

GYPSUM DAM REFURBISHMENT, PHASE 1-STORMWATER CHANNEL AND OVERFLOW SPILLWAY

Tender no:

FTP /25/MN

Cost Code:

Revision¹:

0.1 see legend at bottom of page

Revised
date:

20/01/2025

NAME	TITLE	Empl. no	SIGNATURE	DATE
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COMPILED - RECOMMENDATION

	Project Supervisor	503971		
	Project Engineer	503064		

COMPREHENSION AND ACCEPTANCE BY CLIENT

The Client warrants that he/she reviewed the Scope of Works and that this Tender and related document and that the Scope of Works comply to Production requirements and the outcome of the work as agreed between parties.

	Snr Environment and Quality Specialists	501992		
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Comments:

APPROVAL TO PROCEED

	Act Snr Manager Projects	505219		
	Snr Manager Projects	504427		
	GM, Acid Division	500441		

Comments:

¹ Revision Legend:

0.n = Draft,

1= Final version

Thus first draft = 0.1, second draft = 0.2, etc, and final approved = 1.0

Should the final be revised for whatever reason the revision would be 1.1 etc.

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FOSKOR (PTY) LIMITED - (TENDER BOX)
21 John Ross Parkway
Richards Bay
3900

- A.2.4 Tenders will not be opened in public and under no circumstances will the price(s) at which any Contract was awarded be divulged to any person.
- A.2.5 In the event that the Tenderer did not submit a tender or if his tender was unsuccessful, the Tenderer shall return the Enquiry Document and Drawings within **14 days** to the **Superintendent: Tenders and Contracts**.

A.3 Site Inspection

An official Site inspection shall be held at the **Foskor, Richards Bay** site in order for the Tenderer to fully acquaint himself with prevailing site and works conditions. In so doing you are to ensure that you fully understand the context and extent of the works (refer B.5 – Site Inspection Certificate).

Date of Site Visit

Time of Site Visit

Meeting Venue

From:	To:
Report at Main Security Entrance	

Please wear the following protective clothing:

Hard Hat

Safety Shoes

Safety Glasses

Yes

yes

Yes

IMPORTANT.

- The Site Visit / Inspection are **COMPULSORY**.

A.7 General

- A.7.1 Foskor (Pty) Ltd reserves the right to adjust arithmetical or obvious errors in the Tender. Such adjustments made by Foskor (Pty) Ltd will be communicated to the Tenderer prior to the acceptance of his Tender.
- A.7.2 The Tenderer (whether his Tender is accepted or not) shall treat the details of the Tender as private and confidential and no copies shall be made thereof without the permission of Foskor (Pty) Ltd.
- A.7.3 Foskor (Pty) Ltd is not bound to accept the lowest or any other Tender it may receive, nor to assign a reason for the rejection or acceptance of any Tender, and Foskor (Pty) Ltd has the right, after Tenders are opened, and before a Contract is awarded, to enter into negotiations and discussions with one or more Tenderers short-listed on a price, programme or technical basis, with a view to the clarification, improvement or amendment of any particular Tender.
- A.7.4 All Tenderers tender at their own risk and Foskor (Pty) Ltd is not bound to accept any Tender and under no circumstances whatsoever will be responsible for any costs incurred by any Tenderer in compiling or submitting the tender.
- A.7.5 Furthermore, Foskor reserves the right to accept only a part of the Tender, with due communication and agreement of the Tenderer.
- A.7.6 The Tenderer is required to submit a 'bona fide' Tender, intended to be competitive and not to fix or adjust the amount of the Tender by or under or in accordance with any agreement or arrangement with any third party. The Tenderer is also obliged to ensure that it has not and will not at any time before the hour and date for the lodging of this Tender do any of the following acts:
- a) Communicate to any person¹ the amount or approximate amount of the proposed Tender except where the disclosure, in confidence, of the amount of this Tender was necessary for the preparation of the Tender.
 - b) Enter into any agreement or arrangement with any third party that shall disqualify from or that Foskor shall refrain from using.
 - c) Commit any act or omission that would be contrary to the Maintenance and Promotion of Competition Act 96 of 1979 and notices and regulations published in terms of that Act,

B.2 Initial Project Programme of Works, Work Methodology and Cash Flow

(This is a workable schedule, and the Contractor is in no way obligated to these dates. An obligatory final programme will only be required once the tender is awarded)

Commencement Date

Within 7 days from receipt of Purchase order.

Snagging/Modification List Date

(Guide: 26 weeks from purchase order placement)

26 weeks after starting date of work described under this tender.

Completion of Works/ Final Handover (Guide: Project duration)

30 weeks after starting date of work described under this tender.

