section 28) those responsible for Environmental Damage must pay the repair costs both to the environment and human health and the preventative measures to reduce or prevent further pollution and/or environmental damage, i.e. The "Polluter Pays Principle".

The Authority is responsible for ensuring compliance with the EMP.

PB.7 PRE-CONSTRUCTION ACTIVITIES: PRIMARY DEVELOPER

- The Developer is to appoint a Project Engineer (Developer) and Contractor. The contractor shall hire local labour, both male and female, where possible.
- The Developer is to appoint a suitably qualified Environmental Consultant (EC) to audit the implementation of the EMP.
- The Environmental Consultant shall ensure that the construction team (at a management level) is adequately trained in the provisions of the EMP and general environmental issues.
- The Contractor (Developer) shall identify a suitable site for the Construction Camp and storage areas for materials in consultation with the Project Engineer (Developer) and the Environmental Consultant prior to construction. These areas are to be fenced off appropriately.
- The Contractor (Developer) shall demarcate, in conjunction with the Environmental Consultant relevant areas of vegetation significance. Special emphasis is to be placed on the demarcation of the Protected Tree species to ensure that these species are clearly demarcated prior to the start of any construction activities on site.
- The Environmental Consultant has recorded the state of the environment prior to construction commencing, and has ensured that all baseline environmental data has been provided by the relevant specialists prior to construction commencing.
- Storm water drainage of the site must be ensured in the technical engineering design of the development. It is important that storm water runoff is properly managed during construction to ensure no impacts downstream. Provision for this must be made in this Planning Phase by way of a Storm Water Management Plan and approved by the Local Authority. The Storm Water Management Plan should ensure that the ultimate flow from the development does not result in any negative impacts on downstream properties or watercourses and must therefore ensure that storm water is managed within the overall site as effectively as possible.
- The Contractor (Developer) shall liaise, where necessary, with adjacent neighbours identified by the Environmental Control Officer, and provide them with reasonable advance notice of the nature, location and duration of the particular work concerned.
- Notices of the proposed development should be placed in prominent positions to inform the general public of the proposed construction activities, expected interruption in road traffic movement, presence of construction vehicles, and planned interruptions to existing supply of services, such as electricity and water.

PB.8 CONDITIONS OF CONTRACT (PRIMARY DEVELOPER)

The Primary Developer is responsible for:

- Adherence to the any conditions that may arise as a result of the submission of the Environmental Management Plan,

- Construction of infrastructure, temporary access / haulage roads.
- Appointment of Environmental Consultant to implement and audit the EMP.

PB.8.1 The Project Engineer (Developer)

The Project Engineer (Developer) is responsible for ensuring that the Developer's responsibilities within the EMP are implemented and adhered to (i.e. during the Construction Phase (Developer)).

The Project Engineer during the Construction Phase (Developer):

- Appointed by Lepelle Northern Water for the implementation of this contract.
- Responsible for managing the Primary Contractors.
- Responsible for ensuring that all documentation pertaining to the proposed development, is in place at the site camp.
- Arranges information meetings for or consults with I&APs about the impending construction activities where necessary.
- Ensures that the conditions of the Vegetation Report and this EMP are provided for and adhered to.
- Maintains a register of complaints and queries by members of the public at the site office. This register is forwarded to the Environmental Consultant on a monthly basis.
- Enforces the EMP on site.
- Monitors implementation of the requirements of the EMP.
- Assesses the Primary Contractor's (Developer) environmental performance in consultation with the Environmental Consultant.
- Documents in conjunction with the Contractor, the state of the site prior to construction activities commencing. This documentation will be in the form of photographs or video record.

PB.8.2 Environmental Consultant

The Environmental Consultant (EC) during the Construction Phase (Developer):

- Undertakes site induction and staff training of the Project Engineer (Developer) and the Primary Contractor (Developer) at a management level about the requirements of the EMP, and holds a meeting with all primary suppliers and Contractors to discuss the EMP prior to start of construction.
- Advises the Project Engineer (Developer) about the interpretation, implementation and enforcement of the Environmental Specification and other related environmental matters.
- Attends site meetings and addresses ad hoc queries as necessary.

- Monitors the Contractor's (Developer) compliance with the EMP during the Construction Phase (Developer).
- Monitors, in a very general nature, the construction activities of the Contractor (Purchaser) where there is construction during the Construction Phase (Developer) and, where required, shall report instances of non-compliance to the Authority and the Primary Developer.
- Undertakes environmental audits once a month on the effectiveness of the environmental specifications on the site.
- Audit reports are to be submitted to the Primary Developer. The EC must schedule audit dates and ensure that all necessary parties are made aware of these dates, and consult with DAEA compliance officer to ensure the officer can attend ad hoc audits.
- Reports on the performance of the project during the Construction Phase (Developer), in terms of environmental compliance with the EMP, to the Project Engineer (Developer), the Developer, DWAF, Lepelle Northern Water, and the Authority (DAEA).
- Provides technical advice relating to environmental issues to the Project Engineer (Developer).
- The EC is responsible for checking availability of the documents proving proof of raw material sourcing from the Primary Contractor.

PB.8.3 Contractor (Developer)

The Contractor (Developer) is required to:

- Keep a hard copy of the EMP on site.
- Keep files for the following:
  - Complaints Register
  - Waste Disposal
  - Emergency Response details
  - Training Records
  - Incident Reports
- Must be able to produce all necessary documentation proving that all raw materials being used on site have been obtained in a sustainable manner. It is the Primary Contractor's responsibility to obtain this documentation from either the Sub-Contractor, Cartage Company or directly from the supplier of the material if necessary. No material will be used unless the responsible parties can provide the necessary permits or licences, and this documentation must be provided prior to material being brought on site and should be included into any contractual agreement.
- Supply method statements for all activities requiring special attention as specified and/or requested by the Project Engineer (Developer) or Environmental Consultant during the duration of the Contract.

- Be conversant with the requirements of the EMP.
- Comply with requirements of the Environmental Consultant in terms of this EMP.
- Ensure any sub-contractors/suppliers who are utilised within the context of the contract comply with the environmental requirements of the EMP. The Contractor (Developer) will be held responsible for non-compliance on their behalf.
- Bear the costs of any damages/compensation resulting from non-adherence to the EMP
- Comply with all applicable legislation as per section 2.2.6 below.
- Ensure that the Project Engineer (Developer) is timeously informed of any foreseeable activities that will require input from the Environmental Consultant.
- Conduct all activities in a manner that minimises disturbance to directly affected residents and the public in general, and foreseeable impacts on the environment.

PB.8.4 Compliance with Applicable Laws

The supreme law of the land is “The Constitution of the Republic of South Africa”, which states: “Every person shall have the right to an environment which is not detrimental to his or her health or well-being”. Laws applicable to protection of the environment in terms of Environmental Management (and relating to construction activities) include but are not restricted to:

- Laws applicable to protection of the environment in terms of Environmental Management (and relating to construction activities) include but are not restricted to:
- Atmospheric Pollution Prevention Act, No 45 of 1965
- Conservation of Agricultural Resources Act, No 43 of 1983
- Environmental Conservation Act, No 73 of 1989
- Explosives Act, No. 26 of 1956
- Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, No 36 of 1947
- Forest and Veld Conservation Act, Act No 13 of 1941
- Hazardous Substances Act, No 15 of 1973
- Land Survey Act, No 9 of 1921
- Machinery and Occupational Safety Act, No. 6 of 1983
- Mines and Works Act, No. 27 of 1956
- Minerals Act, No 50 of 1991
- Mineral Development Draft Bill

- National Environmental Management Act, No. 107 of 1998
- National Environmental Management: Biodiversity Act, No. 10 of 2004
- National Forests Act, No 84 of 1998
- National Heritage Resources Act, No. 25 of 1999
- National Water Act, No 36 of 1998
- National Water Act (amendments)
- National Veld and Forest Fire Act, No 101 of 1998
- Occupational Health and Safety Act, No 85 of 1993
- Provincial and Local Government Ordinances and Bylaws
- Soil Conservation Act, Act No 76 of 1969
- Sub-division of Agricultural Land Act Repeal Act 64 of 1998 (re: soil conservation)
- Water Services Act No 108 of 1997
- And all regulations framed there under and amendments there to.

PB.9 CONSTRUCTION ACTIVITIES: DEVELOPER

PB.9.1 Construction Zone

- Movement of heavy-duty vehicles will be restricted to the construction zone as defined.
- The passage of vehicles not connected with work in progress shall be restricted, to prevent unnecessary soil compaction and damage in the Construction Zone.
- The Contractor shall provide a sufficient number of portable ablution facilities. Such facilities, which shall comply with local authority regulations, shall be maintained in a clean and hygienic condition and their use shall be strictly enforced. They shall be positioned in an appropriate place, e.g. away from watercourses and general view, in consultation with the ECO. The Contractor shall make his own arrangements for the necessary effluent removals and shall bear all the costs in connection with such services. On removal of such conveniences, the sites thereof shall be left in a clean, sanitary and tidy condition.
- The Contractor is to ensure that sufficient potable water shall be provided for consumption and watering of exposed surfaces to minimise dust (if deemed necessary by the ECO). The Contractor shall be solely responsible for the provision of all necessary water connections, meters, water storage and water transport facilities. Care is to be taken to ensure that the area around the water supply does not turn muddy.
- The Contractor shall make arrangements with the Primary Developer for obtaining electrical power and lighting requirements for the site. Lighting on site shall take cognisance of neighbouring communities and or developments.

PB.9.2 Building Construction: General

- The site shall be totally enclosed with a fence prior to commencement of construction and all construction activity shall occur within the site and all storage and equipment shall be within the site.
- All other aspects of the EMP are applicable to the Contractor must have been adhered to prior to any construction activity taking place on site.
- An ECO must have been appointed prior to construction work on site commencing.

PB.9.3 Storage areas

- The Contractor (Purchaser) must exercise special care with the storage, handling and transport of all materials that could adversely affect the environment. Such materials include chemicals, cement, lime, oil and fuel. The materials shall be stored in watertight containers on a hardened and impervious surface graded to the middle.
- In locating stores consideration must be taken of the prevailing winds on site, topography, and water erosion impacts.
- The ECO shall advise the Contractor (Purchaser) on the location of the stores.
- If pollution of hazardous substances occurs it shall immediately be reported to the Environmental Consultant, and dealt with in the prescribed manner suitable to the substance and disposed of in a permitted landfill.
- If pollution of any surface or groundwater occurs, it shall immediately be reported to the Regional Representative of the Department of Water Affairs and Forestry, and appropriate mitigation measures employed.
- Security of storage areas is required.
- Documentation is required regarding the storage of hazardous materials on site, including Material Safety Data Sheets (MSDS's), etc.

PB.9.4 Stock pile areas

- Spoiling of unsuitable material shall take place at an approved spoil site, sheltered from the wind, and shall be shaped, trimmed and re-vegetated where necessary.
- The Contractor will need to import suitable material on site. Such material should be stockpiled in a suitable area agreed upon by the ECO.
- The stockpiling of soil or any other materials shall not be allowed near a watercourse or water body to prevent pollution or impediment to surface runoff, unless determined by the Project Engineer not to have any adverse impact on the watercourse/water body.
- The Contractor shall control the erosion of stockpiles. The ECO will assess the appropriateness of methods employed.

- The ECO shall determine the maximum stockpile height.

PB.9.5 Geotechnical Issues for consideration

- The recommendations contained in the Geotechnical Report must be adhered to.
- The Contractor is to ensure that imported soil materials are not contaminated.
- The Contractor is to be able to produce all necessary documentation proving that all raw materials being used on the site have been obtained in a sustainable manner.
- In certain cases, working space may be limited which may affect the method and/or type of plant used for excavations, as well as restrict the temporary storage space available for backfill material from excavations, etc.
- Unless otherwise permitted in writing by the Local Authority, not more than 200 metre of trench in any one place shall be opened in advance of pipe laying operations.

PB.9.6 Surface Runoff and Water Resources

- Drainage shall be controlled to ensure that runoff from the site will not culminate in off-site pollution or cause water damage to properties further down from the site.
- No impediment to the natural water flow other than approved erosion control works is permitted.
- No liquid or solid waste shall be allowed to be disposed of in any watercourses or water body. If this occurs, it shall be reported to the ECO and DWAF and cleaning up thereof will be undertaken at the Contractor's expense.
- The provisions of the National Water Act 36 of 1998 shall be complied with at all times.

PB.9.7 Supervision

- Adequate and constant supervision is required during construction.
- The Contractor shall keep a site diary detailing all incidences affecting the environment occurring on site.

PB.9.8 Employment

- Local workforce should be favoured in job selection.

PB.9.9 Site and Public Safety

- Provisions in the Occupational Health and Safety Act 85 of 1993 must be complied with at all times. The responsibility for compliance with this Act lies with the Contractor.
- The public must be given adequate notice in advance for noisy activities such as blasting, excavating, piling, etc.
- The Contractor shall control the access to the Project Area by the general public. No unauthorised persons may enter the construction site, including hawkers.

- The period that open excavations are left exposed shall be kept to the minimum. Where such exposure is unavoidable, the excavation shall be clearly demarcated and thoroughly protected against the passage of vehicles, pedestrians, or animals. Such protection shall be effective during the day and night. No excavations may be left open over holiday periods.
- The Contractor shall erect the necessary signs, notices and barricades for the duration of the Contract in order to safeguard both the workers and the public. Suitable conspicuous warning signs in English and Zulu must be placed at all excavations or areas where safety could be compromised. These signs must be in accordance with the local by-laws.
- SABS Standards and specifications governing dangerous processes must be strictly applied, to ensure proper protection of the public and workers.
- Workers have a right to refuse work in unsafe conditions.
- No cooking fires will be permitted on site.

PB.9.10 Vegetation

- Vegetation should be removed in a phased approach as it becomes necessary.
- Vegetation removed should be used where possible, e.g. as a brush mattress for erosion control or mulching.
- The Environmental Control Officer is responsible for implementing the “SOP for control and eradication of alien invasive vegetation”.
- The Environmental Control Officer is responsible for implementing the Landscaping and Vegetation Rehabilitation Plan during the Construction Phase.

PB.9.11 Fauna

- No member of the construction team will be permitted to harm or kill/poach any animal, bird or reptile.
- Pests must be discouraged by keeping the construction site free of litter.

PB.9.12 Soil Management and Erosion Control

- During grubbing and clearing the Contractor (Purchaser) shall take care to remove as little topsoil as possible.
- Remove and separately stockpile any subsoil material that can be used for site backfilling.
- Topsoil shall be stockpiled (and seeded) in areas within the site boundary, and approved by the ECO for reuse and restoration.
- Avoid handling soil when wet as this may result in the loss of soil structure and compaction. Soils should not be handled during windy conditions, which may lead to the loss of soil through wind erosion.

- Soil erosion must be prevented at all times. Where evidence of soil erosion can and/or is taking place, this should be reported by the Contractor and ECO.
- Unnecessary compaction of construction areas must be prevented, to reduce run off velocity.
- Remove vegetation, only as it becomes necessary for work to proceed. Prevent unnecessary removal of vegetation especially on steep areas.
- Steep slopes should be terraced and horizontal areas vegetated.
- Areas that have become compacted must be deeply ripped to loosen soil.
- Appropriate mitigation during construction includes prompt rehabilitation of exposed soil areas with indigenous vegetation to ensure that soil is protected from the elements.
- Suitable erosion measures should be implemented in areas sensitive to erosion such as near water supply points, edges of slopes, etc. These measures could include the use of sand bags, hessian sheets, retention or replacement of vegetation.
- All the necessary precautions in terms of design and construction of earthworks, cuts and fills must be taken.

PB.9.13 Pollution Control

PB.9.13.1 General

- Should any incidence occur, the Contractor shall report it immediately to the ECO and the Contractor shall be responsible for containing and cleaning up the spillage.
- The Contractor and ECO shall ensure that correct mitigation of the pollution is undertaken.

PB.9.13.2 Air Pollution

- Excavations and other clearing activities should only be done during permissible weather conditions to avoid drifting of dust into neighbouring areas.
- Soil and sand stockpiles shall be located in sheltered areas not exposed to the wind.
- Retention of vegetation where possible will reduce dust travel.
- Exposed surfaces must be re-vegetated as soon as possible.
- Watering of exposed soil shall be instituted and maintained on a continuous basis.
- The movement of construction and other vehicles should be strictly controlled in order to reduce the impact of increased air pollution. Adherence to speed limits shall be enforced.
- Sensible and responsible use of equipment which generates dust.

- Adjacent roads are to be swept on a regular basis from up to 50 metres from any point of ingress/egress to avoid dust or mud build up on the roads.

PB.9.13.3 Noise pollution

- Noise levels shall be kept within acceptable limits. All noise and sounds generated shall adhere to SABS 0103 specifications for maximum allowable noise levels for residential areas. No pure tone sirens or hooters may be utilised except where required in terms of SABS standards or in emergencies.
- Noisy activities must be limited to between 06h00 to 18h00 to avoid disturbance of adjacent landowners. Noisy activities should not be allowed on weekends and public holidays unless specific arrangements have been made with Local Council and the neighbours have been timeously notified.
- Vehicles and operating equipment must be regularly serviced.
- Permission must be obtained from the relevant authorities if work is to proceed throughout the night.

PB.9.13.4 Waste Generation and Litter

- The construction site must be kept in an orderly and clean condition. Solid waste shall be collected on a daily basis from the construction zone and placed in a skip that shall be emptied on a weekly basis, or as necessary. The waste shall be disposed of at a permitted landfill site to the satisfaction of the ECO.
- All builders' rubble shall be removed from the site and suitably disposed of at a permitted disposal site unless considered suitable for infilling by the ECO on advice by an engineer.
- No burning of waste shall be permitted on site.
- Flammable, toxic or poisonous materials and waste must be stored separately on an impervious hardened surface, graded to the middle, and disposed of at an approved landfill site.
- Littering by employees of the Contractors and/or Sub-Contractors shall not be allowed.
- The Environmental Consultant shall monitor the work and construction-camp sites for cleanliness.

PB.9.13.5 Water Pollution

- Pollution of surface and ground water, and soil through accidental spillage of hazardous chemicals and other substances shall be avoided. Should spillage occur, the spillage shall be reported to the ECO, and cleaned up immediately and any contaminated soil removed and disposed in a permitted landfill.
- Contaminated wastewater shall be managed by the Contractor to ensure existing water resources on the site are not contaminated. All wastewater from general activities in the camp

shall be collected and removed from the site for appropriate disposal at a licensed commercial facility.

- De-watering of vessels, tanks, etc is to take place in a controlled manner. No uncontrolled release of water shall be allowed onto the site area. Water wastage shall be kept to a minimum and where possible water shall be recycled. Dewatering of contaminated water shall only be done at an approved landfill site.

PB.9.14 Concrete

- Concrete mixing shall be restricted to certain areas within the Construction Zone, and mixed in areas that are not to be vegetated in future. Cement mixing should take place on plastic liners to avoid contamination of soil.
- Cleaning of cement mixing and handling equipment shall only be done using proper cleaning trays.
- Ready mix concrete should be used where possible and should occur in accordance with the requirements of the Specifications.
- All excess cement and concrete mixes are to be contained on the construction site prior to disposal off site to suitable landfill areas.
- All empty containers shall be removed from the site for appropriate disposal at a licensed commercial facility.
- Any spillage which may occur will be investigated and reported to ECO and immediate action shall be taken by the Contractor to remove and clean up any spillage.
- Cement-contaminated water shall not enter the water system as this disturbs the natural acidity of the soil and affects plant growth.

PB.9.15 Blasting Activities (if required)

- The Contractor shall notify the Local Council should blasting be required and shall adhere to the requirements of the Explosives Act, 1956. Notices shall be placed on site in order to inform the residents of blasting activities and the Contractor shall give all affected parties within a radius of 2km notice of intent to execute any blasting work.
- Blasting will be done at appropriate times of the day to ensure that noise disturbance and vibrations are kept to a minimum. Blasting will be undertaken using appropriate techniques. By restricting blasting to early afternoon, (14:00) noise impacts will be reduced, as the inversion layer is usually eroded or sufficiently elevated to have a negligible effect in the reflection of sound.
- Photographic evidence of houses, surrounding the development zone, pre and post blasting should be taken in order to prevent liability claims, which are not resultant from the blasting

PB.9.16 Disruption of Infrastructure and Services

- The Contractor (Purchaser) shall ensure minimal disturbance of roads, services and access.

- At all points of contact with the public, the Contractor and his staff are requested to handle discussions and disputes with deliberate courtesy and understanding. All complaints and correspondence must be recorded and reported to the ECO for inclusion in the Audit Report.

- Services such as electricity, telephones and water shall not be disrupted without prior notice to the affected community, and shall be avoided where possible. Where disruption of services is unavoidable, this will be undertaken to the satisfaction of the Local Council.

- All vehicles used by the Contractor on public roads or other routes used by any member of the public shall comply with the relevant by-laws and regulations in the Province of KwaZulu-Natal. The Contractor must avoid peak traffic times.

PB.10 CONCLUSION

Should all the issues contained within this document be complied with the environmental impact of this proposed development will be highly reduced and the mitigation proposed is adequate to ensure environmental sustainability.

LEPELLE NORTHERN WATER

BID NO.: GTAC 003-2023-24

OLIFANTSPOORT AND EBENEZER REFURBISHMENT PHASE 1A: ELECTROMECHANICAL REFURBISHMENT OF OLIFATSPOORT PUMP STATIONS (PS1, PS2 & PS3) AND EBENEZER WATER TREATMENT WORKS AND PUMP STATION

PORTION 2: CONTRACT

PART C2: PRICING DATA

PART C2 PRICING DATA

INDEX

Section	Description	Page No
C2.1	PRICING INSTRUCTIONS.....	C2.1-1
C2.2	BILL OF QUANTITIES.....	C2.2-1
C2.3	SUMMARY OF BILL OF QUANTITIES.....	C2.3-1
C2.4	BANKING DETAILS.....	C2.4-1

C2.1 PRICING INSTRUCTIONS

1. GENERAL

These pricing instructions provide the Tenderer with guidelines and requirements with regard to the completion of the Bill of Quantities. These pricing instructions also describe the criteria and assumptions which will be assumed in the Contract to have been taken into account by the Tenderer when developing his prices.

The BOQ must be completed in FULL to render the bid responsive. If any section of the BOQ is left incomplete or omitted in printing and submission; the bid document will be disqualified. Non-numerical (Nil or dash (-) or included or incomplete space) completion of BOQ items will be considered non-responsive.

The Bill of Quantities shall be read with all the documents which form part of this Contract.

The following words have the meaning hereby assigned to them:

Unit	:	The Unit of measurement for each item of work in terms of the Scope of Work.
Quantity	:	The number of units for each item.
Rate	:	The payment per unit of work at which the tenderer tenders to do the work.
Amount	:	The product of the quantity and the rate tendered for an item.
Lump sum (L.Sum)	:	An amount tendered for an item, the extend of which is described in the Pricing Instructions, Bill of Quantities or the Scope of Work but the quantity of work of which is not measured in any units.

2. PAY ITEMS

The method of measurement published by:

- "South African Bureau of Standards: Standardized Specifications for Civil Engineering Construction", (SANS 1200); and/or
- "South African Bureau of Standards: South African National Standard Set: Construction Works", (SANS 2001); and/or
- COLTO Standard Specifications for Road and Bridge Works for State Road Authorities (1998 edition); and/or
- any other project specific specification bound into this document, subject to the variations and amendments contained in section C3.5 shall be applicable to this contract.

Descriptions in the Bill of Quantities are abbreviated and comply generally with those in the Standard Specifications. The measurement and payment clause of each Standard Specification, read together with the relevant clauses of the Scope of Work, set out what ancillary or associated activities are included in the rates for the operations specified. Should any requirements of the measurement and payment clause of the applicable Standard Specification, or the Scope of Work, conflict with the terms of the Bill of Quantities, the requirements of the Standard Specification or Scope of Work, as applicable, shall prevail.

The item numbers appearing in the Bill of Quantities refer to the corresponding item number in the standard specifications or as amended in the Scope of Work. In the letter case, the item number is prefixed with the letter "PS". The same applies to new clauses added to the standard specification.

Payments for items which are designated to be constructed labour-intensively (LI items) either in this schedule or in the Scope of Works, will not be made unless they are constructed using labour-intensive methods. Any unauthorised use of plant to carry out work which was to be done labour-intensively will not be condoned and any works so constructed will not be certified for payment.

In the event that the LI items are not adding to the targeted Contractors Participation Goal (CPG) the onus is with the Contractor construct other activities labour intensively to reach the targeted CPG goal.

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 (1 000 kg)
m²	=	square metre	No.	=	number
m².pass	=	square metre pass	sum	=	lump sum
ha	=	hectare	MN	=	meganewton
m³	=	cubic metre	MN.m	=	meganewton-metre
m³-km	=	cubic metre-kilometre	PC sum	=	Prime Cost Sum
l	=	litre	Prov sum	=	Provisional sum
kl	=	kilolitre	%	=	per cent
MPa	=	megapascal	kW	=	kilowatt

3. QUANTITIES

3.1 Unless otherwise stated, items are measured net and no allowance is made for waste.

3.2 The quantities set out in the Bill of Quantities are the estimated quantities of the Works, and do not necessarily represent the actual amount of work to be done.

3.3 All the work of a specific part may be allocated to one contractor by the Client or it may be shared between all the appointed contractors for that specific part of the work.

3.4 The quantities certified for payment, and not the quantities given in the Bill of Quantities, shall be used for determining payments to the Contractor. 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.

4. RATES AND AMOUNTS

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

4.2 A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not.

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

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

4.5 The Tenderer shall not group together a number of items and tender one rate for such group of items.

4.6 All rates and sums of money quoted in the Bill of Quantities shall be in rands and whole cents. Fractions of a cent shall be discarded.

4.7 All prices and rates entered in the Bill of Quantities must be **excluding Value Added Tax (VAT)**. VAT will be added last on the summary page of the Bill of Quantities.

4.8 Should excessively high unit prices be tendered, such prices may be of sufficient importance to warrant rejection of a tender by the Employer.

4.9 Where the Contractor is required to furnish detailed drawings and designs or other information in terms of the Contract Documents, all costs thereof shall be deemed to have been provided for and included in the unit rates and sum amounts tendered for the items scheduled in the Bill of Quantities, and separate additional payments will not be made.

4.10 If 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 unit rate shall be corrected. Where there is an obvious gross misplacement of the decimal point in the unit rate, the unit rate as quoted shall govern, and the line item total shall be corrected.

C2.2: BILL OF QUANTITIES

Section 1: Preliminary and General (Sections 2, 3, 4, 5 and 6)

SECTION 1: PRELIMINARY AND GENERAL

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SANS 1200A	**SECTION 1: PRELIMINARY AND GENERAL**				
1		**Scheduled Fixed-Charge Items**				
1.1	8.3.1	Contractual Requirements	sum	1		
1.2	8.3.2	Establishment of Facilities on the Site	sum	1		
	PSAB 1.2	a) Facilities for Engineer				
1.3		Furnished offices and 2 carports at Pump Station 2	sum	1		
1.4	PSAB 1.1	Name boards (3 No)	sum	1		
1.5	PSA 2.2	b) Facilities for contractor				
1.6		Offices and storage sheds, workshops and laboratories, living accommodation, ablution and latrine facilities, tools and equipment, water supplies, electric power and communications, dealing with water, access and palnt	sum	1		
1.7	8.3.3	Other Fixed-charge Obligations. Please specify	sum	1		
1.7.1						
1.7.2						
1.7.3						
1.7.4						
1.7.5						
1.8		Security of Contractor's Plant and Personnel	sum	1		
1.9		Setting out of the Works	sum	1		
1.10	8.3.4	Removal of Site Establishment	sum	1		
1.11	PSA 3	The preparation of risk assessments, safe work proocedures, the Health & Safety plan. Provision of Personal Protective Equipment and Clothing and any other health and safety matters according to the specifications for the duration of the contract period	sum	1		
Carried Forward						**R**

SECTION 1: PRELIMINARY AND GENERAL

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Carried Forward						**R**
1.12		Detailed Engineering Design of Main Works				
1.12.1		Olifantspoort Pump Station 1 (Mechanical, Electrical and Control + Instrumentation)	sum	1		
1.12.2		Olifantspoort Pump Station 2 (Mechanical, Electrical and Control + Instrumentation)	sum	1		
1.12.3		Olifantspoort Pump Station 3 (Mechanical, Electrical and Control + Instrumentation)	sum	1		
1.12.4		Ebenezer Pump Station (Mechanical, Electrical and Control + Instrumentation)	sum	1		
1.12.5		Ebenezer Water Treatment Works (Mechanical, Electrical and Control + Instrumentation)				
2		**Scheduled Time Related Items**				
2.1	8.4.1	Contractual Requirements	sum	1		
	8.4.2	Operation and maintenance of facilities on site fpr the duration of construction, except where otherwise stated				
		a) Facilities for Engineer				
2.2	PSAB 1.1	Name boards (3 No)	sum	1		
2.3	PSAB 1.2	Furnished office meeting room, kitchen and toilet facilities	sum	1		
2.4		Covered car port for 2 vehicles	sum	1		
	PSA 2.2	b) Facilities for Contractor				
		Offices and storage sheds, workshops and laboratories, living accommodation, ablution and latrine facilities, tools, equipment, water supplies, electri power and communication, access and plant	months	12		
2.5	8.4.3	Supervision for the duration of Construction	sum	1		
2.6	8.4.4	Company and Head Office overhead for duration of Construction	sum	1		
2.7	8.4.5	Other Time-related Obligations. Please specify	sum	1		
2.7.1						
2.7.2						
2.7.3						
Carried Forward						**R**

SECTION 1: PRELIMINARY AND GENERAL

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Carried Forward						**R**
2.8		Security of Contractor's Plant and Personnel	sum	1		
2.9		Setting out of the works	sum	1		
2.10		Principal Controlled Insurance (PIC)	months	12		
2.11	PA	Full compliance with all health and safety matters, updating and amending risk assessments, safe working procedures, the project Health & Safety File, the Health & Safety Plan, the provision and maintenance of Personal Protective Equipment and Clothing and any other Health & Safety matters according to the specifications for the duration of the works including completion and updating of a Health and Safety File.	sum	1		
2.12		Liaison and programming with other contractors and plant operators	sum	1		
3		**Sum Stated Provisionally by Engineer**				
3.1		Cellular communications and data bundles	Prov Sum	1		24 000,00
3.2		Supply of computer, printer and associated equipment to become property of the Engineer at the end of the Contract	Prov Sum	1		45 000,00
3.3		Allow for overheads, charges and profits on item 3.1 and 3.2 above	%		69 000,00	
4	PSA 3	**Prime Cost Items**				
4.1		Allowance for accredited training	PC Sum	1		650 000,00
4.2		Community Liaison Officers (CLO)	PC Sum	1		360 000,00
4.3		Construction Management Assistance for Emerging Contractors	PC Sum	1		1 500 000,00
4.4		Preliminary and General for Emerging Contractors	PC Sum	1		3 250 000,00
4.5		Allow for overheads, charges and profits on item 4.1, 4.2, 4.3 and 4.4 above	%		5 760 000,00	
Carried Forward						**R**

