Province of the
EASTERN CAPE
HEALTH

TENDER DOCUMENT

FOR

BID NO: SCMU3-23/24-0456-HO: SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS

THREE VOLUME APPROACH:

VOLUME 1 – TENDERING PROCEDURES
VOLUME 2 – RETURNABLE DOCUMENTS
VOLUME 3 – DRAFT CONTRACT

PREPARED FOR:

Eastern Cape Department of Health
Global Life Centre
c/o R63 and Avenue
BHISHO
6505

PREPARED BY:

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Consortium Lukhozi, Quartzite Drive, The Quarry,
Selborne
East London
5201

NAME OF SUPPLIER: _____

CRS NUMBER: _____

August 2023

CONTENTS

	Part C4: Site Information	
	C4.1	Site Information as per Scope of Works
	Part C5	Technical Specification
	C5	Technical Specification

VOLUME 1: TENDERING PROCEDURES

T1.1: TENDER NOTICE AND INVITATION TO SUPPLIER

T1.1: TENDER NOTICE AND INVITATION TO SUPPLIER
THE EASTERN CAPE DEPARTMENT OF HEALTH INVITES SUPPLIERS FOR:

PROJECT NAME	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
TENDER No.	**SCMU3-23/24-0456-HO**

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Supplier" or "Tender".

The attention of Suppliers is drawn to the eligibility criteria in the table below. Suppliers are required to familiarise themselves thoroughly with the conditions of Supplier as contained in the Supplier Data (T1.2) and the Standard Conditions of Supplier (T1.3) which form part of the Supplier document. Only Suppliers that are responsive to responsiveness criteria contained in the table below are eligible to have their Suppliers evaluated:

☒	Joint ventures are eligible to submit tenders provided that: They have a signed joint venture agreement
☒	Only Suppliers who have access to a suitably qualified and experienced contract manager who will be the single-point of accountability and responsibility for the management of the contract works as described in clause F.2.1.2 shall be eligible to have their Tenders evaluated. ***Experience must be on generator installation industry.***
☒	Only Suppliers who have access to a suitably qualified and experienced contract supervisor as described in clause F.2.1.3 shall be eligible to have their Tenders evaluated. ***Experience must be in the electrical installation.***
☒	Suppliers that are responsive to the criteria stated above shall be evaluated further in accordance with the conditions of Supplier as stipulated in the Tender Data (T1.2) and the Standard Conditions of Tender (as amended), which form part of this Tender document.
☒	Responsive Suppliers shall be evaluated in accordance with Method 2: Functionality, Price and Preference. The functionality evaluation criteria is described in clause F.3.11.1. Suppliers who fail to achieve the threshold score of 60 out of 100 points shall not be evaluated further.

Preferences are offered to Suppliers in accordance with the points systems as below:

☒ 80/20 Preference point scoring system

Preference:		**Price:**	
SPECIFIC GOALS Status Level:	20 Points	Price:	80 Points
Total must equal:	**20 Points**	Total must equal:	**80 Points**

1. **COLLECTION OF SUPPLIER DOCUMENTS:**

☒ Tender documents (In hard copy) may be collected during working hours at the following address:

Department of Health
Global Life Centre,
SCM Unit
c/o Phalo Avenue and R63 (opposite Engen Garages)
Bhisho

☒ The tender document is not for sale, it will be on the department's website.

☒ A compulsory clarification meeting with the representatives of the Employer will take place as follows:

Date: 21 September 2023
Venue: Frere Hospital, John Tremble Hall
Time: 11h00

2. **ENQUIRIES RELATED TO TENDER DOCUMENTS MAY BE ADDRESSED TO:**

Procurement Contact:	**Ms Thabisa Notshe**	**E-mail**	**thabisa.notshe@echealth.gov.za**
Tel. No.	**040 608 9641**		

3. DEPOSIT / RETURN OF TENDER DOCUMENTS:

The closing time and date for submission of Tender is 11:00am on the 06 October 2023 where Tenders will be opened to the public. The following must be noted by all Suppliers;

1. Telegraphic, telephonic, telex, facsimile (faxed), email and late Tenders will not be accepted.
2. The requirements for sealing, addressing, delivery, opening and assessment of Tenders are stated in the Tender Data (T1.2)
3. All Suppliers must be submitted on the official, hardcopy documents issued with the bid including any addenda issued to prospective Suppliers by the Department.
4. Tender documents must be deposited in the Tender box at the address indicated below:

DEPOSITED IN THE TENDER BOX AT:
Department of Health
Global Life Centre,
SCM Unit
c/o Phalo Avenue and R63 (opposite Engen Garage)
BHISHO

COMPILED BY:

Section	Department	Date
Engineering and Technical Services	Lukhozi Consortium	August 2023

T1.2: TENDER DATA

T1.2: TENDER DATA

PROJECT NAME	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
TENDER NUMBER	**SCMU3-23/24-0456-HO**

Clause number	
	The conditions of Supplier are the Standard Conditions of Supplier as contained in Annex F of Board Notice 136 of 2015 in Government Gazette No. 38960 of 10 July 2015, Construction Industry Development Board (CIDB) Standard for Uniformity in Construction Procurement. (See www.cidb.org.za) which are reproduced without amendment or alteration for the convenience of Suppliers as an Annex to this Tender Data. The Standard Conditions of Supplier make several references to the tender Data for details that apply specifically to this Tender. The Tender Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the standard conditions of Supplier. Each item of data given below is cross-referenced to the clause in the Standard Conditions of Supplier to which it mainly applies. **The following variations, amendments and additions to the Standard Conditions of Supplier as set out in the Tender Data below shall apply to this Supplier:**
F.1.1	*Add the following:* The employer is the Eastern Cape Department of Health Global Life Center c/o R63 and Phalo Avenue Bhisho

F.1.2

Add the following:

Tender documents issued by the Employer comprise of:

Volume 1: Tendering Procedures

T1.1 Tender Notice and Invitation to Supplier
T1.2 Tender Data
T1.3 Annex F: CIDB Standard Conditions of Tender

Volume 2: Returnable Documents

SBD1 Invitation Bid: Part A and B
SBD4 Declaration of Interest
SBD6.1 Preference Points Claim Form in Terms of the Preference Regulations 2022
T2.2r Compulsory Enterprise Questionnaire
T2.1 List of Returnable Schedules/Documents

C1.1a Final Summary Page

C2.2: Preliminaries and General & Bills of Quantities
T2.2a Resolution of Signatory
T2.2b Resolution of Board of Directors to Enter into Consortium or Joint Venture (JV) Agreements
T2.2c-1 Schedule of Proposed Subcontractors
T2.2c-2 Schedule of Proposed Particulars of Mechanical and Electrical Subcontractors
T2.2d Schedule of Proposed Plant and Equipment
T2.2e Schedule of Proposed Imported Material and Equipment
T2.2f Bank Rating
T2.2g Specific goals claimed (CIPRO certificate)
T2.2n Record of Addenda to Supplier Documents
T2.2y Proof of Registration with Centralized Supplier Database
T2.2u CIDB grading certificate – Proof of registration
T2.2v CIPC – company registration certificate
T2.2x References
T2.3 Returnable schedules or documents: Annexures related to functionality evaluation

Annexure A: Method Statement (Generic)
Annexure B1: Key personnel qualifications (Construction manager)
Annexure B2: Key personnel qualifications (Construction Supervisor)
Annexure B3: Key personnel qualifications (OHS Safety officer)
Annexure B4: Key personnel qualifications (Skilled installation staff)

Volume 3: The Draft Contract

Part C1: Agreement and Contract data
C1.1: Form of offer and Acceptance
C1.2: Contract Data
C1.3: Fixed Performance Guarantee
C1.4: Agreement in terms of section 37(2) of the OH&S Act (Act no 85 of 1990)

Part C2: Pricing Data
C2.1: Pricing Instructions
C2.2: Bills of Quantities
C2.3: Day Schedule

Part C3: Scope of Works
C3.1: Scope of Works
C3.6: Health and Safety Specification
C3.7: HIV/AIDS Specification with Schedules A to C

Part C4: Site Information
C4.1: Site Information as per Scope of Works

F.1.4	*Add the following:* The employer's agent: Lukhozi Consortium
F1.6.1	*Add the following to the clause:* The Department reserves the right to not accept the tender from the tenderer with the highest number of points, or award any contract.
F1.6.3	*Add the following:* A two-stage system will not be followed.
F.2.1	*Add the following:* 1. Only those Tenderers who satisfy the following eligibility criteria are eligible to submit tenders: 1. 1 Tenderers who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in ac Contractor grading designation equal to or higher than a Contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for **Class EB or ME,** Grade 5 or higher construction work, are eligible to have their tenders evaluated. It is mandatory for the ME bidder to subcontract an EB bidder due to skills and qualifications that the ME bidder might not possess. 2. Joint ventures are eligible to submit tenders provided that: 2.1 Every member of the joint venture is registered with the CIDB; 2.2 The lead partner has a Contractor grading designation in **Class EB or ME, Grade 5** construction work; 2.3 The combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal or higher than the a Contractor grading designation determined in accordance with the sum tendered for **Class EB or ME, Grade 5** or higher construction work or a value determined in accordance with Regulations 25 (1B) or 25 (7A) of the Construction Industry Development Regulations; and 2.4 The joint venture is registered on Central Supplier Database or proof of application 2.5 All members of the joint venture must submit copies of the returnable documentations or original where it is so stipulated for all members. 2.6 In the case of a Partnership/Joint Venture/Consortium the tax clearance must be the Partnership/Joint Venture/Consortium or individual valid tax clearance certificates for all the members of the Partnership/Joint Venture/Consortium. 2.7 In the case of a Partnership/Joint Venture/Consortium the CIPRO certificates must be submitted indicating percentage of ownership for specific goals points scoring, failing which the tenderer will score zero points. 2.8 The lead partner of the JV must be registered with CIDB with a grading that is not lower than one level of the required grading.

F2.2	Add the following to the clause: Accept that the Employer will not compensate the Tenderer for any costs incurred in attending briefing session, negotiation meetings or any meeting or interviews in the office of the Employer or Employer's agent (if required).
F.2.7	For particulars regarding a pre-Tender site inspection meeting, see Tender Notice and Invitation to Supplier T1.1 " A compulsory briefing session will be held and no compensation will be paid for attendance at this meeting. Tenderers must be represented by a person who is suitably qualified and experience to comprehend the extent of the work involved and who is at the employ of the prospective tenderer. The tenderer's representative must sign the attendance register in the name of the tendering entity. Addenda will be issue to and tenders will be received only from those tendering entities appearing in the attendance register of the briefing session."
F.2.12	No alternative tenders are allowed.

F.2.13.2	*Replace sub-clause F.2.13.2 with the following;* Return all returnable documents to the employer after completing them in their entirety by writing in **non-erasable ink**
F.2.13.3	*Add the following:* Parts of each Supplier offer communicated on paper shall be submitted as an original, plus 0 (nought) copies.
F.2.13.4	*Add the following:* The Supplier shall be signed by a person duly authorized to do so. Tenders submitted by joint ventures of two or more firms shall be accompanied by the document of formation of the joint venture, in the form of a joint venture agreement, in which it is defined precisely the conditions under which the joint venture will function, its period of duration, the persons authorized to represent and obligate it, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning. Failure to provide the joint venture agreement, bound with the Supplier submission, on the date and time of the closing of the bid, shall render the Supplier non-responsive.
F.2.13.5	*Add the following:* The employer's address for delivery of Supplier offers and identification details to be shown on each Supplier offer package are: **Location of Supplier box:** Department of Health **Physical address:** Eastern Cape Department of Health Global Life Centre c/o R63 and Phalo Avenue Bhisho **Identification details: Tender No. SCMU3-23/24-0456-HO** **Title of Supplier: SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS** Sealed Tender with the identification details on the envelope must be placed in the appropriate official Tender box at the abovementioned address
F.2.13.6	*Add the following:* A two-envelope procedure will not be followed.
F2.13.9	Telephonic, telegraphic, telefax, facsimile or e-mailed tender offers will not be accepted.
F.2.13.10	*Add the following:* By signing the offer part of C1.1 Form of Offer and Acceptance the Supplier declares that all information provided in the Supplier submission is correct and free of misrepresentation.
F.2.15.1	*Add the following to F.2.15.1:* The closing time for submission of Supplier offers is as stated in the Tender Notice and Invitation to Supplier. Telephonic, telegraphic, telex, facsimile or e-mailed Supplier offers will not be accepted.
F.2.16.1	*Add the following to F.2.16.1:* The Supplier offer validity period is **12 weeks.**
F.2.17	*Insert the following at the end of the last sentence of the note:* ".…….elect to do so, provided that the competitive position of the preferred Supplier is not affected"

	A Supplier may be rejected as non-responsive if the Supplier fails to provide any clarification requested by the employer within the time for submission stated in the employer's written request for such clarification. The clarification of a Supplier offer includes the provision of the priced bills of quantities (Part C2.2: Bills of Quantities).
F.2.18	*Add the following:* The tenderer will be required to submit his fully priced Bills of Quantities (complete document inclusive of all parts) together with this tender.
F.3.4	*Add the following:* The opening of the tender offers will take place immediately after the closing time of tenders.

F.3.8	*Add the following:* Suppliers will be considered non-responsive if, inter alia: 1. the Supplier has failed to attend the compulsory briefing meeting; 2. the Supplier is submitted by Telegraphic, telephonic, telex, facsimile (faxed) or email media or if the Supplier is submitted late. 3. the Supplier does not comply with the eligibility criteria listed in F2.1 above; 4. The resolution for signatory is not attached to the Supplier submission on a company letterhead. 5. the Supplier has failed to fully complete and sign SBD1, SBD4 & the Compulsory Enterprise Questionnaire. Failure to submit the required information shall be subjected to a request from SCM to the bidder to submit the required information within 7 days of the request. Failure to comply with such request will result in the bid being deemed non-responsive
F.3.11.1	*Add the following:* This is a three-stage evaluation process: Stage 1: Administrative compliance Stage 2: Evaluation for price and preference The following procedure will be used to evaluate tender offers received: a. Open and record tender offers received b. Determine whether or not tender offers are complete. c. Determine whether or not tender offers received are responsive, and reject non-responsive tenders. d. Perform Technical Evaluation of Equipment as per technical Data Sheet. e. A bid with Equipment proposed that does not conform to scope of work or specification will be found non responsive. f. Score tender evaluation points for each price g. Confirm that tenderers are eligible for the preferences claimed and, if so, score tender evaluation points for preferencing. h. Calculate total tender evaluation points i. Rank tender offers from the highest number of tender evaluation points to the lowest. j. Perform a risk analysis on the tenderer having the highest ranking/number of points to ascertain if the submission presents an acceptable risk to the employer. k. Recommend the 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. 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 possesses the necessary technical, financial and other resources to enable him to complete the Works successfully with the contract period. The tenderer shall be required to satisfy the Employer and the Engineer as to his ability to perform and complete the Works timeously, safely and with satisfactory quality, and furnish details in section T2.2x of contracts of a similar nature and magnitude which they have successfully executed in the past. The Employer is restricted in accordance with clause 7.(c)(iii) of the Construction Regulations, 2014, to only appoint a contractor to whom he is satisfied has the necessary competencies and resource to carry out the work safely. Submitting inferior and inadequate information relating to health and safety shall be regarded as justifiable and compelling reasons not to accept the tender offer of the tenderer scoring the highest number of tender evaluation points.

F.3.11.3	The procedure for the evaluation of responsive tenders is **Method 1: Administrative compliance, Price and Specific Goals** <u>Equipment Functionality – Technical Compliance Verification</u> The bidder is required to provide details pertaining to Generators as detailed in the specifications. The compliance of the equipment with the scope of work and specification will be evaluated.
F.3.11.7	*Add the following:* The financial offer will be scored using **Formula 2 (Option 1):** $N_{FO} = (1 – (P-P_M)/P_m) \times W_1$ Where. N_{FO} = number of Supplier evaluation points awarded for financial offer W_1 = the maximum possible number of Supplier evaluation points Tender P_M = the comparative offer of the most favorable Supplier offer P = the comparative offer of the Supplier offer under consideration
F.3.11.8	Up to 100 minus W_1 (refer F.3.11.7 above) Supplier evaluation points will be awarded to Suppliers according to their SPECIFIC GOALS status level, determined in accordance with section 9(1) of the Broad-Based Black Economic Empowerment Act (No 53 of 2003), and who have submitted original valid or valid, certified copies of SPECIFIC GOALS status verification certificates issued by either a verification agency accredited by the South African Accreditation System (SANAS) or a sworn affidavit in terms of the amended SPECIFIC GOALS codes. The points will be awarded as follows, based on the SPECIFIC GOALS status level of the Supplier:

The specific goals allocated points in terms of this tender	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Historically Disadvantaged Individuals Ownership	20% (4)	
Women Ownership	20% (4)	
Youth Ownership	20% (4)	
Disability Ownership	20% (4)	
Military Veterans Ownership	10% (2)	
Locality Ownership	10% (2)	
TOTAL	100% (20)	

A trust, consortium or joint venture will qualify for points for their SPECIFIC GOALS status level as a legal entity, provided that the entity submits their SPECIFIC GOALS status level certificate. A trust, consortium or joint venture will qualify for points for their SPECIFIC GOALS status level as an unincorporated entity, provided that the entity submits their consolidated SPECIFIC GOALS scorecard as if they were a group

F.3.11.10	*Add the following new sub-clause:* The Employer will perform a risk analysis in respect of the following: (a) reasonableness of the financial offer (b) reasonableness of unit rates and prices (c) the Suppliers ability to fulfil its obligations in terms of the tender document, that is, that the Supplier can demonstrate that he/she possesses the necessary professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience, reputation, personnel to perform the contract, etc.
F.3.13.1	Supplier offers will only be accepted if: a) the Supplier is registered and in good standing with the South African Revenue Service (SARS) or proof that he or she has made arrangement with SARS to meet his or her outstanding tax obligations. This will be verified by the Employer on the Centralized Supplier Database. Where the recommended bidder is not tax compliant, the bidder will be notified of the non-compliant status and be granted seven (7) working days to rectify their compliance status with the SARS. The bidder must thereafter provide the Department with proof of its tax compliance which must be verified via the CSD or eFiling. b) the Supplier or any of its directors is not listed on the Register of Supplier 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; c) the Supplier or any of its directors is not listed on the Database of Restricted Suppliers kept by the National Treasury and updated from time to time; c) the Supplier has not: i) abused the Employer's Supply Chain Management System; d) The Supplier has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the Supplier's ability to perform the contract in the best interests of the employer or potentially compromise the Supplier process.
F.3.17	*Add the following:* The number of paper copies of the signed contract to be provided by the Employer is one.

F.4	**ADDITIONAL CONDITIONS OF TENDER** The additional conditions of Tender are:
F.4.1	**Invalid Tender** Suppliers shall be considered invalid and shall be endorsed and recorded as such in the Supplier opening record, by the responsible official who opened the Tender, in the following circumstances: a) if the Supplier 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 Form of Offer and Acceptance has not been completed or has not been signed by the authorised representative of the Supplier c) if the Form of Offer and Acceptance is signed, but the name of the Supplier is not stated or is indecipherable d) if the Supplier offer is not completed in non-erasable ink;
F.4.2	**Negotiations with preferred Suppliers** The Employer may negotiate the final terms of a contract with Suppliers identified through a competitive Supplying process as preferred Suppliers provided that such negotiation: a) does not allow any preferred Supplier a second or unfair opportunity; b) is not to the detriment of any other Supplier; and c) does not lead to a higher price than the Supplier as submitted. Minutes of any such negotiations shall be kept for record purposes
F.4.3	**General supply chain management conditions applicable to Supplier** In terms of its Supply Chain Management Policy the Employer may not consider a Supplier unless the provider who submitted the Supplier: a) has furnished the Employer with that provider's: • full name; • identification number or company or other registration number; and • tax reference number and VAT registration number, if any; b) has indicated whether: • the provider is in the service of the state, or has been in the service of the state in the previous twelve months; • the provider is not a natural person, whether any of the directors, managers, principal shareholders or stakeholders is in the service of the state, or has been in the service of the state in the previous twelve months; or • whether a spouse, child or parent of the provider or of a director, manager, shareholder or stakeholder referred to above is in the service of the state, or has been in the service of the state in the previous twelve months. Irrespective of the procurement process followed, the Employer is prohibited from making an award to: • a person who is in the service of the state; • a juristic entity of which any director, manager, principal shareholder or stakeholder is in the service of the state; • an advisor or consultant contracted with the Employer; or • a person, advisor or corporate entity involved with the tender specification committee, or a director of such corporate entity. In this regard, Suppliers shall complete Returnable Schedules: Compulsory Enterprise Questionnaire. Failure to complete this schedule will result in the Supplier not being considered further.

F.4.4	**Combating abuse of the Supply Chain Management Policy** In terms of the its Supply Chain Management Policy, the Employer may reject the Supplier of any Supplier if that Supplier or any of its directors has: a) failed, during the last five years, to perform satisfactorily on a previous contract with the Employer or any other organ of state after written notice was given to that Supplier that performance was unsatisfactory; b) abused the supply chain management system of the Employer or has committed any improper conduct in relation to this system; c) been convicted of fraud or corruption during the past five years; d) willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or e) been listed with the Register of Supplier Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004) or has been listed on National Treasury's database as a person or juristic entity prohibited from doing business with the public sector. In this regard, Suppliers shall complete Part T2.2: Returnable Schedules: Certificate of Independent Supplier Determination and Declaration of Supplier's Past Supply Chain Management Practices. Failure to complete these schedules will result in the Supplier not being considered further.
F.4.5	**UIF payments** The Supplier shall submit to the Employer a letter from the Compensation Commissioner indicating his good standing with regard to UIF payments with the Tender submission.
F.4.6	**Claims arising after submission of Supplier** No claim for any extras arising out of any doubt or obscurity as to the true intent and meaning of anything contained in the Conditions of Contract, Scope of Work and Pricing Data, will be admitted by the Employer after the submission of any Tender and the Supplier shall be deemed to have: 1) read and fully understood the whole text of the Contract Data, 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. 2) visited the site of any proposed works. 3) requested the Employer or his duly authorized agent to make clear the actual requirements of anything contained in the Scope of Work and Pricing Data, the exact meaning or interpretation of which is not clearly intelligible to the Supplier. 4) received any Addenda to the Supplier documents which have been issued in accordance with the Employer's Supply Chain Management Policy. Before submission of any Supplier, the Supplier 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 Supplier must apply to the Employer's Agent at once to have the same rectified, as no liability will be admitted by the Employer in respect of errors in any Supplier due to the foregoing.
F.4.7	**Imbalance in Supplier rates** In the event of Supplier rates or lump sums being declared by the Employer to be unacceptable to it because they are either excessively low or high or not in proper balance with other rates or lump sums, the Supplier may be required to produce evidence and advance arguments in support of the Supplier rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the supplied rates or lump sums objected to, it may request the Supplier to amend these rates and lump sums along the lines indicated by it.

	The Supplier will then have the option to alter and/or amend the rates and lump sums objected to and such other related amounts as are agreed on by the Employer, but this shall be done without altering the Supplier offer as Supplied or, if applicable, the corrected total of prices in accordance with F.3.9.3. Should the Supplier fail to amend his tender in a manner acceptable to the Employer, the Employer may reject the Tender.
F.4.8	The Employer shall not formally issue Tender documents in electronic format as contemplated in F.2.13.2 and F.2.13.3 and shall only issue Supplier documents in hardcopy. An electronic version of the issued Tender documents may be made available to the Supplier, upon written request in terms of this clause, subject to the following: (a) Electronic copies of the contract document, or parts thereof, will only be provided to Suppliers who have been issued with the Tender documents as contemplated in F.1.2 in hardcopy. (b) The electronic version shall not be regarded as a substitute for the issued Tender documents. (c) The Employer shall not accept tender submitted in electronic format. Suppliers may not complete and submit a printed copy of the electronic version of the Tender document or part thereof. Only those Suppliers that have been completed on the issued hard copy Tender document shall be considered. (d) The Employer accepts no responsibility or liability arising from any reliance on or use of the electronic version provided in terms of this clause. The Employer further does not guarantee that the electronic version corresponds with the issued Tender documents in all respects. Suppliers are alerted to the fact that electronic versions of the Tender documents may not reflect any notices or addenda that amend the Tender document. (e) Any non-compliance with these provisions, including effecting any unauthorized alterations to the Supplier document as contemplated in F.2.11, shall render the Tender invalid. The Employer reserves the right to take any action against such Supplier allowed in law including, in circumstances where the Supplier had already been awarded, the right to cancel the contract. *(f)* In requesting the electronic version of the Tender document or parts thereof, the Supplier is deemed to have read, understood and accepted all of the above conditions.

VOLUME 2: RETURNABLE DOCUMENTS

T2.1 LIST OF RETURNABLE DOCUMENTS

T2.1: LIST OF RETURNABLE SCHEDULES/DOCUMENTS

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No.	**SCMU3-23/24-0456-HO**

T2.2: RETURNABLE SCHEDULES REQUIRED FOR SUPPLIER EVALUATION PURPOSES

No.	Document Name	Number of pages issued	Returnable Document			
SBD1	Invitation to Bid: Part A and B	4	☒	Yes	☐	No
SBD 4	Declaration of Interest	16	☒	Yes	☐	No
SBD 6.1	Preference Points Claim Form In Terms Of The Preferential Procurement Regulations 2022	14	☒	Yes	☐	No
T2.2r	Compulsory Enterprise Questionnaire	1	☒	Yes	☐	No
T2.1	List of Returnable Schedules/Documents	2	☒	Yes	☐	No
C1.1a	Final Summary Page	1	☒	Yes	☐	No
C2.2	Preliminaries and General & Bill of Quantities	1	☒	Yes	☐	No
T2.2a	Resolution for Signatory	1	☒	Yes	☐	No
T2.2b	Resolution of Board of Directors to Enter into Consortium or Joint Venture (JV) Agreements	1	☒	Yes	☐	No
T2.2c-1	Schedule of Proposed Subcontractors	3	☒	Yes	☐	No
T2.2c-2	Schedule of Proposed Particulars of Mechanical and Electrical Subcontractors	1	☒	Yes	☐	No
T2.2d	Schedule of Plant and Equipment	2	☒	Yes	☐	No
T2.2e	Schedule of Imported Material and Equipment	4	☒	Yes	☐	No
T2.2f	Bank Rating	5	☒	Yes	☐	No
T2.2g	Specific goals claimed (CIPRO certificate)	2	☒	Yes	☐	No
T2.2n	Record of Addenda to Supplier Documents	3	☒	Yes	☐	No

T2.2: OTHER DOCUMENTS REQUIRED FOR SUPPLIER EVALUATION PURPOSES

No.	Document Name	Number of pages issued	Returnable Document	
Annexure A1	Summary Tasks	1	☒ Yes	☐ No
Annexure A2	Critical Path	1	☒ Yes	☐ No
Annexure A3	Timelines	1	☒ Yes	☐ No
Annexure B	Company Experience & Contactable References	1	☒ Yes	☐ No
T2.2g	Specific Goals claimed (Cipro Certificate)	1	☒ Yes	☐ No
T2.2y	Proof of Registration with Centralized Supplier Database	1	☒ Yes	☐ No
T2.2v	CIPC – company registration certificate		☒ Yes	☐ No
T2.2x	References		☒ Yes	☐ No
T2.3	Returnable schedules or documents		☒ Yes	☐ No

(The following list of returnable schedules/documents is duplicated from the tables above however these will not appear in duplicate within the Tender document. The purpose is to bring to the Suppliers' attention the list of returnable documents/schedules that shall be incorporated into the contract)

T2.2: OTHER DOCUMENTS REQUIRED TENDER EVALUATION PURPOSES

No.	Document Name	Number of pages issued	Returnable Document	
T2.2n	Record of Addenda to Supplier Documents	1	☒ Yes	☒ No
T2.2d	Schedule of Key Personnel: Contract Manager	1	☒ Yes	☒ No
T2.2e	Schedule of Key Personnel: Contract Supervisor	1	☒ Yes	☐ No
SBD 6.1	Preference Points Claim Form In Terms Of The Preferential Procurement Regulations 2022	5	☒ Yes	☐ No

T2.2: OTHER DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

C1.1	Form of Offer and Acceptance	4	☒ Yes ☐ No
C1.2	Contract Data	16	☒ Yes ☐ No
C2.2	Preliminaries for inclusion in Bills of Quantities and Lump Sum Documents based on the Supply Contract documentation & Bills of Quantities & Final Summary		☒ Yes ☐ No

T2.2: RETURNABLE SCHEDULES REQUIRED FOR SUPPLIER EVALUATION PURPOSES

T2.2a: RESOLUTION FOR SIGNATORY

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No.	**SCMU3-23/24-0456-HO**

MUST BE ON COMPANY LETTERHEAD

A: CERTIFICATE OF AUTHORITY FOR SIGNATORY

Signatory for companies shall confirm their authority hereto by attaching a duly signed and dated copy of the relevant resolution of the board of directors to this form. This must be on a company letterhead.

An example is given below:

"By resolution of the board of directors passed at a meeting held on _____

Mr/Ms_____, whose signature appears below, has been duly authorised to

sign all documents in connection with the Supplier for Contract No. _____

and any Contract which may arise there from on behalf of (Block Capitals) _____

_____

_____

SIGNED ON BEHALF OF THE COMPANY: _____

IN HIS/HER CAPACITY AS: _____

DATE:_____

SIGNATURE OF SIGNATORY: _____

WITNESSES:

1._____SIGNATURE: _____

2. _____SIGNATURE: _____

T2.2b: RESOLUTION OF BOARD OF DIRECTORS TO ENTER INTO CONSORTIA OR JOINT VENTURES

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No.	**SCMU3-23/24-0456-HO**

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

_____

_____
(Legally correct full name and registration number, if applicable, of the Enterprise)

Held at _____(place)

On _____(date)

RESOLVED that:

1. The Enterprise submit a Bid /Supplier, in consortium/Joint Venture with the following Enterprises:

_____

_____
(List all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium/Joint Venture)

to the Eastern Cape Department of Health in respect of the following project:

_____

_____
(Project description as per Bid /Supplier Document)

Bid Number: _____(Bid Number as per Document)

2. *Mr/Mrs/Ms:

_____

in *his/her Capacity as: _____(Position in the Enterprise)

and who will sign as follows: _____

be, and is hereby, authorised to sign a consortium/joint venture agreement with the parties listed under item 1 above, and any and all other documents and/or correspondence in connection with and relating to the consortium/joint venture, in respect of the project described under item 1 above.