The Tenderer will be required to work

06h00 to 18h00, 5 days a week and every second weekend

Defects Liability Period:

12 months from Project Completion & Handover (Refer B1.4)

OTHER IMPORTANT NOTES

- **'Defects Liability Period'** shall be that period in force for Foskop to call upon the Contractor/Consultant to rectify at no cost to Foskop (Pty) Ltd any defects of workmanship, quality or practice; and shall remain in force **in parallel with the Retention Period** and any other duration agreed to.
- The Tenderer is to list and motivate any deviations in terms of Project Program and/or time allowed, and this is subject to approval by the Foskop (Pty) Ltd Engineer.
- It would be expected, in the event of critical work and/or work behind programme/schedule, should such be attributable to the Contractor, to make up the time and work and complete the work at no cost to Foskop (Pty) Ltd.
- The Tenderer shall within **7 (seven)** days of contract award submit a final detailed work methodology and programme, and the final work methodology shall be verified and approved by Foskop (Pty) Ltd.
- The Tenderer is welcome to propose alternatives work methodology or approach to work, that may be of mutual benefit. This would be submitted in the form of an Alternative (clearly marked), however the Tenderer is **still to submit a tender in the form specified** in this tender.
- The Tenderer shall submit a Work Breakdown Structure (WBS) and compile a programme (use MS Projects or MS Excel to compile the Project Program).
- If the Tenderer is partially or wholly responsible for the design or design drawings according to which construction is specified, any corrections to design/design drawings shall remain for the Tenderers account for a period of 6 months (or as otherwise agreed) after project completion. This is to ensure that poor design or inaccuracy of designs is rectified at no cost to Foskop.

B.2.1 Project Completion and Handover; Defects Liability Period

Unless otherwise agreed, Project Completion (handover), shall be deemed to be from date of Foskop issuing a Project Complete/Handover Certificate to the Contractor. This should be

B.4

Please provide a list of work done on contract of which the Scope of Works that are similar to the one described in this document (or attach references)

[illegible]

B.6 Schedule of Equipment of the Works

The Contractor must list below all the items of major equipment, which he guarantees will be provided on site in perfect working order to complete the work. The lists of items of equipment shall provide the Contractor's warranty of ownership of such equipment unless specifically endorsed in this Annexure to the contrary as "hired" or "hire purchase equipment."

The rates for Equipment detailed below shall include all overheads, profits, and maintenance and running costs including the provision of drivers/operators where necessary.

Contractor's rates per day are based on **9 hours per day**.

The rates detailed herein shall not be subject to escalation. No payment in respect of standing time shall be paid for items of equipment not listed below.

This Schedule must be accurately completed. Phrases such as "adequate equipment will be provided" will not be accepted. The application and use of these rates shall be at the sole discretion and subject to the prior approval of the Engineer.

Item No.	Description			
		Rate/hr	Rate/day	Standing Time/hr

Tenderer shall provide rate for each item and failure to do so will result into disqualification

Section C: SCOPE OF WORKS

C.1. Background, Present Situation and Proposed Solution

C.1.1 Background

The Foskor gypsum dam was constructed in 1975 by Triomf Fertilizers until it was taken over by Indian Ocean Fertilizers and subsequently, Foskor Richards Bay. The land is owned by the city of uMhlathuze Municipality who lease the land to Foskor. The dam is located on a marshland and is bound by the John Ross Highway to the north, Bayside Aluminium to the east, marshes to the west and the Bhizolo canal to the south. Gypsum Dam has been utilized as a disposal site for a gypsum by-product from the Foskor manufacturing process from as early as 1976 and over the period this has accumulated to approximately 12 million tons of gypsum deposit.

The Gypsum Dam site is characterized by a 1,2m high fence that demarcates the perimeter of the site, a 2,5m wide gravel road that provides access around the periphery of the site as well as stockpile of gypsum deposit spreading from the center of the site towards the periphery of site. The built-in infrastructure supporting the operation of the Gypsum Dam consists of a surface water channel at the toe of the dam which collects surface drainage from a network of cut-off trenches within the dam as well as groundwater seepage at the toe of the dam. This channel discharges flow into a stilling basin located to the south of site where it is pumped via penstock to the crest of the dam and discharges into the environment through a sprinkler system allowing it to spread downslope across the surface and filter into the ground.

C.1.2 Present Situation

Following an inspection by the NNR (National Nuclear Regulator), several non-conformances were identified by the authorities at the Gypsum Dam that Foskor must rectify, the stormwater channel at the toe of the dam and overflow spillway at the stilling basin (pond) is one of non-conformances that were identified.

The stormwater channel located at the toe of the dam is in a poor condition as it has been severely eroded by stormwater through the years. The earth trenches indicate to have been previously lined by a membrane that is now in a state of disrepair.

The existing overflow spillway is constructed from masonry bricks and is currently in a deteriorated structural state.

C.1.3 Proposed Solution: Reason for this Tender

It has been identified that further delays to execute the repairs at the Gypsum Dam will escalate the risk associated with contravening environment compliance and that may lead to authorities revoking the operating license of the Gypsum Dam from Foskor. The probability and risk of groundwater contamination increases with delays in repairing stormwater channel and overflow spillway.

The facility must comply with all the relevant and latest legal requirements including approvals from the local authorities, environmental compliance, Occupational Health and Safety Act and the regulations governed by the South African National Standards.

This Tender document aims to procure a civil engineering Contractor to execute construction work of the new channel lining and overflow spillway at stilling basin (pond).

C.3. Foskor Specifications

All work listed in this scope of work shall be completed in accordance with the latest specifications listed below.