SECTION 1: PRELIMINARY AND GENERAL

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Carried Forward						**R**
5	8.7	**Dayworks**				
		a) Using the Contractor's Labour Force				
5.1		Labourer	hour	800		
5.2		Driver	hour	200		
5.3		Operator	hour	100		
5.4		Artisan	hour	100		
5.5		Welder	hour	100		
5.6		Foreman	hour	100		
5.7		Security guard	hour	100		
		(b) Using contractor's plant				
5.8		LDV (1 ton)	hour	100		
5.9		Flat truck (5 to 12 ton)	hour	100		
5.12		Backactor (Cat 225 or equivalent)	hour	100		
5.13		Air compressor, complete with all tools, drills, jackhammers, etc.	hour	100		
5.14		Pump, including all necessary hosing and pipes	hour	100		
5.15		Compactor	hour	100		
6	8.8	**Temporary Works**				
6.1	8.8.3	Protection of existing structures until construction in the vicinity is complete	sum	1		
6.2	8.8.4	Protection of existing services	sum	1		
7	PB	**Environmental Management**				
7.1		Water pollution control	sum	1		
7.2		Treatment, handling and storage of toxic materials, and fuel (rate to include everything as required in Environmetal Management Plan)	sum	1		
7.3		Additional items the Tenderer deems necessary to comply with the Environmental Management Plan	sum	1		
8		**Equipment Data Packs - 4 Sets**				
		Three hardcopies and 2-softcopy (on USB) for each mechanical, electrical and control + instrumentation equipment per Olifantspoort Pump Stations (PS1, P2 & PS3), Ebenezer Treatment Works and Pump Station				
8.1		Drawings and Detailed Operations & Maintenance Manuals as per the specification	Sum	1		
Carried Forward						**R**

SECTION 1: PRELIMINARY AND GENERAL

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Carried Forward						**R**
8.2		Detailed procedure for FAT and SAT	Sum	1		
8.3		A complete set of As Built drawings which shall reflect all changes or modifications made during construction and/or commissioning	Sum	1		
8.4		Test Certifications including those mandated by National & International Equipment Regulating Authorities	Sum	1		
8.5		Technical Data Sheets and Detailed Technical Instruction Manuals for all new equipment delivered.	Sum	1		
8.6		Theoretical and Practical Training for LNW Operation and Maintenance Personnel (including Training Manuals and where necessary traveling, accommodation and meals) (est. 30 personnel)	PC Sum	1		1 300 000,00
8.7		Allow for overheads, charges and profits on item 8.6 above	%		1 300 000,00	
Total of Section 1 Carried to Summary						**R**

Section 2: Olifantspoort Pump Station 1 (PS 1)

Section 2A: Mechanical Refurbishment Work

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A1		**High Lift Pumps Suction Side**				
A1.1		Removal of Existing DN 450 Butterfly valves and deliver to Pump Station 2	no	5		
A1.2		Cutting of flange on DN450 pipe and making it plain ended to be suitable for a flanged adaptor.	no	5		
A1.3		Supply, Installation and testing - DN450 PN40 Flanged Knife Gate Valve (Pump suction side) including bolts, nuts, gaskets and associated pipe fittings	no	5		
A1.4		Supply and installation of a new flanged adaptor, DN 450, PN40. Including Bolts and Gaskets	no	5		
A1.5		Supply and installation of a new carbon steel reducer changes to DN450 PN40 / DN350 PN40	no	5		
A1.6		Supply and installation of a new DN350 PN40 Dismantling Joint to be incorporated on the DN350 suction nozzle for the pump	no	5		
A2		**Main High Lift Pumps**				
A2.1		Decommission and removal of existing High Lift Multistage pumps and deliver to Pump Station 2	no	5		
A2.2		Supply, installation, testing and commissioning of High Lift Multistage Pump as detailed below: a) Each Multistage Pump must be able to deliver 1250m³/h against the Total Dynamic Head of 330m. (3 Duty and 2 Standby) b) Also Each Multistage Pump must be able to deliver at a reduced rate of 840m³/h against the Total Dynamic Head of 368m. (3 Duty and 2 Standby). The reduction of flow will be achieved via VFDs/VSDs d) Level of Pump Axis = 744.92 mASL d) Lowest Suction Sump Level = 1023.70 mASL e) Size of Suction Main = 790mm Outside Diameter CML (750mm Internal Diameter) f) Length of Suction Main = 6320m g) Each Pump shall have a minimum efficiency of 80% h) Each pump shall be supplied with all protection devices such as vibration sensors, casing temperature sensor, DE & NDE bearing temeprature sensors i) Each pump shall be driven by 1700kW Electric Motor (Motor specified below)	no	5		
A2.3		Multistage Pumps Shaft Seals , Couplings and Safety Guards	no	5		
A2.4		Pump Testing & Certification - Hydrostatic test at 110% of it's maximum rated pressure and Performance tested to ISO 9906 1U, or at least Iso 9906 1B with no negative tolerances for Efficiency on duty	sum	1		
A2.5		Baseplates and anchor fasteners	no	5		
Carried Forward						

Contractor | Witness 1 | Witness 2 | Employer | Witness 1 | Witness 2

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A2.6		Pumps & Motors Plinth Design & Construction/Modification	no	5		
A2.7		Coordinate, receive, install, test and commission High Lift Multistage Pumps (5 off) issued by LNW	no	0		Rate Only
A3		**High Lift Pump Maintenance Contract**				
A3.1		Maintenance of High Lift Pumps and Motors (5 New) for a period of 24 months during the defect liability period	month	12		
A3.2		Maintenance of High Lift Pumps and Motors (5 New) for a period of 24 months after the defect liability period	month	24		
A3.3		3 Years Critical Parts/Spares per Pump Set	years	3		
A4		**High Lift Pumps Delivery Side**				
A4.1		Modify delivery pipe pieces by cutting of DN 350 flange on pipe to allow welding of new PN64 flange for Non-Return Valves and Isolatio Valves	no	10		
A4.2		Removal of existing DN 350 Non-return valves and deliver to Pump Station 2	no	5		
A4.3		Removal of existing DN 350 pipe pieces and deliver to Pump Station 2	no	5		
A4.4		Removal of DN 350 isolating gate valves and deliver to Pump Station 2	no	5		
A4.5		Supply, Installation and testing of a new DN 350, PN 64 Nozzle check Non-return valve. Including Bolts and Gaskets	no	5		
A4.6		Supply and installation of a new DN300 PN64 Dismantling Joint to be incorporated on the DN300 delivery nozzle for the pump	no	6		
A4.7		Supply and installation of a new DN 350, PN 64 Flanged adaptor.Including Bolts and Gaskets	no	5		
A4.8		Supply and installation of Carbon Steel Reducer changes to DN 300 PN 64 / DN 350 PN 64	no	5		
A4.9		Supply , installation and testing of a new Isolation Delivery Side DN 350 PN 64 Electrical Actuated Butterfly Valve.	no	5		
A4.10		Supply , installation and testing of over -bypass DN 80 carbon steel piping and DN 80 PN 64 Wedge Gate Valve for bypassing DN 350 PN 64 Electrical Actuated Valve	no	5		
A4.11		Supply, installation, testing of PN 64, DN 450 Wedge Gate Valve on Common Manifold line Joining to Delivery Common Manifold for High Lift Pumps	no	1		
A4.12		Supply and installation of DN 450, PN 64, single weld on Flanges Common Manifold Line Joining Delivery Common Manifold for High Lift Pumps	no	8		
Carried Forward						

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A4.13		Suppy, installation and testing of DN450, PN 64 Nozzle Check Non-return Valaves. Including Bolts, gaskets for Common manifold Line Joining to Delivery Common Manifold for High Lift Pump	no	1		
A4.14		Supply and installation of Carbon Steel Flanged Reducer Change to DN 450 PN 64 / DN 550 PN 64 for Delivery Common Manifold for High Lift Pumps Joining to Specon Reservoirs Rising Main	no	1		
A4.15		Supply and installation of Carbon Steel Flanged Reducer Change to DN500 PN 64 / DN550 PN 64 for Delivery Common Manifold for High Lift Pumps	no	1		
A4.16		Supply and installation of Carbon Steel Flanged Reducer Change to DN 500 PN 64 / DN 550 PN 64 for Delivery Common Manifold for High Lift Pumps Joining to Specon Reservoirs Rising Main	no	1		
A4.17		Supply and installation of DN 550, PN 64, single weld on Flange Common Manifold Line Joining Delivery Common Manifold for High Lift Pumps Joing to Specon Reservoirs Rising Main	no	1		
A4.18		Supply and installation of DN500, PN 64, single weld on Flange Common Manifold Line Joining Delivery Common Manifold for High Lift Pumps Joing to Specon Reservoirs Rising Main	no	1		
A4.19		Cutting of flanges on DN 500 pipe and making it plain ended to be suitable for rewelding of DN 500, PN 64 Flanges on Delivery Common Manifold for High Lift Pumps joining to Specon Reservoirs Rising Main	sum	1		
A4.20		Supply and installation of DN500, PN 64, single weld on Flange Common Manifold Line Joining Delivery Common Manifold for High Lift Pumps Joing to Specon Reservoirs Rising Main	no	8		
A4.21		Supply and installation of PN 64, DN 450 Dismantling Joint Adaptor on Common manifold Line Joining to Delivery Common Manifold for High Lift Pumps	no	1		
A4.22		Supply and install DN 500 Magnetic Flow Meter with pressure rating of PN 64	no	1		
A5		**Cooling Water Pumping System**				
A5.1		Remove the existing cooling water pumps, pipework and accessories and deliver to Pump Station 2	sum	1		
A5.2		Supply, installation, testing and commissioning of cooling water pumps - 5,5KW Centrifugal pumps coupled with motors including couplings and safey guards	No.	2		
A5.3		Supply, installation and testing of cooling water PN 16, DN150 suction gate valve	No.	2		
A5.4		Supply, installation and testing of cooling water PN 25 DN100 Electrical Actuated Delivery Gate Valve	No.	2		
A5.5		Supply, installation and testing of cooling water PN 25 DN100 Water Type Non-Return Valve	No.	2		
Carried Forward						

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A6.1		**Service Water Pumping System**				
A6.1		Remove the existing service water pumps, pipework and accessories and deliver to Pump Station 2	sum	1		
A6.2		Supply, installation and commissioning of cooling water pumps - 32KW Centrifugal pumps (Flow Rate - 253 m³ per hour @ head = 29,22m) coupled with motors including couplings and safey guards	No.	2		
A6.3		Supply, testing and installation of Service Water PN 16, DN200 Suction Gate Valve	no	2		
A6.4		Supply and installation of Service Water PN 25, DN200 Electrical Actuated Delivery Gate Valve	no	2		
A6.5		Supply and installation of Service Water PN 25, DN200 Wafer Type Non-Return valve	no	2		
A6.6		Supply and installation of Automated Altitude Control Valve for existing Service Water Reservoir	Prov Sum	1		450 000,00
A6.7		Allow for overheads, charges and profits on item A6.5 above	%		450 000,00	
A7		**High Lift Pumpstation Scouring Valves**				
A7.1		Removal of existing DN 150 Gate Valves and deliver to Pump Station 2	no	2		
A7.2		Cutting of Existing DN 150 pipe section to accommodate new DN 150 Wedge Gate.	no	3		
A7.3		Supply and Installation of a new DN 150, PN 64 Wedge Gate Valve, Including Bolts and Gaskets	no	3		
A7.4		Supply and Installation of a new DN 150, PN 64 Flanged Adaptor	no	3		
A8		**High Lift Pumpstation NS7 Isolating Valves**				
A8.1		Removal of existing DN 150 Gate Valve and deliver to Pump Station 2	no	2		
A8.2		Cutting of exisitng DN 150 & DN 50 bypass pipes and valve	no	3		
A8.3		Supply and Installation of a new DN 150, PN 64 Wedge Gate Valve, Including Bolts and Gaskets	sum	3		
A8.4		Supply and installtion of a new DN 150, PN 64 Flanged adaptor	No.	3		
A8.5		Supply and Installation of a new DN 150, PN 64 Slip-on flange to be welded on pipe	No.	3		
A8.6		Supply and install DN 150 to DN 50 Tee piece pipe. PN 64	No.	1		
A8.7		Supply and installation of a new DN 50, PN 64 Gate Valve, Including Bolts and Gaskets	No.	1		
A8.8		Supply and Installation of a new DN 50 , PN 64 Elbow pipe	No.	2		
Carried Forward						

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A9		**Critical Isolating Valve**				
A9.1		Removal of existing DN 700 Butterfly Valve, and pipes and deliver to Pump Station 2	No.	1		
A9.2		Supply and installation of a new DN 700, PN 64 Flanged Adaptor	No.	1		
A9.3		Supply and installation of a new DN 700, PN 64 One end flanged SANS 719 steel pipe, 990mm	No.	1		
A9.4		Supply and installation of a new DN 700, PN 64 Triple Eccentric Butterfly Valve, suittable to be Actuator operated, Including Bolts and Gaskets	No.	1		
A9.5		Supply and installation of Actuator for the DN700, PN 64 Butterfly valve	No.	1		
A10		**High Lift Pumpstation Piping**				
A10.1		Clean dirt, remove paint, sand-blast, repair/weld worn sections and repaint all pump station piping and flanges in accordance to pipe content colour coding SANS 1091 NATIONAL COLOUR CODING Standard	Sum	1		
A10.2		Supply and Installation of a new DN 350, PN 64, single weld on Flange	No.	20		
A10.3		Supply and installation of a new DN 350, PN 64, SANS 719, Steel pipe, 6m lengths to fabricate new pipe spools as /when required for delivery & suction piping systems	No.	3		
A10.4		Supply and installation of a new DN 350, PN 16, SANS 719, Steel pipe, 3m lengths to fabricate new pipe spools as /when required for suction piping systems	No.	1		
A10.5		Supply and installation of a new DN 450, PN 16, SANS 719, Steel pipe, 3m lengths to fabricate new pipe spools as /when required for suction piping systems	No.	1		
A10.6		Modifify all pipe spools lengths (SANS 719, Steel pipe, Flange on end) with PN 16 flanges on suction side , PN64 flanges on delivery sides of the pumps and pipe lengths to suit the new valves that will be supplied.	sum	1		
A11		**Testing, Servicing and Certification of Overhead Cranes, Gantrys and Lifting Equipment**				
A11.1		Service & load test overhead cranes, gantries & lifting equipment	sum	1		
A11.2		Clean & Re-paint structures, motors and all components of overhead cranes, gantries & lifting equipment	sum	1		
Total of Section 2A Carried to Summary						

Section 2B: Electrical Refurbishment Work

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2B: ELECTRICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B1		**6.6kV, 1700kW, 50Hz Water-cooled Electric Motors**				
B1.2		Decommission and removal of 970kW 6.6kV Water-cooled Electric Motors and deliver to Pump Station 2	no	4		
B1.3		Decommission and removal of 1200kW 6.6kV Water-cooled Electric Motor and deliver to Pump Station 2	no	1		
B1.4		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 6.6kV, 1700kW, 50Hz, 4-pole, 1500rpm Water-cooled, VFD/VSD Compatible High-lift Pump Electric Motor as per attached specification complete with the following: Bearing Temperature PT100 Sensors per bearing - DE and NDE Bearing Vibration Sensor per bearing - DE & NDE Winding Temperator PT100 Sensors 2 per Phase	no	5		
B1.5		Coordinate, receive, install, test and commission 6.6kV, 1700kW, 1500rpm, 50Hz, 4-pole Water Cooled Electrical Motor (5 off) issued by LNW	no	0		Rate Only
B2		**6.6kV, 1700kW/2011.5Hp, 50Hz, Variable Frequency/Speed Drives**				
B2.1		Decommission and removal of 180kVA 6.6kV PFC Units and deliver to Pump Station 2	no	5		
B2.2		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 6.6kV, 1700kW/2280Hp Variable Frequency / Speed Drives complete will all accessories and Ethernet TCP/IP switch to as per attached Specification and drawings	no	5		
B3		**Maintenance and Testing of MV (6.6kV) High Lift Pumps Switchgear**				
B3.1		6.6kV 800A Incomer Panel complete with Vaccum Circuit Breaker	no	2		
B3.2		6.6kV 800A Motor Feeder Panel complete with Vaccum Circuit Breaker	no	5		
B3.3		6.6kV 800A Buscoupler Panel complete with Vaccum Circuit Breaker	no	1		
B4		**Substation Batteries and Battery Chargers**				
B4.1		***Main Substation***				
B4.1.1		Replace all substation Nickel-cadmium cells	no	110		
B4.1.2		Refurbishment, maintenance, repair and testing of the existing Battery Charger	no	1		
B4.2		***High Lift Substation***				
B4.2.1		Replace all substation Nickel-cadmium cells	no	110		
B4.2.2		Refurbishment, maintenance, repair and testing of the existing Battery Charger	no	1		
B5		**400/230V Distribution Switchboard and MCC Panel**				
B5.1		Maintenance of Main Pumpstation LV Switchboard including infrared scanning	sum	1		
B5.2		Refurbishment and modification to 5.5kW MCC Panel to be DOL Starters and must be installed with Remote IO Card for PLC/SCADA Control and Monitoring	no	1		
B5.3		Refurbishment and modification to 32kW MCC Panel to be DOL Starters and must be installed with IO Card for PLC/SCADA Control and Monitoring	no	1		
Carried Forward						

Contractor | Witness 1 | Witness 2 | Employer | Witness 1 | Witness 2

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2B: ELECTRICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
B6		**Electrical Valves Actuators and Control Panels**				
B6.1		Refurbishment, modification of existing pumps **delivery valves electrical actuators** and MCC panels including installation of Remote IO Card for PLC/SCADA Control and Monitoring.	no	5		
B6.2		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of **New Suction Valve** DN450PN16 Flaged Knife Gate Valves Actuators complete with local/remote control panels (MCC Panel) including installation of Remote IO Card for PLC/SCADA Control and Monitoring on a 1m angle line stand	no	5		
B7		**Medium and Low Voltage Cabling and Earth Wires c/w With Terminations**				
B7.1		***6.6kV Cables and Termination***				
B7.1.1		Supply, delivery to site, installation, termination and connection of 70mm² 3-core XLPE Cables as per SANS 1339 Table A and cable schedule	m	500		
B7.1.2		70mm² 3-core MV XLPE Cables Indoor Termination Kits Complete with Shear Lugs	no	20		
B7.2		***LV Cables and Terminations***				
B7.2.1		Supply, delivery to site, installation, termination and connection of 4mm² 4-core Cables as per SANS 1507 and cables schedule	m	265		
B7.2.2		Supply, delivery to site, installation, termination and connection of 2.5mm² 2-core Cables as per SANS 1507 and cable schedule	m	400		
B7.2.3		Supply, delivery to site, installation, termination and connection of 2.5mm² 12-core Cables as per SANS 1507 and cable schedule	m	500		
B7.2.4		No. 0 Steel Glands	no	30		
B7.2.5		No. 0 PVC Shrouds	no	30		
B7.2.6		No. 1 Steel Glands	no	12		
B7.2.7		No. 1 PVC Shrouds	no	12		
B7.2.8		2.5x10mm lugs	no	100		
B7.2.9		4x10mm lugs	no	100		
B8		**Bare Copper Earth Wire and Terminations**				
		Supply, delivery to site, installation, termination and connection of Bare Copper Earth Wire (BCEW) as per SANS 1411 and cable schedule				
B8.1		35mm² BCEW	m	500		
B8.2		2.5mm² BCEW	m	265		
B8.3		35*10mm lugs	no	20		
B8.4		2.5x10mm lugs	no	100		
Carried Forward						

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2B: ELECTRICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
B9		**10kVA 3-IN 1-OUT Uninterruptible Power Supply (UPS)**				
B9.1		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 10kVA 400/230V UPS complete with Battery Cabinet and Batteries and Ethernet TCP/IP switch for SCADA communication as per attached specification and drawings	no	1		
B10		**Earthing and Lightning Protection**				
B10.1		Earhing and ligtning protection design including installation/repairs, testing and issuing Earthing Certificates of Complance. This must be done by Specialist Earthing and Lighting Contractor/Consultant.	Prov Sum	1		40 000,00
B10.2		Allow for overheads, charges and profits on item B10.2 above	%		40 000,00	
B11		**Electrical Fault Studies and Relay Settings**				
B11.1		A Protection Engineer/Specialist to be appointed to do electrical fault studies and ensure proper relay settings	Prov Sum	1		60 000,00
B11.2		Allow for overheads, charges and profits on item B10.2 above	%		60 000,00	
B12		**General Electrical and Lightning Upgrade**				
B12.1		Replace/Repair/Refurbish all damaged Small Power (plugs, switches, distribution boxes, conduits and wires) Installations and Upgrading all Interior and Exterior Ligting (only energy efficient lighting to be used)	Prov Sum	1		12 000,00
		Allow for overheads, charges and profits on item B10.2 above	%		12 000,00	
B12.2		250kVA 400V Standby Generator Major Service and Refurbishemt works including battery replacement	no	1		
Total of Section 2B Carried to Summary						

Section 2C: Control and Instrumentation Refurbishment Works

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2C: CONTROL AND INSTRUMENTATION REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C1		**Pumpstation Common Control PLC & HMI**				
C1.1		Design, test, deliver to site, install and commissioning of a new Main PLC System including all networking equipment.	no	1		
C1.2		Design, supply, configure and testing of 10/100/1000 Managed Ethernet Switches - 16 ports with 2 managed GB F/O ports.	no	1		
C1.3		Design, test, deliver to site, install and commissioning of a new HMI as per the specification	no	2		
C1.4		PLC & HMIs programming as per P & ID, process and control description and control philosophies for various process areas.	no	1		
C2		**Main Pump-Sets PLCs**				
C2.1		Design, test, deliver to site, install and commissioning of a new PLC System including all networking equipment .	no	5		
C2.2		Design, supply, configure and testing of 10/100/1000 unmanaged Ethernet Switches - 5 ports.	no	5		
C2.3		PLC programing for a pump-set as per P & ID, process and control description and control philosophies for various process areas.	no	5		
C3		**Instrumentation**				
C3.1		Supply, delivery, install and commissioing of Pump Station delivery Pressure Transmitter complete with all materials necessary for the complete installation.	no	1		
C3.2		Supply, delivery, install and commissioing of Pump Station delivery Pressure Switch complete with all materials necessary for the complete installation.	no	1		
C3.3		Supply, delivery, install and commissioing of Pump-set Pressure Transmitter complete with all materials necessary for the complete installation.	no	10		
C3.4		Supply, delivery, install and commissioing of Pressure Switch complete with all materials necessary for the complete installation.	no	10		
C3.5		Supply, delivery, install and commissioing of Flow Switch complete with all materials necessary for the complete installation.	no	10		
C3.6		Test and recalibrate Pump Station Delivery Magnetic Flow meter	no	2		
C4		**Control and Instrumentation Cabling and Accessories**				
C4.1		Supply and delivery of Cat 6 unshielded 4 twisted pairs 24 gauge copper cable inclusive of cable straps and cable markers	m	1000		
C4.2		Supply, delivery and terminate RJ45 plugs onto Cat 5 unshielded 4 twisted pairs 24 gauge copper cable.	No.	50		
C4.3		Install Cat 5 cables and RJ45 plug between devices and Ethernet 10/100 switch mounted in PLC cabinet.	m	1000		
Carried Forward						

Contractor | Witness 1 | Witness 2 | Employer | Witness 1 | Witness 2

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2C: CONTROL AND INSTRUMENTATION REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
C4.4		Supply and delivery to site 2 Pair x 1.0mm2 Dekabon IOS scn/SWA. cable inclusive of cable straps, lugs, core markers and cable markers.	m	1000		
C4.5		Install and test 2 Pair x 1.0mm2 Dekabon IOS scn/SWA. cable between PLC Cabinet in MCC and field mounted Instrument Cabinet	m	1000		
C4.6		Supply and delivery to site CCG Posi Gland to suit 2 Pair x 1.0mm2 Dekabon IOS scn/SWA. Cable	No.	20		
C4.7		Gland and terminate 2 Pair x 1.0mm2 Dekabon IOS scn/SWA Cable	End	20		
C5		**Angle Iron Cable Support**				
C5.1		Supply and delivery to site stainless steel angle iron cable support steelwork inclusive of brackets and fixings.(40 x 40 x 4 angle iron)	m	200		
C5.2		Install angle iron cable support steelwork	m	400		
C5.3		Supply and delivery to site stainless steel angle iron cable support steelwork inclusive of brackets and fixings.(25 x 25 x 4 angle iron)	m	200		
C6		**Telemetry System**				
C6.1		Upgrade the existing Telemetry System as per specification for the Pump Station 1. This system should be compatible with the entire Olifantspoort Water Scheme (inclusive of Pump Station 2 & 3, Specon Reservoirs , Witkos Reservoirs snd Palmietfontein Reservoirs) and the entire Ebenezer Water Supply Scheme	Sum	1		
Total of Section 2C Carried to Summary						

Section 2D: Building and Minor Civil Works

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2D: ACCESS ROAD, BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D1		**New VFD/VSD Building**				
D1.1	**SANS1200 C**	**Site Clearance**				
D1.1.1		Clear Vegetation, Grass, Shrubs etc. and Trees of Girth up to 1m and Remove to Dumpsite, Stockpile, Maintain/Preserve and Reinstate Topsoil (150mm Deep)	m²	182		
D1.1.2		Shrubs, Trees and Grass along Route of Pipeline and at Ablution Block Sites.	sum	1		
D1.1.3		Clear Trees of Girth and Designated Obstacles > 1.0m Up To and Including 2m	sum	1		
D1.1.4		Remove rubble and cart away to an approved landfill site	m^3	17		
D1.2	**SANS1200 D**	**Earthworks and Foundations**				
D1.2.1		***Foundations and Foundations Excavations***				
D1.2.1.1		Excavate 1m beyond entire foundation footprint using 1:1 (V:H) side slopes	m³	200		
D1.2.1.2		Rip and re-compact 150mm thick bottom in-situ layer when established at 1m below raft slab	m³	25		
D1.2.1.3		Excavation in Earth for Strip Foundations and Cable Trenches Exceeding 0.6m Deep and Not Exceeding 1.3m Deep.	m³	115		
D1.2.1.4		Allow for Keeping Excavations Free of Water by Hand or Machinery	Item	1		
D1.2.1.5		Construct earth mattress in 150mm layers to be compacted and tested at each layer using G6 material compacted to be achieved at 95% MOD AASHTO at OMC. Layers shall be constructed to beneath foundations and around footprint to GL	m³	200		
D1.2.1.6		15Mpa Concrete Blinding under Footings.	m³	6		
D1.2.1.7		30Mpa (28 days) 19mm Reinforced Concrete On Strip Foundations	m³	12		
D1.2.1.8		Blockwork on on foundations up to DPC level				
D1.2.1.8.1		a) M90	m²	15		
D1.2.1.8.2		b) M190	m²	25		
D1.2.2		***Soil Insecticide***				
D1.2.2.1		Soil to be Poisoned in Accordance with SABS 1165 (Certificate must be Approved by an Accredited Applicator) under floors etc. including forming and poisioning shallow furrows against foundation walls etc., filling in furrows and ramming	m²	182		
D1.2.2.3		Reinforcing Mesh Ref. 193 with a Cover of 50mm	m²	80		
D1.2.2.4		Reinforcing Mesh Ref. 245 with a Cover of 50mm	m²	10		
Carried Forward						

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2D: ACCESS ROAD, BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D1.2.5		***False work, formwork and concrete finish***				
D1.2.5.1		Formwork to provide (class F1) surface finish				
D1.2.5.2		a) Type E concrete apron slab	m²	60		
D1.2.5.3		Vertical formwork to provide class F1 surface finish to				
		a) Footings and Cable Trenches	m²	110		
D1.2.6		***Steel Reinforcement***				
		Steel Reinforcement of Strip Foundation				
D1.2.6.1		a) High yield stres steel bars (Strip foundation)	t	3		
D.1.2.6.2		30Mpa (28 days) 150mm Thick Powerfloat Finished Slab	m³	62		
D.1.2.6.3		30Mpa (28 days) Concrete to Aprons / v drain (steel float finish)	m³	7		
D.1.2.6.4		Making and Testing Set of Six 150 x 150 x 150 Concrete Strength Test Cubes, to be tested by an Independent Laboratory (Provisional)	Sets	4		
D.1.2.6.5		100mm wide x 10mm thick Jointex Joint Filler with 10 x 10mm Tear-Off Strip	m	170		
D.1.2.6.6		10mm x 10mm SikaFlex at Facade Joint Sealer	m	100		
D1.2.7		***Earthworks***				
D1.2.7.1		a) Cut To Level	m³	26		
D1.2.7.2		b) Extra-over for Boulder Excavations	m³	2		
D1.2.7.3		c) for Hard Rock Excavations	m³	1		
D1.3	**19.1.8**	**Damp Proof Course**				
D1.3.1		One layer of 250 micron 'USB GREEN' waterproof sheeting sealed at laps with 'Gunplas Pressure Sensitive Tape':	m²	182		
D1.3.2		Gundle® 'Brikgrip® DPC 375' Damp Proof course to SABS mark 952- 1985 Type B:				
D1.3.2.1		a) In 200 thick walls	m	60		
D1.3.2.2		b) In 100 thick walls	m	25		
D1.4	**19.1.1**	**Blockwork**				
D1.4.1		M190 (190mm thick Walls - Load bearing wall)	m²	130		
D1.4.2		M90(90mm thick Walls (Outside Walls - Face brick)	m²	130		
D1.4.3		190mm Brickforce to Wall	m	300		
Carried Forward						

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2D: ACCESS ROAD, BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D1.4.4		90mm Brickforce to Outside Walls	m	135		
D1.4.5		390 x 190 x 50 Air Brick	No.	8		
D1.4.6		Precast Prestressed Concrete Lintels, suitable for blocks, lengths Not Exceeding 1.5m	m	9		
D1.4.7		Precast Prestressed Concrete Lintels, suitable for blocks, Lengths Exceeding 1.5m but Less than 6m	m	12		
D1.4.8		Galvanised Hoop Iron Cramps, Ties, etc: 30 x 1.6mm Wall Tie 600mm Long with One End Wrapped Around Rebar and the Other End Wrapped Over and Nailed to Rafter	m	30		
D1.5	**19.1.3**	**Plaster**				
D1.5.1		(15mm thick) 1:4 Cement Plaster on Brickwork:				
D1.5.1.1		a) On Walls	m²	120		
D1.5.1.2		b) On Narrow Widths	m²	22		
D1.5.1.3		c) 50mm Radius Skirting	m	120		
D1.6	**19.1.2**	**Paint**				
D1.6.1		Interior				
D1.6.1.1		a) Primer as per spec	m²	110		
D1.6.1.2		b) Paint as per spec	m²	110		
D1.6.2		Exterior				
D1.6.2.1		a) Primer as per spc	m²	0		Rate only
D1.6.2.2		b) Paint (Lighter Colour - as per spec)	m²	0		Rate only
D1.6.2.3		c) Paint (Darker Colour - as per spec)	m²	0		Rate only
D1.6.3		Floors				
D1.6.3.1		a) Epoxy Paint Floors	m²	115		
D1.7	**19.1.16**	**Ironmongery**				
D1.7.1		Doors Complete, including leaf, frame, hinges, handles, stops, lock sets etc				
D1.7.1.1		a) Door (as per drawings)	No.	4		
D1.7.1.2		b) 150 x 50 GMS Purlin	m	9		
D1.7.2		Painting of Doors				
D1.7.2.1		a) Laquer Thinners for Knots and Resinous areas	m²	18		
D1.7.2.2		b) Woodcare Knot Seal	m²	18		
D1.7.2.3		c) 1 Coat Plascon Woodcare Pretreatment	m²	18		
D1.7.2.4		d) 1 Coat Wood Primer (UC2)	m²	70		
D1.7.2.5		e) 2 Coats Wall and All (WAA)	m²	70		
Carried Forward						