3. The Enterprise accepts joint and several liability with the parties listed under item 1 for the due fulfilment of the obligations of the joint venture deriving from, and in any way connected with, the Contract to be entered into with the Department in respect of the project described under item 1 above.

4. The Enterprise chooses as its domicilium citandi et executandi for all purposes arising from this joint venture agreement and the Contract with the Department in respect of the project under item 1 above:

Physical address: _____

_____

_____ Postal Code _____

Postal Address: _____

_____

_____ Postal Code _____

Telephone number: _____ _____

Fax number: _____ _____

	NAME	CAPACITY	SIGNATURE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			

Note:

1. * Delete which is not applicable

2. NB. This resolution must be signed by all the Directors / Members / Partners of the Bidding Enterprise

3. Should the number of Directors / Members/Partners exceed the space available above, additional names and signatures must be supplied on a separate page

ENTERPRISE STAMP

T2.2c-1: SCHEDULE OF PROPOSED SUBCONTRACTORS

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No.	**SCMU3-23/24-0456-HO**

	We notify you that it is our intention to employ the following subcontractors for work in this contract. If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the names of proposed Subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us.			
	Name and address of proposed Subcontractor	**Nature and extent of work**	**Value of Work**	**Subcontractor CIDB grading**
1.				
2.				
3.				

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

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

Supplier .....

T2.2c-2: SCHEDULE OF GENERATOR PARTICULARS

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No.	**SCMU3-23/24-0456-HO**

We notify you that it is our intention to use the following generator manufacturers in this contract.

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

Should the supplier decides to change the manufacturers, the proposed manufacturer must be agreed with the employer and employer's agent. The tenderer is required to provide technical data sheets for the proposed generators.

	Name of engine manufacturer	**Name of alternator manufacturer**	**Type of controller**	**Generator Size**
1.				
2.				
3.				
4.				
5.				
6.				

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

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

Supplier .....

T2.2d: SCHEDULE OF PLANT AND EQUIPMENT

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

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

(a) Details of major equipment that is owned by and immediately available for this contract.

Quantity	Description, size, capacity etc.

Attach additional pages if more space is required

(b) Details of major equipment that be hired, or acquired for this contract if my/our tender is acceptable.

Quantity	Description, size, capacity etc.

Attach additional pages if more space is required

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

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

Supplier .....

T2.2e: SCHEDULE OF IMPORTED MATERIAL AND EQUIPMENT

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

This schedule should by completed by the tenderer. (Attach additional pages if more space is required)

Item	Material/Equipment	Rand (R) (Excluding VAT)
1		
2		
3		
4		
5		
6		
7		

The Contractor shall list imported items, materials and/or equipment which shall be excluded form the Contract Price Adjustment Provisions (if applicable) and shall be adjusted in terms of currency fluctuations only. Copies of the supplier's quotations for the items, materials or equipment (provided that such cots shall not be higher than the relevant contract rated as listed above) should be lodged with the Principal Agent/ Engineer of the Department of Health withing 60 (sixty days) from the date of acceptance of the tender. No adjustment of the local VAT amount, nor the contractor's profit, discount, markup, handling costs etc. shall be allowed.

These net amounts will be adjusted as follows:

FORMULA:

The net amount to be added to or deducted from the contract sum:

$$A = V\left[\frac{Z}{Y} - 1\right]$$

A = the amount
V = the net amount (supplier's quotation) (R)
Y = exchange rate at the closing date of tender submission
Z = exchange rate on the date of payment

Name of Tenderer	Signature	Date

T2.2f: BANK RATING

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No.	**SCMU3-23/24-0456-HO**

Suppliers must submit a bank rating from a recognized financial institution as required in clause F.2.1.4 of the Tender Data. The bank rating must be attached to this schedule. Failure to comply with the requirements of F.2.1.4 shall results in the Tender not being evaluated further.

Minimum of Grade C bank rating

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

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

Supplier .....

T2.2n: RECORD OF ADDENDA TO SUPPLIER DOCUMENTS

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No.	**SCMU3-23/24-0456-HO**

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

	Date	**Title or Details**
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Attach additional pages if more space is required.

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

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

Supplier .....

*This document must form part of the returnable schedules as it is referenced in the offer portion of the Form of Offer and Acceptance.

T2.2r: COMPULSORY ENTERPRISE QUESTIONNAIRE

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

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: . . . . . .

Section 3: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration number . . . . . .

Close corporation number . . . . . .

Tax reference number . . . . . .

Section 6: Record of service of the state

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

- ☐ a member of any municipal council
- ☐ a member of any provincial legislature
- ☐ a member of the National Assembly or the National Council of Province
- ☐ a member of the board of directors of any municipal entity
- ☐ an official of any municipality or municipal entity
- ☐ an employee of 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 Supplier 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 Supplier offers and have no other relationship with any of the Suppliers or those responsible for compiling the scope of work that could cause or be interpreted as a conflict of interest;
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 .....

* The schedule should be used where Suppliers are subject to the Local Government: Municipal Finance Management Act

T2.2v: CIPC – Company registration certificate

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

SBD 1: INVITATION TO BID – PART A

YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF THE EC DEPARTMENT OF HEALTH					
BID NUMBER:	**SCMU3-23/24-0456-HO**	CLOSING DATE:	**06 October 2023**	CLOSING TIME:	**11:00**
DESCRIPTION	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**				

THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM (SBD7).

BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT *(STREET ADDRESS)*

Tender Box
Department of Health
Global Life Centre
SCM Unit c/o Phalo Avenue and R63 (opposite Engen Garage)
Bhisho

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				
	TCS PIN:		**OR** CSD No:	
SPECIFIC GOALS STATUS LEVEL VERIFICATION CERTIFICATE [TICK APPLICABLE BOX]	☐ Yes ☐ No		SPECIFIC GOALS STATUS LEVEL SWORN AFFIDAVIT	☐ Yes ☐ No
IF YES, WHO WAS THE CERTIFICATE ISSUED BY?				

AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA) AND NAME THE APPLICABLE IN THE TICK BOX	☐	AN ACCOUNTING OFFICER AS CONTEMPLATED IN THE CLOSE CORPORATION ACT (CCA)
	☐	A VERIFICATION AGENCY ACCREDITED BY THE SOUTH AFRICAN ACCREDITATION SYSTEM (SANAS)
	☐	A REGISTERED AUDITOR
		NAME:

[A SPECIFIC GOALS STATUS LEVEL VERIFICATION CERTIFICATE/SWORN AFFIDAVIT(FOR EMEs& QSEs) MUST BE SUBMITTED IN ORDER TO QUALIFY FOR PREFERENCE POINTS FOR SPECIFIC GOALS]

I. ARE YOU THE ACCREDITED REPRESENTATIVE **IN SOUTH AFRICA FOR THE GOODS /SERVICES /WORKS OFFERED?**	☐ Yes ☐ No [IF YES ENCLOSE PROOF]	**II.** ARE YOU A FOREIGN BASED SUPPLIER FOR **THE GOODS /SERVICES /WORKS OFFERED?**	☐ Yes ☐ No [IF YES ANSWER PART B:3 BELOW]
III. SIGNATURE OF BIDDER	……	**IV. DATE**	
V. CAPACITY UNDER WHICH THIS BID IS SIGNED (Attach proof of authority to sign this bid; e.g. resolution of directors, etc.)			
VI. TOTAL NUMBER OF ITEMS OFFERED		**VII. TOTAL BID PRICE (ALL INCLUSIVE)**	

BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:		**TECHNICAL INFORMATION MAY BE DIRECTED TO:**	
DEPARTMENT	**ECDOH**	CONTACT PERSON	**Thabisa Notshe**
CONTACT PERSON	**Ms Thabisa Notshe**	TELEPHONE NUMBER	040 608 9641
TELEPHONE NUMBER	**040-608 9641**	FACSIMILE NUMBER	
FACSIMILE NUMBER		E-MAIL ADDRESS	**thabisa.notshe@echealth.gov.za**
E-MAIL ADDRESS	**thabisa.notshe@echealth.gov.za**		

PART B
TERMS AND CONDITIONS FOR BIDDING

1. BID SUBMISSION:

1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.

1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR ONLINE

1.3. SUPPLIERS MUST REGISTER ON THE CENTRAL SUPPLIER DATABASE (CSD) TO UPLOAD MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS; AND BANKING INFORMATION FOR VERIFICATION PURPOSES). SPECIFIC GOALS CERTIFICATE OR SWORN AFFIDAVIT FOR SPECIFIC GOALS MUST BE SUBMITTED TO BIDDING INSTITUTION.

1.4. WHERE A BIDDER IS NOT REGISTERED ON THE CSD, MANDATORY INFORMATION NAMELY: (BUSINESS REGISTRATION/ DIRECTORSHIP/ MEMBERSHIP/IDENTITY NUMBERS; TAX COMPLIANCE STATUS MAY NOT BE SUBMITTED WITH THE BID DOCUMENTATION. SPECIFIC GOALS CERTIFICATE OR SWORN AFFIDAVIT FOR SPECIFIC GOALS MUST BE SUBMITTED TO BIDDING INSTITUTION.

1.5. 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 LEGISLATION OR SPECIAL CONDITIONS OF CONTRACT.

2. TAX COMPLIANCE REQUIREMENTS

2.1 SUPPLIERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.

2.2 SUPPLIERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VIEW THE TAXPAYER'S PROFILE AND TAX STATUS.

2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) OR PIN MAY ALSO BE MADE VIA E-FILING. IN ORDER TO USE THIS PROVISION, TAXPAYERS WILL NEED TO REGISTER WITH SARS AS E-FILERS THROUGH THE WEBSITE WWW.SARS.GOV.ZA.

2.4 SUPPLIERS MAY ALSO SUBMIT A PRINTED TCS TOGETHER WITH THE BID.

2.5 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-SUPPLIERS ARE INVOLVED, EACH PARTY MUST SUBMIT A SEPARATE PROOF OF TCS / PIN / CSD NUMBER.

2.6 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.

3. QUESTIONNAIRE TO BIDDING FOREIGN SUPPLIERS

3.1. IS THE BIDDER A RESIDENT OF THE REPUBLIC OF SOUTH AFRICA (RSA)? ☐ YES ☐ NO

3.2. DOES THE BIDDER HAVE A BRANCH IN THE RSA? ☐ YES ☐ NO

3.3. DOES THE BIDDER HAVE A PERMANENT ESTABLISHMENT IN THE RSA? ☐ YES ☐ NO

3.4. DOES THE BIDDER HAVE ANY SOURCE OF INCOME IN THE RSA? ☐ YES ☐ NO

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

SBD 4: DECLARATION OF INTEREST

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

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 interest1 in the enterprise?

Employed by the state? **YES/NO**

2.1.1 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

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 consortium2 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,

---

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 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.

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.

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 6.1

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

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

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

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1. GENERAL CONDITIONS

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

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

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

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	80
SPECIFIC GOALS	20
Total points for Price and SPECIFIC GOALS	100

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

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

2. DEFINITIONS

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

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

(c) **"rand value"** means the total estimated value of a contract in Rand, calculated at the time of bid invitation,

and includes all applicable taxes;

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

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

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

3.1.1 THE 80/20 PREFERENCE POINT SYSTEMS

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

80/20

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

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

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 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 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 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 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 80/20 preference point system is applicable, corresponding points must also be indicated as such.

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

The specific goals allocated points in terms of this tender	**Number of points allocated (80/20 system) (To be completed by the organ of state)**	**Number of points claimed (80/20 system) (To be completed by the tenderer)**
Historically Disadvantaged Individuals Ownership	20% (4)	
Women Ownership	20% (4)	
Youth Ownership	20% (4)	
Disability Ownership	20% (4)	
Military Veterans Ownership	10% (2)	
Locality Ownership	10% (2)	
TOTAL	100% (20)	

a) *Service providers must submit proof of its Specific Goals points claimed / status of contributor.*

b) *The Specific Goals supporting documents required to verify claimed points may inline with the specified requirements include:*

- *Historically Disadvantaged Individuals Ownership: Proof of ownership (CIPRO certificate) with id no.*
- *Women Ownership: Ownership: Proof of ownership (CIPRO certificate) with id no.*
- *Youth Ownership: Ownership: Proof of ownership (CIPRO certificate) with id no.*
- *Disability Ownership: Proof of ownership (CIPRO certificate) with valid medical documentary proof.*
- *Military Veterans Ownership: Proof of ownership (CIPRO certificate) with valid proof of veteran status.*
- *Locality Ownership: Proof of business address (municipal account or valid lease agreement)*
- *Updated CSD report*

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 BIDDER(S)

SURNAME AND NAME: .....
DATE: .....

ADDRESS: .....

.....

.....

.....

T2.2: OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

□ □

T2.2g: SPECIFIC GOALS CLAIMED (CIPRO CERTIFICATE)

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Suppliers must attach CIPRO CERTIFICATE

T2.2y: Proof of Registration with Centralized Supplier Database

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Annexure A1: Summary Task

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Suppliers are required to submit a summary task

Annexure A2: Critical Path

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Suppliers are required to submit a critical path

Annexure A3: Timelines

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Suppliers are required to submit timelines.

Annexure B1: Key Personnel Qualification (Construction manager)

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Suppliers are required to submit proof of Construction manager's experience. Minimum requirements:

Construction Manager Mechanical/Electrical Engineering, Construction Project Management	Electrical / Mechanical Engineering Degree with Registration as per Act 43 of 2000 (Candidate Registration will not be accepted) **OR**	**Annexure B1 as per returnable list** Attached certified copies of qualification
	Electrical / Mechanical Engineering Degree with no Registration as per Act 43 of 2000 **OR**	**Annexure B1 as per returnable list** Attached certified copies of qualification
	Electrical / Mechanical Engineering Diploma with Registration as per Act 43 of 2000 (Candidate Registration will not be accepted) **OR**	**Annexure B1 as per returnable list** Attached certified copies of qualification
	Electrical / Mechanical Engineering Diploma with no Registration as per Act 43 of 2000 **OR**	**Annexure B1 as per returnable list** Attached certified copies of qualification
	Trade certificate (Issued by the Department of Labour)	**With copies**

Annexure B2: Key Personnel Qualification (Construction supervisor)

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Suppliers are required to submit proof of Construction supervisor's experience. Minimum requirements:

Construction Supervisor Mech./Elect. Engineering, Construction Project Management	Electrical or Mechanical Engineering Diploma **WITH** minimum one year post qualification experience on GENERATOR Equipment **OR**	**Annexure B2 as per returnable list** Attached certified copies of qualification
	Trade certificate (Issued by the Department of Labour), or higher qualification **WITH** minimum one year post qualification experience **on GENERATOR Equipment**	**Annexure B2 as per returnable list** Attached certified copies of qualification

Annexure B3: Key Personnel Qualification (OHS Safety officer)

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Suppliers are required to submit proof of OHS safety officer's experience.

Annexure B4: Key Personnel Qualification (Skilled installation Staff)

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Suppliers are required to submit proof of Skilled installation staff experience.

Skilled Maintenance Staff Competent Mechanic or electrician	Electrical or Mechanical Engineering qualification of NQF5 or greater (Higher Certificate N6 / Diploma or Degree) **WITH** Certification from Department of Labour as Competent mechanic or electrician with minimum one year post qualification experience **on GENERATOR Equipment.** **OR**	**Annexure B4 as per returnable list** Attached certified copies of qualification
	Trade certificate (Issued by the Department of Labour), or higher qualification **WITH** minimum one year post qualification experience **on GENERATOR Equipment**	**Annexure B4 as per returnable list** Attached certified copies of qualification

Annexure B5: Proof of Business address

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Suppliers are required to submit proof of business address (municipal account or valid lease agreement.

Reference No. 1

T2.2x: References

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Sir/Madam,

We are in the process of evaluating _____for the above project.

They have listed you as a reference. Please evaluate the Suppliers performance on the criteria listed below by ticking the appropriate boxes. Please return upon completion as soon as possible. If you have any questions please do not hesitate to contact us.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

1. **QUALITY**

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

2. **TIME PERFORMANCE**

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

3. **FINANCIAL PERFORMANCE**

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

4. **COMMENTS:**

_____

_____

Project Manager/Principal Agent: _____

Tel. No: _____

E-mail Address: _____

Signature: _____Date: _____

Place Company Stamp Here

Reference No. 2

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Sir/Madam,

We are in the process of evaluating _____for the above project.

They have listed you as a reference. Please evaluate the Suppliers performance on the criteria listed below by ticking the appropriate boxes. Please return upon completion as soon as possible. If you have any questions please do not hesitate to contact us.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

1. **QUALITY**

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

2. **TIME PERFORMANCE**

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

3. **FINANCIAL PERFORMANCE**

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

4. **COMMENTS:**

_____

_____

Project Manager/Principal Agent: _____

Tel. No: _____

E-mail Address: _____

Signature: _____Date: _____

Place Company Stamp Here

Reference No. 2

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Sir/Madam,

We are in the process of evaluating the above project.

They have listed you as a reference. Please evaluate the Suppliers performance on the criteria listed below by ticking the appropriate boxes. Please return upon completion as soon as possible. If you have any questions please do not hesitate to contact us.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

1. **QUALITY**

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

2. **TIME PERFORMANCE**

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

3. **FINANCIAL PERFORMANCE**

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

4. **COMMENTS:**

_____

_____

Project Manager/Principal Agent: _____

Tel. No: _____

E-mail Address: _____

Signature: _____Date: _____

Place Company Stamp Here

Reference No. 2

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

Sir/Madam,

We are in the process of evaluating the above project.

They have listed you as a reference. Please evaluate the Suppliers performance on the criteria listed below by ticking the appropriate boxes. Please return upon completion as soon as possible. If you have any questions please do not hesitate to contact us.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK

1. **QUALITY**

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

2. **TIME PERFORMANCE**

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

3. **FINANCIAL PERFORMANCE**

EXCELLENT	VERY GOOD	GOOD	FAIR	POOR
5	4	3	2	1

4. **COMMENTS:**

_____

_____

Project Manager/Principal Agent: _____

Tel. No: _____

E-mail Address: _____

Signature: _____Date: _____

Place Company Stamp Here

VOLUME 3: CONTRACT

PART C1: AGREEMENT AND CONTRACT DATA

C1.1 FORM OF OFFER AND ACCEPTANCE

OFFER

The Employer, identified in the acceptance signature block, has solicited offers to enter into a Contract for the procurement of:

CONTRACT NUMBER: SCMU3-23/24-0456-HO
CONTRACT NAME: SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS

The Tenderer, identified in the offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the tender schedules, and by submitting this offer has accepted the conditions of tender.

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

The offered total of the prices inclusive of Value-Added Tax is:

……

……

…….. Rand (in words)

R…….. (in figures)

This offer may be accepted by the Employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the Tenderer before the end of the period of validity stated in the Tender Data, whereupon the Tenderer becomes the party named as the Contractor in terms of the Conditions of Contract identified in the Contract data.

For and on behalf of the Tenderer:

Name ……

Capacity ……

Signature …… Date: ……...

Name and address of tenderer:

……

……

……

Witness Name ……

Witness Signature …… Date: ……...

ACCEPTANCE

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

The terms of the Contract are contained in:

Part C1: Agreements and Contract data (which includes this agreement)
Part C2: Pricing data
Part C3: Scope of work
Part C4: Site Information and drawings and documents or parts thereof, which may be incorporated by reference into the above listed Parts.

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

The Tenderer shall, within two weeks after receiving a completed copy of this agreement including the schedule of deviation (if any), contact the Employer's Agent (whose details are given in the Contract data) to arrange the delivery of any securities, bonds, guarantees, proof 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 (5) working days of the date of such receipt, notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding Contract between the parties.

For and on behalf of the Employer:

Name ……

Capacity ……

Signature …… Date: ……..

Name and address of employer:

……

……

……

Witness Name ……

Witness Signature …… Date: ……..

SCHEDULE OF DEVIATIONS

Notes:

- 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.
- 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 be the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.
- 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.
- 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 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, be the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.

Subject .....
Details .....
.....
Subject .....
Details .....
.....
Subject .....
Details .....
.....
Subject .....
Details .....
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Subject .....
Details .....
.....
Subject .....
Details .....
.....

By the duly authorized representatives signing this schedule of deviations, the Employer and the Tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the returnable 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 in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the Contract between the parties arising from this agreement.

C1.2a CONTRACT DATA (PART 1)

The General Conditions of Contract for Construction Works, Third Edition, (2015) published by the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House, 1685, are applicable to this Contract and are obtainable from www.saice.org.za. Copies of these Conditions of Contract may be obtained at the Tenderer's own cost from the SAICE (Tel: 011-805 5947).

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

Clause	Description
1.1.1.5	The Commencement Date shall be the date on which the Contractor receives a copy of the signed Form of Offer and Acceptance and schedule of deviations if applicable.
1.1.1.13	The Defects Liability Period is 12 Months, measured from the date of the Certificate of Completion.
1.1.1.14	The time for achieving Practical Completion is 6 calendar months, inclusive of the 28 day period referred to in Clause 5.3.2 below, and inclusive of non-working days referred to in Clause 5.8.1 below, but exclusive of special non-working days (Clause 5.8.1). The operation and maintenance section of the works will commence at practical completion and will run continuously for a period of 6 months where after the Works have been handed over to the end user.
1.1.1.15	The Employer is PROVINCE OF THE EASTERN CAPE DEPARTMENT OF HEALTH
1.1.1.16	The Employer's Agent is Lukhozi Consortium represented by an employee duly authorised to do so. Add the following to the clause: Any reference to the term "Engineer" in this Contract shall mean "Employer's Agent" and vice versa.
1.1.1.17	Add the following to the clause: Any reference to the term "Engineer's Representative" in this Contract shall mean "Employer's Agent's Representative" and vice versa.
1.1.1.26 1.1.1.27	The pricing strategy is Re-measurement Contract.
1.2.1	Add the following to the clause: 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.
1.2.1.2	The address and telephone number of the Employer is: Department of Health Eastern Cape Department of Health Global Life Centre c/o R63 and Phalo Avenue Bhisho Contact Person: Mr Lamkelo Mdingi Email: LAMKELO.MDINGI@ECHEALTH.GOV.ZA Tel:
1.2.1.2	The address and telephone number of the Employer's Agent is: LUKHOZI CONSORTIUM KWA-LUKHOZI

Clause	Description
	THE QUARRY QUARTZITE DRIVE, SELBOURNE EAST LONDON 5201 Contact Person: Mr Bruce Maliti Email: b.maliti@lukhozi.co.za Tel: 043 721 1321
2.4.1	The following additional clause applies: - In the event of any discrepancy or conflict between any parts of the Contract Documents, the order of precedence shall be as follows: 1.Project Particular Specifications 2.Special Conditions of Contract 3.General Conditions of Contract 4.Conditions of Tender 5.Generic Specifications 6.Contract Drawings 7.Bill of Quantities
3.2.3	The Engineer is, in terms of his appointment by the Employer for the design and administration of the Works included in the Contract, required to obtain the specific approval of the Employer for the execution of the following duties: 3.2.3.1 The issuing of an order to suspend the progress of the Works, the extra cost resulting from which order is to be borne by the Employer in terms of Clause 5.11 or the effect of which is liable to give rise to a claim by the Contractor for an extension of time under Clause 10.1 of these conditions. 3.2.3.2 The issuing of an instruction or order to vary the nature or quantity of the Works in terms of Clause 6.3, the estimated effect of which will be to increase the Contract Price by an amount exceeding R50 000, the valuation of all variation orders in terms of Clause 6.4 and the adjustment of the sum(s) tendered for General Items in terms of Clause 6.11. *3.2.3.3 The approval of any claim submitted by the Contractor in terms of Clause 10.1.*
3.2.4	Add the following to the clause: The Contractor shall prepare a Health and Safety Plan in accordance with the Site Specific Health and Safety Specification and submit such to the appointed HSA for legal compliance assessment and verification / approval prior to any works commencing.
3.2.5	Add the following additional sub-clause: The Employer's Agent shall have the authority to suspend, without any additional cost, portions of the Works if there are any acceptance test results outstanding (including level control), as required in terms of the relevant standardised or project specific specifications.
3.2.6	The following additional clause applies:- The Employer or the Employer's Agent under delegated authority, reserves the right to obtain the services of consultants on any matter pertaining to this contract; the employment of such consultants forms no part of this contract; a consultant's advice and/or documentation is to be followed only if the Employer's Agent or the Employer's Agent Representative so instructs
4.3.1	Add the following to the clause: The Contractor shall comply with the: Basic Conditions of Employment Act, Act No 75 of 1997;

Clause	Description
	National Environmental Management Act, Act 107 of 1998; The Basic Conditions of Employment Act, Act No 75 of 1997; Occupational Health and Safety Act, Act No 85 of 1993; Construction Regulations 2014; Health and Safety Specification prepared by the Employer in terms of the Construction Regulations 2014; Environmental Management Programme; and Any and all other relevant applicable laws, regulations, statutory provisions and agreements.
5.3.1	The documentation required before Commencement of the Works are: Health and Safety Plan (Refer to clause 4.3) Environmental Management Plan Initial Programme (Refer to clause 5.6) Security (Refer to clause 6.2) Insurance (Refer to clause 8.6) CV of Contracts Manager (Refer to clause 4.12) CV of Construction Manager/ Site Agent (Refer to clause 4.12) CV of Occupation Health and Safety Officer (SACPMP) (Refer to clause 4.12) Letter of Good Standing with the Electrical/Mechanical Engineering Bargaining Council
5.3.2	The Contractor is required, within 28 days of the Commencement Date, to submit the documents listed in Contract Data clause 5.3.1 to the Employer's Agent for his approval.
5.4.2	Access to and possession of the Site shall not be exclusive to the Contractor, but as set out in section C3.4. Site Usage. The Contractor shall bear all costs and charges for special and temporary rights of way required by him in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required by him for the purposes of the Works.
5.7.3	Add the following to the clause: 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.
5.1.1 5.8.1	The non-working days are Sundays. The special non-working days are: All gazetted public holidays falling outside the year end break; and The yearend break commencing and ending on dates published by SAFCEC.
5.8.1.5	Add the following new sub-clause: The cost of supervision by the Employer's Agent or his representatives outside of normal working hours (Monday to Friday) shall be to the Contractor's account. A minimum of 48 hours notification of intent to work outside normal working hours shall be regarded as sufficient notice as set out in 5.8.1.
5.12.2.2	Add the following to the clause: Abnormal Rainfall The extension of time to be granted for abnormal rainfall shall be calculated by the formula: $V = (N_w – N_n) + \frac{R_w - R_n}{20}$

<table>
<tr><th>Clause</th><th>Description</th></tr>
<tr><td></td><td>
Where:
V = Extension of Time in calendar days in respect of the calendar month under consideration
Nw= Actual number of days during the calendar month under consideration on which a rainfall of 10 mm and more has been recorded
Rw= Actual total rainfall in mm recorded during the calendar month under consideration
Nn= Average number of days, derived from rainfall records, on which rainfall of 10 mm and more has been recorded during the relevant calendar month as per the data tabulated hereinafter
Rn= Average total rainfall in mm for the relevant calendar month, derived from rainfall records, as tabulated hereinafter

Where the extension of time due to abnormal rainfall has to be calculated for portion of a calendar month, pro rata values shall be used. Should V be negative for any particular month and should its absolute value exceed the corresponding value of N_n then V shall be taken as being equal to minus N_n. The total extension of time to be granted shall be the algebraic sum of all the monthly extensions provided that if this total is negative then the extension of time to be granted for abnormal rainfall shall be taken as zero. The rainfall records applicable in respect of this Contract are those recorded at the Weather Station nearest to the site and shall be used for calculating the extension of the Time for Completion on account of abnormal rainfall.
<table>
<tr><th>MONTH</th><th>N_n</th><th>R_n</th></tr>
<tr><td>January</td><td>0.2</td><td>9.9</td></tr>
<tr><td>February</td><td>0.3</td><td>12.9</td></tr>
<tr><td>March</td><td>0.6</td><td>17.1</td></tr>
<tr><td>April</td><td>1.5</td><td>45.8</td></tr>
<tr><td>May</td><td>2.9</td><td>74.6</td></tr>
<tr><td>June</td><td>3.4</td><td>94.5</td></tr>
<tr><td>July</td><td>3.1</td><td>92.0</td></tr>
<tr><td>August</td><td>2.5</td><td>73.2</td></tr>
<tr><td>September</td><td>1.4</td><td>46.7</td></tr>
<tr><td>October</td><td>0.8</td><td>31.6</td></tr>
<tr><td>November</td><td>0.6</td><td>21.5</td></tr>
<tr><td>December</td><td>0.3</td><td>15.5</td></tr>
<tr><td>TOTAL</td><td>17.6</td><td>535.3</td></tr>
</table>
</td></tr>
<tr><td>5.13.1</td><td>The penalty for failing to complete the whole of the Works is R 5000 per calendar day.</td></tr>
<tr><td>5.14.1</td><td>The requirements for Practical Completion are:

The generator will be connected in fully functional as per specification.</td></tr>
<tr><td>5.16.3</td><td>The latent defect period is 10 years for the generators.

The latent defects period shall commence on the date of the Final Approval Certificate.</td></tr>
<tr><td>6.2</td><td>Delete clauses 6.2.1 to 6.2.3 and replace with the following:

6.2.1 The security to be provided by the contractor shall be a Fixed Performance Guarantee of 10% of the Contract Sum plus retention of 10% of the value of the Works, subject to a 5 % limit of retention as stated in 6.10.3.

The Fixed Performance Guarantee shall be from an Insurance Company or Financial Institution that is registered with the Financial Services Board in terms of the Financial Intelligence Centre Act.