Those specifically applicable to this Tender is **marked with “YES”**, however it does not exclude other specification listed or implied, and it remains the Tenderer's responsibility to ensure that work execution and tender prepared is in line and meets the requirements of all standards indicated or not.

Number	Title / Description	Version	Applicable
OTHER	STANDARDS on this Tender		
APPLICABLE	FOSKOR SPECIFICATION on this Tender		
E003	Industrial Electrical Installations	Latest	
EC1	Installation, Testing and Commissioning of Electrical Equipment	Latest	
FC005	General Earth Works to Plant and Building	Latest	Yes
FD001	Design Criteria for Structures	Latest	Yes
FG001	General Requirements for Projects	Latest	Yes
FL001	Design & Fabrication Criteria for Ladders & Walkways	Latest	Yes
FM001	General Mechanical Specification	Latest	
FM003	Welding of Fabricated Equipment	Latest	
FM002	Rubber Lining of Vessels and Piping	Latest	
FM432	Insulation of Vessels and Piping	Latest	
FQ001	General Engineering Quality Requirements	Latest	Yes
FQ002	Non-Destructive Testing	Latest	
FS001	Specification for the Fabrication & Erection of Structural Steel Work	Latest	
FS002	Specification of Roof and Side Cladding	Latest	
FV001	Requirements Vessels, Tanks and Heat Exchangers	Latest	
GM5	Pipe Standards Including Auxiliary Equipment	Latest	Yes
GM6/COP9	Engineering Drawing and Document requirements	Latest	Yes
GQ1	Quality Control Procedure for Contractors	Latest	Yes
GS1	Structural Steelwork and Plate Work Fabrication and Erection	Latest	
MC001	Corrosion Protection Colour Coding	Latest	Yes
MC002	Scope of Corrosion Protection Richards Bay	Latest	Yes
MC004	General Plant Painting Specification Low Temperature	Latest	
MC006	Repair/Touch-up of Damaged Steelwork	Latest	
MC009	General Plant Protection High Corrosive Areas	Latest	
MC010	Painting Tank Grillage	Latest	
SS-000000-C-006	General specification for concrete construction	Latest	Yes

The Tenderer is advised to study the referred to specification, before pricing Bills of Quantities/Lump Sum documents.

No claim whatsoever will be allowed in respect of errors in pricing due to brevity of description of items in the Bills of Quantities/Lump Sum documents which are fully described when read in conjunction with the relevant Preambles and/or Specifications.

Suppliers of materials and the like, whose quality systems apply with one or more of the SABS/SANS ISO 9000 Series should be used whenever possible in the absence of a particular SABS/SANS Specification Standard Mark.

The Tenderer is hereby informed that where SABS/SANS Specifications are referred to in these Bills of Quantities/Lump Sums documents and Specifications thereto, then ONLY the Specification of Work Clauses will apply. The method of measurement and payment clauses will NOT apply to this Contract.

C.4. Project Requirements

The main works is of civil (earthworks and concrete works) type nature and requires the supply of all (including but not limited to):

1. Materials.
2. Specifications.
3. Labour.
4. Tools, equipment and mobile plant
5. Consumables.
6. Transport.

Tenderer shall further ensure that all work is executed with a detailed quantity of work, cost and/or detailed design is provided and complies with the specifications as set out in this document.

C.5 Plant Data

All work listed in the document will be constructed at the **FOSKOR RICHARDS BAY, GYPSUM DAM**. At coordinate location **28°46'52"S** and **32°00'08"E**

C.6. Drawings and Technical Data

The following reference drawings, technical data and/or manuals remain the property of Foskor (Pty) Ltd and shall be returned to Foskor (Pty) Ltd on completion of the work.

C.6.1 Drawings:

SITE PLAN DRAWINGS		
Drawing No.	Title / Description	Revision
1283/G-100	General Notes	A
1283 /G-102	Typical Channel Sections for Entire Gypsum Recovery Area	A

.C.7 Scope of Work

C.7.1. Guideline Scope of Services

The scope of work calls for a minimum level **6CE CIDB grading** contractor and includes for the following:

The Contractor to supply as per the construction drawings and specifications submitted. The supply of any equipment/material that is suggested by the Contractor must be approved by Foskor.

The contractor to provide with his tender method of construction and work program that will be within the provisioned quantities for repairs. The period of construction covers the hand over to the successful supplier and the final completion of the repair work, including hand over back to Foskor. No delays shall be entertained.

All specialized equipment/material shall be installed as per recommendation by the manufacturer of the supplied material/equipment. Any deviations from Manufacturer recommendations must be suitably justified.

All completed work will be inspected and approved by Foskor. The Contractor shall ensure that all 'acceptance approvals' are received from Foskor (Pty) Ltd before proceeding to the next stage.

After completion of construction work, the Contractor must allow for final inspection, passing & Handover of the project works with Foskor (Pty) Limited and the nominated Contractor.

The Work calls for the successful contractor as required by the scope of work to carry out site clearing and install perimeter fence that is functional for its purpose – "Fit-for-Purpose".

The project to be undertaken in terms of the latest revisions and amendments of all relevant legislation, standards and Codes of Practices. The Contractor will complete the Works in accordance with all statutory obligations, municipal regulations and all other relevant requirements. The Contractor is specifically reminded of the requirements in terms of the Occupation Health and Safety Act, Act 85 of 1993 and latest amendments in terms of this project.