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2D: ACCESS ROAD, BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D1.7.3		Frame Finishing				
D1.7.3.1		a) Laquer Thinners for Knots and Resinous areas (Door A/C/D)	m²	15		
D1.7.3.2		b) Woodcare Knot Seal (Door A/C/D)	m²	15		
D1.7.3.3		c) 1 Coat Plascon Woodcare Pretreatment (Door A/C/D)	m²	15		
D1.7.3.4		d) 1 Coat Wood Primer (UC2) (Door A/C/D)	m²	15		
D1.7.3.5		e) 2 Coats Wall and All (WAA) (Door A/C/D)	m²	15		
D1.8	**19.1.17**	**Glazing**				
D1.8.1		All glazing shall be inaccordance with SABS 0400-1990, SABS 1263-1. All safety glazing materials shall be permanently marked				
		a) 3mm obscure glass	m²	20		
D1.9		**Galvanised windows**				
		Supply and install hot dipped galvanised 1.6mm steel window frames to comply with SANS 727				
D1.9.1		a) Window (as per drawings)	No.	8		
D1.10	**19.1.11**	**Roofing**				
		False work, formwork and concrete finish				
D1.10.1		a) Vertical formwork to provide (class F3) surface finish	m²	55		
D1.10.2		b) Horizontal formwork to provide (class F3) surface finish	m²	85		
D1.10.3		c) Horizontal formwork to provide (class U2) surface finish	m²	75		
D1.11		**Steel Reinforcement**				
		Steel Reinforcement of concrete roof slab and up-stand beams				
D1.11.1		a) High yield stres steel bars	t	2		
D1.11.2		b) 40Mpa (28 days) 200mm Thick Powerfloat Finished Slab	m³	20		
D1.11.3		c) Making and Testing Set of Six 150 x 150 x 150 Concrete Strength Test Cubes, to be tested by an Independent Laboratory (Provisional)	Sets	4		
D1.11.4		d) Elastoplastomeric polymer-bitumen waterproofing membrane torched on to roof slab to be finished off with aluminum pigment bitumen based paint coating in full comliance to manufacturers specification	m²	80		
D1.11.5		e) 203x133x30 I-Section crawl beam anchored into RC roof slab with chemical anchors @ 1000 c/c	m	15		
D1.12	**19.1.13**	**Guttering**				
D1.12.1		a) Full bore outlet (to lead to PVC downpipe)	No.	4		
D1.12.2		b) 75mm uPVC downpipe x 3.2m long including 2 no brackets per downpipe	No.	4		
Carried Forward						

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2D: ACCESS ROAD, BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D2		**Pump Station Minor Building Refurbishment**				
D2.1	**SANS 1200G**	**Concrete (Structural)**				
D2.1.1		Rapid hardening Portland cement 15 for use in the following				
		a) Plastering work	t	2		
		b) Screeding	t	2		
D2.2	**19.1.9**	**Joints**				
D2.2.1		Proprietary expansion joints:				
D2.2.1.1		a) Prime Cost Sum allowed for purchase and taking delivery of expansion joints	PC Sum	1		20 000,00
D2.2.1.2		b) Allow for overheads, charges and profits on item D2.2.1.2 above	%		20 000,00	
D2.2.2		Installation of proprietary expansion joints *Retroffit Saw-Cut Expansion Joints*				
D2.2.2.1		a) Metal cover installed in movement joint	m	40		
D2.2.3		Application of proprietary expansion joints sealants				
		Application type: high movement construction and expansion joints				
D2.2.3.1		a) Application: concrete contraction and expansion joints surfaces should be clean, sound and dry prior to application. Apply Dow Corning 888 or similar approved all in accordance with manufacturer's recommendations	m	40		
		Expansion joints as detailed on the Drawings and/or specified in the Specifications				
		Construction joits as detailed on the Drawings and/or specified in the Project Spections				
D2.3	**19.1.19**	**Grouting:**				
D.2.3.1		a) Under bases (or beds)	m^3	5		
D.2.3.2		b) Painting	kg	225		
D2.4		**Sprayed metal coating (*type of metal and thickness of coating indicated*)**				
D2.4.1		c) Hot-dip galvanizing	kg	0		Rate only
D2.4.2		d) Poweder Coating	kg	0		Rate only
D2.5	**19.1.22**	**Miscellaneous work other than metal:**				
		Drainage pipes: (Exposed Drainage Pipes @ Basement)				
D2.5.1		a) Flushing, Cleaning and Painting of drainage pipes @ basement	m	75		
		Drainage gullies for bridge deck as per confirnation on site				
D2.5.2		b) All drainage gullies on balconies	no	0		Rate only
Carried Forward						

SECTION 2 - OLIFANTSPOORT PUMP STATION 1

SECTION 2D: ACCESS ROAD, BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D2.6	**19.1.6**	**Screeds:**				
D2.6.1		Floor screeds (1:3) with falls including V-joints to form panels and a smooth towelled finish power float finish to top:				
		Floor screed:				
		a) 1 Part cement with 3 parts clean, coarse sand with sufficient until a plastic consistence similar to cement plaster is a chieved. Smooth finish to Architect's specification	m²	30		
D2.6.2		Plaster and Concrete Repair Work:				
		b) Repair mix for damaged and peeling of plaster to manufacturer's specs Sika/abe or similar approved products	m²	30		
D2.7		**Epoxy based bonding agent and primer to [re[are concrete floors to receive screeding (FOSROC NITROBOND EP slowest ro approved equivalent)**	m²	30		
D2.8		**Corrosion protection by:**				
D2.8.1		1) Vinyl anti-fouling paint and undercoats to form an algae-resitant coating on: Exposed Structural Steekwork	m²	30		
D2.8.2		2) Solvent-free abrasion-resistant coating and primer to a minimum thickmess of 3mm on Exposed Structural Steelwork	m²	30		
D2.9	**SANS 1200H**	**Structural (Steelwork)**				
D2.9.1		a) Non-destructive testing	h	1		
D2.10		**Pump Station Ventilation**				
D2.10.1		Supply and installation of Ventilation System complete with fans, ducts and electrical cintrol system	Prov Sum	1		600 000,00
D2.10.2		Allow for overheads, charges and profits on item D2.10.1 above	%		600 000,00	
D2.11		**Access Road**				
D2.11.1		Rehabilitation of 3.2 km section of the existing access road to the Olifantspoort WTW/PS 1 involving ripping 300mm thick top layer and recompact to 95% of Modified AASHTO, before constructing new 150mm G4 gravel surfacing compacted to 95% of Modified AASHTO).	Prov Sum	1		6 018 798,20
D2.11.2		Allow for overheads, charges and profits on item D2.10.1 above	%		6 018 798,20	
Total of Section 2D Carried to Summary						

Section 3: Olifantspoort Pump Station 2 (PS 2)

Section 3A: Mechanical Refurbishment Work

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A1		**High Lift Pumps Suction Side**				
A1.1		Removal of Existing DN 450 Butterfly valves and deliver to Pump Station 2	no	3		
A1.2		Cutting of flange on DN450 pipe and making it plain ended to be suitable for a flanged adaptor.	no	3		
A1.3		Supply, Installation and testing - DN450 PN16 Flanged Knife Gate Valve (Pump suction side) including bolts, nuts, gaskets and associated pipe fittings	no	3		
A1.4		Supply and installation of a new flanged adaptor, DN 450, PN16. Including Bolts and Gaskets	no	3		
A1.5		Supply and installation of a new carbon steel reducer changes to DN450 PN16 / DN350 PN16	no	3		
A1.6		Supply and installation of a new DN350 PN16 Dismantling Joint to be incorporated on the DN350 suction nozzle for the pump	no	3		
A2		**Main High Lift Pumps**				
A2.1		Decommission and removal of existing High Lift Multistage pumps and deliver to Pump Station 2	no	3		
A2.2		Supply, installation, testing and commissioning of High Lift Multistage Pump as detailed below: a) Each Multistage Pump must be able to deliver 1250m³/h against the Total Dynamic Head of 270m. (2 Duty and 1 Standby) c) Level of Pump Axis = 1011.51 mASL d) Lowest Suction Sump Level = 1023.70 mASL e) Size of Suction Main = 790mm Outside Diameter CML (750mm Internal Diameter) f) Length of Suction Main = 6320m g) Each Pump shall have a minimum efficiency of 80% h) Each pump shall be supplied with all protection devices such as vibration sensors, casing temperature sensor, DE & NDE bearing temeprature sensors i) Each pump shall be driven by 1700kW Electric Motor (Motor specified below)	no	3		
A2.3		Multistage Pumps Shaft Seals , Couplings and Safety Guards	no	3		
A2.4		Pump Testing & Certification - Hydrostatic test at 110% of it's maximum rated pressure and Performance tested to ISO 9906 1U, or at least Iso 9906 1B with no negative tolerances for Efficiency on duty	sum	1		
A2.5		Baseplates and anchor fasteners	sum	1		
A2.6		Pumps & Motors Plinth Design & Construction/Modification	no	3		
A2.7		Coordinate, receive, install, test and commission High Lift Multistage Pumps (3 off) issued by LNW	no	0		Rate Only
Carried Forward						

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A3		**High Lift Pump Maintenance Contract**				
A3.1		Maintenance of High Lift Pumps and Motors (3 New) for a period of 24 months during the defect liability period	month	12		
A3.2		Maintenance of High Lift Pumps and Motors (3 New) for a period of 24 months after the defect liability period	month	24		
A3.3		3 Years Critical Parts/Spares per Pump Set	years	3		
A4		**High Lift Pumps Delivery Side**				
A4.1		Modify delivery pipe pieces by cutting of DN 350 flange on pipe to allow welding of new PN 40 flange for Non-Return Valves and Isolation Valves	no	6		
A4.2		Removal of existing DN 350 Non-return valves and deliver to Pump Station 2	no	3		
A4.3		Removal of existing DN 350 pipe pieces and deliver to Pump Station 2	no	3		
A4.4		Removal of DN 350 isolating gate valves and deliver to Pump Station 2	no	3		
A4.5		Supply, Installation and testing of a new DN 350, PN 40 Nozzle check Non-return valve. Including Bolts and Gaskets	no	3		
A4.6		Supply and installation of a new DN300 PN 40 Dismantling Joint to be incorporated on the DN 300 delivery nozzle for the pump	No.	3		
A4.7		Supply and installation of a new DN 350, PN 40 Flanged adaptor.Including Bolts and Gaskets	No.	3		
A4.8		Supply and installation of Carbon Steel Reducer changes to DN 300 PN 40 / DN 350 PN 40	No.	3		
A4.9		Supply , installation and testing of a new Isolation Delivery Side DN350 PN 40 Electrical Actuated Butterfly Valve.	No.	3		
A4.10		Supply , installation and testing of over -bypass DN 80 carbon steel piping and DN80 PN 40 Wedge Gate Valve for bypassing DN350 PN 40 Electrical Actuated Valve	No.	3		
A4.11		Replacement of existing Pumps 1-3 Delivery Pipes and Manifold	Prov Sum	1		4 000 000,00
A4.12		Allow for overheads, charges and profits on item A4.11 above	%		4 000 000,00	
A5		**Cooling Water Pumping System**				
A5.1		Remove the existing cooling water pumps, pipework and accessories and deliver to Pump Station 2	sum	1		
A5.2		Supply, installation, testing and commissioning of cooling water pumps - 5,5KW Centrifugal pumps coupled with motors including couplings and safey guards	No.	2		
A5.3		Supply, installation and testing of cooling water PN 16, DN150 suction gate valve	No.	2		
Carried Forward						

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A5.4		Supply, installation and testing of cooling water PN 25 DN100 Electrical Actuated Delivery Gate Valve	No.	2		
A5.5		Supply, installation and testing of cooling water PN 25 DN100 Water Type Non-Return Valve	No.	2		
A5.6		Supply and installation of cooling water carbon steel pipes Schedule 80 (ANSI/ASME B36.10 Steel Pipes) on the 5 pumps within the pumpstation. Carbon steel Schedule 80 pipes PN 16, DN150 on suction side and Carbon Steel Schedule 80 pipes PN 25, DN100 on Delivery Side	Sum	1		
A5.7		Supply and installation of Electrical Actuated Motor Cooling Water Valves - DN50 Suction and Delivery Solenoid Valves	No.	6		
A6		**High Lift Pumpstation Scouring Valves**				
A6.1		Removal of existing DN 150 gate valves and deliver to Pump Station 2	No.	2		
A6.2		Cutting of Existing DN 150 pipe section to accommodate new DN 150 wedge gate.	No.	3		
A6.3		Supply and Installation of a new DN 150, PN 40 Wedge gate valve, Including Bolts and Gaskets	No.	3		
A6.4		Cutting of Existing DN 150 pipe section to accommodate new DN 150 wedge gate.	No.	3		
A6.5		Supply and Installation of a new DN 150, PN 40 Flanged adaptor	No.	3		
A7		**Other Pump Station Equipment**				
A7.1		Refurbish, repair/re-instate, test and commission existing pump station chemical (chlorine)dosing system	No.	1		
A7.2		Supply and Installation of a new DN 150, PN 40 Flanged adaptor	No.	3		
A7.3		Refurbish, repair, test and commission existing 2 off Reciprocating Compressor- 5"&3" X 3-1/2"- 5.5KW	No.	2		
A7.4		Refurbish, repair, test and commission existing 1 off Accumulator	No.	1		
A8		**Rural Pumps**				
A8.1		Removal of existing DN 150 gate valve and deliver to Pump Station 2	sum	2		
A8.2		Removal of exisitng DN 150 & DN 50 bypass pipes and valve	sum	1		
A8.3		Supply and installation of 2 off new DN200 PN 25 Dismantling Joint to be incorporated on the DN200 delivery nozzle for the pump	sum	2		
A8.4		Refurbish, repair, test and commission 2 off High lift multistage centrifugal pumps - Sulzer HPL 32-17.5-30 3-stage pumps fitted with Siemens 350kW 400V squirrel cage induction motors running at 1480 rpm, DOL starting90 kW 400 volt motors running at 1480 rpm. Delivery per pump is 60 l/s at 96 metres water head	No.	2		
A8.5		Supply, Installation and testing 2 off DN200 PN25 Flanged Eccentric Axis Butterfly (Pump suction side) including bolts, nuts, gaskets and associated pipe fittings for rural pumps	No.	2		
Carried Forward						

SECTION 3A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A8.6		Supply and installation of 2 off new flanged adaptor, DN 200, PN 25. Including Bolts and Gaskets	No.	2		
A8.7		Supply, Installation and testing of 2 off new DN 200, PN 25 Nozzle check Non-return valves. Including Bolts and Gaskets	No.	2		
A8.8		Supply , installation and testing of 2 off new Isolation Delivery Side DN200 PN 25 Actuated Triple Eccentric Butterfly Valves.	No.	2		
9		**High Lift Pumpstation Piping**				
A9.1		Clean dirt, remove paint, sand-blast, repair/weld worn sections and repaint all pump station piping and flanges in accordance to pipe content colour coding SANS 1091 NATIONAL COLOUR CODING Standard	Sum	1		
A9.2		Supply and Installation of a new DN 350, PN 16, single weld on Flange	No.	12		
A9.3		Supply and installation of a new DN 350, PN 16, SANS 719, Steel pipe, 6m lengths to fabricate new pipe spools as /when required for delivery & suction piping systems	No.	3		
A9.4		Supply and installation of a new DN 350, PN16, SANS 719, Steel pipe, 3m lengths to fabricate new pipe spools as /when required for suction piping systems	No.	1		
A9.5		Supply and installation of a new DN 450, PN 16, SANS 719, Steel pipe, 3m lengths to fabricate new pipe spools as /when required for suction piping systems	No.	1		
A9.6		Modifify all pipe spools lengths (SANS 719, Steel pipe, Flange on end) with PN 16 flanges on suction side , PN 16 flanges on delivery sides of the pumps and pipe lengths to suit the new valves that will be supplied.	sum	1		
A9.7		Supply and installation of new pipe supports and for valves to suit the modified suction and delivery piping system/trains	sum	1		
A10		**Testing, Servicng and Certification of Overhead Cranes, Gantrys and Lifting Equipment**				
A10.1		Service & load test overhead cranes, gantries & lifting equipment	sum	1		
A10.2		Clean & Re-paint structures, motors and all components of overhead cranes, gantries & lifting equipment	sum	1		
A11		**Valves Replacement and Installation**				
A11.1		Replacement of Main Inlet and Delivery Isolating Valves and the Installation of new Bypass Isolating Valve including the required	Prov Sum	1		5 150 000,00
A11.2		Allow for overheads, charges and profits on item A11.1 above	%		5 150 000,00	
Total of Section 3A Carried to Summary						

Section 3B: Electrical Refurbishment Work

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3B: ELECTRICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B1		**6.6kV, 1700kW, 50Hz, Water-cooled Electric Motors**				
B1.1		Remove existing 970kW 6.6kW Electric Motors and deliver to Pump Station 2	no	3		
B1.2		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 6.6kV, 1700kW, 50Hz, 4-pole, 1500rpm Water-cooled, VFD/VSD Compatible High-lift Pump Electric Motor as per as per specification complete with the following protection: Bearing Temperature PT100 Sensors per bearing - DE and NDE Bearing Vibration Sensor per bearing - DE & NDE Winding Temperator PT100 Sensors 2 per Phase Water Temperature PT100 Sensor	no	3		
B1.3		Coordinate, receive, install, test and commission 6.6kV, 1700kW, 50Hz, 4 Pole Water-cooled 1500rpm Electric Motor (3 off) issued by LNW	no	0		Rate Only
B2		**6.6kV, 1500kW/2011.5Hp, 50Hz, Variable Frequency/Speed Drive**				
B2.1		Decommission and removal of 180kVA 6.6kV PFC Units and deliver to Pump Station 2	no	3		
B2.2		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 6.6kV, 1700kW/2280Hp Variable Frequency/Speed Drives complete will all accessories and Ethernet TCP/IP switch to as per attached specification	no	3		
B3		**Maintenance and Testing of MV (6.6kV) Switchgear**				
B3.1		6.6kV 800A Incomer Panel complete with Vaccum Circuit Breaker	no	2		
B3.2		6.6kV 800A Motor Feeder Panel complete with Vaccum Circuit Breaker	no	3		
B3.3		6.6kV 800A Minisubstation Feeder Panel complete with Vaccum Circuit Breaker	no	2		
B3.4		6.6kV 800A Buscoupler Panel complete with Vaccum Circuit Breaker	no	1		
B4		**Substation Batteries and Battery Chargers**				
B4.1		***High Lift Pumpstation Switchgear Room***				
B4.1.1		Replace all Pump station substation Sealed Lead-acid batteries	no	30		
B4.1.2		Refurbishment, maintenance, repair and testing of the existing Battery Charger	no	1		
B4.2		***Transformer Yard Control and Protection Relays Substation***				
B4.2.1		Replace all substation Nickel-cadmium cells	no	110		
B4.2.2		Refurbishment, maintenance, repair and testing of the existing Battery Charger	no	1		
Carried Forward						

Contractor | Witness 1 | Witness 2 | Employer | Witness 1 | Witness 2

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3B: ELECTRICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
B5		**400/230V Distribution Board and MCC Panels**				
B5.1		Maintenance of Main Pumpstation LV Switchboard including infrared scanning	sum	1		
B5.2		Refurbishment and modification to 5.5kW Cooling Water Pumps MCC Panels must be installed with Remote IO for PLC/SCADA Control and Monitoring	no	2		
B5.3		Refurbishment and modification to 90kW MCC Panel to be Soft	no	2		
B6		**10kVA 3-IN 1-OUT Uninterruptible Power Supply (UPS)**				
B6.1		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 10kVA 400/230V UPS complete with Battery Cabinet and Batteries and Ethernet TCP/IP switch for SCADA communication as per attached specification and drawings	no	1		
B7		**Electrical Valves Actuators and Control Panels**				
B7.1		Refurbishment, modification of existing pumps **delivery valves** actuators and MCC panels including installation of Remote IO for PLC/SCADA Control and Monitoring.	no	3		
B7.2		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of **new inlet valves** DN450PN16 Flaged Knife Gate Valves Actuators complete with local/remote control panels (MCC Panel) including installation of Remote IO for PLC/SCADA Control and Monitoring on a 1m angle line stand	no	3		
B7.3		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of **new inlet and outlet valves** DN450PN16 Flaged Knife Gate Valves Actuators complete with local/remote control panels (MCC Panel) including installation of Remote IO for PLC/SCADA Control and Monitoring on a 1m angle line stand for Rual Pumps (1&2)	no	2		
B8		**MV (6.6kV) Cables and Terminations**				
B8.1		Supply, delivery to site, installation, termination and connection of 70mm² 3-core XLPE Cables as per SANS 1339 Table A and cable schedule	m	300		
B8.2		70mm² 3-core MV XLPE Cables Indoor Termination Kits Complete with Shear Lugs	no	20		
B9		**LV Cables and Terminations**				
B9.1		Supply, delivery to site, installation, termination and connection of 4mm² 4-core Cables as per SANS 1507	m	265		
B9.2		Supply, delivery to site, installation, termination and connection of 2.5mm² 2-core Cables as per SANS 1507	m	400		
B9.3		Supply, delivery to site, installation, termination and connection of 2.5mm² 12-core Cables as per SANS 1507	m	500		
B9.4		No. 0 Steel Glands	no	30		
B9.5		No. 0 PVC Shrouds	no	30		
Carried Forward						

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3B: ELECTRICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
B9.6		No. 1 Steel Glands	no	12		
B9.7		No. 1 PVC Shrouds	no	12		
B9.8		2.5x10mm lugs	no	100		
B9.9		4x10mm lugs	no	100		
B10		**Bare Copper Earth Wire and Terminations**				
		Supply, delivery to site, installation, termination and connection of Bare Copper Earth Wire (BCEW) as per SANS 1411				
B10.1		35mm² BCEW	m	500		
B10.2		2.5mm² BCEW	m	265		
B10.3		35*10mm lugs	no	20		
B10.4		2.5x10mm lugs	no	100		
B11		**Earthing and Lighting Protection**				
B11.1		Earhing and ligtning protection design including installation/repairs, testing and issuing Earthing Certificates of Complance. This must be done by Specialist Earthing and Lighting Contractor/Consultant.	Prov Sum	1		20 000,00
B11.2		Allow for overheads, charges and profits on item B12.1 above	%		20 000,00	
B12		**Electrical Fault Studies and Relay Settings**				
B12.1		A Protection Engineer/Specialist to be appointed to do electrical fault studies and ensure proper relay settings	Prov Sum	1		20 000,00
B12.2		Allow for overheads, charges and profits on item B13.1 above	%		20 000,00	
B13		**General Electrical and Lighting Upgrade**				
B13.1		Replace/Repair/Refurbish all damaged Small Power (plugs, switches, distribution boxes, conduits and wires) Installations and Upgrading all Interior and Exterior Ligting (only energy efficient lighting to be used)	Prov Sum	1		10 000,00
B13.2		Allow for overheads, charges and profits on item B14.1 above	%		10 000,00	
B13.2		400V Standby Generator Major Service and Refurbishemt works including battery replacement	no	1		
B13.4		Supply, delivery to site, installation, testing and commissioning of 15m High Mast Lighting, complete with 4 x 400W HPS Lights, DB, Day-night switch and concrete plinth and 10mm² 3-core PVCPVCSWAPCV cable and accessories. Cable length to be determined on site once the position of the high mast is finalised	Prov Sum	1		280 000,00
B13.5		Allow for overheads, charges and profits on item B14.4 above	%		280 000,00	
Total of Section 3B Carried to Summary						

Section 3C: Control and Instrumentation Refurbishment Work

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3C: CONTROL AND INSTRUMENTATION REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C1		**Pumpstation Common Control PLC & HMI**				
C1.1		Design, test, deliver to site, install and commissioning of a new Main PLC System including all networking equipment.	no	1		
C1.2		Design, supply, configure and testing of 10/100/1000 Managed Ethernet Switches - 16 ports with 2 managed GB F/O ports.	no	1		
C1.3		Design, test, deliver to site, install and commissioning of a new HMI as per the specification	no	1		
C1.4		PLC & HMIs programming as per P & ID, process and control description and control philosophies for various process areas.	sum	1		
C2		**Main Pump-Sets PLCs**				
C2.1		Design, test, deliver to site, install and commissioning of a new PLC System including all networking equipment .	no	3		
C2.2		Design, supply, configure and testing of 10/100/1000 unmanaged Ethernet Switches - 5 ports.	no	3		
C2.3		PLC programing for a pump-set as per P & ID, process and control description and control philosophies for various process areas.	no	3		
C3		**Instrumentation**				
C3.1		Supply, delivery, install and commissioing of Pump Station delivery Pressure Transmitter complete with all materials necessary for the complete installation.	no	1		
C3.2		Supply, delivery, install and commissioing of Pump Station delivery Pressure Switch complete with all materials necessary for the complete installation.	no	1		
C3.3		Supply, delivery, install and commissioing of Pump-set Pressure Transmitter complete with all materials necessary for the complete installation.	no	6		
C3.4		Supply, delivery, install and commissioing of Pressure Switch complete with all materials necessary for the complete installation.	no	6		
C3.5		Supply, delivery, install and commissioing of Flow Switch complete with all materials necessary for the complete installation.	no	6		
C3.6		Test and recalibrate Pump Station Delivery Magnetic Flow meter	no	1		
C4		**Control and Instrumentation Cabling and Accessories**				
C4.1		Supply and delivery of Cat 6 unshielded 4 twisted pairs 24 gauge copper cable inclusive of cable straps and cable markers	m	600		
C4.2		Supply, delivery and terminate RJ45 plugs onto Cat 5 unshielded 4 twisted pairs 24 gauge copper cable.	No.	30		
C4.3		Install Cat 5 cables and RJ45 plug between devices and Ethernet 10/100 switch mounted in PLC cabinet.	m	600		
C4.4		Supply and delivery to site 2 Pair x 1.0mm2 Dekabon IOS scn/SWA. cable inclusive of cable straps, lugs, core markers and cable markers.	m	480		
Carried Forward						

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3C: CONTROL AND INSTRUMENTATION REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
C4.5		Supply and delivery to site CCG Posi Gland to suit 2 Pair x 1.0mm2 Dekabon IOS scn/SWA. Cable	No.	20		
C4.6		Gland and terminate 2 Pair x 1.0mm2 Dekabon IOS scn/SWA. Cable	End	20		
C5		**Angle Iron Cable Support**				
C5.1		Supply and delivery to site stainless steel angle iron cable support steelwork inclusive of brackets and fixings.(40 x 40 x 4 angle iron)	m	60		
C5.2		Install angle iron cable support steelwork	m	120		
C5.3		Supply and delivery to site stainless steel angle iron cable support steelwork inclusive of brackets and fixings.(25 x 25 x 4 angle iron)	m	120		
C6		**Telemetry System**				
C6.1		Upgrade the existing Telemetry System as per specification for the Pump Station 2. This system should be compatible with the entire Olifantspoort Water Scheme (inclusive of Pump Station 1 & 3, Specon Reservoirs , Witkos Reservoirs snd Palmietfontein Reservoirs) and the entire Ebenezer Water Supply Scheme	Sum	1		
Total of Section 3C Carried to Summary						

Section 3D: Buildings and Minor Civil Works

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3D: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D1		**New VFD/VSD Building**				
D1.1	**SANS1200 C**	**Site Clearance**				
D1.1.1		Clear Vegetation, Grass, Shrubs etc. and Trees of Girth up to 1m and Remove to Dumpsite, Stockpile, Maintain/Preserve and Reinstate Topsoil (150mm Deep)	m²	120		
D1.1.2		Shrubs, Trees and Grass along Route of Pipeline and at Ablution Block Sites.	sum	1		
D1.1.3		Clear Trees of Girth and Designated Obstacles > 1.0m Up To and Including 2m	sum	1		
D1.1.4		Remove rubble and cart away to an approved landfill site	m³	10		
D1.2	**SANS1200 D**	**Earthworks and Foundations**				
D1.2.1		***Foundations and Foundations Excavations***				
D1.2.1.1		Excavate 1m beyond entire foundation footprint using 1:1 (V:H) side slopes	m³	135		
D1.2.1.2		Rip and re-compact 150mm thick bottom in-situ layer when established at 1m below raft slab	m³	20		
D1.2.1.3		Excavation in Earth for Strip Foundations and Cable Trenches Exceeding 0.6m Deep and Not Exceeding 1.3m Deep.	m³	80		
D1.2.1.4		Allow for Keeping Excavations Free of Water by Hand or Machinery	Item	1		
D1.2.1.5		Construct earth mattress in 150mm layers to be compacted and tested at each layer using G6 material compacted to be achieved at 95% MOD AASHTO at OMC. Layers shall be constructed to beneath foundations and around footprint to GL	m³	135		
D1.2.1.6		15Mpa Concrete Blinding under Footings.	m³	5		
D1.2.1.7		30Mpa (28 days) 19mm Reinforced Concrete On Strip Foundations	m³	10		
D1.2.1.8		Blockwork on on foundations up to DPC level				
D1.2.1.8.1		a) M90	m²	13		
D1.2.1.8.2		b) M190	m²	22		
D1.2.2		***Soil Insecticide***				
D1.2.2.1		Soil to be Poisoned in Accordance with SABS 1165 (Certificate must be Approved by an Accredited Applicator) under floors etc. including forming and poisioning shallow furrows against foundation walls etc., filling in furrows and ramming	m²	135		
D1.2.3		Reinforcing Mesh Ref. 193 with a Cover of 50mm	m²	60		
D1.2.4		Reinforcing Mesh Ref. 245 with a Cover of 50mm	m²	10		
Carried Forward						

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3D: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D1.2.5		***False work, formwork and concrete finish***				
D1.2.5.1		Formwork to provide (class F1) surface finish				
D1.2.5.1.1		a) Type E concrete apron slab	m²	47		
D1.2.5.2		Vertical formwork to provide class F1 surface finish to				
D1.2.5.2.1		a) Footings and Cable Trenches	m²	95		
D1.2.6		***Steel Reinforcement***				
D1.2.6.1		Steel Reinforcement of Strip Foundation				
D1.2.6.1.1		*a) High yield stres steel bars (Strip foundation)*	t	3		
D1.2.6.2		*30Mpa (28 days) 150mm Thick Powerfloat Finished Slab*	m³	38		
D1.2.6.3		*30Mpa (28 days) Concrete to Aprons / v drain (steel float finish)*	m³	6		
D1.2.6.4		Making and Testing Set of Six 150 x 150 x 150 Concrete Strength Test Cubes, to be tested by an Independent Laboratory (Provisional)	Sets	4		
D1.2.6.5		100mm wide x 10mm thick Jointex Joint Filler with 10 x 10mm Tear-Off Strip	m	148		
D1.2.6.6		*10mm x 10mm SikaFlex at Facade Joint Sealer*	m	85		
D1.2.7		***Earthworks***				
D.1.2.7.1		*a) Cut To Level*	m³	19		
D.1.2.7.2		*b) Extra-over for Boulder Excavations*	m³	2		
D.1.2.7.3		*c) for Hard Rock Excavations*	m³	1		
D1.3	**19.1.8**	**Damp Proof Course**				
D1.3.1		One layer of 250 micron 'USB GREEN' waterproof sheeting sealed at laps with 'Gunplas Pressure Sensitive Tape':	m²	135		
D1.3.2		Gundle® 'Brikgrip® DPC 375' Damp Proof course to SABS mark 952- 1985 Type B:				
D1.3.2.1		*a) In 200 thick walls*	m	60		
D1.3.2.2		*b) In 100 thick walls*	m	25		
D1.4	**19.1.1**	**Blockwork**				
D1.4.1		M190 (190mm thick Walls - Load bearing wall)	m²	110		
D1.4.2		M90(90mm thick Walls (Outside Walls - Face brick)	m²	110		
Carried Forward						

