

TENDER

Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs BID NO: SCMU3-23/24-0580-HO

NAME OF COMPANY:

CSD Nr:

CRS Nr (CIDB):

CLOSING DATE: 16 February 2023 TIME: 11:00 am

Deliver to:

EASTERN CAPE DEPARTMENT OF HEALTH: SUPPLY CHAIN MANAGEMENT OFFICE,

situated at the following address:

Room 102
Laboria House
16 Grace Street
Port Elizabeth Central
Gqeberha

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THE TENDER

PART T1 - TENDERING PROCEDURES

PART T1.1: TENDER NOTICE AND INVITATION TO TENDER

Tender Notice and Invitation to Tender

The Eastern Cape Department of Health invites contractors with a CIDB Grading of **CIDB 7GB** or higher in the following Class of works (**CIDB 7GB or higher**) to tender for the “**Upgrading & Additions to Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of Existing Roofs**” for a **(20) Twenty-month** contract (Excluding builders’ holidays). The contract will be based on the JBCC Edition 6.2 of 2018 with Government Clauses and **The Eastern Cape Department of Health** will enter a contract with the successful tenderer.

BID DOCUMENTS MAY BE OBTAINED FROM THE ECDOH & TREASURY WEB SITES AT NO COST:

There will be a compulsory briefing meeting on **30 January 2024 @ 11h00, at Andries Vosloo Hospital: Hospital Road, Somerset East, 5850 Eastern Cape Province**. Prospective bidders to meet at the at the main visitors parking area inside the Hospital Site.

Queries & Technical enquiries relating to the issue of these documents may be addressed in writing to Ms. Stella Tshwane via email: stella.tshwane@echealth.gov.za Phone: 041 408 8031/30 and Mr. Welile Tsewu via email: welile.tsewu80@gmail.com

The closing time for receipt of tenders by **The Eastern Cape Department of Health** is 11:00am on **16 February 2024**. Telegraphic, telephonic, telex, facsimile, e-mail and late tenders will not be accepted. Bids must be submitted in sealed envelopes clearly marked “**TENDER: Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs BID NO: SCMU3-23/24- 0580-HO**” must be deposited in the bid/tender box of:

EASTERN CAPE DEPARTMENT OF HEALTH: SUPPLY CHAIN MANAGEMENT OFFICE,

situated at the following address:

**Room 102
Laboria House
16 Grace Street
Port Elizabeth Central
Gqeberha
6001**

It is the responsibility of the tenderer/s to ensure that bid documents /proposals are submitted on or before closing time and the correct location as the department will not take responsibility of wrong delivery. Tenderers using courier services for delivery of their bid documents must ensure the delivery is at the correct place / location and time as the department will not be held responsible for wrong delivery. Not delivered to Departmental officials. The Department will not accept responsibility if bids received by officials are not timely deposited in the Bid Box.

Tenders may only be submitted on the tender documentation that is issued. Tenderers must be registered on the National Treasury Central Supplier Data Base and proof of registration must be submitted with the proposal (<https://secure.csd.gov.za>). Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

B. BID EVALUATION:

This bid will be evaluated in Two (2) Phases as follows:

Phase One: Compliance, responsiveness to the bid rules and conditions, thereafter they will be evaluated in terms of Price & Specific Goals

Phase Two: Price & Specific Goals in terms of the Preferential Procurement Regulations of 2022.

PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT (PPPFA) Price & Specific Goals

POINTS WILL BE AWARDED AS FOLLOWS:

Maximum points on Price	-	80 points
Maximum points for Specific Goals	-	20 points
Maximum points	-	100 points

C. BID SPECIFICATIONS, CONDITIONS AND RULES

The minimum specifications, bid conditions and rules are detailed in the bid document under Tender Data.

The specifications, rules, special conditions of bid, evaluation criteria, and rules for evaluation for compliance to local content and other bid conditions are detailed in the document.

Tender validity period is **90 days**.

D. TENDER SUBMISSIONS:

Bids must be submitted in sealed envelopes clearly marked: **“Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs” SCMU3-23/24-0580-HO** must be deposited in the tender / bid box:

EASTERN CAPE DEPARTMENT OF HEALTH: SUPPLY CHAIN MANAGEMENT OFFICE,

situated at the following address:

**Room 102
Laboria House
16 Grace Street
Port Elizabeth Central
Gqeberha
6001**

E. ENQUIRIES WITH REGARD TO THIS ADVERT MAY BE DIRECTED TO:

Ms. Stella Tshwane via email: stella.tshwane@ehealth.gov.za and Mr. Welile Tsewu via email: welile.tsewu80@gmail.com

PART T1.2: TENDER DATA

1.1. T1.2 Tender Data

The conditions of tender are the latest edition of SANS 10845-3, *Standard conditions of tender*. SANS 10845-3 makes 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 provisions of SANS 10845-3 *and* as contained in **Annexure C of Standard for Uniformity in Construction Procurement (Board Notice 423 of 2009 Government Gazette No 42622 of August 2019)**. Each item of data given below is cross-referenced to the clause in SANS 10845-3 to which it mainly applies.

Clause number	Tender Data
3.1	The Employer is the Eastern Cape Department of Health
3.2	The tender documents issued by the employer comprise the following documents: THE TENDER Part T1: Tendering procedures T1.1 - Tender notice and invitation to tender. T1.2 - Tender data Part T2: Returnable documents T2.1 - List of returnable documents T2.2 - Returnable schedules THE CONTRACT Part C1: Agreements and Contract data C1.1 - Form of offer and acceptance C1.2 - Contract data C1.3 - Dispute Resolution Mechanism Part C2: Pricing data C2.1 - Pricing Instructions C2.2 - Bills of Quantities Part C3: Scope of work C3 - Scope of work Part C4: Site information C4 - Site information
3.3	The tender documents issued by the employer comprise the documents listed on the contents page
3.4	The employer's agent is: Sakhiwo FM Consortium (PTY)LTD, 1 Rochester Street Vincent East London 5201 Contact Person: Hubert Sieg, Email: hubert@imbonofja.co.za, Contact Tel: 041-365 3691
3.5	The language for communications is English
3.6	The competitive negotiation procedure shall be applied.
3.7	Procurement Method: Two (2) stage procurement procedure shall be applied.
4	Tender's obligations

4.1	<p>The following tenderers who are registered with the CIDB, or are capable of being so registered prior to the evaluation of submissions, are eligible to have their tenders evaluated:</p> <p>a) contractors who have a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) of 25(7A) of the Construction Industry Development Regulations, for a CIDB CIDB 7GB or Higher class of construction work; and</p> <p>Joint ventures are eligible to submit tenders provided that:</p> <ol style="list-style-type: none"> 1. every member of the joint venture is registered with the CIDB; in GB class of works. 2. the lead partner has a contractor grading designation in the CIDB 7GB or higher class of construction work; and 3. the combined contractor grading designation calculated in accordance with the Construction industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a CIDB 7GB or higher class of construction work or a value determined in accordance with Regulation 25 (1B) of 25(7A) of the Construction Industry Development Regulations. 4. Joint Venture Agreement. 5. Combined CSD Report in the case of Joint Venture.
4.2	<p>The employer will compensate the tender as follows JBCC Edition 6.2 of 2018 with Government Clauses. The employer will not compensate the tenderer for any costs incurred in attending interviews or making any submissions in the office of the employer.</p>
4.3	<p>It is the responsibility of the tenderer to check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.</p>
4.4	<p>Confidentiality and copyright of documents Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.</p>
4.5	<p>Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are incorporated into the tender documents by reference.</p>
4.6	<p>Acknowledge receipt of addenda to the tender documents, which the employer may issue, and, if necessary, apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.</p>
4.7	<p>The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list. Tender documents will not be made available at the clarification meeting</p>
4.8	<p>Seek clarification <i>Request clarification of the tender documents, if necessary, by notifying the employer at least 5 (Five) working days before the closing time stated in the tender data.</i></p>
4.9	<p>Tenderers are required to state the rates and currencies in Rands. Include in the rates, prices, and the tendered total of the prices (if any), all duties, taxes which the law requires to be paid [except value added tax (VAT)], and other levies payable by the successful tenderer, that are applicable 14 days before the closing time stated in the tender data. Show the VAT payable by the employer separately as an addition to the tendered total of the prices. Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data. State the rates and prices in monetary value of the contract unless otherwise instructed in the tender data.</p>
4.10	<p>Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer or to correct errors made by the tenderer and ensure that all signatories to the tender offer initial all such alterations. Do not make erasures using masking fluid.</p>
4.11	<p>Main tender offers are not required to be submitted together with alternative tenders.</p>

4.12	No alternative tender offers will be considered
4.13.1	Parts of each tender offer communicated on paper shall be submitted as an original. Submit a) the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with a translation of any documentation in a language other than the language of communication established in 3.5, and b) the parts communicated electronically by the employer of its agents on paper format with the tender.
4.13.2	Sign the original and all copies of the tender offer where required in terms of the tender data. State in the case of a joint venture which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer. NOTE The employer holds all authorized signatories liable on behalf of the tenderer.
4.13.3	A tender security in the amount of N/A is required and shall remain valid for a period not exceeding N/A days after the closing date for tender offers. The form of the tender security shall not differ substantially from the sample provided in Annex D of SANS 10845-3.
4.13.4	The employer's details and address for delivery of tender offers and identification details that are to be shown on each tender offer package are: EASTERN CAPE DEPARTMENT OF HEALTH: SUPPLY CHAIN MANAGEMENT OFFICE, situated at the following address: Room 102 Laboria House 16 Grace Street Port Elizabeth Central Gqeberha 6001 Tender / Bid identification details: ANDRIES VOSLOO HOSPITAL - REHABILITATION, RENOVATIONS & REFURBISHMENT OF EXISTING ROOFS Closing time and date: As per Tender advertisement
4.13.5	The tenderer is required to submit with his tender the following compulsory certificates: 1) a copy of the CSD report showing, amongst other things, that tax matters of the service provider are in order with the South African Revenue Services. <i>In the case of a Joint Venture/Consortium/Sub-contractors each party must submit a separate CSD report showing, amongst other things, that tax matters of the service provider are in order with the South African Revenue Services.</i> 2) CIDB Grading certificate or CRS number. 3) COIDA Letter of Good standing from the Department of Labour
4.13.6	A two-envelope procedure will not be required.
4.13.7	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted. The tenderer accepts that the employer does not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.
4.14	The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender. Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Proof of posting shall not be accepted as proof of delivery. Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of the standard conditions of tender in this part of SANS 10845 apply equally to the extended deadline.

4.15.1	The tender offer validity period is 90 days . Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data. If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period, with or without any conditions attached to such extension. Extend the period of the tender security, if any, to cover any agreed extension requested by the employer.
4.15.2	Placing of contractors under restrictions / withdrawal of tenders If any tenderer who has submitted a tender offer or a contractor who has concluded a contract has, as relevant: withdrawn such tender or quotation after the advertised closing date and time for the receipt of submissions; after having been notified of the acceptance of his tender, failed or refused to commence the contract; had their contract terminated for reasons within their control without reasonable cause; offered, promised or given a bribe in relation to the obtaining or the execution of such contract; acted in a fraudulent, collusive or anti-competitive or improper manner or in bad faith towards the Provincial Government; or, made any incorrect statement in any affidavit or declaration with regard to a preference claimed and is unable to prove to the satisfaction of the Provincial Government that the statement was made in good faith or reasonable steps were taken to confirm the correctness of the statements, such tenderer/s may be placed under restriction from tendering with the state. Procedures are outlined in the EC SCM Policy for Infrastructure procurement and Delivery Management and also on cidb Inform Practice Note #30. Excerpts of the policy can be availed on request of any interested tenderer.
4.16	Access shall be provided for the following inspections, tests and analysis: N/A
4.17	the preferred tenderer will be required to submit an approved insurer undertaking to provide the Performance Bond / Guarantee / Surety / Security to the format and/or standard
5	Employer's undertakings
5.1	The Employer will respond to requests for clarification received up to Five (5) working days before the tender closing time. If, as a result of the issuing of addenda, it is necessary to extend the closing time stated in the tender data, grant such extension and notify all respondents accordingly.
5.2	The employer shall issue addenda until Five (5) working days before tender closing time.
5.3	Tenders will be opened immediately after the closing time for tenders at 11:00am hours .
5.4	Do not disclose to tenderers, or to any person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.
5.5	Determine, after opening and before detailed evaluation, whether each tender offer that was properly received a) complies with the requirements of the standard conditions of tender in this part of SANS 10845, b) has been properly and fully completed and signed, and c) is responsive to the other requirements of the tender documents. A responsive tender is one that conforms to all the terms, conditions, and scope of work of the tender documents, without material deviation or qualification. A material deviation or qualification is one which, in the employer's opinion, would d) detrimentally affect the scope, quality, or performance of the works, services or supply identified in the scope of work, e) significantly change the employer's or the tenderer's risks and responsibilities under the contract, or f) affect the competitive position of other tenderers presenting responsive tenders, if it were to be rectified. Reject a non-responsive tender offer, and do not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.
5.6	Arithmetical errors, omission, and discrepancies Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern. For Vat related discrepancies, National and Provincial Treasury prescripts in relation to VAT procedures apply.

5.7.1	<p>The financial offer will be reduced to a comparative basis using the Tender Assessment Schedule.</p> <p>Table F.1: Formulae for calculating the value of A</p> <table border="1"> <thead> <tr> <th>Formula</th> <th>Comparison aimed at achieving</th> <th>Option 1^a</th> <th>Option 2^a</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Highest price or discount</td> <td>$A = \left(1 + \frac{(P - P_m)}{P_m}\right)$</td> <td>$A = P/P_m$</td> </tr> <tr> <td>2</td> <td>Lowest price or percentage commission / fee</td> <td>$A = \left(1 - \frac{(P - P_m)}{P_m}\right)$</td> <td>$A = P_m/P$</td> </tr> </tbody> </table> <p>^a P_m is the comparative offer of the most favourable comparative offer. P is the comparative offer of the tender offer under consideration.</p>	Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a	1	Highest price or discount	$A = \left(1 + \frac{(P - P_m)}{P_m}\right)$	$A = P/P_m$	2	Lowest price or percentage commission / fee	$A = \left(1 - \frac{(P - P_m)}{P_m}\right)$	$A = P_m/P$
Formula	Comparison aimed at achieving	Option 1 ^a	Option 2 ^a										
1	Highest price or discount	$A = \left(1 + \frac{(P - P_m)}{P_m}\right)$	$A = P/P_m$										
2	Lowest price or percentage commission / fee	$A = \left(1 - \frac{(P - P_m)}{P_m}\right)$	$A = P_m/P$										
5.7.2	<p>The procedure for the evaluation of responsive tenders is Method 2: Administrative compliance, Price and Preference</p> <p>Phase 1: Administrative requirements and Mandatory requirements</p> <p>Phase 2: Price and preference (80/20 system)</p>												

PHASE ONE: ADMINISTRATIVE REQUIREMENTS AND MANDATORY REQUIREMENTS

A. Bidders' proposals must meet the following minimum requirements and supporting documents must be submitted with the completed bid document in a sealed envelope in the bid box at the closing date and time. Failure to comply will automatically eliminate the bid for further consideration:

1. Bid Document (This Document must be submitted in its original format)
2. Bids which are late, incomplete, unsigned or submitted by facsimile or electronically, will not be accepted.
3. Bidder must be registered with CIDB in the correct grading and class of works as per the tender notice and requirements. It is the responsibility of the bidder to keep the status on CIDB active throughout bidding process (advert till award stage).
4. Bidders must be a legal entity.
5. Form of offer and Acceptance (fully completed and signed)
6. SBD4 must be duly completed and signed. 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, such interest must be disclosed on question 2.3.1.
7. Compulsory Enterprise Questionnaire (Completed and signed) (JV partners must complete separate Questionnaire forms and submit) (% split to be indicated for each JV partner)
8. If the offer is "Vat Inclusive", the VAT registration number of service provider must be indicated and if a service provider is not a VAT Vendor but include VAT in its prices, the successful service provider will be given 21 days to register as a VAT Vendor with SARS, after the issuing of an appointment letter. If a bidder is a VAT vendor/registered, the bidder is required to explicitly state the VAT amount. VAT vendors must include VAT at 15% in the bid offer(s).
9. Resolution to Sign (if applicable)
10. Attendance of compulsory briefing meeting
11. This tender will be awarded as a whole. All trades listed in the Bills of Quantities or Pricing schedule must be priced for (except provisional sums and allowances), failure to do so will result increase commercial risk of the bid and may lead to elimination or passing over of the bidder.
12. **Other Conditions of bid**
13. Particulars of Electrical installation subcontractor & Schedule of materials offered, to be provided.
14. The tenderer is required to submit with his tender the following compulsory certificates:
15. A copy of the CSD report showing, amongst other things, that tax matters of the service provider are in order with the South African Revenue Services. In the case of a Joint Venture/Consortium/Sub-contractors each party must submit a separate CSD report showing, amongst other things, that tax matters of the service provider are in order with the South African Revenue Services.
16. CIDB Grading certificate or CRS number.
17. COIDA Letter of Good standing from the Department of Labour
18. ECDOH SCM Policy applies.
19. Returnable Schedule: SBD1-Invitation to bid must be completed and signed
20. The bidder must be registered on the Central Supplier Database (CSD) before the Tender Closing Date.
21. All bidders' tax matters must be in order prior award. Bidders' tax matters will be verified through CSD.
22. Declaration of Employees of the State or other State Institutions.
23. Due Diligence In-Loco Inspection of the Bidder / or JV. As part of its due diligence obligations, the Department of Health reserves the right to do an In-Loco inspection of the offices and premises of the Bidder / or JV to verify the existence of the business ENTERPRISE as declared on the SBD1 form.
24. In the event where the In-Loco Inspections find inconsistencies and or misrepresentation in terms of what has been declared on the SBD 1, the Bidder will be notified of such inconsistencies and or misrepresentations in writing and allowed 7 (seven) days to rectify such.

25. The Bidder who complies with the Due Diligence In-Loco Inspection evaluation criteria, may then be considered for recommendation for award.
26. In the event where the Bidder has failed to rectify the inconsistencies and or misrepresentations within the 7 (seven) day period, the Health Department shall consider the Bidder who scored the 2nd highest points to be considered for award.
27. The Department will contract with the successful bidder by signing a formal contract.
28. Wherever a brand name is specified in this document (i.e. specifications, pricing schedule, bill of quantities or anywhere), the department requires an item similar/equivalent or better.
29. Protection of personal information: Consent (POPIA)
30. The successful tenderer (after being informed) will be required to bring along an unsigned copy of the form of contract to be signed by parties (e.g. JBCC Edition 6.2 of 2018 with Government Clauses)

PHASE TWO: EVALUATION POINTS ON PRICE AND SPECIFIC GOALS / PPPFA OF 2022

The **80/20 preference point system** shall be applied for the purposes of this bid as per the requirements of the *Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000)* and B-BBEE/ PPPFA Regulations of 2022

Criteria	Points
POINTS ON PRICE	80
B-BBEE	20
TOTAL	100

The 90/10 preference point system for acquisition of services, works or goods exceeding Rand value of R50 million:

(a) The following formula must be used to calculate the points for price in respect of tenders (including price quotation) with a Rand value equal to, or above R 30 000 and up to Rand value of R 50 000 000 (all applicable taxes included):

The financial offer will be scored using the following formula:

$$A = (1 - \frac{P - P_m}{P_m})$$

P_m

The value of value of W₁ is:

- 1) **90** where the financial value inclusive of VAT of all responsive tenders received have a value in **excess of R50 000 000** or
- 2) **80** where the financial value inclusive of VAT of one or more responsive tender offers have a value that **equals or is less than R 50 000 000**.

5.7.3	The procedure for the evaluation of responsive tenders is Method 2 (Administrative, price and preference)
5.7.4	The quality criteria and maximum score in respect of each of the criteria are as follows: N/A
5.7.5	Each evaluation criteria will be assessed in terms of five indicators – N/A
5.7.6	The prompts for judgment and the associated scores used in the evaluation of quality shall be as follows: N/A
5.8	<p>Tender offers will only be accepted if:</p> <ol style="list-style-type: none"> a) the tenderer is registered on the Central Supplier Database (CSD) for the South African government (see https://secure.csd.gov.za/) unless it is a foreign supplier with no local registered entity b) the tenderer is in good standing with SARS according to the Central Supplier Database. Bidders must submit a CSD no. or tax status compliance pin. c) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation; d) the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector. e) the tenderer has not: <ol style="list-style-type: none"> i) abused the Employer's Supply Chain Management System; or ii) failed to perform on any previous contract and has been given a written notice to this effect. f) the tenderer has completed the Compulsory Declaration and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process. g) the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract.

	<ul style="list-style-type: none"> h) Bids which are late, incomplete, unsigned or submitted by facsimile or electronically will not be accepted. i) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer. j) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely. A letter of Good standing from the Labour Department is a compulsory mandatory requirement. k) the tender has offered a market related offer. If the offer is believed not to be market related, the department through its Supply Chain Management bid committees will attempt to negotiate the offer with identified bidder/s to a reasonable amount. Bidders are not allowed to increase their tender offers during this process. l) A Resolution of signatory form has been completed and signed by director/s or a letter bearing a letterhead of the tenderer has been attached (specific to this bid) to the bid submission; it must be duly signed by all directors and submitted the bid. Only a duly authorized official can sign the bid. m) Prospective bidders must register on CSD prior submitting bids (open tenders). Any prospective bidder found to have Tax matters not in order with SARS (verified through CSD) during the evaluation process (after being given an opportunity to rectify tax matters) will be eliminated and not be considered further in the process. Preferred bidder/s will be afforded an opportunity to rectify their tax affairs within 7 days. A bidder that fails to rectify its tax matters with SARS will be eliminated. n) NOTE: The amount reflected on the Form of Offer and Acceptance takes precedence over any other total amount indicated elsewhere in bidder's tender submission. If the Form of Offer and Acceptance has no value or figure, the bidder will be regarded as having made no offer. o) The department reserves the right not to award the bid to the most favourable tenderer, if any of the situations occur: if it is not assisting in the advancement of designated groups; risk profile of the favourable firm is too high; the bidder has been awarded a considerable number of projects by the department or provincial government; has performed unsatisfactorily in the past, etc.
	<ul style="list-style-type: none"> p) the tenderer has completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the employer or potentially compromise the tender process and persons in the employ of the state are permitted to submit tenders or participate in the contract. q) Bids which are late, incomplete, unsigned or submitted by facsimile or electronically will not be accepted. r) the tenderer is registered and in good standing with the compensation fund or with a licensed compensation insurer. s) the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely. A letter of Good standing from the Labour Department is a compulsory mandatory requirement. t) the tender has offered a market related offer. If the offer is believed not to be market related, the department through its Supply Chain Management bid committees will attempt to negotiate the offer with identified bidder/s to a reasonable amount. Bidders are not allowed to increase their tender offers during this process. u) A Resolution of signatory form has been completed and signed by director/s or a letter bearing a letterhead of the tenderer has been attached (specific to this bid) to the bid submission; it must be duly signed by all directors and submitted the bid. Only a duly authorized official can sign the bid.

	<p>v) Prospective bidders must register on CSD prior submitting bids (open tenders). Any prospective bidder found to have Tax matters not in order with SARS (verified through CSD) during the evaluation process (after being given an opportunity to rectify tax matters) will be eliminated and not be considered further in the process. Preferred bidder/s will be afforded an opportunity to rectify their tax affairs within 7 days. A bidder that fails to rectify its tax matters with SARS will be eliminated.</p> <p>w) NOTE: The amount reflected on the Form of Offer and Acceptance takes precedence over any other total amount indicated elsewhere in bidder's tender submission. If the Form of Offer and Acceptance has no value or figure, the bidder will be regarded as having made no offer.</p> <p>x) The department reserves the right not to award the bid to the most favourable tenderer, if any of the situations occur: if it is not assisting in the advancement of designated groups; risk profile of the favourable firm is too high; the bidder has been awarded a considerable number of projects by the department or provincial government; has performed unsatisfactorily in the past, etc.</p>
5.9	The number of paper copies of the signed contract to be provided by the employer is 1.
	<p>The additional conditions of tender are:</p> <ul style="list-style-type: none"> Wherever a brand name is specified in this document (i.e., specifications, pricing schedule, bill of quantities or anywhere), the department requires an item similar/equivalent or better.
T.2.1	List of returnable documents
1	<p>Documentation to demonstrate eligibility to have tenders evaluated i.e. List all documentation to demonstrate eligibility to have a submission evaluated.</p> <ul style="list-style-type: none"> Appropriate CIDB grading suitable for the works (as stated in 4.1).
2	<p>Returnable Schedules required for tender evaluation purposes.</p> <p>The tenderer must fully and appropriately complete and sign the following returnable schedules as relevant:</p> <ul style="list-style-type: none"> SBD 1, SBD 4 SBD 6.1 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022 Proposed amendments and qualifications. Schedule of Proposed Subcontractors Protection of personal content: Consent POPIA Valid CIDB Certificate of Tenderer Valid Department of Labour COIDA Letter of Good Standing Certificate. Proof of Specific Goals Claimed Proof of Registration on the National Treasury Central Supplier Data Base (CSD) Particulars of Electrical installation subcontractor & Schedule of materials offered <ul style="list-style-type: none"> Part C1.1 Form of Offer and Acceptance Part C1.2 Contract Data Part C2.2 Bills of Quantities (Handwritten Priced. Not typed Priced) Compulsory enterprise questionnaire (In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted). Record of addenda issued (Only if addenda is issued) Resolution for Signatory Certificate of authority for joint ventures (Only where the tender/ quotation is submitted by a joint venture) Proof of Registration on the National Treasury Central Supplier Data Base (CSD). A CSD Report for a contractor with valid and correct information
3	<p>Other documents required for tender evaluation purposes.</p> <p>The tenderer must provide the following returnable documents:</p> <ul style="list-style-type: none"> None
4	Only authorized signatories may sign the original and all copies of the tender offer where required.