The Fixed Performance Guarantee shall be jointly and severally bound with the Contractor, in accordance with the provisions of the Form of Guarantee. Any other form of security including a Retention Money Guarantee is not permitted.</td></tr>
</table>

Clause	Description
	6.2.2 The Fixed Performance Guarantee shall be submitted within the time period stated in clause 5.3.2 and shall be provided strictly in accordance with the Pro Forma contained in C1.3. 6.2.3 The Contractor shall ensure that the fixed performance guarantee remains valid and enforceable until the issue of the Certificate of Completion.
6.8.1	Should the rated tendered be unrealistically high or low, the Employer's Agent may instruct the contractor to balance the rates while the contract sum will stay firm, before commencement of construction. The revised balanced rates will be final and binding. And the value of the payment certificates is to be calculated in accordance with the revised rates and/or prices of the tender throughout the period of the Contract
6.8.2	Contract Price Adjustment is not applicable to this contract.
6.10.1.5	The percentage advance on plant and materials not yet built into the Permanent Works is 80 %.
6.10.3	The percentage retention shall be 10 % of payments due, up to the "Limit of retention money" which shall be 5 % of the Contract Sum.
8.6.1.1.2	Not required.
8.6.1.1.3	The amount to cover professional fees for repairing damage and loss to be included in the insurance sum is 5% (five percent) of the value of the damage and/or loss.
8.6.1.3	The limit of indemnity for liability insurance is R 20 000 000 (In words Twenty Million Rand).
8.6.1.4	Ground support insurance is required.
9.2.1	Delete "or" at the end of Clause 9.2.1.3.7 and add the following three Clauses after Clause 9.2.1.3.8: 9.2.1.3.9 Has failed to provide the required insurances or fixed performance guarantee within the prescribed time; 9.2.1.3.10 Has committed a corrupt or fraudulent act during the tender process or the execution of the Contract; or 9.2.1.3.11 Has benefitted from an official or other role player committing any corrupt or fraudulent act during the tender process or in the execution of the Contract.
10.5.1	Dispute resolution shall be by ad-hoc adjudication.
10.5.3	The number of Adjudication Board Members to be appointed is one (1).
10.7.1	The determination of disputes which are unresolved in terms of Clause 10.5.3 shall be by arbitration.

C1.2b CONTRACT DATA (PART 2)

Clause	Description		
1.1.1.9	The name of the Contractor is: …… ……		
1.2.1.2	The address of the Contractor is: …… …… …… …… …… ……		
6.5.1.2.3	The percentage allowance to cover overhead charges is 10%.		
6.8.3	The Contractor is to list below any special materials on which any increase or decrease in price must be considered separately from the Contract Price Adjustment formula:		
	Type of Material	**Unit**	**Rate or Price**

C1.3: PERFORMANCE GUARANTEE (PRO FORMA)

GUARANTOR DETAILS AND DEFINITIONS

"Guarantor" means: .....

Physical Address: .....

"Employer" means: .....

"Service Provider" means: .....

"Engineer" means: .....

"Works" means: .....

"Site" means: .....

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

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

Amount in words: .....

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

Amount in words: .....

Type of Performance Guarantee: Fixed

"Expiry Date" means: Last day of the contract

CONTRACT DETAILS

Employer's Agent: Interim Payment Certificates, Final Payment Certificate and the Certificate of Completion of the Works as defined in the Contract.

1. FIXED PERFORMANCE GUARANTEE

1.1 Where a fixed Performance Guarantee has been selected. The Guarantor's liability shall be limited to the amount of the Guarantee Sum.

1.2 The Guarantor's period of liability shall be from and including the date on which the Performance Guarantee is signed, up to and including the Expiry Date, or the date of issue by the Employer's Agent of the Certificate of Completion of the Works, or the date of payment in full of the Guaranteed Sum, whichever occurs first.

1.3 The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.

2. CONDITIONS APPLICABLE TO FIXED PERFORMANCES GUARANTEES

2.1 The Guarantor hereby acknowledges that:

2.1.1. Any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be constructed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship.

2.1.2. Its obligation under this Performance Guarantee is restricted to the payment of money.

2.2. Subject to the Guarantor's maximum liability referred to in 1.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 2.2.1 to 2.2.3:

2.2.1. A copy of a first written demand issued by the Employer to the Service Provider stating that payment of a sum certified by the Employer's Agent in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 2.2.2;

2.2.2. A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Service Provider stating that a period of seven (7) days has elapsed since the first written demand in terms of 2.2.1 and the sum certified has still not been paid;

2.2.3. A copy of the aforesaid payment which entitles the Employer to receive payment in terms of the Contract of the sum certified in 2.2.

2.3. Subject to the Guarantor's maximum liability referred to in 1.1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:

2.3.1. The Contract has been terminated due to the Service Provider's default and that this Performance Guarantee is called up in terms of 2.3; or

2.3.2. A provisional or final sequestration or liquidation court order has been granted against the Service Provider and that the Performance Guarantee is called up in terms of 2.3; and

2.3.3. The aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provision liquidation court order.

2.3.4. It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 2.2 and 2.3 shall not exceed the Guarantor's maximum liability in terms of 1.1.

2.3.5. Where the Guarantor has made payment in terms of 2.3, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of the Performance Guarantee shall bear interest at the prime overdraft rate by the Employer's Bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.

2.3.6. Payment by the Guarantor in terms of 2.2 or 2.3 shall only be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.

2.3.7. Payment by the Guarantor in terms of 2.3 will only be made against the return of the original Performance Guarantee by the Employer.

2.4. The Employer shall have the absolute right to arrange his affairs with the service provider in any manner which the Employer may consider fit and the Guarantor shall not have right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.

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

2.6. This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 1.2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.

2.7. This Performance Guarantee, with the required demand notices in terms of 2.2 or 2.3, shall be regarded as a liquid document for the purposes of obtaining a court order.

2.8. Where the Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act of section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the magistrate's Court.

Signed at

.....

..... Date .....

Guarantor's signatory (1)
.....

Capacity
.....

Guarantor's signatory (2)
.....

Capacity
.....

Witness signatory (1)
.....

Witness signatory (2)
.....

C1.4 CONFIRMATION OF RECEIPT OF CONTRACT (PRO FORMA)

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) on:

The …… (day) of …… (month) …… (year)

At ……... (place)

It is hereby agreed that the official commencement date of the Contract will be:

The …… (day) of …… (month) …… (year)

For and on behalf of the Contractor:

Name ……

Capacity ……

Signature …… Date: ……...

Witness Name ……

Witness Signature …… Date:……...

DEPARTMENT OF HEALTH

CONTRACT NO. SCMU3-23/24-0456-HO

SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS

C2.2 Schedules of Quantities

CONTENTS **PAGES**

ECDOH GENERAL MECHANICAL AND ELECTRICAL REPAIR CONTRACT

FACILITY: **ALL SAINTS HOSPITAL**
CONTRACT REF. NO: **SCMU3-23/24-0456-HO** **Cluster/District:** 2
ASSET TYPE: **PRIME GENERATORS**

SCHEDULE 1 : **PRELIMINARY & GENERAL**

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.1	**GM 2.8**	**LABOUR RATES APPLICABLE TO UNSCHEDULED WORK:** Labour rates that Contractor will charge for additional adhoc work that is not contained in Schedules 1 to 3.				
1,1,1		Technician	R/hr	Rate Only		
1,1,2		Senior Artisan (Trade Tested & Additional Certification)	R/hr	Rate Only		
1,1,3		Artisan (Trade Tested)	R/hr	Rate Only		
1,1,4		Utility Man (Non-Trade Tested)	R/hr	Rate Only		
1,1,5		Artisan Aid	R/hr	Rate Only		
1,1,6		General Worker	R/hr	Rate Only		
1.2	**GM 2.8**	**TRAVELLING :** Travelling cost will be as per the rates for reimbursable expenses published monthly by the National Department of Public Works at the time of rendering the service/repair.	R/km			
1.3	**GM 2.8**	**ACCOMMODATION AND SUBSISTENCE :** Daily Rates per person that the Contractor will claim for trips lasting more than one day at a time.				
1,3,1		Accommodation	Rand	Rate Only		
1,3,2		Subsistence	Rand	Rate Only		
1.4	**GM 2.8**	**MARK-UP ON MATERIALS AND SERVICES THAT IS NOT INCLUDED IN PRICE LISTS :** Mark-up on proven cost for materials and/or services that is already contained in the approved price lists.	%	Rate Only		
1.5		**CONTRACTUAL MATTERS**				
1,5,1		Provision of sureties	Sum	1		
1,5,2		Insurances	Sum	1		
1,5,3		Site Establishment	Sum	1		
1,5,4		Project Supervision and administration	Sum	1		
1,5,5		Health and Safety as per Detailed in the C3.6 Health and Safety Specification	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ECDOH GENERAL MECHANICAL AND ELECTRICAL REPAIR CONTRACT

FACILITY: **ALL SAINTS HOSPITAL**
CONTRACT REF. NO: **SCMU3-23/24-0456-HO** **Cluster/District:** 2
ASSET TYPE: **PRIME GENERATORS**

SCHEDULE 1 : **REPLACEMENT OF STANDBY GENERATOR**

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.6	**GM 2.5**	**PROVISION FOR REPLACEMENT OF EQUIPMENT :** Lump sum provision to replace existing asset with a new one including supply, delivery, installation and commissioning				
		200kVA Prime Generator (Outdoor Unit)				
1,6,1		Supply, delivery, off loading, installation, testing, commissioning and handing over in first class working order of a complete 200kVA output Prime diesel generator set, control panel, changeover, soundproof canopy and all ancillary equipment necessary as per detail specification	No	1		
1,6,2		Allow for the removal and disposal of existing 200kVA standby indoor diesel generator including ancillary equipment to make space for the new unit in item 1.1.1 above	No	1		
		48 Hour External Diesel tank				
1,6,3		Supply, delivery, off loading, installation, testing, commissioning and handing over of 3000L Self-bunded Standby Diesel Tank including piping to the generator	Sum	1		
1,6,4		Remove and dispose the existing elevated 2200L Fuel Tank	Sum	1		
1,6,5		Filling up 3000L diesel tank with approved diesel	Litres	3000		
		Electrical Connections				
		Allow for connection of electrical cables including minor service of electrical equipment				
1,6,6		Supply and install, 300A, TP, 15kA, moulded case circuit breaker	No	2		
1,6,7		Supply, install and terminate, 95mm^2 x 4c PVC/ECC/PVC copper cable.	m	200		
1,6,8		Supply and install, 450mm wide Heavy Duty Cable Tray mounted on surface	m	50		
1,6,9		Excavation of 600mm deep trench on paved area, including repairs to paving	m	40		
		Other Connections				
1,6,10		Allow for connection of existing diesel tank, pumps onto new unit	Sum	1		
		Sundry Items				
1,6,11		Provide formal training and course materials for the clients personnel in the operation and maintenance of the complete system	Sum	1		
1,6,12		Provide 1 original, 3 copies of the operation and Maintenance Manuals of all the Equipment Installed for the Complete Generator Installation	No.	3		
1,6,13		Testing and commissioning of the whole installation	Sum	1		
1,6,14		Plinth for the generator and external diesel tank. 25MPA, 200mm Think Reinforced Concrete constructed on 150mm think G7 material, Ripped and Compacted in situ material	Sum	2		
1,6,15		Mandatory signage as specified	Sum	1		
1,6,16		High Security Fence with 2m wide Double Swing Gate as described in the attached specs (8,6m x 5m fencing)	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

CONTRACT REF. NO: **SCMU3-23/24-0456-HO** **Cluster/District: 2**
ASSET TYPE: **PRIME GENERATORS**

SUMMARY OF COSTS

SCHEDULE NUMBER	DESCRIPTION	TOTAL
1	PRELIMINARY & GENERAL	
2	REPLACEMENT OF STANDBY GENERATOR	

A	**TOTAT CARRIED FORWARD TO FINAL PRICE SUMMARY**	

ECDOH GENERAL MECHANICAL AND ELECTRICAL REPAIR CONTRACT

FACILITY: **FRONTIER HOSPITAL**
CONTRACT REF. NO: **SCMU3-22/23-0456-HO** **Cluster/District:** 2
ASSET TYPE: **PRIME GENERATORS**

SCHEDULE 2 : **PRELIMINARY & GENERAL**

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.1	**GM 2.8**	**LABOUR RATES APPLICABLE TO UNSCHEDULED WORK:** Labour rates that Contractor will charge for additional adhoc work that is not contained in Schedules 1 to 3.				
2,1,1		Technician	R/hr	Rate Only		
2,1,2		Senior Artisan (Trade Tested & Additional Certification)	R/hr	Rate Only		
2,1,3		Artisan (Trade Tested)	R/hr	Rate Only		
2,1,4		Utility Man (Non-Trade Tested)	R/hr	Rate Only		
2,1,5		Artisan Aid	R/hr	Rate Only		
2,1,6		General Worker	R/hr	Rate Only		
2.2	**GM 2.8**	**TRAVELLING :** Travelling cost will be as per the rates for reimbursable expenses published monthly by the National Department of Public Works at the time of rendering the service/repair.	R/km			
2.3	**GM 2.8**	**ACCOMMODATION AND SUBSISTENCE :** Daily Rates per person that the Contractor will claim for trips lasting more than one day at a time.				
2,3,1		Accommodation	Rand	Rate Only		
2,3,2		Subsistence	Rand	Rate Only		
2.4	**GM 2.8**	**MARK-UP ON MATERIALS AND SERVICES THAT IS NOT INCLUDED IN PRICE LISTS :** Mark-up on proven cost for materials and/or services that is already contained in the approved price lists.	%	Rate Only		
2.5		**CONTRACTUAL MATTERS**				
2,5,1		Provision of sureties	Sum	1		
2,5,2		Insurances	Sum	1		
2,5,3		Site Establishment	Sum	1		
2,5,4		Project Supervision and administration	Sum	1		
2,5,5		Health and Safety	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ECDOH GENERAL MECHANICAL AND ELECTRICAL REPAIR CONTRACT
FACILITY: FRONTIER HOSPITAL
CONTRACT REF. NO SCMU3-22/23-0456-HO **Cluster/District:** 2
ASSET TYPE: PRIME GENERATORS

SCHEDULE 2 : REPLACEMENT OF STANDBY GENERATOR

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
2.6	**GM 2.5**	**PROVISION FOR REPLACEMENT OF EQUIPMENT :** Lump sum provision to replace existing asset with a new one including supply, delivery, installation and commissioning				
		400kVA Prime Generator (Indoor Unit)				
2,6,1		Supply, delivery, off loading, installation, testing, commissioning and handing over in first class working order of a complete 400kVA output Prime diesel generator set, control panel, changeover, and all ancillary equipment necessary as per detail specification	No	1		
2,6,2		Allow for the removal and disposal of existing 300kVA standby indoor diesel generator including ancillary equipment to make space for the new unit in item 1.1.1 above	No	1		
		48 Hour External Diesel tank				
2,6,3		Supply, delivery, off loading, installation, testing, commissioning and handing over of 4000L Self-bunded Standby Diesel Tank including piping to the generator	Sum	1		
2,6,4		Filling up 4000L diesel tank with approved diesel	Litres	4000		
		Electrical Connections				
		Allow for connection of electrical cables including minor service of electrical equipment				
2,6,5		Supply and install, 630A, TP, 15kA, moulded case circuit breaker	No	2		
2,6,6		Supply, install and terminate, 150mm^2 x 4c PVC/ECC/PVC copper cable.	m	200		
2,6,7		Supply and install, 600mm wide Heavy Duty Cable Tray mounted on surface	m	50		
2,6,8		Excavation of 600mm deep trench on paved area, including repairs to paving	m	40		
		Other Connections				
2,6,9		Allow for connection of existing diesel tank, pumps onto new unit	sum	1		
		Sundry Items				
2,6,10		Provide formal training and course materials for the clients personnel in the operation and maintenance of the complete system	Sum	1		
2,6,11		Provide 1 original, 3 copies of the operation and Maintenance Manuals of all the Equipment Installed for the Complete Generator Installation	No.	3		
2,6,12		Testing and commissioning of the whole installation	Sum	1		
2,6,13		Plinth for the external diesel tank. 25MPA, 200mm Think Reinforced Concrete constructed on 150mm think G7 material, Ripped and Compacted in situ material	Sum	1		
2,6,14		Mandatory signage as specified	Sum	1		
2,6,15		High Security Fence with 2m wide Double Swing Gate as described in the attached specs (4m x 3m fencing)	Sum	1		
		Provisional Sum				
2,6,16		Allowance for general building works, such as doors, paintwork and other minor repairs	P.Sum	1	R 50,000.00	**R 50,000.00**
2,6,16a		Profit and Attendance	%			
TOTAL CARRIED FORWARD TO SUMMARY						

CONTRACT REF. NO: **SCMU3-22/23-0456-HO** **Cluster/District: 2**
ASSET TYPE: **PRIME GENERATORS**

SUMMARY OF COSTS

SCHEDULE NUMBER	DESCRIPTION	TOTAL
1	PRELIMINARY & GENERAL	
2	REPLACEMENT OF STANDBY GENERATOR	

A	**TOTAT CARRIED FORWARD TO FINAL PRICE SUMMARY**	

ECDOH GENERAL MECHANICAL AND ELECTRICAL REPAIR CONTRACT

FACILITY: **STUTTERHEIM HOSPITAL**
CONTRACT REF. NO: **SCMU3-23/24-0456-HO** **Cluster/District:** 3
ASSET TYPE: **PRIME GENERATORS**

SCHEDULE 3 : **PRELIMINARY & GENERAL**

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3.1	**GM 2.8**	**LABOUR RATES APPLICABLE TO UNSCHEDULED WORK:** Labour rates that Contractor will charge for additional adhoc work that is not contained in Schedules 1 to 3.				
3,1,1		Technician	R/hr	Rate Only		
3,1,2		Senior Artisan (Trade Tested & Additional Certification)	R/hr	Rate Only		
3,1,3		Artisan (Trade Tested)	R/hr	Rate Only		
3,1,4		Utility Man (Non-Trade Tested)	R/hr	Rate Only		
3,1,5		Artisan Aid	R/hr	Rate Only		
3,1,6		General Worker	R/hr	Rate Only		
3.2	**GM 2.8**	**TRAVELLING :** Travelling cost will be as per the rates for reimbursable expenses published monthly by the National Department of Public Works at the time of rendering the service/repair.	R/km			
3.3	**GM 2.8**	**ACCOMMODATION AND SUBSISTENCE :** Daily Rates per person that the Contractor will claim for trips lasting more than one day at a time.				
3,3,1		Accommodation	Rand	Rate Only		
3,3,2		Subsistence	Rand	Rate Only		
3.4	**GM 2.8**	**MARK-UP ON MATERIALS AND SERVICES THAT IS NOT INCLUDED IN PRICE LISTS :** Mark-up on proven cost for materials and/or services that is already contained in the approved price lists.	%	Rate Only		
3.5		**CONTRACTUAL MATTERS**				
3,5,1		Provision of sureties	Sum	1		
3,5,2		Insurances	Sum	1		
3,5,3		Site Establishment	Sum	1		
3,5,4		Project Supervision and administration	Sum	1		
3,5,5		Health and Safety as per Detailed in the C3.6 Health and Safety Specification	Sum	1		
TOTAL CARRIED FORWARD TO SUMMARY						

ECDOH GENERAL MECHANICAL AND ELECTRICAL REPAIR CONTRACT

FACILITY: **STUTTERHEIM HOSPITAL**
CONTRACT REF. NO: **SCMU3-23/24-0456-HO** **Cluster/District:** 3
ASSET TYPE: **PRIME GENERATORS**

SCHEDULE 3 : **REPLACEMENT OF STANDBY GENERATOR**

ITEM Nr.	PAYMENT REFERS	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
3.6	**GM 2.5**	**PROVISION FOR REPLACEMENT OF EQUIPMENT :** Lump sum provision to replace existing asset with a new one including supply, delivery, installation and commissioning				
		200kVA Prime Generator (Outdoor Unit)				
3,6,1		Supply, delivery, off loading, installation, testing, commissioning and handing over in first class working order of a complete 200kVA output Prime diesel generator set, control panel, changeover, soundproof canopy and all ancillary equipment necessary as per detail specification	No.	1		
3,6,2		Allow for the removal and disposal of existing 100kVA standby indoor diesel generator including ancillary equipment to make space for the new unit in item 1.1.1 above	No.	1		
		48 Hour External Diesel tank				
3,6,3		Supply, delivery, off loading, installation, testing, commissioning and handing over of 3000L Self-bunded Standby Diesel Tank including piping to the generator	Sum	1		
3,6,4		Filling up 3000L diesel tank with approved diesel	Litres	3000		
		Electrical Connections				
		Allow for connection of electrical cables including minor service of electrical equipment	sum	1		
3,6,5		Supply and install, 300A, TP, 15kA, moulded case circuit breaker	No	2		
3,6,6		Supply, install and terminate, 95mm2 x 4c PVC/ECC/PVC copper cable.	m	200		
3,6,7		Supply and install, 450mm wide Heavy Duty Cable Tray mounted on surface	m	50		
3,6,8		Excavation of 600mm deep trench on paved area, including repairs to paving	m	40		
		Other Connections				
3,6,9		Allow for connection of existing diesel tank, pumps onto new unit	Sum	1		
		Sundry Items				
3,6,10		Provide formal training and course materials for the clients personnel in the operation and maintenance of the complete system	Sum	1		
3,6,11		Provide 1 original, 3 copies of the operation and Maintenance Manuals of all the Equipment Installed for the Complete Generator Installation	No.	3		
3,6,12		Testing and commissioning of the whole installation	Sum	1		
3,6,13		Plinth for the generator and external diesel tank. 25MPA, 200mm Think Reinforced Concrete constructed on 150mm think G7 material, Ripped and Compacted in situ material	Sum	2		
3,6,14		Mandatory signage as specified	Sum	1		
3,6,15		High Security Fence with a 2m wide Double Swing Gate as described in the attached specs (8,6m x 5m fencing)	Sum	1		
		Provisional Sums				
3,6,16		Provisional Sum for electrical connection of the New Covid Faculty to the Essential Supply	P.Sum	1	R 100,000.00	R 100,000.00
3,6,16a		Profit and Attendance on item 1,6,1	%			
3.7		**PROVISION FOR ROAMING GENERATORS :** Lump sum provision to replace existing asset with a new one including supply, delivery, installation and commissioning				
		400kVA Prime Generator				
3,7,1		Supply, delivery, off-loading, installation, testing, commissioning and handing over in first class working order of a complete 400kVA output Prime diesel generator set and all ancillary equipment necessary as per detail specification	No	2		
3,7,2		12 Months Guarantee and maintenance	No	2		

TOTAL CARRIED FORWARD TO SUMMARY				

ECDOH GENERAL MECHANICAL AND ELECTRICAL REPAIR CONTRACT

FACILITY: **STUTTERHEIM HOSPITAL**
CONTRACT REF. NO: **SCMU3-23/24-0456-HO** **Cluster/District: 3**
ASSET TYPE: **PRIME GENERATORS**

SUMMARY OF COSTS

SCHEDULE NUMBER	DESCRIPTION	TOTAL
1	PRELIMINARY & GENERAL	
2	REPLACEMENT OF STANDBY GENERATOR	

A	**TOTAT CARRIED FORWARD TO FINAL PRICE SUMMARY**	

ECDOH GENERAL MECHANICAL AND ELECTRICAL REPAIR CONTRACT

SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS

CONTRACT REF. NO: **SCMU3-23/24-0456-HO** **Cluster/District: 3**
ASSET TYPE: **PRIME GENERATORS**

FINAL PRICE SUMMARY

SCHEDULE NUMBER	DESCRIPTION	TOTAL
	FINAL PRICE SUMMARY	
	Total of Schedule 1	
1	Prime generator at All Saints Hospital	
	Total of Schedule 2	
2	Prime generator at Frontier Hospital	
	Total of Schedule 3	
3	Prime generator at Stutterheim Hospital	

A		NETT TOTAL OF COST OF WORKS	
B		ALLOWANCE OF CONTINGENCY AT 10%	
C		**SUBTOTAL COST OF WORKS (EXCL VAT)**	
D		ALLOWANCE FOR VAT AT 15.0%	
E	**TOTAL (INCL VAT) CARRIED FORWARD TO FORM OF OFFER**		

SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS

DECLARATION (In respect of completeness of Tender)

Department of Health
Global Life Center
c/o R63 and Phalo Avenue
BHISHO

I/We, the undersigned, do hereby declare that these are the properly priced Schedules of Quantities forming Part C2.2 of this Contract Document which contains 12 pages numbered i to xx and in consecutive order in Volume 2 and the number of pages in consecutive order in Volume 2A as stated on page i thereof, upon which my/our tender for **TENDER NO. SCMU3-23/24-0456-HO: SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**

has been based.

SIGNED ON BEHALF OF TENDERER: . . . . . .

DATE: . . . . . .

PART C3: SCOPE OF WORKS

C3: SCOPE OF WORKS

C3.1: SCOPE OF WORKS

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

DESCRIPTION OF THE WORKS

Employer's objectives **– to replace the exist standby generators with prime type generators at the following institutions: All Saints, Frontier and Stutterheim Hospitals.**

Overview of the works **– see employer's objectives**

Duration – Each contract will have a duration of six (6) months

Extent of the works **– Removal of existing generators (where present) including ancillary equipment, installation of a tamper proof tank (48 hours diesel), construction of new plinth for the generator and tank, renovations to existing generator rooms.**

Location of the works **– Ngcobo, Komani and Stutterheim**

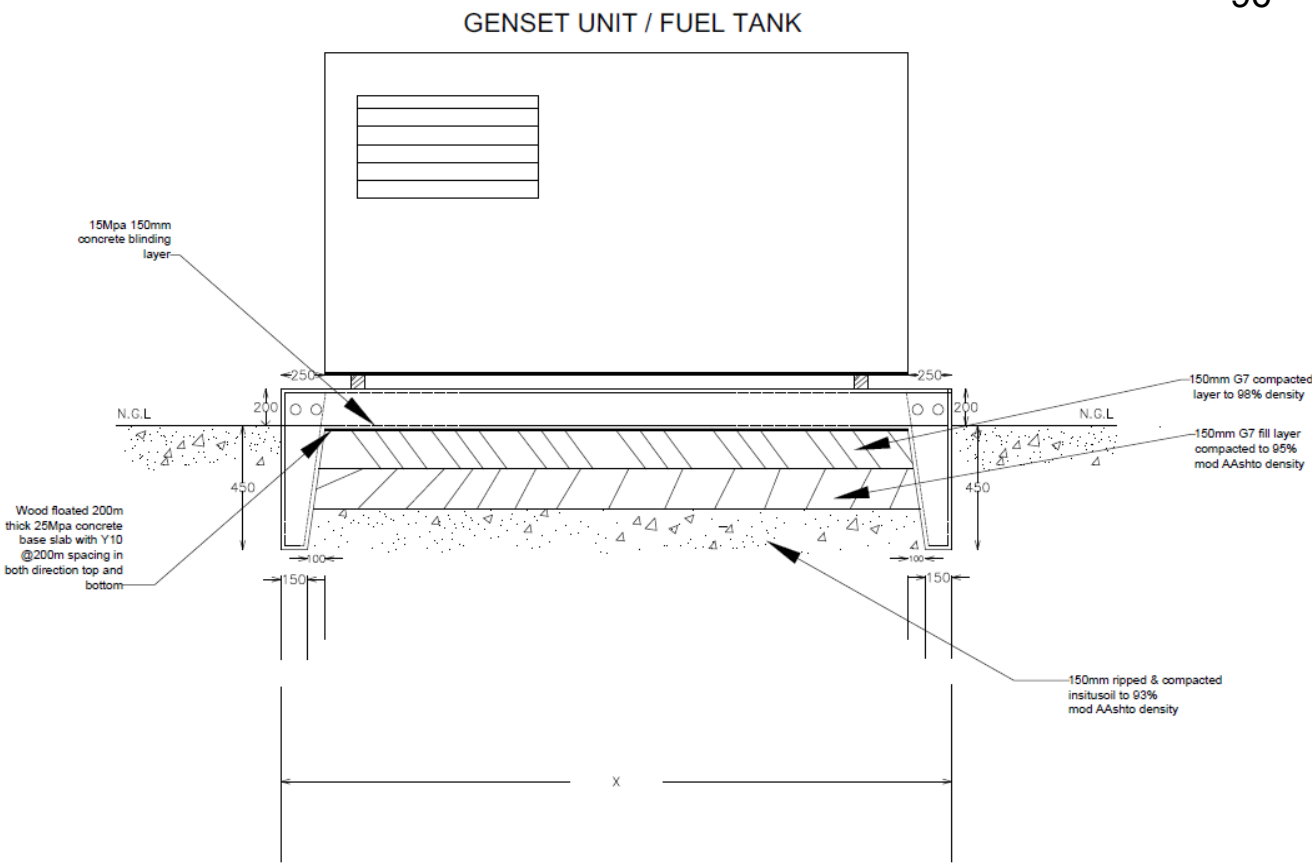
LIST OF FACILITIES

Hospital	Tank size	Dimensions	Weight (filled up with diesel)	Mounting	Fence
All Saints, 200kVA Outdoor	3000L	2.6m x 1.6m x 1.3m	4500kg	Floor/plinth	Yes, for both genset and diesel – 8.6m x 5m
Frontier, 400kVA Indoor	4000L	2.8m x 1.6m x 1.3m	5500kg	Floor/plinth	Required for tank only – 4m x 3m
Sutterheim, 200kVA Outdoor	3000L	2.6m x 1.6m x 1.3m	4500kg	Floor/plinth	Yes, for genset and tank – 8.6m x 5m

Hospital	Genset Size	Dimensions	Weight	Mounting	
All Saints, 200kVA Outdoor	200kVA	3.3m (l) x 1.3m (w) x 1.8m (h)	2350kg	Floor/plinth	
Frontier, 400kVA Indoor	400kVA	3.6m (l) x 1.5m (w) x 2.2m (h)	3300kg	Floor/plinth	
Sutterheim, 200kVA Outdoor	200kVA	3.3m (l) x 1.3m (w) x 1.8m (h)	2350kg	Floor/plinth	

Fencing for generators and diesel tanks shall be high security fence.

The concrete strength for plinths shall not be less than 25MPA, refer to drawing below.



PROCUREMENT

Preferential procurement procedures Requirements; resource standard pertaining to targeted procurement.