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3D: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D1.4.3		190mm Brickforce to Wall	m	300		
D1.4.4		90mm Brickforce to Outside Walls	m	135		
D1.4.5		390 x 190 x 50 Air Brick	No.	8		
D1.4.6		Precast Prestressed Concrete Lintels, suitable for blocks, lengths Not Exceeding 1.5m	m	9		
D1.4.7		Precast Prestressed Concrete Lintels, suitable for blocks, Lengths Exceeding 1.5m but Less than 6m	m	12		
D1.4.8		Galvanised Hoop Iron Cramps, Ties, etc: 30 x 1.6mm Wall Tie 600mm Long with One End Wrapped Around Rebar and the Other End Wrapped Over and Nailed to Rafter	m	30		
D1.5	**19.1.3**	**Plaster**				
D1.5.1		(15mm thick) 1:4 Cement Plaster on Brickwork:				
D1.5.1.1		a) On Walls	m²	110		
D1.5.1.2		b) On Narrow Widths	m²	22		
D1.5.1.3		c) 50mm Radius Skirting	m	120		
D1.6	**19.1.2**	**Paint**				
D1.6.1		Interior				
D1.6.1.1		a) Primer as per spec	m²	110		
D1.6.1.2		b) Paint as per spec	m²	110		
D1.6.2		Exterior				
D1.6.2.1		a) Primer as per spc	m²	0		Rate only
D1.6.2.2		b) Paint (Lighter Colour - as per spec)	m²	0		Rate only
D1.6.2.3		c) Paint (Darker Colour - as per spec)	m²	0		Rate only
D1.6.3		Floors				
D1.6.3.1		a) Epoxy Paint Floors	m²	115		
D1.7	**19.1.16**	**Ironmongery**				
D1.7.1		Doors Complete, including leaf, frame, hinges, handles, stops, lock sets etc				
D1.7.1.1		a) Door (as per drawings)	No.	4		
D1.7.1.2		b) 150 x 50 GMS Purlin	m	9		
D1.7.2		Painting of Doors				
D1.7.2.1		a) Laquer Thinners for Knots and Resinous areas	m²	18		
Carried Forward						

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3D: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D1.7.2.2		b) Woodcare Knot Seal	m²	18		
D1.7.2.3		c) 1 Coat Plascon Woodcare Pretreatment	m²	18		
D1.7.2.4		d) 1 Coat Wood Primer (UC2)		70		
D1.7.2.5		e) 2 Coats Wall and All (WAA)	m²	70		
D1.7.3		Frame Finishing				
D1.7.3.1		a) Laquer Thinners for Knots and Resinous areas (Door A/C/D)	m²	15		
D1.7.3.2		b) Woodcare Knot Seal (Door A/C/D)	m²	15		
D1.7.3.3		c) 1 Coat Plascon Woodcare Pretreatment (Door A/C/D)	m²	15		
D1.7.3.4		d) 1 Coat Wood Primer (UC2) (Door A/C/D)	m²	15		
D1.7.3.5		e) 2 Coats Wall and All (WAA) (Door A/C/D)	m²	15		
D1.8	**19.1.17**	**Glazing**				
D1.8.1		All glazing shall be inaccordance with SABS 0400-1990, SABS 1263-1. All safety glazing materials shall be permanently marked				
D1.8.1.1		a) 3mm obscure glass	m²	20		
D1.9		**Galvanised windows**				
D1.9.1		Supply and install hot dipped galvanised 1.6mm steel window frames to comply with SANS 727				
D1.9.1.1		a) Window (as per drawings)	No.	8		
D1.10	**19.1.11**	**Roofing**				
		False work, formwork and concrete finish				
D1.10.1		a) Vertical formwork to provide (class F3) surface finish	m²	55		
D1.10.2		b) Horizontal formwork to provide (class F3) surface finish	m²	85		
D1.10.3		c) Horizontal formwork to provide (class U2) surface finish	m²	75		
D1.11		**Steel Reinforcement**				
D.1.11.1		Steel Reinforcement of concrete roof slab and up-stand beams				
D1.11.1.1		a) High yield stres steel bars	t	2		
D1.11.1.2		b) 40Mpa (28 days) 200mm Thick Powerfloat Finished Slab	m³	20		
D1.11.1.3		c) Making and Testing Set of Six 150 x 150 x 150 Concrete Strength Test Cubes, to be tested by an Independent Laboratory (Provisional)	Sets	4		
D1.11.1.4		d) Elastoplastomeric polymer-bitumen waterproofing membrane torched on to roof slab to be finished off with aluminum pigment bitumen based paint coating in full comliance to manufacturers specification	m²	80		
D1.11.1.5		e) 203x133x30 I-Section crawl beam anchored into RC roof slab with chemical anchors @ 1000 c/c	m	15		
D1.12	**19.1.13**	**Guttering**				
D1.12.1		a) Full bore outlet (to lead to PVC downpipe)	No.	4		
D1.12.2		b) 75mm uPVC downpipe x 3.2m long including 2 no brackets per downpipe	No.	4		
Carried Forward						

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3D: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D2		**Pumpstation Building Minor Refurbishment Works**				
D2.1	**SANS 1200G**	**Concrete (Structural)**				
D2.1.1		Rapid hardening Portland cement 15 for use in the following				
D2.1.1.1		a) Plastering work	t	1		
D2.1.1.2		b) Screeding	t	1		
D2.2	**19.1.9**	**Joints**				
D2.2.1		Proprietary expansion joints:				
D2.2.1.1		a) Prime Cost Sum allowed for purchase and taking delivery of expansion joints	PC Sum	1		20 000,00
D2.2.1.2		b) Allow for overheads, charges and profits on item D2.2.1.1 above	%		20 000,00	
D2.2.2		Installation of proprietary expansion joints *Retroffit Saw-Cut Expansion Joints*				
D2.2.2.1		a) Metal cover installed in movement joint	m	25		
D2.2.3		Application of proprietary expansion joints sealants				
D2.2.3.1		Application type: high movement construction and expansion joints a) Application: concrete contraction and expansion joints surfaces should be clean, sound and dry prior to application. Apply Dow Corning 888 or similar approved all in accordance with manufacturer's recommendations Expansion joints as detailed on the Drawings and/or specified in the Specifications	m	30		
D2.3	**19.1.19**	**Grouting:**				
D2.3.1		a) Under bases (or beds)	m³	5		
D2.3.2		Corrosion protection b) Painting	kg	500		
D2.4		**Sprayed metal coating (*type of metal and thickness of coating indicated*)**				
D2.4.1		c) Hot-dip galvanizing	kg	0		Rate only
D2.4.2		d) Poweder Coating	kg	0		Rate only
D2.5	**19.1.22**	**Miscellaneous work other than metal:** Drainage pipes: (Exposed Drainage Pipes @ Basement)				
D2.5.1		a) Flushing, Cleaning and Painting of drainage pipes @ basement	m	75		
D2.5.2		Drainage gullies for bridge deck as per confirnation on site b) All drainage gullies on balconies	no	0		Rate only
Carried Forward						

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3D: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D2.6	**19.1.6**	**Screeds:** Floor screeds (1:3) with falls including V-joints to form panels and a smooth towelled finish power float finish to top:				
D2.6.1		Floor screed:				
D2.6.1.1		a) 1 Part cement with 3 parts clean, coarse sand with sufficient until a plastic consistence similar to cement plaster is a chieved. Smooth finish to Architect's specification	m²	25		
D2.6.2		Plaster and Concrete Repair Work:				
D2.6.2.1		b) Repair mix for damaged and peeling of plaster to manufacturer's specs Sika/abe or similar approved products	m²	25		
D2.7		**Epoxy based bonding agent and primer to [re[are concrete floors to receive screeding (FOSROC NITROBOND EP slowest ro approved equivalent)**	m²	30		
D2.8		**Corrosion protection by:**				
D2.8.1		1) Vinyl anti-fouling paint and undercoats to form an algae-resitant coating on: Exposed Structural Steekwork	m²	30		
D2.8.2		2) Solvent-free abrasion-resistant coating and primer to a minimum thickmess of 3mm on Exposed Structural Steelwork	m²	30		
D2.9	**SANS 1200H**	**Structural (Steelwork)**				
D2.9.1		a) Non-destructive testing	h	1		
D2.10		**Pump Station Ventilation**				
D2.10.1		Supply and installation of Ventilation System complete with fans, ducts and electrical cintrol system	Prov Sum	1		600 000,00
D2.10.2		Allow for overheads, charges and profits on item D2.10.1 above	%		600 000,00	
Total of Section 3D Carried to Summary						

Section 4: Olifantspoort Pump Station 4 (PS 3)

Section 4A: Mechanical Refurbishment Work

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A1		**High Lift Pumps Suction Side**				
A1.1		Removal of Existing DN 450 Butterfly valves and deliver to Pump Station 2	No.	3		
A1.2		Cutting of flange on DN450 pipe and making it plain ended to be suitable for a flanged adaptor.	No.	3		
A1.3		Supply, Installation and testing - DN450 PN16 Flanged Knife Gate Valve (Pump suction side) including bolts, nuts, gaskets and associated pipe fittings	No.	3		
A1.4		Supply and installation of a new flanged adaptor, DN 450, PN16. Including Bolts and Gaskets	No.	3		
A1.5		Supply and installation of a new carbon steel reducer changes to DN450 PN16 / DN350 PN16	no	3		
A1.6		Supply and installation of a new DN350 PN16 Dismantling Joint to be incorporated on the DN350 suction nozzle for the pump	No.	3		
A2		**Main High Lift Pumps**				
A2.1		Decommission and removal of existing High Lift Multistage pumps and deliver to Pump Station 2	no	3		
A2.2		Supply, installation, testing and commissioning of High Lift Multistage Pump as detailed below: a) Each Multistage Pump must be able to deliver 1250m³/h against the Total Dynamic Head of 270m. (2 Duty and 1 Standby) c) Level of Pump Axis = 1221.00 mASL d) Lowest Suction Sump Level = 1227.50 mASL e) Size of Suction Main = 740mm Outside Diameter CML (700mm Internal Diameter) f) Length of Suction Main = 1680m g) Each Pump shall have a minimum efficiency of 80% h) Each pump shall be supplied with all protection devices such as vibration sensors, casing temperature sensor, DE & NDE bearing temeprature sensors i) Each pump shall be driven by 1700kW Electric Motor (Motor specified below)	no	3		
A2.3		Multistage Pumps Shaft Seals , Couplings and Safety Guards	no	3		
A2.4		Pump Testing & Certification - Hydrostatic test at 110% of it's maximum rated pressure and Performance tested to ISO 9906 1U, or at least Iso 9906 1B with no negative tolerances for Efficiency on duty	sum	1		
A2.5		Baseplates and anchor fasteners	sum	1		
A2.6		Pumps & Motors Plinth Design & Construction/Modification	no	3		
A2.7		Coordinate, receive, install, test and commission High Lift Multistage Pumps (3 off) issued by LNW	no	0		Rate Only
Carried Forward						

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A3		**High Lift Pump Maintenance Contract**				
A3.1		Maintenance of High Lift Pumps and Motors (3 New) for a period of 12 months during the defect liability period	month	12		
A3.2		Maintenance of High Lift Pumps and Motors (3 New) for a period of 24 months after the defect liability period	month	24		
A3.3		3 Years Critical Parts/Spares per Pump Set	years	3		
A4		**High Lift Pumps Delivery Side**				
A4.1		Modify delivery pipe pieces by cutting of DN 350 flange on pipe to allow welding of new PN 40 flange for Non-Return Valves and Isolatio Valves	no	6		
A4.2		Removal of existing DN 350 Non-return valves	no	3		
A4.3		Removal of existing DN 350 pipe pieces	no	3		
A4.4		Removal of DN 350 isolating gate valves	no	3		
A4.5		Supply, Installation and testing of a new DN 350, PN 40 Nozzle check Non-return valve. Including Bolts and Gaskets	no	3		
A4.6		Supply and installation of a new DN300 PN 40 Dismantling Joint to be incorporated on the DN 300 delivery nozzle for the pump	No.	3		
A4.7		Supply and installation of a new DN 350, PN 40 Flanged adaptor.Including Bolts and Gaskets	No.	3		
A4.8		Supply and installation of Carbon Steel Reducer changes to DN 300 PN 40 / DN 350 PN 40	No.	3		
A4.9		Supply , installation and testing of a new Isolation Delivery Side DN350 PN 40 Electrical Actuated Butterfly Valve.	No.	3		
A4.10		Supply , installation and testing of over -bypass DN 80 carbon steel piping and DN80 PN 40 Wedge Gate Valve for bypassing DN350 PN 40 Electrical Actuated Valve	No.	3		
A4.12		Replacement of existing Pumps 1-3 Delivery Pipes and Manifold	Prov Sum	1		4 000 000,00
A4.13		Allow for overheads, charges and profits on item A4.12 above	%		4 000 000,00	
A5		**Cooling Water Pumping System**				
A5.1		Remove the existing cooling water pumps, pipework and accessories and deliver to Pump Station 2	sum	1		
A5.2		Supply, installation, testing and commissioning of cooling water pumps - 5,5KW Centrifugal pumps coupled with motors including couplings and safey guards	No.	2		
A5.3		Supply, installation and testing of cooling water PN 16, DN150 suction gate valve	No.	2		
A5.4		Supply, installation and testing of cooling water PN 25 DN100 Electrical Actuated Delivery Gate Valve	No.	2		
Carried Forward						

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A5.5		Supply, installation and testing of cooling water PN 25 DN100 Water Type Non-Return Valve	No.	2		
A5.6		Supply and installation of cooling water carbon steel pipes Schedule 80 (ANSI/ASME B36.10 Steel Pipes) on the 5 pumps within the pumpstation. Carbon steel Schedule 80 pipes PN 16, DN150 on suction side and Carbon Steel Schedule 80 pipes PN 25, DN100 on Delivery Side	Sum	1		
A5.7		Supply and installation of Electrical Actuated Motor Cooling Water Valves - DN50 Suction and Delivery Solenoid Valves	No.	6		
A6		**High Lift Pumpstation Scouring Valves**				
A6.1		Removal of existing DN 150 gate valves and deliver to Pump Station 2	No.	2		
A6.2		Cutting of Existing DN 150 pipe section to accommodate new DN 150 wedge gate.	No.	3		
A6.3		Supply and Installation of a new DN 150, PN 40 Wedge gate valve, Including Bolts and Gaskets	No.	3		
A6.4		Cutting of Existing DN 150 pipe section to accommodate new DN 150 wedge gate.	No.	3		
A6.5		Supply and Installation of a new DN 150, PN 40 Flanged adaptor	No.	3		
A7		**Other Pump Station Equipment**				
A7.1		Refurbish, repair/re-instate, test and commission existing pump station chemical (chlorine)dosing system	No.	1		
A8		**High Lift Pumpstation Piping**				
A8.1		Clean dirt, remove paint, sand-blast, repair/weld worn sections and repaint all pump station piping and flanges in accordance to pipe content colour coding SANS 1091 NATIONAL COLOUR CODING Standard	Sum	1		
A8.2		Supply and Installation of a new DN 350, PN 16, single weld on Flange	No.	12		
A8.3		Supply and installation of a new DN 350, PN 16, SANS 719, Steel pipe, 6m lengths to fabricate new pipe spools as /when required for delivery & suction piping systems	No.	3		
A8.4		Supply and installation of a new DN 350, PN16, SANS 719, Steel pipe, 3m lengths to fabricate new pipe spools as /when required for suction piping systems	No.	1		
A8.5		Supply and installation of a new DN 450, PN 16, SANS 719, Steel pipe, 3m lengths to fabricate new pipe spools as /when required for suction piping systems	No.	1		
A8.6		Modifify all pipe spools lengths (SANS 719, Steel pipe, Flange on end) with PN 16 flanges on suction side , PN 16 flanges on delivery sides of the pumps and pipe lengths to suit the new valves that will be supplied.	sum	1		
A8.7		Supply and installation of new pipe supports and for valves to suit the modified suction and delivery piping system/trains	sum	1		
Carried Forward						

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A9		**Testing, Servicng and Certification of Overhead Cranes, Gantrys and Lifting Equipment**				
A9.1		Service & load test overhead cranes, gantries & lifting equipment	sum	1		
A9.2		Clean & Re-paint structures, motors and all components of overhead cranes, gantries & lifting equipment	sum	1		
A10		**Valves Replacement and Installation**				
A10.1		Replacement of Main Inlet and Delivery Isolating Valves and the Installation of new Bypass Isolating Valve including the required modification of the pipe fittings	Prov Sum	1		5 150 000,00
A10.2		Allow for overheads, charges and profits on item A10.1 above	%		5 150 000,00	
Total of Section 4A Carried to Summary						

Section 4B: Electrical Refurbishment Work

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 4B: ELECTRICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B1		**6.6kV, 1700kW, 50Hz, Water-cooled Electric Motors**				
B1.1		Remove existing 970kW 6.6kW Electric Motors and deliver to Pump Station 2	no	3		
B1.2		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 6.6kV, 1700kW, 50Hz, 4-pole, 1500rpm Water-cooled, VFD/VSD Compatible High-lift Pump Electric Motor as per as per specification complete with the following: Bearing Temperature PT100 Sensors per bearing - DE and NDE Bearing Vibration Sensor per bearing - DE & NDE Winding Temperator PT100 Sensors 2 per Phase Water Temperature PT100 Sensor	no	3		
B1.3		Coordinate, receive, install, test and commission 6.6kV, 1700kW, 50Hz, 4 Pole Water-cooled 1500rpm Electric Motor (3 off) issued by LNW	no	0		Rate Only
B2		**6.6kV, 1500kW/2011.5Hp, 50Hz, Variable Frequency/Speed Drive**				
B2.1		Decommission and removal of 180kVA 6.6kV PFC Units and deliver to Pump Station 2	no	3		
B2.2		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 6.6kV, 1700kW/2280Hp Variable Frequency/Speed Drives complete will all accessories and Ethernet TCP/IP switch to as per attached specification	no	3		
B3		**Maintenance and Testing of MV (6.6kV) Switchgear**				
B3.1		6.6kV 800A Incomer Panel complete with Vaccum Circuit Breaker	no	2		
B3.2		6.6kV 800A Motor Feeder Panel complete with Vaccum Circuit Breaker	no	3		
B3.3		6.6kV 800A Minisubstation Feeder Panel complete with Vaccum Circuit Breaker	no	2		
B3.4		6.6kV 800A Buscoupler Panel complete with Vaccum Circuit Breaker	no	1		
B4		**Substation Batteries and Battery Chargers**				
B4.1		***High Lift Pumpstation Switchgear Room***				
B4.1.1		Replace all Pump station substation Sealed Lead-acid batteries	no	30		
B4.1.2		Refurbishment, maintenance, repair and testing of the existing Battery Charger	no	1		
B4.2		***Transformer Yard Control and Protection Relays Substation***				
B4.2.1		Replace all substation Nickel-cadmium cells	no	110		
B4.2.2		Refurbishment, maintenance, repair and testing of the existing Battery Charger	no	1		
B5		**400/230V Distribution Board and MCC Panels**				
B5.1		Maintenance of Main Pumpstation LV Switchboard including infrared scanning	sum	1		
B5.2		Refurbishment and modification to 5.5kW Cooling Water Pumps MCC Panels must be installed with Remote IO for PLC/SCADA Control and Monitoring	sum	1		
Carried Forward						

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4B: ELECTRICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
B6		**10kVA 3-IN 1-OUT Uninterruptible Power Supply (UPS)**				
B6.1		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 10kVA 400/230V UPS complete with Battery Cabinet and Batteries and Ethernet TCP/IP switch for SCADA communication as per attached specification and drawings	no	1		
B7		**Electrical Valves Actuators and Control Panels**				
B7.1		Refurbishment, modification of existing pumps **delivery valves** actuators and MCC panels including installation of Remote IO for PLC/SCADA Control and Monitoring.	no	3		
B7.2		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of **new inlet valves** DN450PN16 Flaged Knife Gate Valves Actuators complete with local/remote control panels (MCC Panel) including installation of Remote IO for PLC/SCADA Control and Monitoring on a 1m angle line stand	no	3		
B7.3		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of **new inlet and outlet valves** DN450PN16 Flaged Knife Gate Valves Actuators complete with local/remote control panels (MCC Panel) including installation of Remote IO for PLC/SCADA Control and Monitoring on a 1m angle line stand for Rual Pumps (1&2)	no	2		
B8		**MV (6.6kV) Cables and Terminations**				
B8.1		Supply, delivery to site, installation, termination and connection of 70mm² 3-core XLPE Cables as per SANS 1339 Table A and cable schedule	m	300		
B8.2		70mm² 3-core MV XLPE Cables Indoor Termination Kits Complete with Shear Lugs	no	20		
B9		**LV Cables and Terminations**				
B9.1		Supply, delivery to site, installation, termination and connection of 4mm² 4-core Cables as per SANS 1507	m	265		
B9.2		Supply, delivery to site, installation, termination and connection of 2.5mm² 2-core Cables as per SANS 1507	m	400		
B9.3		Supply, delivery to site, installation, termination and connection of 2.5mm² 12-core Cables as per SANS 1507	m	500		
B9.4		No. 0 Steel Glands	no	30		
B9.5		No. 0 PVC Shrouds	no	30		
B9.6		No. 1 Steel Glands	no	12		
B9.7		No. 1 PVC Shrouds	no	12		
B9.8		2.5x10mm lugs	no	100		
B9.9		4x10mm lugs	no	100		
Carried Forward						

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4B: ELECTRICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
B10		**Bare Copper Earth Wire and Terminations**				
		Supply, delivery to site, installation, termination and connection of Bare Copper Earth Wire (BCEW) as per SANS 1411				
B10.1		35mm² BCEW	m	500		
B10.2		2.5mm² BCEW	m	265		
B10.3		35*10mm lugs	no	20		
B10.4		2.5x10mm lugs	no	100		
B11		**Earthing and Lighting Protection**				
B11.1		Earhing and ligtning protection design including installation/repairs, testing and issuing Earthing Certificates of Complance. This must be done by Specialist Earthing and Lighting Contractor/Consultant.	Prov Sum	1		20 000,00
B11.2		Allow for overheads, charges and profits on item B12.1 above	%		20 000,00	
B13		**Electrical Fault Studies and Relay Settings**				
B13.1		A Protection Engineer/Specialist to be appointed to do electrical fault studies and ensure proper relay settings	Prov Sum	1		20 000,00
B13.2		Allow for overheads, charges and profits on item B13.1 above	%		20 000,00	
B14		**General Electrical and Lighting Upgrade**				
B14.1		Replace/Repair/Refurbish all damaged Small Power (plugs, switches, distribution boxes, conduits and wires) Installations and Upgrading all Interior and Exterior Ligting (only energy efficient lighting to be used)	Prov Sum	1		5 000,00
B14.2		Allow for overheads, charges and profits on item B14.1 above	%		5 000,00	
B14.3		400V Standby Generator Major Service and Refurbishemt works including battery replacement	no	1		
B14.4		Supply, delivery to site, installation, testing and commissioning of 15m High Mast Lighting, complete with 4 x 400W HPS Lights, DB, Day-night switch and concrete plinth and 10mm² 3-core PVCPVCSWAPCV cable and accessories. Cable length to be determined on site once the position of the high mast is finalised	Prov Sum	1		280 000,00
B14.5		Allow for overheads, charges and profits on item B14.4 above	%		280 000,00	
Total of Section 4B Carried to Summary						

Section 4C: Control and Instrumentation Refurbishment Work

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4C: CONTROL AND INSTRUMENTATION REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C1		**Pumpstation Common Control PLC & HMI**				
C1.1		Design, test, deliver to site, install and commissioning of a new Main PLC System including all networking equipment.	no	1		
C1.2		Design, supply, configure and testing of 10/100/1000 Managed Ethernet Switches - 16 ports with 2 managed GB F/O ports.	no	1		
C1.3		Design, test, deliver to site, install and commissioning of a new HMI as per the specification	no	1		
C1.4		PLC & HMIs programming as per P & ID, process and control description and control philosophies for various process areas.	sum	1		
C2		**Main Pump-Sets PLCs**				
C2.1		Design, test, deliver to site, install and commissioning of a new PLC System including all networking equipment .	no	3		
C2.2		Design, supply, configure and testing of 10/100/1000 unmanaged Ethernet Switches - 5 ports.	no	3		
C2.3		PLC programing for a pump-set as per P & ID, process and control description and control philosophies for various process areas.	no	3		
C3		**Instrumentation**				
C3.1		Supply, delivery, install and commissioing of Pump Station delivery Pressure Transmitter complete with all materials necessary for the complete installation.	no	1		
C3.2		Supply, delivery, install and commissioing of Pump Station delivery Pressure Switch complete with all materials necessary for the complete installation.	no	1		
C3.3		Supply, delivery, install and commissioing of Pump-set Pressure Transmitter complete with all materials necessary for the complete installation.	no	6		
C3.4		Supply, delivery, install and commissioing of Pressure Switch complete with all materials necessary for the complete installation.	no	6		
C3.5		Supply, delivery, install and commissioing of Flow Switch complete with all materials necessary for the complete installation.	no	6		
C3.6		Test and recalibrate Pump Station Delivery Magnetic Flow meter	no	1		
C4		**Control and Instrumentation Cabling and Accessories**				
C4.1		Supply and delivery of Cat 6 unshielded 4 twisted pairs 24 gauge copper cable inclusive of cable straps and cable markers	m	600		
C4.2		Supply, delivery and terminate RJ45 plugs onto Cat 5 unshielded 4 twisted pairs 24 gauge copper cable.	No.	30		
C4.3		Install Cat 5 cables and RJ45 plug between devices and Ethernet 10/100 switch mounted in PLC cabinet.	m	600		
Carried Forward						

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4C: CONTROL AND INSTRUMENTATION REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
C4.4		Supply and delivery to site 2 Pair x 1.0mm2 Dekabon IOS scn/SWA. cable inclusive of cable straps, lugs, core markers and cable markers.	m	480		
C4.5		Supply and delivery to site CCG Posi Gland to suit 2 Pair x 1.0mm2 Dekabon IOS scn/SWA. Cable	No.	20		
C4.6		Gland and terminate 2 Pair x 1.0mm2 Dekabon IOS scn/SWA. Cable	End	20		
C5		**Angle Iron Cable Support**				
C5.1		Supply and delivery to site stainless steel angle iron cable support steelwork inclusive of brackets and fixings.(40 x 40 x 4 angle iron)	m	60		
C5.2		Install angle iron cable support steelwork	m	120		
C5.3		Supply and delivery to site stainless steel angle iron cable support steelwork inclusive of brackets and fixings.(25 x 25 x 4 angle iron)	m	120		
C6		**Telemetry System**				
C6.1		Upgrade the existing Telemetry System as per specification for the Pump Station 2. This system should be compatible with the entire Olifantspoort Water Scheme (inclusive of Pump Station 1 & 2, Specon Reservoirs , Witkos Reservoirs snd Palmietfontein Reservoirs) and the entire Ebenezer Water Supply Scheme	Sum	1		
Total of Section 4C Carried to Summary						

Section 4D: Building and Minor Civil Work

SECTION 3 - OLIFANTSPOORT PUMP STATION 2

SECTION 3D: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D1		**New VFD/VSD Building**				
D1.1	**SANS1200 C**	**Site Clearance**				
D1.1.1		Clear Vegetation, Grass, Shrubs etc. and Trees of Girth up to 1m and Remove to Dumpsite, Stockpile, Maintain/Preserve and Reinstate Topsoil (150mm Deep)	m²	120		
D1.1.2		Shrubs, Trees and Grass along Route of Pipeline and at Ablution Block Sites.	sum	1		
D1.1.3		Clear Trees of Girth and Designated Obstacles > 1.0m Up To and Including 2m	sum	1		
D1.1.4		Remove rubble and cart away to an approved landfill site	m^3	10		
D1.2	**SANS1200 D**	**Earthworks and Foundations**				
D1.2.1		***Foundations and Foundations Excavations***				
D1.2.1.1		Excavate 1m beyond entire foundation footprint using 1:1 (V:H) side slopes	m³	135		
D1.2.1.2		Rip and re-compact 150mm thick bottom in-situ layer when established at 1m below raft slab	m³	20		
D1.2.1.3		Excavation in Earth for Strip Foundations and Cable Trenches Exceeding 0.6m Deep and Not Exceeding 1.3m Deep.	m³	80		
D1.2.1.4		Allow for Keeping Excavations Free of Water by Hand or Machinery	Item	1		
D1.2.1.5		Construct earth mattress in 150mm layers to be compacted and tested at each layer using G6 material compacted to be achieved at 95% MOD AASHTO at OMC. Layers shall be constructed to beneath foundations and around footprint to GL	m³	135		
D1.2.1.6		15Mpa Concrete Blinding under Footings.	m³	5		
D1.2.1.7		30Mpa (28 days) 19mm Reinforced Concrete On Strip Foundations	m³	10		
D1.2.1.8		Blockwork on on foundations up to DPC level				
D1.2.1.8.1		a) M90	m²	13		
D1.2.1.8.2		b) M190	m²	22		
D1.2.2		***Soil Insecticide***				
D1.2.2.1		Soil to be Poisoned in Accordance with SABS 1165 (Certificate must be Approved by an Accredited Applicator) under floors etc. including forming and poisioning shallow furrows against foundation walls etc., filling in furrows and ramming	m²	135		
D1.2.3		Reinforcing Mesh Ref. 193 with a Cover of 50mm	m²	60		
D1.2.4		Reinforcing Mesh Ref. 245 with a Cover of 50mm	m²	10		
Carried Forward						

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4D: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D1.2.5		***False work, formwork and concrete finish***				
D1.2.5.1		Formwork to provide (class F1) surface finish				
D1.2.5.1.1		a) Type E concrete apron slab	m²	47		
D1.2.5.2		Vertical formwork to provide class F1 surface finish to				
D1.2.5.2.1		a) Footings and Cable Trenches	m²	95		
D1.2.6		***Steel Reinforcement***				
D1.2.6.1		Steel Reinforcement of Strip Foundation				
D1.2.6.1.1		*a) High yield stres steel bars (Strip foundation)*	t	3		
D1.2.6.2		*30Mpa (28 days) 150mm Thick Powerfloat Finished Slab*	m³	38		
D1.2.6.3		*30Mpa (28 days) Concrete to Aprons / v drain (steel float finish)*	m³	6		
D1.2.6.4		Making and Testing Set of Six 150 x 150 x 150 Concrete Strength Test Cubes, to be tested by an Independent Laboratory (Provisional)	Sets	4		
D1.2.6.5		100mm wide x 10mm thick Jointex Joint Filler with 10 x 10mm Tear-Off Strip	m	148		
D1.2.6.6		*10mm x 10mm SikaFlex at Facade Joint Sealer*	m	85		
D1.2.7		***Earthworks***				
D1.2.7.1		*a) Cut To Level*	m³	19		
D1.2.7.2		*b) Extra-over for Boulder Excavations*	m³	2		
D1.2.7.3		*c) for Hard Rock Excavations*	m³	1		
D1.3	**19.1.8**	**Damp Proof Course**				
D1.3.1		One layer of 250 micron 'USB GREEN' waterproof sheeting sealed at laps with 'Gunplas Pressure Sensitive Tape':	m²	135		
D1.3.2		Gundle® 'Brikgrip® DPC 375' Damp Proof course to SABS mark 952- 1985 Type B:				
D1.3.2.1		*a) In 200 thick walls*	m	60		
D1.3.2.2		*b) In 100 thick walls*	m	25		
D1.4	**19.1.1**	**Blockwork**				
D1.4.1		M190 (190mm thick Walls - Load bearing wall)	m²	110		
D1.4.2		M90(90mm thick Walls (Outside Walls - Face brick)	m²	110		
D1.4.3		190mm Brickforce to Wall	m	300		
Carried Forward						