	<p>In the case of a ONE-PERSON CONCERN submitting a tender, this shall be clearly stated. In the case of a COMPANY submitting a tender, include a copy of a <u>resolution by its board of directors</u> authorizing a director or other official of the company to sign the documents on behalf of the company. In the case of a CLOSE CORPORATION submitting a tender, include a copy of a <u>resolution by its members</u> authorizing a member or other official of the corporation to sign the documents on each member's behalf.</p> <p>In the case of a PARTNERSHIP submitting a tender, <u>all the partners</u> shall sign the documents, unless one partner or a group of partners has been authorized to sign on behalf of each partner, in which case <u>proof of such authorization</u> shall be included in the Tender. In the case of a JOINT VENTURE/CONSORTIUM submitting a tender, include <u>a resolution of each company</u> of the joint venture together with a <u>resolution by its members</u> authorizing a member of the joint venture to sign the documents on behalf of the joint venture. <u>Accept that failure to submit proof of authorization to sign the tender shall result in the tender offer being regarded as non-responsive.</u></p>
5	<p>Information and data to be completed in all respects Accept that tender offers, which do not provide all the data or information requested completely and, in the form, required, may be regarded by the employer as nonresponsive.</p>
6	<p>Canvassing and obtaining of additional information by tenderers The Tenderer shall not make any attempt either directly or indirectly to canvass any of the Employer's officials or the Employer's agent in respect of his tender, after the opening of the tenders but prior to the Employer arriving at a decision thereon. The Tenderer shall not make any attempt to obtain particulars of any relevant information, other than that disclosed at the opening of tenders.</p>
7	<p>Prohibitions on awards to persons in service of the state The Employer is prohibited to award a tender to a person -</p> <ol style="list-style-type: none"> a) who is in the service of the state; or b) if that person is not a natural person, of which any director, manager, principal shareholder or stakeholder is a person in the service of the state; or c) a person who is an advisor or consultant contracted with the Department or municipal entity. <p>In the service of the state means to be -</p> <ol style="list-style-type: none"> a) a member of:- <ol style="list-style-type: none"> a any municipal council; b any provincial legislature; or c the National Assembly or the National Council of Provinces; d) a member of the board of directors of any municipal entity; e) an official of any Department or municipal entity; f) an employee of any national or provincial department; g) provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999); h) a member of the accounting authority of any national or provincial public entity; or i) an employee of Parliament or a provincial legislature. <p>In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in part T2 of this procurement document must be completed.</p>
8	<p>Awards to close family members of persons in the service of the state Accept that the notes to the Employer's annual financial statements must disclose particulars of any award of more than R2000 to a person who is a spouse, child, or parent of a person in the service of the state (defined in clause 8 above), or has been in the service of the state in the previous twelve months, including -</p> <ol style="list-style-type: none"> a) the name of that person;

	<p>b) the capacity in which that person is in the service of the state; and</p> <p>c) the amount of the award.</p> <p>In order to give effect to the above, the questionnaire for the declaration of interests in the tender of persons in service of state in part T2 of this procurement document must be completed.</p>
9	<p>Respond to requests from the tenderer The employer will respond to requests for clarification up to 5 (five) working days before the tender closing time.</p>
10	<p>Opening of tender submissions Tenders will be opened immediately after the closing time for tenders</p>
11	<p>Scoring quality / functionality: Not applicable to this tender</p>
12	<p>Cancellation and re-invitation of tenders</p> <p>An organ of state may, prior to the award of the tender, cancel the tender if-</p> <ul style="list-style-type: none"> (a) due to changed circumstances, there is no longer a need for the services, works or goods requested; or (b) funds are no longer available to cover the total envisaged expenditure; or (c) no acceptable tenders are received. (d) Tender validity period has expired. (e) Gross irregularities in the tender processes and/or tender documents. (f) No market related offer received (after attempts of negotiation processes) <p>Where applicable, the decision to cancel the tender will be published in on the Tender Notice Board of the SCM Department and if applicable, on the CIDB website and in the Tender Bulletin or the media in which the original tender invitation as advertised.</p>
13	<p>Dispute resolution mechanism will be done through the SCM Department and thereafter the Adjudication route.</p>
14	<p>The department, when it takes action against the tenderer or person awarded the contract on a fraudulent basis, considers the provisions of Regulation 14: The remedies provided for in Preferential Procurement Regulations 2022 do not prevent an institution from instituting remedies arising from any other prescripts or contract.</p>
15	<p>Where the employer terminates the contract due to default of the contractor in whole or in part, the employer may decide to: a) Refer the breach in contract to the CIDB for investigation as a breach of the CIDB Code of Conduct in terms of the CIDB Regulations; or b) may impose a restriction penalty on the contractor in terms of Section 14 of the Preferential Procurement Regulations. The outcomes of such investigations in terms of both the CIDB Regulations and the Preferential Procurement Regulations may prohibit the contractor from doing business with the public sector for a period not exceeding 10 years.</p>

PART T2 - RETURNABLE DOCUMENTS

ASSESSMENT OF PHASE 1 ADMINISTRATIVE REQUIREMENTS AND MANDATORY REQUIREMENTS:

The bidder shall not proceed to the next stage of evaluation if the bidder fails to submit all the mandatory information as listed here below:

BIDDER TO INDICATE BELOW IF MANDATORY DOCUMENTS WERE SUBMITTED WITH TENDER:

16	MANDATORY DOCUMENT TO BE SUBMITTED WITH BID:	<u>YES</u>	<u>NO</u>
	SBD 1 Part of invitation to bid and terms and conditions for bidding		
	SBD 4 Declaration of interest		
	SBD 6.1 Preference points claim form in terms of the Preferential procurement regulations 2022		
	Proposed amendments and qualifications		
	Schedule of Proposed Subcontractors		
	Protection of personal content: Consent		
	Valid CIDB Certificate of Tenderer		
	Valid Department of Labour COIDA Letter of Good Standing Certificate		
	Proof of Specific Goals Claimed		
	Part C1.1 Form of Offer and Acceptance (Fully signed and completed)		
	Part C1.2 Contract Data		
	Part C2.2 Bills of Quantities (Fully priced) (Handwritten Priced. Not typed Priced)		
	Compulsory enterprise questionnaire (In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted).		
	Record of addenda issued (Only if addenda is issued)		
	Resolution for Signatory		
	Certificate of authority for joint ventures (Only where the tender/ quotation is submitted by a joint venture)		
	Proof of Registration on the National Treasury Central Supplier Data Base (CSD) Full CSD report)		
	Particulars of Electrical installation subcontractor & Schedule of materials offered		

PART T2.1: LIST OF RETURNABLE DOCUMENTS

2.1. T2.1 List of Returnable Documents

The tenderer must complete the following returnable documents:

1 Returnable Schedules required for bid/quotation evaluation purposes.

- SBD 1, SBD 4
- SBD 6.1 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022
- Proposed amendments and qualifications.
- Schedule of Proposed Subcontractors
- Particulars of Electrical installation subcontractor & Schedule of materials offered
- Protection of personal content: Consent
- Valid CIDB Certificate of Tenderer
- Valid Department of Labour COIDA Letter of Good Standing Certificate.
- Proof of Specific Goals Claimed
- Part C1.1 Form of Offer and Acceptance
- Part C1.2 Contract Data
- Part C2.2 Bills of Quantities
- Compulsory enterprise questionnaire (In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted).
- Record of addenda issued (Only if addenda is issued)
- Resolution for Signatory
- Certificate of authority for joint ventures (Only where the tender/ quotation is submitted by a joint venture)
- Proof of Registration on the National Treasury Central Supplier Data Base (CSD)

2 Other documents required for bid/quotation evaluation purposes.

- Nil

3 Returnable Schedules that will be incorporated into the contract

- SBD 1, SBD 4
- SBD 6.1 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022
- Proposed amendments and qualifications.
- Schedule of Proposed Subcontractors
- Particulars of Electrical installation subcontractor & Schedule of materials offered
- Protection of personal content: Consent
- Valid CIDB Certificate of Tenderer
- Valid Department of Labour COIDA Letter of Good Standing Certificate.
- Proof of Specific Goals Claimed
- Part C1.1 Form of Offer and Acceptance
- Part C1.2 Contract Data
- Part C2.2 Bills of Quantities

SBD 1 – PART A - INVITATION TO BID

PART A INVITATION TO BID

SBD 1

CSD registered service providers (CIDB Grading of CIDB 7GB Contractor or higher) are hereby invited to bid for the services required by the Eastern Cape Department of Health					
BID NUMBER:	SCMU3-23/24-0580-HO	CLOSING DATE:	16 February 2024	CLOSING TIME:	11:00
DESCRIPTION:	Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of Existing Rooves				
BID RESPONSE DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AT					
EASTERN CAPE DEPARTMENT OF HEALTH: SUPPLY CHAIN MANAGEMENT OFFICE, situated at the following address: Room 102, Laboria House ,16 Grace Street, Port Elizabeth Central, Gqeberha, 6001					
BIDDING PROCEDURE ENQUIRIES MAY BE DIRECTED TO:			TECHNICAL ENQUIRIES MAY BE DIRECTED TO:		
CONTACT PERSON	Ms. Stella Tshwane	CONTACT PERSON	Mr. Welile Tsewu		
TELEPHONE NUMBER	041 408 8031/30	TELEPHONE NUMBER	041 408 8031/30		
E-MAIL ADDRESS	Stella.Tshwane@ehealth.gov.za	E-MAIL ADDRESS	Welile.tsewu80@gmail.com		
SUPPLIER INFORMATION					
NAME OF BIDDER					
POSTAL ADDRESS					
STREET ADDRESS					
TELEPHONE NUMBER	CODE		NUMBER		
CELLPHONE NUMBER					
FACSIMILE NUMBER	CODE		NUMBER		
E-MAIL ADDRESS					
VAT REGISTRATION NUMBER					
SUPPLIER COMPLIANCE STATUS	TAX COMPLIANCE SYSTEM PIN:		OR	CENTRAL SUPPLIER DATABASE No:	MAAA
An SBD 6.1 PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022 IS TO BE SUBMITTED TO CLAIM DEPARTMENTAL SPECIFIC GOAL POINTS					
<p>a) Service providers must submit proof of its Specific Goals points claimed / status of contributor.</p> <p>b) The Specific Goals supporting documents required to verify claimed points are in line with the specified requirements include:</p> <ul style="list-style-type: none"> • 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 					

SBD 1 - PART B – TERMS AND CONDITIONS FOR BIDDING

PART B TERMS AND CONDITIONS FOR BIDDING

<p>1. BID SUBMISSION:</p> <p>1.1. BIDS MUST BE DELIVERED BY THE STIPULATED TIME TO THE CORRECT ADDRESS. LATE BIDS WILL NOT BE ACCEPTED FOR CONSIDERATION.</p> <p>1.2. ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS PROVIDED–(NOT TO BE RE-TYPED) OR IN THE MANNER PRESCRIBED IN THE BID DOCUMENT.</p> <p>1.3. THIS BID IS SUBJECT TO THE PREFERENTIAL PROCUREMENT POLICY FRAMEWORK ACT, 2000 AND THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022, THE GENERAL CONDITIONS OF CONTRACT (GCC) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT.</p> <p>1.4. THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FILL IN AND SIGN A WRITTEN CONTRACT FORM.</p>
<p>2. TAX COMPLIANCE REQUIREMENTS</p> <p>2.1 BIDDERS MUST ENSURE COMPLIANCE WITH THEIR TAX OBLIGATIONS.</p> <p>2.2 BIDDERS ARE REQUIRED TO SUBMIT THEIR UNIQUE PERSONAL IDENTIFICATION NUMBER (PIN) ISSUED BY SARS TO ENABLE THE ORGAN OF STATE TO VERIFY THE TAXPAYER'S PROFILE AND TAX STATUS.</p> <p>2.3 APPLICATION FOR TAX COMPLIANCE STATUS (TCS) PIN MAY BE MADE VIA E-FILING THROUGH THE SARS WEBSITE WWW.SARS.GOV.ZA.</p> <p>2.4 BIDDERS MAY ALSO SUBMIT A PRINTED TCS CERTIFICATE TOGETHER WITH THE BID.</p> <p>2.5 SUBMISSION OF A COIDA LETTER OF GOOD STANDING FROM DEPARTMENT OF LABOUR IS MANDATORY</p> <p>2.6 IN BIDS WHERE CONSORTIA / JOINT VENTURES / SUB-CONTRACTORS ARE INVOLVED; EACH PARTY MUST SUBMIT A SEPARATE TCS CERTIFICATE / PIN / CSD NUMBER.</p> <p>2.7 WHERE NO TCS IS AVAILABLE BUT THE BIDDER IS REGISTERED ON THE CENTRAL SUPPLIER DATABASE (CSD), A CSD NUMBER MUST BE PROVIDED.</p> <p>2.8 NO BIDS WILL BE CONSIDERED FROM PERSONS IN THE SERVICE OF THE STATE, COMPANIES WITH DIRECTORS WHO ARE PERSONS IN THE SERVICE OF THE STATE, OR CLOSE CORPORATIONS WITH MEMBERS PERSONS IN THE SERVICE OF THE STATE.”</p>
<p>3. SPECIAL CONDITIONS OF BID</p> <p>3.1 The Eastern Cape Department of Health shall do an In-LoCo inspection of the Bidders premises, to verify the following details:</p> <p>i. The existence of the business ENTERPRISE as declared on the SBD1 form.</p> <p>ii. The existence of the resources as declared on the SBD1 forms, Pricing Schedules and relevant mandatory returnable schedules.</p> <p>3.2 In the event where the In-LoCo Inspections find inconsistencies and or misrepresentation in terms of what has been declared on the SBD1 forms, Pricing Schedules and relevant mandatory information, the Bidder will be notified of such inconsistencies and or misrepresentations in writing and allowed 7 (seven) days to rectify such.</p> <p>3.3 The Bidder who complies with the In-LoCo Inspection evaluation criteria, may then be considered to proceed to the Evaluation Stage 2.</p> <p>3.4. In the event where the Bidder has failed to rectify the inconsistencies and or misrepresentations within the 7 (seven) day period, the Health Department shall consider the Bidder who scored the 2nd highest points to be inspected, and if compliant, recommended to proceed to the Evaluation Stage 2.</p> <p>3.5. In the event where the recommended Bidder has failed to comply with the conditions as set out in the letter of award, the client shall notify the recommended Bidder of his/her failure to comply and recommend for award the next bidder that scored the highest points. The Conditions as set out in the letter of award are as follow:</p> <p>i. Proof of having All risk, public liability and support insurances as stipulated in the contract.</p> <p>ii. Submission of a Construction Safety, Health and Environmental Plan.</p>

iii. Contract Guarantee (as selected in the tender document)

3.6. An appointment letter/acceptance letter does not constitute a contract or commencement date of a contract. The recommended Bidder is required to sign an official contract with the Department.

SIGNATURE OF BIDDER:

DATE:

.....

.....

CAPACITY UNDER WHICH THIS BID IS SIGNED:
(Proof of authority must be submitted e.g., company resolution)

2.3. Compulsory Enterprise Questionnaire

Compulsory Enterprise questionnaire

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

Section 1: Name of enterprise:

Section 2: VAT registration number, if any:

Section 3: CIDB registration number, if any:

Section 4: Particulars of sole proprietors and partners in partnerships

Name*	Identity number*	Personal income tax number*

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

Section 5: Particulars of companies and close corporations

Company registration number

Close corporation number Tax

reference number

Section 6: The attached SBD 4 must be completed for each tender and be attached as a tender requirement.

Section 7: The attached SBD 6.1 must be completed for each tender and be attached as a requirement.

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

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

Signed

Date

Name

Position

2.4. SBD 4

SBD 4

BIDDER'S DISCLOSURE

1. PURPOSE OF THE FORM

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

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

2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling 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:
.....

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.*

.....
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, 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

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.**

2.5. RECORD OF ADDENDA TO BID DOCUMENTS

BID DESCRIPTION	Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs		
SCMU NUMBER	SCMU3-23/24-0580-HO		
I / We confirm that the following communications received from the Department of Health before the submission of this tender offer, amending the tender documents, have been taken into account in this bid offer: (Attach additional pages if more space is required)			
Item	Date	Title or Details	No. of Pages
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Attach additional pages if more space is required.

Signed _____ Date _____

Name _____ Position _____

Tenderer _____

2.6. PROPOSED AMENDMENTS AND QUALIFICATIONS

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

The Tenderer's attention is drawn to clause 5.8 of SANS 10845-3 regarding the employer's handling of material deviations and qualifications.

BID DESCRIPTION	Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs
SCMU NUMBER	SCMU3-23/24-0580-HO

Page	Clause /Item	Proposal

The undersigned, who warrants that she/ he is duly authorised to do so on behalf of the enterprise, confirms that the content of this schedule that presented by the tenderer are within my personal knowledge and are to the best of my knowledge both true and correct

Signed

Date

Name

Position

Enterprise name

RESOLUTION FOR SIGNATORY

BID DESCRIPTION	Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs
SCMU NUMBER	SCMU3-23/24-0580-HO

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 or on company letter head.

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 tender 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:

DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	
DIRECTOR (NAMES)		SIGNATURE	

If you cannot complete this form, attach a separate sheet (in a company letter head, project specific and signed by all directors):

B. CERTIFICATE OF AUTHORITY FOR JOINT VENTURES

This Returnable Schedule is to be completed by joint ventures.

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

BID DESCRIPTION	Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs
------------------------	----------------------------------------------------------------------------------------------------

SCMU NUMBER	SCMU3-23/24-0580-HO
--------------------	----------------------------

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

2.7. SCHEDULE OF PROPOSED SUBCONTRACTORS

BID DESCRIPTION	Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs
SCMU NUMBER	SCMU3-23/24-0580-HO
<p>We notify you that it is our intention to employ the following Subcontractors for work in this contract. The Subcontractors will all be CIDB registered and their CIDB Registration number shall be submitted below. This should also be declared on SBD 6.1 form.</p> <p>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.</p> <p>We confirm that all subcontractors who are or to be contracted are registered on Central Supplier Database (CSD).</p>	

No.	Name and address of proposed Subcontractor	Sub-Contractor CIDB Grading	Sub-Contractor CIDB No.	Nature, extent of work, Year completed, Value of sub-contract	Contact details: Name of person and phone No.
1					
2					
3					

4					
<p>The undersigned, who warrants that she/ he is duly authorised to do so on behalf of the enterprise, confirms that the content of this schedule that presented by the tenderer are within my personal knowledge and are to the best of my knowledge both true and correct</p>					

Signed

Date

Name

Position

Enterprise name

PARTICULARS OF ELECTRICAL CONTRACTOR

Project Name:	Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs
Tender No:	SCMU3-23/24-0580-HO

Name of Electrical Contractor:	
Address:	
Electrical Contractor registration number at the Electrical Contracting Board of S.A.:	

The required CIDB grading is: **4EB or higher**

Bidders are required to provide contactable references as below.

NAME OF EMPLOYER	NAME OF PROJECT	CONTRACT PERIOD (Start and End Date)	VALUE OF WORK	REFERENCE NAME AND CONTACT NUMBER

Signed Date

Name Position

Tenderer.....

2.8. SBD 6.1

SBD 6.1

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

BID DESCRIPTION	Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs
SCMU NUMBER	SCMU3-23/24-0580-HO

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

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

1. GENERAL CONDITIONS

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

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

1.2 To be completed by the organ of state

(delete whichever is not applicable for this tender).

The applicable preference point system for this tender is the 80/20 or 90/10 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

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

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

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmax = Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

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

- 4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 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 (Eastern Cape Contractors can claim 2 points)	10% (2)	
TOTAL	100% (20)	

Table 2: Detailed description and definition of various categories of the specific goal points that can be claimed.

No.	Detailed description and definition of various categories	Portfolio of Evidence as part of the returnables
1	<p>Historically Disadvantaged Individuals Ownership: [Historically Disadvantaged Individual (HDI). Means a South African citizen who, due to the apartheid policy that had been in place, had no franchise in national elections prior to the introduction of the Constitution of the Republic of South Africa, 1983 (Act No. 110 of 1983) or the Constitution of the Republic of South Africa, 1993 (Act No. 200 of 1993) (“The Interim Constitution”) and /orWho is a female; and/orWho has a disability]. A South African ID number is a 13-digit number which is defined by the following format: YYMMDDSSSSCAZ.</p> <ul style="list-style-type: none"> • The first 6 digits (YYMMDD) are based on your date of birth. 20 February 1992 is displayed as 920220. • The next 4 digits (SSSS) are used to define your gender. Females are assigned numbers in the range 0000-4999 and males from 5000-9999. • The next digit (C) shows if you're an SA citizen status with 0 denoting that you were born a SA citizen and 1 denoting that you're a permanent resident. 	<p>1)Proof of ownership (CIPRO certificate) with id no.</p> <p>2)Proof of ownership (CSD report) with id no.</p> <p>3)Certified copy of ID of all owners.</p>
2	<p>Women Ownership: A South African ID number is a 13-digit number which is defined by the following format: YYMMDDSSSSCAZ.</p> <ul style="list-style-type: none"> • The first 6 digits (YYMMDD) are based on your date of birth. 20 February 1992 is displayed as 920220. • The next 4 digits (SSSS) are used to define your gender. Females are assigned numbers in the range 0000-4999 and males from 5000-9999. 	<p>1)Proof of ownership (CIPRO certificate) with id no.</p> <p>2)Proof of ownership (CSD report) with id no.</p> <p>3)Certified copy of ID of all owners.</p>
3	<p>Military Veterans Ownership: According to the 2011 Military Veterans act, a military veteran is any South African who rendered military service to any of the military organisations, former statutory and liberation armies, which were involved on all sides of South Africa's liberation war from 1960 to 1993; served in the then Union Defence Force.</p>	<p>1)Proof of ownership (CIPRO certificate) with id no. with valid proof of veteran status.</p> <p>2)Proof of ownership (CSD report) with id no. with valid proof of veteran status.</p> <p>3)Certified copy of ID of all owners.</p>

4	<p>Disability Ownership: The CRPD (Convention on the Rights of Persons with Disabilities) defines persons with disabilities to include those who have long term physical, mental, intellectual or sensory impairments, which in interaction with various barriers may hinder their full and effective participation in society on an equal basis.</p>	<p>1)Proof of ownership (CIPRO certificate) with id no. with valid medical documentary proof.</p> <p>2)Proof of ownership (CSD report) with id no. with valid medical documentary proof.</p> <p>3)Certified copy of ID of all owners.</p>
5	<p>Youth Ownership: Who are Youth in South Africa? The national Youth Policy defines youth as any persons between the ages of 14 and 35 years.</p>	<p>1)Proof of ownership (CIPRO certificate) with id no.</p> <p>2)Proof of ownership (CSD report) with id no.</p> <p>3)Certified copy of ID of all owners.</p>
6	<p>Locality Ownership: Proof of business address (municipal account or valid lease agreement) (Eastern Cape Contractors can claim 2 points)</p>	<p>1) Copy of Muncial billing account with an address in the Eastern Cape Province.</p> <p>2)Copy of a Lease Agreement with an address in the Eastern Cape Province.</p>

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:

**PROOF OF REGISTRATION ON THE NATIONAL TREASURY
CENTRAL SUPPLIER DATABASE (CSD REPORT)**

(ATTACH HERE)

**VALID CIDB CERTIFICATE OF A TENDERER
(ATTACH HERE)**

**VALID DEPARTMENT OF LABOUR COIDA LETTER OF
GOOD STANDING CERTIFICATE / FEM LETTER OF GOOD
STANDING
(ATTACH HERE)**

**2.9. PROOF OF SPECIFIC GOALS POINTS CLAIMED
(ATTACH HERE)**

Table 2: Detailed description and definition of various categories of the specific goal points that can be claimed.

No.	Detailed description and definition of various categories	Portfolio of Evidence as part of the returnables
1	<p>Historically Disadvantaged Individuals Ownership: [Historically Disadvantaged Individual (HDI). Means a South African citizen who, due to the apartheid policy that had been in place, had no franchise in national elections prior to the introduction of the Constitution of the Republic of South Africa, 1983 (Act No. 110 of 1983) or the Constitution of the Republic of South Africa, 1993 (Act No. 200 of 1993) (“The Interim Constitution”) and /orWho is a female; and/orWho has a disability]. A South African ID number is a 13-digit number which is defined by the following format: YYMMDDSSSSCAZ.</p> <ul style="list-style-type: none"> • The first 6 digits (YYMMDD) are based on your date of birth. 20 February 1992 is displayed as 920220. • The next 4 digits (SSSS) are used to define your gender. Females are assigned numbers in the range 0000-4999 and males from 5000-9999. • The next digit (C) shows if you're an SA citizen status with 0 denoting that you were born a SA citizen and 1 denoting that you're a permanent resident. 	<p>1)Proof of ownership (CIPRO certificate) with id no.</p> <hr/> <p>2)Proof of ownership (CSD report) with id no.</p> <hr/> <p>3)Certified copy of ID of all owners.</p>
2	<p>Women Ownership: A South African ID number is a 13-digit number which is defined by the following format: YYMMDDSSSSCAZ.</p> <ul style="list-style-type: none"> • The first 6 digits (YYMMDD) are based on your date of birth. 20 February 1992 is displayed as 920220. • The next 4 digits (SSSS) are used to define your gender. Females are assigned numbers in the range 0000-4999 and males from 5000-9999. 	<p>1)Proof of ownership (CIPRO certificate) with id no.</p> <hr/> <p>2)Proof of ownership (CSD report) with id no.</p> <hr/> <p>3)Certified copy of ID of all owners.</p>
3	<p>Military Veterans Ownership: According to the 2011 Military Veterans act, a military veteran is any South African who rendered military service to any of the military organisations, former statutory and liberation armies, which were involved on all sides of South Africa's liberation war from 1960 to 1993; served in the then Union Defence Force.</p>	<p>1)Proof of ownership (CIPRO certificate) with id no. with valid proof of veteran status.</p> <hr/> <p>2)Proof of ownership (CSD report) with id no. with valid proof of veteran status.</p> <hr/> <p>3)Certified copy of ID of all owners.</p>

4	<p>Disability Ownership: The CRPD (Convention on the Rights of Persons with Disabilities) defines persons with disabilities to include those who have long term physical, mental, intellectual or sensory impairments, which in interaction with various barriers may hinder their full and effective participation in society on an equal basis.</p>	<p>1)Proof of ownership (CIPRO certificate) with id no. with valid medical documentary proof.</p> <p>2)Proof of ownership (CSD report) with id no. with valid medical documentary proof.</p> <p>3)Certified copy of ID of all owners.</p>
5	<p>Youth Ownership: Who are Youth in South Africa? The national Youth Policy defines youth as any persons between the ages of 14 and 35 years.</p>	<p>1)Proof of ownership (CIPRO certificate) with id no.</p> <p>2)Proof of ownership (CSD report) with id no.</p> <p>3)Certified copy of ID of all owners.</p>
6	<p>Locality Ownership: Proof of business address (municipal account or valid lease agreement) (Eastern Cape Contractors can claim 2 points)</p>	<p>1) Copy of Muncial billing account with an address in the Eastern Cape Province.</p> <p>2)Copy of a Lease Agreement with an addrss in the Eastern Cape Province.</p>

2.10.PROTECTION OF PERSONAL INFORMATION: CONSENT (POPIA)

PROTECTION OF PERSONAL INFORMATION: CONSENT (POPIA)

The introduction of The Protection of Personal Information Act (POPIA) ensures the regulation of personal information through its entire life cycle of collection, transfer, storing and deletion. As part of its business activities, the Department of Health obtains and requires access to personal data from a wide range of internal and external parties, including without limitation bidders who respond to requests for proposals that are published by the Department of Health from time to time. The Department of Health confirms that it shall process the information disclosed by Bidders for the purpose of evaluating and subsequently awarding/appointing a successful Bidder.

The Department of Health hereby states that it does not and will never modify, amend, or alter any personal information submitted to it by a Bidder. Not unless directed to do so by an order of court, the Department of Health does not disclose or permit the disclosure of any personal information to any Third Party without the prior written consent of the owner of the information.

Similarly, Bidders will from time-to-time access and be seized with information of a personal nature pertaining to the Department of Health. Some of the information may because of legislative compliances be available in the public domain, whilst some is uniquely provided to bidders in pursuit of procurement or other business-related activities. In this regard, the Department of Health requires that Bidders which receive or have access to its personal information, process any such information in a manner compliant with the requirements of the POPIA.