MANAGEMENT

Management of the works - Applicable SANS 1921 standards; particular /generic specifications; planning and programming; sequence of the works; software application for programming; methods and procedures; quality plans and control; environment; accommodation of traffic on public roads occupied by the Supplier; other Suppliers on site; testing, completion, commissioning and correction of defects; recording of weather; format of communications; key personnel; management meetings; forms for contract administration; electronic payments; daily records; bonds and guarantees; payment certificates; permits; proof of compliance with the law; insurance provided by the employer

OCCUPATIONAL HEALTH AND SAFETY

The service provider will be required to adhere to Health and Safety as well as Environmental regulations. The workers onsite must have PPE at all times

FAILURE TO ADHERE TO THE ABOVE MAY LEAD TO PENALTIES

C3.6: HEALTH AND SAFETY SPECIFICATION

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

PROJECT SPECIFIC

CONSTRUCTION HEALTH AND SAFETY

SPECIFICATION

PROJECT TITLE:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
BID NO:	**SCMU3-23/24-0456-HO**

AUGUST 2023
Version 1

TABLE OF CONTENT

HEALTH AND SAFETY SPECIFICATION

1. INTRODUCTION AND BACKGROUND

1.1. The Construction Regulations No. 3705 of 7th February 2014 requires the Client to prepare a pre-construction Health and Safety Specification, with all existing risks identified.

1.2. The Eastern Cape Department of Health (ECDoH) is tasked to provide Healthcare operational facilities across the Eastern Cape.

1.3. The ECDoH has a responsibility to limit its risk by ensuring a zero tolerance and best practice approach to Contractors and those affiliated to a construction project. Thus, a high premium is placed on the health and safety (H&S) of ECDoH stakeholders, which include its employees, professional service providers, public and its physical assets.

1.4. The responsibilities that the Department and relevant stakeholders have toward its employees are captured in, but not limited to this document. The responsibilities stem from both moral, civil and a variety of legal obligations.

1.5. The Principal Contractor is to take due cognisance of the above statement.

1.6. The ECDoH, as the Client and where there is an appointed H&S Agent on its behalf, shall provide a Project Specific Health & Safety Specification (PSHSS) for the project and provide the Principal Contractor/s making a bid or appointed to perform construction work for the project, or parts thereof such documentation.

1.7. This Health and Safety Specification complies with the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations of February 2014.

1.8. This Health and Safety Specification is to be used as a management tool to comply with the Occupational Health and Safety Act.

1.9. This Specification has been prepared by the Eastern Cape Department of Health.

2. KEY ROLE PLAYERS

2.1 CLIENT

2.1.1. Principal Agent
2.1.2. Architect
2.1.3. Quantity Surveyor
2.1.4. Structural Engineer
2.1.5. Civil Engineer
2.1.6. Electrical Engineer
2.1.7. Mechanical Engineer
2.1.8. Clerk of Works
2.1.9. Health & Safety Agent

2.2 PRINCIPAL CONTRACTOR

2.2.1 Contracts Manager
2.2.2 Construction Manager
2.2.3 Health & Safety Officer
2.2.4 Other

3. LIST OF ABBREVIATIONS

AAIA	Approved Asbestos Inspection Authority
AIA	Approved Inspection Authority
BoQ	Bill of Quantities
CC	Compensation Commissioner
CR	Construction Regulations
DMR	Driven Machinery Regulations
DoL	Department of Labour
FEMA	Federated Employers Mutual Association
GAR	General Administration Regulations
GSR	General Safety Regulations
HCSR	Hazardous Chemical Substances Regulations
HIRA	Hazard Identification Risk Assessment
H&S	Health and Safety
ER	Engineer's Representative

LI	Labour Intensive
OH	Occupational Health
OHSA	Occupational Health and Safety Act No. 85 of 1993 (as amended)
OHSS	Occupational Health and Safety Specification
PSHSS	Project Specific Health and Safety Specification
PC	Principal Contractor
PPE	Personal Protective Equipment
SANS	South African National Standards (Authority)
SDS	Safety Data Sheet
SMME	Small, Micro, Medium Enterprise
SWP	Safe Work Procedure

4. **DEFINITIONS**

4.1. The definitions used will be those set out in the Regulation Gazette N0 3705 of 7th February 2014 with the following additions:

4.1.1. **Client:**
The Superintendent General, Department of Health of the Province of the Eastern Cape.

4.1.2. **Designer:**
Means a competent person appointed by the Client as Agent to design, supervise and monitor construction on their behalf.

4.1.3. **Hazard:**
Source of exposure to danger

4.1.4. **Hazard Identification and Risk Assessment (HIRA) and Risk Control:**
Means a documented plan, which identifies hazards, assesses the risks and details the control measures and safe working procedures which are to be used to mitigate and control the occurrence of hazards and risks during construction or operation phases.

4.1.5. **Health and Safety Agent:**
Means any person who acts as a representative for the Client in managing the overall health and safety work as their responsible person.

4.1.6. **Health and Safety Plan:**

Means a documented plan which answers to the Project Specific Health and Safety Specification; including all the supporting documentation that indicate how the Principal Contractor or Contractor plans to manage H&S for the duration of the Contract.

4.1.7. **Induction Training:**

Means once off introductory training on general health and safety issues given to all employees and visitors to the site before commencement of work on site.

4.1.8. **Risk:**

Means the probability or likelihood that a hazard can result in injury or damage.

4.1.9. **Regulation/s:**

Shall mean the relevant regulation/s promulgated in terms of the Occupational Health and Safety Act, No. 85 of 1993 and the Construction Regulations No. 3705 of 7th February 2014.

4.1.10. **Site:**

Means the area in the possession of the Principal Contractor for the construction of the works. Where there is no demarcated boundary it will include all adjacent areas, which are reasonably required for the activities for the Principal Contractor and approved for such use by the Designer.

4.1.11. **The Act:**

Means, unless the context indicates otherwise, the Occupational Health and Safety Act, No. 85 of 1993 and Regulations promulgated thereunder, as amended.

5. **KEY REFERENCES**

5.1 Occupational Health and Safety Act No. 85 of 1993 and Regulations (as amended).

5.2 Compensation for Injury and Occupational Diseases Act No. 100 of 1993 (as amended)

5.3 The Preferential Procurement Policy Framework Act 2000 and the Preferential Procurement Regulations 2017, the General Conditions of Contract (GCC)

5.4 Construction Regulations No. 3705 of 7th February 2014

5.5 SANS Code 10400 and others that are applicable

6. PURPOSE OF THE PROJECT SPECIFIC HEALTH AND SAFETY SPECIFICATION (PSHSS)

6.1. The PSHSS is a performance specification to ensure that the Client and any bodies that enter into formal agreements with the Client Viz. Agents, Professional Service Consultants (Engineers, Quantity Surveyors and Architects), Principal Contractors and Contractors achieve an acceptable level of OHS performance.

6.2. To assist in achieving compliances with the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations of February 2014, to, as far as is practical, reduce or eliminate incidents or injuries.

6.3. No advice, approval of any document required by the PSHSS, such as hazard identification and risk assessments, or any other form of communication from the Client shall be construed as acceptance by the Client of any obligation that absolves the Principal Contractor from achieving the required level of performance and compliance with legal requirements.

6.4. Furthermore, there is no acceptance of liability by the Client, which may result from the Principal Contractor failing to comply with the PSHSS, i.e. the Principal Contractor remains responsible for achieving the required performance levels.

6.5. A Mandatary Agreement in terms of Section 37.2 of the OHSA will be signed between parties prior to any works commencing.

6.6. The PSHSS highlights the aspects to be implemented over and above the minimum requirements of current legislation.

6.7. Requirements may be changed should new risks or issues are identified that could not have been foreseen during the design phase of the project, or during the construction phase. Any new legislation or standards (legislated or determined by the (ECDoH) that are promulgated or accepted during the contract will automatically be applied.

6.8. Environmental management shall receive due attention as per the requirements of the Environmental Control Officer (ECO) but will be managed by the ECO directly.

6.9. The Contractor shall use this Specification as a basis for the drafting of his and any Subcontractors` Construction Health and Safety Plans.

6.10. The Specification sets out the requirements to be followed by all Contractors so that the Health and Safety of all persons who may be affected by the Construction Project will receive proper priority.

6.11. The Project Specific Risks that have been identified have been tabulated in Section 18 of this Specification.

7. IMPLEMENTATION OF THE PROJECT SPECIFIC OCCUPATIONAL HEALTH AND SAFETY SPECIFICATIONS (PSHSS)

7.1. The project specific H&S specification (PSHSS) forms an integral part of the Contract, and PCs are required to make it an integral part of their Contracts with Contractors and Suppliers.

7.2. A PSHSS will be available for each level of Contract and Contractor and must be complied with.

7.3. This specification must be read in conjunction with the OHSA, Regulations thereto (as amended) and any other standards relating to work being done and ensure compliance thereto.

7.4. The information relative to the scope of the project, the works etc. are detailed in the tender, are to be considered when developing the H&S plan and associated documentation.

7.5. The summary of risks is included in Section 18 of the PSHSS.

7.6. The OHSA S.37.2 Mandatory Agreement must be fully completed by the PC, supplied by the Client.

7.7. No work may commence without written approval of the H&S plan by the H&S Agent, or the responsible person in the ECDoH.

7.8. Should there be design changes, or change in the scope of works, an amended PSHSS may be issued.

7.8.1. Where amended PSHSSs are issued, the PC will be required to ensure a resubmission of an amended H&S plan for approval.

7.8.2. Further to this, the PC must ensure that similar information must be provided as it applies to the works to all their Contractors, within 5 working days following notification thereof of such design changes.

7.9. The H&S Agent will visit the project as deemed necessary by the Designer and the H&S Agent to ensure compliance and limit risk.

7.9.1. All activities on the site and all appropriate documentation will be monitored and reported on to the Client and the Designer.

7.10. Non-conformances will be issued and penalties or work stoppage will be issued where appropriate. Communication between the H&S Agent and the PC will be through the Designer (or Client's responsible person) as determined at the commencement of the project.

7.11. The Principal Contractor must forward a copy of the Health and Safety plan to all Subcontractors to enable them to prepare their own Health and Safety plans.

7.12. Non-conformances will be issued and penalties or work stoppage will be issued where appropriate.

7.13. Communication between the H&S Agent and the PC will be through the Designer (or Client's responsible person) as determined at the commencement of the project.

8. APPLICATION

8.1. This Specification is a compliance document drawn up in terms of the Occupational Health and Safety Act No. 85 of 1993, and the Construction Regulations of February 2014, and is therefore binding on the Contractor as well as the Owner.

8.2. All Contractors are to comply with the conditions of this Health and safety Specification.

All Direct Contractors carrying out work on behalf of the Eastern Cape Department of Health, for **CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**

8.3. are also required to comply with the conditions of this Health and Safety Specification.

8.4. All staff and representatives of, Eastern Cape Department of Health, **SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME**

GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS who visit the site are required to comply with the conditions of this Health and Safety Specification.

8.5. All representatives of the Implementing Agent who visit the site are required to comply with the conditions of this Health and safety Specification.

8.6. All members of the Consultant Team who visit the site are required to comply with the conditions of this Health and safety Specification.

9. REQUIREMENTS AT TENDER STAGE

9.1 Adequate pricing for H&S is required, and the appropriate section in the BoQ is to be completed.

9.1.1. Failure to do so could result in the Tender being regarded as non-responsive.

10. GENERAL REQUIREMENTS

10.1. Summary of Risks identified during Design

10.1.1. The intention of the summary of findings from the design risk assessment is to highlight the residual risks identified during the design phase.

10.1.2. The full design risk assessment can be found in the tender document.

10.1.3. The summary of risks provided is to point the contractor towards some risks he may not be aware of during tendering stage and while developing his formal risk assessments for the project.

10.1.4. The design risks and the management thereof should be included in the Principal Contractors (PC) risk assessments.

10.1.5. Where there are other Contractors appointed to do work, the PC is to ensure that Contractors include such information in their risk assessments.

10.1.6. The summary is to be developed following the completion of the Design risk assessment, and to include the residual risks as they apply to the project.

10.2. Hazard Identification and Risk Assessment (HIRA)

10.2.1. At the Pre-Tender Site Inspection, the Principal Agent/client will identify any Project Specific hazards or risks that may affect the work.

10.2.2. These hazards or risks are listed under section 18 of this Specification.

10.2.3. Tenderers are also advised to notify the Principal Agent/client of any other risks or hazards that have not previously been identified.

These risks are to be recorded and a recommended procedure for addressing each item agreed on and recorded.

10.2.4. The Principal Contractor is to conduct inspections of all tools and equipment before the commencement of the works and at least once a week during the works.

10.2.5. The Principal Contractor shall ensure that all Contractors and workers are informed, instructed and trained by a competent person regarding any hazards, risks and related safe work procedures as part of the Induction process before any work commences and thereafter at regular intervals as the risks change and as new risks develop.

10.2.6. Proof of this training must be kept for inspection by the Client or Client's Representative.

10.2.7. The Principal Contractor shall be responsible for ensuring that all persons who could be negatively affected by the operations are informed and trained according to the hazards and risks and are conversant with the safe working procedures, control measures and other related rules (tool box talk strategy to be implemented).

10.2.8. The format used for the risk assessment must make provision for the following information;

10.2.8.1. Reference Number
10.2.8.2. Project Name
10.2.8.3. Identification of task assessed
10.2.8.4. Date
10.2.8.5. Risk assessment team & designation
10.2.8.6. Approval of risk assessment team.
10.2.8.7. Risk rating with matrix
10.2.8.8. Review date
10.2.8.9. Task steps
10.2.8.10. What can go wrong (Hazard)

10.2.8.11. The result (Risk)

10.2.8.12. Risk rating

10.2.8.13. Preventative Action (Control Measures)

10.2.9. The Principal Contractor is to ensure that all Hospital Staff and Management personnel that will be affected by the works are fully informed of the risks and hazards associated with the works.

10.3. Specified Hazardous Chemical Agents

10.3.1. The following lists of products or substances are those which have been identified as likely to be used on the project. The list is not inclusive and other products may be considered.

10.3.2. Where the PC is likely to supply the product as the product has not been specified, safety data sheets (SDSs) need to be considered prior to all selections.

PRODUCTS/AGENTS/RISKS	POTENTIAL HEALTH OR OTHER RISKS
Cement	• Hand mixing may occur, 50kg bags are an ergonomic risk from handling. • Pumping of concrete may occur exposure to extensive vibration, extended hours of work, and potential eye, skin and respiratory irritant from dust exposure, chromates.
Cement/Silica dust	Caused by cutting, grinding, sanding of any concrete/granite/tiled surface/masonry.
Petrol/diesel/lubricants	Potentially a fuel bowser on site. Fire, spillage, fumes
Wood dusts	Caused by cutting, sanding, drilling wooden products treated

10.3.3. Hazardous and potential situations

10.3.3.1. The Principal Contractor shall immediately notify other Sub Contractors as well as the Client of any hazardous or potentially hazardous situations that may arise during performance of construction activities.

11. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

11.1. Scope

11.1.1. The Specification covers the requirements for eliminating and mitigating incidents and injuries at **SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**

11.1.2. The scope addresses legal compliance, hazard identification, risk assessment, risk control, and promoting a Health and Safety culture on the project.

11.1.3. The Specification also provides for the protection of those persons other than employees.

11.2. Scope of Works

This project provides for the replacement of existing standby diesel powered generators in Stutterheim Hospital in Amathole, Frontier and All Saints in the Chris Hani and Joe Gqabi Districts. The existing generator will be replaced with new unit including new diesel tank as described below.

11.2.1 SUPPLY AND CONNECTION

The supply will be at 400 Volt, 50Hz.

The contractor must arrange in good time with the hospital technical staff for switching on and or off the mains supply during works.

11.2.2 PRIME GENERATOR

New Prime Generators have been allowed for, on this project to replace the damaged standby generator. The generators is intended to provide prime and emergency supply in the absence of Mains or Municipal supply. The list of required prime generators is shown below;

LIST OF FACILITIES

Hospital	Genset Size	Dimensions	Weight	Mounting	
All Saints, 200kVA Outdoor	200kVA	3.3m (l) x 1.3m (w) x 1.8m (h)	2350kg	Floor/plinth	
Frontier, 400kVA Indoor	400kVA	3.6m (l) x 1.5m (w) x 2.2m (h)	3300kg	Floor/plinth	
Sutterheim, 200kVA Outdoor	200kVA	3.3m (l) x 1.3m (w) x 1.8m (h)	2350kg	Floor/plinth	

The existing equipment which does not need to be replaced and which a new generator is to be connected to are:

- The AMF panel with electrical switchgear including generator Controller (Deepsea, with DSE 890 Module), Automatic change-over system, are in fair condition. Minor repairs and programming would be necessary to ensure they work properly with the new unit.
- Day diesel tank is also in good condition. The contractor shall be expected to connect the new fuel system to this tank.

New equipment to be supplied with the generator are:

- Battery and its charging system
- Complete Fuel system
- Exhaust System including sound attenuation, thermo blankets, etc.
- Engine mounts suitable for the new unit

See Technical Specification and schedule of information for the generator on the tender document for detailed information.

11.2.3 Standby Diesel Tank

The contractor shall supply and install, self-bunded standby diesel tanks to supply the generators as per list below. The tank will be placed on a new plinth outside near generator building.

LIST OF FACILITIES

Hospital	Tank size	Dimensions	Weight (filled up with diesel)	Mounting	Fence
All Saints, 200kVA Outdoor	3000L	2.6m x 1.6m x 1.3m	4500kg	Floor/plinth	Yes, for both genset and diesel – 8.6m x 5m
Frontier, 400kVA Indoor	4000L	2.8m x 1.6m x 1.3m	5500kg	Floor/plinth	Required for tank only – 4m x 3m
Sutterheim, 200kVA Outdoor	3000L	2.6m x 1.6m x 1.3m	4500kg	Floor/plinth	Yes, for genset and tank – 8.6m x 5m

The container shall be supplied complete with:

- Pump bay housing for pumping fuel to the generator tanks
- Anti-syphon valve
- Overfill Protection, mechanical shut-off alarm
- Platform ladder and platform for easy access
- Pressure/Vacuum vent in compartment containment
- Breather vents with dust filter fitting
- Dipstick
- Tank fuel gauge

The container and platform ladder including all metal components shall be Hot Dip Galvanised.

The gensets will be connected to the tank via 25mm stainless steel pipes running in the substation trench.

11.3. **Structure and Organization of H&S Responsibilities**

11.3.1. Application for Construction Work Permit as per the requirements of Construction Regulation 3. **(NOT APPLICABLE FOR THIS TENDER)**

11.3.2. The contract value estimated will require a construction work permit application.

11.3.3. The client must apply for Construction Work Permit 30 days before the work is to be carried out to the provincial director in writing.

11.3.4. Annexure 1 form will be completed and signed by the Client/Client Agent and the Principal Contractor.

11.3.5. The following needs to be submitted with the Annexure 1 (but not limited too)

- Baseline risk assessment
- H&S Specification
- H&S Plan
- Appointment letter for the Construction manager and Construction health and safety officer together with certified copies of the identity document and training certificates.
- Letter of award from the Client
- Approved drawing
- Appointment letter as per CR 5(1) (k)
- Bill of Quantities relating to Health and Safety Requirements
- Designers letter of acknowledgement of Health and Safety Aspects during design stage
- Proof of competence for Designers and their professional certificates
- Appointment letter for Pr.CHSA

11.3.6. The site-specific number must be displayed conspicuously at the main entrance to the site on its own. The size of the permit board should be clearly visible from a distance of 20 meters the site-specific number is not transferable.

11.3.7. The Principal Contractor must keep a copy of the construction work permit in the health and safety file always.

11.3.8. Should any changes be made to the Construction manager and Construction health and safety officer as per the construction permit, the

Principal Contractor must provide the replacement person's documentation for approval to the Pr. CHSA.

11.4. Health and Safety Plan Framework

11.4.1. The H&S aspects related to the project outlined in the previous sections are to be considered when drawing up the H&S Plan.

11.4.2. The PC is required to demonstrate competence by providing an H&S system that will address the requirements of the project.

11.4.3. The current legislative requirements, SANS codes and any other standards that may guide practice are to be taken into consideration.

11.4.3.1. The following aspects must be addressed in the H&S Plan, as they have been identified in section 2, as playing a role in reducing the overall risk of an activity, or section of the project.

11.4.3.2. The H&S Agent may from time to time request additions or systems as they relate to the works or legislative requirements at the time.

11.4.4. The PC is to prepare a site layout drawing to indicate at least the following:

11.4.4.1. The positions of site offices of all Contractors, toilets, drinking water and Worker rest areas;

11.4.4.2. Indicate the positions of emergency personnel and equipment (fire, first aiders, first aid posts);

11.4.4.3. Protection of plant and pedestrians, indicate parking, and

11.4.4.4. Storage areas (materials and equipment, waste etc.)

11.4.4.5. Access and egress to site for deliveries and intended temporary traffic management.

11.4.4.6. Emergency assembly point

11.4.5. Such layouts are to be updated regularly throughout the project.

11.5. Appointment of Competent Site Personnel

11.5.1. The CEO (OHSA S16.1) of the PC will take overall responsibility for the appointment of competent site staff for the duration of the project. Should the CEO not be personally involved in the project, the H&S responsibilities are to be delegated to the Site Agent (OHSA 16.2). Knowledge and training in H&S is required, and certificates indicating H&S training as well as experience to be included in CVs.

11.5.2. All other legal appointments are to be made with relevance to the type of work required and kept current with the project programme. The construction team is to ensure the appointed H&S Officer is kept up to date with all planned activities, to ensure all H&S requirements are met.

11.5.3. All construction/technical method statements are to be generated by senior site personnel, and the appropriate risk assessments developed therefrom in conjunction with the H&S Officer.

11.5.4. The Occupational Health and Safety Plan shall include the following, but is not limited to the following key appointments:

11.6. Construction Supervision

11.6.1. Competent Construction manager will be appointed to manage part or all the works and have training and/or experience in the area of responsibility. All site supervisors must show evidence of appropriate training in H&S, and an understanding or training in areas of responsibility (i.e., risk assessments, method statements etc.).

11.6.2. Construction manager is to be full time on site, for this single site.

11.6.3. Curriculum Vitae (CVs) are to be submitted for approval by the Designer, and/or Client.

11.6.4. The Manager will be held responsible for the safety of working teams and subordinates, housekeeping and stacking and storage of materials.

11.7. Construction Health and Safety Management

11.7.1. The PC will employ at least one competent, H&S Officer Manager for the duration of the contract.

11.7.2. The H&S Manager CVs are to be submitted for approval to the H&S Agent or the Client.

11.7.3. The PC is to ensure adequate resources are provided to undertake all responsibilities (i.e. mobile phone, computer and internet access, vehicle etc.)

11.7.4. Qualifications shall include at least Grade 12; SAQA approved training in Occupational Health and Safety, with exposure to Mechanical engineering and building that is appropriate, the H&S Manager should have three year's work experience in complex projects where he/she worked as an OHS practitioner.

11.7.5. The Health and Safety Manager must provide proof of registration with the SACPCMP.

11.7.6. He/She should also have undergone training in the Act and Regulations.

11.7.7. In the case of a contract where contractors are employed, the H&S Manager must have a competence to evaluate the Contractors Health and Safety plans.

11.7.8. A valid driver's license.

11.7.9. They may not hold any other position on the site staff.

11.7.10. The site supervisor may not act as the H&S Officer.

11.7.11. The H&S Manager will be held responsible for all H&S issues on the project.

11.7.11.1. Senior site staff and supervision, Contractors are to follow systems, instructions etc, given by the H&S Manager and Officer at all times;

11.7.11.2. No new workers or Contractors may commence work without approval or following the H&S plan as submitted, and

11.7.11.3. No inductions of Contractor staff until the H&S documentation is approved by the H&S Officer.

11.7.11.4. The H&S Manager may not be removed or replaced without the approval of the client or client's agent, nor may the construction site be left unattended for more than 1 day without adequate, competent cover.

11.7.12. A monthly report of all H&S activities and incidents is required by the end of the first week of each month, or at a date agreed to by the H&S Agent/Client and the H&S Manager.

11.7.12.1. An example of the monthly report is attached as an Annexure C.

11.7.13. The H&S Manager will be responsible for collating the H&S documentation at the close out of the project in electronic format.

11.7.13.1. A list of the typical aspects that should be provided is available as Annexure B to this document.

11.7.13.2. The PC is to ensure that all Contractors documentation follows the same requirements and closed out H&S documentation must be completed and be available with the close out of the main contract.

11.7.13.3. Failure to do so will be considered a serious offence and penalties applied.

11.8. Construction Vehicles

11.8.1. Vehicles shall not enter site with:

11.8.1.1. Defective exhaust systems.
11.8.1.2. Serious oil or fuel leaks.
11.8.1.3. Unsafe bodywork or loads.
11.8.1.4. Non-standard equipment fitted.
11.8.1.5. Improperly seated passengers
11.8.1.6. Any obvious mechanical defects.

11.8.2. All earth moving equipment shall be operated in accordance with good safety practice to protect the safety of the operator and other workers or persons in the area.

11.8.3. All earth moving equipment shall be equipped with a reverse siren and shell be inspected by the operator daily.

11.8.4. No person shall be permitted to ride on any construction vehicle or mobile plant otherwise than in a safe place thereon provided for that purpose.

11.9. Health and Safety Representatives and H&S meetings

11.9.1. H&S Representatives representing workers and Contractors are to be appointed following the start-up of the project, irrespective of the number of workers on site.

11.9.2. The appointed H&S Representatives are to be actively involved with H&S and will assist the H&S Officer and site management in meeting legislative duties.

11.9.3. The H&S Officer shall further ensure that H&S is discussed at all internal production or progress meetings.

11.9.4. Issues arising from the H&S Agent audits are to be discussed, as well as all H&S related issues.

11.9.5. Minutes are to be kept for all H&S interventions and meetings. Failure to do so will be deemed to be a moderate offence.

11.10. Appointment of Competent Contractors

11.10.1. The Principal Contractor is to ensure compliance with the Client's minimum standards and all legislative requirements.

11.10.1.1. All competent persons shall have the knowledge, experience, training, and qualifications specific to the work they have been appointed to supervise, control, and carry out.

11.10.2. The Principal Contractor is responsible to ensure that competent Contractors are appointed to carry out construction work.

11.10.3. The same H&S standards required of the PC are to be applied to all Contractors.

11.10.4. An index of all Contractors and Suppliers is to be on file and kept updated at all times.

11.10.5. Where the ECDoH appoints Direct Contractors or uses the Maintenance staff to carry out works in the site area, the ECDoH is to ensure that the appropriate competent persons are responsible for supervising & controlling the work being undertaken.

11.10.6. The PC is to ensure there is sufficient funding for H&S compliance by each Contractor.

11.10.7. The following minimum aspects are applicable to any Contractor appointed:

11.10.8. The H&S Manager is to ensure a Contractor's appointment and approval of H&S documentation at least seven (7) working days prior to commencing work.

11.10.9. No Contractor may work under the PCs Compensation registration number.

11.10.9.1. If required, the PC may assist SMMEs with their registration with the Compensation Commissioner.

11.10.9.2. However, such Contractors will not be able to commence work until proof of registration or Letter of Good Standing has been received.

11.10.9.3. No work may commence without Mandatary agreements between parties in place.

11.10.10. The following aspects are applicable to Suppliers or short-term works (surveying, repairs, servicing, deliveries etc.).

11.10.11. Cognisance is to be taken of the level of risk involved and the H&S Officer is to ensure the level of H&S documentation is appropriate:

11.10.11.1. Mandatary agreements in place

11.10.11.2. Letter of Good Standing

11.10.11.3. Method statements and risk assessments

11.10.11.4. Available information relative to:

11.10.11.4.1. Load testing and registers for cranes or lifting devices

11.10.11.4.2. Medical certificates of fitness

11.10.11.4.3. Safety data sheets (SDSs)

11.10.12. Failure to provide written approval of H&S documentation will be considered a serious offense, and could result in aspects of, or all the activities being stopped, and penalties implemented.

12. **GENERAL RISK MANAGEMENT**

12.1. Health Risks and Medical Surveillance

12.1.1. The appropriate SDSs are to be obtained for all products and used to develop the H&S documentation as they relate to the works. Many of the processes may be labour intensive and ergonomic risks are to be noted. All workers (including Contractors) are to be included in the medical surveillance programme.

12.1.2. Workers will be exposed to noise, dust, and physical risks from extended periods of work of a repetitive nature, materials specified and the general nature of the works.

12.1.3. All permanent workers (including those of Contractors) are required to be in possession of a medical certificate of fitness prior to commencing work.

12.1.4. Medical surveillance will commence at pre-employment.

12.1.4.1. All workers (including Sub-Contractors) are required to be in possession of a medical certificate of fitness issued by an OMP (Occupational Medical Practitioner) prior to commencing work.

12.1.4.2. Annual medical surveillance is required (unless identified as being required more frequently), as well as an exit medical.

12.1.4.3. Arrangements for keeping medical records for the required time are to be noted.

12.1.4.4. It is preferable that the PC has a medical surveillance plan.

12.1.4.5. Full medical records are not to be placed in the H&S file.

12.1.4.6. A procedure for managing the medical records which require safekeeping for prescribed periods are to be addressed.

12.1.5. Given the potential health risks the following aspects are to be included in each medical surveillance intervention:

12.1.5.1. Full medical, surgical and occupational history;

12.1.5.2. Full physical examination of all systems; and

12.1.5.3. Referral if required for the management of identified health issues that may affect the worker.

12.1.6. Specific testing for existing conditions and limitations relative to exposure could include, but are not limited to:

12.1.6.1. Audiometry (hearing tests); and

12.1.6.2. Any other tests identified as relevant from chemical or specifically identified risks of exposure

12.1.7. Failure to do so will be considered a serious offence.

12.2. General Environmental Conditions

12.2.1. Compliance with the Environmental Regulations (as amended), among others is required.

12.2.2. Environmental monitoring of ventilation, lighting and dusts may be deemed to be required by the Approved Inspection Authority used to measure the environment.