The design, selection and supply of all equipment to be supplied by the Contractor shall be approved by Foskor.

All work carried out shall be in accordance with the Installation recommended or specified by the manufacturer of the supplied material.

C.7.1.1. Scope of Work - Extent

The Contractor understands and shall fully satisfy the scope of required services, as described in the tender **FTP /25/MN** handed out at the site inspection held on (date) _____, which is generalized as follows:

1. Site Establishment and De-establishment.
2. Installation of OHS Controls
3. Construction Execution, Supervision and Management of Contract.

Refer to PROJECT SPECIFICATION for detailed scope of work attached.

Perimeter Fence

- Remove the existing critical sections of perimeter fence.
- Supply and install fencing to specification with posts @ 3.0m centers or as ordered (including construction of foundations for fence posts)
- Supply and install fencing panels of relevant width (according to supplier specification) including new gate structure/
- Supply and install flat wrap razor wire topper.

TEMPORARY WORKS

The Contractor shall be required to carry out the following temporary works in accordance with minimum acceptable quality standards as stipulated in the reference standards.

The temporary works include the following but not limited to:

- Trench dewatering and site water control
- Dealing with stormwater
- Shoring of trenches
- Stream diversion during construction of Spillway
- Construction of temporary earth mounds and channels, inlet manholes, protection berms etc. that may be deemed necessary for the uncontrolled flow of stormwater

The Contractor shall be responsible for the design of the following:

- Dealing with stormwater during the construction of channels
- Shoring where required for deep excavations
- Dewatering of trench during excavations
- Stormwater control during construction of channels
- Concrete Mix designs
- Site layouts for the contractor's camp and office accommodation
- Site layouts for the Engineer Representative's temporary office accommodation
- Construction Methodology
- Formwork
- Scaffolding and all staging work
- All other temporary works

C.7.2 Site Conditions

The Gypsum Recovery Area (with GPS co-ordinates of 28°46'52"S; 32°00'08"E) is in Richards Bay, KwaZulu-Natal. It is positioned 245m south of the R34. The site shares its eastern boundary with Bayside Aluminum. The Mhlathuze river runs parallel to the site's southern boundary. Adjacent to the western boundary is vacant well-kept land which spans to the John Ross Highway. The area of the site has an extent of 125.74ha. Access to the project site is as follows:

- From the N2 off ramp to Richards Bay
- Take exit 327 for R34 toward Richards Bay/Ulundi/Empangeni
- Turn right onto John Ross Highway/R34
- Travel straight on John Ross Highway for approximately 8km
- Turn onto gravel road on right
- The site entrance will be straight ahead. Access to the area is free of obstructions, however the Contractor must take note that the area is covered in bush and shrubs.

C.7.4 Certification by Recognized Bodies

Only Tenderers registered with the relevant Board (e.g. ECSA, NHBRC, etc.) of South Africa in accordance with the Regulations of the Occupational Health and Safety Act will be accepted and permitted to do work under this contract.

C.7.5 Requirement for the termination, diversion, or maintenance of existing services

Only Applies if/where electrical conductors, pipe conduits, electrical transmitters, ducting or ventilation services are affected. Unless identified as part of the scope, the Contractor must immediately bring to Foskop's attention any previously unspecified or obstructing services existing in his area of work and without terminating/diverting/hindering such services.

C.7.6 Nominated Sub-Tenderers

Should the tenderer anticipate using Subcontractors for any part of the scope, these must be specified below.

The following Sub-Tenderers are nominated:

Contractor	Concerning Works	Contact

C.7.7 Invoicing and Payment

Payment will be made by Foskop (Pty) Ltd, after approval (with consideration for the construction, completion and defects corrections of the Works) by the Foskop (Pty) Ltd.'s Project Representative (i.e. Engineer, Project Supervisor) of the submitted Payment Certificate to the Tenderer within **30 (thirty)** days from the date of statement.

The invoice shall be approved in accordance with the provisions of Foskop (Pty) Ltd.'s terms and conditions.

The invoice submitted is to be in a format acceptable to the Foskop (Pty) Ltd.'s Project Representative and need to contain the following minimum information:

- Company details, registration no and VAT registration no,
- Purchase Order no & Date of Invoice,
- Copy of Purchase Order,
- Detail description of work done to date,
- Value of the current claim and work done (excl. VAT),
- VAT charged.

C.7.8 Standing Time

Standing time is defined as a period measured in hours, when the Contractor's normal operational cycle is affected by causes caused by Foskop (Pty) Ltd and results in normal stoppage or major disruption to the regular progress of the Works.

C.7.11.2 Extension of Time for Completion

The whole works shall be completed within the time agreed upon.

If any circumstances of any kind whatsoever may occur and as such, fairly entitle the Contractor to any extension of time for the completion of the works or portion thereof, then the Foskop (Pty) Ltd Project Representative will consider a claim duly submitted.