AGREEMENT

1. The Department of Health and the Bidder (the Parties) agree and undertake that upon obtaining and having access to personal information relating to either of them, they shall always ensure that:
 - a) They process the information only for the express purpose for which it was obtained.
 - b) Information is provided only to designated and authorized personnel who require the personal information to carry out the Parties' respective obligations in terms of the Procurement processes.
 - c) They will introduce, and implement all reasonable measures ensure the protection of all personal information from unauthorized access and/or use.
 - d) They have taken appropriate measures to safeguard the security, integrity, and authenticity of all personal information in its possession or under its control.
 - e) The Parties agree that if personal information will be processed for any other purpose other than the one for which the accessing of the information was intended, explicit written consent will be obtained prior to the execution of such reason.
 - f) The Parties shall carry out regular assessments to identify all reasonably foreseeable internal and external risks to the interception of personal information in its possession or under its control and shall implement and maintain appropriate controls in mitigation of such risks.
2. The Parties agree that they will promptly return or destroy any personal data in their possession or control which belongs to the other Party once it no longer serves the purpose for which it was collected, subject to any legal retention requirements. The information will be destroyed in such a manner that it cannot be reconstructed to its original form, linking it to any individual or organization.
3. Bidder's Obligations

- a) The Bidder is required to notify the Information Officer of Department of Health, in writing as soon as possible after it becomes aware of or suspects any loss, unauthorized access or unlawful use of any of the Department of Health's personal information.
- b) The Bidder shall, at its own cost, promptly and without delay take all necessary steps to mitigate the extent of the loss or compromise of personal data.
- c) The Bidder shall be required to provide the Department of Health with details of the persons affected by the compromise and the nature and extent of the compromise, including details of the identity (if known) of the unauthorized person who may have accessed or acquired the personal data.
- d) The Bidder undertakes to co-operate with any investigation relating to security breach which is carried out by or on behalf of Department of Health.

On behalf of the Bidder:

..... Signature Date
..... Position Name of the Bidder

On behalf of the Client:

..... Signature Date
..... Position Name of Client Representative

THE CONTRACT

3.1. PART C1 - AGREEMENTS AND CONTRACT DATA

PART C1.1: FORM OF OFFER AND ACCEPTANCE

FORM OF OFFER AND ACCEPTANCE

Bid Description	Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs
SCMU number	SCMU3-23/24-0580-HO

OFFER

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

Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs

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

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

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

.....

Rand (in words);

R(in figures) (or other suitable wording)

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

Signature

.....
 Name

.....
 Capacity

.....
for the tenderer

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

Name and signature

of witness Date

ACCEPTANCE

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

The terms of the contract, are contained in:

- Part C1 Agreements and contract data, (which includes this agreement)
- Part C2 Pricing data
- Part C3 Scope of work.

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 form of offer and acceptance. No amendments to or deviations from said documents are valid unless contained in this schedule.

The tenderer shall within 3 weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the tenderer (now contractor) within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.¹

Signature

.....
Name Ms S Gede

Capacity:
Acting Head of the Eastern Cape Department of Health

for the Employer

Eastern Cape Department of Health
Dukumbana Building, Independence Avenue
BHISHO

(Name and address of organization)

Name and signature
of witness Date

Schedule of Deviations

1 Subject _____
Details _____

2 Subject _____
Details _____

3 Subject _____
Details _____

4 Subject _____
Details _____

By the duly authorized representatives signing this agreement, the employer and the tenderer agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender/ quotation 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.

¹ *As an alternative, the following wording may be used:*

Notwithstanding anything contained herein, this agreement comes into effect two working days after the submission by the employer of one fully completed original copy of this document including the schedule of deviations (if any), to a courier-to-counter delivery / counter-to-counter delivery / door-to-counter delivery /door-to-door delivery /courier service (delete that which is not applicable), provided that the employer notifies the tenderer of the tracking number within 24 hours of such submission. Unless the tenderer (now contractor) within seven working days of the date of such submission 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

3.1.1. PART C1.2: CONTRACT DATA

The Joint Building Contracts Committee® - NPC CONTRACT DATA For use by ORGANS OF STATE and other PUBLIC SECTOR BODIES Principal Building Agreement Edition 6.2 - May 2018

A PROJECT INFORMATION

A1.0 Works [1.1]

Project name	Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs
Reference number	SCMU3-23/24-0580-HO
Works description	Refer to document C3 – Scope of Work

A2.0 Site [1.1]

Erf / stand number	Refer to document C4 – Site Information
Township / Suburb	Hospital Rd, Somerset East, 5850
Site address	Refer to document C4 – Site Information
Local authority	Hospital Rd, Somerset East, 5850

A3.0 Employer [1.1]

Official Name of Organ of State / Public Sector Body	Eastern Cape Department of Health
Business registration number	N/A
VAT/ number	N/A
Country	South Africa
Employer's representative: Name	Stella Tshwane / Welile Tsewu
Telephone number	041 408 8031/30
Physical address	Room 102 Laboria House 16 Grace Street Port Elizabeth Central Gqeberha 6001

A4.0 Principal Agent [1.1]

Name	Sakhiwo FM Consortium (Pty) Ltd		
Legal entity of above	Sakhiwo FM Consortium (Pty) Ltd	Contact person	Benjy Mokgothu
Practice number		Telephone number	043-727 0791
		Mobile number	043 727 0791
Country	South Africa	E-mail	mail@sakhiwo.com
Postal address	1 Rochester Street, Vincent, East London	Postal Code	5201
Physical address	1 Rochester Street, Vincent, East London	Postal Code	5201

A5.0 Agent [1.1]

Discipline	Architect		
Name	IMBONO FJA Architects		
Legal entity of above	IMBONO FJA Architects	Contact Person	Hubert Sieg
Practice number		Telephone number	041 365 3691
		Mobile number	082 878 9883
Country	South Africa	E-mail	hubert@imbonofja.co.za
Postal address	12A Shirley Street, Newton Park, Gqeberha	Postal Code	6045
Physical address	12A Shirley Street, Newton Park, Gqeberha	Postal Code	6045

A6.0 Agent [1.1]

Discipline	Quantity Surveyor		
Name	BHC Built Environment Professionals		
Legal entity of above	BHC Built Environment Professionals		
Practice number		Contact Person	Admire Moyo / admire@bhcbep.co.za
		Telephone	041 373 0703
Country	South Africa	Mobile Number	078 445 7609
Postal address	2 Salisbury Road, Mill Park, Gqeberha, 6001	Postal Code	6001
Physical address	2 Salisbury Road, Mill Park, Gqeberha, 6001	Postal Code	6001

A7.0 Agent [1.1]

Discipline	Structural Engineer		
Name	Calculus Engineering and Project Management (Pty) Ltd		
Legal entity of above	Calculus Engineering and Project Management (Pty) Ltd	Contact person	Peter O'Kennedy
Practice number	2016/209283/07	Telephone number	041 581 1283
		Mobile number	082 305 1402
Country	South Africa	E-mail	petero@calculuseng.com
Postal address	281 Main Road Walmer, Gqeberha		Postal Code 6070
Physical address	281 Main Road Walmer, Gqeberha		Postal Code 6070

A8.0 Agent [1.1]

Discipline	Civil Engineer		
Name	Calculus Engineering and Project Management (Pty) Ltd		
Legal entity of above	Calculus Engineering and Project Management (Pty) Ltd	Contact person	Peter O'Kennedy
Practice number	2016/209283/07	Telephone number	041 581 1283
		Mobile number	082 305 1402
Country	South Africa	E-mail	petero@calculuseng.com
Postal address	281 Main Road Walmer, Gqeberha		Postal Code 6070
Physical address	281 Main Road Walmer, Gqeberha		Postal Code 6070

A9.0 Agent [1.1]

Discipline	Electrical Engineer		
Name	Lukhozi Consulting Engineers (Pty) Ltd		
Legal entity of above	Lukhozi Consulting Engineers Pty (Ltd)	Contact person	Jaundré Duvenhage
Practice number		Telephone number	041 363 1984
		Mobile number	083 861 9407
Country	South Africa	E-mail	j.duvenhage@lukhozi.co.za
Postal address	36 Pickering Street, Newton Park, Gqeberha		Postal Code 6045
Physical address	36 Pickering Street, Newton Park, Gqeberha		Postal Code 6045

A10.0 Agent [1.1]

Discipline	Mechanical Engineer		
Name	Lukhozi Consulting Engineers (Pty) Ltd		
Legal entity of above	Lukhozi Consulting Engineers Pty (Ltd)	Contact person	Jaundré Duvenhage
Practice number	2000/006344/07	Telephone number	041 363 1984
		Mobile number	083 861 9407
Country	South Africa	E-mail	j.duvenhage@lukhozi.co.za
Postal address	36 Pickering Street, Newton Park, Gqeberha		Postal Code 6045
Physical address	36 Pickering Street, Newton Park, Gqeberha		Postal Code 6045

A11.0 Agent [1.1]

Discipline	Occupational Health and Safety Agent		
Name	L Mzamo and Associates		
Legal entity of above	L Mzamo and Associates	Contact person	Lukhanyiso Mzamo
Practice number		Telephone number	
		Mobile number	072 256 8902
Country		E-mail	lm@lmzamoandassoc.co.za
Postal address			Postal Code 6200
Physical address	3rd Floor Regus House Fairview Office Park Ring Road Greenacres, Gqeberha, 6001		Postal Code 6200

A12.0 Agent [1.1]

Discipline	Social Facilitator		
Name	Mfundo Maweni		
Legal entity of above		Contact person	Mfundo Maweni
Practice number		Telephone number	
		Mobile number	072 256 8902
Country		E-mail	mfundomaweni@gmail.com
Postal address			Postal Code 6200
Physical address	48 Teya Street, New Brighton, Port Elizabeth		Postal Code 6200

B CONTRACT INFORMATION

B 1.0 Definitions [1.1]

Bills of quantities: System/Method of measurement	Standard System of Measuring Building Work (Seventh Edition) as amended
-------------------------------------------------------------	--------------------------------------------------------------------------------

B 2.0 Law, regulations, and notices [2.0]

Law applicable to the works , state country [2.1]	Republic of South Africa
-----------------------------------------------------------------	---------------------------------

B 3.0 Offer and acceptance [3.0]

Currency applicable to this agreement [3.2]	South African Rand
----------------------------------------------------	---------------------------

B 4.0 Documents [5.0]

The original signed agreement is to be held by the principal agent [5.2], if not, indicate by whom	Employer
Number of copies of construction information issued to the contractor at no cost [5.6]	Three (3)

Documents comprising the agreement	Page numbers
The JBCC® Principal Building Agreement, Edition 6.2 May 2018	1 to 30
The JBCC® Principal Building Agreement - Contract Data for Organs of State and other Public Sector Bodies, Edition 6.2 May 2018	1 to 18
The JBCC® General Preliminaries for use with the JBCC® Principal Building Agreement, Edition 6.2 May 2018	1 to 30

Contract drawings – STRUCTURAL ENGINEER	Number	Revision	Date
ROOFPLAN BLOCK A ADDITIONS	S01	0	07/11/2023
ROOFPLAN BLOCK D ADDITIONS	S02	0	07/11/2023
ROOFPLAN BLOCK B & C	S03	0	07/11/2023
GUTTER DETAILS BLOCK B & C	S04	0	07/11/2023
STRUCTURAL ELEMENTS LAYOUT	S05	0	07/11/2023
TYPICAL CAT LADDER DETAILS AND ELEVATIONS	S06	0	07/11/2023
ADDITION TO SLAB FOR NEW MANHOLE OPENINGS	S07	0	07/11/2023

Contract drawings – ARCHITECTURAL	Number	Revision	Date
Roof Plan	TD1.00	B	2023-11-02
Existing Ceiling Plan	TD1.01	B	2023-11-02
Ceiling Plan – Remedial Work	TD1.02	0	2023-11-03
Typical Sections	TD3.00	B	2023-10-27
Typical Longitudinal Sections	TD3.01	0	2023-10-27
Schedules	TD6.00	0	2023-10-27
General Specification Document	TD_SS1.00	D	2023-11-03

B 5.0 Employer’s Agents [6.0]

Authority is delegated to the following **agents** to issue **contract instructions** and perform duties for specific aspects of the **works** [6.2]

Principal Agent and Architect

Principal agent’s and **agents’** interest or involvement in the **works** other than a professional interest [6.3]

None

B 6.0 Insurances [10.0]

Insurances by employer			Amount including tax	Deductible amount including tax
Yes / No:	No			
Contract works insurance:				
	New works [10.1.1] (Contract sum or amount)			
or	Works with practical completion in sections [10.2] (contract sum or amount)			
or	Works with alterations and additions [10.3] (reinstatement value of existing structures with or including new works)			
	Direct contractors [10.1.1; 10.2] where applicable, to be included in the contract works insurance			
	Free issue [10.1.1; 10.2] where applicable, to be included in the contract works insurance			
	Escalation, professional fees and reinstatement costs if not included above			
Total of the above contract works insurance amount				
Supplementary insurance [10.1.2; 10.2]				
Public liability insurance [10.1.3; 10.2]				
Removal of lateral support insurance [10.1.4; 10.2]				
Other insurances [10.1.5]				
Yes/ No?	Yes	If yes, description 1		
Yes/ No?	Yes	If yes, description 2		

and/or

Insurances by contractor			Amount including tax	Deductible amount including tax
Yes / No:	No			
Contract works insurance:				
	New works [10.1.1] (Contract sum or amount)		Contract sum +10%	R15,000.00
or	Works with practical completion in sections [10.2] (contract sum or amount)		Contract sum +10%	R15,000.00
or	Works with alterations and additions [10.3] (reinstatement value of existing structures with or including new works)		To the minimum value of the contract sum +10%	With a deductible not exceeding 5% of each claim
	Direct contractors [10.1.1; 10.2] where applicable, to be included in the contract works insurance			
	Free issue [10.1.1; 10.2] where applicable, to be included in the contract works insurance			

	Escalation, professional fees and reinstatement costs if not included above			
Total of the above contract works insurance amount			To the minimum value of the contract sum +10%	With a deductible not exceeding 5% of each claim
Supplementary insurance [10.1.2; 10.2]			No	
Public liability insurance [10.1.3; 10.2]			R15 Million	
Removal of lateral support insurance [10.1.4; 10.2]			No	
Other insurances [10.1.5]				
Yes/ No?	Yes	If yes, description 1	N/A	
Yes/ No?	Yes	If yes, description 2	N/A	

B 7.0 Obligations of the employer [12.1]

Existing premises will be in use and occupied [12.1.2]		Yes / No?	Yes
If yes, description	The Site is a working hospital and construction will take place within these premises. The Contractor will, throughout the entire period of the works, be responsible for the proper and adequate protection of property and the public and ECDOHs personnel from damage or injury resultant from the works and for the proper security of the site at all times during the course of the works. Further, the Contractor must allow for all temporary hoardings, required by the Local Authorities, National Building Regulations. OHS Act and or demanded by his own requirements. Allowance must further be made for periodic adjustment of any hoardings and for their eventual removal and for making good. All temporary fencing hoardings etc. and safe removal and disposal of Asbestos if any shall be required and must be priced for in the Preliminaries of these Bills of Quantities		
Restriction of working hours [12.1.2]		Yes / No?	Yes
If yes, description	7h00 until 16h00 daily excluding weekends. Work required to be executed outside of these hours must be arranged with the Facilities Manager and the Chief Executive of the hospital, in advance. No costs will be claimable in this regard.		
Natural features and known services to be preserved by the contractor [12.1.3]		Yes / No?	No
If yes, description			
Restrictions to the site or areas that the contractor may not occupy [12.1.4]		Yes / No?	Yes
If yes, description	Work areas and restricted areas shall be defined at Site Handover		
Supply of free issue [12.1.10]		Yes / No?	No
If yes, description			

B 8.0 Nominated subcontractors [14.0]

Yes / No?	No	If yes, description of specialisation
Specialisation 1		

Specialisation 2	
Specialisation 3	
Specialisation 4	
Specialisation 5	
Specialisation 6	
Specialisation 7	
Specialisation 8	
Specialisation 9	

B 9.0 Selected subcontractors [15.0]

Yes / No?	No	If yes, description of specialisation
Specialisation 1		
Specialisation 2		
Specialisation 3		
Specialization 4		
Specialization 5		
Specialisation 6		
Specialisation 7		
Specialisation 8		
Specialisation 9		
Specialisation 10		

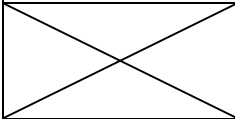
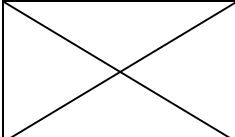
B 10.0 Direct contractors [16.0]

Yes / No?	No	If yes, description of extent of work
Extent of work [12.1.11]		
Extent of work [12.1.11]		
Extent of work [12.1.11]		
Extent of work [12.1.11]		
Extent of work [12.1.11]		

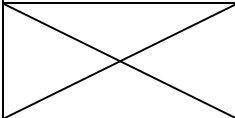
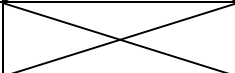
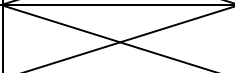
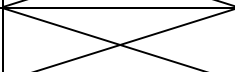
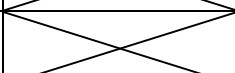
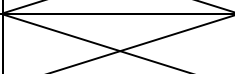
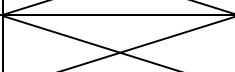
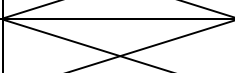
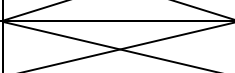
B 11.0 Description of sections [20.1] – REFER TO SCOPE OF WORK FOR DETAILS

Section 1	Section 1: Block B (Theatre and Radiology Block) Block G and Part Block D (East Wing only), 4 Months
Section 2	Section 2: Block A (Paeds Male and General Wards) and Block F, 4 Months
Section 3	Section 3: Block C (Kitchen and Dentistry) and Block H, 4 Months
Section 4	Section 4: Block D (Wards & Allied Professionals) , 5 Months
Section 5	Section 5: Block E (Laundry) 2 Months
Section 6	Section 6 and Works as a whole: 1 Month
All Sections	Each section will need to be hoarded to ensure safety of patients and visitors. Contractors staff may not have any access to patient areas that are operational. The laydown area of the contractor will be limited to zone A and limited time period to zone B for work on block E

B 12.0 Possession of site [12.1.5], practical completion [19.0; 20.0] and penalty [24.0]

Practical completion for the works as a whole	Intended date of possession of the site Refer B17.0 [12.1.5; 12.2.22]	Period for inspection by the principal agent [19.3]	The date for practical completion shall be the period as indicated below from the date of possession of the site by the contractor [12.2.7; 24.1]	Penalty for late completion [24.1]
		working days	Period in months	Penalty amount per calendar day (excl. tax)
		10 Working days	20 Calendar months (Shutdown period excluded)	In sections (as below)

or where **sections** are applicable N/A

Practical completion of a section of the works	Intended date of possession of the site Refer B17.0 [12.1.5; 12.2.22]	Period for inspection by the principal agent [19.3]	The date for practical completion shall be the period as indicated below from the date of possession of the site by the contractor [12.2.7; 24.1]	Penalty for late completion [24.1]
		Working days	Period in months	Penalty amount per calendar day (excl. tax)
Section 1		10 Working days	4	8.5c/R100 of Contract amount
Section 2		10 Working days	4	8.5c/R100 of Contract amount
Section 3		10 Working days	4	8.5c/R100 of Contract amount
Section 4		10 Working days	5	6.25c/R100 of Contract amount
Section 5		10 Working days	2	16.25c/R100 of Contract amount
Section 6		10 Working days	2	16.25c/R100 of Contract amount
Section 7		10 Working days	1	27.5c/R100 of Contract amount
Remainder of the				

Criteria to achieve practical completion not covered in the definition of practical completion
Works undertaken by the contractor are to be regarded as fit for purpose. This will be at the discretion of the professional team and will be subject to written confirmation from the professional team. Receipt by PA of Roof Completion certificates, Structural certification, Facility safe for occupation certification, warranties and guarantees and training of staff records where appropriate and issue of approval of sectional and completion lists by PA

B 13.0 Defects liability period [21.0]

Extended defects liability period: Refer B17.0 [21.13]	Yes / No?	Yes
If yes, description of applicable elements	All works	

B 14.0 Payments [25.0]

Date of month for issue of regular payment certificates [25.2]	25th		
Contract price adjustment / Cost fluctuations [25.3.4; 26.9.5]	Yes / No?	Yes	Base date = Tender closing date
If yes, method to calculate	CPAP calculated with Haylett formulae based on indices as provided by Stats SA		
Employer shall pay the contractor within: [25.10]	Thirty (30) calendar days		

B 15.0 Dispute resolution [30.0]

Adjudication [30.6.1; 30.10] Name of nominating body	Refer to Part C1.3 Dispute Resolution Mechanism		
Applicable rules for adjudication [30.6.2]	Adjudication in accordance with the CIDB adjudication process		
Arbitration [30.7.4; 30.10]	Yes / No?	Yes	
If Yes, name of nominating body	Association of Arbitrators SA		
*If No, then dispute will be referred to litigation			
Applicable rules for arbitration [30.7.5]	2021		

B 16.0 JBCC® General Preliminaries – selections

Provisional bills of quantities [B2.2]		Yes / No?	Yes
Availability of construction information – is the construction information complete? [B2.3]		Yes / No?	No
Previous work - dimensional accuracy - details of previous contract(s) [B3.1]		N/A	
Previous work - defects - details of previous contract(s) [B3.2]		N/A	
Inspection of adjoining properties - details [B3.3]		Yes-Photographic record by Principal Contractor to be submitted within 14 days of site handover	
Handover of site in stages - specific requirements [B4.1]		Refer to B11 (Contract Data)	
Enclosure of the works - specific requirements [B4.2]		Hoarding to working areas.	
Geotechnical and other investigations - specific requirements [B4.3]		N/A	
Existing premises occupied - details [B4.5]		Working areas will be occupied & Principal Contractor must liaise with Facilities Manager to decant.	
Services - known - specific requirements [B4.6]		Yes isolate and make safe.	
Water [B8.1]	By contractor	Yes / No?	Yes
	By employer	Yes / No?	No
	By employer – metered	Yes / No?	No
Electricity [B8.2]	By contractor	Yes / No?	Yes
	By employer	Yes / No?	No
	By employer – metered	Yes / No?	No
Ablution and welfare facilities [B8.3]	By contractor	Yes / No?	Yes
	By employer	Yes / No?	No
Communication facilities - specific requirements [B8.4]		No specific requirements	
Protection of the works - specific requirements [B11.1]		Principal Contractors responsibility	
Protection / isolation of existing works and works occupied in sections - specific requirements [B11.2]		Principal Contractors' responsibility	
Disturbance - specific requirements [B11.5]		Principal Contractors' responsibility	
Environmental disturbance - specific requirements [B11.6]		Principal Contractors' responsibility	

B 17.0 Changes made to JBCC® documentation

Reference may be made to other documents forming part of this **agreement**

1.1 Definitions

AGREEMENT: The completed Form of Offer and Acceptance, the completed **JBCC®** Principal Building Agreement and **JBCC® contract data for organs of state and other public sector bodies, the contract drawings, the priced document** and any other documents reduced to writing and signed by the authorised representatives of the **parties**

CONSTRUCTION PERIOD: The period commencing on the date of possession of the **site** by the **contractor** and ending on the date of **practical completion**

CONTRACT PERIOD: The period commencing on the date of the letter of acceptance and ending on the date of final completion

COST FLUCTUATION shall mean contract price adjustment provision (CPAP) for the adjustment of fluctuation in the cost of labour, plant, material and goods as stated in the schedule

DEFAULT INTEREST: No Clause

GUARANTEE FOR CONSTRUCTION: A security in terms of the ECDOH's Guarantee for Construction form/s, obtained by the contractor from an institution approved by the employer [CD]

CONTRACT DATA FOR ORGANS OF STATE AND OTHER PUBLIC SECTOR BODIES: The document listing the Organs of State and other Public Sector Bodies' requirements and the project specific information

INTEREST: The interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No 1 of 1999), calculated as simple interest, in respect of debts owing to the State, and will be the rate as determined by the Minister of Justice and Constitutional Development from time to time 80(1)(b) of the Public Finance Management Act, 1999 (Act No 1 of 1999), calculated as simple interest, in respect of debts owing by the State

LETTER OF ACCEPTANCE: The letter of formal acceptance of the Contractor's or Service Provider's Tender / Bid, issued and signed by the Employer

PAYMENT CERTIFICATE: A certificate issued at regular agreed intervals [CD] by the principal agent to the parties certifying the amount due and payable in terms of Clause 25.3

PRINCIPAL AGENT: The person or entity appointed by the **employer** and named in the **contract data for organs of state and other public sector bodies**. In the event of a principal agent not being appointed, then all the duties and obligations of a **principal agent** as detailed in the **agreement** shall be fulfilled by the employer's representative as named in the **contract data for organs of state and other public sector bodies**

3.0 Offer and Acceptance

Amend 3.3 to read as follows:

This **agreement** shall come into force on the date as stated on the Form of Offer and Acceptance and continue to be of force and effect until the end of the **latent defects** liability period [22.0] notwithstanding termination [29.0] or the certification of **final completion** [21.0] and final payment [25.0]

4.0 Cession and Assignment

Replace Clause 4.3 with the following:

Where a contractor cedes any right or any monies due to or to become due under this agreement as security in favour of a financial institution, the prior written consent of the employer, which consent shall not be unreasonably withheld, must be obtained

5.0 Documents

Replace Clause 5.4 with the following:

The Bills of Quantities shall not be used as a specification of material and goods or methods unless so instructed by the Principal Agent. The contractor may not use the Bills of Quantities for purpose of ordering material. All dimensions and quantities must be determined on site before ordering. In the event of discrepancy between the drawings and Bills of Quantity, the drawings shall take preference

Replace Clause 5.5 with the following:

The parties may publish or disclose on any platform only the contract scope and contract amount

6.0 Employer's Agents

Replace Clause 6.5 with the following:

Where the principal agent and/or an agent fails to act or is unable to act or ceases to be the principal agent or an agent in terms of this agreement, the employer shall appoint another principal agent and/or an agent

Add the following as 6.7:

In terms of the clauses listed hereunder, the **employer** has retained its authority and has not given a mandate to the **principal agent**. The **employer** shall sign all documents in relation to clauses 4.2, 14.1.2, 14.1.4, 14.4.1, 14.6, 23.1, 23.2, 23.3, 23.7, 23.8, 26.1, 26.7, 26.12 and 28.4

8.0 Works Risk

Replace Clause 8.4 with the following:

The **contractor** shall bear the full risk of damage to and/or destruction of the **works** by whatever cause during construction of the **works** and hereby indemnifies and holds harmless the **employer** against any such damage. The **contractor** shall take such precautions and security measures and other steps for the protection and security of the **works** as the **contractor** may deem necessary

9.0 Indemnities

9.2.7: Add the following to the end of the first sentence: "... due to no fault of the **contractor**"

9.2.9 No Clause

9.2.10 No Clause

Add the following as clause 9.3:

The employer's rights to claim damages for the contractor's omissions and actions will not be affected.