12.2.3. Copies of the relevant reports and actions taken in respect of these are to be placed in the H&S file.

12.2.4. Any spillages of substances which could be toxic to persons must be dealt with adequately. The Contractor must include his spillage removal system in the OHS Plan.

12.3. Noise Risks

12.3.1. All plant from plant hire companies (suppliers) or that of the PC is to be compliant with the Noise Induced Hearing Loss Regulations.

12.3.2. Plant identified that has not been tested and marked for noise emissions will result in having to be tested at the Contractors or PCs expense.

12.3.2.1. Failure to do so within a reasonable time will result in such plant being removed from site.

12.3.3. Audiometric testing of all workers is noted as required in the medical surveillance programme for all permanent workers prior to work commencing.

12.3.3.1. Temporary labour working in identified noise areas will require testing if the noise levels are indicated on plant or through processes as greater than 85dB.

12.3.3.2. Audiometry records are to be available in the H&S file.

12.3.4. Suitable SANS approved hearing protective equipment shall be issued and worn where noise levels are identified as equal to or greater than 85 db.

12.3.4.1. Failure to do so will be considered a serious offence.

12.4. Emergency Procedures

12.4.1. The Principal Contractor must prepare a detailed emergency procedure manual for approval by the Client / Principal Agent prior to commencement of work on the site.

12.4.1.1. It is advised that the system should be simple and easy for any worker to follow.

12.4.1.2. The plan may be adapted should new information or risks are identified.

12.4.1.3. The procedures for dealing with the emergency evacuation of staff must be agreed upon with each hospital's Management.

12.4.2. The procedure shall detail the response plan in relation to the works, and include at least (but are not limited to) the following key elements:

12.4.2.1. Appointment of a competent emergency response co-ordinator and wardens; Lists of first aiders, and:

12.4.2.1.1. Fire;

12.4.2.1.2. Explosions

12.4.2.1.3. Public injury and motor vehicle accidents;

12.4.2.1.4. Falls from heights;

12.4.2.1.5. Serious injury to workers (medical or work-related); and

12.4.2.1.6. Any other major risks identified during risk assessments

12.4.3. The emergency plan is to ensure the inclusion of local service providers where possible.

12.4.3.1. Such arrangements should be made with these persons prior to the commencement of the project.

12.4.3.2. The general principals of emergency management are to be applied as it applies to the hierarchy of control and management.

12.4.4. The Contractor will provide the Principal Agent with the following information regarding their response plans for dealing with emergencies:

12.4.4.1. Contact person

12.4.4.2. Details of emergency services

12.4.4.3. Action to be taken in event of an emergency:

12.4.4.3.1. Fire

12.4.4.3.2. Accident

12.4.4.3.3. Damage to hospital services

12.4.4.3.4. Hazardous substances

12.4.4.4. Persons to be notified in the event of an accident or emergency:

12.4.4.4.1. Client

12.5. First Aiders and First Aid Equipment

12.5.1. At least one competent, trained level 3 First Aiders is to be formally appointed for the project.

12.5.2. First aider is to be available at all times and be able to cover each working team.

12.5.2.1. Further first aiders from the community or SMMEs, If not already accredited, are to be sent for accredited first aid training where applicable.

12.5.3. Contractors are expected to ensure compliance and manage their own first aiders and equipment.

12.5.4. Contractors are expected to ensure compliance and provide/manage their own first aiders and equipment.

12.5.5. The number of First aiders will be increased depending determined by the complexity and exposed risks of the project, not numbers of workers

12.5.6. Appropriately stocked first aid kits are to be available at all times and to assure continual availability and access on site.

12.6. Fires and Emergency Management

12.6.1. Attention to emergency planning and procedures is very important.

12.6.2. The full emergency plan must form part of the supporting documentation with the H&S Plan.

12.6.3. The H&S Agents approval of all emergency plans and procedures is required prior to commencement on site.

12.6.3.1. It is advised that the system should be simple and easy for any worker to follow.

12.6.3.2. The plan may be adapted should new information or risks are identified.

12.6.4. First aiders shall be available in each working team and be able to work as a team when responding to any emergency on the project.

12.6.5. The procedure shall detail the response plan in relation to the works, and include at least (but are not limited to) the following key elements:

12.6.5.1. Appointment of a competent emergency response co-ordinator and wardens;

12.6.5.2. Lists of first aiders, and

12.6.5.3. Requirement in terms of identified risks:

12.6.5.3.1. Fire;

12.6.5.3.2. Explosions;

12.6.5.3.3. Falls from heights, and

12.6.5.3.4. Motor vehicle accidents.

12.6.6. The emergency plan is to ensure the inclusion of local service providers where possible.

12.6.6.1. Such arrangements should be made with these persons prior to the commencement of the project.

12.6.6.2. The emergency plan is to include the risk of fire on site and related to any specific activities where gas, welding, cutting etc. occur.

12.6.7. Fire extinguishers will be appropriate for the risk and in sufficient numbers to deal with the type of fires that could occur.

12.6.7.1. All mobile plant is to have fire extinguishers.

12.6.8. Hot work permits are required for any such activities.

12.6.8.1. Their position is to be shown on the sketch plan of the site.

12.7. Incident Management and Compensation Claims

12.7.1. The PC will ensure there is a management system to investigate all incidents.

12.7.1.1. All serious incidents involving any form of disabling injury or fatality are to be reported to the Designer /Client /H&S Agent immediately.

12.7.1.2. This shall be confirmed in writing following the incident.

12.7.1.3. Full details are to be included in each site meeting or when the Client visits site.

12.7.1.4. A summary of incidents is to be included in the monthly report.

12.7.2. Failure to comply with emergency provisions will be considered a serious offence, and the operation or project may be stopped if deemed inadequate for the work at the time of assessment or site inspection.

12.8. Personal Protective Equipment (PPE) and Clothing

12.8.1. The PC is to provide a procedure as an addendum to indicate how PPE is managed within the Company.

12.8.2. The wearing of the identified SANS approved PPE at all times is non-negotiable.

12.8.3. The PC shall ensure that all workers (Including Contractors) are issued with and shall wear as required; the first 3 items are mandatory for all workers:

12.8.3.1. Hard hats;

12.8.3.2. Protective footwear;

12.8.3.3. Reflective jackets (no bibs)

12.8.3.4. Overalls that ensure worker visibility

12.8.3.5. Eye protection;

12.8.3.6. Hearing protection;

12.8.3.7. Respiratory protection (minimum of FF2), and

12.8.3.8. Any other necessary PPE identified from SDSs and/or risk assessments.

12.8.4. Adequate quantities of PPE shall be available. This shall include necessary PPE for visitors. The procedures for managing PPE are to be in a formal procedure submitted with the H&S plan for approval.

12.8.5. The Contractor shall carry adequate stocks of Hi-visibility Jackets and hard hats for visitors

12.8.6. Any person (including Client, Designers etc.) found on site without the necessary PPE will be removed from site until the PPE is supplied and worn.

12.8.7. Failure to comply will result in penalties being applied.

12.9. Occupational Health and Safety Signage

12.9.1. On-site H&S signage is required.

12.9.1.1. Signage shall be posted up at fixed or temporary working areas, or other potential risk areas/operations.

12.9.1.2. These signs shall be in accordance with the requirements of the General Safety Regulations or SANS requirements as amended.

12.9.1.3. Signage is to be noted on the site drawings indicating where fixed/temporary signage is required.

12.9.2. Temporary signage is to include (but not be limited to) the following:

12.9.2.1. 'Report to site Office'

12.9.2.2. 'Warning: Construction Site – Keep out' or similar;

12.9.2.3. 'Site Office' (if relevant);

12.9.2.4. 'Hard hat area' or other PPE requirements noted;

12.9.2.5. First aid box positions (including vehicles); and

12.9.2.6. Fire extinguishers.

12.9.3. Signs shall be posted at areas of work on site indicating that a construction site is being entered and that persons should take note of H&S requirements.

12.9.4. The Contractor shall establish a system for controlling and recording entrance to the Site office and camp area.

12.9.5. Failure to comply will result in penalties being applied.

12.10. Induction of Employees and Visitors, General H&S Training

12.10.1. A formal induction programme is to be submitted as an addendum for approval with the H&S plan.

12.10.1.1. Inductions must be carried out for all workers and visitors (including Client, Designers) to the site.

12.10.2. Pre-task training is required to ensure workers are familiar with the risks and H&S measures of the work or tasks to be done.

12.10.2.1. Such training is to be done at least daily.

12.10.2.2. Records of inductions and pre-task training are to be kept in the H&S file.

12.10.3. Any person found on site without proof of induction will be removed from site until the proof is supplied and, and a penalty issued per non-compliance.

12.11. Public and Site Visitor Health and Safety

12.11.1. The Principal Contractor shall ensure that every person working on or visiting the site, as well as the facility and the Public, shall be made aware of the dangers likely to arise from site activities, including the precautions to be taken to avoid or minimize those dangers.

12.11.2. The Principal Contractor shall ensure that appropriate Health and Safety notices and signs are posted where required.

12.11.3. Both the Principal Agent and the Contractor have a duty in terms of the Occupational Health and Safety Act to do all that is reasonably practical to prevent members of the public and site visitors from being affected by the work activities.

12.11.3.1. Warning notices are to be provided at the main entrance doors to each hospital facility, notifying that construction work is taking place within the existing buildings.

12.11.3.2. Warning notices are also to be posted at your site camp and all working areas

12.11.3.3. Warning notices regarding the movement of workers and materials are to be posted externally between the Contractor's yard area and the service entrance.

12.11.3.4. Warning notices are to be placed internally on both the upper and lower levels.

12.11.4. The site areas must be suitably hoarded at all times with a limited number of restricted and controlled access points.

12.11.4.1. Adequate notices are to be displayed.

12.11.4.2. Hoardings are to be inspected daily and gates monitored during working hours and locked at the end of each work day.

12.12. Awareness

12.12.1. The Principal Contractor shall ensure that, on site, periodic toolbox talks take place at least once per week.

12.12.1.1. These talks should deal with risks relevant to the construction work at hand.

12.12.1.2. A record of attendance shall be kept in the Health & Safety file.

12.12.1.3. All Contractors must comply with this minimum requirement.

12.12.1.4. At least one of the Toolbox talks shall include an environmental related issue.

12.12.2. The Principal Contractor is to ensure that the Hospital Management & Staff are kept informed of any change in the situation regarding the risks and hazards relating to the construction work on the site.

13. **MANAGEMENT OF PLANT AND EQUIPMENT**

13.1. Construction Plant

13.1.1. Construction Plant" includes all types of plant including but not limited to, cranes, piling rigs, excavators, road vehicles, and all lifting equipment.

13.1.2. The Principal Contractor shall ensure that all such plant complies with the requirements of the OHS Act 85/1993 and Construction Regulations 2014

13.1.3. The Principal Contractor and all relevant Sub Contractors shall inspect and keep records of inspections of the construction plant used on site.

13.1.4. Only authorised/competent (certified) persons are to use machinery under proper supervision.

13.1.5. Appropriate PPE and clothing must be provided and maintained in good condition at all times.

13.1.6. Proof of medical evaluations as required by the Construction regulations is available for inspection by the Client.

13.2. Plant & Equipment

13.2.1. Close control of plant and equipment is required, including that of Contractors.

13.2.2. Daily monitoring of all plant and equipment is required prior to commencing work.

13.2.3. Full lists of hired and own plant are to be available at the H&S Agent's/Client audit.

13.2.4. All daily inspection records are to be kept in the H&S file where plant and equipment is brought on to site.

13.2.5. Registers are not to be more than 1 week behind.

13.3. Operators

13.3.1. Only competent, fit plant operators are to be used.

13.3.2. Medical certificates of fitness are required for all operators.

13.3.3. Operators are to be adequately trained and certified to operate mobile cranes or crane trucks.

13.3.4. Certificates and registers are to be placed in the H&S file.

13.3.5. Failure to do so will be considered a serious offence.

13.4. Machinery and Power Tools

13.4.1. Only authorized competent persons are to operate machinery and power tools.

13.4.2. Appropriate PPE and clothing must be provided, used and maintained.

13.4.3. No unsafe / dangerous equipment or tools may be brought onto, or used, on the site.

13.4.4. The Client / Principal Agent reserve the right to inspect all tools and equipment at any time and to prevent / prohibit their use, if found to

be unsafe, without any penalty to the Client and without affecting the terms of the contract in any way.

13.4.5. The Contractor may not use any machinery or power tools belonging to the Hospital.

13.5. Portable Electrical Tools/Equipment and Explosive Powered Tools

13.5.1. The Principal Contractor shall ensure that use and storage of all explosive powered tools and portable electrical tools are in compliance with relevant legislation.

13.5.2. The Principal Contractor shall ensure that all-electrical tools, electrical distribution boards, extension leads, and plugs are kept in safe working order.

13.5.3. The Principal Contractor is to ensure that extension cables and temporary power supplies do not impede access ways or escape routes.

13.5.4. Regular inspections and toolbox talks must be conducted to make workers aware of the dangers and control measures to be implemented e.g. personal protection equipment, guards, etc.

13.5.5. The Principal Contractor shall ensure the following:

13.5.5.1. A competent person undertakes routine inspections and records are kept.

13.5.5.2. Only authorised trained persons use the tools.

13.5.5.3. The safe working procedures apply.

13.5.5.4. Awareness training is carried out and compliance is enforced at all times.

13.5.5.5. PPE and clothing is provided and maintained.

13.5.5.6. Electrical cables must be free from any damage.

13.5.5.7. Electrical tools & equipment may not be exposed to water.

13.5.5.8. Signs to be posted up in the areas where explosive powered tools are being used**. (WARNING - EXPLOSIVE POWERED TOOL IN USE - KEEP CLEAR).**

13.5.5.9. That prior arrangement is made with the facility Maintenance Supervisor before any explosive powered tools are used.

13.6. Hired Plant and Machinery

13.6.1. The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use.

13.6.2. The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations (February 2014) shall apply.

13.6.3. The Principal Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the health & safety file.

13.6.3.1. This includes medical certificates of fitness to operate construction vehicles and appointment of the operator.

13.6.3.2. All relevant Sub Contractors must ensure the same.

13.6.4. Daily inspections must be recorded by each operator.

13.6.4.1. A copy of the machines service log book & planned maintenance schedule must be supplied with the machine.

13.6.5. Operators must be trained on the relevant risk assessments and safe working procedures.

13.6.6. The hired plant company must provide proof of registration with Workman's Compensation or FEM before delivery of plant to site.

13.6.7. The Hire Company must be required to sign a 37(2) Mandatory Agreement with the hire company before commencing with work. (Applicable if an operator is supplied with the machine.

13.7. Vessels under Pressure and Gas Bottles

13.7.1. The Principal Contractor and all relevant Sub Contractors shall comply with the Vessels under Pressure Regulations, including:

13.7.1.1. Stored in a wire mesh, faced, shaded, ventilated, approved surfaces and lockable facility with all the necessary gas, prohibition & warning signs posted and as far as possible positioned away from buildings/establishment.

13.7.1.2. Storage area must be free from combustible material or any other materials.

13.7.1.3. No smoking or naked flame signs posted as well as sufficient firefighting equipment.

13.7.1.4. Cylinders must be stored in rows with aisles in between for easy removal in event of a fire.

13.7.1.5. Different types of gasses will be stored separately in an upright position, separately secured and the type of gas displayed identified with appropriate signage.

13.7.1.6. Knocking or falling of cylinders must be prevented when moved.

13.7.1.7. Before a cylinder is moved without suitable truck or trolley, the cylinder valve will be closed, and the regulator removed.

13.7.1.8. Only approved cylinder crates/cradles will be used.

13.7.1.9. Cylinders may not be transported with magnet cranes.

13.7.1.10. Cylinders may never be used as rollers, even if they are marked empty.

13.7.1.11. Cylinders may never be exposed to electrical circuits, e.g. welding leads. Never strike an arc on a cylinder.

13.7.1.12. Cylinders must be protected from direct sunlight or areas that could cause the cylinder to overheat.

13.7.1.13. Keep cylinders away from cutting work to stop sparks or hot slag from reaching them.

13.7.1.14. As with compressed air only use oxygen for the purpose for which it is approved.

13.7.1.15. May not be used for pneumatic tools or inflation of tires as an explosion could occur.

13.7.1.16. Oxygen cylinders must be stored at least 5m away from other flammable gas cylinders.

13.7.1.17. Flashback arrestors must be fitted to the torch and the cylinder.

13.7.1.18. Empty cylinders must be marked as such and removed daily to a separate approved storage area.

13.7.1.19. Cylinders may only be allowed on site in an approved trolley, properly secured and with a 1.5kg dry powder fire extinguisher within 2m of the cylinder.

13.7.1.20. Flammable and oxidizing gasses may not be stored together, and greases/oils may never be allowed to come in contact with

Oxygen.

13.7.1.21. Visual inspections will be done by the appointed HCS Controller to ensure that substandard vessels are not delivered and stored on site.

13.7.1.22. Pressure vessels must have a certificate of manufacture as well as a service inspection test certificate issued at intervals not exceeding 36 months. These certificates will need to be submitted to the Safety Department on site.

13.8. Hand tools

13.8.1. No handmade or damaged tools may be used on site.

13.8.2. The Principal Contractor needs to exercise control over all contractors on site.

13.8.3. Hand tools may only be used for its intended purpose.

13.8.4. A competent person must be appointed to inspect hand tools monthly.

13.8.5. Inspections need to be recorded on a register and each tool identified with a unique number.

13.9. Inspection of equipment and tools.

13.9.1. The following items of equipment must be regularly inspected and maintained, and appropriate records kept.

13.9.1.1. First Aid dressing registers
13.9.1.2. Fire equipment
13.9.1.3. Lifting equipment
13.9.1.4. Lifting Gear
13.9.1.5. Portable electrical equipment
13.9.1.6. Stacking and storage inspections
13.9.1.7. Explosive power tools
13.9.1.8. Hazardous Chemical Substances (HCS)
13.9.1.9. Materials hoists (where applicable)
13.9.1.10. Pressure Vessels
13.9.1.11. Ladders
13.9.1.12. Excavations
13.9.1.13. Safety harnesses
13.9.1.14. Scaffolds - static and mobile.

13.9.1.15. Pneumatic tools

13.9.1.16. Construction vehicles and mobile plant.

13.9.1.17. Health and Safety Representatives checklists.

13.10. Ladders and ladder work

13.10.1. The Principal Contractor shall appoint a competent person in writing to inspect all ladders monthly and record such findings in a register.

13.10.2. Ladders are to extend one meter above a landing and must be secured at the top and have a secure, non-slip base.

13.10.3. All ladders that do not comply with Health and Safety standards are to be removed from the site immediately.

13.11. Cranes and lifting equipment.

13.11.1. Should any form of lifting device or crane (fixed or mobile) be used during the project for deliveries, moving of supplies or equipment, the appropriate documentation must be made available.

13.11.2. The Principal Contractor and all Contractors shall ensure that lifting machinery and tackle is inspected before use and thereafter in accordance with the Driven Machinery Regulations and the Construction Regulations (section 20).

13.11.3. Method statements, risk assessments, safe work procedures and training are to be available prior to work commencing.

13.11.4. A procedure for managing loads and lifting must be made available as an addendum to the H&S Plan.

13.11.5. There must be competent lifting machinery and tackle inspector who must inspect the equipment daily or before use, considering that:

13.11.6. All lifting machinery has a safe working load clearly indicated.

13.11.7. All lifting equipment is clearly marked with a unique number and safe working load.

13.11.8. Regular inspection and servicing is carried out:

13.11.8.1. Lifting Machinery load test – every 12 months

13.11.8.2. Lifting Machinery Inspection & service – every 6 months

13.11.8.3. Lifting Tackle Load test – every 12 months

13.11.8.4. Lifting Tackle Inspections – every 3 months

13.11.9. Records are kept of inspections and of service certificates.

13.11.10. Any plant or slings used to lift plant or material requires annual load testing by an AIA, and all certificates must have the testers LMI/E number.

13.11.11. There is proper supervision in terms of rigging & guiding the loads that includes a trained banks man to direct lifting operations and check lifting tackle.

13.11.12. The operators are competent as well as physically and psychologically fit to work and in possession of a medical certificate of fitness to be available on site.

13.12. Overhead Work & Suspended Loads

13.12.1. All overhead work & suspended loads must be safely executed and controlled under supervision.

13.12.2. The area around suspended loads must be barricaded to prevent unauthorized entry of persons who is not part of the task.

13.12.3. Workers may not be positioned under a suspended load at any given time.

13.12.4. To control overhead work the principal contractor must ensure that Workers secure all materials & equipment to prevent articles falling from above onto workers below.

13.13. Temporary Works (Scaffolding, support work, formwork) where applicable

13.13.1. The Principal Contractor shall ensure that the provisions of section 12 of the Construction Regulations are adhered to.

13.13.1.1. These provisions must include but not be limited to the appointment of a competent supervisor; ensuring that all equipment used is examined for suitability before use; that all formwork and support work is inspected by a competent person immediately before, during and after placement of concrete or any other imposed load and thereafter, daily until the formwork and support work has been removed.

13.13.2. Temporary works must be properly designed and signed off by a competent person.

13.13.2.1. In these instances, a competent person is defined as a Professional Engineer or Professional Technologist (registered with ECSA) who has sufficient experience in the design of the type of temporary work in question to be able to assess the design.

13.13.3. The appropriate competent persons are to be appointed to manage and monitor such works to the satisfaction of the Engineer and H&S Agent.

13.13.4. Records and registers are to be properly completed and kept in the H&S file. If temporary works are to be erected by a Contractor, this must be notified to the Designer/H&S Agent.

13.13.5. Failure to do so will be considered a serious offence.

14. **WORKING PROCEDURES**

14.1. Demolition work

14.1.1. A competent person is to be appointed in writing to supervise and control all demolition work on site.

14.1.2. A method statement on the procedure to be followed in demolishing the structure is to be developed by a competent person prior to the work being carried out.

14.1.3. Separate method statements will be required for safety of public and health hazards.

14.1.4. The Construction Regulations section 14 conditions shall apply.

14.1.5. The Contractor is to provide suitable temporary signage to protect the areas under demolition.

14.1.6. The Contractor is to provide suitable dust-proof screens where necessary to contain dust from the demolitions.

14.1.7. The Contractor is to make every effort to limit the noise during demolition work and is to ensure that the work is carried out with the least possible interference with the operations as a whole for all the hospital facilities.

14.1.8. Rubber bin or similar approved rubble chutes are to be provided for the disposal of the rubble from the demolition works to rubble area in site camp.

14.1.9. All materials arising from the demolitions are to be removed from site immediately and are not allowed to accumulate on site.

14.2. Site Works and Excavations

14.2.1. A competent person is to be appointed in writing to supervise the Site Works and Excavations.

14.2.2. A method statement on the procedures relating to the diversion of existing services and the maintenance of services to the existing facilities is to be agreed between the Contractor and the Principal Agent prior to the commencement of the work.

14.2.3. The Contractor is to ensure Risk Assessments & Safe Working procedures have been communicated to the workers before any work is commenced.

14.3. Excavations

14.3.1. A procedure for managing excavations is to be provided as an addendum to the H&S plan describing how excavations are to be managed.

14.3.2. Excavation method statements are to be approved by the Designer and associated risk assessments are required.

14.3.3. All Excavations are to be properly barricaded and demarcated.

14.3.4. Any excavation shall be adequately shored if people are required to work in the excavation and the depth is more than 1.5 metres or where conditions render this necessary at lesser depths unless battered/sloped at the maximum angle of repose measured relative to the horizontal plane.

14.3.4.1. Undercutting is not allowed.

14.3.5. Excavated material shall be placed at least 2m from the edge of an excavation.

14.3.5.1. A close watch shall be maintained at all times for signs of slipping, (e.g. cracks developing at the edges of the excavation).

14.3.5.2. Any Excavations over one metre in depth are to be properly shored up in accordance with the requirements of the Civil / Structural Engineer.

14.3.5.3. The requirements as per section 13 of the Construction Regulations are adhered to.

14.3.5.4. Designs by competent persons are required where ground conditions are deemed to require shoring.

14.3.6. A competent person is to be appointed for managing all excavations.

14.3.6.1. A permit system is to be available and used for all excavations.

14.3.6.2. All equipment and ground conditions to be checked daily, and prior to work commencing.

14.3.7. The Contractor shall evaluate, as far as is reasonably practicable, the stability of the ground before excavation work begins.

14.3.8. Every contractor who performs excavation work shall –

14.3.8.1. Take suitable and sufficient steps 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.

14.3.8.2. Not permit any person to work in an excavation which has not been adequately shored or braced: If shoring and bracing may not be necessary where –

14.3.8.2.1. The sides of the excavation are sloped to at least the maximum angle of repose measured relative to the horizontal plane; or

14.3.8.2.2. Such an excavation is in stable material:

14.3.8.2.3. Provided that - Permission being given in writing by the appointed competent person contemplated in sub regulation (1) upon evaluation by him or her of the site conditions; and where any uncertainty pertaining to the stability of the soil still exists, the decision from a professional engineer or a professional technologist competent in excavations shall be decisive and such a decision shall be noted in writing and signed by both the competent person contemplated in sub regulation (1) and the professional engineer or technologist, as the case may be.

14.3.8.2.4. Take steps to ensure that the shoring or bracing contemplated is designed and constructed in such a manner

rendering it strong enough to support the sides of the excavation in question.

14.3.8.2.5. Ensure that no load, material, plant or equipment is placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endangering the safety of, any person, unless precautions such as the provision of sufficient and suitable shoring or bracing are taken to prevent the sides from collapsing.

14.3.8.2.6. Ensure that where the stability of an adjoining building, structure or road is likely to be affected by the making of an excavation, the steps are taken that may be necessary to ensure the stability of such building, structure or road and the safety of persons.

14.3.8.2.7. Cause convenient and safe means of access to be provided to every excavation in which persons are required to work and such access shall not be further than 6m from the point where any worker within the excavation is working.

14.3.8.2.8. Ascertain as far as is reasonably practicable the location and nature of electricity, water, gas or other similar services which may in any way be affected by the work to be performed and shall before the commencement of excavation work that may affect any such service, take the steps that may be necessary to render the circumstances safe for all persons involved.

14.3.8.2.9. Cause every excavation, including all bracing and shoring, to be inspected by the competent person contemplated in the sub regulation:

14.3.8.2.9.1.1. Daily, prior to each shift.
14.3.8.2.9.1.2. After every blasting operation.
14.3.8.2.9.1.3. After an unexpected fall of ground.
14.3.8.2.9.1.4. After substantial damage to supports.
14.3.8.2.9.1.5. After rain.

14.3.8.2.10. This is to be done in order to pronounce the safety of the excavation to ensure the safety of persons, and those results

are to be recorded in a register kept on site and made available to an inspector, client, client's agent, contractor or employee upon request.

14.3.8.2.11. Cause every excavation which is accessible to the public or which is adjacent to public roads or thoroughfares, or whereby the safety of persons may be endangered, to be:

14.3.8.2.12. Adequately protected by a barrier or fence of at least one meter in height and as close to the excavation as is practicable.

14.3.8.2.13. Provided with warning illuminates or any other clearly visible boundary indicators at night or when visibility is poor.

14.3.8.2.14. Ensure that all precautionary measures as stipulated for confined spaces as determined in the General Safety Regulations promulgated by Government Notice No. R.1031 of 30 May 1986, as amended, are complied with when entering any excavation.

14.3.8.2.15. Ensure that, where the excavation work involves the use of explosives, a method statement is developed in accordance with the applicable explosives legislation, by an appointed person who is competent in the use of explosives for excavation work and that the procedures therein are followed.

14.3.8.2.16. Cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.

14.3.9. Excavations should preferably not be open beyond what can be closed daily.

14.3.9.1. Where excavations need to remain open, all excavations are to be properly protected.

14.3.9.1.1. Adequate stakes with 1m high demarcation and berms/spoil are required to be a safe distance from the edge of the angle of repose. Candy tape may not be used to demarcate excavations.

14.3.9.1.2. Cognisance is required of the surrounding area and increased levels of protection are required where work is in communities, near schools' clinics and / or Hospitals.

14.3.10. Work will be stopped, and penalties applied to any work in excavations that are not compliant.

14.4. Working at Heights

14.4.1. A fall protection plan is to be available and supplied as an addendum to the H&S plan.

14.4.1.1. The fall protection plan must be appropriate for the project.

14.4.1.2. Method statements, appropriate risk assessments, safe work procedures and training are to be available prior to work commencing.

14.4.2. Construction drawings shall be required for all temporary structures as they relate to the project.

14.4.2.1. The drawings shall be accompanied by full calculations, design loads and any relevant test results as required by the SANS code and ensure adequate allowance for the development of appropriate documentation and training.

14.4.2.2. All drawings are to be checked and signed by a competent structural engineer (registered with ECSA).

14.4.3. The focus for working at height shall include fall restraint systems where possible except during assembling or dismantling top components or where it is not deemed safe.

14.4.3.1. The relevant SANS codes are to be applied as they apply to the works and the project, such as:

14.4.3.1.1. SANS 10085

14.4.3.1.2. SANS 10333 (parts 1-3)

14.4.4. Should part of the works be contracted out, competent Contractors are to be appointed and submit documentation according to the project requirements.

14.4.4.1. The PC is to note if such work is to be contracted to specialists in the H&S Plan.

14.4.4.2. The plan is to be developed and work managed by a competent person for the duration of the project.

14.4.4.3. The following aspects must be included:

14.4.4.3.1. The public or users of buildings are to be protected at all times by way of hoarding, barricading or fencing

14.4.4.3.2. Notices to be posted

14.4.4.3.3. Restrictions or stoppage when weather conditions are deemed hazardous

14.4.4.3.4. Permit system for working at heights

14.4.4.3.5. Prevention of falling tools or equipment

14.4.4.3.6. Link to emergency plan regarding rescue

14.4.4.3.7. All workers are to be in possession of valid certificates of fitness that extend for the duration of the works.

14.4.4.4. Note the requirements in the section relating to medical surveillance.

14.4.4.5. Registers and all relevant documentation are to be placed in the H&S file.

14.4.4.6. Work will be stopped, and penalties applied to any work at heights that is not compliant.

14.5. Edge protection

14.5.1. The Principal Contractor must ensure that all edges and openings are guarded and demarcated at all times until permanent protection is erected.