C.7.12 Cancellation of the Contract by Foskop (Pty) Ltd

If:

- (a) (i) The estate of the Contractor shall be sequestrated (provisionally or finally), or
- (ii) The Contractor shall publish a notice of surrender of his estate as insolvent, or
- (iii) The Contractor, being a company or a close corporation, shall go into liquidation (provisionally or finally), or
- (iv) The Contractor shall assign the Contract without the consent in writing of Foskop (Pty) Ltd having first been obtained, or
- (v) The Contractor shall enter a compromise with the general body of his creditors, or
- (vi) The Contractor shall have an execution levied on his goods, or
- (b) the Foskop (Pty) Ltd Project Representative shall certify in writing to Foskop (Pty) Ltd, and to the Contractor/Consultant, with specific reference to this Clause, that in his opinion the Contractor/Consultant:
 - (i) has abandoned or repudiated the Contract, or
 - (ii) has, without reasonable excuse, failed to commence the Works in terms of the time allowed and agreed to, or
 - (iii) has suspended the progress of the Works without due cause, or
 - (iv) has failed to proceed with the Works with due diligence, or
 - (vi) is not executing the Works in accordance with the Contract, or
 - (vii) has, without the approval of the Foskop (Pty) Ltd Project Representative, subcontracted any part of the Contract, or
 - (viii) has failed to provide the Surety ship, Professional Indemnity within the time stipulated and for 14 days after receiving a written notice from the Foskop (Pty) Ltd Project Representative, referring specifically to the default concerned and to this Clause, failed to remedy the default,

Foskop (Pty) Ltd may, by written notice to the Contractor, terminate the Contract and withhold any payments due until further notice.

C.7.13 Urgent remedial work

All designs changes or remedial action must be communicated to the Foskop Engineer, or the authorized Foskop Designate. Approval of such must be sought and received as early as not to impose undue costs and delays. Should there however be remedial work necessary, the Contractor shall, upon approval from the Foskop Engineer/Designate, effect these with care, accuracy and speed, so as not to impose undue extension of time and /or cost.

If any work as done by Foskop (Pty) Ltd is work which the Contractor was liable to do at his own expense under the Contract, all costs incurred by Foskop (Pty) Ltd in so doing shall be determined by Foskop (Pty) Ltd or its agent and shall on demand be paid by the Contractor to Foskop (Pty) Ltd.

North Safety Acid/Flame overall (Flame retardant acid resistant anti-static ATPV 15.4CAL/CM2) with company names either on front of jacket or back and fluorescent reflective strips to be stitched onto sleeves and on the knees.

- d. The Contractor shall demarcate the relevant work area. The Contractor shall supply and erect an appropriate name board with all relevant information and contact details at the work area.
- e. The job risk assessment shall be carried out at the start of each shift. This risk assessment shall cover all activities planned for the relevant shift. The risk assessment shall be submitted to Foskor (Pty) Ltd at the start of each day shift and each night shift.
- f. The Contractor must take safety precautions when working on site.
- g. The Contractor must remove all their equipment within 48 hours after project completion/closure.
- h. A complete safety file to be submitted to Foskor (Pty) Ltd Safety Department before any work commences.
- i. The Contractor's vehicle when entering Dam site must have rotating orange lights on at all times.
- j. **The Contractor and their employees must undergo a full medical at either Foskor (Pty) Ltd's Clinic or Caredoc Richards Bay or their approved by Foskor (Pty) Ltd. A full lung function test must be done. If a project is longer than twelve months, then a complete medical including lung function tests must be done again and thereafter the lung function test. Medical certificates are valid for one year only. For medical costs and bookings please contact Nkosazana Nxumalo at Foskor (Pty) Ltd Clinic on 035 902 3267.**
- k. A once-off fee is also required for access cards from Foskor Security. Please contact the Foskor (Pty) Ltd Security Reception at 035 902 3267 for information.
- l. No access to elevated platforms, roof and scaffolding will be allowed during rainy days.
- m. A safety plan for the work to be done by the contractor.
- n. The contractor must appoint a qualified Safety Officer with at least Diploma in Safety Management or SAMTRAC or both, either on a full time or part time basis to conduct the following responsibilities:
 - Conduct and submit audits monthly.
 - Conduct and submit inspections monthly.
 - Compile and submit safety monthly report to Safety Department.
 - Perform safety talks and awareness training and submit evidence to Foskor.
 - Visibility on Site.
 - Conduct inspections on PPE and provide evidence to Foskor.
 - Continuously update Safety File.
- o. A contractor to submit a comprehensive task-based risk assessment that has acknowledged the Foskor baseline risk assessment and method statement.
- p. A contractor to appoint a full-time supervisor to manage and supervise all the activities of his/her employer.
- q. All new work activities must have the scope of work and be communicated to Safety Department before starting with the works, with exception of emergency breakdowns.
- r. **All maintenance emergency works and consultants are exempted from the above-mentioned safety requirements.**