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4D: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D1.4.4		90mm Brickforce to Outside Walls	m	135		
D1.4.5		390 x 190 x 50 Air Brick	No.	8		
D1.4.6		Precast Prestressed Concrete Lintels, suitable for blocks, lengths Not Exceeding 1.5m	m	9		
D1.4.7		Precast Prestressed Concrete Lintels, suitable for blocks, Lengths Exceeding 1.5m but Less than 6m	m	12		
D1.4.8		Galvanised Hoop Iron Cramps, Ties, etc: 30 x 1.6mm Wall Tie 600mm Long with One End Wrapped Around Rebar and the Other End Wrapped Over and Nailed to Rafter	m	30		
D1.5	**19.1.3**	**Plaster**				
D1.5.1		(15mm thick) 1:4 Cement Plaster on Brickwork:				
D1.5.1.1		a) On Walls	m²	110		
D1.5.1.2		b) On Narrow Widths	m²	22		
D1.5.1.3		c) 50mm Radius Skirting	m	120		
D1.6	**19.1.2**	**Paint**				
D1.6.1		Interior				
D1.6.1.1		a) Primer as per spec	m²	110		
D1.6.1.2		b) Paint as per spec	m²	110		
D1.6.2		Exterior				
D1.6.2.1		a) Primer as per spc	m²	0		Rate only
D1.6.2.2		b) Paint (Lighter Colour - as per spec)	m²	0		Rate only
D1.6.2.3		c) Paint (Darker Colour - as per spec)	m²	0		Rate only
D1.6.3		Floors				
D1.6.3.1		a) Epoxy Paint Floors	m²	115		
D1.7	**19.1.16**	**Ironmongery**				
D1.7.1		Doors Complete, including leaf, frame, hinges, handles, stops, lock sets etc				
D1.7.1.1		a) Door (as per drawings)	No.	4		
D1.7.1.2		b) 150 x 50 GMS Purlin	m	9		
D1.7.2		Painting of Doors				
D1.7.2.1		a) Laquer Thinners for Knots and Resinous areas	m²	18		
D1.7.2.2		b) Woodcare Knot Seal	m²	18		
Carried Forward						

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4D: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D1.7.2.3		c) 1 Coat Plascon Woodcare Pretreatment	m²	18		
D1.7.2.4		d) 1 Coat Wood Primer (UC2)	m²	70		
D1.7.2.5		e) 2 Coats Wall and All (WAA)	m²	70		
D1.7.3		Frame Finishing				
D1.7.3.1		a) Laquer Thinners for Knots and Resinous areas (Door A/C/D)	m²	15		
D1.7.3.2		b) Woodcare Knot Seal (Door A/C/D)	m²	15		
D1.7.3.3		c) 1 Coat Plascon Woodcare Pretreatment (Door A/C/D)	m²	15		
D1.7.3.4		d) 1 Coat Wood Primer (UC2) (Door A/C/D)	m²	15		
D1.7.3.5		e) 2 Coats Wall and All (WAA) (Door A/C/D)	m²	15		
D1.8	**19.1.17**	**Glazing**				
D1.8.1		All glazing shall be inaccordance with SABS 0400-1990, SABS 1263-1. All safety glazing materials shall be permanently marked				
D1.8.1.1		a) 3mm obscure glass	m²	20		
D1.9		**Galvanised windows**				
D1.9.1		Supply and install hot dipped galvanised 1.6mm steel window frames to comply with SANS 727				
D1.9.1.1		a) Window (as per drawings)	No.	8		
D1.10	**19.1.11**	**Roofing**				
D1.10.1		False work, formwork and concrete finish				
D1.10.1.1		a) Vertical formwork to provide (class F3) surface finish	m²	55		
D1.10.1.2		b) Horizontal formwork to provide (class F3) surface finish	m²	85		
D1.10.1.3		c) Horizontal formwork to provide (class U2) surface finish	m²	75		
D1.11		**Steel Reinforcement**				
D1.11.1		Steel Reinforcement of concrete roof slab and up-stand beams				
D.1.11.1.1		a) High yield stres steel bars	t	2		
D.1.11.1.2		b) 40Mpa (28 days) 200mm Thick Powerfloat Finished Slab	m³	20		
D.1.11.1.3		c) Making and Testing Set of Six 150 x 150 x 150 Concrete Strength Test Cubes, to be tested by an Independent Laboratory (Provisional)	Sets	4		
D.1.11.1.4		d) Elastoplastomeric polymer-bitumen waterproofing membrane torched on to roof slab to be finished off with aluminum pigment bitumen based paint coating in full comliance to manufacturers specification	m²	80		
D.1.11.1.5		e) 203x133x30 I-Section crawl beam anchored into RC roof slab with chemical anchors @ 1000 c/c	m	15		
Carried Forward						

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4D: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D1.12	**19.1.13**	**Guttering**				
D1.12.1		a) Full bore outlet (to lead to PVC downpipe)	No.	4		
D1.12.2		b) 75mm uPVC downpipe x 3.2m long including 2 no brackets per downpipe	No.	4		
D2		**Pumpstation Building Minor Refurbishment Works**				
D2.1	**SANS 1200G**	**Concrete (Structural)**				
D2.1.1		Rapid hardening Portland cement 15 for use in the following				
D2.1.1.1		a) Plastering work	t	1		
D2.1.1.2		b) Screeding	t	1		
D2.2	**19.1.9**	**Joints**				
D2.2.1		Proprietary expansion joints:				
D2.2.1.1		a) Prime Cost Sum allowed for purchase and taking delivery of expansion joints	PC Sum	1		20 000,00
D2.2.1.2		b) Allow for overheads, charges and profits on item D2.2.1.1 above	%		20 000,00	
D2.2.2		Installation of proprietary expansion joints				
		Retroffit Saw-Cut Expansion Joints				
D2.2.2.1		a) Metal cover installed in movement joint	m	25		
		Application of proprietary expansion joints sealants				
D2.2.3		Application type: high movement construction and expansion joints				
D2.2.3.1		a) Application: concrete contraction and expansion joints surfaces should be clean, sound and dry prior to application. Apply Dow Corning 888 or similar approved all in accordance with manufacturer's recommendations	m	30		
		Expansion joints as detailed on the Drawings and/or specified in the Specifications				
D2.3	**19.1.19**	**Grouting:**				
D2.3.1		a) Under bases (or beds)	m³	5		
D2.3.2		Corrosion protection				
D2.3.2.1		b) Painting	kg	500		
D2.4		**Sprayed metal coating (*type of metal and thickness of coating indicated*)**				
D2.4.1		c) Hot-dip galvanizing	kg	0		Rate only
D2.4.2		d) Poweder Coating	kg	0		Rate only
D2.5	**19.1.22**	**Miscellaneous work other than metal:**				
D2.5.1		Drainage pipes: (Exposed Drainage Pipes @ Basement)				
D2.5.1.1		a) Flushing, Cleaning and Painting of drainage pipes @ basement	m	75		
D2.5.2		Drainage gullies for bridge deck as per confirnation on site				
D2.5.2.1		b) All drainage gullies on balconies	no	0		Rate only
Carried Forward						

SECTION 4 - OLIFANTSPOORT PUMP STATION 3

SECTION 4D: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
D2.6	**19.1.6**	**Screeds:**				
D2.6.1		Floor screeds (1:3) with falls including V-joints to form panels and a smooth towelled finish power float finish to top:				
		Floor screed:				
D2.6.1.1		a) 1 Part cement with 3 parts clean, coarse sand with sufficient until a plastic consistence similar to cement plaster is a chieved. Smooth finish to Architect's specification	m²	25		
D2.6.2		Plaster and Concrete Repair Work:				
D2.6.2.1		b) Repair mix for damaged and peeling of plaster to manufacturer's specs Sika/abe or similar approved products	m²	25		
D2.7		**Epoxy based bonding agent and primer to [re[are concrete floors to receive screeding (FOSROC NITROBOND EP slowest ro approved equivalent)**	m²	30		
D2.8		**Corrosion protection by:**				
D2.8.1		1) Vinyl anti-fouling paint and undercoats to form an algae-resitant coating on: Exposed Structural Steekwork	m²	30		
D2.8.2		2) Solvent-free abrasion-resistant coating and primer to a minimum thickmess of 3mm on Exposed Structural Steelwork	m²	30		
D2.9	**SANS 1200H**	**Structural (Steelwork)**				
D2.9.1		a) Non-destructive testing	h	1		
D2.10		**Pump Station Ventilation**				
D2.10.1		Supply and installation of Ventilation System complete with fans, ducts and electrical cintrol system	Prov Sum	1		600 000,00
D2.10.2		Allow for overheads, charges and profits on item D2.10.1 above	%		600 000,00	
Total of Section 4D Carried to Summary						

Section 5: Ebenezer Water Treatment Works (WTW)

Section 5A: Flocculation Channel and Filter Walls – Civil Work

SECTION 5 - EBENEZER WATER TREATMENT WORKS

SECTION 5A: FLOCCULATION CHANNEL AND FILTER WALLS - CIVIL WORK

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A1	**SANS 1200C**	**Site Clerance**				
A1.1	PSC 8.2.1	Clear and grub	m²	380		
A1.2	8.2.2	Clear Large Trees and tree stumps with Girth Over 1,0 m up to 2m	no	3		
A1.3	8.2.8	Demolish & remove existing concrete slab next to channel	Sum	1		
A1.4	8.2.10	Remove topsoil (strip to 150 mm Deep, Stockpile, Prevent Dust Nuisance and Reinstate on Upon Completion	m^2	220		
A2	**SANS 1200DA**	**Earthworks (Small Works)**				
A2.1	**8.3.2**	**Excavation**				
A2.1.1	PSDA 8.3.1 (b)	Excavate in all Materials and use for embankment or backfill or dispose as ordered				
A2.1.1.1		i) Flocculation Channel	m³	898		
A2.1.1.2		ii) Sump & Valve Chamber	m³	283		
A2.2		**Extra-over Item (b) above for:**				
A2.2.1	PSDA 8.3.1 (c)	Hard Rock Excavation				
A2.2.1.1		i) Flocculation Channel	m³	50		
A2.2.1.2		ii) Sump & Valve Chamber	m³	20		
A2.2.1.3		iii) Boulders Class A	m³	5		
A2.2.1.4		iv) Boulders Class B	m³	5		
A2.3	**8.3.2**	**Restricted Excavation**				
A2.3.1	PSDA 8.3.2 (a)	Excavate in all Materials for restricted foundations, footing and trenches and use for backfill or dispose as ordered				
A2.3.1.1		i) Adjacent to existing channel	m³	32,5		
A2.4	**8.3.4**	**Importing of Material**				
A2.4.1	PSDA 8.3.4.1	Extra over for importation of G5 material from commercial source, place and compact to 95% Mod AASHTO for platform	m³	77,96		
A3	**PSG 8.1.1**	**Formwork**				
A3.1	8.2	**Scheduled Form Items**				
A3.1.1	8.2.1	Rough				
A3.1.1.1		a) Vertical plane to walls and footings below ground	m²	0		Rate Only
A3.1.2	8.2.2	Smooth				
A3.1.2.1		a) Vertical plane to walls and footings of channel	m²	551		
A3.1.2.2		b) Vertical plane to sump & valve chamber	m²	159		
A3.1.2.3		c) Vertical plane to sand filter wall extensions	m²	84		
A3.1.2.4		d) Vertical plane to wall baffles in channel	m²	33		
A3.1.2.5		e) Horizontal plane to valve chamber roof slab soffit	m²	50		
Carried Forward						

SECTION 5 - EBENEZER WATER TREATMENT WORKS

SECTION 5A: FLOCCULATION CHANNEL AND FILTER WALLS - CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A4	**8.3**	**Scheduled Reinforcement items**				
A4.1	8.3.1	a) High tensile steel bars Y12 (Concrete Wall Baffles)	t	2		
A4.2	8.3.2	b) High tensile steel bars Y10 (Sand Filter Wall Extension)	t	16		
A4.3	8.3.2	c) Reference 888 high tensile welded mesh (Flocculation Channel Walls)	m²	560		
A4.4	8.3.2	d) Reference 888 high tensile welded mesh (Sump and Valve Chamber Walls)	m²	168		
A4.5	8.3.2	e) Reference 395 high tensile welded mesh (Flocculation Channel Floor Slabs)	m²	410		
A4.6	8.3.2	f) Reference 395 high tensile welded mesh (Sump & Valve Chamber Floor Slabs)	m²	160		
A5	**8.4**	**Scheduled Concrete Items**				
A5.1	8.4.2	Grade 15/19 Concrete Blinding layer 75mm thick	m²	264		
A5.2	8.4.3	Grade 25/19 for:				
A5.2.1		a) Flocculation Channel	m³	120		
A5.2.2		b) Wall Baffles in Channel	m³	3		
A5.2.3		c) Sump & Valve Chamber	m³	51		
A5.2.4		d) Sand Filter Wall Extensions	m³	95		
A6	8.4.4	**Unformed surface finishes**				
A6.1		a) Steel float finish to Flocculation channel floor slab & walls	m²	708		
A6.2		b) Steel float finish to Sump & valve chamber floor slabs & walls	m²	180		
A6.3		c) Steel float finish to wall baffles in channel	m²	33		
A6.4		d) Steel float finish to Sand Filter wall extensions	m²	135		
A7	**8.5**	**Joints**				
A7.1		Form Construction as shown on Drawings Complete with sealing, waterstop, bandage joint as applicable for the following				
A7.1.1		a) Flocculation channel walls & floor slab	m	92		
A8	**8.7**	**Grouting**				
A8.1		a) For Anchor bolts - M16, 120mm Long	no	12		
A8.2		b) For Sand filter wall extension (Hole 100mm x 150mm x 150mm) (As Specified on drawing)	no	336		
A9	**8.8**	**Bolts**				
A9.1		Stainless Steel ancor HD Bolts - M16 120mm Long	no	30		
A10	**PSG**	**Sundries**				
A10.1	PSG 8.9	Testing Channel for water tightness	sum	1		
A10.2	PSG 8.10	Cleaning, disinfecting and sterilising channel and sump	sum	1		
Carried Forward						

SECTION 5 - EBENEZER WATER TREATMENT WORKS

SECTION 5A: FLOCCULATION CHANNEL AND FILTER WALLS - CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A10.3		Waterproofing concrete admiture	litres	650		
A10.4		Brickwork (Double layer wall with waterproof seal coating) - 2.01m high	m	6		
A10.5		Scarify sand filter walls for better bonding between old & new concrete (300mm wide walls)	m	170		
A11	**8.2**	**Valve Chambers**				
A11.1		All items inside chamber coplete as per Sump & valve chmber drawings including all: Submersibble pumps, pipes, valves, fittings, clamps, steps, ladders, acess hatches, guide rail, inflow grid and pipe support	no	1		
A12	**PSHA 1.1**	**Vee-Baffles**				
A12.1		Stainless Steel Vee-Baffle plates with stainless angle irons welded complete as per drawing: P1001-EB1L-CIV-0403	no	2		
A13	**PSHA 1.2**	**Steel Grating**				
A13.1		a) Steel grating over Flocculation Channel GMS RS80 'Rectagrid' grating with frame and anchor lugs as show on drawing: P1001-EB1I-CIV-0402	m²	145		
A13.2		b) Stell grating over Sump GMS RS80 'Rectagrid' grating with frame and achor lugs as shown on drawing: P1001-EB1L-CIV-0406	m²	15		
Total of Section 5A Carried to Summary						

Section 5B: Mechanical Refurbishment Work

SECTION 5 - EBENEZER WATER TREATMENT WORKS

SECTION 5B: MECHANICAL REFURBISHMENT WORK

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B1		**Raw Inlet Valve Chamber**				
B1.1		Remove existing Raw Water Inlet Valve and acessories, deliver and off-load to the site which will be specified by LNW	sum	1		
B1.2		Supply and installation of DN 600, PN 16 Stainless steel, flanged both ends pipe. L=1500m	No	1		
B1.3		Supply and install DN600 PN16 Flanged adaptor	No	2		
B1.4		Supply, delivery, and commissioning of Raw Water Inlet Flow Control Electrically Actuated Gate Valve - DN600, PN16 complete with with Remote IO Card for SCADA and PLC control and monitoring.	No	1		
B2		**Cascade Aerator Unit**				
B2.1		Removal of existing V-wear notch plates, deliver and off-load to the site which will be specified by LNW	sum	1		
B2.2		Supply, delivery, installation and commissioning of new 316 stainless steel V-weir plates with notches /Cascade Aerator and refurbish aeration unit. The tenderer(s) to measure the required dimensions of the V-weir plates with notches on site.	sum	1		
B3		**Lime Dosing Facilities**				
B3.1		Design, manufacture, test at works, supply, install and test at site of Mechanical Lifting Device to lift 25kg bags of Lime	No	1		
B3.2		Design, manufacture, test at works, supply, install and test at site 500kg Hydrated Lime Storage Silo with Conical Lower Section at an Angle of 70° to the Horizontal complete with	No	1		
B3.3		Design, supply and install Steel Steps and Platform to facilitate empting 25kg bags of lime into the Silo	No	1		
B3.4		Design, manufacture, test at works, supply, install and test at site of Lime Screw Feeder with capacity to feed 8kg dry hudrated lime per hour to mixing tank complete with variable speed controlled motor incoporated with Remote IO Card for SCADA and PLC control and monitoring.	No	1		
B3.5		Design, manufacture, test at works, supply, install and test at site of a peristaltic pump suitable to pump 100l/h of lime slurry complete with accessories	No	1		
B3.6		Design, manufacture, test at works, supply, install and test at site of Vibrating Bin Activator connected to the bottom of Silo Cone incorporated with a manually operated Knife-gate Isolation Valve	no	1		
B3.7		Decommision the existing lime dosing station	no	1		
B4		**Filter Block, Control Room and Offices**				
B4.1		Supply, delivery; installation and commissioning of new 3 off 18000 BTU Air Conditioning units (split units) in control room and offices	no	3		
Carried Forward						

Contractor | Witness 1 | Witness 2 | Employer | Witness 1 | Witness 2

SECTION 5 - EBENEZER WATER TREATMENT WORKS

SECTION 5B: MECHANICAL REFURBISHMENT WORK

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
B4.2		Supply, delivery; installation and commissioning of new 10 off of Drehmo DPMC 319B16 or equivalent electrically driven actuators on 10 backwash outlet valves	no	10		
B4.3		Supply, delivery; installation and commissioning of new 10 off DN250 PN20 knife gate valves electrically driven actuators for filters backwash water inlet valves	no	10		
B4.4		Supply, delivery; installation and commissioning of new 10 off of Drehmo DPMC 319B16 or equivalent electrically driven actuators on 10 blower outlet valves	no	10		
B4.5		Supply, delivery; installation and commissioning of new 10 off of Drehmo DPMC 319B16 or equivalent electrically driven actuators on 10 blower inlet valves	no	10		
B4.6		Supply, delivery; installation and commissioning of new 4 off DN150 PN10 butterfly valve filter air scour valves	no	4		
B5		**Back Wash Pumps and Valves**				
B5.1		Removal of existing backwash pumps, valves and piping, then deliver and off-load to the site which will be specified by LNW	Sum	1		
B5.2		Supply, delivery; installation and commissioning of new 2 off horizontal centrifugal backwash pumps with shaft power of 15,5KW and being able to deliver 36m³/h at total dynamic head of 60m, with suction port of DN80 PN16 and delivery port of DN65 PN40.Pumps shall be supplied complete with Base-plate, Shaft Seals , Couplings and Safety Guards and 15,5kW, 400V 50Hz, 0.8pf squirrel cage induction motor	No	2		
B6		**Back Wash Blowers and Valves**				
B6.1		Removal of existing backwash blowers, valves and piping, then deliver and off-load to the site which will be specified by LNW	Sum	1		
B6.2		Supply, delivery; installation and commissioning of new 2 off horizontal backwash blowers similar/equivalent to an existing or latest version of Robuschi Blower 7" x 17".	No	2		
B6.3		Supply, delivery; installation and commissioning of new 2 off horizontal backwash blower suction valves for the supplied valves. Valves diameters and pressure rating shall be as per the recommendation from blower OEM.	No	2		
B6.4		Supply, delivery; installation and commissioning of new 2 off horizontal backwash blower delivery valves for the supplied valves. Valves diameters and pressure rating shall be as per the recommendation from blower OEM	No	2		
B6.5		Manufacture, modify, supply, delivery and installation of piping and specials to suit the supplied blower and valves. Installation shall tie-in with an existing piping inside the backwash blower room. No piping shall be modified beyond backwash blower room.	Sum	1		
Carried Forward						

SECTION 5 - EBENEZER WATER TREATMENT WORKS

SECTION 5B: MECHANICAL REFURBISHMENT WORK

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
B7		**Chlorine Dosing Systems**				
B7.1		Design, manufacture, supply, install, testing and commissioning of new hoists and gantries for handling full chlorine gas cylinders and empty chlorine gas cylinders within chlorine dosing rooms.	No	1		
B7.2		Installation of 2 off 2.5 ton with electrical power feed of 10m and 15m, electrically driven lifting crane on existing manual gantry	No	2		
B7.3		Installation of an additional gantry from/to the adjoining sodium hypochlorite room for storage of full and empty chlorine cylinders (7m inside the room and 8m outside with 90 degree bend). The electrically driven crane should be rated for 2.5 tons	No	1		
B8		**Sludge Dam**				
B8.1		Installation off 2 off 12kW submersible pumps (duty and standby submersible) to pump up to 2 Ml/d at a static height of 25m through a 90mm HDPE pipeline of 250m length (total dynamic head = 35m)	No	2		
B9		**Polyectrolyte Dosing Station**				
B9.1		Supply and install polyelectrolyte feeder pipeline with hydrant connector (75mm with adaptors to accommodate 50mm, 75mm and 100mm for different tanker suppliers)	sum	1		
B9.2		Replace the polyelectrolyte transfer pump (0.75kW) with new dual polyelectrolyte transfer pumps complete with local control MCC panel	no	2		
B9.3		Supply and install 25mm diamter valve with clip-on 10m detachable flexible hose	Sum	1		
B9.4		Supply and install coagulant Dispersion System to dose the Coagulant evenly across the 1.8m flow channel	no	1		
Total of Section 5B Carried to Summary						

Section 5C: Electrical Refurbishment Work

SECTION 5 - EBENEZER WATER TREATMENT WORKS

SECTION 5C: ELECTRICAL REFURBISHMENT WORK

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C1		**6.6kV/400V Miniature Substation**				
C1.1		Decommision, disconnect and remove existing 315kVA 6.6kV/400V Miniature Substation, deliver and off-load to the site which will be specified by LNW	no	1		
C1.2		Design, manufacture, test at works, supply, delivery to site, install, test at site and commission 500kVA 6.6kV/400V Dyn11 Miniature Substation as per particular specification	no	1		
C2		**Main 400V Switchboard and MCC Panels**				
C2.1		Decommision, disconnect and remove exsting Backwash Pumps/Blowers MCC Panel, deliver and off-load to the site which will be specified by LNW	no	1		
C2.2		Design, manufacture, test at works, supply, delivery to site, install, test on site and commission of Backwash Room and Filter House Main LV Board/MCC Panel complete with all accessories as per attached drawings and particular specification	no	2		
C3		**10kVA 400/230V Uninterruptible Power Supply (UPS) Unit**				
C3.1		Design, manufacture, test at works, supply, install, test on site and commission of Bashwash Room and Filter House10kVA 400/230V (3-In/1-Out) Uninterruptible Power Supply (UPS) Unit complete with all accessories as per attached drawings and particular specification	no	2		
C4		**Plant Rooms DB and MCC Panels**				
C4.1		Small Power and Lighting DBs for all Plant Rooms as per specification and drawings	no	10		
C4.2		Filter Acturators Local/Remote Control Panels	no	40		
C4.3		Sludge Dam Local/Remote MCC Panl	no	1		
C4.4		Lime Silo and Pump MCC Panel	no	1		
C4.5		Chlorine Dosing MCC Panel	no	1		
C4.6		Raw Water Inlet Actuated Valve and Flow-Meter MCC Panel	no	1		
C4.7		Refurbishment of Borehole Pumps MCC Panels	no	3		
C4.8		Polyectrolyte Dosing Station MCC Panel	no	1		
C5		**Polyetrolyte Transformer and Control Panel**				
C5.1		Decommissioning and Removal of existing Polyetrolyte Transformer and Control Panels, deliver and off-load to the site which will be specified by LNW	sum	1		
Carried Forward						

SECTION 5 - EBENEZER WATER TREATMENT WORKS

SECTION 5C: ELECTRICAL REFURBISHMENT WORK

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
C6		**Refurbishment of 250kVA Diesel Standby Generator**				
C6.1		Major servcing of the generator including filter replacement (oil, air, fuel filters), replacment of coolant and oil, replacement of V-belts, paint of generator base, tank and canopy etc.	no	1		
C7		**Earthing and Lighting Protection**				
C7.1		Prov Sum allowed for testing, repairs and issuing earthing compliance certificate for all sections with the Water Treatment Works by specialist earthing and ligthing protection contractor	PC Sum	1		30 000,00
C7.2		Allow for overheads, charges and profits on item C7.1 above	%		30 000,00	
C8		**Small Power and Lighting**				
C8.1		PC Sum replacement of interior exterior lighting with energy efficient lighting. All florescent lighting to be converted to LED. Testing and replacing of faulty sockets and switches	Prov Sum	1		20 000,00
		Allow for overheads, charges and profits on item C7.1 above	%		20 000,00	
C9		**Cabling and Cable Accessories**				
		Supply, install, terminate and connect low voltage Cu, PVCPVCSWAPVC as per SANS 1507-3				
C9.1		a) 4 mm² 3-core	m			
C9.2		b) 240 mm² 4-core	m			
C9.3		c) 25 mm² 4-core	m			
C9.4		d) 2.5 mm² 12-core	m			
		Supply, install, terminate and connect low voltage cable terminations				
C9.5		a) No. 3 Steel glands	no	40		
C9.6		b) No. 3 PVC Shrouds	no	40		
C9.7		c) No. 1 steel glands	no	20		
C9.8		d) No. 1 PVC shrouds	no	20		
C9.9		e) No. 7 Steel glands	no	4		
C9.10		f) No. 7 PVC shrouds	no	4		
C9.11		g) 4x10mm lugs	no	100		
C9.12		h) 2.5x10mm lugs	no	100		
C9.13		i) 25x10mm lugs	no	50		
C9.14		j) 240x16mm lugs	no	16		
C9.15		k) 120x16mm lugs	no	4		
C9.16		l) 16x10mm lugs	no	20		
		Supply, install, terminate and connect bare copper earthwires				
C9.17		a) 120 mm² BCEW	m	20		
C9.18		b) 16 mm² BCEW	m	300		
C9.19		Various cable trenches exact measurements to be confirmed on site	Prov Sum	1		220 000,00
C9.20		Allow for overheads, charges and profits on item C9.19 above	%	10	220 000,00	
Total of Section 5C Carried to Summary						

Section 5D: Control and Instrumentation Refurbishment Work

SECTION 5 - EBENEZER WATER TREATMENT WORKS

SECTION 5D: CONTROL AND INSTRUMENTATION WORK

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D1		**Common Service PLC and HMI System**				
D1.1		Design, test, deliver to site, install and commissioning of a new PLC System including all networking equipment. Complete with trunking, terminals, fused terminals, surge arrestors, circuit breakers and panel wiring inclusive of lugs, core markers, cable markers and mechanical fittings and fixtures. As per particular specification.	no	1		
D1.2		Supply, test, deliver to site, install and commissioning of a new latest 10 inch HMI as per paricular specification	no	1		
D2		**Remote IO panels**				
D2.1		Design, test, deliver to site, install and commissioning of a new Remote IO System including all networking equipment. Complete with trunking, terminals, fused terminals, surge arrestors, circuit breakers and panel wiring inclusive of lugs, core markers, cable markers and mechanical fittings and fixtures. As per the specification.	no	2		
D2.2		PLC programming as per P & ID, process and control description and control philosophies for various process areas (Lime Dosing/ Polyelectrolyte, Sludge Dame & Chlorine dosing)	no	2		
D3		**SCADA System and Control Room Equipment**				
D3.1		SCADA System Coding with latest version of software programme for the entire Ebenezer WS. Provide SCADA coding for all process areas as per P & ID and functional design specification according to specifications	Sum	1		
D3.2		Supply, delivery, install and configuration of SCADA PC Hardware complete with screens (2 of), keyboard, and mouse as per particular specification.	Sum	1		
D3.3		Upgrade Existing SCADA Software License to be used with the latest SCADA software.	no	1		
D4		**Filter Block PLC and HMI System**				
D4.1		Design, test, deliver to site, install and commissioning of a new Remote IO System including all networking equipment. Complete with trunking, terminals, fused terminals, surge arrestors, circuit breakers and panel wiring inclusive of lugs, core markers, cable markers and mechanical fittings and fixtures. As per the specification.	no	2		
D4.2		PLC programming as per P & ID, process and control description and control philosophies for various process areas wihin the Filter Block	no	2		
Total of Section 5D Carried to Summary						

Section 5E: Building and Minor Civil Work

SECTION +A223:I2475 - EBENEZER WATER TREATMENT WORKS

SECTION 5E: BUILDING AND MINOR CIVIL WORK

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E1		**Hypochlorine, Chlorine Room, Civil Storage, Security Room, Superfloc Dosing , Aerator and Lime Feeder Building**				
E1.1	**SANS 1200G**	**Concrete (Structural)**				
		Rapid hardening Portland Cement 15 for use in the following:				
E1.1.1		1) Plaster Work	t	1,75		
E1.1.2		2) Screeding	t	1,75		
E1.2	**19.1.9**	**Joints**				
		Proprietary expansion joints:				
E1.2.1		1.1) Price Cost Sum allowed for purchase and talking delivery of expansion joints	PC Sum	1		37 500,00
E1.2.2		1.2) Percentage on Prime Cost for charges and profits	%		37 500,00	
		Installation of proprietary expansion joints: *Retrofit Saw-Cut Expannsion Joints*				
E1.2.3		Metal cover installed in movement joint	m	40		
		Application of proprietary expansion joints sealants:				
E1.2.4		1.3) Application type: high movement construction and expansion joints surfaces should be clean, sound and dry prior to application. Apply Dow Corning 888, or similar approved all in accordance with manufacturer's recommendantions	m	55		
E1.2.5		Expansion joints as detailed on the Drawings and/or specified in the particular specification	m	40		
E1.2.6		Construction joints as detalied on the Drawings and/or specified in the particular specification	m	40		
E1.3	**19.1.19**	**Grouting**				
E1.3.1		Under bases (or beds)	m^3	8		
E1.3.2		Corrosion protection (extra over item) by:				
E1.3.2.1		2.1) Painting	kg	260		
E1.3.2.2		2.2) Sprayed metal coating (*type of metal and thickness of coating indicated*)	kg	0		Rate only
Carried Forward						