10.0 Insurances

Add the following as 10.1.5.1:

Hi risk Insurance

In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable sub-surface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:

10.1.5.1.1 Damage to **the works**

The contractor shall, from the date of possession of the **site** until the date of the **certificate of practical completion**, bear the full risk of and hereby indemnifies and holds harmless the **employer** against any

damage to and/or destruction of the **works** consequent upon a catastrophic ground movement as mentioned above. The **contractor** shall take such precautions and security measures and other steps for the protection of the **works** as he may deem necessary

When so instructed to do so by the **principal agent**, the **contractor** shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the **works** and to rebuild, restore, replace and/or repair the **works**, at the **contractor's** own costs

10.1.5.1.2 Injury to persons or loss of or damage to property

The **contractor** shall be liable for and hereby indemnifies and holds harmless the **employer** against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above

The **contractor** shall be liable for and hereby indemnifies the **employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable property, or personal property, or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract

10.1.5.1.3

It is the responsibility of the **contractor** to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.1.5.1.1 and 10.1.5.1.2. Without limiting the **contractor's** obligations in terms of the contract, the **contractor** shall, within twenty-one (21) **calendar days** of the date of possession of the site, but before commencement of the **works**, submit to the **employer** proof of such insurance policy, if requested to do so

10.1.5.1.4

The **employer** shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the **contractor's** default of his obligations as set out in 10.1.5.1.1; 10.1.5.1.2 and 10.1.5.1.3. Such losses or damages may be recovered from the **contractor** or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the **employer** and the **contractor** and for this purpose all these contracts shall be considered one indivisible whole

11.0 Securities

Amend 11.10 to read as follows:

There shall be no lien or right of retention held by any **contractor** in respect of the works executed on **site**

12.0 Obligations of the Parties

12.1.1 No Clause

Replace Clause 12.1.5 with the following:

Give possession of the site to the contractor within ten (10) working days after approval of the Health and Safety Plan or the issue of a construction permit by the Department of Labour, if applicable, after the contractor complied with the terms of 12.2.22

12.1.6 No Clause

12.1.8 No Clause

Replace Clause 12.2.2 with the following:

The priced Bills must be submitted as part of the returnable documents. Where the priced document contains errors or discrepancies and/or prices considered by the employer or principal agent to be imbalanced or unreasonable the employer or principal agent and the contractor shall adjust such prices without any change to the contract sum

Replace Clause 12.2.5 with the following:

Effect and keep in force insurances in favour of the employer as beneficiary where the contractor is responsible for providing insurances [10.0) [CD]

Replace Clause 12.2.13 with the following:

Designate a competent person full time on site to continuously administer and control the works on site and to receive and implement notices and contract instructions on behalf of the contractor

Add the following as Clause 12.2.22:

Within fourteen (14) working days of the date of the letter of acceptance submit to the principal agent an acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)

Add the following as Clause 12.2.23:

The contractor shall within reasonable time inform the agents regarding inspection of the works before covering / closing [B 12.0]

19.0 Practical Completion

Replace Clause 19.5 with the following:

On issue of the only or last certificate of practical completion the employer shall be entitled to possession of the works and the site. On issue of the certificate of practical completion for a section, the employer shall be entitled to possession of such section.

21.0 Defects Liability Period and Final Completion

Clause 21.0

Replace Clause 21.1 with the following:

The defects liability period for the works shall commence on the calendar day following the date of works completion and end at midnight (00:00) ninety (90) calendar days from the date of works completion [CD] or when work on the list for completion has been satisfactorily attended to [21.6), whichever is the later

Replace Clause 21.6 with the following:

On the expiry of the ninety (90) calendar days defects liability period [21.1] for items not indicated as items with an extended liability as indicated in B14 and on receipt of the contractor's notice to the principal agent

And/or

On the expiry of the defects liability period as indicated in B14, for items indicated in B14 and on receipt of the contractor's notice to the principal agent, the principal agent shall:

- (1) inspect the works and within ten (10) working days either issue a list for final completion detailing all outstanding work or defects that must be attended to, or rectified to achieve final completion or
- (2) issue the certificate of final completion to the contractor with a copy to the employer for that part of the works where defects liability period has expired

21.6.1 Omit Clause

21.6.2 Omit Clause

Add the following as Clause 21.13:

The ninety (90) calendar days defects liability period for the works [21.1] is replaced with an extended defects liability period of three hundred and sixty-five (365) calendar days in respect of the listed applicable elements in B14

Add the following as Clause 21.14:

Penalties will be applied if the items on the completion list have not been attended to within a period of ninety (90) calendar days [21.1]. If additional defect items have being added to the list during this period, then the Principal Agent and Contractor will agree on a revised completion date. Failing in achieving the revised date will result in penalties being applied. [B12.0

23.0 Latent Defects Liability Period

22.3.2 No Clause

24.0 Penalty for Late and Non-completion

Replace Clause 24.1 with the following:

Where the contractor fails to bring the works, or a section thereof, to practical or final- completion by the applicable completion date [CD], or the revised applicable completion date, the contractor shall be liable to the employer for the penalty [CD]

Replace Clause 24.2 with the following:

Where the employer elects to levy such penalty the employer, or the principal agent on instruction from the employer, shall give notice thereof to the contractor. The principal agent shall determine the penalty due from the later of the date for practical- works-, or final- completion [CD], or the revised date for practical- works-, or final- completion, up to and including the earlier of:

Replace Clause 24.2.1 with the following:

The actual or deemed date of practical or final- completion, of the works, or a section thereof [23.7.1]

25.0 Payment

Replace Clause 25.2 with the following:

The principal agent shall issue at regular agreed intervals [CD] payment certificates, to the contractor with a copy to the employer, up to and including practical completion. Interim Payment certificates may be issued to the contractor between practical completion and the final payment certificate. A payment certificate may be for a nil or negative amount

Add the following to Clause 25.3:

25.3.12 Tax Invoice

25.5 No Clause

Replace Clause 25.6 with the following:

Materials and goods will only be certified and paid for upon providing proof of full payment to the supplier and proof of transfer of ownership from the supplier to the contractor by the contractor. Once paid, material and goods shall become the property of the employer and shall not be removed from site without the written authority of the Employer.

25.7.5 No clause.

Replace Clause 25.10 with the following:

The employer shall pay the contractor the amount stipulated in an issued payment certificate, correct in all material respects, within thirty (30) calendar days from the date of receiving the payment certificate, invoice and all other substantiating documentation for items certified in the payment certificate

25.10: Delete the words “and/or **compensatory interest**”

Replace Clauses 25.12 to 25.12.3 with the following:

Clause 25.12

The value of the works in terms of 25.1 and of the materials and goods in terms of 25.4 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

25.12.1 Ninety-five per cent (95%) of such value in interim payment certificates issued up to the date of practical completion

25.12.2 Ninety-seven per cent (97%) of such value in interim payment certificates issued on the date of practical completion and up to but excluding the date of final completion

25.12.3 Ninety-nine per cent (99%) of such value in interim payment certificates issued on the date of final completion and up to but excluding the final payment certificate in terms of 26

25.12.4 One hundred per cent (100%) of such value in the final payment certificate in terms of 26 except where the amount certified is in favour of the employer. In such an event the payment reduction shall remain at the adjustment level applicable to the final payment certificate.

25.12.5 Where there is sectional practical completion, the reduction of retention will be based on the value of each contractual section practical completion in terms of clause 20.0

25.14.2: Not applicable

26.0 Adjustment of the Contract Value and Final Account

Ref Clause 6.7 [CD] – Clause 26.1

Omit Clause 26.4.3

Ref Clause 6.7 [CD] – Clause 26.7

Replace Clause 26.10 with the following:

The principal agent shall prepare the final account in consultation with the employer and issue the final account, to the contractor within sixty (60) working days of the date of practical completion

27.0 Recovery of Expense and/or Loss

Clause 27.0

Replace Clause 27.1.2 with the following:
Interest due to late payment only

Replace Clause 27.1.4 with the following:
Interest due to late payment only

27.1.5 No Clause

Replace Clause 27.5 with the following:

Where the employer decides to recover an amount due in terms of 27.2 from a construction guarantee, cash deposit or retention money held as security, the employer shall issue a written demand to the contractor before recovering the amount. Should such amount not be paid to the employer within fourteen (14) calendar days of the date-of notice by the employer, the employer may recover such an amount from the security

29.0 Termination

Clause 29.0

Add the following as Clause 29.1.4:

The contractor's estate has been sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa

Add the following as Clause 29.1.5:

The contractor has engaged in corrupt or fraudulent practices in competing for or in executing the contract.

Add the following as Clause 29.1.6:

Honour his obligations in terms of Clauses 10.1.5.1.3, 11.4.1 and 12.2. sub-Clauses 5, 6, 8, 9, 10, 11, 12, 13, 15, 16, 19, 20, 22.

Replace Clause 29.7 with the following:

The employer, on notice to the contractor, may recover damages from the contractor from the date of termination including, but not limited to, additional costs incurred in the completion, consultant cost, rental of alternative accommodation, invitation of completion tenders, salaries of officials and safeguarding the site, of the remaining work [25.3.7; 27.1.3]

Replace Clause 29.9 with the following:

The employer has the right of recovery against the contractor, where applicable, [CD] from:

The payment reduction until the final payment is made;

29.14.1 No Clause

29.14.3 No Clause

29.14.4 No Clause

29.14.5 No Clause

29.14.6 No Clause

29.14.7 No Clause

29.15 No Clause

29.16 No Clause

29.17.3 No Clause

29.17.6 No Clause

29.21.5 No Clause

29.22 No Clause

29.23 No Clause

29.25.3 No Clause

29.25.4 No Clause

29.27 No Clause

30.0 Dispute Resolution

Replace Clause 30.2 with the following:

Where such disagreement is not resolved within ten (10) working days of receipt of such notice it shall be deemed to be a dispute and shall be submitted to Mediation as a first method of dispute resolution failing which the parties will resort to Litigation

30.3 to 30.7.7 No Clauses

Replace Clause 30.8 with the following:

The parties may, by agreement and at any time before Litigation, refer a dispute to mediation, in which event:

30.8.1 No Clause

Replace Clause 30.8.2 with the following:

The appointment of a mediator, the procedure, and the status of the outcome shall be agreed between the parties

Replace Clause 30.8.3 with the following:

Regardless of the outcome of a mediation the parties shall bear their own costs concerning the Mediation and equally share the costs of the mediator and related expenses.

Replace Clause 30.9 with the following:

Institution of Litigation shall be commenced, and process served within three (3) year from the date of existence of the dispute, failing which the dispute shall lapse

30.10 No Clause

30.12 No Clause

C TENDERER'S SELECTIONS

C 1.0 Security [11.0]

Guarantee for construction: Option A only	Option:	A
Option A	Fixed construction guarantee of 10% of the contract sum	
Guarantee for payment by employer [11.5.1; 11.10]	Not Applicable	
Advance payment, subject to a guarantee for advance payment [11.2.2; 11.3]	Not Applicable	

C 2.0 Contractor's annual holiday periods during the construction period

Year 1 contractor's annual holiday period	start date	Mid December 2024	end date	Mid January 2025
Year 2 contractor's annual holiday period	start date	Mid December 2025	end date	Mid January 2026
Year 3 contractor's annual holiday period	start date	Mid December 2026	end date	Mid January 2027

C 3.0 Payment of preliminaries [25.0]

Contractor's selection: Select Option A or B	Option:	
Where the contractor does not select an option, Option A shall apply		

Payment methods

Option A	The preliminaries shall be paid in accordance with an amount prorated to the value of the works executed in the same ratio as the amount of the preliminaries to the contract sum , which contract sum shall exclude the amount of preliminaries . Contingency sum(s) and any provision for cost fluctuations shall be excluded for the calculation of the aforesaid ratio
Option B	The preliminaries shall be paid in accordance with an amount agreed by the principal agent and the contractor in terms of the priced document to identify an initial establishment charge, a time-related charge and a final dis-establishment charge. Payment of the time-related charge shall be assessed by the principal agent and adjusted from time to time as may be necessary to take into account the rate of progress of the works

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations.

C 4.0 Adjustment of preliminaries [26.9.4]

Contractor's selection: Select Option A or B	Option:	
-----------------------------------------------------	----------------	--

Where the contractor does not select an option, Option A shall apply

Provision of particulars

The **contractor** shall provide the particulars for the purpose of the adjustment of **preliminaries** in terms of his selection. Where completion in sections is required, the **contractor** shall provide an apportionment of **preliminaries** per **section**

Option A	An allocation of the preliminaries amounts into Fixed, Value-related and Time-related amounts as defined for adjustment method Option A below, within fifteen (15) working days of the date of acceptance of the tender
Option B	A detailed breakdown of the preliminaries amounts within fifteen (15) working days of possession of the site. Such breakdown shall include, inter alia, the administrative and supervisory staff, the use of construction equipment , establishment and dis-establishment charges, insurances and guarantees, all in terms of the programme

Adjustment Methods

The amount of **preliminaries** shall be adjusted to take account of the effect which changes in time and/or value have on **preliminaries**. Such adjustment shall be based on the particulars provided by the **contractor** for this purpose in terms of Options A or B, shall preclude any further adjustment of the amount of **preliminaries** and shall apply notwithstanding the actual employment of resources by the **contractor** in the execution of the **works**

Option A	<p>The preliminaries shall be adjusted in accordance with the allocation of preliminaries amounts provided by the contractor, apportioned to sections where completion in sections is required</p> <p>Fixed - An amount which shall not be varied</p> <p>Value-related - An amount varied in proportion to the contract value as compared to the contract sum. Both the contract sum and the contract value shall exclude the amount of preliminaries, contingency sum(s) and any provision for cost fluctuations</p> <p>Time-related - An amount varied in proportion to the number of calendar days extension to the date of practical completion to which the contractor is entitled with an adjustment of the contract value [23.2; 23.3] as compared to the number of calendar days in the initial construction period [26.9.4]</p>
Option B	<p>The adjustment of preliminaries shall be based on the number of calendar days extension to the date of practical completion to which the contractor is entitled with an adjustment of the contract value [23.2; 23.3] as compared to the number of calendar days in the initial construction period [26.9.4]</p> <p>The adjustment shall take into account the resources as set out in the detailed breakdown of the preliminaries for the period of construction during which the delay occurred</p>

Failure to provide particulars within the period stated

Option A	<p>Where the allocation of preliminaries amounts for Option A is not provided, the following allocation of preliminaries amounts shall apply:</p> <p>Fixed - Ten per cent (10%) Value-related - Fifteen per cent (15%) Time-related - Seventy-five per cent (75%)</p> <p>Where the apportionment of the preliminaries per section is not provided, the categorized amounts shall be prorated to the cost of each section within the contract sum as determined by the principal agent</p>
Option B	<p>Where the detailed breakdown of preliminaries amounts for Option B is not provided, Option A shall apply</p>

Lump sum contract

Where the amount of **preliminaries** is not provided it shall be taken as 7.5% (seven and a half per cent) Of the **contract sum**, excluding contingency sum(s) and any provision for cost fluctuations

3.1.2. JBCC GUARANTEE FOR CONSTRUCTION (PRO-FORMA)



Guarantee for Construction

For use with the JBCC® Principal Building Agreement edition /date

GUARANTOR DETAILS AND DEFINITIONS

Guarantor:

Physical Address:

Guarantor's signatory 1: Capacity

Guarantor's signatory 2: Capacity

Employer:

Contractor:

Principal Agent:

Works:

Site:

Contract Sum: Accepted amount inclusive of tax Currency

Amount in words:

Guaranteed Sum: The maximum aggregate amount Currency

Amount in words:

Guarantee for Construction: (Insert Variable or Fixed)

Expiry Date:

AGREEMENT DETAILS

Sections: Total number / not applicable Last Section

Principal Agent issues JBCC® format Recovery Statement, Interim Payment Certificates, the Final Payment Certificate, the Certificate of Practical Completion and the Certificate of Final Completion

1.0 GUARANTEE FOR CONSTRUCTION (Variable)

1.1 Where a Guarantee for Construction (Variable) in terms of the Agreement has been selected this clause 1.0 and 3.0 to 13.0 shall apply. The Guarantor's liability shall be limited to the diminishing amounts of the Guaranteed Sum as follows:-

GUARANTOR'S LIABILITY

PERIOD OF LIABILITY

1.1.1 Maximum Guaranteed Sum (not exceeding 10.0% of the contract sum) in the amount of:

From and including the date of issue of this Guarantee for Construction and up to and including the date of issue of the Interim Payment Certificate certifying in excess of 50% of the contract sum

Amount in words:



1.1.2 Reducing to the Guaranteed Sum (not exceeding 6.0% of the contract sum) in the amount of:

From and including the day after the date of the aforesaid Interim Payment Certificate and up to and including the date of issue of the only Certificate of Practical Completion or last Certificate of Practical Completion where there are sections

Amount in words:

1.1.3 Reducing to the Guaranteed Sum (not exceeding 4.0% of the contract sum) in the amount of:

From and including the day after the date of the applicable Certificate of Practical Completion and up to and including the date of issue of the only Certificate of Final Completion or the last Certificate of Final Completion where there are sections

Amount in words:

1.1.4 Reducing to the Guaranteed Sum (not exceeding 2.0% of the contract sum) in the amount of:

From and including the day after the date of the applicable Certificate of Final Completion and up to and including the date of issue of the Final Payment Certificate where payment is due to the Contractor, whereafter this Guarantee for Construction shall expire. Where the Final Payment Certificate reflects payment due to the Employer, this Guarantee for Construction shall expire upon payment of the full amount certified

Amount in words:

1.2 The Guarantor's liability limits set out in 1.1.1 to 1.1.4 shall apply in respect of any claim received by the Guarantor during the guarantee validity period

2.0 GUARANTEE FOR CONSTRUCTION (Fixed)

2.1 Where a Guarantee for Construction (fixed) in terms of the Agreement has been selected this clause 2.0 and 3.0 to 13.0 shall apply. The Guarantor's liability shall be limited to the amount of the Guaranteed Sum as follows:

GUARANTOR'S LIABILITY

Maximum Guaranteed Sum (not exceeding 5.0% of the contract sum) in the amount of:

PERIOD OF LIABILITY

From and including the date of issue of this Guarantee for Construction and up to and including the date of the only Certificate of Practical Completion or the last Certificate of Practical Completion where there are sections, whereafter this Guarantee for Construction shall expire

Amount in words:

3.0 The Guarantor acknowledges that:

3.1 Any reference in this Guarantee for Construction to the Agreement is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention to create a suretyship;

3.2 Its obligation under this Guarantee for Construction is restricted to the payment of money; and

3.3 Reference to a Recovery Statement or an Interim or Final Payment Certificate, or a Certificate(s) of Practical or Final Completion shall mean such certificate issued by the Principal Agent.

4.0 Subject to the Guarantor's maximum liability referred to in 1.0 or 2.0, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 4.1 to 4.3:



- 4.1 A copy of a first written demand notice issued by the Employer to the Contractor stating that payment of a sum certified by the Principal Agent in an Interim or Final Payment Certificate has not been made in terms of the Agreement and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 4.2;
- 4.2 A first written demand notice issued by the Employer to the Guarantor at the Guarantor's Physical Address with a copy to the Contractor stating that a period of seven (7) calendar days has elapsed since the issue of the first written demand notice in terms of 4.1 and that the sum certified has not been paid to date. The Employer herewith calls up this Guarantee for Construction and demands payment of the sum certified from the Guarantor; and
- 4.3 A copy of the applicable payment certificate which entitles the Employer to receive payment in terms of the Agreement of the sum certified in 4.0
- 5.0. Subject to the Guarantor's maximum liability referred to in 1.0 or 2.0, the Guarantor undertakes to pay the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand notice from the Employer to the Guarantor at the Guarantor's Physical Address calling up this Guarantee for Construction stating that:
- 5.1 The Agreement has been terminated due to the Contractor's default and that the Guarantee for Construction is called up in terms of 5.0. The demand shall enclose a copy of the notice of termination; or
- 5.2 A provisional sequestration or liquidation court order has been granted against the Contractor and that the Guarantee for Construction is called up in terms of 5.0. The demand notice shall enclose a copy of the court order.
- 6.0 The aggregate amount of payments to be made by the Guarantor in terms of 4.0 and 5.0 shall not exceed the Guarantor's maximum liability in terms of 1.0 or 2.0.
- 7.0 Where the Guarantor is a registered insurer and has made payment in terms of 5.0, the Employer shall within one hundred and eighty (180) calendar days of receipt of payment submit an expense account to the Guarantor showing how all monies received in terms of the Guarantee for Construction have been expended, or will be expended, and shall refund to the Guarantor any surplus amount. All monies refunded to the Guarantor in terms of this Guarantee for Construction shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date of payment by the Guarantor to the Employer until the date of refund.
- 8.0 Payment by the Guarantor in terms of 4.0 or 5.0 shall be made within seven (7) calendar days upon receipt of the first written demand notice to the Guarantor.
- 9.0 The Employer shall have the absolute right to arrange its affairs with the Contractor in any manner which the Employer deems fit and the Guarantor shall not have the right to claim its release from this Guarantee for Construction on account of any conduct alleged to be prejudicial to the Guarantor.
- 10.0 The Guarantor chooses the Physical Address stated above for all notices and correspondences in relation to this Guarantee.
- 11.0 This Guarantee for Construction is neither negotiable nor transferable and shall expire in terms of either 1.1.4 or 2.1, or payment in full of the Guaranteed Sum or on the Expiry Date, whichever is the earlier, whereafter no claims will be considered by the Guarantor. This original Guarantee for Construction shall be returned to the Guarantor after it has expired.
- 12.0 This Guarantee for Construction, with the required demand notices in terms of 4.0 or 5.0, shall be regarded as a liquid document for the purpose of obtaining a court order.
- 13.0 Where this Guarantee for Construction is issued in the Republic of South Africa this Guarantee for Construction shall be governed by the laws of the Republic of South Africa. A competent court in the Republic of South Africa shall have sole jurisdiction in terms of this Guarantee for Construction. Where this Guarantee for Construction is issued outside the Republic of South Africa, the laws of the guarantor who issued this Guarantee for Construction shall prevail. A competent court, in the jurisdiction in which the guarantor is domiciled shall prevail.

Signed at:

Date:

Guarantor's Signatory 1: _____

Guarantor's Signatory 2: _____

Witness: _____

Witness: _____

Guarantor's seal or stamp

PART C1.3: DISPUTE RESOLUTION MECHANISM

C1.3 CIDB ADJUDICATOR'S AGREEMENT

C1.3 CIDB ADJUDICATOR'S AGREEMENT

This agreement is made on the day of between:
 (name of company / organization) of

 (address) and
 (name of company / organization) of

 . (address) (the Parties) and (name) of

 (address) (the Adjudicator).

Disputes or differences may arise/have arisen* between the Parties under a Contract dated
 ... and known as
 and these disputes or differences shall be/have been* referred to adjudication in accordance
 with the CIDB Adjudication Procedure, (hereinafter called "the Procedure") and the Adjudicator may
 be or has been requested to act.

* Delete as necessary

IT IS NOW AGREED as follows:

- 1 The rights and obligations of the Adjudicator and the Parties shall be as set out in the Procedure.
- 2 The Adjudicator hereby accepts the appointment and agrees to conduct the adjudication in accordance with the Procedure.
- 3 The Parties bind themselves jointly and severally to pay the Adjudicator's fees and expenses in accordance with the Procedure as set out in the Contract Data.
- 4 The Parties and the Adjudicator shall at all times maintain the confidentiality of the adjudication and shall endeavour to ensure that anyone acting on their behalf or through them will do likewise, save with the consent of the other Parties which consent shall not be unreasonably refused.
- 5 The Adjudicator shall inform the Parties if he intends to destroy the documents which have been sent to him in relation to the adjudication and he shall retain documents for a further period at the request of either Party.

SIGNED by: _____
 Name: _____
 who warrants that he / she is
 duly authorized to sign for and
 on behalf of the first Party in the
 presence of

SIGNED by: _____
 Name: _____
 who warrants that he / she is
 duly authorized to sign for and
 behalf of the second Party in
 the presence of

SIGNED by: _____
 Name: _____
 the Adjudicator in the presence
 of

Witness	_____	Witness:	_____	Witness:	_____
Name:	_____	Name	_____	Name:	_____
Address:	_____	Address:	_____	Address:	_____
Date:	_____	Date:	_____	Date:	_____

Contract Data

1	The Adjudicator shall be paid at the hourly rate of R in respect of all time spent upon, or in connection with, the adjudication including time spent travelling.
2	The Adjudicator shall be reimbursed in respect of all disbursements properly made including, but not restricted to: (a) Printing, reproduction and purchase of documents, drawings, maps, records and photographs. (b) Telegrams, telex, faxes, and telephone calls. € Postage and similar delivery charges. (d) Travelling, hotel expenses and other similar disbursements. € Room charges. (f) Charges for legal or technical advice obtained in accordance with the Procedure.
3	The Adjudicator shall be paid an appointment fee of R This fee shall become payable in equal amounts by each Party within days of the appointment of the Adjudicator, subject to an Invoice being provided. This fee will be deducted from the final statement of any sums which shall become payable under item 1 and/or item 2 of the Contract Data. If the final statement is less than the appointment fee the balance shall be refunded to the Parties.
4	The Adjudicator is/is not* currently registered for VAT.
5	Where the Adjudicator is registered for VAT it shall be charged additionally in accordance with the rates current at the date of invoice.
6	All payments, other than the appointment fee (item 3) shall become due in 30 days after receipt of invoice, thereafter interest shall be payable at 5% per annum above the Reserve Bank base rate for every day the amount remains outstanding.