C.12. Summary of Documents to be Submitted with this Tender

- i. Priced Bill of Quantities.
- ii. Initial program
 - a. Submit Bar Chart/Gantt Chart.
 - b. Working day and working hours of the week.
- iii. Quality Control Plan.
 - a. Submit quality assurance plan indicating surveillance, verification, witness and holding points.
- iv. Project team structure
 - a. Submit organogram indicating team structure and the number of personnel committed to the project as well as the capacity of crews committed to this project.
 - b. Demonstrate level of skill of project key personnel (Contracts Manager/ Project Manager/ Supervisor/Forman/Quality Controller) by indicating formal training/qualifications and/or experience in practice).
- v. Record of experience of Bidder
 - a. Submit record of similar projects completed indicating start and end dates of projects with proof of completion for projects executed outside of Foskor Acid Division.
 - b. Submit traceable reference with contact details to be included for verification.
- vi. Submit a valid minimum 6CE CIDB grading certificate.
- vii. Signed compulsory site inspection certificate

SECTION A: PRELIMINARIES AND GENERAL						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						-
		<u>Health and Safety</u>				
16		a) Preparation of Health and Safety Plan	Sum	1		-
17		b) Health and Safety Training, inductions, etc	Sum	1		-
19		d) Fences, Signs and Barricades	Sum	1		-
20		e) Establishment of Safety Administration	Sum	1		-
21		f) Other Health and Safety Fixed-charge Obligations	Sum	1		-
22	PE	Appointment of a full-time construction health and safety officer for the duration of the contract	Sum	1		
23	PE	The provision of PPE and protective clothing and other H&S matters that the contractor deems necessary.	Sum	1		
24	PLW	Compliance with all EPWP conditions and specifications	Sum	1		
	SANS 1200	<u>TIME RELATED ITEMS</u>				
25	AB A.8.4.1	Contractual Requirements (Calculated over contract period)	Sum	1		-
	A.8.4.2	<u>Operation and Maintenance of Facilities on Site, for Duration of Construction, (unless otherwise stated)</u>				
	8.4.2.1	<u>Facilities for the Engineer</u>				
26	PSAB 4.1	(a) Furnished office for the Engineer (1 No.)	Sum	1		
27		Provision of Cellphone for use by the Engineer				
28	PSAB 3.1	(b) Call Charges	P Sum	1	18 000	18 000.00
29		Contractors mark up on items (b) above	%	0		
30	PSAB 2.1	(c) Name board (2 No.)	Sum	1		
31		(d) Provision of Rain Gauge (2 No.)	Sum	1		
32	PSAB 4.2	Survey Equipment and Assistant				
33		(e) Survey Assistant (prov)	P Sum	1	50 000	50 000.00
34		Contractors mark up on items (e) above	%	0		
35		(f) Accommodation of Survey Assistant (prov)	P Sum	1	50 000	50 000.00
36		Contractors mark up on items (f) above	%	0		
37		(h) Survey equipment and materials	Sum	1		
TOTAL CARRIED FORWARD						

SECTION A: PRELIMINARIES AND GENERAL						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
59	PE	Appointment of a full-time construction health and safety officer for the duration of the contract	Sum	1		
60	PE	The provision of PPE and protective clothing and other H&S matters that the contractor deems necessary.	Sum	1		
61	PLW	Compliance with all EPWP conditions and specifications	Sum	1		
	A.8.8	<u>TEMPORARY WORKS</u>				
62	A.8.8.1	Dealing with or accommodation of traffic.	Sum	1		-
	A.8.5	<u>Work Associated with Work to be Undertaken By Specialist Contractors under Separate contract</u>				
63	A.8.8.5	Additional survey for setting out channel, catchpit and outlet structure positions and levels. (See sub clause 5.1.2)	P Sum	1		50 000.00
64	A.8.8.6	Dealing with water	Sum	1		
	SABS 1200A	<u>SUMS STATED PROVISIONALLY BY ENGINEER</u>				
69		(d) Environmental audits by Environmental Control Officer appointed by Engineer	P Sum	1		285 000
70		Contractors mark up on items (d) above	%	0		
71		(e) Health and Safety Assessments, Audits and managing Risk Assessment by H & S Consultant appointed by Engineer	P Sum	1		150 000
72		Contractors mark up on items (e) above	%	0		
75		(g) Allow Provisional Sum for repairs of damaged services that could not have been reasonably foreseen or prevented by the contractor	P Sum	1		50 000
TOTAL CARRIED FORWARD TO SUMMARY						

SECTION B: SITE CLEARANCE						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	SANS 1200C	SECTION B SITE CLEARANCE				
1	C.8.2.1	Clear and grub all shrubs, bushes and general waste. etc, and dispose off to an approved dumping site. (Allowance made for 6m wide strip)	m ²	13950		
2	C.8.2.1	Load and haul Gypsum waste within shorthaul distance as per client requirements (0.5 to 1.0 km).(Provisional)	m ³	2 500		
3	C.8.2.8	Demolish existing masonry weir and dispose off to an approved dumping site.	sum	1		
4	8.2.7	Recover and removal of stormwater pipes	sum			
5	8.2.8	Demolish and remove masonry manhole	sum			
TOTAL CARRIED FORWARD TO SUMMARY						-