SECTION 5 - EBENEZER WATER TREATMENT WORKS

SECTION 5E: BUILDING AND MINOR CIVIL WORK

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
E1.3.2.3		2.3) Hot-dip galvanizing	kg	0		Rate only
E1.3.2.4		2.4) Poweder Coating	kg	0		Rate only
E1.4	**19.1.22**	**Miscellaneous work other than metal work:**				
E1.4.1		Drainage pipes: *Exposed Drainage Pipes @ basement*				
E1.4.1.1		1.1) Flushing, Cleaning and Painting of drainage pipes @ basement	m	150		
E1.4.2		Drainage gullies for bridge deck as per confirmation on site				
		2.1) All drainage gullies on balconies	no	0		Rate only
E1.5	**19.1.6**	**Screeds:**				
E1.5.1		Floor screeds (1:3) with falls including V-joints to form panels and a smooth towelled finish power float finish to top:				
E1.5.1.1		1.1) Floor screed: 1 Part cement with 3 parts clean, coarse sand with sufficient water until a plastic consistence similra to cement plaster is achieved. Smooth finish to Architect's specification	m²	120		
E1.5.1.2		1.2) Plaster and Concrete Repair Work: repair mix of damaged and peeling of plaster to manufacturer's specification Sika/abe or similar approved products	m²	120		
E1.6	**19.1.17**	**Corrosion protection by:**				
E1.6.1		Vinyl anti-fouling paint and undercoats to form an algae-resistant coating on:	m²	120		
E1.6.1.1		1.1) Exposed Structural Steelwork				
E1.6.2		Solvent-free abrasion-resitant coating and primer to a minimum thickness of 3mm on:				
E1.6.2.1		2.1) Exposed Structural Steelwork	m²	40		
E1.7		**Additions**				
E1.7.1		Demolish the Brick Wall (To develop storage)	sum	1		
E1.7.2		Steel I-Beam including supports	no	1		
E1.7.3		Steel Sheet 5mm thick and installation	m²	12		
E1.8	**SANS 1200H**	**Structural Steelwork**				
E1.8.1		Non-destructive testing	h	2		
E2		**Filter Block Building Works Refurbishment**				
E2.1		**Replacement of Filter Sand by Anthracite Media**				
E2.1.1		Removal and stockpile of filter sand 15m³/filter	m³	150		
Carried Forward						

SECTION 5 - EBENEZER WATER TREATMENT WORKS

SECTION 5E: BUILDING AND MINOR CIVIL WORK

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
E2.1.2		Placement of filter graded anthracite in each filter 17.6m³/filter	m³	176		
E2.2		**Filter Blocks Building Repair Works**				
E2.2.1	**SANS 1200G**	**Concrete (Structural)**				
	8.4.6	Rapid hardening Portland Cement 15 for use in the following:				
E2.2.1.1		1) Plaster Work	t	1		
E2.2.1.2		2) Screeding	t	1		
E2.2.2	PSG 8.5	**Joints**				
		Proprietary expansion joints:				
E2.2.2.1		1.1) Price Cost Sum allowed for purchase and talking delivery of expansion joints	PC Sum	1		20 000,00
E2.2.2.2		1.2) Percentage on Prime Cost for charges and profits	%		20 000,00	
		Installation of proprietary expansion joints: *Retrofit Saw-Cut Expannsion Joints*				
E2.2.2.3		2.1) Metal cover installed in movement joint	m	30		
		Application of proprietary expansion joints sealants:				
E2.2.2.4		3.1) Application type: high movement construction and expansion joints surfaces should be clean, sound and dry prior to application. Apply Dow Corning 888, or similar approved all in accordance with manufacturer's recommendantions	m	35		
E2.2.2.5		Expansion joints as detailed on the Drawings and/or specified in the particular specification	m	30		
		Construction joints as detalied on the Drawings and/or specified in the particular specification				
E2.2.3	8.7	**Grouting**				
E2.2.3.1		Under bases (or beds)	m³	5		
	8.8	Corrosion protection (extra over item) by:				
E2.2.3.2		2.1) Painting	kg	340		
E2.2.3.3		2.2) Sprayed metal coating (*type of metal and thickness of coating indicated*)	kg	0		Rate only
E2.2.3.4		2.3) Hot-dip galvanizing	kg	0		Rate only
E2.2.3.5		2.4) Poweder Coating	kg	0		Rate only
E2.2.4	PSG 8.9	**Miscellaneous work other than metal work:**				
		Drainage pipes: *Exposed Drainage Pipes @ basement*				
E2.2.4.1		1.1) Flushing, Cleaning and Painting of drainage pipes @ basement	m	75		
Carried Forward						

SECTION 5 - EBENEZER WATER TREATMENT WORKS

SECTION 5E: BUILDING AND MINOR CIVIL WORK

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
		Drainage gullies for bridge deck as per confirmation on site				
5.2.2.4.2		2.1) All drainage gullies on balconies	no	0		Rate only
E2.2.5		**Screeds:**				
		Floor screeds (1:3) with falls including V-joints to form panels and a smooth towelled finish power float finish to top:				
E2.2.5.1	8.13	1.1) Floor screed: 1 Part cement with 3 parts clean, coarse sand with sufficient water until a plastic consistence similra to cement plaster is achieved. Smooth finish to Architect's specification	m²	30		
E2.2.5.2	8.14	1.2) Plaster and Concrete Repair Work: repair mix of damaged and peeling of plaster to manufacturer's specification Sika/abe or similar approved products	m²	30		
E2.2.6	PSG 8.15	**Epoxy based bonding agent and primer to prepare concrete floors to receive a screed (FOSROC INTROBOND EP slowest or approved equivalent)**	m²	30		
E2.2.7	PSG 8.16	**Corrosion protection by:**				
		Vinyl anti-fouling paint and undercoats to form an algae-resistant coating on:				
E2.2.7.1		1.1) Exposed Structural Steelwork	m²	30		
		Solvent-free abrasion-resitant coating and primer to a minimum thickness of 3mm on:				
E2.2.7.2		2.1) Exposed Structural Steelwork	m²	30		
E2.2.8	**SANS 1200H**	**Structural Steelwork**				
E2.2.8.1	8.3.10	Non-destructive testing	h	1		
E3		**REPAIRS AND REFURBISHMENT OF ALL OTHER EXISTING BUILDINGS**				
E3.1		REPAIRS AND REFURBISHMENT OF ALL OTHER EXISTING BUILDINGS	Prov Sum	1		5 000 000,00
E3.2		Allow for overheads, charges and profits on item E3.2 above	%		5 000 000,00	
Total of Section 5E Carried to Summary						

Contractor | Witness 1 | Witness 2 | Employer | Witness 1 | Witness 2

Section 5: Ebenezer Pump Station (PS)

Section 5A: Mechanical Refurbishment Work

SECTION 6 - EBENEZER PUMP STATION

SECTION 6A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
A1		**High Lift Pumps Suction Side**				
A1.1		Remove existing Carbon Steel Flanged Reducing Tee piece from DN600 / DN300 for lines 1 to 4, then deliver and off-load to the site which will be specified by LNW	No.	4		
A1.2		Supply,Delivery to site, Installation and testing of a new Carbon Steel Flanged Reducing Tee piece from DN600 PN16 / DN350 PN16	no	4		
A1.3		Removal of existing carbon steel reducers changes to DN300 / DN250 for lines 1 to 4, then deliver and off-load to the site which will be specified by LNW	no	4		
A1.4		Supply and installation of a new DN350 PN16 Dismantling Joint to be incorporated on the DN350 suction nozzle for the pump	no	4		
A1.5		Remove existing DN300 suction wedge gate valves for line 1 to 4, then deliver and off-load to the site which will be specified by LNW	no	4		
A1.6		Supply, Installation and testing - DN350 PN16 Flanged Knife Gate Valve (Pump suction side) including bolts, nuts, gaskets and associated pipe fittings	no	4		
A1.7		Remove existing multistage high lift pumps No.1 to No.4 , then deliver and off-load to the site which will be specified by LNW	no	4		
A2		**High Lift Pumps**				
A2.1		Decommission and removal of existing High Lift Multistage pumps and deliver to Pump Station 2	no	4		
A2.2		Supply, installation, testing and commissioning of High Lift Multistage Pump as detailed below: a) Each Multistage Pump must be able to deliver 994m³/h against the Total Dynamic Head of 270m. c) Level of Pump Axis = 1317.00 mASL d) Lowest Suction Sump Level = 1318.00 mASL e) Size of Suction Main = 500mm NB Steel f) Length of Suction Main = <4m g) Each Pump shall have a minimum efficiency of 80% h) Each pump shall be supplied with all protection devices such as vibration sensors, casing temperature sensor, DE & NDE bearing temeprature sensors i) Each pump shall be driven by 1100kW Electric Motor (Motor specified below)	no	4		
A2.3		Multistage Pumps Base-plate, Shaft Seals , Couplings and Safety Guards	no	4		
A2.4		Pump Testing & Certification - Hydrostatic test at 110% of it's maximum rated pressure and Performance tested to ISO 9906 1U, or at least Iso 9906 1B with no negative tolerances for Efficiency on duty	Sum	1		
A2.5		Baseplates and anchor fasteners	Sum	1		
Carried Forward						

SECTION 6 - EBENEZER PUMP STATION

SECTION 6A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A2.6		Pumps & Motors Plinth Design & Construction/Modification	no	4		
A2.7		Coordinate, receive, install, test and commission High Lift Multistage Pumps (4 off) issued by LNW	no	0		Rate Only
A3		**High Lift Pump Maintenance Contract**				
A3.1		Maintenance of High Lift Pumps and Motors (4 x New) for a period of 24 monthsafter the defect liability period	month	24		
A3.2		3 Years Critical Parts/Spares per High lift Pump and Motor	No.	4		
A4		**High Lift Pump Delivery Side**				
A4.1		Removal of existing carbon steel reducers changes to DN350 / DN250 for line 1 to 4, then deliver and off-load to the site which will be specified by LNW	No.	4		
A4.2		Removal of existing non-return valves and hydraulic power backs for lines 1 to 4, then deliver and off-load to the site which will be specified by LNW	No.	4		
A4.3		Supply, Delivery to site, Installation and testing of a new DN 300, PN 40 Nozzle check Non-return valve. Including Bolts and Gaskets	No.	4		
A4.4		Supply and installation of a new DN300 PN40 Dismantling Joint to be incorporated on the DN300 delivery nozzle for the pump	No.	4		
A4.5		Supply , installation and testing of a new Isolation Delivery Side DN300 PN40 Actuated Butterfly Valve.	No.	4		
A4.6		Modify all pipe spools lengths (SANS 719, Steel pipe, Flange on end) with PN16 flanges on suction side , PN40 flanges on delivery sides of the pumps and pipe lengths to suit the new valves and valves that will be supplied.	Sum	1		
A5		**Cooling Water Pumps**				
A5.1		Removal of existing colling water pumps, valves and piping, then deliver and off-load to the site which will be specified by LNW	Sum	1		
A5.2		Removal of existing colling water pumps, valves and piping, then deliver and off-load to the site which will be specified by LNW	Sum	1		
A5.3		Supply, installation, testing and commissioning of cooling water pumps - 5,5KW Centrifugal pumps coupled with motors including couplings and safey guards.Design, manufacture , supply and install pumps base plates	No.	2		
A5.4		Supply, installation and testing of cooling water PN16, DN150 suction gate valve	No.	2		
A5.5		Supply, installation and testing of cooling water PN25 DN100 actuated delivery gate valve	No.	2		
A5.6		Supply, installation and testing of cooling water PN25 DN100 water type non-return valve	No.	2		
Carried Forward						

SECTION 6 - EBENEZER PUMP STATION

SECTION 6A: MECHANICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
A5.7		Supply and installation of cooling water carbon steel pipes Schedule 80 (ANSI/ASME B36.10 Steel Pipes) on the 4 new pumps within the pumpstation. Carbon steel Schedule 80 pipes PN16, DN150 on suction side and Carbon Steel Schedule 80 pipes PN25, DN100 on delivery side and connect to all High Lift Pump Motors	Sum	1		
A6		**Service Water Pumps**				
A6.1		Removal of existing Service water pumps, valves and piping, then deliver and off-load to the site which will be specified by LNW	Sum	1		
A6.2		Design, manufacture, test at works , supply, delibvery to site, installation, test at works and commissioning of cooling water pumps - 32kW Centrifugal pumps (Flow Rate - 253 m3 per hour @ total dynamic head = 29,22m) coupled with motors including couplings, safey guards and pumps base plates	No.	2		
A6.3		Supply, testing and installation of service water PN16, DN200 suction gate valve	No.	2		
A6.4		Supply and installation of service water PN25, DN200 actuated delivery gate valve	No.	2		
A6.5		Supply and installation of service water PN25, DN200 Wafer Type Non-Return valve	No.	2		
A6.6		Modify all pipe spools lengths (SANS 719, Steel pipe, Flange on end) with PN16 flanges on suction side , PN25 flanges on delivery sides of the pumps and pipe lengths to suit the new valves and valves that will be supplied.	Sum	1		
A7		**General High List Pump Station**				
A7.1		Design,Manufacture, Supply and installation of carbon steel supports for all over-hanging pipes and valves for entire high lift pump station	Sum	1		
A8		**Overhead Cranes, Gantrys and Lifting Equipment for High Lift Pump Station**				
A8.1		Design, manufacutre, supply, install, test and commission **5-ton** overhead electricallly operated/controlled crane including all required certification and accessories	Sum	1		
A9		**Surge Tank for Water Hammers**				
A9.1		Design, manufacture, test at works, supply, delivery to site, installation, testing on site and commissioning of bladder surge tank with Total vessel volume – 20m³, Operating pressure certificate – PN40, Bladder pre-charge pressure – 800kPa, Tank height -6.3m, Inlet size is as pipe size – DN150, At operating pressure the expected gas volume is - 4.8m³ to 8.3m³	no	1		
Total of Section 6A Carried to Summary						

Section 6B: Electrical Refurbishment Work

SECTION 6 - EBENEZER PUMP STATION

SECTION 6B: ELECTRICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B1		**6.6kV, 50Hz High Lift Pump Electric Motors**				
B1.1		Decommissioning, disconnecting, uncoupling and removal of existing Pump 1,2,3 & 4 6.6kV 560kW Electric motor, deliver and off-load to the site which will be specified by LNW	no	4		
B1.2		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 6.6kV, 1100kW, 50Hz, 4-pole, 1500rpm Water-cooled, VFD/VSD Compatible High-lift Pump Electric Motor as per as per specification complete with the following: Bearing Temperature PT100 Sensors per bearing - DE and NDE Bearing Vibration Sensor per bearing - DE & NDE Winding Temperator PT100 Sensors 2 per Phase Water Temperature PT100 Sensor	no	4		
B1.3		Coordinate, receive, install, test and commission 6.6kV, 1100kW, 1500rpm, 4-pole, 50Hz Water-cooled Electric Motor (4 off) issued by LNW	no	0		Rate Only
B2		**6.6kV, 50Hz, Variable Frequency/Speed Drives**				
B2.1		Decommissioning, disconnecting and removal of existing Soft Starter Panels (Pump 1, 2 & 3) deliver and off-load to the site which will be specified by LNW	no	3		
B2.2		Decommissioning, disconnecting, and removal of existing Pump 4 Auto Transformer, deliver and off-load to the site which will be specified by LNW	no	1		
B2.3		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 6.6kV, 1100kW/1475.1hp Variable Frequency/Speed Drives complete with all accessories and Ethernet TCP/IP switch to as per particular specification	no	4		
B3		**6.6kV 630A 95kVBIL Switchgear**				
B3.1		Decommissioning, disconnecting and removal of existing 6.6kV Switchgear for Pump Motors 1, 2, 3, 4, 5A, 5B, 6A & 6B deliver and off-load to the site which will be specified by LNW	sum	1		
B3.2		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 6.6kV 630A 20kA 95kV BILSwitchgear as per particular specification and single line diagram for Pump Motors 1, 2, 3, 4, 5A, 5B, 6A & 6B complete with Numeric Motor Protection Relays	sum	1		
B3.3		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 6.6kV Switchgear battery tripping unit complete with NI-CAD batteries	no	1		
B4		**Miniature Substation Maintenance and Refurbishment**				
B4.1		Maintainance and testing of existing 315kVA 6.6kV Miniature Substaion as per attached specification	no	1		
Carried Forward						

SECTION 6 - EBENEZER PUMP STATION

SECTION 6B: ELECTRICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
B4.2		Replacement of transformer oil with new virgin oil as per SANS 555-1:2018	litres	200		
B4.3		Rust removal and painting of miniature substation as per SANS 1091:2012	sum	1		
B4.4		Labeling of miniature substation including warning/danger signs	sum	1		
B5		**Decommission and removal Relay Panels**				
B5.1		Decommissioning, disconnecting and removal of existing Pumps 1, 2, 3 & 4 Protection Relay Panels, deliver and off-load to the site which will be specified by LNW	sum	1		
B6		**400V 800A 10kA Switchboard and MCC Panels**				
B6.1		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 400V 800A Switchboard complete with all accessories as per particular specification and drawings	sum	1		
B6.2		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of Inlet Valves Actuator Panels MCC panels compele with Remote IO card for PLC and SCADA system monitoring and control as per specification	no	4		
B6.3		Refurbishment and testing of existing Outlet Valves Actuator Panels including the Installation of Remote IO card to be compatible with the new PLC and SCADA system	no	6		
6.4		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 2 x 5.5kW Cooling Water Pumps MCC Panel compele with Remote IO card for PLC and SCADA system monitoring and control	no	1		
B6.5		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of 2 x 32kW Service Water Pumps MCC Panel compele with IO card for PLC and SCADA system monitoring and control	no	1		
B7		**10kVA 3-IN/1-OUT Uninterruptible Power Supply (UPS)**				
B7.1		Design, manufacture, test at works, delivery to site, installation, testing on site and commissioning of On-line 5kVA 400/230V UPS complete with 15min standby batteries	no	1		
B8		**Cables, Earthwires and Accessories**				
B8.1		Decommission and disconnect and remove existing cables and deliver to temporary storage location on site	sum	1		
B8.2		Reconnect cable to be reused. Cables to be confirmed on site	sum	1		
B8.3		***Supply, install, terminate and connect 3.8/6.6KV 3-core Cu, XLPE insulated, low halogen flame retardant PVC, galvanized steel wire armoured as per SANS 1339 Table A***				
B8.3.1		a) 70 mm²	m	600		
Carried Forward						

SECTION 6 - EBENEZER PUMP STATION

SECTION 6B: ELECTRICAL REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
		Supply, install, terminate and connect low voltage Cu, PVCPVCSWAPVC as per SANS 1507-3				
B8.4		a) 2.5 mm² 3-core	m	500		
B8.5		b) 240 mm² 4-core	m	40		
B8.6		c) 25 mm² 4-core	m	300		
		Supply, install, terminate and connect Bare Copper Earthwire (BCWE) as per specification				
B8.7		a) 35 mm²	m	500		
B8.8		b) 16 mm²	m	300		
B8.9		c) 120 mm²	m	40		
		Supply and install MV Indoor XLPE Cables Terminations				
B8.10		a) Supply and install 6.6kV 70mm² XLPE Cable MV Termination kits compete with torque shear lugs	no	16		
		Supply and install LV Cables Termination				
B8.11		a) No 7 Steel Glands	no	4		
B8.12		b) No 7 PVC Shrouds	no	4		
B8.13		c) No. 0 Steel Glands	no	100		
B8.14		d) No 0 PVC Shrouds	no	100		
B8.15		e) No. 3 Steel Glands	no	20		
B8.16		f) No 3 PVC Shrouds	no	20		
B8.17		g) 240x16 Cu lugs	no	16		
B8.18		h) 25x10mm Cu lugs	no	8		
B8.19		i) 35x10mm Cu lugs	no	18		
B8.20		j) 120x16mm Cu lugs	no	4		
B8.21		k) 16x10mm Cu lugs	no	2		
B8.22		***Cable support system***				
B8.22.1		a) Re-route existing cable ladders and supports to accommodate new cable routes for power, control and instrumentation cables and procure additional ladders of which sizes and quantities will be confirmed on site	Prov Sum	1		80 000,00
B8.22.2		b) Allow for overheads, charges and profits on item B8.22.2 above	%		80 000,00	
B9		**High Lift Pump Station Earthing and Lighting Protection**				
B9.1		Prov Sum allowed for testing, repairs and issuing earthing compliance certificate by specialist earthing and ligthing protection contractor	Prov Sum	1		30 000,00
B9.2		Allow for overheads, charges and profits on item B9.1above	%		30 000,00	
B10		**High Lift Pump Station Small Power and Lighting**				
B10.1		PC Sum replacement of interior exterior lighting with energy efficient lighting. All florescent lighting to be converted to LED. Testing and replacing of faulty sockets and switches	Prov Sum	1		15 000,00
B10.2		Allow for overheads, charges and profits on item B9.1above	%		15 000,00	
Total of Section 6B Carried to Summary						

Section 6C: Control and Instrumentation Refurbishment Work

SECTION 6 - EBENEZER PUMP STATION

SECTION 6C: CONTROL AND INSTRUMENTATION REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
C1		**Pump Station Main PLC and HMI**				
C1.1		Design, test, deliver to site, install and commissioning of a new main PLC System including all networking equipment.Complete with trunking,terminals,fused terminals,surge arrestors,circuit breakers and panel wiring inclusive of lugs, core markers, cable markers and mechanical fittings and fixtures. As per the particular specification. (Excluding PLC panel)	no	1		
C1.2		Design, supply, configure and testing of 10/100/1000 Managed Ethernet Switches - 16 ports with 2 managed GB F/O ports, complete with SFPs.	no	1		
C1.3		Supply, test, deliver to site, install and commissioning of a new latest 15 inch HMI as per the particular specification	no	2		
C1.4		PLC & HMI programming as per P & ID, process and control description and control philosophies for various process areas.	sum	1		
C2		**Pump Station Pump-sets PLCs**				
C2.1		Design, test, deliver to site, install and commissioning of a new PLC System including all networking equipment.Complete with trunking,terminals,fused terminals,surge arrestors,circuit breakers and panel wiring inclusive of lugs, core markers, cable markers and mechanical fittings and fixtures. As per the specification.(Excluding PLC panel)	no	6		
C2.2		Design, supply, configure and testing of 10/100/1000 Managed Ethernet Switches - 8 ports with 2 managed GB F/O ports, complete with SFPs.	no	6		
C2.3		Supply, test, deliver to site, install and commissioning of a new latest Panelview HMI system similar to the current installation as per the specification	no	2		
C2.5		PLC programming as per P & ID, process and control description and control philosophies for various process areas. Including the monitoring of the High Lift Pumps	Sum	1		
C3		**Instrumentation**				
C3.1		Supply, delivery, and commissioning of Pump Station Outlet DN600 Magnetic Flow meter complete with all materials necessary for the complete installation.	no	1		
C3.2		Supply, delivery, install and commissioing of Pump Station delivery Pressure Switch complete with all materials necessary for the complete installation.	no	1		
C3.3		Supply, delivery, install and commissioing of Pump Station delivery Pressure Transmitter complete with all materials necessary for the complete installation.	no	1		
C3.4		Supply, delivery, install and commissioing of Pump-set Pressure Transmitter complete with all materials necessary for the complete installation.	no	12		
C3.5		Supply, delivery, install and commissioing of Pump Suction Flow Switch complete with all materials necessary for the complete installation.	no	8		
Carried Forward						

Contractor | Witness 1 | Witness 2 | Employer | Witness 1 | Witness 2

SECTION 6 - EBENEZER PUMP STATION

SECTION 6C: CONTROL AND INSTRUMENTATION REFURBISHMENT WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
C3.6		Supply, delivery, install and commissioing of 4 -20mA Transmitter on Pumps DE and NDE Vibration Sensors complete with all material necessary fot the complete installation	no	16		
C3.7		Supply, delivery, install and commissioing of 4 -20mA Transmitter on Pumps DE and NDE PT100 Temperaure Sensors complete with all material necessary fot the complete installation	no	16		
C3.8		Supply, delivery, install and commissioing of 4 -20mA Transmitter on Pumps PT100 Casing Temperaure Sensors complete with all material necessary fot the complete installation	no	8		
C3.9		Supply, delivery, install and commissioing of 4 -20mA Transmitter on Motor DE and NDE Bearings PT100 Temperaure Sensors complete with all material necessary fot the complete installation	no	16		
C3.10		Supply, delivery, install and commissioing of 4 -20mA Transmitter on Motor Winding PT100 Temperaure Sensors complete with all material necessary fot the complete installation	no	48		
C3.11		Supply, delivery, install and commissioing of 4 -20mA Transmitter on Motor DE and NDE Vibration Sensors Sensors complete with all material necessary fot the complete installation	no	16		
C3.12		Supply, delivery, install and commissioing of 4 -20mA Transmitter on Motor DE and NDE Bearing Temperature PT100 Sensors complete with all material necessary fot the complete installation	no	16		
C3.13		Supply, delivery, install and commissioing of 4 -20mA Transmitter on Motor Water Temperature PT100 Sensors complete with all material necessary fot the complete installation	no	8		
C4		**Control and Instrumentation Cabling and Accessories**				
C4.1		Supply, delivery, install, test and commission 2 Pair x 1.0mm² Dekabon IOS scn/SWA. cable inclusive of cable straps, lugs, core markers and cable markers.	m	1500		
C4.2		Supply, delivery and install CCG Posi Gland to suit 2 Pair x 1.0mm² Dekabon IOS scn/SWA. Cable	no	80		
C4.3		Supply, delivery, install, test and commission 12 Pair x 1.0mm² Dekabon IOS scn/SWA cable inclusive of cable straps, lugs, core markers and cable markers.	m	1000		
C4.4		Supply, delivery and install CCG Posi Gland to suit 12 Pair x 1.0mm² Dekabon IOS scn/SWA cable	no	18		
C5		**Telemetry System**				
C5.1		Upgrade the existing Telemetry system as per specification for the entire Ebenezer WS including Rustfontein Reservoir Complex. This system should be compatible with the Olifantspoort Water Supply Scheme	Sum	1		
Total of Section 6C Carried to Summary						

Section 6D: Rustfontein Valves Refurbishment Work

SECTION 6 - EBENEZER PUMP STATION

SECTION 6D: RUSTFONTEIN VALVES REFURBISMENT WORK

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
D1		**Mechanical Refurbishment**				
D1.1		Removal of the existing Rustfontein reservor flange adaptors and Butterfly valves	sum	4		
D1.2		Cutting of DN900 pipe to accomadate new valve	no	2		
D1.3		Supply installation and Welding of DN900 PN10 flanges on DN900 pipe	no	2		
D1.4		Supply and install DN 900 Butterfly outlet valves, PN 10 with F-F 330mm, Complete with Auma actuator for normal open and close operation	no	2		
D1.5		Supply and install DN 900 Flange Adaptors, PN10	no	1		
D1.6		Supply and install DN 300 Butterfly outlet valves, PN 10, Complete with Auma actuator for normal open and close operation	no	1		
D1.7		Supply and install DN 900 Flange Adaptors, PN10	no	1		
D1.8		Supply and install DN 300 Butterfly outlet valves, PN 10, Complete with Auma actuator for normal open and close operation	no	1		
D1.9		Supply and install DN 300 Flange Adaptors, PN10	no	1		
D1.10		Testing and commissioning of entire valve systems for Rusfontein Reservoir	no	1		
D2		**Electrical Refurbishment**				
D2.1		Provisional Sum allowed for the upgrade electrical supply with the Rusfontein Reservoir Complex including application for additional power from the Supply Authority	Prov Sum	1		250 000,00
D2.2		Allow for overheads, charges and profits on item D2.1 above	%		250 000,00	
D3		**Control and Instrumentation Refurbishment**				
D3.1		Provisional Sum allowed for the upgrade for the installation for Control and Instrumentation Equipment including Telemetry System for communication with High Lift Pump Station	Prov Sum	1		80 000,00
D3.2		Allow for overheads, charges and profits on item D3.1 above	%		80 000,00	
Total of Section 6D Carried to Summary						

Section 6E: Buildings and Minor Civil Works

SECTION 6 - EBENEZER PUMP STATION

SECTION 6E: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E1		**New VFD/VSD and Switchgear Building**				
E1.1	**SANS1200 C**	**Site Clearance**				
E1.1.1		Clear Vegetation, Grass, Shrubs etc. and Trees of Girth up to 1m and Remove to Dumpsite, Stockpile, Maintain/Preserve and Reinstate Topsoil (150mm Deep)	m²	182		
E1.1.2		Shrubs, Trees and Grass along Route of Pipeline and at Ablution Block Sites.	sum	1		
E1.1.3		Clear Trees of Girth and Designated Obstacles > 1.0m Up To and Including 2m	sum	1		
E1.1.4		Remove rubble and cart away to an approved landfill site	m^3	17		
E1.2	**SANS1200 D**	**Earthworks and Foundations**				
		Foundations and Foundations Excavations				
E1.2.1		Excavate 1m beyond entire foundation footprint using 1:1 (V:H) side slopes	m³	200		
E1.2.2		Rip and re-compact 150mm thick bottom in-situ layer when established at 1m below raft slab	m³	25		
E1.2.3		Excavation in Earth for Strip Foundations and Cable Trenches Exceeding 0.6m Deep and Not Exceeding 1.3m Deep.	m³	115		
E1.2.4		Allow for Keeping Excavations Free of Water by Hand or Machinery	Item	1		
E1.2.5		Construct earth mattress in 150mm layers to be compacted and tested at each layer using G6 material compacted to be achieved at 95% MOD AASHTO at OMC. Layers shall be constructed to beneath foundations and around footprint to GL	m³	200		
E1.2.6		15Mpa Concrete Blinding under Footings.	m³	6		
E1.2.7		30Mpa (28 days) 19mm Reinforced Concrete On Strip Foundations	m³	12		
E1.3		**Blockwork on on foundations up to DPC level**				
E1.3.1		a) M90	m²	15		
E1.3.2		b) M190	m²	25		
E1.4		**Soil Insecticide**				
E1.4.1		Soil to be Poisoned in Accordance with SABS 1165 (Certificate must be Approved by an Accredited Applicator) under floors etc. including forming and poisioning shallow furrows against foundation walls etc., filling in furrows and ramming	m²	182		
E1.5		**Reinforcement**				
E1.5.1		Reinforcing Mesh Ref. 193 with a Cover of 50mm	m²	80		
Carried Forward						

SECTION 6 - EBENEZER PUMP STATION

SECTION 6E: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
E1.5.2		Reinforcing Mesh Ref. 245 with a Cover of 50mm	m²	10		
E1.5.3		***False work, formwork and concrete finish***				
		Formwork to provide (class F1) surface finish				
E1.5.3.1		a) Type E concrete apron slab	m²	60		
		Vertical formwork to provide class F1 surface finish to				
E1.5.3.2		a) Footings and Cable Trenches	m²	110		
E1.5.4		***Steel Reinforcement***				
		Steel Reinforcement of Strip Foundation				
E1.5.4.1		a) High yield stres steel bars (Strip foundation)	t	3		
E1.6		30Mpa (28 days) 150mm Thick Powerfloat Finished Slab	m³	62		
E1.7		30Mpa (28 days) Concrete to Aprons / v drain (steel float finish)	m³	7		
E1.8		Making and Testing Set of Six 150 x 150 x 150 Concrete Strength Test Cubes, to be tested by an Independent Laboratory (Provisional)	Sets	4		
E1.9		100mm wide x 10mm thick Jointex Joint Filler with 10 x 10mm Tear-Off Strip	m	170		
E1.10		10mm x 10mm SikaFlex at Facade Joint Sealer	m	100		
E1.11		***Earthworks***				
E1.11.1		a) Cut To Level	m³	26		
E1.11.2		b) Extra-over for Boulder Excavations	m³	2		
E1.11.3		c) for Hard Rock Excavations	m³	1		
E1.12	**19.1.8**	**Damp Proof Course**				
E1.12.1		One layer of 250 micron 'USB GREEN' waterproof sheeting sealed at laps with 'Gunplas Pressure Sensitive Tape':	m²	182		
E1.12.2		Gundle® 'Brikgrip® DPC 375' Damp Proof course to SABS mark 952- 1985 Type B:				
E1.12.2.1		a) In 200 thick walls	m	60		
E1.12.2.2		b) In 100 thick walls	m	25		
Carried Forward						