* Delete as necessary

PART C2 - PRICING DATA

PART C2.1: PRICING INSTRUCTIONS

C2.1 Pricing Instructions

- 1 The Bills of Quantities have been drawn up in accordance with the Standard System of Measuring Building Work as amended) published and issued by the Association of South African Quantity Surveyors (Sixth Edition (Revised)), 1999. Where applicable the:
 - a) Civil engineering work has been drawn up in accordance with the provisions of the latest edition of SABS 1200 Standardised Specifications for Civil Engineering Works.
 - b) Mechanical work has been drawn up in accordance with the provisions of the latest edition of SABS 1200 Standardised Specifications for Mechanical Engineering Works.
 - c) Electrical work has been drawn up in accordance with the provisions of the latest edition of SABS 1200 Standardised Specifications for Electrical Engineering Works.
- 2 The agreement is based on the JBCC Edition 6.2 of 2018 with Government Clauses, prepared by the Joint Building Contracts Committee, The additions, deletions and alterations to the JBCC Principal Building Agreement as well as the contract specific variables are as stated in the Contract Data. Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
- 3 Preliminary and General requirements are based on the [preliminaries for the use of JBCC Edition 6.2– May 2018](#). Only the headings and clause numbers for which allowance must be made in the Bills of Quantities are recited.
- 4 It will be assumed that prices included in the Bills of Quantities are based on Acts, Ordinances, Regulations, By-laws, International Standards and National Standards that were published 28 days before the closing date for tenders. (Refer to www.stanza.org.za or www.iso.org for information on standards).
- 5 The drawings listed in the Scope of Works used for the setting up of these Bills of Quantities are kept by the Principal Agent or Engineer and can be viewed at any time during office hours up until the completion of the works.
- 6 Reference to any particular trademark, name, patent, design, type, specific origin or producer is purely to establish a standard for requirements. Products or articles of an equivalent standard may be substituted.
- 7 The bills of quantities forms part of and must be read and priced in conjunction with all the other documents forming part of the contract document, The Standard Conditions of Tender, Conditions of Contract, Specifications, Drawings, The document “Construction Works: Specifications: General Specification (PW371-A) Edition 2.0” is obtainable on the Department’s website (<http://www.publicworks.gov.za/> under “Consultants Guidelines”), and shall be read in conjunction with the **bills of quantities** / lump sum document and be referred to for the full descriptions of work to be done and materials to be used The document “Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.0” is issued together with the drawings and shall be read in conjunction with the drawings and the **bills of quantities** / lump sum document
- 8 Where any item is not relevant to this specific contract, such item is marked N/A (signifying “not applicable”)

- 9 The Contract Data and the standard form of contract referenced therein must be studied for the full extent and meaning of each and every clause set out in Section 1 (Preliminaries) of the Bills of Quantities
- 10 The Bills of Quantities is not intended for the ordering of materials. Any ordering of materials, based on the Bills of Quantities, is at the Contractor's risk.
- 11 The amount of the Preliminaries to be included in each monthly payment certificate shall be assessed as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the total of prices excluding any contingency sum, the amount for the Preliminaries and any amount in respect of contract price adjustment provided for in the contract.
- 12 Where the initial contract period is extended, the monthly charge shall be calculated on the basis as set out in 11 but taking into account the revised period for completing the works.
- 13 The amount or items of the Preliminaries shall be adjusted to take account of the theoretical financial effect which changes in time or value (or both) have on this section. Such adjustments shall be based on adjustments in the following categories as recorded in the Bills of Quantities:
 - a) an amount which is not to be varied, namely Fixed (F)
 - b) an amount which is to be varied in proportion to the contract value, namely Value Related (V); and
 - c) an amount which is to be varied in proportion to the contract period as compared to the initial construction period excluding revisions to the construction period for which no adjustment to the contractor is not entitled to in terms of the contract, namely Time Related (T).
- 14 Where no provision is made in the Bills of Quantities to indicate which of the three categories in 13 apply or where no selection is made, the adjustments shall be based on the following breakdown:
 - a) 10 percent is Fixed
 - b) 15 percent is Value Related
 - c) 75 percent is Time Related
- 15 The adjustment of the Preliminaries shall apply notwithstanding the actual employment of resources in the execution of the works. The contract value used for the adjustment of the Preliminaries shall exclude any contingency sum, the amount for the Preliminaries and any amount in respect of contract price adjustment provided for in the contract. Adjustments in respect of any staged or sectional completion shall be prorated to the value of each section.
- 16 The tender price must include Value Added Tax (VAT). All rates, provisional sums, etc. in the bills of quantities must however be net (exclusive of VAT) with VAT calculated and added to the Total Value thereof in the Final Summary.
17. The Contractor shall adhere to "The national minimum wage determined by the Minister in accordance with the National Minimum Wage Act (NMWA)", and yearly pronounced increases for duration of contract.
18. Voting day / Election day 2024 will be a statutory public holiday and contractor must make provision in his bid. No further claims will be entertained in this regard.

PART C2.2 – BILLS OF QUANTITIES

PART C3 - SCOPE OF WORKS

Item No	Quantity	Rate	Amount R
<p><u>SECTION NO. 1</u></p>			
<p><u>BILL NO. 1</u></p>			
<p><u>PREAMBLES</u></p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</p>			
<p><u>NOTE : THE WORKS WILL BE PHASED AS PER THE PRINCIPALS AGENTS PROVISIONAL PHASING DIAGRAM. THE CONTRACTOR MUST LIASE WITH THE PRINCIPAL AGENT AND HOSPITAL HEAD DURING THE TENDER PERIOD TO NEGOTIATE AND DETERMINE HIS PROGRAMME IN ACCORDANCE TO THE PHASING DIAGRAM AND IN SO DOING THE CONTRACTOR SHALL ESTABLISH HIS CONSTRUCTION WORKS PROGRAMME THAT WILL FORM PART OF THE CONTRACT DOCUMENTS. ALLOWANCES FOR OVERTIME WORK, NIGHT WORK ETC SHALL BE DEEMED TO BE INCLUDED IN THE CONTRACTORS PRELIMINARY AND GENERAL ALLOWANCES</u></p>			
<p><u>THE ARCHITECTS SPECIFICATION TITLED GENERAL SPECIFICATION DOCUMENTATION PROPOSED ROOF REPAIRS & ALTERATIONS TO ANDRIES VOSLOO HOSPITAL ERF 1332 SOMERSET EAST SCMU3-23/24-0580-HO BLUE CRANE ROUTE MUNICIPALITY EASTERN CAPE FORM PART OF THE CONTRACT AND MUST BE READ WITH THESE BILLS OF QUANTITIES. THE CONTRACTOR IS BID SHALL BE DEEMED TO INCLUDE FOR ALL REQUIREMENTS AS FULLY DETAILED IN THESE SPECIFICATIONS WHETHER OR NOT THESE ITEMS HAVE BEEN MEASURED OUT EXPRESSLY OR NOT</u></p>			
<p><u>NOTE: A MINIMUM OF 50% OF THE WORKS MATERIALS MUST BE PURCHASED FROM THE EASTERN CAPE</u></p>			
<p>Carried to Abstract</p>			
<p>PRELIMINARIES AND GENERAL Bill No. 1 Preliminaries and General</p>			R

NOTE : Compulsory subcontracting is applicable to the tender as per the PPPFA (2017) . Subcontracting to be undertaken by PC and order to follow phasing of the works as defined by the PA. The Contractor must therefore enter into subcontract agreements with SMME contractors who are listed in a list made available by the Employer at tender. The Contractor is obliged as an additional term of contract to issue the Employer with copies of such contracts with and including monthly proof of payment to the SMME contractors. 30 PERCENT OF THE VALUE OF THE CONTRACT EXCLUDING VAT AND CONTIGENCY ALLOWANCES MUST BE ALLOCATED TO SMME's. Further, THE Contractor permits the Employer to conduct impromptu audits of the site or the contractors financial statements and records to confirm compliance with this requirement. Failure to comply which inter alia includes fronting or window dressing will result in the Employer taking legal action against the contractor.

NOTE: All site specific health and safety allowances as per the Health and Safety Agents health and safety specification shall be presented as a lump sum herein

NOTE: The Contractor must provide 24 hour security for the duration of the agreement. The cost of such security must be allowed for in the Contractor's preliminaries and general allowances.

NOTE: THE WORKS WILL BE EXECUTED AT A HEIGHT EXCEEDING 3M HIGH AND N.E 30M HIGH APPROXIMATELY. THE CONTRACTOR MUST THEREFORE ALLOW FOR ALL SCAFFOLDING OR ELEVATED MOBILE WORKING PLATFORM (SCISSOR LIFT/ CHERRY PICKER) OR BOTH REQUIREMENTS FOR THE EXECUTION OF THE WORKS IN THE PRELIMINARIES AND GENERAL ALLOWANCES BILLS. THIS MUST ALSO ALLOW FOR ALL RELEVANT HEALTH AND SAFETY OR OTHER LEGISLATIVE REQUIREMENTS. NO VARIATIONS, CONTRACT INSTRUCTIONS OR INDULGENCES WILL BE MADE IN THIS REGARD

NOTE : Electrical Contractor to be a domestic subcontractor with the appropriate CIDB grading (4EB or Higher) for the works

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NOTE : All required samples are to be signed off by the PA and the Client. Failure to do so by the client could result in the works being rejected by the PA and client. In such case abortive costs will rest solely with the contractor. No extension of time claims will be entertained for remedial works due to the contractor's failure to get samples approved and signed off. The contractor is to allow for a 7day period for the client and PA to inspect and approve provided samples.

NOTE: Timber roof trusses to comply with requirements of SABS Spec 0163 and to be constructed out of S.A Pine. Contractor to supply roof completion certificate from approved certifying agent in order for practical completion to be effected. The certificate is to cover the installation of roof sheeting, guttering and trusses. The certificate is to be supplied by an independent roofing inspector such as Mitek confirming that the trusses have been manufactured and installed to the governing SABS specifications and truss manufacturers instructions. In addition to this, confirmation from the roof sheeting manufacturer that the installation has been completed in terms of their instructions and governing SABS specifications is to be included Truss Shop Drawings to be submitted to the architect for approval. Allow 2 weeks for approval. To be approved by architect 4 weeks prior to truss orders been placed.

PRELIMINARIES

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The JBCC Principal Building Agreement (Edition 6.2 - May 2018) prepared by the Joint Building Contracts Committee shall be the applicable building agreement, amended as hereinafter described BUILDING AGREEMENT AND PRELIMINARIES The JBCC Principal Building Agreement contract data form an integral part of this agreement The JBCC General Preliminaries (May 2018) published by the Joint Building Contracts Committee for use with the JBCC Principal Building Agreement (Edition 6.2 - May 2018) shall be deemed to be incorporated in these bills of quantities, amended as hereinafter described The contractor is deemed to have referred to the above mentioned documents for the full intent and meaning of each clause The clauses in the above mentioned documents are hereinafter referred to by clause number and heading only Where any item is not relevant to this agreement such item is marked N/A signifying "not applicable" Where standard clauses or alternatives are not entirely applicable to this agreement such amendments, modifications, corrections or supplements as will apply are given under each relevant clause heading and such amendments, modifications, corrections or supplements shall take precedence notwithstanding anything to the contrary contained in the above mentioned documents

PREAMBLES FOR TRADES

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The General Preambles for Trades 2017 published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in these bills of quantities and no claims arising from brevity of description of items fully described in the said General Preambles will be entertained. Supplementary preambles and/or specifications are incorporated in these bills of quantities to satisfy the requirements of this project. Such supplementary preambles and/or specifications shall take precedence over the provisions of the General Preambles The contractor's prices for all items throughout these bills of quantities shall take account of and include where applicable for all of the obligations, requirements and specifications given in the General Preambles and in any supplementary preambles and/or specifications If any discrepancy in any of the documents forming part of the contract is found, then the contract data and or amendments within the special conditions of contract and herein shall prevail in cases of conflict between any of the documents

STRUCTURE OF THIS PRELIMINARIES BILL

Section A : A recital of the headings of the individual clauses in the aforementioned JBCC Principal Building Agreement
Section B : A recital of the headings of the individual clauses in the aforementioned JBCC General Preliminaries
Section C : Any special clauses to meet the particular circumstances of the project

PRICING OF PRELIMINARIES

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Contractors are required to price all individual items in the preliminary and general section of the bill of quantities and should not lump the items into a single sum or amount. This fully priced schedule must be included as part of the priced bill of quantities returnable with tender submission. In the event that the contractor, due to causes of his own making, fails to achieve the targets set out in his construction programme and his performance is not in accordance with the contract, payment of the time related Preliminaries will be paid in proportion to the value of the monthly progress payment and not in accordance with the projected cash flow for this item. The principal agent shall review the status quo and revert to paying the contractor in accordance with the contract once the contractor has demonstrated improvement of their performance and the principal agent is satisfied that the contractor is performing diligently. Similarly the full amount of the fixed portion of the Preliminaries will be paid only once the successful contractor has fully complied with deliverables under this section. Should the contractor select Option A in the contract data for the adjustment of preliminaries, the amounts entered against the relevant items in these preliminaries are to be divided into one or more of the three categories provided namely fixed (F), value related (V) and time related (T)

SECTION A: PRINCIPAL BUILDING AGREEMENT

Interpretation (A1-A7)

1 Clause 1.0 - Definitions and interpretation

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2 The contractor is to allow opposite each item for all costs in connection therewith. All prices to include, unless otherwise stated, for all materials, fabrication, conveyance and delivery, unloading, storing, unpacking, hoisting, labour, setting, fitting and fixing in position, cutting and waste (except where to be measured in accordance with the standard system of measurement), patterns, models and templates, plant, temporary works, returning of packaging, duties, taxes (other than Value Added Tax), imposts, establishment charges, overheads, profit and all other obligations arising out of this agreement. Value Added Tax (VAT) is to be separately stated on the summary page of these bills of quantities. Items left unpriced will be deemed to be covered in prices against other items throughout these bills of quantities and no claim for any extras arising out of the contractor's omission to price any item will be entertained. Prices for all construction equipment, temporary works, services and other items shall include for the supply, maintenance, operating cost and subsequent removal and making good as necessary. Contractors are reminded that some of the works are to be undertaken under restrictive site conditions, over steep terrain, in dense vegetation, protected environments etc. In addition to the usual rates priced for standard measured items in the bills of quantities, contractors shall provide for all additional plant, labour, equipment, temporary works, temporary access ways and any additional supervision, transport, security, special plant and equipment to navigate restrictive site conditions and all things necessary for the completion of the works within this bills of quantities. The rates or amounts tendered for these items shall also include for the contractor's management, attendance, profit, costs for removal and reinstatement of the ground conditions, vegetation, etc. in the state and condition prior to the works being undertaken. In addition to the usual rates priced for compliance with law and regulation in relation to inspections, warranties

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guarantees, tests, analysis, commissioning and all things necessary for compliance, the contractor is expected to include in the rates, prices and the tendered total of the prices for all inspections, warranties, guarantees, tests, analysis, commissioning and all things necessary for compliance, payable by the contractor. Such items include but are not limited to: - Electrical Compliance Certificate - Plumbing Compliance Certificate - Structural Steel Compliance Certificate - Lightning Certificate - Soil Protection Certificate - Concrete test results and cube certificates - Compaction Test results and certificates - Waterproofing guarantee certificates - TR1 and TR2 prefabricated roof truss certificates - Roof covering certificate - Soil compaction certificates - Electrical and Mechanical test certificates - Plumbing and drainage pressure test certificates - Fire Compliance Certificate - Entomology Certificate - SANS 10400-A:2010 compliance certificates - Any other requirement as per the latest National Building Regulation Contractors are reminded and hereby given the opportunity to allow for and price all costs related to the abnormal working conditions referred to herein as no claims for additional costs will be entertained for any omission on the part of contractor Clause 3.9 amended to read 'The priced document shall not be used as a specification for material and goods and the quantities should not be used for procurement purposes. All procurement of material will be based on actual site measurements and not on drawings, specifications or the bill of quantities

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Abbreviated descriptions

3 The items in these bills of quantities utilise abbreviated descriptions. It is the intention that the abbreviated descriptions be fully described when read with the applicable measuring system and the relevant preambles and/or specifications. However, should the full intent and meaning of any description not be clear, the contractor shall, before submission of his tender, call for a written directive from the principal agent, failing which it shall be assumed that the contractor has allowed in his pricing for materials and workmanship in terms of international best practice Legal status of contractor If the contractor constitutes a joint venture, consortium or other unincorporated grouping of two or more persons then:

1. These persons are deemed to be jointly and severally liable to the employer for the performance of this agreement
2. These persons shall notify the employer of their leader who has assigned authority to bind the contractor and each of these persons
3. The contractor shall not alter its composition or legal status without the prior written consent of the employer

F:..... V:.....

T:.....

Item

4 Clause 2.0 - Law, regulations and notices

F:..... V:.....

T:.....

Item

5 Clause 3.0 - Offer and acceptance

F:..... V:.....

T:.....

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6 Clause 4.0 - Cession and assignment

F:..... V:.....

T:.....

Item

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7 Clause 5.0 - Documents Value Added Tax Provision is made in the summary page of these bills of quantities for the inclusion of Value Added Tax (VAT) Priced document as specification Clause 5.4 is deemed to be deleted The principal agent shall decide which portion of the priced document may be used as a specification of materials and goods or methods, if any Electronic issue of drawings Some drawings for this project will be issued electronically and the contractor shall be deemed to have received such drawings on the date that such drawings have been dispatched electronically

F:..... V:.....

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Item

8 Clause 6.0 - Employer's agents Delegated authority The authority of the principal agent to issue contract instructions [17.1] and perform duties for specific aspects of the works is delegated to agents as follows [6.2]. This does not preclude the principal agent from issuing such contract instructions:

1. Architect

1.1 Duties [6.2] : The architect is responsible for the architectural design, functional design and quality inspection of the works 1.2 Contract instructions [6.2; 17.1] : 1.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement 1.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works 1.2.3 The site [13.0] 1.2.4 Compliance with the law, regulations and by laws [2.1] 1.2.5 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works 1.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2] 1.2.7 Removal or re-execution of work 1.2.8 Removal or substitution of any materials and goods 1.2.9 Protection of the works 1.2.10 Making good physical loss and repairing damage to the works [23.2.2] 1.2.11 Rectification of defects [21.2]

1.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for

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final completion specifying outstanding or defective work to be rectified to achieve final completion 1.2.13 Expenditure of budgetary allowances, prime cost amounts and provisional sums 1.2.14 Appointment of a subcontractor [14.0; 15.0] 1.2.15 Work by direct contractors [16.0] 1.2.16 On suspension or termination, protection of the works, removal of construction equipment and surplus materials and goods [29.0]

2. Quantity surveyor 2.1 Duties [6.2] : The quantity surveyor is responsible for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions of the works 2.2 Contract instructions [6.2; 17.1] : 2.2.1 No contract instructions delegated to the quantity surveyor 3. Civil and structural engineer 3.1 Duties [6.2] : The civil and structural engineer is responsible for all aspects of civil and structural engineering design and quality inspection of the works 3.2 Contract instructions [6.2; 17.1] :

3.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement 3.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works 3.2.3 The site [13.0] 3.2.4 Compliance with the law, regulations and bylaws [2.1] 3.2.5 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works 3.2.6 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2] 3.2.7 Removal or re-execution of work 3.2.8 Removal or substitution of any materials and goods 3.2.9 Protection of the works 3.2.10 Making good physical loss and repairing damage to the works [23.2.2] 3.2.11 Rectification of defects [21.2] 3.2.12 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion 3.2.13 Expenditure of budgetary allowances, prime cost amounts and provisional sums

4. Mechanical engineer 4.1 Duties [6.2] : The mechanical engineer is responsible for all aspects of mechanical engineering design and quality inspection of the works and, where appointed by the employer for quantity surveying services in respect of the mechanical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions 4.2 Contract instructions [6.2; 17.1] : 4.2.1 Rectification of discrepancies, errors in description

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or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement 4.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works 4.2.3 Compliance with the law, regulations and bylaws [2.1] 4.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works 4.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2] 4.2.6 Removal or re-execution of work 4.2.7 Removal or substitution of any materials and goods 4.2.8 Protection of the works 4.2.9 Making good physical loss and repairing damage to the works [23.2.2]

4.2.10 Rectification of defects [21.2] 4.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying outstanding or defective work to be rectified to achieve final completion 4.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums 5. Electrical/Electronics engineer 5.1 Duties [6.2] : The electrical engineer is responsible for all aspects of electrical and electronics engineering design and quality inspection of the works and, where appointed by the employer for quantity surveying services in respect of the electrical installations, for all measurements, valuations, financial assessments and all other quantity surveying and cost control functions 5.2 Contract instructions [6.2; 17.1] : 5.2.1 Rectification of discrepancies, errors in description or quantity or omission of items in the agreement other than in the JBCC Principal Building Agreement 5.2.2 Alteration to design, standards or quantity of the works provided that such contract instructions shall not substantially change the scope of the works 5.2.3 Compliance with the law, regulations and bylaws [2.1] 5.2.4 Provision and testing of samples of materials and goods and/or of finishes and assemblies of elements of the works 5.2.5 Opening up of work for inspection, removal or re-execution [23.2.4; 26.4.2]

5.2.6 Removal or re-execution of work 5.2.7 Removal or substitution of any materials and goods 5.2.8 Protection of the works 5.2.9 Making good physical loss and repairing damage to the works [23.2.2] 5.2.10 Rectification of defects [21.2] 5.2.11 A list for practical completion specifying outstanding or defective work to be rectified to achieve practical completion, a list for completion and a list for final completion specifying

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outstanding or defective work to be rectified to achieve final completion 5.2.12 Expenditure of budgetary allowances, prime cost amounts and provisional sums 6. Health and safety consultant 6.1 Duties [6.2] : The health and safety consultant is responsible for all aspects of health and safety of the works. Without derogating from the generality thereof, the health and safety consultant will perform the following specific functions and duties in respect of the health and safety aspects of the works. He shall: 6.1.1 Act as the employer's agent in terms of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended 6.1.2 Prepare and update the health and safety specification for the works 6.1.3 Agree with the contractor the health and safety plan for the works

6.1.4 Carry out regular audits to ensure adherence to the safety plan and compliance with the act and regulations 6.1.5 Stop the execution of the works where the agreed specification or plan is not adhered to

F:..... V:.....

T:.....

Item

9 Clause 7.0 - Design responsibility

F:..... V:.....

T:.....

m

10 **Insurances and securities (A8-A11)**

Clause 8.0 - Works risk

F:..... V:.....

T:.....

m

11 Clause 9.0 - Indemnities

F:..... V:.....

T:.....

Item

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<p>12</p>	<p>Clause 10.0 - Insurances Clause 10.1.1 - Contracts Works Insurance 'the contractor shall be responsible for effecting and maintaining the contract works insurance for the full duration of the contract period. The insured amount for the full scope of works shall be 120% of the contract amount Clause 10.1.2 - Supplementary Insurance Clause 10.1.3 - Public Liability Insurance Clause 10.1.4 - Removal of Lateral Support Insurance - N/A Clause 10.1.5 - Other Insurances - N/A</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>m</p>		
<p>13</p>	<p>Clause 11.0 - Securities</p> <p>Clause 11.1 - Guarantee for construction</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p>14</p>	<p>The contractor shall provide to the employer a guarantee for construction within fifteen (15) working days of acceptance of the contractor's tender. Clause 11.5 - Guarantee for payment The employer shall not provide to the contractor a guarantee for payment.</p> <p>The contractor shall waive his lien or right of continuing possession of the works [11.10] Extension of waiver of lien The contractor shall ensure that a waiver of lien is included in all subcontracts and that the works executed on the site are kept free of all liens and other encumbrances at all times [11.10]</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>m</p>		
<p>15</p>	<p>Clause 12.0 - Obligations of the parties Execution (A12 - A17)</p> <p>Office accommodation The contractor shall provide, maintain and remove on practical completion air conditioned office accommodation with suitable tables and chairs for meetings to be held on the site. Such offices shall be kept clean and fit for use at all times [12.2.18]</p>	<p>Item</p>		
<p style="text-align: center;">Carried to Abstract</p> <p>PRELIMINARIES AND GENERAL Bill No. 1 Preliminaries and General</p>			<p style="text-align: center;">R</p>	

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16 Notice board The contractor shall erect in a position approved by the principal agent, maintain and remove on practical completion a notice board recommended by the South African Institute of Architects and as approved by the principal agent listing the names and logos of the employer, the contractor and the professional consultants. No subcontractor or supplier notice boards may be erected unless permission is granted by the principal agent for such notice boards to be erected [12.2.18] Statutory and other notices The contractor shall submit and/or comply with all statutory and other notices that may be required by any local or other authority in order not to cause any delay to the commencement of the works by the contractor. The contractor shall pay all deposits or fees in this regard It is, however, specifically recorded that the employer shall be responsible for the timeous approval of building plans by any local or other authorities and the payment of any fees or charges related thereto Item

F:..... V:.....

T:.....

Item

17 Clause 13.0 - Setting out

F:..... V:.....

T:.....

Item

18 Clause 14.0 - Nominated subcontractors

F:..... V:.....

T:.....

Item

19 Clause 15.0 - Selected subcontractors

F:..... V:.....

T:.....

Item

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<p>20</p>	<p>Clause 16.0 - Direct contractors In respect of direct contractors the contractor shall: 1. Designate an area for the direct contractor to establish a temporary office and workshop and storage of equipment and materials 2. Allow the use of personnel welfare facilities, where provided 3. Provide water, lighting and single phase electric power to a position within 50m of the place where the direct contract work is to be carried out, other than fuel or power for commissioning of any installation 4. Permit the direct contractor to use erected scaffolding, hoisting facilities, etc. provided by the contractor, in common with others having the like right, while it remains erected on the site [16.1] Item</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p>21</p>	<p>Clause 17.0 - Contract instructions Site instructions Instructions issued on site are to be recorded in a site instruction book which is to be supplied and maintained on site by the contractor</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p>22</p>	<p>Completion (A18 - A24)</p> <p>Clause 18.0 - Interim completion</p>	<p>N/A</p>		
<p>23</p>	<p>Clause 19.0 - Practical completion</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p>24</p>	<p>Clause 20.0 - Completion in sections</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p>25</p>	<p>Clause 21.0 - Defects liability period and final completion A 2.5% retention shall apply. The maintenance period shall be 12 months. B Item</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p style="text-align: right;">Carried to Abstract</p> <p>PRELIMINARIES AND GENERAL Bill No. 1 Preliminaries and General</p>			<p>R</p>	

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<p>26</p>	<p>Clause 22.0 - Latent defects liability period</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p>27</p>	<p>Clause 23.0 - Revision of the date for practical completion Adverse weather conditions The contract duration includes a monthly allowance of 3 working days for adverse weather conditions [23.1.1] during which rainfall exceeds 10mm per day. These days shall be reflected on the critical path of the construction programme. Where the programmed delays for adverse weather conditions exceed the actual delays incurred the date for practical completion will not be adjusted. Where the actual delays incurred for adverse weather conditions exceed the programmed delays and such delays have impacted on the critical path of the construction programme, the date for practical completion will be adjusted should the requirements of Clause 23.0 be satisfied Substitution of materials, goods and or workman Substitution of materials and goods The removal or substitution of any materials and goods which do not conform to the specification or the contract drawings shall not constitute grounds for the extension of the construction period nor for the adjustment of the contract value [17.1.8; 23.1 & 2]</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p>28</p>	<p>Clause 24.0 - Penalty for late or non-completion</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p style="text-align: center;">Carried to Abstract</p> <p>PRELIMINARIES AND GENERAL Bill No. 1 Preliminaries and General</p>			<p style="text-align: center;">R</p>	

29 **Clause 25.0 - Payment (A25 - A27)**

Prices submitted Where prices are submitted by the contractor or subcontractor during the progress of the works in respect of contract instructions or in regard to a claim under the terms of this agreement and notwithstanding the fact that such prices may be used in an interim payment certificate, there is to be no presumption of acceptance. Should the principal agent wish to accept any such prices prior to the issue of the certificate of final completion, it shall be in writing Clause 25 amended to read 'The employer shall pay to the contractor the amount certified in interim payment certificate within thirty (30) calendar days of the date of issue of the payment certificate or the contractors tax invoice whichever is the later date' Materials and goods stored off site shall not be included in the amount authorised for payment unless the requirements for an Advanced Payment Guarantee are met Item

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30 **Clause 26.0 - Adjustment of the contract value and final account**

Fluctuations in costs All fluctuations in costs, with the exception of fluctuations in the rate of Value Added Tax, shall be for the account of the contractor [26.9.5] Tenant installation/user requirements delayed There is a possibility that certain works related to tenant installation/user requirements may have to be delayed and may consequently not be executed prior to practical completion Should the contractor be instructed to do so he shall execute this work under the conditions pertaining to this agreement on the basis that a separate amount for preliminaries appurtenant to this work (if applicable) is agreed to between the contractor and the principal agent and on condition that instruction to proceed with such work is given to him within a period of three (3) calendar months after the date of practical completion of the works The contractor shall not receive any mark-up for overheads and profit on any omission of tenant installation work or tenant installation work by others. Claims of loss of profit shall not be considered The employer reserves the right to omit such work without compensation to the contractor for loss of profit or any other loss which the contractor may suffer as a result of such omission Cost of claims All costs incurred by the contractor in the preparation of claims shall be borne by the contractor. This provision shall not preclude an adjudicator or an arbitrator appointed in terms of this agreement [30.6 & 7] from making a determination on costs