14.5.2. The protection must be visibly marked, and sign posted.

14.6. Mechanical installations

14.6.1. All mechanical installations are to be carried out in conformity with the manufacturer's instructions.

14.6.2. Method statements and risk analyses must be compiled for each type of installation.

14.6.3. A competent person must be designated to supervise the work.

14.7. Electrical work

14.7.1. In addition to the requirements of the Electrical Machinery Regulations and the General Machinery Regulations any electrical distribution board used for construction work shall be fitted with suitable earth leakage protection.

14.7.2. Leads must be properly and firmly connected.

14.7.3. Plugs and sockets shell be in good and safe condition.

14.7.4. All electrical apparatus, other than electrical hand tools, shall have a physical “lock out” system which will prevent any operation other than that authorized by a supervisor.

14.7.4.1. A “lock out” sign shall be displayed when the apparatus is not in use.

14.7.5. Method statements and safe work procedures will be required for all work involving electrical apparatus.

15. **AUDITING**

15.1.1. Frequency of external auditing by the Client or client’s agent will be as agreed with the Client and Designer but will at least conform to the requirements of the Construction Regulations.

15.1.1.1. The site will be inspected, and the documentation audited relative to the activities and H&S plan.

15.1.1.2. The H&S Manager of the PC must accompany the Client, or the H&S Agent, on all audits and inspections.

15.1.1.3. Not all audits will be, or need be announced.

15.1.2. The PC will ensure that all their Contractors are audited at a frequency determined by the H&S Agent.

15.1.2.1. Audit frequency may be increased if Contractors are not performing adequately.

15.1.2.2. Audit results will be acted upon and non-conformances and penalties issued where deemed appropriate.

15.1.2.3. The Client, Designer or H&S Agent may act or require further outcomes if non-compliances are noted or unsafe acts are noted on site.

15.1.3. Internal audits are to include site conditions as well as ensuring H&S files are appropriate, and compliant.

15.1.3.1. Comprehensive audit reports are to be made available, the format of the audit reports is to be acceptable by the H&S Agent.

15.1.4. The PC will be audited using a template as supplied in the tender document.

15.1.4.1. The audit template will be adjusted from time to time relative to the activities on site.

15.1.4.2. A similar process is to be used by the PC when auditing their Contractors on site.

15.1.4.3. Compliance with legislative requirements and the systems provided by the PC to manage the H&S on site will be measured.

15.1.4.4. Full compliance is required. Time limits for corrective actions will be set and must be adhered to.

15.1.5. Failure to address findings or non-conformances will be considered a serious offence.

16. **OCCUPATIONAL HEALTH**

16.1. Communication on Site

16.1.1. All H&S communication during the project between the Client and the PC will be done through the Client's agent and be in writing, including the issue and responses to non-conformances and H&S audit results.

16.1.2. Failure to address issues timeously will be considered a serious offence.

16.2. Care of Workers on Site (Welfare)

16.2.1. Adequate toilets, clean, safe drinking water and decent shelter will be provided for workers at all times.

16.2.1.1. Toilets will be within reasonable distance of workers, or placed with each working team in safe, with reasonable privacy.

16.2.1.2. Hand washing facilities will be provided.

16.2.1.3. Arrangements made where existing facilities are shared with existing users must be made in writing and placed in the H&S file.

16.2.2. Failure to ensure compliance will be considered a serious offence.

16.2.3. High levels of humidity and temperatures during the summer months may be experienced.

16.2.3.1. Workers are at greater risk of heat exhaustion where the discomfort index rises above 100.

16.2.3.2. A weather station has been allowed for to monitor temperature and humidity specifically.

16.2.3.3. Should the discomfort index rise above 105, work may be partially or totally stopped.

16.2.4. During winter in areas known for cold weather notice must be taken of the wind-chill factor.

16.2.4.1. Workers must be supplied with adequate protective clothing and shelters provided as necessary.

16.2.5. Flooding may occur during the rainy season.

16.2.6. High winds may be experienced and to limit dust or danger when working at heights, a wind speed should be set at which work may be stopped or the workers in an affected area moved.

16.2.7. The emergency plan is to include how these and other weather extremes identified are to be managed.

16.2.7.1. The general aspects as detailed in the Environmental Regulations will be applied.

16.2.8. All decisions regarding work stoppage will be decided between the PC, the H&S Officer and the Engineer or Principal Agent.

16.2.9. Failure to manage specific conditions or address issues timeously will be considered a serious offence.

16.3. Discipline, Alcohol and Substance Abuse

16.3.1. All employees (management included) are to follow instructions given in the interest of H&S.

16.3.1.1. Disciplinary action is to be imposed on those who do not follow such instructions or company rules or policies.

16.3.2. No person can work or access site if under the influence of alcohol or other substances that could impact on their own or others safety.

16.3.2.1. The PC is to have a drug and alcohol policy available to manage such instances.

16.3.3. These requirements are applicable to any employee of any organization providing services on site.

16.3.3.1. Penalties may also be applied by the Client, OHS Agent, Engineer or Principal Agent.

16.4. Rules of Conduct.

16.4.1. Workers MAY NOT partake, possess or sell drugs or alcoholic beverages on site.

16.4.2. Any employee or visitor whose action and demeanour show symptoms of possible narcosis or drunkenness shall be removed from site.

16.4.3. Workers MAY NOT indulge in practical jokes, horseplay, fighting or gambling.

16.4.4. Workers MAY NOT destroy or tamper with safety devices, symbolic signs or wilfully and unnecessarily discharge fire extinguishers.

16.4.5. Workers MAY NOT bring onto site or have in their possession a firearm or lethal weapon.

16.4.6. Workers MAY NOT assault, intimidate or abuse any other person.

16.4.7. Workers MAY NOT operate construction equipment (vehicles or plant) without the necessary training and authorisation.

16.4.8. Workers MAY NOT display insubordination toward any Supervisor, Foreman or Manager in respect to carrying out of properly issued instructions or orders for Health and Safety reasons.

16.4.9. Workers MAY NOT enter any area where they have no business unless authorised to do so by the person in charge.

16.4.10. Workers MAY NOT negligently, carelessly or wilfully cause damage to property of others.

16.4.11. Workers MAY NOT refuse to give evidence or deliberately make false statements during investigations.

16.4.12. Workers MAY NOT work on site without appropriate induction training & proof thereof.

16.4.13. The Contractor MAY NOT start any task without performing a risk assessment & training of the employees who will be involved in the work.

16.4.14. All workers are to display their identification tags at all times.

16.4.15. NO SMOKING will be permitted within the hospital facilities grounds unless in a designated smoking area in the site camp.

16.4.16. Workers are NOT to interfere with the duties of the hospital, its staff, patients or visitors.

16.4.17. The Principal Contractor shall keep and maintain Health and Safety records to demonstrate compliance with this Specification, with the Occupational Health and Safety Act, and with the Construction Regulations.

16.4.18. The Principal Contractor shall ensure that all records of incidents/accidents, emergency procedures, training, inspections, audits, etc., are kept in the Health and Safety file.

16.4.19. The Principal Contractor shall ensure that all Subcontractors maintain the Health and Safety file.

16.5. Compliance with the Rules of Conduct.

16.5.1. The Principal Contractor, Subcontractors and all employees under their control, including any visitor brought onto site must adhere to the Rules of conduct on site, as listed under Section 12.28.

16.5.2. These Rules of Conduct must also be adhered to by any of the following who visit the Site:

16.5.2.1. Professional Team

16.5.2.2. Hospital Management and Staff

16.5.2.3. ECDoH Employees

16.5.2.4. Direct Contractors

16.5.2.5. Trade Representatives

16.5.2.6. Any other visitors to the Site.

16.6. Electrical Equipment

16.6.1. In addition to the requirements of the Electrical Machinery Regulations and the General Machinery Regulations any electrical distribution board used for construction work shall be fitted with suitable earth leakage protection.

16.6.2. Leads must be properly and firmly connected.

16.6.3. Plugs and sockets shell be in good and safe condition.

16.6.4. All electrical apparatus, other than electrical hand tools, shall have a physical “lock out” system which will prevent any operation other than that authorized by a supervisor.

16.6.4.1. A “lock out” sign shall be displayed when the apparatus is not in use.

16.6.5. Method statements and safe work procedures will be required for all work involving electrical apparatus.

17. SAFETY RULES WITH RESPECT TO WORK TO HEALTH CARE FACILITIES

17.1. All persons on the premises shall obey the ECDoH & facilitie’s Health and Safety rules, procedures and practices.

17.2. No smoking will be permitted within the buildings or within the buildings under construction.

17.3. All work shall be carried out within normal working hours except certain essential works which may need to be carried out after hours or over weekends – arrangements for such work to be agreed in advance between the Contractor and Principal Agent.

17.3.1. Note: That on this contract it is assumed that work will take place 7 days a week including after hours and at night as required.

17.3.2. The Contractor is to agree the weekly work schedule in advance with the Client’s Agent.

17.4. All workers are to be instructed in and familiarise themselves with the existing emergency and safety procedures and to co-operate in any drills or exercises which might be held by the Hospital.

17.5. Emergency / Firefighting equipment belonging to the premises is not to be interfered with.

17.6. Emergency Exits and Escape Routes, including Temporary Escapes Routes are not to be obstructed.

17.7. No persons shall carry out or initiate an unsafe / unhygienic act or operation whilst on the premises.

17.8. Workers are not to interfere with the duties of the hospital, its staff, patients or visitors.

17.9. The Contractor shall maintain good housekeeping standards in the areas being worked on throughout the duration of the contract.

17.10. All waste / scrap materials are to be removed from the work areas on an on-going basis and should not be allowed to accumulate.

17.11. The Client and facility Management reserves the right to act in any way necessary to ensure the safety and / or security of any persons or equipment on its premises and will not be liable for any costs incurred or loss evoked by such actions.

17.12. The Client and health facility Management reserves the right to search all vehicles entering, leaving or parked on the premises and to inspect any parcel, package, handbag, tog-bag or suitcase.

17.13. The health facility reserves the right to search any person entering or leaving the health facility premises.

17.14. Persons who are not willing to permit such searches may not bring any such items or vehicles onto the premises.

17.15. All workers must wear proper identification labels at all times – The Contractor will be asked to remove persons without identification from the premises.

17.16. The Contractor will not be permitted to use any tools or equipment belonging to the health facility.

17.17. The Contractor is to ensure that noise is kept to a minimum so as not to unduly interfere with the functioning of the adjacent facilities.

17.18. The Contractor is to ensure that dust from the works is properly contained so as not to cause problems with the normal functioning of the adjacent facilities.

18. **PROJECT SPECIFIC RISKS**

18.1. Risks applicable to the planned construction work at the health facilities

18.1.1. Working on the existing health facility site in a building that contains essential medical supplies and will remain in operation throughout the contract period.

18.1.2. The existing health facility is a high-risk security area and the Contractor must ensure that the security of the areas not being worked on is not compromised.

18.1.3. The Contractor will have to coordinate with the health facility Management and Staff regarding the transfer of stock from one area to another to clear the work areas.

18.1.4. Where necessary the Contractor is to provide temporary security screens to ensure the security of areas not being worked on.

18.1.5. Existing services will have to be altered whilst maintaining continuity and supply to the existing hospital.

18.1.6. The Contractor having to access the work areas through the existing Hospital building/corridors/walkways that are functional.

18.1.7. The transporting of materials in and out of the work areas without compromising the security of the remaining occupied areas.

18.1.8. Works above 5 meters in height.

18.1.9. Working at height in restricted spaces along the perimeter of the building.

18.1.10. Working in/near busy delivery and dispatch areas.

18.1.11. The limiting of noise & vibration from construction activities.

18.1.12. Keeping the escape routes clear and unobstructed.

18.1.13. Working in confined spaces.

18.1.14. Restricted access for materials and workers.

18.1.15. Restricted Contractor’s yard area.

18.1.16. Restricted access for construction vehicles and deliveries of materials.

18.1.17. Tight construction programme.

18.1.18. The maintenance of the existing electrical, medical, water, drainage, data & communications, security, fire detection, fire alarm and access control systems to the occupied areas of the hospital.

19. PROCEDURES TO MANAGE PROJECT RISKS

19.1. Public and staff Safety at the health facilities

19.1.1. The scheduling of work activities and order of work to reduce the interference with the normal hospital-activities.

19.1.2. The provision of temporary, dust proof, hoardings to isolate the work areas.

19.1.3. The use of closed bin trolleys for the transport of materials and rubble.

19.1.4. Ensuring that the Principal Contractor has proper site management, site security and control measures in place at all times.

19.1.5. Ensuring that there is ongoing liaison between the Principal Contractor and the health facility Management.

19.2. Public Safety

19.2.1. The provision of temporary, hoardings to isolate the work area.

19.2.2. The use of closed rubble chutes and suitable skips for removal and disposal of rubble.

19.2.3. Ensuring that the Principal Contractor has proper site management, site security and control measures in place at all times.

20. HEALTH AND SAFETY FILE

20.1. The documentation submitted and approved following the awarding of the contract will be used to form the H&S file.

20.2. The H&S file is required to be laid out in a logical manner, and documentation filed within the file is to be easily accessible.

20.3. The following completed information shall be included (but not be limited to) as part of the index:

20.3.1. The PSHSS;

20.3.2. The H&S Plan and the approval by Client;

20.3.3. Appointment by Client;

20.3.4. Mandatory agreement with Client;

20.3.5. Notification of construction work;

20.3.6. A record of all working drawings, calculations and design where applicable;

20.3.7. Detailed list of Contractors with contact details, appointments, Mandatories etc., H&S specifications issued;

20.3.8. Record of Competencies (CVs) and appointments;

20.3.9. Training Records;

20.3.10. Permits;

20.3.11. Method statements;

20.3.12. Risk assessments;

20.3.13. Safe work procedures;

20.3.14. Emergency and injury management;

20.3.15. Safety data sheets

20.3.16. Medical surveillance records;

20.3.17. Registers;

20.3.18. Records of audits, minutes etc.

20.3.19. Plant lists

20.3.20. Temporary electrical installations

20.3.21. Employee records (who is on site)

21. **NON-CONFORMANCES**

21.1. Should, at any time, the works, or part of the works, be stopped due to unsafe acts or non-compliance with the Clients or PCs H&S Plan; neither the PC nor any other Contractor shall have a claim for extension of time or any other compensation.

21.2. The following constitute examples of the types of non-conformances that will attract penalties:

Minor: **Penalty: R50/count**	**Medium:** **Penalty: R500/count and a non-conformance**	**Severe** **Penalty: R5000/count, a non-conformance and/or activity stoppage**
Non-use of PPE supplied	Toilets not supplied or regularly serviced; lack of drinking water	Contractors working without Health and Safety Plan approval
Non-completion of registers for plant and equipment on site	Contractors not audited	Workers transported in contravention of the OHS plan or legal requirements
Lack of H&S signage at work areas	Working without training or the appropriate, approved H&S method statements	Invalid Letters of Good Standing
Tools and equipment identified in poor condition during inspections	Legal non-conformances identified during the previous audit and not addressed within the agreed time frame	Non-compliance with traffic accommodation requirements: layout or physical conditions
	No monthly OHS report at site meeting to report on	Any serious breach of legal requirements
	No certificates of fitness for workers as required	
	Working without approved method statements	

21.3. Failure to Comply with Provisions

21.3.1. Failure or refusal on the part of the PC or their Contractors to take the necessary steps to ensure the safety of workers and the general public in accordance with these specifications or as required by statutory authorities or ordered by the engineer, shall be sufficient cause for the engineer to apply penalties as follows:

21.3.1.1. A penalty as shown in the Table above shall be deducted for each occurrence of non-compliance with any of the requirements of the PSHSS.

21.3.1.2. In addition, a time-related penalty of R500,00 per hour over and above the fixed penalty may be deducted for non-compliance to rectify any non-conformance within the allowable time after a site instruction to this effect has been given by the Designer.

21.3.1.3. The site instruction shall state the agreed time, which shall be the time in hours for reinstatement of the defects.

21.3.1.4. Should the Contractor fail to adhere to this instruction, the time-related penalty shall be applied from the time the instruction was given.

22. MEASUREMENT AND PAYMENT

22.1. The payment items for Occupational Health & Safety are contained in the Bills of Quantities.

22.2. The same rules are applicable in respect of the pricing of these items as for every other payment item.

22.3. Attention is drawn to the Pricing Instructions in this document.

22.4. **Item and Unit**

22.4.1. **C.01 - Preparation of Contractor's Project Specific Health and Safety Plan. (Lump Sum (L.S))**

22.4.1.1. The rate for this item must cover all expenses incurred in preparing the Contractor's project specific Health and Safety Plan as required by the Client's project specific Health and Safety Specification in this document

22.4.2. **C.02 - Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations. (Lump Sum (L.S))**

22.4.2.1. The full amount will be paid in one instalment only when the Client's Agent has verified and approved the following:

22.4.2.1.1. The Principal Contractor has notified the Provincial Director of the Department of Labour in writing of the project, Annexure A to the Regulations.

22.4.2.1.2. The Principal Contractor has made the required initial Appointments of Employees and Contractors.

22.4.2.1.3. The Client has approved the Principal Contractor's project Health and Safety Plan.

22.4.2.1.4. The Principal Contractor has set up his Health and Safety File.

22.4.3. **C.03 - Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations. (Month (Mth))**

22.4.3.1. The amount shall represent full compensation for that part of the Principal Contractor's general obligations in terms of the Occupational Health and Safety Act and Regulations which are mainly a function of time.

22.4.3.2. Payment will be made when the Client's Agent has verified the Principle Contractor's compliance as part of the audit.

22.4.3.3. This will include the updating and administration of the Health and Safety file.

22.4.4. **C.04 - Provision of Personal Protective Equipment (PPE) as listed in the Bill of Quantities. (Number (No))**

22.4.4.1. The rates for these items shall include for the procurement, delivery, storage, distribution and all other actions required for the supply of PPE to the employees of the Principle Contractor, full or part time, requiring them.

22.4.4.2. Subcontractors are responsible for their own costs in this regard.

22.4.4.3. Any items of PPE not included on the list will be paid for only after the Engineer has agreed to their acquisition.

22.4.4.3.1. Items listed will include, among others which may be noted, are: hard hats, reflective vests, reflective bibs, high visibility overalls, protective foot wear, fall arrestor harness and tethers, gloves, ear muffs, earplugs and dust masks of appropriate type.

22.4.4.3.2. Normal items such as standard overalls, waterproof clothing, gum boots and standard workshop safety equipment such as welding masks and goggles will not be paid for.

22.4.4.4. Payment will be based on the issues register for PPE as kept by the Construction Health and Safety Officer, backed up by paid invoices if requested.

22.4.5. **C.05 - Provision of Full Time Construction Health and Safety Officer (Month)**

22.4.5.1. The Tender sum shall include for the cost of a Construction Health and Safety Officer on a fulltime if the Client should allow a part-time CHSO the amount tendered will be prorated according to the amount of time spent on the project.

22.4.6. **C.06 - Costs of Medical Surveillance (Unit (No))**

22.4.6.1. This item shall cover all costs in involved in the obtaining of baseline medical examinations of temporary labour, including operators for mobile plant as contemplated in CR 21(d) (ii); for temporary workers and workers exposed to noises at or above the limits given in the Noise-induced Hearing Loss regulations, as stipulated.

22.4.6.2. Workers in the permanent employ of the Contractor will only be paid for if their certificates require updating.

22.4.6.3. **C.06 a)** Initial (baseline) medical examinations, including audiometric and lung function testing.

22.4.6.4. **C.07 - Induction Training (Unit (No)**

22.4.6.4.1. This item shall cover all costs incurred for the health and safety inductions as set out on Regulation 7 of the Construction regulations and the proof of induction required.

22.4.6.4.2. Payment will be made on the figures contained in the induction section of the Health and Safety File.

22.4.6.5. **C.08 - Provision of First Aid Boxes. (Unit (No))**

22.4.6.5.1. The rate for this item shall cover all costs incurred in the provision and maintaining of first aid boxes as outlined in Paragraph 7 above.

22.4.6.6. **C.09) Establishment of noise levels (Unit (No))**

22.4.6.6.1. This item shall cover all costs involved in the establishment of noise zones, including any workshops, in terms of Regulation 9 of the Noise-induced Hearing Loss Regulations.

22.4.6.6.2. Where a zone has previously been established for a particular item of plant within the last two years, the test need

not be repeated but must be kept valid for the duration of the Contract.

22.4.6.7. **C.10 - Submission of the Health and Safety File. (Lump Sum)**

22.4.6.7.1. Expenditure under this item shall be made in accordance with the general conditions of contract.

22.4.6.7.2. This amount will be paid only once the Principal Contractor has met all his obligations in respect of the Occupational Health and Safety Act and the Construction Regulations and has submitted his Health and Safety File complete as envisaged on this specification to the Client's satisfaction.

22.4.6.7.3. This must be done prior to the issue of a Certificate of Completion

RESPONSIBILITY	SIGNATURE	DATE
CLIENT'S AGENT SIGNATURE:		
CLIENT SIGNATURE:		

ANNEXURE A

CLOSE OUT REQUIREMENTS

The H&S files for the Principal Contractors and all Contractors require closure and handover to the Client at the completion of the project. The following list is an example of what should be included, but is not exhaustive. The OHS Agent or the Client may require further information at the time of completion and the Principal Contractor is to ensure that all instructions are met. Documentation would include all records from the start of the project. Daily or monthly plant inspection records are not required unless they are related to an accident. All records to be in electronic format and submitted to the OHS agent for approval in adequately formatted lists and folders. Layout should be logical and in the same order as in the site files.

Health and Safety close out file requirements include:

a) Client H&S Specification
b) Principal Contractor's OHS Plan(s)
c) Organograms
d) Legal Appointments
e) List of all employees employed on a permanent or contractual basis over the duration of the contract
f) Notification to Department of Labour of commencement of work
g) Letters of Good Standing for the Project
h) Full files for all Contractors as well as their close out reports
    - List of Contractors
    - All employees employed on a permanent or contractual basis over the duration of the contract
    - Letters of Approval of Contractors
    - Mandatary Agreements
    - Letters of Good Standing
    - Appointments
i) Incident Records
j) Non- Conformance records
k) Agent's Audits
l) Method Statements
m) Risk assessments
n) Safe work procedures
o) Medical surveillance certificates of fitness. Medical records are to be kept according to the OH&S Act as amended
p) All drawings for temporary structures (suspended beams/scaffolds etc.)

q) All operating manuals for any systems that require on-going maintenance
r) Copies of test results, policies and procedures for environmental monitoring (silica, noise, dusts etc.)

Defect and Liability Period

The H&S files are to be kept 'live' for the defect and liability period by the Principal Contractor, including those of their Contractors. Any work required during the defect and liability period will require an assessment of the H&S file by the OH&S Agent prior to any work commencing.
A copy of drawing records for the as-built drawings are to be placed on file by the Designers once complete.

ANNEXURE B

NON-CONFORMANCES

HEALTH AND SAFETY SITE INSPECTION NON-CONFORMANCE NO		
AGENT:	**PROJECT:**	
Consultant:	**Date and time:**	
Client	**Area:**	
Contractor:		
ASPECTS NOTED:	**COMMENTS:**	**COMPLETION REQUIRED BY (DATE):**
	•	
	•	
	•	
	•	
	•	
PHOTOGRAPHIC EVIDENCE (if available):		
OTHER:		
The following penalties are to be applied:		
Signature of H&S Manager/Site Agent		
Signature: of Client/client's Agent		

ANNEXURE C:

CONTRACTORS MONTHLY HEALTH AND SAFETY REPORT

(To be submitted by the end of the first week of each month and be available with each audit)

CONTRACT NUMBER:		PROJECT NAME:	CONTRACT DETAILS:
1	GENERAL ACTIVITIES FOR THE MONTH (detail each area of work)		
2	NUMBER OF WORKERS (permanent and local, contractors)		
3	TRAINING DONE (supplier, no of people, type)		
4	INCIDENTS / ACCIDENT (list number and details, attach reports)		
6	NON-CONFORMANCES (closed out or active)		
7	CONTRACTORS (list, approval status)		
8	AUDITS COMPLETED (internal and external)		
9	CRITICAL ISSUES		

10	**GENERAL**	

Health and Safety Manager: _____ **Signature:** _____

Date: _____

Construction Manager: _____ **Signature:** _____

Date: _____

ANNEXURE D - BASELINE RISK ASSESSMENT FOR PROJECT

Irrespective of the risk presented on site, it will be ensured that sufficient supervision is in place on site, that personnel are trained in accordance with legislation, including the requirement for site specific inductions on site to inform personnel on site of the risks and hazards applicable to the site. Site supervision is responsible for ensuring that the control measures required below are implemented on site.

	HAZARD	RISK	MINIMUM CONTROL MEASURES
1.	Confined Spaces	• Suffocation • Fumes	• Ensure that confined space is sufficiently ventilated. • Wear personal protective equipment such as proper masks if air supply insufficient or not of sufficient quality. • Test oxygen levels in confined space to ensure that is safe for entry. • Ensure that emergency procedures in place.
2.	Cutting Off Disc	• Noise • Cuts from machine • Fire (particularly at refuelling) • Flying debris • Blade shattering • Contamination by fume created or exhaust fume	• Use competent personnel. • Hot works control- fire extinguisher, fire watchman. (Permit may be required) • PPE to include gloves, eye protection, hearing protection. • Solid working position. • Clear working area • Correct grade of blade must be used. • Good ventilation to be provided (forced if necessary). • Changing of wheels to be by competent persons only • Cut off discs must not be used for grinding (grinding disc thicker) • Bystanders to wear hearing protection, as applicable.
3.	Demolition	• Falling materials Premature collapse of structure	• Ensure there is a current method statement in place. • Ensure all emergency procedures are in place and all details are displayed. • Ensure that structural demolition has been approved by the designer and site management. • Personnel must be competent. • Ensure at all times there is a safe means of access and egress. • All personnel must wear suitable and sufficient Personal Protective Equipment, including head, eye and skin protection.
4.	Electrical Commissioning	• Electric shock	• Personnel to comply with permits to work issued by Client. • Personal protective equipment to be worn by employees to prevent electric shock. • First aid treatment to be readily available. • Only competent and trained persons may decommission or commission electrical equipment.
5.	Electric Tools and Electrical Installations	• Electric shock • Fire	• Electric tools and installations to be in good condition. • Inspect electric tools before use. • Do not use electric tools in wet/damp conditions. • Use personal protective equipment such as insulated gloves. • Electrical installations register to be maintained, inspected by competent person.
6.	Excavations (Working in and around)	• Toxic fumes • Collapse of trench walls/trapping • Falling into excavation • Collapse of adjacent structures	• Deep excavations / monitor air for toxic fumes • Prevent collapse by battering back sides to a safe angle or install temporary support. • Protect vehicles from falling into excavations – provide barriers, signage, etc. as necessary. • Beware of undermining of other structures (e.g. buildings, scaffolds) • Record excavation inspections by competent person on daily basis

	HAZARD	RISK	MINIMUM CONTROL MEASURES
			• Provide suitable means of access/egress in case of emergency. • Excavations formed by explosives must be accompanied by method statement approved by Client.
7.	Explosive Actuated Fastening Devices	• Noise • Being struck by cartridge or fixing	• Operators to be trained, competent and wear appropriate protective equipment, e.g. goggles, gloves, ear defenders, head protection. • Cartridge gun to be in good condition, inspected for damage and faults regularly and results entered into register. • Used and unused cartridges and cartridge gun should be kept in secure place when not in use, maintain register for return and issue.
8.	Fire	• Injuries to workers, pedestrians, residents, road users, damage to property through fire	• No littering on site which could become fire hazard, maintain site in clean condition. • No fires to be lit on site. Have a working fire extinguisher at hand at all times. • No smoking or naked flame near flammable substances or in unauthorised areas. • Ensure proper storage/use of Petrol/diesel/flammable substances – post warning notices.
9.	Flammable Liquids and Gases (Use of)	• Fire • Explosion	• No littering on site which could become fire hazard, maintain site in clean condition. • Have a working fire extinguisher at hand at all times. • No smoking or naked flame near flammable substances or in unauthorised areas. • Ensure proper storage/use of Petrol/diesel/flammable substances – post warning notices. • Equipment must be in good condition, maintained. • Personnel using substances must be trained in safe use and risks.
10.	Fragile Materials	• Persons or items falling through fragile materials	• All fragile materials to be identified and protected prior to work commencing. • Protection to include either covering the fragile materials or excluding activity. • Any coverings to be secured in place. • The location of the fragile materials to be indicated by signage.
11.	Hand tools	• Injuries caused by use of hand tool • Impact with the tool Falls due to access problems • Contamination with substance being worked	Ensure: • Tool is correct for job. • Tool is in good order and suitably sharp. • Personnel must be competent/instructed in tool usage and tool safely. • Lighting is sufficient. • Access is safe, working platform is secure, leading edge is guarded. • Operative is wearing all necessary PPE.
12.	Hazardous Substances	• Injuries to workers through use of hazardous substances, e.g. injuries to eyes, skin, etc.	• Use substances in accordance with data sheet, particularly reference protective clothing required (example: gloves, goggles, etc.) • Know what First Aid measures are. • Have welfare facilities available for washing of hands, etc.
13.	Hot Works	• Burns to eyes or other parts of the body	• Personal Protective Equipment to include eye, skin, and hearing protection. • Respirator maybe be required where cutting galvanized steel or anywhere else toxic fumes and gases arise. Dust can also be a problem and forced ventilation may be required.
14.	Lifting Operations	• Falling material	• Check test certificate.