SECTION D: CONCRETE (SMALL WORKS)						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	GA.	SECTION D				
		CONCRETE (SMALL WORKS)				
	GA.8.2	FORMWORK				
	GA.8.2.1	Rough				
1	GA.8.2.1	Sides of new stormwater channels	m ²	600		
2	GA.8.2.1	Catchpits	m ²	90		
3	GA.8.2.1	Dam wall	m ²	35		
4	GA.8.2.1	Outlet structures	m ²	90		
5	GA.8.2.1	300x300mm Anchor beam	m	2 322		
	GA.8.3	REINFORCEMENT				
	GA.8.3.1	High tensile reinforcement				
6	GA.8.3.1	Various diameters high tensile steel bars for new dam wall, catchpits, outlet structures and 300mm thk slabs over pipes.	Kg	7 000.00		
		Steel mesh				
7	GA.8.3.1	Mesh ref 193 placed centrally in stormwater channels	m ²	11 727.50		
	GA.8.4	CONCRETE				
	GA.8.4.3	Strength concrete. 30MPa/19mm with SIKA WT 200p admixture				
8	GA.8.4.3	Catchpits	m ³	19		
9	GA.8.4.3	Dam wall	m ³	6		
10	GA.8.4.3	Outlet structures	m ³	25		
	GA.8.4.3	Strength concrete. 25MPa/19mm with SIKA WT 200p admixture				
11	GA.8.4.3	Stormwater Channels and anchor beams	m ³	1 335.0		
	GA.8.4.3	Strength concrete. 25MPa/19mm				
12	GA.8.4.3	Stormwater pipe encasement	m ³	37.0		
	GA.8.4.3	Strength concrete. 40MPa/19mm				
13	GA.8.4.3	300 mm thk R/C slab over new stormwater pipes.	m ³	14.0		
	GA.8.4.4	Formed Surface Finishes				
14	8.4.4b	Stormwater channel	m ²	16 278		
TOTAL CARRIED FORWARD TO SUMMARY						-

SECTION F: SUNDRIES - OTHER TRADES						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		<u>SECTION F</u> <u>SUNDRIES - OTHER TRADES</u>				
1		Supply and install 600x600mm heavy duty	No	1		
2		Supply and install new stainless steel cat ladder with grab rail. DWG 1283/G105	No	1		
3		Construction joints @ 3m c/c for stormwater channels	m	3128		
4		Saw cut joints @ 1.5m c/c for stormwater channels	m	3128		
5		Saw cuts and construction joints to be reamed and sealed with Sika Flex Tank N.	m	6256		
6		Topsoiling - 2m on each side of new SW channel.	m ²	6 250		
7		Grassing - 2m on each side of new SW channel.	m ²	6 250		
8		Bidim material for founding preparation of new catchpits, outlet structures and dam wall.	m ²	571		
9		2x1x0.2m Reno mattresses complete with bidum and packed handstone	No	20		
10		0.25m diameter by 1m high precast concrete bollards	No	9		
TOTAL CARRIED FORWARD TO SUMMARY						-

SECTION G: PERIMETER FENCING					
ITEM NO.	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD					
	SECTION G FENCE FOUNDATION				
	<u>Excavate in all materials and use for embankment or backfill or dispose as ordered for:</u>				
1	New pad foundations for gate posts	m ³	4.0		
2	New foundations for fencing (Posts @ 3m centres)	m ³	74.0		
3	250x250x300mm deep for locking rods	m ³	0.2		
	<u>Treatment of In Situ Material</u>				
	<u>Preparation and compaction of material to:</u>				
4	Rip and recompact of in-situ material to minimum of 100% MOD AASHTO for pad foundations	m ³	5		
	<u>Importation of Materials from Commercial Sources</u>				
5	Import 150mm G5 material and compact to 98% Mod AASHTO density under pad foundations	m ³	15		
TOTAL CARRIED FORWARD TO SUMMARY					

SECTION G: PERIMETER FENCING						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						
		<u>FENCE STRUCTURAL STEELWORK</u>				
		<u>SUPPLY AND FABRICATION</u>				
		<u>Preparation of shop detail drawings</u>				
15		Structural steelwork for gates and gate posts (excludes for fencing)	t	0.49		
		<u>New Work as per SANS 1431 in Grade 350WA Steel</u>				
		<u>Supply and Fabrication of Steelwork</u>				
16		200x150x6 SHS Gate Posts	t	0.19		
17		75x75x3 SHS Gate Framework	t	0.30		
18		300x300x16mm baseplates	No	2		
		<u>Site Welding</u>				
19		Site weld post cap plates to new posts with 6mm fillet weld all round for 200x150x6 RHS post	m	1		
		<u>Delivery to Site</u>				
20		Normal delivery	t	0.49		
		<u>Erection on Site</u>				
21		New structural steel components complete	t	0.49		
		<u>Erection bolts</u>				
22		Grade 8.8 hot dipped galvanised steel bolts, nuts and washers	kg	20		
		<u>Holding Down (HD) Bolts</u>				
23		Supply and fabricate M16 HD bolts (galvanised) and casting-in templates and cast 300mm long bolts 200mm deep into top of concrete stub columns in exact position and protecting thread by wrapping with protective membrane.	No.	8		
		<u>Non-destructive testing</u>				
24		All fillet welds to be Dye-pen tested and results forwarded to the Engineer for approval	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