Claims from subcontractors The contractor shall review, assess and adjudicate any claims received by him from any subcontractor and thereafter submit same to the principal agent with a recommendation in order to assist the principal agent in adjudicating the claim [26.6]

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31 **Clause 27.0 - Recovery of expense and/or loss**

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<p>32</p>	<p>Clause 28.0 - Suspension by the contractor Suspension and termination (A28 - A29)</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p>33</p>	<p>Clause 29.0 - Termination</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p>34</p>	<p>Dispute resolution (A30)</p> <p>Clause 30.0 - Dispute resolution</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p>35</p>	<p>Agreement Item The required information of the parties and the amount of the contract sum shall be inserted in the agreement for signature of the agreement by the parties</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p>36</p>	<p><u>Contract data</u></p> <p>Tenderer's selections Before submission of his tender the contractor is to complete the tenderer's selections in the contract data Item</p> <p>F:..... V:.....</p> <p>T:.....</p>	<p>Item</p>		
<p style="text-align: right;">Carried to Abstract</p> <p>PRELIMINARIES AND GENERAL Bill No. 1 Preliminaries and General</p>			<p>R</p>	

37	SECTION B:			
	GENERAL PRELIMINARIES			
	Clause 1.1 - Definitions			
	F:..... V:.....			
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38	Clause 1.2 - Interpretation			
	F:..... V:.....			
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39	<u>Documents (B2)</u>			
	Clause 2.1 - Checking of documents			
	F:..... V:.....			
	T:.....	Item		
40	Clause 2.2 -Provisional Bills of quantities : Yes			
	F:..... V:.....			
	T:.....			
	Multiple procurement A portion of the works are also measured in SMME Packages as a separate Section			
	F:..... V:.....			
	T:.....	Item		
41	Clause 2.3 - Availability of construction information			
	F:..... V:.....			
	T:.....	Item		
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42	<p>Clause 2.4 - Ordering of materials and goods</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item
43	<p><u>Previous work and adjoining properties (B3)</u></p> <p>Clause 3.1 - Previous work - dimensional accuracy</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item
44	<p>Clause 3.3 - Inspection of adjoining properties</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item
45	<p>The site (B4)</p> <p>Clause 4.1 - Handover of site in stages</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item
46	<p>Clause 4.2 - Enclosure of the works Hoarding will be required to isolate areas; this hoarding has been allowed for in the Bills of Quantities.</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item
47	<p>Clause 4.3 - Geotechnical and other investigations</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item

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48	<p>Clause 4.4 - Encroachments The contractor shall notify the principal agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc. exist in order that the necessary arrangements may be made for the rectification of any such encroachment</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item	
49	<p>Clause 4.5 - Existing premises occupied</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item	
50	<p>Clause 4.6 - Services - known</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item	
51	<p>Management of contract (B5)</p> <p>Clause 5.1 - Management of the works</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item	
52	<p>Clause 5.2 - Progress meetings</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item	
53	<p>Clause 5.3 - Technical meetings</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item	
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54	<p>Samples, shop drawings and manufacturer's instructions (B6)</p>			
	<p>Clause 6.1 - Samples of materials</p>			
	<p>F:..... V:.....</p>			
	<p>T:.....</p>	Item		
55	<p>Clause 6.2 - Workmanship samples</p>			
	<p>F:..... V:.....</p>			
	<p>T:.....</p>	Item		
56	<p>Clause 6.3 - Shop drawings</p>			
	<p>F:..... V:.....</p>			
	<p>T:.....</p>	Item		
57	<p>Clause 6.4 - Compliance with manufacturer's instructions</p>			
	<p>F:..... V:.....</p>			
	<p>T:.....</p>	Item		
58	<p>Deposits and fees (B7)</p>			
	<p>Clause 7.1 - Deposits and fees</p>			
	<p>F:..... V:.....</p>			
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59	<p>Temporary services (B8)</p>			
	<p>Clause 8.1 - Water</p>			
	<p>F:..... V:.....</p>			
	<p>T:.....</p>	Item		
60	<p>Clause 8.2 - Electricity</p>			
	<p>F:..... V:.....</p>			
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61 Clause 8.3 - Ablution and welfare facilities
 Clause 8.3 - Ablution and welfare facilities in compliance to the provisions of the Construction Regulations 2014 issued in terms of the Occupational Health and Safety Act, 1993 as amended: Section (30): Sub-section (1)(a) - Shower facilities after consultation with the employees or the employees representatives, or at least one shower facility for every 15 persons; Sub-section (1)(b) - at least one sanitary facility for each sex and for every 30 workers; Sub-section (1)(c) - changing facilities for each sex and Sub-section (1)(d) - sheltered eating areas

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62 Clause 8.4 - Communication facilities

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Item

63 **Prime cost amounts (B9)**

Clause 9.1 - prime cost amounts

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Item

64 **Attendance on subcontractors (B10)**

Clause 10.1 - General attendance

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65 Clause 10.2 - Special attendance

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66	General (B11)			
	Clause 11.1 - Protection of the works			
	F:..... V:.....			
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67	Clause 11.2 - Protection/isolation of existing works and works occupied in sections			
	F:..... V:.....			
	T:.....	Item		
68	<p>Clause 11.3 - Security of the works The contractor shall be briefed on the restrictions of movement, servitudes, access control, buildings in use, security requirements and security clearances, working hours due to the right being occupied and under the employers control at all times. The contractor shall not extend his operations into any restricted or undefined areas. Work shall be carried out during normal working hours. Any extended times or approval or overtime work shall be considered and approved by the PA. The contractor shall comply with the employers rules for the control of delivery of materials and goods into the site and for the removal of such items from the site. The Contractor will be responsible for ensuring the security and protection of all material, hand tools, power tools, plant, equipment, machinery, etc. stored on the site. The Contractor will be required to make arrangements with the Employer, through the Principal Agent, for the use of and reimbursement for the security measures currently in force and operational on the site</p>			
	F:..... V:.....			
	T:.....	Item		
69	Clause 11.4 - Notice before covering work			
	F:..... V:.....			
	T:.....	Item		
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70 Clause 11.5 - Disturbance Disturbance All work is to be carried out in such a manner as to cause no unacceptable or unreasonable dust, noise, vibrations, nuisance, inconvenience, annoyance and the like to the public, others, other properties and traffic in so far as they exceed the permissible limitations set by government legislation or by the local authority. Any delays, stoppages and the like arising from or in order to comply with the above will not constitute grounds for an adjustment to the construction period or contract value whatsoever

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71 Clause 11.6 - Environmental disturbance Controlling all forms of pollution The contractor shall be responsible for and take all precautions in controlling by whatever means necessary all forms of pollution emanating from the site during the construction period due inter alia to noise, artificial light, wind-blown sand, dust, deposits of mud, etc. The contractor is to ensure that all roads which border the site and are used by the contractor during the execution of the works are kept clean and free of any dirt or debris caused by the execution of the works

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72 Clause 11.7 - Works cleaning and clearing

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73 Clause 11.8 - Vermin

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74 Clause 11.9 - Overhand work

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75	<p>Clause 11.10 - Tenant installations</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item		
76	<p>Clause 11.11 - Advertising</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item		
77	<p><u>SECTION C: SPECIFIC PRELIMINARIES</u></p> <p>Warranties for materials and workmanship Where warranties for materials and/or workmanship are called for, the contractor shall obtain a written warranty, addressed to the employer, from the entity supplying the materials and/or executing the work and shall deliver same to the principal agent on final completion of the contract</p> <p>The warranty shall state that workmanship, materials and installation are warranted for a specific period from the date of practical completion and that any defects that may arise during the specified period shall be made good at the expense of the entity supplying the materials and/or doing the work, upon written notice to do so</p> <p>The warranty will not be enforced if the work is damaged by defects in the execution of the works, in which case the responsibility for replacement shall rest entirely with the contractor</p> <p>F:..... V:.....</p> <p>T:.....</p>	Item		
78	<p>Overtime Should overtime be required to be worked for any reason whatsoever, the cost of such overtime is to be borne by the contractor unless the principal agent has specifically authorised, prior to execution thereof, that costs for such overtime are to be borne by the employer</p> <p>F:..... V:..... T:.....</p>	Item		
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79 Cooperation of the contractor for cost management It is specifically agreed that the contractor accepts the obligation of assisting the principal agent in implementing proper cost management. The contractor will be advised by the principal agent of all cost management procedures which will be implemented to ensure that the contract value does not exceed the budget

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80 Health and safety Without limiting the generality of the provisions of clause 2.0, the contractor's attention is drawn to the provisions of the Construction Regulations issued in terms of the Occupational Health and Safety Act, 1993 as amended. It is specifically stated that the employer shall prepare a documented health and safety specification for the works and that the employer shall ensure that the contractor has made provision for the cost of health and safety measures during the execution of the works. The contractor shall price the OHS health and safety bill of quantities as provided elsewhere in this document. Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and under the OHS bills of quantities (total price carried over to final summary) and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and in the bills of quantities and no additional claims in this regard shall be entertained.

The contractor shall: 1. Comply with the health and safety specification for the works 2. Prepare and agree with the health and safety consultant the health and safety plan for the works 3. Cooperate with the health and safety consultant in all respects 4. Manage the compliance of all subcontractors with the regulations and with the health and safety plan and specification 5. Conform to the conditions contained in the employer's health and safety specification

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81 Reporting by the Contractor The Contractor is required to complete a CONTRACTOR MONTHLY REPORT which is to be submitted together with the Contractor's payment claim. Payment of the Contractor is conditional on this information being accurate and timeously provided. Payment shall be subject to the Employer giving the Contractor a tax invoice for the amount due. The Contractor is to take note of the following requirements - At the bottom of the CONTRACTOR MONTHLY REPORT, the Site Agent, Clerk of Works, CLO or Contractor must sign the document as proof that the people indicated have worked the number of days.

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82 Advertising rights The employer may elect to contract with advertising agencies for the erection of advertising hoardings, banners, wraps or the like for the duration of the contract. The contractor shall not prevent such an arrangement and will assist in the facilitation of same. The position and type of advertising structure to be agreed with the principal agent so as not to hinder the contractor in meeting his obligations under this agreement

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83 Confidentiality The contractor undertakes to maintain in confidence any and all information regarding this project and shall obtain appropriate similar undertakings from all subcontractors and suppliers. Such information shall not be used in any way except in connection with the execution of the works No information regarding this project shall be published or disclosed without the prior written consent of the employer

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84 Media releases All rights of publication of articles in the media, together with any advertising relating thereto or in any way connected with this project, shall vest with the employer The contractor together with his subcontractors shall not, without the prior written consent of the employer, cause any statement or advertisement connected with this project to be printed, screened or aired by the media

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85 Socio-Economic Deliverables The Tenderer must allow for all costs (including any profit or attendance) associated with the administration, appointment, training and/or payment of the CLO, Built Environment Interns, Training of Local Labour, Students as applicable and included in this tender document (refer PROVISIONAL SUMS section). No additional claims in this regard shall be entertained.

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86 **SMME Contractors as Sub-Contractors to the Principal Contractor**

The Tenderer must allow for all costs applicable that they deem is associated with the successful integration, development of and completion of SMME Sub-contractors' work to the approval of the Principal Agent on this project (Whether forseen and unforeseen). A portion of the building work is allocated to SMME Sub-contractors (refer SMME PACKAGES section). Contractors will be required to supply verified monthly statements/schedules (verified by their registered auditors) indicating the % achieved for that month. A cumulative schedule also needs to be maintained for each month that has passed. The Tenderer must also note that some SMME Packages as specified in the SMME PACKAGES section may consist of various smaller SMME sub-contractors within each specified package (split per link), the cost for this must be included in this item. Any additional costs that the Tenderer may deem applicable due to the use of SMME Sub-contractors, should be allowed for in this item (Preliminaries, OHS, Profit and Attendance, etc.), as no claim for any additional costs attributable to the incorporation and development of SMME Sub-contractors on this project will be entertained after the tenders are submitted.

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87 **SMME Monitoring**

Provision for pricing for the employment, on a full time basis for the duration of the contract, SMME Monitoring. All costs associated with the completion of the SMME Monitoring duties, provision of office facilities and tools of trade are deemed to be priced hereunder. No additional claims in this regard shall be entertained. The above is in strict accordance with the Specification for the Employment of SMME Sub-contractors and all costs should be included in this item for the employment for Monitoring

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Category : Value R.....

Category : Time R.....

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<p><u>BILL NO. 1</u></p>			
<p><u>PREAMBLES</u></p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev Oct. 1993) as well as to the "Model Preambles for Trades" (1998) and Supplementary preambles below.</p>			
<p>Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.</p>			
<p>The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he should be asked for a decision before continuing with the work.</p>			
<p>The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.</p>			
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Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.

Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.

Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the workmen carrying out this work.

All materials in this section are measured as new except where old material is specifically mentioned as being re-used.

Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, bracing, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.

Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.

When pricing, Tenderers are to allow as follows:

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Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of Travertine facebricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.

Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.

Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.

The term "take out" includes all work taken out, taken up, taken down, taken off, etc ; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.

The term "make good" is to include all labour and material required to match existing work.

The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.

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The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes. -----

The contractors unit rates must allow for disposal of disposal or carting away of material, fittings or fixtures so described to a prescribed dumping site as instructed by the Architect

Wire mesh were referenced shall be as follows:

Wire thickness = 3.0mm thick
Strand width = 4.5mm thick
Diamond size = 25mm x 50mm

STRUCTURAL STEELWORK

NOTE:

These preambles must be read with the Structural Engineers drawings and specifications which shall prevail and govern over this preamble. Where there is a conflict between these preambles and or bills and the Engineers drawings and specifications the latter shall prevail. The Contractor shall be deemed to have priced for all materials, methods and workmanship as indicated in the Engineers drawings and specifications

Steel mass will be calculated according to the tables issued by the SA Institute of Steel Construction.

EXTENT OF THE WORK:

Supply, fabrication, shop painting, delivering and off-loading, hoisting and erection complete of the structural steelwork including for making good after erection shall be strictly in accordance to the Structural Engineers Drawing . The Contractor must also include for supplying holding down bolts, etc. as specified or implied

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SHOP DRAWINGS:

The Sub-Contractor will be required to prepare shop details for the work which must be submitted to the Engineers for approval before fabrication is started. Notwithstanding any approval of these details, the Sub-Contractor shall remain responsible for ensuring that the dimensions, details and workmanship result in the correct assembly of the work.

FABRICATION, WORKMANSHIP AND SUBSTITUTION OF MEMBERS:

The steelwork is to be fabricated from a grade superior to S355 steel for structural purposes. The whole of the fabrication and workmanship generally is to be in strict accordance with recommended SANS standards as amended i.e ALL STRUCTURAL STEELWORK TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH SANS 1921-3, SANS 10162-1: 2005, SANS 2001-CS1:2005 AND THE PROJECT SPECIFICATION.

Consideration will be given to any detail variations which the Sub-Contractor may wish to make with a view to the simplification of either fabrication, delivery or erection.

Substitutions must be made at the Sub-Contractor's own expense and must be accompanied by detailed calculations.

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Tenderers shall state at the time of tendering whether they anticipate any difficulty in obtaining in time, any material shown on the drawings.

If at the time of fabrication, a particular section is no longer obtainable in the Eastern Cape in the time available, another section may be substituted after receipt of written permission from the Engineers from another Province. Such permission shall be given only on satisfactory evidence that the section is unobtainable. Costs of such substitution shall be at the Sub-Contractor's expense.

ERECTION:

The steelwork generally is to be fabricated in the Sub-Contractor's works having due regard to transport and erection facilities. He must supply all erection tackle, erect and plumb all steelwork, supply all steel wedges and packs as required and holding down bolts. If bolted connections are used for lattice girders then either high tensile "friction grip" bolts or close tolerance bolts must be used.

FRICTION GRIP BOLTS:

When site connections of steelwork are made with high tensile "friction grip" bolts, the Sub-Contractor shall rigidly adhere to the following:-

- (i) Two case hardened washers, one flat or beveled under the head and the other flat or beveled under the nut shall be used with each bolt.
- (ii) Contact surfaces shall be painted and shall be thoroughly cleaned and freed of dirt, oil, loose scale, burrs and other defects which are liable to reduce frictional resistance between surfaces.
- (iii) At all times the correct torques shall be applied to the difference sizes of bolts.

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WELDING:

Welding shall be in accordance with British Standard No. 1856 General Requirements for the Metal-Arc Welding of Steel. Mild steel electrodes shall comply with S.A.B.S. 455 Covered Electrodes for Metal-Arch Welding of Steel.

HOLDING DOWN BOLTS

Holding down bolts must be supplied as and when required to the Main Contractor. Pipe sleeves or pockets must be provided with all holding down bolts and steel plate templates provided on a scale of one template or more for every four groups of bolts, suitably marked to ensure easy identification.

PRICES:

All masses of steelwork are based on measurements of nett length and size of all steel used and allowance must be made for all waste and rolling margin.

Prices must allow for all cutting and fitting to lengths, shapes and sizes, for the drilling of all holes and slotted holes, for all welding, bolting and riveting and for erection and fixing in position complete.

Prices must allow for all bolts and rivets .

Prices must allow for preparing and painting all components as specified before delivery to the site.

PREPARATION AND PAINTING
AT MANUFACTURER'S YARD:

GENERAL:

All paint work shall be executed by tradesmen skilled in this class of work, and in strict accordance with the manufacturer's recommendations as approved.

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All steelwork after fabrication, before removal from the place of manufacture shall be cleaned of all adherent coatings by means of suitable solvents, and then cleaned by abrasive blast as described in S.A.B.S. 064 Code of Practice for the Preparation of Steel Surfaces for Painting and in accordance with Swedish Standard SIS 05/59/00. Surface preparation referred to by the abbreviation Sa followed by a number refers to the relevant part of the Swedish Standard.

PRIME COAT:

Steelwork shall be cleaned to Sa 2½ finish and within four hours of cleaning, be primed with alkyd resin based primer. Primed steelwork shall be kept covered and protected until erected in its permanent position. Any repairs to damaged paint work must be carried out prior to erection.

After erection paint work shall be washed down using nylon brushes and detergent to remove all adhering coating and dirt. It shall then be washed with clean water to remove all traces of detergent and painted as specified below.

AFTER ERECTION:

All surfaces are to be finished with two coats of gloss alkyd resin based enamel paint.

PAINT:

The white lead, linseed oil, turpentine, driers and pigments are to be of the best quality obtainable, thoroughly ground and mixed together to the approval of the Engineers.

All materials, if and when required by the Engineers will be subjected to tests by the Government Analyst, at the Contractor's expense if found deficient.

COLOURS:

All colours and tints are to be submitted to the Engineers for approval. Each coat of paint is to be of a distinctive colour. Sample colours are to be prepared in all cases for the final coat and all work must be finished to colour approved by the Engineers.

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READY MIXED PAINTS:

To be used exactly as supplied and in strict accordance with the manufacturers instructions.
Thinners and other media must not be used except with the approval of the manufacturer.

Manufacturers representatives must be given access to the works. All ready mixed paints are to be exactly the types described or other equal approved by the Engineers.

PROTECTION AND CLEANING OFF:

All necessary precautions are to be taken for the protection of floors, walls, etc., during painting and all paint spots, etc. are to be cleaned off at completion.

STEEL CANOPY ROOF STRUCTURES

Hot Dip Galvanised Steel Column, Posts and Beams

Beams, Plate Girders, Rafters, Columns etc in single lengths with and including connections, latticed assemblies, connections, splice materials, notches, stiffeners, cleats, purlin cleats etc, and haunch, bolted to steel where applicable

1	IPE 203 x 133 x 25kg/m I-section column	t	0.32
2	IPE 203 x 133 x 25kg/m I-section rafter	t	1.20
3	IPE 140 x 73 x 12.9kg/m I-section beams	t	0.47
4	IPE Ex 203 x 133 x 25kg/m I-section eaves / apex haunch	t	1.00

Hot Dip Galvanised Steel Purlins, Girts, Bracing, Etc.

These sections are either bolted or welded together

5	150 x 75 x 20 x 2.5mm cold-formed lipped channel purlins	t	1.51
6	150 x 90 x 10L cleat with 2 x 6mm stiffeners	t	0.65

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7	80 x 80 x 8mm equal angle	t	2.00
8	70 x 70 X 6L x 6.38kg/m	t	0.25
9	30 x 50 x 4L x 3.77kg/m3 equal angle	t	0.41
10	60 x 60 x 10 equal angle	t	1.44
11	50 x 50 x 5mm equal angle	t	2
12	30 x 50 x 4mm equal angle	t	1.00
<u>Hot Dip Galvanised Steel Gutters and Rainwater Pipes</u>			
<u>10mm Welded plate gutters</u>			
13	Box gutters, 185 x 165mm including necessary collared and sealed expansion joints, conical outlets, drop boxes etc and fixing to falls on and including steel gutter brackets bolted to fascia at 1,5m centres	m	36
14	Downpipes, 150 x 150 x 10mm thick, including brackets	m	110
15	Downpipe bends, 90 degrees	No	8
16	Downpipe shoes	No	8
17	Extra for stopped end	No	8
18	Extra for 150mm x 150mm diameter down pipe outlet	No	8
<u>Hot Dip Galvanised Welded Plates, Bolts, Fasteners, Etc</u>			
<u>Welded plate</u>			
19	8mm thick flat plate size approximately 150 x 100mm including pre drilled holes for fixing into existing beams	No	40
<u>High tensile bolts (class 8.8)</u>			
20	Y16 x 45mm Chemical anchor bolts, nuts and washers	No	320

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<p>21</p>	<p><u>SUNDRIES</u></p> <p>Hot Dip Galvanised Sundry steel sections,connector plates etc</p> <p><u>ROOF COVERINGS ETC</u></p> <p><u>PREAMBLES</u></p> <p><u>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</u></p> <p>KLIP-LOK 700™ PROFILED SHEETING AND ACCESSORIES</p> <p>SHEETING</p> <p>The roof sheeting shall be double-interlocking concealed-fix Klip-Lok 700™ profile roll-formed in continuous lengths and cut to length by a pneumatic cut-off process from certified Aluminium 0.8mm. A certificate verifying compliance shall be issued by the manufacturer, Global Roofing Solutions. The profile shall be roll-formed with four ribs at centers not exceeding 233mm and a cover width not exceeding 700mm. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 200mm apart to ensure minimum clipping areas on the side lap and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 41mm. Each trough shall incorporate two stiffener ribs. Klip-Lok 700™ shall be obtained from Global Roofing Solutions Tel. 011 898-2900</p> <p>MATERIAL AND FINISH FOR KLIP-LOK 700™ ROOF SHEETING</p> <p>Hulamin®</p> <ul style="list-style-type: none"> Aluminium 3004 /4017 (H44/EzClad) Color-Tech G4 (Polyester G4) finish Aluminium coated finish colour coated to two sides <p>FIXING KLIP-LOK 700™</p> <p style="text-align: right;">Carried to Abstract</p> <p>ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 1 BLOCK A1</p>	<p>t</p> <p>1.00</p>		<p>R</p>
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The Klip-Lok 700™ sheets shall be fixed to every purlin by means of patented KL700 clips having spurs which will securely hold the sheets in position and lock-in the side lap and both center ribs. The KL700 clips shall be manufactured from 1.2mm thick Aluminium and shall be fixed with the appropriate self-drilling/tapping screws to steel purlins OR with ZAP no. 10x45mm Wafer head screws type 17 to timber purlins where applicable (PC deemed to price for appropriate application)

KLIP-LOK 700™ FLASHINGS

Flashing's specifications shall be to the Global Roofing Solutions or other approved standards and fixed to the sheeting with S10 brackets or, Sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary. All these operations must be performed with special tools available from Global Roofing Solutions.

SAFETY

The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.

INSTALLATION

Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled, and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the

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contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, leveled and grouted.
- b. Purlins and girts are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square, and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
- e. All members to which roofing, and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.
- g. The contact faces between the purlins or the girts and the cladding are in the same plane. Should the alignment be inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.

PROTRUSION THROUGH SHEETED SURFACES

Protrusions such as pipes, ducts, and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs must be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting, and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.

GUARANTEE

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Rehabilitation, Renovations & Refurbishment of existing roofs

The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Lok 700™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS approved contractor. A written and approved five-year guarantee of watertightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.

CLEANING OF ROOF, ETC.

All debris, swarf, etc arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners, sealants, mandrels from pop rivets, off-cuts of sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc.

All flashings to be AZ150 zinculme® 0.55mm steel with a ColorBOND® to match roof sheeting

0.8mm Aluminium roof sheeting with finish to both sides in double interlocking concealed profile roll formed in continuous lengths and cut to length by pneumatic cut-off process fixed to steel or timber purlins with and including 0.8mm Aluminium accessories with finish as specified by the Principal Agent

22	Roof coverings (colour by PA) with pitches to 30 degrees	m ²	187
23	Ridge Cap / Vent 3000mm girth 10 times bent and notched on site to suit roof profile.	m	18
24	Ditto but in side cladding	m ²	69
25	Cranking to 170 degrees (ridge)	m	18
26	Curving to a radius of 2500mm	m	18
27	Bend down troughs to form a drip	m	36

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Rehabilitation, Renovations & Refurbishment of existing roofs

Sundries

28	Fire retardant industrial grade reinforced aluminium foil Sisalation double sided, durable, reflective foil laminate incorporating a fire retardant between the various substrates, bonded together with low density polyethene, tested for conformance with SANS 1381-4:2009 , with a Class 1 fire rating in accordance with SANS 10177 - 3:2005 and ASTME84 and BS 476 part 5, 6 and 7, with purlins spaced at greater than 1500mm centres drawn tautly across rafters with purlins spaced at greater than 1500mm centres and secured to each rafter with 38mm x 3,2mm x 1100mm hardboard counter batten strips positioned flush with the bottom edge of the material thus leaving 150mm overlap exposed at the top for the next layer and 150mm overlap thereafter on each 1250mm width roll.	m ²	187
29	Sondor or other equally approved polyclosers to ends of roof sheets	m	72
30	Counter flashing (Code FK77) to be GRS Klip-Lok 700 185mm girth, two times bent along girth. All to be fixed according to manufacturer's recommendations	m	18
31	Ridge (Code FK73) Flash 550mm girth 4 times bent along girth and notched on site to suit roof profile. All to be fixed according to manufacturer's recommendations.	m	36
32	External corner trim 1000mm girth 2 times bent	m	36
33	Eaves flashing 580mm girth, three times bent along girth and notched on site to suit roof profile	m	36
34	Barge flashings 580mm girth, 3 times bent	m	11
35	Side wall flashing (Code FK79) 408mm girth, two times bent along girth. Flashing to be sealed with an approved sealant. All to be fixed according to manufacturer's recommendations	m	180
36	Drip Flash 375mm girth 3 times bent	m	36
37	Ridge mounted ventilator unit to match roof sheeting with min. throat width dimension of 300mm x 2280mm or similar approved. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring	No	2

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Rehabilitation, Renovations & Refurbishment of existing roofs

38	Extra over ridge vent / cap for ridge mounted roof ventilator, overall size 1 712mm wide x 2450mm long with (600 x 2290mm) wide throat, fixed in accordance with roof suppliers recommendations. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring.	No	4	
39	Galv. MS 1.2mm Structural Flashing, 970mm girth, bent once, positive fixing to occur behind laps in flashing, all laps to be sealed with 2 continuous beads of Sikalastic or similar approved adhesive sealant. All fixings to be concealed and done with galvinsed screws. Fixings to occur on vertical faces. Flashing to be cut in equal lengths of no more than 2450mm and fixed at equal centres of max 500mm centers.	m	95	
40	Gutter flashing from AZ150 zinculme® 0.55mm steel with a ColorBOND® to match roof sheeting, 400mm girth bent 3 times along girth and notched on site to suit GRS Klip-Lok 700 profile. Flashing to be install under sheeting, with bent lip to prevent ingress driven rain, and behind gutter brackets	m	85	
41	Curvent CPT350 (or similar approved) from AZ150 zinculme® steel with ColorBOND® to match roof sheeting, fitted to roof sheeting as per sheeting manufacture's specifications. Install back flashing as per sheeting manufacturers details. Install additional purlins to support turbine ventilator as required	No	10	
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Item No	Quantity	Rate	Amount R
<p><u>BILL NO. 2</u></p>			
<p><u>PREAMBLES</u></p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev Oct. 1993) as well as to the "Model Preambles for Trades" (1998) and Supplementary preambles below.</p>			
<p>Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.</p>			
<p>The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he should be asked for a decision before continuing with the work.</p>			
<p>The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.</p>			
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Rehabilitation, Renovations & Refurbishment of existing roofs

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.

Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.

Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the workmen carrying out this work.

All materials in this section are measured as new except where old material is specifically mentioned as being re-used.

Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, bracing, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.

Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.

When pricing, Tenderers are to allow as follows:

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Rehabilitation, Renovations & Refurbishment of existing roofs

Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of Travertine facebricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.

Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.

Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.

The term "take out" includes all work taken out, taken up, taken down, taken off, etc ; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.

The term "make good" is to include all labour and material required to match existing work.

The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.

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Rehabilitation, Renovations & Refurbishment of existing roofs

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes. -----

The contractors unit rates must allow for disposal of disposal or carting away of material, fittings or fixtures so described to a prescribed dumping site as instructed by the Architect

Wire mesh were referenced shall be as follows:

Wire thickness = 3.0mm thick
Strand width = 4.5mm thick
Diamond size = 25mm x 50mm

DEMOLITIONS

42	Allow for cleaning and disinfection of existing roof space using suitable antibacterial and 99% germ eliminating surface disinfectant including in confined spaces and leave entire roof structure clean	m ²	630
43	Break out and remove existing 220mm thick reinforced copings	m ²	68
44	Carefully take out and remove roof structure and sheeting with and including ceiling boards including brandering and leave walls ready to receive new roof structure i.e. trusses, ceiling boards and brandering (New structure elsewhere measured)	m ²	630

SUPERSTRUCTURE

Brickwork of NFX(E) bricks (28 MPa minimum compressive strength) in class II mortar in loadbearing walls etc

45	Half brick walls in beam filling	m ²	143
46	270mm cavity stretcher bond externally and 110mm internally in Extra Hard Burnt Bricks to foundation brickwork	m ²	204

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<u>Miscellaneous</u>				
47	154mm Wide ditto.	m	272	
48	In walls	m ²		
<u>PLASTERING</u>				
<u>PREAMBLES</u>				
For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles				
<u>EXTERNAL PLASTER</u>				
<u>One coat 1:4 External plaster finished to a true and even surface with a steel trowel</u>				
<u>On brickwork</u>				
49	15mm thick plaster to walls	m ²	408	
<u>PAINTWORK, ETC TO NEW WORK ON</u>				
<u>ON PLASTER OR PLASTERBOARD</u>				
<u>Prepare, one coat acrylic filler coat primer, fill with interior polyfilla, sand and touch up filler coat, one coat universal undercoat and two coats non - drip enamel with approved anti-fungicide on</u>				
50	Plastered walls	m ²	408	
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STRUCTURAL STEELWORK

NOTE:

These preambles must be read with the Structural Engineers drawings and specifications which shall prevail and govern over this preamble. Where there is a conflict between these preambles and or bills and the Engineers drawings and specifications the latter shall prevail. The Contractor shall be deemed to have priced for all materials, methods and workmanship as indicated in the Engineers drawings and specifications

Steel mass will be calculated according to the tables issued by the SA Institute of Steel Construction.

EXTENT OF THE WORK:

Supply, fabrication, shop painting, delivering and off-loading, hoisting and erection complete of the structural steelwork including for making good after erection shall be strictly in accordance to the Structural Engineers Drawing . The Contractor must also include for supplying holding down bolts, etc. as specified or implied

SHOP DRAWINGS:

The Sub-Contractor will be required to prepare shop details for the work which must be submitted to the Engineers for approval before fabrication is started. Notwithstanding any approval of these details, the Sub-Contractor shall remain responsible for ensuring that the dimensions, details and workmanship result in the correct assembly of the work.

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**FABRICATION, WORKMANSHIP
AND SUBSTITUTION OF MEMBERS:**

The steelwork is to be fabricated from a grade superior to S355 steel for structural purposes. The whole of the fabrication and workmanship generally is to be in strict accordance with recommended SANS standards as amended i.e ALL STRUCTURAL STEELWORK TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH SANS 1921-3, SANS 10162-1: 2005, SANS 2001-CS1:2005 AND THE PROJECT SPECIFICATION.

Consideration will be given to any detail variations which the Sub-Contractor may wish to make with a view to the simplification of either fabrication, delivery or erection.

Substitutions must be made at the Sub-Contractor's own expense and must be accompanied by detailed calculations.

Tenderers shall state at the time of tendering whether they anticipate any difficulty in obtaining in time, any material shown on the drawings.

If at the time of fabrication, a particular section is no longer obtainable in the Eastern Cape in the time available, another section may be substituted after receipt of written permission from the Engineers from another Province. Such permission shall be given only on satisfactory evidence that the section is unobtainable. Costs of such substitution shall be at the Sub-Contractor's expense.

ERECTION:

The steelwork generally is to be fabricated in the Sub-Contractor's works having due regard to transport and erection facilities. He must supply all erection tackle, erect and plumb all steelwork, supply all steel wedges and packs as required and holding down bolts. If bolted connections are used for lattice girders then either high tensile "friction grip" bolts or close tolerance bolts must be used.

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FRICITION GRIP BOLTS:

When site connections of steelwork are made with high tensile "friction grip" bolts, the Sub-Contractor shall rigidly adhere to the following:-

- (i) Two case hardened washers, one flat or beveled under the head and the other flat or beveled under the nut shall be used with each bolt.
- (ii) Contract surfaces shall be painted and shall be thoroughly cleaned and freed of dirt, oil, loose scale, burrs and other defects which are liable to reduce frictional resistance between surfaces.
- (iii) At all times the correct torques shall be applied to the difference sizes of bolts.

WELDING:

Welding shall be in accordance with British Standard No. 1856 General Requirements for the Metal-Arc Welding of Steel. Mild steel electrodes shall comply with S.A.B.S. 455 Covered Electrodes for Metal-Arch Welding of Steel.

HOLDING DOWN BOLTS

Holding down bolts must be supplied as and when required to the Main Contractor. Pipe sleeves or pockets must be provided with all holding down bolts and steel plate templates provided on a scale of one template or more for every four groups of bolts, suitably marked to ensure easy identification.

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PRICES:

All masses of steelwork are based on measurements of nett length and size of all steel used and allowance must be made for all waste and rolling margin.

Prices must allow for all cutting and fitting to lengths, shapes and sizes, for the drilling of all holes and slotted holes, for all welding, bolting and riveting and for erection and fixing in position complete.

Prices must allow for all bolts and rivets .

Prices must allow for preparing and painting all components as specified before delivery to the site.

PREPARATION AND PAINTING
AT MANUFACTURER'S YARD:

GENERAL:

All paint work shall be executed by tradesmen skilled in this class of work, and in strict accordance with the manufacturer's recommendations as approved.

All steelwork after fabrication, before removal from the place of manufacture shall be cleaned of all adherent coatings by means of suitable solvents, and then cleaned by abrasive blast as described in S.A.B.S. 064 Code of Practice for the Preparation of Steel Surfaces for Painting and in accordance with Swedish Standard SIS 05/59/00. Surface preparation referred to by the abbreviation Sa followed by a number refers to the relevant part of the Swedish Standard.

PRIME COAT:

Steelwork shall be cleaned to Sa 2½ finish and within four hours of cleaning, be primed with alkyd resin based primer. Primed steelwork shall be kept covered and protected until erected in its permanent position. Any repairs to damaged paint work must be carried out prior to erection.

After erection paint work shall be washed down using nylon brushes and detergent to remove all adhering coating and dirt. It shall then be washed with clean water to remove all traces of detergent and painted as specified below.

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AFTER ERECTION:

All surfaces are to be finished with two coats of gloss alkyd resin based enamel paint.

PAINT:

The white lead, linseed oil, turpentine, driers and pigments are to be of the best quality obtainable, thoroughly ground and mixed together to the approval of the Engineers.

All materials, if and when required by the Engineers will be subjected to tests by the Government Analyst, at the Contractor's expense if found deficient.

COLOURS:

All colours and tints are to be submitted to the Engineers for approval. Each coat of paint is to be of a distinctive colour. Sample colours are to be prepared in all cases for the final coat and all work must be finished to colour approved by the Engineers.

READY MIXED PAINTS:

To be used exactly as supplied and in strict accordance with the manufacturers instructions. Thinners and other media must not be used except with the approval of the manufacturer.

Manufacturers representatives must be given access to the works. All ready mixed paints are to be exactly the types described or other equal approved by the Engineers.

PROTECTION AND CLEANING OFF:

All necessary precautions are to be taken for the protection of floors, walls, etc., during painting and all paint spots, etc. are to be cleaned off at completion.

STEEL CANOPY ROOF STRUCTURES

Hot Dip Galvanised Steel Column, Posts and Beams

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Rehabilitation, Renovations & Refurbishment of existing roofs

	<u>Beams, Plate Girders, Rafters, Columns etc in single lengths with and including connections, latticed assemblies, connections, splice materials, notches, stiffeners, cleats, purlin cleats etc. and haunch, bolted to steel where applicable</u>		
51	IPE 203 x 133 x 25kg/m I-section column	t	16.20
52	IPE 203 x 133 x 25kg/m I-section rafter	t	3.04
53	IPE 140 x 73 x 12.9kg/m I-section beams	t	1.17
54	IPE Ex 203 x 133 x 25kg/m I-section eaves / apex haunch	t	2.00
	<u>Hot Dip Galvanised Steel Purlins, Girts, Bracing, Etc.</u>		
	<u>These sections are either bolted or welded together</u>		
55	150 x 75 x 20 x 2.5mm cold-formed lipped channel purlins	t	3.78
56	150 x 90 x 10L cleat with 2 x 6mm stiffeners	t	1.62
57	70 x 70 X 6L x 6.38kg/m	t	1.32
58	30 x 50 x 4L x 3.77kg/m ³ equal angle	t	0.92
59	60 x 60 x 10 equal angle	t	3.60
60	50 x 50 x 5mm equal angle	t	1
61	30 x 50 x 4mm equal angle	t	1.00
	<u>Hot Dip Galvanised Steel Gutters and Rainwater Pipes</u>		
	<u>10mm Welded plate gutters</u>		
62	Box gutters, 185 x 165mm including necessary collared and sealed expansion joints, conical outlets, drop boxes etc and fixing to falls on and including steel gutter brackets bolted to fascia at 1,5m centres	m	90
63	Downpipes, 150 x 150 x 10mm thick, including brackets	m	198

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Rehabilitation, Renovations & Refurbishment of existing roofs

64	Downpipe bends, 90 degrees	No	54
65	Downpipe shoes	No	54
66	Extra for stopped end	No	54
67	Extra for 150mm x 150mm diameter down pipe outlet	No	54

Hot Dip Galvanised Welded Plates, Bolts, Fasteners, Etc

Welded plate

68	8mm thick flat plate size approximately 300 x 100mm including pre drilled holes for fixing into existing beams	No	60
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High tensile bolts (class 8.8)

69	M12 x 45mm Bolts, nuts and washers	No	320
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SUNDRIES

70	Hot Dip Galvanised Sundry steel sections, connector plates etc	t	1.00
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ROOF COVERINGS ETC

PREAMBLES

For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles

KLIP-LOK 700™ PROFILED SHEETING AND ACCESSORIES

SHEETING

The roof sheeting shall be double-interlocking concealed-fix Klip-Lok 700™ profile roll-formed in continuous lengths and cut to length by a pneumatic cut-off process from certified Aluminium 0.8mm. A certificate verifying compliance shall be issued by the manufacturer, Global Roofing Solutions. The profile shall be roll-formed with four ribs at centers not

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exceeding 233mm and a cover width not exceeding 700mm. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 200mm apart to ensure minimum clipping areas on the side lap and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 41mm. Each trough shall incorporate two stiffener ribs. Klip-Lok 700™ shall be obtained from Global Roofing Solutions Tel. 011 898-2900

MATERIAL AND FINISH FOR KLIP-LOK 700™ ROOF SHEETING

Hulamin®

- Aluminium 3004 /4017 (H44/EzClad) Color-Tech G4 (Polyester G4) finish Aluminium coated finish colour coated to two sides

FIXING KLIP-LOK 700™

The Klip-Lok 700™ sheets shall be fixed to every purlin by means of patented KL700 clips having spurs which will securely hold the sheets in position and lock-in the side lap and both center ribs. The KL700 clips shall be manufactured from 1.2mm thick Aluminium and shall be fixed with the appropriate self-drilling/tapping screws to steel purlins OR with ZAP no. 10x45mm Wafer head screws type 17 to timber purlins where applicable (PC deemed to price for appropriate application)

KLIP-LOK 700™ FLASHINGS

Flashing's specifications shall be to the Global Roofing Solutions or other approved standards and fixed to the sheeting with S10 brackets or, Sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary. All these operations must be performed with special tools available from Global Roofing Solutions.

SAFETY

The contractor shall exercise special care when handling long length sheeting, particularly in windy

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conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.

INSTALLATION

Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled, and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, leveled and grouted.
- b. Purlins and girts are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square, and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
- e. All members to which roofing, and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.

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- g. The contact faces between the purlins or the girts and the cladding are in the same plane. Should the alignment be inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.

PROTRUSION THROUGH SHEETED SURFACES

Protrusions such as pipes, ducts, and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs must be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting, and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.

GUARANTEE

The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Lok 700™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS approved contractor. A written and approved five-year guarantee of watertightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.

CLEANING OF ROOF, ETC.

All debris, swarf, etc arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners, sealants, mandrels from pop rivets, off-cuts of sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc.

All flashings to be AZ150 zincalme® 0.55mm steel with a ColorBOND® to match roof sheeting

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0.8mm Aluminium roof sheeting with finish to both sides in double interlocking concealed profile roll formed in continuous lengths and cut to length by pneumatic cut-off process fixed to steel or timber purlins with and including 0.8mm Aluminium accessories with finish as specified by the Principal Agent

71	Roof coverings (colour by PA) with pitches to 30 degrees	m ²	608
72	Ridge Cap /Vent 3000mm girth 10 times bent and notched on site to suit roof profile.	m	90
73	Ditto but in side cladding	m ²	126
74	Cranking to 170 degrees (ridge)	m	45
75	Curving to a radius of 2500mm	m	45
76	Bend down troughs to form a drip	m	90

Sundries

77	Fire retardant industrial grade reinforced aluminium foil Sisalation double sided, durable, reflective foil laminate incorporating a fire retardant between the various substrates, bonded together with low density polyethene, tested for conformance with SANS 1381-4:2009 , with a Class 1 fire rating in accordance with SANS 10177 - 3:2005 and ASTM E84 and BS 476 part 5, 6 and 7, with purlins spaced at greater than 1500mm centres drawn tautly across rafters with purlins spaced at greater than 1500mm centres and secured to each rafter with 38mm x 3,2mm x 1100mm hardboard counter batten strips positioned flush with the bottom edge of the material thus leaving 150mm overlap exposed at the top for the next layer and 150mm overlap thereafter on each 1250mm width roll.	m ²	608
78	Sondor or other equally approved polyclosers to ends of roof sheets	m	180
79	Counter flashing (Code FK77) to be GRS Klip-Lok 700 185mm girth, two times bent along girth. All to be fixed according to manufacturer's recommendations	m	135

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Rehabilitation, Renovations & Refurbishment of existing roofs

80	Ridge Flash (Code FK73) 550mm girth 4 times bent along girth and notched on site to suit roof profile. All to be fixed according to manufacturer's recommendations.	m	90	
81	Side wall flashing (Code FK79) 408mm girth, two times bent along girth. Flashing to be sealed with an approved sealant. All to be fixed according to manufacturer's recommendations	m	85	
82	External corner trim 1000mm girth 2 times bent	m	90	
83	Eaves flashing 1225mm girth, three times bent along girth and notched on site to suit roof profile	m	45	
84	Drip Flash 375mm girth 3 times bent	m	90	
85	Barge flashing 1225mm girth, 3 times bent	m	22	
86	Extra over roof sheeting for fixed louvre systems to match roof sheeting size 2000 x 2000mm overall including all necessary flashings, closures etc. Louvre material to match roof sheeting/side cladding to be pre-painted to external face steel louvre unit to match roof sheeting, fixed in accordance with the manufacturer's recommendations. Supply complete with rodent proof mesh and lugs for building in. Louvre to be supplied with blades fixed to outer frame as per manufacturers specifications. All reveals to get full jamb lining to match roofing material and to turn up/down 50mm on internal face. Refer to typical details.	No	4	
87	Ridge mounted ventilator unit to match roof sheeting with min. throat width dimension of 300mm x 2280mm or similar approved. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring	No	12	
88	Extra over ridge vent / cap for ridge mounted roof ventilator, overall size 1 712mm wide x 2450mm long with (600 x 2290mm) wide throat, fixed in accordance with roof suppliers recommendations. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring.	No	8	
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Rehabilitation, Renovations & Refurbishment of existing roofs

89	Gutter flashing from AZ150 zinculme® 0.55mm steel with a ColorBOND® to match roof sheeting, 400mm girth bent 3 times along girth and notched on site to suit GRS Klip-Lok 700 profile. Flashing to be install under sheeting, with bent lip to prevent ingress driven rain, and behind gutter brackets	No	18
90	Curvent CPT350 (or similar approved) from AZ150 zinculme® steel with ColorBOND® to match roof sheeting, fitted to roof sheeting as per sheeting manufacture's specifications. Install back flashing as per sheeting manufacture's details. Install additional purlins to support turbine ventilator as required	No	18

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<p><u>BILL NO. 3</u></p>			
<p><u>PREAMBLES</u></p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev Oct. 1993) as well as to the "Model Preambles for Trades" (1998) and Supplementary preambles below.</p>			
<p>Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.</p>			
<p>The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he should be asked for a decision before continuing with the work.</p>			
<p>The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.</p>			
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Rehabilitation, Renovations & Refurbishment of existing roofs

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.

Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.

Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the workmen carrying out this work.

All materials in this section are measured as new except where old material is specifically mentioned as being re-used.

Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, bracing, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.

Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.

When pricing, Tenderers are to allow as follows:

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Rehabilitation, Renovations & Refurbishment of existing roofs

Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of Travertine facebricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.

Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.

Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.

The term "take out" includes all work taken out, taken up, taken down, taken off, etc ; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.

The term "make good" is to include all labour and material required to match existing work.

The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.

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The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes. -----

The contractors unit rates must allow for disposal of disposal or carting away of material, fittings or fixtures so described to a prescribed dumping site as instructed by the Architect

Wire mesh were referenced shall be as follows:

Wire thickness = 3.0mm thick
Strand width = 4.5mm thick
Diamond size = 25mm x 50mm

STRUCTURAL STEELWORK

NOTE:

These preambles must be read with the Structural Engineers drawings and specifications which shall prevail and govern over this preamble. Where there is a conflict between these preambles and or bills and the Engineers drawings and specifications the latter shall prevail. The Contractor shall be deemed to have priced for all materials, methods and workmanship as indicated in the Engineers drawings and specifications

Steel mass will be calculated according to the tables issued by the SA Institute of Steel Construction.

EXTENT OF THE WORK:

Supply, fabrication, shop painting, delivering and off-loading, hoisting and erection complete of the structural steelwork including for making good after erection shall be strictly in accordance to the Structural Engineers Drawing . The Contractor must also include for supplying holding down bolts, etc. as specified or implied

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SHOP DRAWINGS:

The Sub-Contractor will be required to prepare shop details for the work which must be submitted to the Engineers for approval before fabrication is started. Notwithstanding any approval of these details, the Sub-Contractor shall remain responsible for ensuring that the dimensions, details and workmanship result in the correct assembly of the work.

FABRICATION, WORKMANSHIP AND SUBSTITUTION OF MEMBERS:

The steelwork is to be fabricated from a grade superior to S355 steel for structural purposes. The whole of the fabrication and workmanship generally is to be in strict accordance with recommended SANS standards as amended i.e ALL STRUCTURAL STEELWORK TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH SANS 1921-3, SANS 10162-1: 2005, SANS 2001-CS1:2005 AND THE PROJECT SPECIFICATION.

Consideration will be given to any detail variations which the Sub-Contractor may wish to make with a view to the simplification of either fabrication, delivery or erection.

Substitutions must be made at the Sub-Contractor's own expense and must be accompanied by detailed calculations.

Tenderers shall state at the time of tendering whether they anticipate any difficulty in obtaining in time, any material shown on the drawings.

If at the time of fabrication, a particular section is no longer obtainable in the Eastern Cape in the time available, another section may be substituted after receipt of written permission from the Engineers from another Province. Such permission shall be given only on satisfactory evidence that the section is unobtainable. Costs of such substitution shall be at the Sub-Contractor's expense.

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ERECTION:

The steelwork generally is to be fabricated in the Sub-Contractor's works having due regard to transport and erection facilities. He must supply all erection tackle, erect and plumb all steelwork, supply all steel wedges and packs as required and holding down bolts. If bolted connections are used for lattice girders then either high tensile "friction grip" bolts or close tolerance bolts must be used.

FRICTION GRIP BOLTS:

When site connections of steelwork are made with high tensile "friction grip" bolts, the Sub-Contractor shall rigidly adhere to the following:-

- (i) Two case hardened washers, one flat or beveled under the head and the other flat or beveled under the nut shall be used with each bolt.
- (ii) Contact surfaces shall be painted and shall be thoroughly cleaned and freed of dirt, oil, loose scale, burrs and other defects which are liable to reduce frictional resistance between surfaces.
- (iii) At all times the correct torques shall be applied to the difference sizes of bolts.

WELDING:

Welding shall be in accordance with British Standard No. 1856 General Requirements for the Metal-Arc Welding of Steel. Mild steel electrodes shall comply with S.A.B.S. 455 Covered Electrodes for Metal-Arch Welding of Steel.

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HOLDING DOWN BOLTS

Holding down bolts must be supplied as and when required to the Main Contractor. Pipe sleeves or pockets must be provided with all holding down bolts and steel plate templates provided on a scale of one template or more for every four groups of bolts, suitably marked to ensure easy identification.

PRICES:

All masses of steelwork are based on measurements of nett length and size of all steel used and allowance must be made for all waste and rolling margin.

Prices must allow for all cutting and fitting to lengths, shapes and sizes, for the drilling of all holes and slotted holes, for all welding, bolting and riveting and for erection and fixing in position complete.

Prices must allow for all bolts and rivets .

Prices must allow for preparing and painting all components as specified before delivery to the site.

**PREPARATION AND PAINTING
AT MANUFACTURER'S YARD:**

GENERAL:

All paint work shall be executed by tradesmen skilled in this class of work, and in strict accordance with the manufacturer's recommendations as approved.

All steelwork after fabrication, before removal from the place of manufacture shall be cleaned of all adherent coatings by means of suitable solvents, and then cleaned by abrasive blast as described in S.A.B.S. 064 Code of Practice for the Preparation of Steel Surfaces for Painting and in accordance with Swedish Standard SIS 05/59/00. Surface preparation referred to by the abbreviation Sa followed by a number refers to the relevant part of the Swedish Standard.

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PRIME COAT:

Steelwork shall be cleaned to Sa 2½ finish and within four hours of cleaning, be primed with alkyd resin based primer. Primed steelwork shall be kept covered and protected until erected in its permanent position. Any repairs to damaged paint work must be carried out prior to erection.

After erection paint work shall be washed down using nylon brushes and detergent to remove all adhering coating and dirt. It shall then be washed with clean water to remove all traces of detergent and painted as specified below.

AFTER ERECTION:

All surfaces are to be finished with two coats of gloss alkyd resin based enamel paint.

PAINT:

The white lead, linseed oil, turpentine, driers and pigments are to be of the best quality obtainable, thoroughly ground and mixed together to the approval of the Engineers.

All materials, if and when required by the Engineers will be subjected to tests by the Government Analyst, at the Contractor's expense if found deficient.

COLOURS:

All colours and tints are to be submitted to the Engineers for approval. Each coat of paint is to be of a distinctive colour. Sample colours are to be prepared in all cases for the final coat and all work must be finished to colour approved by the Engineers.

READY MIXED PAINTS:

To be used exactly as supplied and in strict accordance with the manufacturers instructions. Thinners and other media must not be used except with the approval of the manufacturer.

Manufacturers representatives must be given access to the works. All ready mixed paints are to be exactly the types described or other equal approved by the Engineers.

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PROTECTION AND CLEANING OFF:

All necessary precautions are to be taken for the protection of floors, walls, etc., during painting and all paint spots, etc. are to be cleaned off at completion.