	HAZARD	RISK	MINIMUM CONTROL MEASURES
		• Crushing by materials • Hand injuries to the slinger • Toppling crane	• Check examination certificate. • Check inspection have been carried out. • Check certificates for lifting equipment (chains, slings, shackles, etc.) • Ensure lifting gear is rated to carry load (SWL). • Ensure materials being lifted are properly packaged and slung. • Be aware that there should be a minimum clearance of 600mm between any slewing parts of a crane and any fixed installation to prevent being trapped. • Access to the work area during lifting operations is to be restricted to those involved with and trained in the work in hand. Do not allow members of the public to gain access to the area. • Only trained banksmen to be used. • The crane driver and the banksman are to ensure that the signals given are clearly understood.
15.	Manual Handling of General Items	• Muscular skeletal injuries if the load is too heavy or awkward • Operative falling/ tripping • Contamination from the substance being carried • Fall of material being carried	• Personnel should be aware of safe manual handling techniques. • Personnel to wear Personal Protective Equipment when carrying items, e.g. safety footwear and gloves. • Ensure good housekeeping against tripping/fall hazards. • Operative to get assistance if load too heavy- team lift if necessary. • Utilise mechanical lifting and carrying aids where possible. • Personnel to ensure access equipment, ladders will take weight of operative, and load being carried. • Personnel to ensure item being carried is properly bonded or is not liable to break apart whilst being manually handled.
16.	Material Hoist	• Mechanical failure • Overloading • Hoist gateway being left open at landings	• Safe working limit to be indicated on hoist. • Hoist operator to be trained/ competent. • Regular maintenance and inspection of hoist by competent person • Records of maintenance and inspection to be maintained. • Hoist gate should be fitted with mechanical and electrical interlocking devices.
17.	Members of Public – Protection of	• Injury to member of public and road users from site works	• Barriers and signage to be in place. • Workers must warn away any members of public from the works. • Footpaths and bridges which are open to public must be closed off if in area of works or otherwise made safe so that no injury occurs to members of public. • Traffic turning into site – traffic management and signage as required. • Signage to be on road at site entrance warning motorists that construction traffic turning into/out of site access. Keep roads free of mud where possible. • Refer to plant risk assessment for details on plant safety precautions. • NOTE: SIGNAGE TO BE POSTED ON SITE TO WARN OF CONSTRUCTION TRAFFIC MOVEMENTS. SAFE MEANS OF ACCESS FOR BOTH CONSTRUCTION TRAFFIC TO SITE AND PRIVATE HOMEOWNERS MUST BE AGREED.
18.	Mobile Crane Erection and Dismantling and Use	• Collapse of structure • Overturning of structure • Falling materials	• Ensure emergency procedures are in place and all operative are aware of the details. • Only use trained and competent operators for the erection and dismantling and use of cranes • Ensure crane driver is trained and holds certification as proof. Must have valid medical certificate of fitness.

	HAZARD	RISK	MINIMUM CONTROL MEASURES
			• Ensure there is safe means of access available at all times. • Ensure the mobile crane driver has 360° vision if not ensure a fully trained banksman is used. • Banksman to wear reflector vest to identify himself to the crane driver. • Ensure all personnel wear suitable and sufficient personal protective equipment. • Consider creating exclusion areas.
19.	Noise and Dust	• Breathing in dust can cause long term health problems, noise can damage hearing	• Wear respiratory and hearing protection. • Dampen down and minimise dust where possible.
20.	Overhead Services (Working near)	• Contact with live services causing injury to personnel • Damage caused to services	• Maintain safe clearance levels. • Establish presence of any services via proper walk-through survey of site and/or means of service drawings. • Wear personal protective clothing. • Ensure height of plant/vehicles does not compromise or exceed clearance levels for overhead services. • Obtain information on clearance levels from service provider.
21.	Painting	• Contact with paint	• Refer to safety data sheet for usage instructions, hazards and precautions required. • When working at height, refer to risk assessment addressing this hazard below.
22.	Plant or Vehicles and Equipment Operation	• Workers injured by passing traffic • Road users and pedestrians at risk from plant operation • Noise	• Implement traffic protection measures. • Trained and competent operators must be used. • Check plant and vehicles on daily basis before use and record inspections. Maintain vehicles in safe condition. • Medical certificates of fitness required for construction plant. • Crossing of road by construction vehicles or machines must be limited to the practical minimum. • Plant and vehicles must be fitted with amber rotating beacons and reverse alarms. • Wear appropriate protective clothing/equipment, e.g. goggles, gloves, ear defenders, etc. as appropriate.
23.	Plastering	• Falling materials • Fall from height. • Contact with materials	• Ensure standard safety procedures are followed. • Ensure there is a safe working area. • Ensure safe access and egress. • Ensure competent personnel are used.
24.	Scaffold Erection/ Dismantling	• Personnel falling from a height. • Items of scaffold falling onto personnel • Scaffold collapsing onto those below.	• Ensure • scaffold is designed to take the imposed loads. • scaffolding is constructed properly. • scaffold is not overloaded. • scaffolders are fully trained. • scaffolding is regularly checked by competent person and record of inspection retained. Written inspections to be recorded on weekly basis. • scaffolders must adhere to the safe systems of work. • all fall arrest equipment to be checked and certified in good working order. • that ALL understand the safe system of work.
25.	Temporary Works – shoring, scaffold, falsework, formwork	• Collapse of form work	• Wear personal protective equipment such as gloves and goggles. • Formwork must be built by trained person and also be inspected by competent person and results entered into register on site.

	HAZARD	RISK	MINIMUM CONTROL MEASURES
26.	Working at Height	• Personnel falling form height. • Falling debris • Those beneath being injured	• All access equipment is properly constructed (inspections record must be maintained) • Only trained personnel construct, dismantle or control the access equipment. • All access equipment must have full toe boards and guardrails - comply with SANS 10085 on erection, use and dismantling of scaffolding. • No access equipment may be loaded above the level of the guardrail. • No access equipment to be loaded above its safe working load. • Where work involves leaning out on an open leading edge, then all personnel are to be fitted with full body harness. The harness must be connected at all times. • All fall arrest equipment to be correctly maintained. • Ensure if ladders are being used for access, they are either footed or tied. Also, the ladder must be set at the correct level of 1 in 4 or approximately 75°.
27.	Supply and Connection	Not informing the hospital technical staff for switching and or off the mains supply during works, may cause: • Electrical damage to appliances and equipment. • Electrical Shock • Building premises can burn	• The hospital technical staff must be informed in due time for switching and or off the mains supply during works.
28.	AMF Panel Electrical Switchgear	• Automatic change-over system faulty.	• Ensure that minor repairs are conducted, and programming conducted to ensure they work properly with the new unit.
29.	Day Diesel Tank	• Not in good condition and leaks • Explosion	• The contractor shall be expected to connect the new fuel system to this tank. • Test for leaks.
30.	Standby Diesel Tank • Bunding not constructed correctly. • New Plinth not constructed correctly. • Not fenced	• Bunded wall can't contain spillage. • Uneven surface. • Leaks • Explosion • Injury to personnel	• Please ensure that the connections and installations are inspected and signed off by architects and engineers before use.
31.	Container: • Pump Bay Housing • Anti-syphon valve • Overfill Protection, mechanical shutoff alarm. • Platform Ladder • Pressure /Vacuum vent • Breather Vents • Dipstick • Tank Fuel Gauge	• Poor connection and installation can cause leaks and explosion. • Damage to building. • Injury to personnel	• Please ensure that the connections and installations are inspected and signed off by architects and engineers before use.
32.	System Low Voltage 400/230 Volts, 3-phase, 4 wire, 50 Hertz, Earthed Neutral	• No Electrical C.O.C supplied.	• Ensure that a qualified electrician with a wireman's licence / trade tested issues an electrical C.O.C.
33.	Balancing of load: • Unbalanced Load	• This can lead to overheating of electrical components and possibly overloading the panel.	• The electrical contractor is required to balance the load as equally as possible over the multiphase supply before commissioning.
34.	Shop Drawings and Alternatives	• Defects • Performance • Compliance	• The electrical contractor is required to submit for approval manufacturers' shop drawings showing proposed equipment in detail including planned tests.
35.	Alternative Specifications not approved.	• Liability • Replacement of condemned equipment. • Costs incurred. • Contract Delays	• Written Approval from the Engineer.

	HAZARD	RISK	MINIMUM CONTROL MEASURES
36.	Supervision: • Unskilled • Incompetent	• Unable to authorize, to receive and execute instructions.	• Skilled and Competent representatives required to receive and execute instructions.
37.	Inferior Materials or Bad Workmanship	• Cost of work and professional fees will be borne by the Electrical Contractor. • Delays	• Skilled and Competent representatives required to receive and execute instructions.
38.	Making Good	• Damages • Disturbances of the building installations. • Cost	• Skilled and Competent representatives required to receive and execute instructions.
39.	Commissioning and Testing	• Incorrectly constructed in accordance with specifications, design and all codes of practice. • Unqualified person	• A documented method shall be followed. • Commissioning procedure. • Signing off major items of equipment.
40.	Performance & Acceptance Test	• Tests not performed. • The onus for the correct functioning of the systems is on the Electrical Contractor.	• Physical testing. • Engineer shall witness the tests. • Electrical Contractor must supply proof of full performance tests of all relevant equipment. • Acceptance tests must be performed on site of the working system or sub system. • A test certificate must be issued by /given to the local electricity supply authorities.
41.	Testing Equipment	• Not testing the equipment • Contractor not having suitable equipment for testing. • Costs of specialist	• Testing equipment is required for the successful commissioning of the works. • The engineer may instruct a testing specialist to undertake the testing in the event of the Electrical Contractor not having suitable equipment.
42.	Arrangement of Inspections & Reinspection	• Costs	• Arrange for inspections and testing of installations.
43.	Workmanship	• Not satisfactory of the Employer • Faulty materials • Inadequately erected or repaired. • Substituted, altered, or rectified. • Not complying to codes.	• Any materials or workmanships considered faulty or incorrectly or adequately erected or repaired, will be substituted, altered or rectified to the satisfaction. • Codes to comply to the wiring code -SANS 1042-1: 2008, & the OHS Act, 1993 (Act 85 of 1993).
44.	Earthing and Bonding	• Not complying to codes will result in non-acceptance.	Earthing shall generally be in accordance with • SANS 10142-1: 2008 Wiring Code, • SANS 10198: Part 3 - Earthing System; General Provision; Part 12 - Installation of Earthing Systems • SANS 10200: Neutral Earthing in Medium Voltage Industrial Power Systems • SANS 10292: Earthing of Low Voltage Distribution Systems • SANS 1063: Earth Rods Couplers and Clamps • AMEU Code of Practice for the application of protective multiple earthing to low voltage distribution systems and • The latest amendments and the OHS Act 1993.
45.	Generator Earthing	• Not complying to codes will result in non-acceptance.	The earthing shall comply with SANS with an overall resistance exceeding 1 Ohm. The earth mat is to be connected to the existing earth-bar with an insulated earth cable. • The earth mat shall be buried at a depth of 1,5 meters below finished ground level. • Cu Earth Bars shall be tinned.

	HAZARD	RISK	MINIMUM CONTROL MEASURES
			• All mat joints and earthing rod joints shall be exothermically welded together by Cadweld or equivalent process. • Each of the earth cables connected to the earth bar shall be fully labelled to ensure correct identification.

PART C4: SITE INFORMATION

C4: SITE INFORMATION

C4.1: SITE INFORMATION

Project Name:	**SUPPLY, DELIVERY AND INSTALLATION OF REPLACEMENT PRIME GENERATORS AT CLUSTER 2 (CHRIS HANI & JOE GQABI) AND CLUSTER 3 (BCMM & AMATHOLE) HOSPITALS**
Tender No:	**SCMU3-23/24-0456-HO**

C4 Site Information

1. GENERAL

a) The Standard for Uniformity in Construction Procurement published in terms of the Construction Industry Development Board (CIDB) Act, 2000 (Act no 38 of 2000), the Standardized Construction Procurement Documents for Engineering and Construction Works as issued by the CIDB and any other relevant documentation pertaining thereto must be studied and all principles in this regard must be applied to all procurement documentation, practices and procedures.

b) The Supplier must acquaint themselves fully with all matters pertaining to this section in order to enable prospective Suppliers to price for all eventualities.

c) All hospitals are functional, caution must be taken in terms of contractor movement and noise.

d) The employer will advise will confirm where the stripped materials need to be disposed.

Site Locations:

All Saints **Hospital**

The site is located in eNgcobo, in the Chris Hani District.
GPS Coordinates:
Latitude: 31°39'35.08"S
Longitude: 28° 2'47.38"E

Frontier Hospital

The site is located in Komani, in the Chris Hani District.
GPS Coordinates:
Latitude: 31°53'17.13"S
Longitude: 26°52'18.58"E

Stutterheim Hospital

The site is located in Stutterheim, in the Amathole District.
GPS Coordinates:
Latitude: 32°34'16.14"S
Longitude: 27°25'7.34"E

PART C5

EASTERN CAPE DEPARTMENT OF HEALTH

TECHNICAL SPECIFICATION

FOR THE SUPPLY

OF

PRIME GENERATORS

SPECIFICATION - PRIME GENERATOR

Contents

1.0 GENERAL

This specification covers the supply, delivery, installation on site and commissioning of diesel-powered prime generators including an external fuel tanks to run the generator for 48 hours.

Full particulars, performance curves and illustrations of the equipment offered, must be submitted with the quotation.

The generators set must be primed, painted and then then finished with two coats of suitable heat resistant enamel paint.

The schedule of information, which is attached to this Specification, must be completed and submitted with the quotation.

Note: All engine, alternator and control panel parts must be readily available in South Africa. A letter confirming this must be submitted with the tender.

2.0 SITE CONDITIONS

Hospital	Location	Altitude	Max. High Temp	Min. Low Temp
All Saints	Engcobo - Eastern Cape	570 above sea level	31 °C	4°C
Frontier	Komani - Eastern Cape	1070 m above sea level	36 °C	3.0 °C
Stutterheim	Stutterheim - Eastern Cape	836 m above sea level	32 °C	4°C

3.0 OUTPUT AND VOLTAGE

The prime generator shall be able:

- to accept a 60% emergency step load 10 seconds after being started,
- the remaining 40% must be accepted 5 seconds later, and
- 100% load shall be accepted within 15 seconds.

The set shall have an output as follows

(a) No load voltage :400/230 Volt
(b) Frequency : 50Hz
(c) Fault Level : 10kA

4.0 CONSTRUCTION

The engine and alternator of the set shall be built together on a hot dip galvanised sled base framework on anti-vibration mountings. A drip tray must be fitted under

the engine. The tray must be large enough to catch a drip from any part of the engine and must be removable.

5.0 OPERATION

The generator set shall be fully automatic.

It must disconnect the mains power supply and start in case of any one or more of the following conditions occurring:

(a) One or more of the mains power supply phases fails;

(b) One or more of the mains power supply phases drifts outside set voltage tolerances;

(c) The mains power supply frequency drifts outside set frequency tolerances;

In addition, it shall be possible to manually start and stop the set by means of push buttons on the generator control panel.

The automatic control shall make provision for three consecutive starting attempts. Thereafter the set must be switched off, and the start failure relay on the switchboard must give a visible and audible indication of the fault.

To prevent the alternator being electrically connected to the mains supply when the mains supply is on and vice versa, a safe and fail proof system of suitable interlocked contactors shall be supplied and fitted to the changeover panel.

6.0 ENGINE

6.1 GENERAL

The engine must comply with the requirements laid down in BS 5514 and must be of the atomised injection, compression ignition type, running at a speed not exceeding 1500 rpm. The engine must be adequately rated for the required electrical output of the set, when running under the site conditions. The starting period for either manual or automatic switching-on until the taking over by the generator set, in one step, of a load equal to the specified site electrical output, shall not exceed 15 seconds. This must be guaranteed by the Tenderer.

Turbo-charged engines will only be accepted if the Tenderer submits a written guarantee that the engine can deliver full load within the specified starting period.

Curves furnished by the engine makers, showing the output of the engine offered against the speed, for both intermittent and continuous operation as well as fuel consumption curves when the engine is used for electric generation, must be submitted with the Tender.

Only reputable and readily available, in South Africa, engine makes may be offered. Only engines that has a successful track record in similar applications will be considered.

The following names shall be considered for engines: Volvo, Cummins, Caterpillar, Perkins or approved equal.

Morelli alternators, Deep sea controllers or approved equal shall be accepted.

6.2 RATING

The set shall be capable of delivering the specified output continuously under the site conditions, without overheating.

6.3 DERATING

The derating of the engine for site conditions shall be strictly in accordance with BS5514 of 1997 as amended to date. Any other methods of derating must have the approval of the Employer and must be motivated in detail. Such derating must be guaranteed in writing and proved by the successful Tenderer at the site test.

6.4 STARTING AND STOPPING

The engine shall be fitted with an electric starter motor and be easily started from cold, without the use of any special ignition devices, under summer as well as winter conditions.

Tenderers must state what arrangements are provided to ensure easy starting in cold weather. Full details of this equipment must be submitted. In the case of water-cooled engines, any electrical heaters shall be thermostatically controlled. The electrical circuit for such heaters shall be taken from the control panel, and must be protected by a suitable circuit breaker.

6.5 STARTER BATTERY.

The set must be supplied with a fully charged batteries. The batteries must have sufficient capacity to provide the starting torque stipulated by the engine makers as well as reasonable standby capacity for the alarm circuit requirements as per Section 8 below. The battery capacity shall be capable of providing three consecutive start attempts from cold and thereafter a fourth attempt under manual control of not less than 20 seconds duration each. The battery must be of the heavy-duty "low maintenance" type, housed in a suitable battery box and guaranteed for 24 months.

6.6 COOLING

The engine may be either air-cooled or water-cooled. In the case of water-cooling, a built-on heavy duty, tropical type pressurized radiator must be fitted. In case of air cooled engines the supplier will remain responsible to ensure that the engine will have sufficient ambient cooling under all operating conditions to ensure that the engine will not overheat or run too hot as result of insufficient ambient cooling in the installation position.

For either method of cooling, protection must be provided against running at excessive temperatures. The operation of this protective device must give a visual and audible indication on the switchboard. Water-cooled engines shall in addition be fitted with a low water cut-out switch, installed in the radiator to switch the set off in the event of a loss of coolant. The protection shall operate in the same way as the other cut-out switches (e.g. low oil pressure). All air ducts for the cooling of the

engine are to be allowed for. The air shall not re-circulate in the enclosure and an air duct shall be supplied from the cooling fan cowling/radiator face to the air outlet louvers in enclosure wall / attenuator. External openings of air ducts must be fitted with suitable louvres to eliminate water and animal ingress into them under normal operating conditions.

6.7 LUBRICATION

Lubrication of the main bearings and other important moving parts shall be by a force- feed system. An automatic low oil pressure cut-out must be fitted, operating the stop solenoid on the engine and giving a visible and audible indication on the switchboard.

6.8 FUEL PUMP

The fuel injection equipment must be suitable for operation with the standard commercial brands of diesel fuel normally available in South Africa.

6.9 FUEL TANK

A fuel tank shall have sufficient capacity for a generator set to run the engine of full load for a minimum period of 48 hours.

If a free bulk fuel tank is required it must be designed, manufactured and constructed in accordance with an approved standard eg, API 650 and for installation within a bund shall be provided complete with the following equipment:

(a) Tank cradle

(b) contents Indicator,

(c) filler cap / coupling,

(d) drain valve with plug,

(e) inspection cover,

(f) interconnection hoses/ pipes,

(g) lower fuel alarm,

(h) extra low level shutdown,

(i) Sensors,

(j) electric pump & hose to fill from the drums mounted inside a wall mounted lockable enclosure

(k) Diesel fuel conditioner

(l) Statutory labelling

(m) API 2000 approved emergency venting in the event of exposure to fire

(n) Pipes and valves shall be painted or marked in accordance with SANS 10140-3.

All electric connections must comply with SANS 10089-2.

The required bund shall be constructed by the project building contractor based on

the design to be discussed and agreed with the generator supplier.

6.10 GOVERNOR

The speed of the engine shall be controlled by a governor in accordance with class A2 of BS 5514 of 1977 if not otherwise specified.

The permanent speed variation between no load and full load shall not exceed 4,5% of the nominal engine speed and the temporary speed variation shall not exceed 10%. External facilities must be provided on the engine; to adjust the nominal speed setting by ±5% at all loads between zero and rated load.

6.11 FLYWHEEL

A suitable flywheel must be fitted, so that lights fed from the set will be free from any visible flicker.

A cyclic irregularity of the set must be within the limit laid down in BS 5514 of 1977.

6.12 EXHAUST SILENCER

It is essential to keep the noise level as low as possible. An effective exhaust silencing system of a super residential type must be provided.

The exhaust pipe shall be installed in such a way that the expulsed exhaust fumes will not cause discomfort to the public. The exhaust pipe must be flexibly connected to the engine to take up vibrations transmitted from the engine, which may cause breakage. The exhaust piping and silencer shall be lagged to reduce the heat and noise transmission into the enclosure and shall be protected against the ingress of driving rain at 45° to the horizontal.

6.13 ACCESSORIES

The engine must be supplied complete with all accessories, air and oil filters, 3 instruction manuals, spare parts lists, the first fill of lubricating oils, engine coolant etc.

7.0 ALTERNATOR

The alternator shall be of the self-excited brushless type, with enclosed ventilated drip-proof housing and must be capable of supplying the specified output continuously with a temperature rise not exceeding the limits laid down in BS 5000 for rotor and stator windings.

The alternator shall be capable of delivering an output of 110% of the specified output, for one hour in any period of 12 hours of consecutive running.

Both windings must be fully impregnated for tropical climate and must have oil resisting finishing varnish.

7.1 REGULATION

The alternator must preferably be self-regulated without the utilization of solid-state elements. The inherent voltage regulation must not exceed plus or minus 5% of the

nominal voltage specified, at all loads with the power factor between unity and 0,8 lagging and within the driving speed variations of 4,5% between no-load and full load.

7.2 PERFORMANCE

The excitation system shall be designed to promote rapid voltage recovery following the sudden application of the full load. The voltage shall recover to within 5% of the steady state within 300 milliseconds following the application of full load and the transient voltage dip shall not exceed 18%.

7.3 COUPLING

The engine and alternator must be directly coupled by means of a high quality flexible coupling, of equal quality and performance to the “HOLSET” type.

8.0 SWITCHBOARD

A free standing automatic mains fail panel incorporate all the standard equipment for the control and protection of the generating set and battery charging must be positioned directly behind the set.

Ideally the motorised automatic change-over switch must be accommodated inside the mains fail panel. Alternatively this may be externally housed in a suitable outdoor enclosure.

The switchboard must conform to the specification as set out in the following paragraphs.

8.1 CONSTRUCTION

The switchboard shall be totally enclosed, and mounted inside the generator enclosure.

All equipment, connections and terminals shall be easily accessible from the front. The front panels may be either hinged or removable and fixed with studs and chromium-plated cap nuts. Self-tapping screws shall not be used in the construction of the board.

All push buttons, pilot lights, control switches, instrument and control fuses, shall be mounted on hinged panels with control wires in flexible looms.

The steelwork of the boards must be thoroughly de-rusted, primed with zinc chromate and finished with two coats of signal red quality enamel, or a baked powder epoxy coating.

Suitably rated terminals must be provided for all main circuits and the control and protection circuits. Where cable lugs are used, these shall be crimped onto the cable stands. Screw terminals shall be of the type to prevent spreading of cable strands. All terminals shall be clearly marked.

For the control wiring, each wire shall be fitted with a cable or wire marker of approved type and numbering of these markers must be shown on the wiring diagram of the switchboards. Control wiring shall be run in PVC trunking as far as possible. The trunking shall be properly fixed to the switchboard steelwork.

Adhesives shall not be acceptable for the fixing of trunking or wire looms to the steelwork.

The automatic control and protection equipment shall be mounted on a separate easily replaceable small panel with printed circuits. The equipment shall mainly be the “solid state” type. After mounting the equipment on the panel, the rear of this panel shall be sealed with epoxy-resin. However, other proven control systems may also be considered, but must be described in detail.

All equipment on the switchboard, such as contractors, isolators, busbars, etc., shall have ample current carrying capacity to handle at least 110% of the full load alternator current specified.

8.2 PROTECTION AND ALARM DEVICES

A switchboard shall be equipped with protection and alarm devices as described below.

A circuit breaker and an adjustable current limiting protection relay must be installed, for protection of the alternator. The protection relay shall be of the type with inverse time characteristics.

Protection must be provided for overload, high engine temperature, low lubricating oil pressure, over speed, start-failure and low water level.

Individual relays with reset pushes are required, to give a visible signal and stop the engine when any of the protective devices operate. In the case of manual operation of a standby set, it shall not be possible to restart the engine by pushing the re-set.

The indicators and re-set push-buttons must be marked in English only and must at least include the following six items:.

OVERLOAD	TEMPERATURE HIGH	OIL PRESSURE LOW
OVERSPEED	START FAILURE	LOW WATER LEVEL

In addition, two relays with reset push-buttons must be fitted giving an audible and visible signal, when:

a) The fuel level in the service tank is low. The reset push button of this relay must be marked “FUEL LOW”. In addition, an extra low-level fuel sensor must be provided. At this level the engine must stop to prevent air entering the fuel system.

b) The battery charger failed. The reset push-button of this relay must be marked “CHARGER FAIL”.

All relays must operate an alarm hooter. A push-button must be installed in the hooter circuit to stop the audible signal, but the fault indicating light on the control panel must remain lit until the fault has been rectified. An on/off switch is not acceptable. After the hooter has been stopped, it must be reset automatically, ready for a further alarm.

The hooter must be of the continuous duty and low consumption type. Both hooter and protection circuits must operate from the battery.

Potential free contacts from the alarm relay must be brought down to terminals for remote indication of alarm conditions.

A test push-button must be provided to test all indicator lamps.

8.3 GENERATOR CONTROLLER

8.3.1 Design

(a) The controller shall be similar or equal to the Deepsea (including DSE 890 Comms Module) modular Generator Set controller. No other controllers shall be acceptable.

(b) The controller shall be manufactured with all its functions and supplied in one box with plug in termination blocks for easy installation and replacement.

(c) The control circuit shall be designed by using fully approved electronic programmable logic controllers. Preference will be given to local manufactured programmed control circuits.

(d) The controller shall be equipped with a GSM cellphone-type modem. This modem shall allow remote access to the Genset Controller where the status of the plant can be remotely monitored via the cellphone network and an IBM-compatible computer equipped with a telephone modem and the necessary Lovato software. The system must also be programmed to output various status and alarm conditions by means of SMS messages to any number of designated cell phones.

8.3.2 Communication Interface

(a) The controller will have a standard RS 232/485 or Ethernet interface suitable for TCP I/P transport medium.

(b) All communication including configuration management shall be done through this port. The use of external program adaptors etc. will not be acceptable.

(c) The controller shall incorporate the following functions:

(i) Mains sensing

(ii) Alternator output-voltage sensing

(iii) Alternator over-frequency sensing

(iv) Control of processor unit (self-diagnostics)

(v) Alarms/Status indications.

(vi) Control selector and operation

8.3.3 Control Selector

A 4-position control-selector on the controller shall be provided to facilitate the following modes of operation:

OFF : Generator switched off

MANUAL : Mains bypassed: Generator shall not take load

AUTO : Generator takes load on mains failure

TEST : Generator takes load on mains failure

8.3.4 **Protections, Alarm and Status Indications**

(a) Provision shall be made for an acoustic as well as visual alarm device.

(b) If required a red flashing beacon (electronic strobe light) shall be installed on the outside of the generator set enclosure.

(c) This alarm device/s shall be powered from the plant's 12V starter battery.

(d) The audible alarm shall be a low-powered electronic device, in order to prevent the starter battery from being discharged when an alarm condition has been activated.

The audible alarm shall be muted automatically after 120 seconds, but the flashing beacon (electronic strobe light) shall remain activated until the RESET function has been operated at the Genset Controller.

(e) The "common" alarm function shall be activated when any alarm condition is activated.

(f) Alarm status indications shall be provided on the Genset Controller. The controller shall contain a HELP menu included in the software, which will provide basic guidance in the event of any monitored alarm functions being activated.

(g) The Genset Controller documentation shall to be provided with the generator set.

8.3.5 **Functions**

(a) At least the following front Panel Indicators shall be provided

Condition		**Alarm**	**Shutdown**
High Temperature	.....	√	√
Low Oil Pressure	.....	√	√
Overspeed	.....	√	√
Underspeed	.....	√	√
Manual/Test Mode	.....		
Heater Fault	.....	√	
Low Fuel	.....	√	
No Fuel	.....	√	√
Low Water	.....	√	√
Modem Remote Start	.....		
Start Fail	.....	√	√
Manual Start	.....		
Emergency Stop	.....	√	√
Mains Phase Rotation Fault	.....		

High Mains Volts	.....		
Condition		**Alarm**	**Shutdown**
Low Mains Volts	.....		
Mains On	.....		
Mains On Load	.....		
Alternator On	.....		
Alternator On Load	.....		
Alternator Phase Rotation Fault	.....	√	√
High Alternator Volts	.....	√	√
Low Alternator Volts	.....	√	√
Battery Volts Fault	.....	√	√
Alternator Charge Fault	.....	√	
Control System On	.....		

(b) Logging of Events

All events relating to the status of the generator set shall be logged with date and time in a non-volatile memory (which can retain information for a period of 6 months in the absence of power to the controller) and the user shall be able to obtain a hard copy on site. Logging of the following events with date and time shall be programmed

- Buffer erased
- Mains on load
- Unit switched ON
- Unit switched OFF
- Low Fuel Level
- Alternator on load
- Alternator off
- Start attempts = 01
- Start attempts = 02
- Start attempts = 03
- Mains phase low
- Unit Mode = Auto
- Manual Stop
- Manual Start
- Unit Mode = Manual
- Alt. Phase 1 min Volts

- Alt. Phase 2 min Volts
- Alt. Phase 3 min Volts
- Alt. Phase 1 max Volts
- Alt. Phase 2 max Volts
- Alt. Phase 3 max Volts
- Alt. Phase 1 min Amps
- Alt. Phase 2 min Amps
- Alt. Phase 3 min Amps
- Alt. Phase 1 max Amps
- Alt. Phase 2 max Amps
- Alt. Phase 3 max Amps

(c) User Programmable

The controller shall be user programmable on site via a menu system with clear prompts for the required data.

(d) Control System DC Supply Voltage

The control system must be able to operate with a minimum DC supply voltage of 4 Volts (without making use of either an internal or an external auxiliary battery) to allow cranking and starting under conditions of low battery capacity.