SECTION 6 - EBENEZER PUMP STATION

SECTION 6E: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
E1.13	**19.1.1**	**Blockwork**				
E1.13.1		M190 (190mm thick Walls - Load bearing wall)	m²	130		
E1.13.2		M90(90mm thick Walls (Outside Walls - Face brick)	m²	130		
E1.13.3		190mm Brickforce to Wall	m	300		
E1.13.4		90mm Brickforce to Outside Walls	m	135		
E1.13.5		390 x 190 x 50 Air Brick	No.	8		
E1.13.6		Precast Prestressed Concrete Lintels, suitable for blocks, lengths Not Exceeding 1.5m	m	9		
E1.13.7		Precast Prestressed Concrete Lintels, suitable for blocks, Lengths Exceeding 1.5m but Less than 6m	m	12		
E1.13.8		Galvanised Hoop Iron Cramps, Ties, etc: 30 x 1.6mm Wall Tie 600mm Long with One End Wrapped Around Rebar and the Other End Wrapped Over and Nailed to Rafter	m	30		
E1.14	**19.1.3**	**Plaster**				
		(15mm thick) 1:4 Cement Plaster on Brickwork:				
E1.14.1		a) On Walls	m²	120		
E1.14.2		b) On Narrow Widths	m²	22		
E1.14.3		c) 50mm Radius Skirting	m	120		
E1.15		**Paint**				
		Interior				
E1.15.1		a) Primer as per spec	m²	110		
E1.15.2		b) Paint as per spec	m²	110		
		Exterior				
E1.15.3		a) Primer as per spc	m²	0		Rate only
E1.15.4		b) Paint (Lighter Colour - as per spec)	m²	0		Rate only
E1.15.5		c) Paint (Darker Colour - as per spec)	m²	0		Rate only
		Floors				
E1.15.6		a) Epoxy Paint Floors	m²	115		
Carried Forward						

SECTION 6 - EBENEZER PUMP STATION

SECTION 6E: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
E1.16	**19.1.16**	**Ironmongery** Doors Complete, including leaf, frame, hinges, handles, stops, lock sets etc				
E1.16.1		a) Door (as per drawings)	No.	4		
E1.16.2		b) 150 x 50 GMS Purlin	m	9		
		Painting of Doors				
E1.16.3		a) Laquer Thinners for Knots and Resinous areas	m²	18		
E1.16.4		b) Woodcare Knot Seal	m²	18		
E1.16.5		c) 1 Coat Plascon Woodcare Pretreatment	m²	18		
E1.16.6		d) 1 Coat Wood Primer (UC2)	m²	70		
E1.16.7		e) 2 Coats Wall and All (WAA)	m²	70		
		Frame Finishing				
E1.16.8		a) Laquer Thinners for Knots and Resinous areas (Door A/C/D)	m²	15		
E1.16.9		b) Woodcare Knot Seal (Door A/C/D)	m²	15		
E1.16.10		c) 1 Coat Plascon Woodcare Pretreatment (Door A/C/D)	m²	15		
E1.16.11		d) 1 Coat Wood Primer (UC2) (Door A/C/D)	m²	15		
E1.16.12		e) 2 Coats Wall and All (WAA) (Door A/C/D)	m²	15		
E1.17	**19.1.17**	**Glazing** All glazing shall be inaccordance with SABS 0400-1990, SABS 1263-1. All safety glazing materials shall be permanently marked				
E1.17.1		a) 3mm obscure glass	m²	20		
		Galvanised windows Supply and install hot dipped galvanised 1.6mm steel window frames to comply with SANS 727				
E1.17.2		a) Window (as per drawings)	No.	8		
E1.18		**Roofing**				
	19.1.11	False work, formwork and concrete finish				
E1.18.1		a) Vertical formwork to provide (class F3) surface finish	m²	55		
Carried Forward						

SECTION 6 - EBENEZER PUMP STATION

SECTION 6E: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
E1.18.2		b) Horizontal formwork to provide (class F3) surface finish	m²	85		
E1.18.3		c) Horizontal formwork to provide (class U2) surface finish	m²	75		
		Steel Reinforcement Steel Reinforcement of concrete roof slab and up-stand beams				
E1.18.4		a) High yield stres steel bars	t	2		
E1.18.5		b) 40Mpa (28 days) 200mm Thick Powerfloat Finished Slab	m³	20		
E1.18.6		c) Making and Testing Set of Six 150 x 150 x 150 Concrete Strength Test Cubes, to be tested by an Independent Laboratory (Provisional)	Sets	4		
E1.18.7		d) Elastoplastomeric polymer-bitumen waterproofing membrane torched on to roof slab to be finished off with aluminum pigment bitumen based paint coating in full comliance to manufacturers specification	m²	80		
E1.18.8		e) 203x133x30 I-Section crawl beam anchored into RC roof slab with chemical anchors @ 1000 c/c	m	15		
E1.19	**19.1.13**	**Guttering**				
E1.19		a) Full bore outlet (to lead to PVC downpipe)	No.	4		
E1.20		b) 75mm uPVC downpipe x 3.2m long including 2 no brackets per downpipe	No.	4		
E2		**Pump Station Minor Building Refurbishment**				
E2.1	**SANS 1200G**	**Concrete (Structural)**				
E2.1.1		**Rapid hardening Portland cement 15 for use in the following:**				
E2.1.1.1		1) Plastering work	t	1		
E2.1.1.2		2) Screeding	t	1		
E2.2	**19.1.9**	**Joints**				
		Proprietary expansion joints:				
E2.2.1		1) PC Sum allowed for purchase and taking delivery of expansion joints	PC Sum	1		20 000,00
E2.2.2		2) Percentage on PC for charges and profits	%		20 000,00	
		Installation of proprietary expansion joints: *Retrofit saw-cut expansion joints*				
E2.2.3		3) Metal cover installed in movement joint	m	25		
		Application for proprietary expansion joints sealants:				
E2.2.4		4) Application type: high movement construction and expansion joints	m	30		
Carried Forward						

SECTION 6 - EBENEZER PUMP STATION

SECTION 6E: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
		Application: concrete contraction and expansion joints surfaces should be clean, sound and dry prior to application. Apply Dow Corning 888, or similar approved in all accordance with manufacturer's recommendations Expansion joints as detailed on the Drawings and/or specified in the particular specification Construction joints as detailed on the Drawings and/or pecified in the particular specification				
E2.3	**19.1.19**	**Grouting**				
E2.3.1		1) Under bases (or beds)	m³	5		
E2.4		**Corrosion protection (extra over item) by:**				
E2.4.1		1) Painting	kg	60		
E2.4.2		2) Sprayed metal coating (*type of metal and thickness of coating indicated*)	kg	0		Rate only
E2.4.3		3) Hot-dip galvanizing	kg	0		Rate only
E2.4.4		4) Poweder coating	kg	0		Rate only
E2.5	**19.1.22**	**Miscellaneous work other than metal work:**				
E2.5.1		1) Drainage pipes: Exposed Drainiage Pipes @ Basement				
E2.5.1.1		1.1) Flushing, cleaning and painting of drainage pipes @ basement	m	75		
E2.5.2.1		2) Drainage gullies for bridge deck as per confrimation on site				
E2.5.2.1		2.1) All drainage gullies on balconies	no	0		Rate only
E2.6	**19.1.6**	**Screeds**				
E2.6.1		1) Floor screeds (1:3) with falls including V-joinys to form panels and smooth towelled finish power float finish to top:				
E2.6.1.1		1.1 Floor screed: 1 Part cement with 3 parts clean coarse sand with sufficient water until a plastic consistence similar to cement plaster is achieved. Smooth finish to particular specification	m²	100		
E2.6.1.2		1.2 Plaster and Concrete Repair Work: Repair mix for damaged and peeling of plaster to manufacturer's specs Sika/abe or similar approved products	m²	100		
E2.7		**Epoxy based bonding agent and primer to prepare concrete floors to receive screeding (FOSROC NITROBOND EP slowest or approved equivalent**	m²	100		
E2.8		**Corrosion protection (extra over item) by:**				
E2.8.1		1) Vinyl anti-fouling paint and undercoats to form an algae-resistant coating on:				
E2.8.1.1		1.1) Exposed structural steelwork	m²	30		
E2.8.2		2) solvent-free abrasion-resistance coating and primer to a minimum thickness of 3mm on:				
E2.8.2.1		2.1) Exposed structural steelwork	m²	30		
SECTION 6 - EBENEZER PUMP STATION						

SECTION 6E: BUILDINGS AND MINOR CIVIL WORKS

SECTION 6E: BUILDINGS AND MINOR CIVIL WORKS

ITEM No	PAYMENT REF	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
Brought Forward						
E2.9	**SANS 1200H**	**Structural Steelwork**				
E2.9.1		Non-destructive testing	h	1		
E2.10		**Pump Station Ventilation**				
E2.10.1		Supply and installation of Ventilation System complete with fans, ducts and electrical control system	Prov Sum	1		600 000,00
E2.10.2		Allow for overheads, charges and profits on item E2.10.1 above	%		600 000,00	
Total of Section 6E Carried to Summary						

C2.3 SUMMARY OF BILL OF QUANTITIES

Section 1	**Preliminary and General**	R……
Section 2	**Olifantspoort Pump Station 1**	
	Section 2A: Mechanical Refurbishment Work	R……
	Section 2B: Electrical Refurbishment Work	R……
	Section 2C: Control and Instrumentation Refurbishment Work	R……
	Section 2D: Access Road, Buildings and Minor Civil Works	R……
Section 3	**Olifantspoort Pump Station 2**	
	Section 3A: Mechanical Refurbishment Work	R……
	Section 3B: Electrical Refurbishment Work	R……
	Section 3C: Control and Instrumentation Refurbishment Work	R……
	Section 3D: Buildings and Minor Civil Works	R……
Section 4	**Olifantspoort Pump Station 3**	
	Section 4A: Mechanical Refurbishment Work	R……
	Section 4B: Electrical Refurbishment Work	R……
	Section 4C: Control and Instrumentation Refurbishment Work	R……
	Section 4D: Buildings and Minor Civil Works	R……
Section 5	**Ebenezer Water Treatment Works (WTW)**	
	Section 5A: Flocculation Channel and Filter Walls - Civil Work	R……
	Section 5B: Mechanical Refurbishment Work	R……
	Section 5C: Electrical Refurbishment Work	R……
	Section 5D: Control and Instrumentation Refurbishment	R……

	Work	
	Section 5E: Buildings and Minor Civil Work	R……
Section 6	**Ebenezer Pump Station (PS)**	
	Section 6A: Mechanical Refurbishment Work	R……
	Section 6B: Electrical Refurbishment Work	R……
	Section 6C: Control and Instrumentation Refurbishment Work	R……
	Section 6D: Rustfontein Valves Refurbishment Work	R……
	Section 6E: Buildings and Minor Civil Works	R……

[a] Sub Total (Sections 1 + 2 + 3 + 4 + 5 + 6) **R……**
(Total of Schedule of Quantities)

[b] Contract Price Adjustment (10% of [a]) **R……**
(Sum provided in terms of provisions of General Conditions of Contract)

[c] Contingencies (10% of [a]) **R……**

[d] Sub-Total ([a] + [b] + [c]) **R……**

[e]VAT (15% of [d]) **R……**

NET TOTAL CARRIED TO FORM OF OFFER AND ACCEPTANCE ([d] + [e]) **R……**

C2.4 BANKING DETAILS

The Tenderer is requested to complete the following in full.

Bank Name : ……...

Account Holder's Name : ……...

Account Number : ……...

Branch Code : ……...

Contact Person : ……...

Contact Number : ……...

Signature of Tenderer: ……..

Signed on behalf of: ……

Date: ……

C2.5 PUMPS, MOTORS, VFDs/VSDs, PIPEWORK AND VALVES SCHEDULES TO BE FILLED BY TENDERER

C2.5.1 OLIFANTSPOORT PUMP STATION 1

C2.5.1.1 HIGH LIFT CETRIFUGAL PUMP SCHEDULES

ID Item	Data to be Provided by the Tenderer
1. Manufacturer	
2. Pump Model	
3. Mass of the Pump (kg):	
4. No. of Stages on the Pump	
5. Efficiency at BEP of the Pump (%)	
6. Impeller Diameter (mm)	
7. Suction Port/Inlet Diameter (mm)	
8. Suction Port/Inlet Nominal Pressure (kPa/Bar)	
9. Suction Port/Inlet Standard (DIN)	
10. Discharge Port/Outlet diameter (mm)	
11. Discharge Port/Outlet Nominal Pressure (kPa/Bar)	
12. Discharge Port/Outlet Standard (DIN)	
13. Suction Casing Material Type	
14. Discharge Casing Material Type	
15. Stage Casing Material Type	
16. Impeller Material Type	

17. Diffuser Material Type	
18. Pump Bearings Make	
19. Pump Bearings Type	
20. Pump Bearings Lubrication Method	
21. Pump Bearings Cooling Method and Cooling Media	
22. Bearings L10 life	
23. Shaft Seal Manufacturer	
24. Shaft Seal Type/model	
25. Shaft Material Type	
26. Shaft Seal Material Type	
27. Pump & Motor Coupling Manufacturer	
28. Pump & Motor Coupling Name/Model	
29. Pump & Motor Coupling Type	
30. Pump & Motor Coupling Power Rating	
31. Pump & Motor Coupling Speed Rating	
32. Pump & Motor Coupling Torque Rating	
33. Pump Baseplate Material	

34. Pump Baseplate Design Weight	
35. Pump Baseplate Size	
36. Pump Baseplate Weight	
37. Vibration Standard Used for the pump:	
38. Maximum allowable vibration parameters:	
Range of allowable operating conditions for continuous operation of the pump (at the nominal speed, with number oof stages proposed)	
39. Low flow, high head (m^3/sec @ m)	
40. Low flow -approximate shaft power required (KW)	
41. Low flow - approximate NPSH required (m)	
42. Low flow efficiency (%):	
43. High flow, high head (m3/sec @ m)	
44. High flow -approximate shaft power required (KW)	
45. High flow - approximate NPSH required (m)	
46. High flow efficiency (%)	
47. Nominal speed (rpm)	
48. Inlet diameter (DN)	
49. Outlet diameter (DN)	

50. Suction specific speed	
51. Range of impeller diameters for model of pump offered (mm-mm)	
52. Maximum shaft speed to perform specified duties for variable speed drives applications (rpm):	
53. Minimum shaft speed to perform specified duties for variable speed drives applications (rpm):	
Highest pump NPSH required over the range of duties specified for this Contract	
54. NPSH required (m)	
55. Head at this point (m)	
56. Flow at this point (m3/sec)	
57. Shaft speed at this point (rpm)	
58. **Inlet/Suction Casing**	
a. Design pressure for casing(kPa/bar)	
b. Test pressure for casing(kPa/bar)	
59. **Outlet/Discharge Casing**	
a. Design pressure for casing(kPa/bar)	
b. Test pressure for casing(kPa/bar)	
60. **Internal Corrosion Protection**	
a. Design pressure for casing(kPa/bar)	
b. Test pressure for casing(kPa/bar)	

61. Description of the coats and thickness for internal corrosion protection	
62. Description of final coat for efficiency improvement	
63. Country of Manufacture of the pump	
64. Local Supplier of Pump Seals Spares	
65. Local Supplier of Pump Bearings Spares	
66. Local Supplier of Pump & Motor Couplings	

C2.5.1.2 MV THREE PHASE SQUIRREL CAGE INDUCTION MOTOR SCHEDULES

Item	Data to be Provided by the Tenderer
1. Manufacturer	
2. Model	
3. Output Power (kW)	
4. Starting Method	
5. Frequency	
6. Poles	
7. Slip	
8. Rate Speed	
9. Rated Voltage	
10. Connection	
11. Rated Current	
12. Rotor Voltage	
13. Rotor Current	
14. Locked Rotor Current (p.u)	
15. kVA/kW	
16. No Load Current	

17. Rated Torque	
18. Locked Rotor Torque (%)	
19. Breakdown Torque (%)	
20. Insulation Class	
21. Efficiency	
22. Service Factor	
23. Locked Rotor Time	
24. Duty Cycle	
25. Bearing D.E & N.D.E	
26. Lubrication Interval (D.E & N.D.E)	
27. Grease Quantity (D.E & N.D.E)	
28. Lubricant (D.E & N.D.E)	
29. Ambient Temperature	
30. Altitude	
31. Protection Degree	
32. Cooling	
33. Mounting	

34. Vibration			
35. Moment of Inertia			
36. Direction of Rotation			
37. Coupling			
38. Performance Data			
Output Efficiency Cos Ø	**50%** …… ……..	**75%** …… ……..	**100%** …… …….
39. Load Type			
40. Resistance Torque			
41. Notes/Accessories			
• Stray Load Losses			
• The Motor is suitable for 3 COLD starting or 2 HOT starting per hour			
• Heating Constant			
• Cooling Constant			
• Noise level measured at 1m for the extremes of the machine considering the shaft end and terminal box			
• Torque and Current vs Speed curve			
• Thermal Limiting Curve			
• Performance vs Output Curve			

• Equivalent Circuit	
• Suitable to operate the machine continuously with power 110% with Class B temperature rise at ambient of 40ºC or temperature rise of 85ºC at ambient of 45ºC	

C2.5.1.3 MV VARIABLE SPEED/FREQUENCY DRIVE

1	Manufacturer Model	
2	**Rating of drive panel**	
a.	Output in amperes	A
b.	Rating expressed at (torque)	Constant torque Squared torque
c.	Rating declared at 45ºC	
d.	Standard Rating	Design at ºC
e.	Switching frequency at declared rating	Hz
3	Applicable code / standards	
4	Drive type	Flux vector control / Direct torque control / Mixed
5	Speed range	_____% to _____ % of rated motor speed
6	Speed reference signal type	4 – 20mA / 0-10V
7	**Input power supply ratings**	
a.	Voltage	±
b	Voltage % unbalance	±
c.	Frequency	±
8	Output voltage at -15% input voltage full speed, full load	
9	**Overload capability of converter**	
a.	115% in for	min
b.	150% in for	min
c.	Inrush current 250% in for	sec
10	**Overall efficiency of drive (excl. motor) at**	
a.	100% kVA Load	
b.	75% kVA Load (shall be used for comparative evaluation purpose)	
c.	50% kVA Load	
d.	25% kVA Load	

11	Individual efficiency of rectifier at output DC link Individual efficiency of Inverter		
12	**Overall power factor of drive (excl. motor) at**		
a.	100% Load		
b.	75% Load		
c.	50% Load		
d.	25% Load		
13	AC Output		
a.	Rated frequency range		
b.	Accuracy of frequency		
14	**Dynamic response**		
a.	Speed fluctuation band		
b.	Speed recovery time after 100% torque step		
15	**Transient Torque**		
a.	Max. Transient air gap torque/duration		
b.	Max. Transient air gap torque/duration		
16	Wave form distortion factor (% harmonics) in output/input (V & I) waveform (Number of harmonics generated shall be furnished)		
17	Output short circuit Capability and duration		
18	**Suitability to Motor**		
a.	Suitable for kW rating/frame size		
b.	Deration required to motor frame/kW due to operation with electronic drive		
c.	Permissible No. of starts of motor Uniformly distributed in one hour HOT COLD		
d.	Type of Motor	Squirrel cage induction motor	
19	**CONTROLS (Please answer as provided / not provided)**	**At PLC/SCADA**	**At Drive**
a.	System Start		

b.	System Stop		
c.	System raise		
d.	System lower		
e.	Drive frequency setting		
f.	Jog mode		
g.	Dynamic brake		
h.	Remote breaker trip		
i.	Electronic ramp function		
j.	Speed & current controller		
k.	Drive ready to start signal		
l.	Ammeter		
m.	Speed indicator		
20	Diodes / IGBT Configuration		
21	Total No. of Diodes / IGBT Total no. of cells		
22	Cooling System		
a.	Type		
b.	Online Redundancy		
23	Speed control accuracy		
24	List of controls provide At the front panel (As per specification)	Yes / No	
25	List of status measuring devices provided at provide (As per specification)	Yes / No	
26	Type of Electronic Card mounting arrangement	Yes / No	
27	**Dimension**		
a.	Length		
b.	Height		
c.	Depth		
d.	Weight of Cubicle		
(Dimensional details of all panels shall be furnished along with offer for substation sizing)			

28	Degree of protection for enclosure	
29	Paint shade	
30	Heat output of Panel and Air condition Tonnage requirement	
31	Whether Air Conditioning is required for these panels	
32	Control Supply voltage and Aux. Power requirement	
33	Main converter transformer	Dry type panel mounted and suitable for locating indoor along with VFD/VSD
a.	Make	
b.	Type of transformer	
c.	kVA rating	
d.	Voltage rating	
e.	Vector group	
f.	Impedance	
g.	Overall dimension	
h.	Transformer accessories	
i.	Lightning Impulse Voltage	
34	DC Reactor / AC Line Reactor	
a.	Make	
b.	Type	
c.	Rating	
d.	Type of cooling	
e.	Overall dimensions	
f.	Heat output	
g.	Inductance of the reactor	

h.	Air core / Iron core	
35	Local control panel / station required as per spec	Yes / No
36	Manufacturing and Supply location	
37	Year and location of 1st manufacturing of latest designed model of offered VFD / VSD	
38	Reactor Filter at O/P to reduce dv/dt at motor terminal	
39	MTBF of product	
40	Noise Level	
41	Delivery period	
42	No. of pulse level and voltage input cell Output pulse / stages level (Ph to Neutral and Ph to Ph) No pf power cell provided in drive	

C2.5.1.4 METAL SEATED DOUBLE OR TRIPPLE ECCENTRIC BUTTERFLY VALVE

ID Item	Data to be Provided by the Tenderer
c. Manufacturer	
1. Manufacturer	
2. Type	
3. Pressure Rating	
4. Nominal Size (DN) mm	
5. Body & Disc	
6. Shaft	
7. Bearing Bush	
8. Seal Ring	
9. Seat Ring	
10. Retaining Ring	
11. Face to face	
12. Flanges drilling	
13. Flange thickness	
14. Number of holes/size	
15. Performance and Design Requirements	
a) Service Life (Years	
b) Pressure Rating (bar)	Open
	Close
c) Flow Coefficient (Kv)	

16. Operational Requirements	
a) Direction of Closing (P)	
b) Method of Operation	
c) Operating Device Position	
d) Disc Positioning Indicator	

C2.5.1.5 NOZZLE CHECK VALVE

ID Item	Data to be Provided by the Tenderer
1. Manufacturer	
2. Type	
3. Pressure Rating	
4. Nominal Size (DN) mm	
5. Body	
6. Disc	
7. Body Seat	
8. Diffuser	
9. Flange drilling	
10. Face to face	
11. Flange thickness	
12. Number of holes/size	
13. Performance and Design Requirements	
b) Service Life (Years	
b) Pressure Rating (bar)	
c) Endurance (Opening/Closing Cycles)	
d) Closure Characteristic	
e) Body External Coating	
f) Body Internal Coating	
g) Seal (metallic sealing)	

h) Seal (resilient sealing)	
i) Stem	
j) Spring(s)	
k) Other Wetted Parts	

C2.5.1.6 RESILINET SEAT OR WEDGE GATE VALVE

ID Item	Data to be Provided by the Tenderer
1. Manufacturer	
2. Type	
3. Pressure Rating	
4. Nominal Size (DN) mm	
5. Body and Bonnet	
6. Body and Bonnet Coating	
7. Disc (coated)	
8. Disc Seat Ring	
9. Body Seat Ring	
10.Hinge	
11.Disc Spindle	
12.Disc Spindle Bushings	
13.Disc Seal (O-rings)	
14.Gaskets	
15.Anti-slam Device	
16.Manual backflow act	
17.Disc Reinforcement	
18.Friction Factor (K)	
19.Lever and weight (if required)	
20.External Spindle	

21. External Weighted Lever	
22. Lever on LHS or RHS	
23. Spring Assisted Closure	

C2.5.1.7 PIPEWORK SCHEDULES (SUCTION SIDE)

ID Item	Data to be Provided by the Tenderer
1. Manufacturer	
2. Type & Grade	
3. Nominal Diameter (mm)	
4. Pressure Rating	
5. Wall Thickness (mm)	
6. External Coating	
7. . Internal Coating	
8. Length	
9. Pipe Ends Details	

C2.5.1.8 PIPEWORK SCHEDULES (DELIVERY SIDE)

ID Item	Data to be Provided by the Tenderer
1. Manufacturer	
2. Type & Grade	
3. Nominal Diameter (mm)	
4. Pressure Rating	
5. Wall Thickness (mm)	
6. External Coating	
7. . Internal Coating	
8. Length	
9. Pipe Ends Details	

C2.5.2 OLIFANTSPOORT PUMP STATION 2

C2.5.2.1 HIGH LIFT CETRIFUGAL PUMP SCHEDULES

ID Item	Data to be Provided by the Tenderer
67. Manufacturer	
68. Pump Model	
69. Mass of the Pump (kg):	
70. No. of Stages on the Pump	
71. Efficiency at BEP of the Pump (%)	
72. Impeller Diameter (mm)	
73. Suction Port/Inlet Diameter (mm)	
74. Suction Port/Inlet Nominal Pressure (kPa/Bar)	
75. Suction Port/Inlet Standard (DIN)	
76. Discharge Port/Outlet diameter (mm)	
77. Discharge Port/Outlet Nominal Pressure (kPa/Bar)	
78. Discharge Port/Outlet Standard (DIN)	
79. Suction Casing Material Type	
80. Discharge Casing Material Type	
81. Stage Casing Material Type	
82. Impeller Material Type	

83. Diffuser Material Type	
84. Pump Bearings Make	
85. Pump Bearings Type	
86. Pump Bearings Lubrication Method	
87. Pump Bearings Cooling Method and Cooling Media	
88. Bearings L10 life	
89. Shaft Seal Manufacturer	
90. Shaft Seal Type/model	
91. Shaft Material Type	
92. Shaft Seal Material Type	
93. Pump & Motor Coupling Manufacturer	
94. Pump & Motor Coupling Name/Model	
95. Pump & Motor Coupling Type	
96. Pump & Motor Coupling Power Rating	
97. Pump & Motor Coupling Speed Rating	
98. Pump & Motor Coupling Torque Rating	
99. Pump Baseplate Material	

100. Pump Baseplate Design Weight	
101. Pump Baseplate Size	
102. Pump Baseplate Weight	
103. Vibration Standard Used for the pump:	
104. Maximum allowable vibration parameters:	
Range of allowable operating conditions for continuous operation of the pump (at the nominal speed, with number oof stages proposed)	
105. Low flow, high head (m^3/sec@m	
106. Low flow -approximate shaft power required (KW)	
107. Low flow - approximate NPSH required (m)	
108. Low flow efficiency (%):	
109. High flow, high head (m3/sec@m)	
110. High flow -approximate shaft power required (KW)	
111. High flow - approximate NPSH required (m)	
112. High flow efficiency (%)	
113. Nominal speed (rpm)	
114. Inlet diameter (DN)	
115. Outlet diameter (DN)	

116. Suction specific speed	
117. Range of impeller diameters for model of pump offered (mm-mm)	
118. Maximum shaft speed to perform specified duties for variable speed drives applications (rpm):	
119. Minimum shaft speed to perform specified duties for variable speed drives applications (rpm):	
Highest pump NPSH required over the range of duties specified for this Contract	
120. NPSH required (m)	
121. Head at this point (m)	
122. Flow at this point (m3/sec)	
123. Shaft speed at this point (rpm)	
124. **Inlet/Suction Casing**	
c. Design pressure for casing(kPa/bar)	
d. Test pressure for casing(kPa/bar)	
125. **Outlet/Discharge Casing**	
d. Design pressure for casing(kPa/bar)	
e. Test pressure for casing(kPa/bar)	
126. **Internal Corrosion Protection**	
a. Design pressure for casing(kPa/bar)	
b. Test pressure for casing(kPa/bar)	

127. Description of the coats and thickness for internal corrosion protection	
128. Description of final coat for efficiency improvement	
129. Country of Manufacture of the pump	
130. Local Supplier of Pump Seals Spares	
131. Local Supplier of Pump Bearings Spares	
132. Local Supplier of Pump & Motor Couplings	

C2.5.2.2 MV THREE PHASE SQUIRREL CAGE INDUCTION MOTOR SCHEDULES

Item	Data to be Provided by the Tenderer
42. Manufacturer	
43. Model	
44. Output Power (kW)	
45. Starting Method	
46. Frequency	
47. Poles	
48. Slip	
49. Rate Speed	
50. Rated Voltage	
51. Connection	
52. Rated Current	
53. Rotor Voltage	
54. Rotor Current	
55. Locked Rotor Current (p.u)	
56. kVA/kW	
57. No Load Current	

58. Rated Torque	
59. Locked Rotor Torque (%)	
60. Breakdown Torque (%)	
61. Insulation Class	
62. Efficiency	
63. Service Factor	
64. Locked Rotor Time	
65. Duty Cycle	
66. Bearing D.E & N.D.E	
67. Lubrication Interval (D.E & N.D.E)	
68. Grease Quantity (D.E & N.D.E)	
69. Lubricant (D.E & N.D.E)	
70. Ambient Temperature	
71. Altitude	
72. Protection Degree	
73. Cooling	
74. Mounting	

75. Vibration			
76. Moment of Inertia			
77. Direction of Rotation			
78. Coupling			
79. Performance Data			
Output Efficiency Cos Ø	**50%** …… ……..	**75%** …… ……..	**100%** …… …….
80. Load Type			
81. Resistance Torque			
82. Notes/Accessories			
• Stray Load Losses			
• The Motor is suitable for 3 COLD starting or 2 HOT starting per hour			
• Heating Constant			
• Cooling Constant			
• Noise level measured at 1m for the extremes of the machine considering the shaft end and terminal box			
• Torque and Current vs Speed curve			
• Thermal Limiting Curve			
• Performance vs Output Curve			

• Equivalent Circuit	
• Suitable to operate the machine continuously with power 110% with Class B temperature rise at ambient of 40ºC or temperature rise of 85ºC at ambient of 45ºC	

C2.5.2.3 MV VARIABLE SPEED/FREQUENCY DRIVE

1	Manufacturer Model	
2	**Rating of drive panel**	
a.	Output in amperes	A
b.	Rating expressed at (torque)	Constant torque Squared torque
c.	Rating declared at 45ºC	
d.	Standard Rating	Design at ºC
e.	Switching frequency at declared rating	Hz
3	Applicable code / standards	
4	Drive type	Flux vector control / Direct torque control / Mixed
5	Speed range	_____% to _____ % of rated motor speed
6	Speed reference signal type	4 – 20mA / 0-10V
7	**Input power supply ratings**	
a.	Voltage	±
b	Voltage % unbalance	±
c.	Frequency	±
8	Output voltage at -15% input voltage full speed, full load	
9	**Overload capability of converter**	
a.	115% in for	min
b.	150% in for	min
c.	Inrush current 250% in for	sec
10	**Overall efficiency of drive (excl. motor) at**	
a.	100% kVA Load	
b.	75% kVA Load (shall be used for comparative evaluation purpose)	
c.	50% kVA Load	
d.	25% kVA Load	