		SUMMARY
ITEM NO	DESCRIPTION	AMOUNT
A	PRELIMINARIES AND GENERAL	-
B	SITE CLEARANCE	-
C	EARTHWORKS (SMALL WORKS)	-
D	CONCRETE (SMALL WORKS)	-
E	STORMWATER PIPES	-
F	SUNDRIES - OTHER TRADES	-
G	PERIMETER FENCE	-
	SUB-TOTAL	-
	CONTINGENCIES 10%	-
	SUB-TOTAL	-
	15% VAT	-
TOTAL CARRIED FORWARD TO RFQ		-

3	Supplier experience & team competency - Weight not to be less than 40%			
3.1	Project Manager - Weight not to be less than 20%			
b)	Professional registration with regulating engineering body. Relevant experience post registration of 1-5 years = 2% - 10% Experience with earthworks, concrete and pipe works of 1-5 years = 2% - 10%	20%	Submit a list of projects undertaken and completed with description, duration of project starts and completion, project amount as well as appointment letters and completion certificates with contact details of references.	Records of previous projects successfully completed by the supplier provide an indication of the level of experience.
3.2	Quality Controller - Weight not to be less than 10%			
a)	Experience Scoring Previous experience with the construction of similar projects (Construction/Repair of stormwater channels and concrete dam walls) Relevant experience 10 years and greater is 10% Relevant experience of 1-9 years is 1% to 9% respectively	10%	Submit CV with list of projects undertaken and completed with description, time of project start and completion, project Amount as well as references with contact details.	Records of previous projects successfully completed by the engineer/technologist provide an indication of the level of experience.
3.3	Health and Safety Officer - Weight not to be less than 10%			
a)	SACPCMP Registration: Construction Health and Safety Officer Scoring: Yes = 5%, No = 0%	5%	Submit Candidate's qualification	Records of qualification indicate competency of candidate
b)	Experience as a Health and Safety Officer Scoring Previous experience with construction of similar projects Relevant experience of 5 years and above = 5% Relevant experience of 1-4 years = 1% - 4%	5%	Submit CV with list of projects undertaken and completed with description, time of project start and completion, project Amount as well as references with contact details.	Records of previous projects successfully completed by the engineer/technologist provide an indication of the level of experience.
Total Technical Score:		100%		
NOTE: Scoring to add to a minimum of 70 in total				
DISQUALIFICATION CRITERIA **				
1 Mandatory requirement not met.				

Certified Appointment letter of Relevant Work (to be attached) (max 1 points/ project)	Consulting Engineer: Contact Person and Telephone Number (max 1 point)	Employer Contact Person and Telephone Number (max 1 point)	Value of Work (inclusive of VAT) (max 1 point)	Date Completed Certified Certificate) (max 1 points/ project)	Points awarded by the Engineer
Attach additional pages if more spaces are required		Total Points			

SIGNATURE: DATE:
(of person authorised to sign on behalf of the Tenderer

KEY PERSONNEL EXPERIENCE (STRUCTURAL DESIGN ENGINEER)

The tenderer shall provide details of previous experience required for this project. Proof of registration must be attached for this form.

Name	Position in team	ECSA Reg No	Category	SACPCMP Reg No	Category	No of Year Experience
	STRUCTURAL ENGINEER					

Technical / Managerial Experience

(List only the most recent 5 projects of the key staff that the tenderer considers relevant to the specified scope of work.

Description of Project	Position held	Project Start Date	Project Completion Date	Contract value	Client and Contact Person	Contact No

(DETAILED CV MUST BE ATTACHED HERETO)

C CONSTRUCTION METHOD STATEMENT AND PRELIMINARY PROGRAMME CONSTRUCTION METHOD STATEMENT

The tenderer will receive a maximum of 10 points based on information provided in this schedule.

The refurbishment of Foskop Cooling Towers consists of the reconstruction of the existing cells.

The quality criteria will be as follows (maximum 7 pages):

- 1) Approach method= 6 points
- 2) Construction Administration = 2.0 points
- 3) Safety controls = 2.0 points

The Tenderer shall attach a method statement reflecting the execution of the various activities, construction methods and quality control comprising the refurbishment work for this contract, including implementation of safety controls during construction. The statement shall be in accordance with the information supplied in the Contract, requirements of the Project Specifications and with all other aspects of this Tender.

PRELIMINARY PROGRAMME

The tenderer will receive a maximum of 20 points based on the executive programme.

The quality criteria will be as follow:

1. Applicable activities / tasks (showing more than 24 (twenty-four tasks) = 6 points (0,25 points/ task)
2. Float indicated = 1 point
3. Shortest duration = 10 points
4. Resources allocation indicated = 1 point
5. Critical path= 2 points

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

The Execution Programme must be based on the completion time as specified in the Contract Data.

PLEASE NOTE: the cash flow projection from the contractor (to be submitted before commencement of the execution of the contract) must be in accordance with this execution plan in order to ensure proper cash flow management by the employer and to minimise delayed payments.

Programme										
Activity and Resource	Month									

*Attach additional pages if more space is required

SIGNATURE: DATE

(of person authorised to sign on behalf of the Tenderer)

Section F: TERMS OF CONTRACT AND PROJECT SPECIFICATION

See attached project specification that forms the detailed scope of work.