8.4 MANUAL STARTING

Each switchboard shall be equipped with two push-buttons marked “START” and “STOP” for manual starting and stopping of the set.

8.5 BATTERY CHARGING EQUIPMENT

Each switchboard shall be equipped with battery charging equipment.

The charger shall operate automatically in accordance with the state of the battery and shall generally consist of an air-cooled transformer, a full wave solid-state rectifier, and the necessary automatic control equipment of the constant voltage system.

The charger must be fed from the mains. An engine driven alternator must also be provided for charging the battery while the set is operational. Failure of this alternator must also activate the battery charger failure circuit.

8.6 SWITCHBOARD DISPLAYS

All readings Voltage, Amps (instantaneous, average and maximum), Frequency, kW, kVA, kVAr frequency, etc must be displayed on the controller panel.

8.7 MARKINGS

All labels, markings or instructions on the switchgear shall be in English only.

8.8 EARTHING

An earth bar must be fitted in the switchboard, to which all non-current carrying metal parts shall be bonded.

The neutral point of the alternator must be solidly connected to this bar by means of a removable link labelled “EARTH”. Suitable terminals must be provided on the earth bar for connection of up to three earth conductors, which will be supplied and installed by others.

8.9 OPERATIONAL SELECTOR SWITCH

A four-position selector switch must be provided on the switchboard marked “AUTO”, “MANUAL”, “TEST”, and “OFF”.

With the selector on “AUTO”, the set shall automatically start and stop, according to the mains supply being available or not.

With the selector on “TEST”, it shall only be possible to start and stop the set with the push buttons, but the running set shall not be switched to the load.

With the selector on “MANUAL”, the set must take the load when started with the push-button, but it must not be possible to switch the set on to the mains, or the mains onto the running set.

With the selector on “OFF”, the set shall be completely disconnected from the automatic controls, for cleaning and maintenance of the engine.

8.10 AUTOMATIC CHANGE-OVER SYSTEM

A 12-pole fully automatic changeover system must be provided to isolate the mains supply and connect the standby set to the outgoing feeder in case of a mains failure and reverse this procedure on return of the mains.

The contactors for this system must be interlocked in a safe and failproof way to prevent the alternator from being switched onto the mains or vice versa.

8.10.1 Generator set Controller in AUTO mode:

(a) In the event of a mains failure, the plant must start up after a 3 second delay. This delay shall be introduced to prevent spurious starting of the genset caused by mains supply transients.

(b) During starting and run-up, engine oil pressure, and alternator output voltage and frequency monitoring, shall be blocked for a controlled period of time.

(c) Once the blocking is released and the various operating parameters confirmed as correct, the control system must signal the remote NORMAL supply changeover contactor to open, followed by a closing command for the remote STANDBY supply changeover contactor.

(d) The plant shall now provide power to the essential power loads.

(e) After the mains supply has been restored, the plant must remain on load for a further 60 seconds, after which time it must cause the STANDBY supply

changeover contactor to open, followed 2 seconds later by the closing of the NORMAL supply changeover and remote DB mounted contactors.

(f) Mains power is now restored the to essential and non-essential power loads.

(g) The plant shall now continue to run for a further 3 minutes in order to stabilize the engine and turbocharger temperatures before stopping, thereby avoiding thermal stresses on the engine.

(h) Should the mains fail during the 3 minute cool-down cycle, the system must cause an immediate changeover to STANDBY power, while resetting the cool-down cycle. After the mains has been restored, changeover back to NORMAL supply and shutdown procedures must be re-initiated as described above.

8.11 START DELAY

Starting shall be automatic in event of a mains failure. A 0-15s adjustable, start delay timer shall be provided to prevent start-up on power dips or very short interruptions.

8.12 STOP DELAY

A stop delay with timer is required for the set, to keep the set on load for an adjustable period of one to sixty seconds (0 – 6s) after the return of the mains supply, before changing back to the supply. An additional timer shall keep the set running for a further adjustable cooling period of 5 to 10 minutes at no-load before stopping.

9.0 INSTALLATION

The Contractor must include for the connection of the incoming cable and outgoing feeder cables.

Single core 600/1000 Volts unarmoured XLPE insulated cables with stranded copper conductors and PVC sheath to SANS 1507-4 shall be used to connect the generator ACOS to the outdoor manual bypass switch that will be positioned in close proximity to the generator.

10.0 PLANT AND EQUIPMENT GUARANTEES

The generator plant (genset set and all associated equipment) will be guaranteed for twelve (12) months irrespective of the running hours recorded on the hour meter. All the equipment supplied with it will guaranteed for twelve (12) months from the date of Practical Completion and written guarantees must be submitted on completion.

11.0 FIRST 12 MONTHS MAINTENANCE PERIOD

The Contractor shall be responsible for the service and maintenance of the generator plant for a period of twelfth months after the Practical Completion has taken place.

If during this period the plant is not in working order, or not working satisfactorily owing to faulty material, design or workmanship, the Contractor will be notified and immediate steps shall be taken by him to rectify the defects and/or replace the affected parts on site at his own expense.

The Contractor shall maintain the plant in good working condition for the full twelfth month period to the final delivery of the installation. However, should the Contractor fail to hand over the plant in good working order on the expiry of the specified twelfth months, the Contractor shall be responsible for further monthly maintenance until final delivery is taken.

During this period the contractor will undertake to arrange that the plant be inspected at least once per month by a qualified member of his staff who shall: -

(a) Report to the Officer-in-charge, keeping the maintenance records, and enter into a log book the date of the visit, the tests carried out, the adjustments made, and any further details that may be required.

(b) Grease and oil moving parts, where necessary.

(c) Check the air filter and, when necessary, clean the filter and replace filter oil.

(d) Check the lubricating oil and top-up when necessary.

(e) After the plant has run one oil change for the number of hours stipulated by the manufacturers, drain the sump and refill with fresh lubricating oil. The reading of the hour meter on the switchboard will be taken to establish the number of hours run by the plant.

Under this heading only the cost of the actual oil used, shall be charged as an extra on the monthly account.

(f) Clean the lubricating oil filter and/or replace the filter element at intervals recommended by the engine manufacturer, the cost of a new filter element to be charged as an extra on the monthly account.

(g) Check and when necessary adjust the valve settings and the fuel injection equipment.

(h) Check the battery and top-up the electrolyte when necessary.

(i) Test-run the plant for 0,5 hour and check the automatic starting with simulated faults on the mains, the proper working of all parts, including the electrical gear the protective devices with fault indicators, the changeover equipment and the battery charger. Make the necessary adjustments.

(j) Report to the Officer-in-charge on any parts that become unserviceable through fair wear and tear, or damaged by causes beyond the control of the Contractor.

The Contractor shall immediately submit a detailed quotation for the repair or replacement of such parts to the Officer-in-charge.

(k) Advise the Officer-in-charge when it has become necessary to de-carbonise the engine and submit a quotation for this service.

(l) Top up the water of the radiator, if applicable.

(m) Clean the plant and its components.

12.0 TESTS

The following tests are to be carried out:

a) At the supplier's premises, before the generating set will be delivered to site. The Engineer or the alternative Representative of the Employer will be present during the test to satisfy themselves that the generator set complies with the specification and delivers the specified output. The Engineer must be timeously advised of the date of this test.

b) After completion of the works and before first delivery is taken, a full test will be carried out on the installation for a period of sufficient duration to determine the satisfactory working thereof. During this period the installation will be inspected and the contractor shall make good, to the satisfaction of the Engineer, any defects which may arise.

c) The Contractor shall provide all instruments and equipment required for testing and any water, power and fuel required for the commissioning and testing of the installation at completion.

d) Test reports of both tests as specified under (a) and (b) are to be submitted to the Engineer.

13.0 SPARES, MANUALS AND RECORD DRAWINGS

All necessary catalogues and nearest availability of spare parts shall be detailed in the offer.

On completion the Contractor shall submit the Employer's representative a set of

(a) Operation manuals;

(b) maintenance manuals,

(c) record drawings,

(d) first batch of service spares and

(e) full diesel fuel tanks (all).

14.0 ENCLOSURE / CANOPY

14.1 GENERAL

(a) The set will be installed inside a new modified 12MTR ISO shipping container. Trox sound attenuators and louvres to suit must be fitted to both ends and both sides must be fitted with acoustic doors for access purposes. The inside of the container must be lagged with "Quash" type acoustic material and the standard aluminium chequer plate floor and lights etc must be installed over the engine and switchboard.

(b) The enclosure shall allow easy access to the engine, alternator, radiator filler cap and control panel for maintenance purposes.

(c) The door hinges and locking bars shall be of a heavy-duty type and be manufactured of an alloy or mild steel which is hot dip galvanised. The hinges shall be fitted with a nylon bush and grease nipple.

(d) The diesel fuel level indicator and alternator rating plate shall be clearly visible with the doors open.

(e) Unless specified the silencers shall be mounted within the enclosure.

(f) Rubber seals on doors shall be equal to or similar to the Mc-Norten pinch weld win lace door rubbers.

14.2 DESIGN

(a) The enclosure shall be designed to be weather-proof and sound proofed. Rivets or self-tapping screws will under no circumstances be allowed for fixing the various sections of the enclosure. Only corrosion resistance nuts and bolts are acceptable.

(b) The starter battery shall be housed in an insulated compartment with forced air flow when the engine is running. It should be provided with easy access for maintenance and removal.

14.3 ROOF

The roof of the enclosure shall be constructed for proper drainage of water with a pitch of not less than 7 degrees.

14.4 LIGHT FITTINGS

(a) A LED light fitting and its associated on/off door switch shall be provided inside the enclosure for illumination of the control panel and the inside of the enclosure.

(b) The power for the lamp shall be obtained from the starter battery.

14.5 PROVISIONS AND STORAGE

The following must be provided

(a) Readily accessible 6.8kg Carbon dioxide fire extinguisher

(b) Storage box for service spares and a pair of ear muffs.

14.6 POWER POINT

A 16 ampere switched socket outlet (SSO) shall be provided in the externally mounted terminal box or suitable accessible position and protected from rain. The SSO must be accessible without the use of tools. The power supply shall be taken from the mains side of the switchboard and protected by a 20A, 30mmA earth leakage.

14.7 NOTICES

(a) Notices in English as stipulated in the latest amendment of the Occupational Health and Safety Act 85/1993 shall be installed in the generator enclosure.

(b) Notices shall be in accordance with SANS 1186-1:2008 Symbolic Safety Signs Part 1

(c) All notices shall be of the metal engraved type with a minimum metal thickness of 1 mm. The words shall be in red lettering on a white background.

(d) The lettering shall be embossed and the colouring shall not fade in sunlight

(e) The contents of these notices are summarised below.

(i) A notice prohibiting unauthorised entry prohibited

(ii) A notice prohibiting unauthorised handling of or interfering with electrical apparatus

(f) Notices (e) (i) must be installed outside next to the entrance of the generator enclosure and (e) (ii) to be inside the generator enclosure.

(g) In the generator enclosure, a clearly legible and indelible warning notice must be mounted in a conspicuous position. The motive shall be made of a non-corrodible and non-deteriorating material, preferable plastic, and must read as follows:

DANGER: THIS ENGINE WILL START WITHOUT NOTICE. TURN SELECTOR SWITCH ON CONTROL BOARD TO "OFF" BEFORE WORKING ON THE PLANT.

15.0 SCHEDULE SCHEDULES OF GENERATOR TECHNICAL INFORMATION

(To be fully completed. Tenderer shall make necessary copies for each facility/genset)

A. ENGINE

NO	ITEM	SPECIFIED	OFFERED	ACCEPTANCE/ NOT ACCEPTED
1.	Manufacturer's Name			
2.	Country of Origin			
3.	Manufacturer's model No. and year of manufacture			
4.	Continuous sea level rating after allowing for ancillary equipment : In kW.....	As specified for each facility		
5.	Percentage de-rating for site conditions, in accordance with BS 5514 a) For altitude	As specified for each facility		
	b) For temperature	As specified for each facility		
	c) For humidity	As specified for each facility		
	d) Total de-rating			
6.	Net output on site in kW			
7.	Nominal speed in r.p.m.	1500		
8.	Number of cylinders			
9.	Swept volume in litres			
10	Compression ratio			
11	Fuel consumption of the complete generating set on site of alternator output at in l/h: a) Full load.....			
	b) ¾ load.....			

NO	ITEM	SPECIFIED	OFFERED	ACCEPTANCE/ NOT ACCEPTED
	c) ½ load.....			
	NOTE : A tolerance of 5% shall be allowed above the stated value of fuel consumption.			
12	Make of fuel injection system.			
13	Capacity of fuel tank in litres a) Primary……	As specified for each facility		
	b) Bulk…….……	As specified for each facility		
14	Method of reading tank fuel level, with electromechanical or electronic gauge? a) Primary tank……..			
	b) Bulk tank……			
15	Where is the fuel gauge situated? a) Primary tank……..			
	b) Bulk tank……			
16	Is water trap fitted in the fuel line system?			
17	Is diesel fuel conditioner provided for the bulk fuel tank?			
18	Is electric pump for filling the fuel tank included?	Yes		
19	Is manual pump for filling the fuel tank included?			
20	Method of cooling	Water		
21	Type of radiator, if water-cooled			
22	Type of heater for warming cylinder heads, if required			
23	Capacity of heater in kW, if required			
24	Method of protection against high temperature			
25	Method of protection against low oil pressure			
26	Type of governor			
27	Speed variation in % a) Temporary.....			

NO	ITEM	SPECIFIED	OFFERED	ACCEPTANCE/ NOT ACCEPTED
	b) Permanent.....			
28	Minimum time required for as assumption of full load after starting in seconds	15sec		
29	Recommended interval in running hours for : a) Lubricating oil change			
	b) Oil filter element change			
	c) Decarbonising			
30	Are all accessories and ducting of the radiator included?			
31	Is engine naturally aspirated or turbocharged?			
32	Are performance curves attached?			
33	Noise level inside the generator enclosure in dB	N/A		
34	Noise level at 5 000mm from the closed enclosure in Db			
	a) Engine exhaust outlet			
	b) Hot air discharge louvre			
35	Is engine exhaust system as specified?			
36	% Load acceptance to BS 5514, Part 4, with 10% transient speed drop			

B. ALTERNATOR

NO	ITEM	SPECIFIED	OFFERED	ACCEPTANCE/ NOT ACCEPTED
1.	Maker's name			
2.	Country of Origin			
3.	Maker's Model No and year of manufacture			
4.	Type of enclosure	Drip proof		
5.	Nominal speed in r.p.m.	1500		
6.	Number of bearings			
7.	Terminal voltage	240/420V		
8.	Sea level rating kVA at 0,8 power factor			
9.	De-rating for site conditions	As specified for each facility		
10.	Input required in kW	As specified for each facility		
11.	Method of excitation			
12.	Efficiency at 0,8 power factor and : a) Full load..... b) ¾ load..... c) ½ load.....			
13.	Maximum permanent voltage variation in %			
14.	Transient voltage dip on full load	15%		
15.	Voltage recovery on full load application in milliseconds	300ms		
16.	Is alternator brushless?			
17.	Class of insulation of windings	F		
18.	Is alternator suitable for tropical conditions?			
19.	Symmetrical short circuit current at terminals in Amperes			
20.	Type of Coupling between engine and alternator			
21.	Is the alternator protected against a) Overload..... b) System faults.....			

NO	ITEM	SPECIFIED	OFFERED	ACCEPTANCE/ NOT ACCEPTED
1.	Maker's name			
	c) Overvoltage			
	d) Stator/Rotor winding temperature			
	e) Internal generator faults			

C. SWITCHBOARD

NO	ITEM	SPECIFIED	OFFERED	ACCEPTANCE/ NOT ACCEPTED
1.	Maker's Name			
2.	Country of Origin			
3.	Is it free standing or mounted on the set?			
4.	Finish and colour			
5.	Ratio of current transformers			
6.	Make of the main circuit breaker			
7.	Rating of circuit breaker in Amps and fault level in kA	10kA		
8.	State the SA or international standard to which all circuit breakers conform			
9.	Setting range of overload trips			
10.	Setting range of instantaneous trips			
11.	Make of motorised change-over equipment			
12.	Rating of change-over equipment in Amps			
13.	T State the SA or international standard to which all circuit breakers conform			
14.	Are auxiliary contacts available on the motorised change-over equipment?			
15.	Make of Controller			
16.	Make and type of rectifier for battery charger			
17.	Is battery charger automatically selected for boost / float?			
18.	Maker's name for the alarm siren			
19.	Is the alarm siren of the continuous duty type?			
20.	Are potential free contacts from the alarm relay brought down to terminals for remote indication of alarm conditions?			
21.	If the manufacture of switchboard/control panel to be sub-let state name and address of specialist manufacturer?			

D. BATTERY

NO	ITEM	SPECIFIED	OFFERED	ACCEPTANCE/ NOT ACCEPTED
1.	Maker's Name			
2.	Country of Origin			
3.	Type of battery			
4.	Voltage of battery			
5.	Number of cells			
6.	Capacity in cold crank in Ah			
7.	Battery warranty period in months			

E. DIMENSIONS

NO	ITEM	SPECIFIED	OFFERED	ACCEPTANCE/ NOT ACCEPTED
1.	Overall dimensions of set including the switchboard and the enclosure in mm			
2.	Overall wet mass of the set including the switchboard and the enclosure in kg			
3.	Overall dimensions of the bulk tank including the fuel conditioner.			

F. SPARE PARTS AND MAINTENANCE FACILITIES

NO	ITEM	SPECIFIED	OFFERED	ACCEPTANCE/ NOT ACCEPTED
1.	Are engine and alternator spares available in the Eastern Cape?			
2.	Where are these spares held in stock?			
3.	What facilities exist in the Eastern Cape for the servicing of the equipment offered?			
4.	Where are these facilities available?			

G. GENERATOR ENCLOSURE

NO	DESCRIPTION	SPECIFIED	OFFERED	ACCEPTANCE/ NOT ACCEPTED
1	Construction material and thickness (submit proof)			
2	Finish and colour			
3	Number of access doors			
4	Make and type of heavy duty door hinges			
5	Sound attenuation material			
6	Exhaust silencer mounted within the enclosure or external?			
7	Method of sealing doors			
8	Type of corrosion resistant fasteners			
9	Roof pitch			
10	Make and type of light fitting			
11	Easily accessible 16 Amp switched socket outlet provided?			
12	Facility provided for the storage of ear muffs			
13	State notices provided:			

H. <u>DEVIATION FROM THE SPECIFICATION AS AN ALTERNATIVE (STATE BRIEFLY)</u>

NO	DESCRIPTION

……

Signature

……

Date

…… ……

Position	Name of Tenderer

DETAILED SPECIFICATION

FOR THE SUPPLY

OF

STANDBY GENERATORS

DETAILED SPECIFICATION – Electrical Installation

1. Contents

1.0 INTRODUCTION & GENERAL

This detail specification complements & qualifies the foregoing specifications of material & workmanship. Technical Specifications should be regarded as a basis and guideline, with this detailed specification taking preference where any ambiguity is concerned.

Should there be any conflict or ambiguity between sections of this enquiry, then the sections will be considered in the following order of priority:-

- Bills of Quantities
- Project detailed Specification including Equipment Schedules
- Technical Specification

Should the Tenderer notice any inconsistencies between these sections, it is his responsibility to notify the Engineer in order to obtain clarification thereon.

2.0 SCOPE OF WORK

This project provides for the replacement of existing standby diesel powered generators in All Saints Hospital, Frontier hospital and Stutterheim in the Chris Hani and Joe Gqabi District. The existing generator will be replaced with new unit including new diesel tank as described below.

2.1 SUPPLY AND CONNECTION

The supply will be at 400 Volt, 50Hz.

The contractor must arrange in good time with the hospital technical staff for switching and or off the mains supply during works.

2.2 PRIME GENERATOR

New Prime Generators have been allowed for, on this project to replace the damaged standby generator. The generators is intended to provide prime and emergency supply in the absence of Mains or Municipal supply. The list of required prime generators is shown below;

LIST OF FACILITIES

Hospital	Genset Size	Dimensions	Weight	Mounting	
All Saints, 200kVA Outdoor	200kVA	3.3m (l) x 1.3m (w) x 1.8m (h)	2350kg	Floor/plinth	
Frontier, 400kVA Indoor	400kVA	3.6m (l) x 1.5m (w) x 2.2m (h)	3300kg	Floor/plinth	
Sutterheim, 200kVA Outdoor	200kVA	3.3m (l) x 1.3m (w) x 1.8m (h)	2350kg	Floor/plinth	

The existing equipment which does not need to be replaced and which a new generator is to be connected to are:

- The AMF panel with electrical switchgear including generator Controller (Deepsea, with DSE 890 Module), Automatic change-over system, are in fair condition. Minor repairs and programming would be necessary to ensure they work properly with the new unit.
- Day diesel tank is also in good condition. The contractor shall be expected to connect the new fuel system to this tank.

New equipment to be supplied with the generator are:

- Battery and its charging system
- Complete Fuel system
- Exhaust System including sound attenuation, thermo blankets, etc.
- Engine mounts suitable for the new unit

See Technical Specification and schedule of information for the generator on this document for detailed information.

2.2.1 Standby Diesel Tank

The contractor shall supply and install, self-bunded standby diesel tanks to supply the generators as per list below. The tank will be placed on a new plinth outside near generator building.

LIST OF FACILITIES

Hospital	Tank size	Dimensions	Weight (filled up with diesel)	Mounting	Fence
All Saints, 200kVA Outdoor	3000L	2.6m x 1.6m x 1.3m	4500kg	Floor/plinth	Yes, for both genset and diesel – 8.6m x 5m
Frontier, 400kVA Indoor	4000L	2.8m x 1.6m x 1.3m	5500kg	Floor/plinth	Required for tank only – 4m x 3m
Sutterheim, 200kVA Outdoor	3000L	2.6m x 1.6m x 1.3m	4500kg	Floor/plinth	Yes, for genset and tank – 8.6m x 5m

The container shall be supplied complete with:

- Pump bay housing for pumping fuel to the generator tanks
- Anti-syphon valve
- Overfill Protection, mechanical shut-off alarm
- Platform ladder and platform for easy access
- Pressure/Vacuum vent in compartment containment
- Breather vents with dust filter fitting

- Dipstick
- Tank fuel gauge

The container and platform ladder including all metal components shall be Hot Dip Galvanised.

The gensets will be connected to the tank via 25mm stainless steel pipes running in the substation trench.

2.3 Temporary Works

No temporary works are envisaged in the current design and planned execution of the works except where the Electrical Contractor wants to incorporate it as part of his work method. In the case of the latter the Electrical Contractor must price the temporary works in the tendered rates.

3.0 SYSTEM LOW VOLTAGE

The supply to all the Electrical installation shall be 400/230 Volts, 3-phase, 4 wire, 50 Hertz, Earthed Neutral.

4.0 QUALITY OF MATERIALS

Materials are to comply with the relevant South African National Standards (SANS), or to IEC specifications, where no SABS specifications exist. All materials used shall bear the SABS mark of approval as applicable.

NB: All materials must be of South African manufacture. The Electrical Contractor must submit proof of unavailability where this requirement cannot be fulfilled.

5.0 BALANCING OF LOAD

The Electrical Contractor is required to balance the load as equally as possible over the multiphase supply **before Final Completion**.

6.0 SHOP DRAWINGS AND ALTERNATIVES

6.1 Prior to manufacturing of unit and its associated equipment, the Electrical Contractor is required to submit for approval manufacturer's shop drawings showing proposed equipment in detail including planned tests. Any approvals given or comments made shall be on the generality of the scheme and shall not relieve the Electrical Contractor of his responsibility to ensure full compliance with all performance and regulatory criteria and materials latent defects.

6.2 Any alternatives to specifications would need to be issued to Engineer for approval prior to ordering of such equipment or material.

Failure by the contractor to obtain written approval from the Engineer. The contractor shall be liable for the replacement of condemned equipment or material including costs incurred due to contract delays

7.0 SUPERVISION, WORKMANSHIP AND DELAYS

The work shall at all times, for the entire duration of the contract, be executed under the supervision of a skilled and competent representative of the Electrical Contractor, who must be able and authorized to receive and execute instructions on behalf of the Electrical Contractor.

In the event that inferior materials or bad workmanship, on the part of the Electrical Contractor, leads to remedial work requiring redesign by the Engineer, the cost of this work, including related professional fees, shall be borne by the Electrical Contractor.

Similarly, should delays in the contract be caused by poor performance on the part of the Electrical Contractor causing the Engineer to spend extraordinary time on the project, the extra costs incurred may be borne by the Electrical Contractor.

These costs will be based on the ECSA hourly rates and may be deducted from claims due or claims which will become due to the Electrical Contractor.

8.0 MAKING GOOD

The Electrical Contractor will carry out in all instances any work to be made good such as damage to or disturbances of the building installations caused by himself or his employees during the execution of the contract, at his own cost.

9.0 COMMISSIONING AND TESTING

9.1 Commissioning

A documented method shall be followed whereby the Electrical Contractor shall ensure that his installation is correctly constructed in accordance with the manufacturers' specifications, consultant's specification, consultant's design and all codes of practice and international design codes.

The commissioning procedure must allow for signing off of the major items of equipment by a qualified person in terms of the codes. These signed off documents will form part of the record drawings.

9.2 Performance Tests

The Electrical Contractor shall be responsible for the physical testing, in the manufacturing works, or on site, of the items of plant or systems as required by the Engineer. These tests shall be performed by the Electrical Contractor or supplier of the equipment, and where called for, the Engineer shall witness such tests. The Engineer may also only witness a representative sample of the equipment tests. In any event, the Electrical Contractor will supply documentary proof of full performance tests of all relevant equipment.

9.3 Acceptance Tests

Acceptance tests will be performed on site of the working system or sub system, to show that the works, as installed, is functioning according to the specifications and design. The onus for the correct functioning of the systems is still on the Electrical Contractor irrespective of whether the Engineer has witnessed the acceptance tests or not.

Prior to the system being connected, a test certificate must be issued by / given to the local electricity supply authorities.

9.4 Testing Equipment

Testing equipment required for the successful commissioning of the Works described herein is to be made available by the Electrical Contractor.

Should the Electrical Contractor not have suitable equipment for carrying out the tests at the time of testing, the Engineer may instruct testing specialists to undertake this work. All arrangements for instructing of testing specialists to undertake this work and all associated costs, including professional fees shall be deducted from money due to the Electrical Contractor.

10.0 COMPLIANCE WITH REGULATIONS, STANDARDS AND CODES

The Electrical Contractor will arrange for all inspections and testing of the installation after completion, including the issuing of the Certificate of Compliance. All notices, fees, including inspection and re-inspection are the responsibility of the Electrical Contractor and all the relevant costs shall be borne by him.

The workmanship throughout the Works will be to the satisfaction of the Employer. Any materials or workmanship considered as faulty or incorrectly or inadequately erected or repaired, will be substituted, altered or rectified to the satisfaction of the Employer, without additional cost to the Employer.

The Works will be executed in strict accordance with the following:-

(a) The Wiring Code - SANS 1042-1: 2008,

(b) The Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended,

11.0 PROGRAMME

The Electrical Contractor shall be expected to furnish the Engineer with works programme prior detailing planned site works in detail for approval.

The cost of overtime, additional labour and plant for the completion of the works, in accordance with the programme, must be included in the Tenderer's price for the project. The cost of any work outside the requirements of the programme or necessary under exceptional circumstances will be for the Employers' account only if covered under a variation order.

12.0 MONTHLY CERTIFICATES

Pro forma claim forms are available from the Engineer. These are available in a blank copied format or as a computer file in Excel. This is the preferred method of submitting payment claims. Should the Electrical Contractor have developed his own method of claiming, this may be submitted to the Engineer for consideration.

13.0 EARTHING AND BONDING

13.1 General

Earthing shall generally be in accordance with

- SANS 10142-1: 2008 Wiring Code,
- SANS 10198: Part 3 - Earthing System; General Provision; Part 12 - Installation of Earthing Systems
- SANS 10200: Neutral Earthing in Medium Voltage Industrial Power Systems
- SANS 10292: Earthing of Low Voltage Distribution Systems
- SANS 1063: Earth Rods Couplers and Clamps
- AMEU Code of Practice for the application of protective multiple earthing to low voltage distribution systems and
- The latest amendments and the OHS Act 1993.

13.2 Generator Earthing

The earthing shall comply with SANS with an overall resistance exceeding 1 Ohm. The earth mat is to be connected to the existing earth-bar with an insulated earth cable.

a) The earth mat shall be buried at a depth of 1,5 meters below finished ground level.

b) Cu Earth Bars shall be tinned.

c) All mat joints and earthing rod joints shall be exothermically welded together by Cadweld or equivalent process.

d) Each of the earth cables connected to the earth bar shall be fully labelled to ensure correct identification.

DETAILED SPECIFICATION

FOR THE SUPPLY

OF

HIGH SECURITY FENCE

Post Length

Fencing Post Length	Height of Fence
2.6m	2000mm

Post Size
Fencing posts come in two sizes: 85mmx45mmx85mm taper post or 150mmx75mmx150mm taper post. The size of the post is selected based on the height of the fence panel and the level of security required.

Post Finish
The posts of fencing shall be galvanized and then coated with Alu. This provides a durable finish that is resistant to corrosion and other forms of damage. The galvanized and Alu coating ensure that the fence remains secure and intact even in harsh environmental conditions.

Polymer Cap
The posts of fencing shall be sealed with a UV stabilized polymer cap. This helps to protect the posts from the effects of sunlight and other environmental factors. The polymer cap provides a durable finish that is resistant to corrosion and other forms of damage.

Aperture Size
The aperture size (centres) of fencing panels shall be 76.2mm x 12.7mm.

Wire Diameter
The wire diameter of fencing panels shall be 4mm/4mm.

Reinforced with V-Formation Horizontal Recessed Bands
The panels of fencing shall be reinforced with 4x50mm deep V formation horizontal recessed bands to provide rigidity.

Clamps
A single bolt clamp plate or a double bolt clamp plate. The clamp plates and are to be manufactured from hot dipped or black steel dipped in a zinc pool. The wall thickness of these clamp plates shall be 5.00mm.

Fence to be supplied and installed with hinged double gates to provide 2m opening, complete with sliding latch and a keyed lock.