11	Individual efficiency of rectifier at output DC link Individual efficiency of Inverter		
12	**Overall power factor of drive (excl. motor) at**		
a.	100% Load		
b.	75% Load		
c.	50% Load		
d.	25% Load		
13	AC Output		
a.	Rated frequency range		
b.	Accuracy of frequency		
14	**Dynamic response**		
a.	Speed fluctuation band		
b.	Speed recovery time after 100% torque step		
15	**Transient Torque**		
a.	Max. Transient air gap torque/duration		
b.	Max. Transient air gap torque/duration		
16	Wave form distortion factor (% harmonics) in output/input (V & I) waveform (Number of harmonics generated shall be furnished)		
17	Output short circuit Capability and duration		
18	**Suitability to Motor**		
a.	Suitable for kW rating/frame size		
b.	Deration required to motor frame/kW due to operation with electronic drive		
c.	Permissible No. of starts of motor Uniformly distributed in one hour HOT COLD		
d.	Type of Motor	Squirrel cage induction motor	
19	**CONTROLS (Please answer as provided / not provided)**	**At PLC/SCADA**	**At Drive**
a.	System Start		

b.	System Stop		
c.	System raise		
d.	System lower		
e.	Drive frequency setting		
f.	Jog mode		
g.	Dynamic brake		
h.	Remote breaker trip		
i.	Electronic ramp function		
j.	Speed & current controller		
k.	Drive ready to start signal		
l.	Ammeter		
m.	Speed indicator		
20	Diodes / IGBT Configuration		
21	Total No. of Diodes / IGBT Total no. of cells		
22	Cooling System		
a.	Type		
b.	Online Redundancy		
23	Speed control accuracy		
24	List of controls provide At the front panel (As per specification)	Yes / No	
25	List of status measuring devices provided at provide (As per specification)	Yes / No	
26	Type of Electronic Card mounting arrangement	Yes / No	
27	**Dimension**		
a.	Length		
b.	Height		
c.	Depth		
d.	Weight of Cubicle		
(Dimensional details of all panels shall be furnished along with offer for substation sizing)			

28	Degree of protection for enclosure	
29	Paint shade	
30	Heat output of Panel and Air condition Tonnage requirement	
31	Whether Air Conditioning is required for these panels	
32	Control Supply voltage and Aux. Power requirement	
33	Main converter transformer	Dry type panel mounted and suitable for locating indoor along with VFD/VSD
a.	Make	
b.	Type of transformer	
c.	kVA rating	
d.	Voltage rating	
e.	Vector group	
f.	Impedance	
g.	Overall dimension	
h.	Transformer accessories	
i.	Lightning Impulse Voltage	
34	DC Reactor / AC Line Reactor	
a.	Make	
b.	Type	
c.	Rating	
d.	Type of cooling	
e.	Overall dimensions	
f.	Heat output	
g.	Inductance of the reactor	

h.	Air core / Iron core	
35	Local control panel / station required as per spec	Yes / No
36	Manufacturing and Supply location	
37	Year and location of 1st manufacturing of latest designed model of offered VFD / VSD	
38	Reactor Filter at O/P to reduce dv/dt at motor terminal	
39	MTBF of product	
40	Noise Level	
41	Delivery period	
42	No. of pulse level and voltage input cell Output pulse / stages level (Ph to Neutral and Ph to Ph) No pf power cell provided in drive	

C2.5.2.4 METAL SEATED DOUBLE OR TRIPPLE ECCENTRIC BUTTERFLY VALVE

ID Item	Data to be Provided by the Tenderer
f. Manufacturer	
1. Manufacturer	
2. Type	
3. Pressure Rating	
4. Nominal Size (DN) mm	
5. Body & Disc	
6. Shaft	
7. Bearing Bush	
8. Seal Ring	
9. Seat Ring	
10. Retaining Ring	
11. Face to face	
12. Flanges drilling	
13. Flange thickness	
14. Number of holes/size	
15. Performance and Design Requirements	
a) Service Life (Years	
b) Pressure Rating (bar)	Open
	Close
c) Flow Coefficient (Kv)	

16. Operational Requirements	
l) Direction of Closing (P)	
m) Method of Operation	
n) Operating Device Position	
o) Disc Positioning Indicator	

C2.5.2.5 NOZZLE CHECK VALVE

ID Item	Data to be Provided by the Tenderer
1. Manufacturer	
14. Type	
15. Pressure Rating	
16. Nominal Size (DN) mm	
17. Body	
18. Disc	
19. Body Seat	
20. Diffuser	
21. Flange drilling	
22. Face to face	
23. Flange thickness	
24. Number of holes/size	
25. Performance and Design Requirements	
b) Service Life (Years	
b) Pressure Rating (bar)	
c) Endurance (Opening/Closing Cycles)	
d) Closure Characteristic	
p) Body External Coating	
q) Body Internal Coating	
r) Seal (metallic sealing)	

s) Seal (resilient sealing)	
t) Stem	
u) Spring(s)	
v) Other Wetted Parts	

C2.5.2.6 RESILINET SEAT OR WEDGE GATE VALVE

ID Item	Data to be Provided by the Tenderer
1. Manufacturer	
2. Type	
24. Pressure Rating	
25. Nominal Size (DN) mm	
26. Body and Bonnet	
27. Body and Bonnet Coating	
28. Disc (coated)	
29. Disc Seat Ring	
30. Body Seat Ring	
31. Hinge	
32. Disc Spindle	
33. Disc Spindle Bushings	
34. Disc Seal (O-rings)	
35. Gaskets	
36. Anti-slam Device	
37. Manual backflow act	
38. Disc Reinforcement	
39. Friction Factor (K)	
40. Lever and weight (if required)	
41. External Spindle	

42. External Weighted Lever	
43. Lever on LHS or RHS	
44. Spring Assisted Closure	

C2.5.2.7 PIPEWORK SCHEDULES (SUCTION SIDE)

ID Item	Data to be Provided by the Tenderer
10. Manufacturer	
11. Type & Grade	
12. Nominal Diameter (mm)	
13. Pressure Rating	
14. Wall Thickness (mm)	
15. External Coating	
16. . Internal Coating	
17. Length	
18. Pipe Ends Details	

C2.5.2.8 PIPEWORK SCHEDULES (DELIVERY SIDE)

ID Item	Data to be Provided by the Tenderer
10. Manufacturer	
11. Type & Grade	
12. Nominal Diameter (mm)	
13. Pressure Rating	
14. Wall Thickness (mm)	
15. External Coating	
16. . Internal Coating	
17. Length	
18. Pipe Ends Details	

C2.5.3 OLIFANTSPOORT PUMP STATION 3

C2.5.3.1 HIGH LIFT CETRIFUGAL PUMP SCHEDULES

ID Item	Data to be Provided by the Tenderer
133. Manufacturer	
134. Pump Model	
135. Mass of the Pump (kg):	
136. No. of Stages on the Pump	
137. Efficiency at BEP of the Pump (%)	
138. Impeller Diameter (mm)	
139. Suction Port/Inlet Diameter (mm)	
140. Suction Port/Inlet Nominal Pressure (kPa/Bar)	
141. Suction Port/Inlet Standard (DIN)	
142. Discharge Port/Outlet diameter (mm)	
143. Discharge Port/Outlet Nominal Pressure (kPa/Bar)	
144. Discharge Port/Outlet Standard (DIN)	
145. Suction Casing Material Type	
146. Discharge Casing Material Type	
147. Stage Casing Material Type	
148. Impeller Material Type	

149. Diffuser Material Type	
150. Pump Bearings Make	
151. Pump Bearings Type	
152. Pump Bearings Lubrication Method	
153. Pump Bearings Cooling Method and Cooling Media	
154. Bearings L10 life	
155. Shaft Seal Manufacturer	
156. Shaft Seal Type/model	
157. Shaft Material Type	
158. Shaft Seal Material Type	
159. Pump & Motor Coupling Manufacturer	
160. Pump & Motor Coupling Name/Model	
161. Pump & Motor Coupling Type	
162. Pump & Motor Coupling Power Rating	
163. Pump & Motor Coupling Speed Rating	
164. Pump & Motor Coupling Torque Rating	
165. Pump Baseplate Material	

166. Pump Baseplate Design Weight	
167. Pump Baseplate Size	
168. Pump Baseplate Weight	
169. Vibration Standard Used for the pump:	
170. Maximum allowable vibration parameters:	
Range of allowable operating conditions for continuous operation of the pump (at the nominal speed, with number oof stages proposed)	
171. Low flow, high head (m^3/sec@m	
172. Low flow -approximate shaft power required (KW)	
173. Low flow - approximate NPSH required (m)	
174. Low flow efficiency (%):	
175. High flow, high head (m3/sec@m)	
176. High flow -approximate shaft power required (KW)	
177. High flow - approximate NPSH required (m)	
178. High flow efficiency (%)	
179. Nominal speed (rpm)	
180. Inlet diameter (DN)	
181. Outlet diameter (DN)	

182. Suction specific speed	
183. Range of impeller diameters for model of pump offered (mm-mm)	
184. Maximum shaft speed to perform specified duties for variable speed drives applications (rpm):	
185. Minimum shaft speed to perform specified duties for variable speed drives applications (rpm):	
Highest pump NPSH required over the range of duties specified for this Contract	
186. NPSH required (m)	
187. Head at this point (m)	
188. Flow at this point (m3/sec)	
189. Shaft speed at this point (rpm)	
190. **Inlet/Suction Casing**	
e. Design pressure for casing(kPa/bar)	
f. Test pressure for casing(kPa/bar)	
191. **Outlet/Discharge Casing**	
g. Design pressure for casing(kPa/bar)	
h. Test pressure for casing(kPa/bar)	
192. **Internal Corrosion Protection**	
a. Design pressure for casing(kPa/bar)	
b. Test pressure for casing(kPa/bar)	

193. Description of the coats and thickness for internal corrosion protection	
194. Description of final coat for efficiency improvement	
195. Country of Manufacture of the pump	
196. Local Supplier of Pump Seals Spares	
197. Local Supplier of Pump Bearings Spares	
198. Local Supplier of Pump & Motor Couplings	

C2.5.3.2 MV THREE PHASE SQUIRREL CAGE INDUCTION MOTOR SCHEDULES

Item	Data to be Provided by the Tenderer
83. Manufacturer	
84. Model	
85. Output Power (kW)	
86. Starting Method	
87. Frequency	
88. Poles	
89. Slip	
90. Rate Speed	
91. Rated Voltage	
92. Connection	
93. Rated Current	
94. Rotor Voltage	
95. Rotor Current	
96. Locked Rotor Current (p.u)	
97. kVA/kW	
98. No Load Current	

99. Rated Torque	
100. Locked Rotor Torque (%)	
101. Breakdown Torque (%)	
102. Insulation Class	
103. Efficiency	
104. Service Factor	
105. Locked Rotor Time	
106. Duty Cycle	
107. Bearing D.E & N.D.E	
108. Lubrication Interval (D.E & N.D.E)	
109. Grease Quantity (D.E & N.D.E)	
110. Lubricant (D.E & N.D.E)	
111. Ambient Temperature	
112. Altitude	
113. Protection Degree	
114. Cooling	
115. Mounting	

116. Vibration			
117. Moment of Inertia			
118. Direction of Rotation			
119. Coupling			
120. Performance Data			
Output Efficiency Cos Ø	**50%** …… ……..	**75%** …… ……..	**100%** …… …….
121. Load Type			
122. Resistance Torque			
123. Notes/Accessories			
• Stray Load Losses			
• The Motor is suitable for 3 COLD starting or 2 HOT starting per hour			
• Heating Constant			
• Cooling Constant			
• Noise level measured at 1m for the extremes of the machine considering the shaft end and terminal box			
• Torque and Current vs Speed curve			
• Thermal Limiting Curve			
• Performance vs Output Curve			

• Equivalent Circuit	
• Suitable to operate the machine continuously with power 110% with Class B temperature rise at ambient of 40ºC or temperature rise of 85ºC at ambient of 45ºC	

C2.5.3.3 MV VARIABLE SPEED/FREQUENCY DRIVE

1	Manufacturer Model	
2	**Rating of drive panel**	
a.	Output in amperes	A
b.	Rating expressed at (torque)	Constant torque Squared torque
c.	Rating declared at 45ºC	
d.	Standard Rating	Design at ºC
e.	Switching frequency at declared rating	Hz
3	Applicable code / standards	
4	Drive type	Flux vector control / Direct torque control / Mixed
5	Speed range	_____% to _____ % of rated motor speed
6	Speed reference signal type	4 – 20mA / 0-10V
7	**Input power supply ratings**	
a.	Voltage	±
b	Voltage % unbalance	±
c.	Frequency	±
8	Output voltage at -15% input voltage full speed, full load	
9	**Overload capability of converter**	
a.	115% in for	min
b.	150% in for	min
c.	Inrush current 250% in for	sec
10	**Overall efficiency of drive (excl. motor) at**	
a.	100% kVA Load	
b.	75% kVA Load (shall be used for comparative evaluation purpose)	
c.	50% kVA Load	
d.	25% kVA Load	

11	Individual efficiency of rectifier at output DC link Individual efficiency of Inverter		
12	**Overall power factor of drive (excl. motor) at**		
a.	100% Load		
b.	75% Load		
c.	50% Load		
d.	25% Load		
13	AC Output		
a.	Rated frequency range		
b.	Accuracy of frequency		
14	**Dynamic response**		
a.	Speed fluctuation band		
b.	Speed recovery time after 100% torque step		
15	**Transient Torque**		
a.	Max. Transient air gap torque/duration		
b.	Max. Transient air gap torque/duration		
16	Wave form distortion factor (% harmonics) in output/input (V & I) waveform (Number of harmonics generated shall be furnished)		
17	Output short circuit Capability and duration		
18	**Suitability to Motor**		
a.	Suitable for kW rating/frame size		
b.	Deration required to motor frame/kW due to operation with electronic drive		
c.	Permissible No. of starts of motor Uniformly distributed in one hour HOT COLD		
d.	Type of Motor	Squirrel cage induction motor	
19	**CONTROLS (Please answer as provided / not provided)**	**At PLC/SCADA**	**At Drive**
a.	System Start		

b.	System Stop		
c.	System raise		
d.	System lower		
e.	Drive frequency setting		
f.	Jog mode		
g.	Dynamic brake		
h.	Remote breaker trip		
i.	Electronic ramp function		
j.	Speed & current controller		
k.	Drive ready to start signal		
l.	Ammeter		
m.	Speed indicator		
20	Diodes / IGBT Configuration		
21	Total No. of Diodes / IGBT Total no. of cells		
22	Cooling System		
a.	Type		
b.	Online Redundancy		
23	Speed control accuracy		
24	List of controls provide At the front panel (As per specification)	Yes / No	
25	List of status measuring devices provided at provide (As per specification)	Yes / No	
26	Type of Electronic Card mounting arrangement	Yes / No	
27	**Dimension**		
a.	Length		
b.	Height		
c.	Depth		
d.	Weight of Cubicle		
(Dimensional details of all panels shall be furnished along with offer for substation sizing)			

28	Degree of protection for enclosure	
29	Paint shade	
30	Heat output of Panel and Air condition Tonnage requirement	
31	Whether Air Conditioning is required for these panels	
32	Control Supply voltage and Aux. Power requirement	
33	Main converter transformer	Dry type panel mounted and suitable for locating indoor along with VFD/VSD
a.	Make	
b.	Type of transformer	
c.	kVA rating	
d.	Voltage rating	
e.	Vector group	
f.	Impedance	
g.	Overall dimension	
h.	Transformer accessories	
i.	Lightning Impulse Voltage	
34	DC Reactor / AC Line Reactor	
a.	Make	
b.	Type	
c.	Rating	
d.	Type of cooling	
e.	Overall dimensions	
f.	Heat output	
g.	Inductance of the reactor	

h.	Air core / Iron core	
35	Local control panel / station required as per spec	Yes / No
36	Manufacturing and Supply location	
37	Year and location of 1st manufacturing of latest designed model of offered VFD / VSD	
38	Reactor Filter at O/P to reduce dv/dt at motor terminal	
39	MTBF of product	
40	Noise Level	
41	Delivery period	
42	No. of pulse level and voltage input cell Output pulse / stages level (Ph to Neutral and Ph to Ph) No pf power cell provided in drive	

C2.5.3.4 METAL SEATED DOUBLE OR TRIPPLE ECCENTRIC BUTTERFLY VALVE

ID Item	Data to be Provided by the Tenderer
i. Manufacturer	
1. Manufacturer	
2. Type	
3. Pressure Rating	
4. Nominal Size (DN) mm	
5. Body & Disc	
6. Shaft	
7. Bearing Bush	
8. Seal Ring	
9. Seat Ring	
10. Retaining Ring	
11. Face to face	
12. Flanges drilling	
13. Flange thickness	
14. Number of holes/size	
15. Performance and Design Requirements	
a) Service Life (Years	
b) Pressure Rating (bar)	Open
	Close
c) Flow Coefficient (Kv)	

16. Operational Requirements	
w) Direction of Closing (P)	
x) Method of Operation	
y) Operating Device Position	
z) Disc Positioning Indicator	

C2.5.3.5 NOZZLE CHECK VALVE

ID Item	Data to be Provided by the Tenderer
1. Manufacturer	
26. Type	
27. Pressure Rating	
28. Nominal Size (DN) mm	
29. Body	
30. Disc	
31. Body Seat	
32. Diffuser	
33. Flange drilling	
34. Face to face	
35. Flange thickness	
36. Number of holes/size	
37. Performance and Design Requirements	
b) Service Life (Years	
b) Pressure Rating (bar)	
c) Endurance (Opening/Closing Cycles)	
d) Closure Characteristic	
aa) Body External Coating	
bb) Body Internal Coating	
cc) Seal (metallic sealing)	

dd)	Seal (resilient sealing)	
ee)	Stem	
ff) Spring(s)		
gg)	Other Wetted Parts	

C2.5.3.6 RESILINET SEAT OR WEDGE GATE VALVE

ID Item	Data to be Provided by the Tenderer
1. Manufacturer	
2. Type	
45. Pressure Rating	
46. Nominal Size (DN) mm	
47. Body and Bonnet	
48. Body and Bonnet Coating	
49. Disc (coated)	
50. Disc Seat Ring	
51. Body Seat Ring	
52. Hinge	
53. Disc Spindle	
54. Disc Spindle Bushings	
55. Disc Seal (O-rings)	
56. Gaskets	
57. Anti-slam Device	
58. Manual backflow act	
59. Disc Reinforcement	
60. Friction Factor (K)	
61. Lever and weight (if required)	
62. External Spindle	

63. External Weighted Lever	
64. Lever on LHS or RHS	
65. Spring Assisted Closure	

C2.5.3.7 PIPEWORK SCHEDULES (SUCTION SIDE)

ID Item	Data to be Provided by the Tenderer
19. Manufacturer	
20. Type & Grade	
21. Nominal Diameter (mm)	
22. Pressure Rating	
23. Wall Thickness (mm)	
24. External Coating	
25. . Internal Coating	
26. Length	
27. Pipe Ends Details	

C2.5.3.8 PIPEWORK SCHEDULES (DELIVERY SIDE)

ID Item	Data to be Provided by the Tenderer
19. Manufacturer	
20. Type & Grade	
21. Nominal Diameter (mm)	
22. Pressure Rating	
23. Wall Thickness (mm)	
24. External Coating	
25. . Internal Coating	
26. Length	
27. Pipe Ends Details	

C2.5.4 EBENEZER PUMP STATION

C2.5.4.1 HIGH LIFT CETRIFUGAL PUMP SCHEDULES

ID Item	Data to be Provided by the Tenderer
199. Manufacturer	
200. Pump Model	
201. Mass of the Pump (kg):	
202. No. of Stages on the Pump	
203. Efficiency at BEP of the Pump (%)	
204. Impeller Diameter (mm)	
205. Suction Port/Inlet Diameter (mm)	
206. Suction Port/Inlet Nominal Pressure (kPa/Bar)	
207. Suction Port/Inlet Standard (DIN)	
208. Discharge Port/Outlet diameter (mm)	
209. Discharge Port/Outlet Nominal Pressure (kPa/Bar)	
210. Discharge Port/Outlet Standard (DIN)	
211. Suction Casing Material Type	
212. Discharge Casing Material Type	
213. Stage Casing Material Type	
214. Impeller Material Type	

215. Diffuser Material Type	
216. Pump Bearings Make	
217. Pump Bearings Type	
218. Pump Bearings Lubrication Method	
219. Pump Bearings Cooling Method and Cooling Media	
220. Bearings L10 life	
221. Shaft Seal Manufacturer	
222. Shaft Seal Type/model	
223. Shaft Material Type	
224. Shaft Seal Material Type	
225. Pump & Motor Coupling Manufacturer	
226. Pump & Motor Coupling Name/Model	
227. Pump & Motor Coupling Type	
228. Pump & Motor Coupling Power Rating	
229. Pump & Motor Coupling Speed Rating	
230. Pump & Motor Coupling Torque Rating	
231. Pump Baseplate Material	

232. Pump Baseplate Design Weight	
233. Pump Baseplate Size	
234. Pump Baseplate Weight	
235. Vibration Standard Used for the pump:	
236. Maximum allowable vibration parameters:	
Range of allowable operating conditions for continuous operation of the pump (at the nominal speed, with number oof stages proposed)	
237. Low flow, high head (m^3/sec@m	
238. Low flow -approximate shaft power required (KW)	
239. Low flow - approximate NPSH required (m)	
240. Low flow efficiency (%):	
241. High flow, high head (m3/sec@m)	
242. High flow -approximate shaft power required (KW)	
243. High flow - approximate NPSH required (m)	
244. High flow efficiency (%)	
245. Nominal speed (rpm)	
246. Inlet diameter (DN)	
247. Outlet diameter (DN)	

248. Suction specific speed	
249. Range of impeller diameters for model of pump offered (mm-mm)	
250. Maximum shaft speed to perform specified duties for variable speed drives applications (rpm):	
251. Minimum shaft speed to perform specified duties for variable speed drives applications (rpm):	
Highest pump NPSH required over the range of duties specified for this Contract	
252. NPSH required (m)	
253. Head at this point (m)	
254. Flow at this point (m3/sec)	
255. Shaft speed at this point (rpm)	
256. **Inlet/Suction Casing**	
g. Design pressure for casing(kPa/bar)	
h. Test pressure for casing(kPa/bar)	
257. **Outlet/Discharge Casing**	
j. Design pressure for casing(kPa/bar)	
k. Test pressure for casing(kPa/bar)	
258. **Internal Corrosion Protection**	
a. Design pressure for casing(kPa/bar)	
b. Test pressure for casing(kPa/bar)	

259. Description of the coats and thickness for internal corrosion protection	
260. Description of final coat for efficiency improvement	
261. Country of Manufacture of the pump	
262. Local Supplier of Pump Seals Spares	
263. Local Supplier of Pump Bearings Spares	
264. Local Supplier of Pump & Motor Couplings	

C2.5.4.2 MV THREE PHASE SQUIRREL CAGE INDUCTION MOTOR SCHEDULES

Item	Data to be Provided by the Tenderer
124. Manufacturer	
125. Model	
126. Output Power (kW)	
127. Starting Method	
128. Frequency	
129. Poles	
130. Slip	
131. Rate Speed	
132. Rated Voltage	
133. Connection	
134. Rated Current	
135. Rotor Voltage	
136. Rotor Current	
137. Locked Rotor Current (p.u)	
138. kVA/kW	
139. No Load Current	

140. Rated Torque	
141. Locked Rotor Torque (%)	
142. Breakdown Torque (%)	
143. Insulation Class	
144. Efficiency	
145. Service Factor	
146. Locked Rotor Time	
147. Duty Cycle	
148. Bearing D.E & N.D.E	
149. Lubrication Interval (D.E & N.D.E)	
150. Grease Quantity (D.E & N.D.E)	
151. Lubricant (D.E & N.D.E)	
152. Ambient Temperature	
153. Altitude	
154. Protection Degree	
155. Cooling	
156. Mounting	

157. Vibration			
158. Moment of Inertia			
159. Direction of Rotation			
160. Coupling			
161. Performance Data			
Output Efficiency Cos Ø	**50%** ……. ……..	**75%** ……. ……..	**100%** ……. …….
162. Load Type			
163. Resistance Torque			
164. Notes/Accessories			
• Stray Load Losses			
• The Motor is suitable for 3 COLD starting or 2 HOT starting per hour			
• Heating Constant			
• Cooling Constant			
• Noise level measured at 1m for the extremes of the machine considering the shaft end and terminal box			
• Torque and Current vs Speed curve			
• Thermal Limiting Curve			
• Performance vs Output Curve			

• Equivalent Circuit	
• Suitable to operate the machine continuously with power 110% with Class B temperature rise at ambient of 40ºC or temperature rise of 85ºC at ambient of 45ºC	

C2.5.4.3 MV VARIABLE SPEED/FREQUENCY DRIVE

1	Manufacturer Model	
2	**Rating of drive panel**	
a.	Output in amperes	A
b.	Rating expressed at (torque)	Constant torque Squared torque
c.	Rating declared at 45ºC	
d.	Standard Rating	Design at ºC
e.	Switching frequency at declared rating	Hz
3	Applicable code / standards	
4	Drive type	Flux vector control / Direct torque control / Mixed
5	Speed range	_____% to _____ % of rated motor speed
6	Speed reference signal type	4 – 20mA / 0-10V
7	**Input power supply ratings**	
a.	Voltage	±
b	Voltage % unbalance	±
c.	Frequency	±
8	Output voltage at -15% input voltage full speed, full load	
9	**Overload capability of converter**	
a.	115% in for	min
b.	150% in for	min
c.	Inrush current 250% in for	sec
10	**Overall efficiency of drive (excl. motor) at**	
a.	100% kVA Load	
b.	75% kVA Load (shall be used for comparative evaluation purpose)	
c.	50% kVA Load	
d.	25% kVA Load	

11	Individual efficiency of rectifier at output DC link Individual efficiency of Inverter		
12	**Overall power factor of drive (excl. motor) at**		
a.	100% Load		
b.	75% Load		
c.	50% Load		
d.	25% Load		
13	AC Output		
a.	Rated frequency range		
b.	Accuracy of frequency		
14	**Dynamic response**		
a.	Speed fluctuation band		
b.	Speed recovery time after 100% torque step		
15	**Transient Torque**		
a.	Max. Transient air gap torque/duration		
b.	Max. Transient air gap torque/duration		
16	Wave form distortion factor (% harmonics) in output/input (V & I) waveform (Number of harmonics generated shall be furnished)		
17	Output short circuit Capability and duration		
18	**Suitability to Motor**		
a.	Suitable for kW rating/frame size		
b.	Deration required to motor frame/kW due to operation with electronic drive		
c.	Permissible No. of starts of motor Uniformly distributed in one hour HOT COLD		
d.	Type of Motor	Squirrel cage induction motor	
19	**CONTROLS (Please answer as provided / not provided)**	**At PLC/SCADA**	**At Drive**
a.	System Start		

b.	System Stop		
c.	System raise		
d.	System lower		
e.	Drive frequency setting		
f.	Jog mode		
g.	Dynamic brake		
h.	Remote breaker trip		
i.	Electronic ramp function		
j.	Speed & current controller		
k.	Drive ready to start signal		
l.	Ammeter		
m.	Speed indicator		
20	Diodes / IGBT Configuration		
21	Total No. of Diodes / IGBT Total no. of cells		
22	Cooling System		
a.	Type		
b.	Online Redundancy		
23	Speed control accuracy		
24	List of controls provide At the front panel (As per specification)	Yes / No	
25	List of status measuring devices provided at provide (As per specification)	Yes / No	
26	Type of Electronic Card mounting arrangement	Yes / No	
27	**Dimension**		
a.	Length		
b.	Height		
c.	Depth		
d.	Weight of Cubicle		
(Dimensional details of all panels shall be furnished along with offer for substation sizing)			

28	Degree of protection for enclosure	
29	Paint shade	
30	Heat output of Panel and Air condition Tonnage requirement	
31	Whether Air Conditioning is required for these panels	
32	Control Supply voltage and Aux. Power requirement	
33	Main converter transformer	Dry type panel mounted and suitable for locating indoor along with VFD/VSD
a.	Make	
b.	Type of transformer	
c.	kVA rating	
d.	Voltage rating	
e.	Vector group	
f.	Impedance	
g.	Overall dimension	
h.	Transformer accessories	
i.	Lightning Impulse Voltage	
34	DC Reactor / AC Line Reactor	
a.	Make	
b.	Type	
c.	Rating	
d.	Type of cooling	
e.	Overall dimensions	
f.	Heat output	
g.	Inductance of the reactor	

h.	Air core / Iron core	
35	Local control panel / station required as per spec	Yes / No
36	Manufacturing and Supply location	
37	Year and location of 1st manufacturing of latest designed model of offered VFD / VSD	
38	Reactor Filter at O/P to reduce dv/dt at motor terminal	
39	MTBF of product	
40	Noise Level	
41	Delivery period	
42	No. of pulse level and voltage input cell Output pulse / stages level (Ph to Neutral and Ph to Ph) No pf power cell provided in drive	

C2.5.4.4 METAL SEATED DOUBLE OR TRIPPLE ECCENTRIC BUTTERFLY VALVE

ID Item	Data to be Provided by the Tenderer
I. Manufacturer	
1. Manufacturer	
2. Type	
3. Pressure Rating	
4. Nominal Size (DN) mm	
5. Body & Disc	
6. Shaft	
7. Bearing Bush	
8. Seal Ring	
9. Seat Ring	
10. Retaining Ring	
11. Face to face	
12. Flanges drilling	
13. Flange thickness	
14. Number of holes/size	
15. Performance and Design Requirements	
a) Service Life (Years	
b) Pressure Rating (bar)	Open
	Close
c) Flow Coefficient (Kv)	

16. Operational Requirements	
hh) Direction of Closing (P)	
ii) Method of Operation	
jj) Operating Device Position	
kk) Disc Positioning Indicator	

C2.5.4.5 NOZZLE CHECK VALVE

ID Item	Data to be Provided by the Tenderer
1. Manufacturer	
38. Type	
39. Pressure Rating	
40. Nominal Size (DN) mm	
41. Body	
42. Disc	
43. Body Seat	
44. Diffuser	
45. Flange drilling	
46. Face to face	
47. Flange thickness	
48. Number of holes/size	
49. Performance and Design Requirements	
b) Service Life (Years	
b) Pressure Rating (bar)	
c) Endurance (Opening/Closing Cycles)	
d) Closure Characteristic	
ll) Body External Coating	
mm) Body Internal Coating	
nn) Seal (metallic sealing)	

oo)	Seal (resilient sealing)	
pp)	Stem	
qq)	Spring(s)	
rr) Other Wetted Parts		

C2.5.4.6 RESILINET SEAT OR WEDGE GATE VALVE

ID Item	Data to be Provided by the Tenderer
1. Manufacturer	
2. Type	
66. Pressure Rating	
67. Nominal Size (DN) mm	
68. Body and Bonnet	
69. Body and Bonnet Coating	
70. Disc (coated)	
71. Disc Seat Ring	
72. Body Seat Ring	
73. Hinge	
74. Disc Spindle	
75. Disc Spindle Bushings	
76. Disc Seal (O-rings)	
77. Gaskets	
78. Anti-slam Device	
79. Manual backflow act	
80. Disc Reinforcement	
81. Friction Factor (K)	
82. Lever and weight (if required)	
83. External Spindle	

84. External Weighted Lever	
85. Lever on LHS or RHS	
86. Spring Assisted Closure	

C2.5.4.7 PIPEWORK SCHEDULES (SUCTION SIDE)

ID Item	Data to be Provided by the Tenderer
28. Manufacturer	
29. Type & Grade	
30. Nominal Diameter (mm)	
31. Pressure Rating	
32. Wall Thickness (mm)	
33. External Coating	
34. . Internal Coating	
35. Length	
36. Pipe Ends Details	

C2.5.4.8 PIPEWORK SCHEDULES (DELIVERY SIDE)

ID Item	Data to be Provided by the Tenderer
28. Manufacturer	
29. Type & Grade	
30. Nominal Diameter (mm)	
31. Pressure Rating	
32. Wall Thickness (mm)	
33. External Coating	
34. . Internal Coating	
35. Length	
36. Pipe Ends Details	

END OF DOCUMENT 1 of 2