STEEL CANOPY ROOF STRUCTURES

Hot Dip Galvanised Steel Column, Posts and Beams

Beams, Plate Girders, Rafters, Columns etc in single lengths with and including connections, latticed assemblies, connections, splice materials, notches, stiffeners, cleats, purlin cleats etc, and haunch, bolted to steel where applicable

91	IPE 203 x 133 x 25kg/m I-section column	t	0.26
92	IPE 203 x 133 x 25kg/m I-section rafter	t	0.86
93	IPE 140 x 73 x 12.9kg/m I-section beams	t	0.31
94	IPE Ex 203 x 133 x 25kg/m I-section eaves / apex haunch	t	1.00
<u>Hot Dip Galvanised Steel Purlins, Girts, Bracing, Etc.</u>			
<u>These sections are either bolted or welded together</u>			
95	150 x 75 x 20 x 2.5mm cold-formed lipped channel purlins	t	1.01
96	150 x 90 x 10L cleat with 2 x 6mm stiffeners	t	0.43
97	80 x 80 x 8mm equal angle	t	1.00
98	70 x 70 X 6L x 6.38kg/m	t	0.25
99	30 x 50 x 4L x 3.77kg/m3 equal angle	t	0.41
100	60 x 60 x 10 equal angle	t	0.96
101	50 x 50 x 5mm equal angle	t	1

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102	30 x 50 x 4mm equal angle	t	1.00
<u>Hot Dip Galvanised Steel Gutters and Rainwater Pipes</u>			
<u>10mm Welded plate gutters</u>			
103	Box gutters, 185 x 165mm including necessary collared and sealed expansion joints, conical outlets, drop boxes etc and fixing to falls on and including steel gutter brackets bolted to fascia at 1,5m centres	m	24
104	Downpipes, 150 x 150 x 10mm thick, including brackets	m	176
105	Downpipe bends, 90 degrees	No	8
106	Downpipe shoes	No	8
107	Extra for stopped end	No	8
108	Extra for 150mm x 150mm diameter down pipe outlet	No	8
<u>Hot Dip Galvanised Welded Plates, Bolts, Fasteners, Etc</u>			
<u>Welded plate</u>			
109	8mm thick flat plate size approximately 300 x 100mm including pre drilled holes for fixing into existing beams	No	60
<u>High tensile bolts (class 8.8)</u>			
110	M16 x 45mm Bolts, nuts and washers	No	316
<u>SUNDRIES</u>			
111	Hot Dip Galvanised Sundry steel sections, connector plates etc	t	1.00

ROOF COVERINGS ETC

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PREAMBLES

For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles

KLIP-LOK 700™ PROFILED SHEETING AND ACCESSORIES

SHEETING

The roof sheeting shall be double-interlocking concealed-fix Klip-Lok 700™ profile roll-formed in continuous lengths and cut to length by a pneumatic cut-off process from certified Aluminium 0.8mm. A certificate verifying compliance shall be issued by the manufacturer, Global Roofing Solutions. The profile shall be roll-formed with four ribs at centers not exceeding 233mm and a cover width not exceeding 700mm. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 200mm apart to ensure minimum clipping areas on the side lap and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 41mm. Each trough shall incorporate two stiffener ribs. Klip-Lok 700™ shall be obtained from Global Roofing Solutions Tel. 011 898-2900

MATERIAL AND FINISH FOR KLIP-LOK 700™ ROOF SHEETING

Hulamin®

- Aluminium 3004 /4017 (H44/EzClad) Color-Tech G4 (Polyester G4) finish Aluminium coated finish colour coated to two sides

FIXING KLIP-LOK 700™

The Klip-Lok 700™ sheets shall be fixed to every purlin by means of patented KL700 clips having spurs which will securely hold the sheets in position and lock-in the side lap and both center ribs. The KL700 clips shall be manufactured from 1.2mm thick Aluminium and shall be fixed with the appropriate self-drilling/tapping screws to steel purlins OR with ZAP no. 10x45mm Wafer head

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screws type 17 to timber purlins where applicable (PC deemed to price for appropriate application)

KLIP-LOK 700™ FLASHINGS

Flashing's specifications shall be to the Global Roofing Solutions or other approved standards and fixed to the sheeting with S10 brackets or, Sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary. All these operations must be performed with special tools available from Global Roofing Solutions.

SAFETY

The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.

INSTALLATION

Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled, and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

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Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, leveled and grouted.
- b. Purlins and girts are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square, and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
- e. All members to which roofing, and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.
- g. The contact faces between the purlins or the girts and the cladding are in the same plane. Should the alignment be inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.

PROTRUSION THROUGH SHEETED SURFACES

Protrusions such as pipes, ducts, and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs must be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting, and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.

GUARANTEE

The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Lok 700™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS approved contractor. A written and approved five-year guarantee of watertightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.

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CLEANING OF ROOF, ETC.

All debris, swarf, etc arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners, sealants, mandrels from pop rivets, off-cuts of sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc.

All flashings to be AZ150 zinculme® 0.55mm steel with a ColorBOND® to match roof sheeting

0.8mm Aluminium roof sheeting with finish to both sides in double interlocking concealed profile roll formed in continuous lengths and cut to length by pneumatic cut-off process fixed to steel or timber purlins with and including 0.8mm Aluminium accessories with finish as specified by the Principal Agent

112	Roof coverings (colour by PA) with pitches to 30 degrees	m ²	144
113	Ridge Cap /Vent 3000mm girth 10 times bent and notched on site to suit roof profile.	m	12
114	Ditto but in side cladding	m ²	46
115	Cranking to 170 degrees (ridge)	m	12
116	Curving to a radius of 2500mm	m	12
117	Bend down troughs to form a drip	m	24

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Sundries				
118	Fire retardant industrial grade reinforced aluminium foil Sisalation double sided, durable, reflective foil laminate incorporating a fire retardant between the various substrates, bonded together with low density polyethene, tested for conformance with SANS 1381-4:2009 , with a Class 1 fire rating in accordance with SANS 10177 - 3:2005 and ASTM E84 and BS 476 part 5, 6 and 7, with purlins spaced at greater than 1500mm centres drawn tautly across rafters with purlins spaced at greater than 1500mm centres and secured to each rafter with 38mm x 3,2mm x 1100mm hardboard counter batten strips positioned flush with the bottom edge of the material thus leaving 150mm overlap exposed at the top for the next layer and 150mm overlap thereafter on each 1250mm width roll.	m ²	144	
119	Sondor or other equally approved polyclosers to ends of roof sheets	m	48	
120	Counter flashing (Code FK77) to be GRS Klip-Lok 700 185mm girth, two times bent along girth. All to be fixed according to manufacturer's recommendations	m	12	
121	Ridge flash (Code FK73) Flash 550mm girth 4 times bent along girth and notched on site to suit roof profile. All to be fixed according to manufacturer's recommendations.	m	24	
122	0.8mm x 154mm girth narrow or wide flute closure to match roof sheeting, all fixed in accordance with the manufacturer's recommendations.	m	245	
123	External corner trim 1000mm girth 2 times bent	m	24	
124	Eaves flashing 550mm girth, three times bent along girth and notched on site to suit roof profile	m	24	
125	Drip Flash 375mm girth 3 times bent	m	24	
126	Eaves flashing 1225mm girth, three times bent along girth and notched on site to suit roof profile	m	24	
127	Barge flashing 1225mm girth, 3 times bent	m	22	
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Rehabilitation, Renovations & Refurbishment of existing roofs

128	Extra over roof sheeting for fixed louvre systems to match roof sheeting size 2000 x 2000mm overall including all necessary flashings, closures etc. Louvre material to match roof sheeting/side cladding to be pre-painted to external face steel louvre unit to match roof sheeting, fixed in accordance with the manufacturer's recommendations. Supply complete with rodent proof mesh and lugs for building in. Louvre to be supplied with blades fixed to outer frame as per manufacturers specifications. All reveals to get full jamb lining to match roofing material and to turn up/down 50mm on internal face. Refer to typical details.	No	4	
129	Ridge mounted ventilator unit to match roof sheeting with min. throat width dimension of 300mm x 2280mm or similar approved. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring	No	8	
130	Extra over ridge vent / cap for ridge mounted roof ventilator, overall size 1 712mm wide x 2450mm long with (600 x 2290mm) wide throat, fixed in accordance with roof suppliers recommendations. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring.	No	2	
131	Gutter flashing from AZ150 zinculme® 0.55mm steel with a ColorBOND® to match roof sheeting, 400mm girth bent 3 times along girth and notched on site to suit GRS Klip-Lok 700 profile. Flashing to be install under sheeting, with bent lip to prevent ingress driven rain, and behind gutter brackets	m	18	
132	Galv. MS 1.2mm Structural Flashing, 970mm girth, bent once, positive fixing to occur behind laps in flashing, all laps to be sealed with 2 continuous beads of Sikalastic or similar approved adhesive sealant. All fixings to be concealed and done with galvanised screws. Fixings to occur on vertical faces. Flashing to be cut in equal lengths of no more than 2450mm and fixed at equal centres of max 500mm centers.	m	16	
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133 Curvent CPT350 (or similar approved) from AZ150 zinculme® steel with ColorBOND® to match roof sheeting, fitted to roof sheeting as per sheeting manufacture's specifications. Install back flashing as per sheeting manufacture's details. Install additional purlins to support turbine ventilator as required

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<p><u>BILL NO. 4</u></p>			
<p><u>PREAMBLES</u></p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev Oct. 1993) as well as to the "Model Preambles for Trades" (1998) and Supplementary preambles below.</p>			
<p>Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.</p>			
<p>The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he should be asked for a decision before continuing with the work.</p>			
<p>The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.</p>			
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Rehabilitation, Renovations & Refurbishment of existing roofs

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.

Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.

Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the workmen carrying out this work.

All materials in this section are measured as new except where old material is specifically mentioned as being re-used.

Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, bracing, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.

Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.

When pricing, Tenderers are to allow as follows:

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Rehabilitation, Renovations & Refurbishment of existing roofs

Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of Travertine facebricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.

Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.

Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.

The term "take out" includes all work taken out, taken up, taken down, taken off, etc ; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.

The term "make good" is to include all labour and material required to match existing work.

The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.

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The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes. -----

The contractors unit rates must allow for disposal of disposal or carting away of material, fittings or fixtures so described to a prescribed dumping site as instructed by the Architect

Wire mesh were referenced shall be as follows:

Wire thickness = 3.0mm thick
 Strand width = 4.5mm thick
 Diamond size = 25mm x 50mm

DEMOLITIONS

134	Allow for cleaning and disinfection of existing roof space using suitable antibacterial and 99% germ eliminating surface disinfectant including in confined spaces and leave entire roof structure clean	m ²	806
135	Break out and remove existing 220mm thick reinforced copings	m ²	93
136	Carefully take out and remove roof structure and sheeting with and including ceiling boards including brandering and leave walls ready to receive new roof structure i.e. trusses, ceiling boards and brandering (New structure elsewhere measured)	m ²	806
137	Core drilling 200mm thick reinforced concrete opening size approximately 600 x 600mm	No	1

SUPERSTRUCTURE

Brickwork of NFX(E) bricks (28 MPa minimum compressive strength) in class II mortar in loadbearing walls etc

138	Half brick walls in beam filling	m ²	130
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139	270mm cavity stretcher bond externally and 110mm internally in Extra Hard Burnt Bricks to foundation brickwork	m ²	186	
<u>Miscellaneous</u>				
140	154mm Wide ditto.	m	272	
<u>PLASTERING</u>				
<u>PREAMBLES</u>				
For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles				
<u>EXTERNAL PLASTER</u>				
<u>One coat 1:4 External plaster finished to a true and even surface with a steel trowel</u>				
<u>On brickwork</u>				
141	15mm thick plaster to walls	m ²	372	
<u>PAINTWORK, ETC TO NEW WORK ON</u>				
<u>ON PLASTER OR PLASTERBOARD</u>				
<u>Prepare, one coat acrylic filler coat primer, fill with interior polyfilla, sand and touch up filler coat, one coat universal undercoat and two coats non - drip enamel with approved anti-fungicide on</u>				
142	Plastered walls	m ²	372	
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STRUCTURAL STEELWORK

NOTE:

These preambles must be read with the Structural Engineers drawings and specifications which shall prevail and govern over this preamble. Where there is a conflict between these preambles and or bills and the Engineers drawings and specifications the latter shall prevail. The Contractor shall be deemed to have priced for all materials, methods and workmanship as indicated in the Engineers drawings and specifications

Steel mass will be calculated according to the tables issued by the SA Institute of Steel Construction.

EXTENT OF THE WORK:

Supply, fabrication, shop painting, delivering and off-loading, hoisting and erection complete of the structural steelwork including for making good after erection shall be strictly in accordance to the Structural Engineers Drawing . The Contractor must also include for supplying holding down bolts, etc. as specified or implied

SHOP DRAWINGS:

The Sub-Contractor will be required to prepare shop details for the work which must be submitted to the Engineers for approval before fabrication is started. Notwithstanding any approval of these details, the Sub-Contractor shall remain responsible for ensuring that the dimensions, details and workmanship result in the correct assembly of the work.

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**FABRICATION, WORKMANSHIP
AND SUBSTITUTION OF MEMBERS:**

The steelwork is to be fabricated from a grade superior to S355 steel for structural purposes. The whole of the fabrication and workmanship generally is to be in strict accordance with recommended SANS standards as amended i.e ALL STRUCTURAL STEELWORK TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH SANS 1921-3, SANS 10162-1: 2005, SANS 2001-CS1:2005 AND THE PROJECT SPECIFICATION.

Consideration will be given to any detail variations which the Sub-Contractor may wish to make with a view to the simplification of either fabrication, delivery or erection.

Substitutions must be made at the Sub-Contractor's own expense and must be accompanied by detailed calculations.

Tenderers shall state at the time of tendering whether they anticipate any difficulty in obtaining in time, any material shown on the drawings.

If at the time of fabrication, a particular section is no longer obtainable in the Eastern Cape in the time available, another section may be substituted after receipt of written permission from the Engineers from another Province. Such permission shall be given only on satisfactory evidence that the section is unobtainable. Costs of such substitution shall be at the Sub-Contractor's expense.

ERECTION:

The steelwork generally is to be fabricated in the Sub-Contractor's works having due regard to transport and erection facilities. He must supply all erection tackle, erect and plumb all steelwork, supply all steel wedges and packs as required and holding down bolts. If bolted connections are used for lattice girders then either high tensile "friction grip" bolts or close tolerance bolts must be used.

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FRICITION GRIP BOLTS:

When site connections of steelwork are made with high tensile "friction grip" bolts, the Sub-Contractor shall rigidly adhere to the following:-

- (i) Two case hardened washers, one flat or beveled under the head and the other flat or beveled under the nut shall be used with each bolt.
- (ii) Contract surfaces shall be painted and shall be thoroughly cleaned and freed of dirt, oil, loose scale, burrs and other defects which are liable to reduce frictional resistance between surfaces.
- (iii) At all times the correct torques shall be applied to the difference sizes of bolts.

WELDING:

Welding shall be in accordance with British Standard No. 1856 General Requirements for the Metal-Arc Welding of Steel. Mild steel electrodes shall comply with S.A.B.S. 455 Covered Electrodes for Metal-Arch Welding of Steel.

HOLDING DOWN BOLTS

Holding down bolts must be supplied as and when required to the Main Contractor. Pipe sleeves or pockets must be provided with all holding down bolts and steel plate templates provided on a scale of one template or more for every four groups of bolts, suitably marked to ensure easy identification.

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PRICES:

All masses of steelwork are based on measurements of nett length and size of all steel used and allowance must be made for all waste and rolling margin.

Prices must allow for all cutting and fitting to lengths, shapes and sizes, for the drilling of all holes and slotted holes, for all welding, bolting and riveting and for erection and fixing in position complete.

Prices must allow for all bolts and rivets .

Prices must allow for preparing and painting all components as specified before delivery to the site.

PREPARATION AND PAINTING
AT MANUFACTURER'S YARD:

GENERAL:

All paint work shall be executed by tradesmen skilled in this class of work, and in strict accordance with the manufacturer's recommendations as approved.

All steelwork after fabrication, before removal from the place of manufacture shall be cleaned of all adherent coatings by means of suitable solvents, and then cleaned by abrasive blast as described in S.A.B.S. 064 Code of Practice for the Preparation of Steel Surfaces for Painting and in accordance with Swedish Standard SIS 05/59/00. Surface preparation referred to by the abbreviation Sa followed by a number refers to the relevant part of the Swedish Standard.

PRIME COAT:

Steelwork shall be cleaned to Sa 2½ finish and within four hours of cleaning, be primed with alkyd resin based primer. Primed steelwork shall be kept covered and protected until erected in its permanent position. Any repairs to damaged paint work must be carried out prior to erection.

After erection paint work shall be washed down using nylon brushes and detergent to remove all adhering coating and dirt. It shall then be washed with clean water to remove all traces of detergent and painted as specified below.

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AFTER ERECTION:

All surfaces are to be finished with two coats of gloss alkyd resin based enamel paint.

PAINT:

The white lead, linseed oil, turpentine, driers and pigments are to be of the best quality obtainable, thoroughly ground and mixed together to the approval of the Engineers.

All materials, if and when required by the Engineers will be subjected to tests by the Government Analyst, at the Contractor's expense if found deficient.

COLOURS:

All colours and tints are to be submitted to the Engineers for approval. Each coat of paint is to be of a distinctive colour. Sample colours are to be prepared in all cases for the final coat and all work must be finished to colour approved by the Engineers.

READY MIXED PAINTS:

To be used exactly as supplied and in strict accordance with the manufacturers instructions. Thinners and other media must not be used except with the approval of the manufacturer.

Manufacturers representatives must be given access to the works. All ready mixed paints are to be exactly the types described or other equal approved by the Engineers.

PROTECTION AND CLEANING OFF:

All necessary precautions are to be taken for the protection of floors, walls, etc., during painting and all paint spots, etc. are to be cleaned off at completion.

STEEL CANOPY ROOF STRUCTURES

Hot Dip Galvanised Steel Column, Posts and Beams

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	<u>Beams, Plate Girders, Rafters, Columns etc in single lengths with and including connections, latticed assemblies, connections, splice materials, notches, stiffeners, cleats, purlin cleats etc. and haunch, bolted to steel where applicable</u>		
143	IPE 203 x 133 x 25kg/m I-section column	t	1.20
144	IPE 203 x 133 x 25kg/m I-section rafter	t	5.06
145	IPE 140 x 73 x 12.9kg/m I-section beams	t	1.61
146	IPE Ex 203 x 133 x 25kg/m I-section eaves / apex haunch	t	1.00
	<u>Hot Dip Galvanised Steel Purlins, Girts, Bracing, Etc.</u>		
	<u>These sections are either bolted or welded together</u>		
147	150 x 75 x 20 x 2.5mm cold-formed lipped channel purlins	t	5.21
148	150 x 90 x 10L cleat with 2 x 6mm stiffeners	t	2.23
149	100 x 50 x 10 parallel flange channel	t	1.00
150	80 x 80 x 8mm equal angle	t	1.00
151	70 x 70 X 6L x 6.38kg/m	t	2.54
152	30 x 50 x 4L x 3.77kg/m ³ equal angle	t	0.92
153	60 x 60 x 10 equal angle	t	9.30
154	50 x 50 x 5mm equal angle	t	1
155	30 x 50 x 4mm equal angle	t	1.00

Hot Dip Galvanised Steel Gutters and Rainwater Pipes

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	<u>10mm Welded plate gutters</u>			
156	Box gutters, 185 x 165mm including necessary collared and sealed expansion joints, conical outlets, drop boxes etc and fixing to falls on and including steel gutter brackets bolted to fascia at 1,5m centres	m	149	
157	Downpipes, 150 x 150 x 10mm thick, including brackets	m	330	
158	Downpipe bends, 90 degrees	No	90	
159	Downpipe shoes	No	90	
160	Extra for stopped end	No	90	
161	Extra for 150mm x 150mm diameter down pipe outlet	No	90	
	<u>Hot Dip Galvanised Welded Plates, Bolts, Fasteners, Etc</u>			
	<u>Welded plate</u>			
162	10mm thick flat plate size approximately 110 x 200mm including pre drilled holes for fixing into existing beams	No	155	
	<u>High tensile bolts (class 8.8)</u>			
163	Y16 x 45mm Chemical anchor bolts, nuts and washers	No	620	
	<u>SUNDRIES</u>			
164	Hot Dip Galvanised Sundry steel sections, connector plates etc	t	1.00	
	<u>STAINLESS STEEL</u>			
165	Stainless steel cat ladder and metis grid landing with PFC 180 x70 overall bearer bars, spot welded to framing, catladder system size 2050 x 1050 x 8 500mm overall, with cage size 840 x 750 x 6 500m in part compromised of 20 Ø Rod Rungs x 510 Long plug weld to similar sized stringers, Safety cage hoops and verticals ex 50 x 8 Flat and all other necessary stainless steelwork, base plates, fixings etc fixed to existing floors and walls. as per drawing number S06-01 (Calculus Engineering)	t	3.00	
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ROOF COVERINGS ETC

PREAMBLES

For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles

KLIP-LOK 700™ PROFILED SHEETING AND ACCESSORIES

SHEETING

The roof sheeting shall be double-interlocking concealed-fix Klip-Lok 700™ profile roll-formed in continuous lengths and cut to length by a pneumatic cut-off process from certified Aluminium 0.8mm. A certificate verifying compliance shall be issued by the manufacturer, Global Roofing Solutions. The profile shall be roll-formed with four ribs at centers not exceeding 233mm and a cover width not exceeding 700mm. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 200mm apart to ensure minimum clipping areas on the side lap and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 41mm. Each trough shall incorporate two stiffener ribs. Klip-Lok 700™ shall be obtained from Global Roofing Solutions Tel. 011 898-2900

MATERIAL AND FINISH FOR KLIP-LOK 700™ ROOF SHEETING

Hulamin®

- Aluminium 3004 /4017 (H44/EzClad) Color-Tech G4 (Polyester G4) finish Aluminium coated finish colour coated to two sides

FIXING KLIP-LOK 700™

The Klip-Lok 700™ sheets shall be fixed to every purlin by means of patented KL700 clips having spurs which

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will securely hold the sheets in position and lock-in the side lap and both center ribs. The KL700 clips shall be manufactured from 1.2mm thick Aluminium and shall be fixed with the appropriate self-drilling/tapping screws to steel purlins OR with ZAP no. 10x45mm Wafer head screws type 17 to timber purlins where applicable (PC deemed to price for appropriate application)

KLIP-LOK 700™ FLASHINGS

Flashing's specifications shall be to the Global Roofing Solutions or other approved standards and fixed to the sheeting with S10 brackets or, Sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary. All these operations must be performed with special tools available from Global Roofing Solutions.

SAFETY

The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.

INSTALLATION

Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled, and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for

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preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, leveled and grouted.
- b. Purlins and girts are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square, and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
- e. All members to which roofing, and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.
- g. The contact faces between the purlins or the girts and the cladding are in the same plane. Should the alignment be inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.

PROTRUSION THROUGH SHEETED SURFACES

Protrusions such as pipes, ducts, and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs must be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting, and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.

GUARANTEE

The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Lok 700™ sheeting

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Rehabilitation, Renovations & Refurbishment of existing roofs

shall be laid in strict accordance with the manufacturer's specifications by a GRS approved contractor. A written and approved five-year guarantee of watertightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.

CLEANING OF ROOF, ETC.

All debris, swarf, etc arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners, sealants, mandrels from pop rivets, off-cuts of sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc.

All flashings to be AZ150 zincalme® 0.55mm steel with a ColorBOND® to match roof sheeting

0.8mm Aluminium roof sheeting with finish to both sides in double interlocking concealed profile roll formed in continuous lengths and cut to length by pneumatic cut-off process fixed to steel or timber purlins with and including 0.8mm Aluminium accessories with finish as specified by the Principal Agent

166	Roof coverings (colour by PA) with pitches to 30 degrees	m ²	1 004
167	Ridge Cap /Vent 3000mm girth 10 times bent and notched on site to suit roof profile.	m	62
168	Ditto but in side cladding	m ²	174
169	Cranking to 170 degrees (ridge)	m	62
170	Curving to a radius of 2500mm	m	62
171	Bend down troughs to form a drip	m	124

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Rehabilitation, Renovations & Refurbishment of existing roofs

Sundries				
172	Fire retardant industrial grade reinforced aluminium foil Sisalation double sided, durable, reflective foil laminate incorporating a fire retardant between the various substrates, bonded together with low density polyethene, tested for conformance with SANS 1381-4:2009 , with a Class 1 fire rating in accordance with SANS 10177 - 3:2005 and ASTM E84 and BS 476 part 5, 6 and 7, with purlins spaced at greater than 1500mm centres drawn tautly across rafters with purlins spaced at greater than 1500mm centres and secured to each rafter with 38mm x 3,2mm x 1100mm hardboard counter batten strips positioned flush with the bottom edge of the material thus leaving 150mm overlap exposed at the top for the next layer and 150mm overlap thereafter on each 1250mm width roll.	m ²	1 004	
173	Sondor or other equally approved polyclosers to ends of roof sheets	m	248	
174	Counter flashing (Code FK77) to be GRS Klip-Lok 700 185mm girth, two times bent along girth. All to be fixed according to manufacturer's recommendations	m	62	
175	Ridge flash (Code FK73) Flash 550mm girth 4 times bent along girth and notched on site to suit roof profile. All to be fixed according to manufacturer's recommendations.	m	124	
176	External corner trim 1000mm girth 2 times bent	m	124	
177	Eaves flashing 550mm girth, three times bent along girth and notched on site to suit roof profile	m	124	
178	Barge flashing 1225mm girth, 3 times bent	m	143	
179	Gutter flashing from AZ150 zinculme® 0.55mm steel with a ColorBOND® to match roof sheeting, 400mm girth bent 3 times along girth and notched on site to suit GRS Klip-Lok 700 profile. Flashing to be install under sheeting, with bent lip to prevent ingress driven rain, and behind gutter brackets	m	22	
180	Drip Flash 231mm girth 3 times bent	m	124	
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Rehabilitation, Renovations & Refurbishment of existing roofs

181	Extra over roof sheeting for fixed louvre systems to match roof sheeting size 2000 x 2000mm overall including all necessary flashings, closures etc. Louvre material to match roof sheeting/side cladding to be pre-painted to external face steel louvre unit to match roof sheeting, fixed in accordance with the manufacturer's recommendations. Supply complete with rodent proof mesh and lugs for building in. Louvre to be supplied with blades fixed to outer frame as per manufacturers specifications. All reveals to get full jamb lining to match roofing material and to turn up/down 50mm on internal face. Refer to typical details.	No	22	
182	Ridge mounted ventilator unit to match roof sheeting with min. throat width dimension of 300mm x 2280mm or similar approved. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring	No	12	
183	Extra over ridge vent / cap for ridge mounted roof ventilator, overall size 1 712mm wide x 2450mm long with (600 x 2290mm) wide throat, fixed in accordance with roof suppliers recommendations. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring.	No	13	
184	Curvent CPT350 (or similar approved) from AZ150 zinculme® steel with ColorBOND® to match roof sheeting, fitted to roof sheeting as per sheeting manufacture's specifications. Install back flashing as per sheeting manufactures details. Install additional purlins to support turbine ventilator as required	No	12	
<p style="text-align: center;">Carried to Abstract</p> <p>ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 4 BLOCK B</p>				<p>R</p>

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Item No	Quantity	Rate	Amount R
<p><u>BILL NO. 5</u></p>			
<p><u>PREAMBLES</u></p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev Oct. 1993) as well as to the "Model Preambles for Trades" (1998) and Supplementary preambles below.</p>			
<p>Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.</p>			
<p>The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he should be asked for a decision before continuing with the work.</p>			
<p>The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.</p>			
<p>Carried to Abstract</p>			R
<p>ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 5 BLOCK C</p>			

Rehabilitation, Renovations & Refurbishment of existing roofs

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.

Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.

Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the workmen carrying out this work.

All materials in this section are measured as new except where old material is specifically mentioned as being re-used.

Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, bracing, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.

Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.

When pricing, Tenderers are to allow as follows:

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Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of Travertine facebricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.

Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.

Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.

The term "take out" includes all work taken out, taken up, taken down, taken off, etc ; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.

The term "make good" is to include all labour and material required to match existing work.

The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.

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Rehabilitation, Renovations & Refurbishment of existing roofs

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes. -----

The contractors unit rates must allow for disposal of disposal or carting away of material, fittings or fixtures so described to a prescribed dumping site as instructed by the Architect

Wire mesh were referenced shall be as follows:

Wire thickness = 3.0mm thick
 Strand width = 4.5mm thick
 Diamond size = 25mm x 50mm

DEMOLITIONS

185	Allow for cleaning and disinfection of existing roof space using suitable antibacterial and 99% germ eliminating surface disinfectant including in confined spaces and leave entire roof structure clean	m ²	338
186	Break out and remove existing 220mm thick reinforced copings	m ²	156
187	Carefully take out and remove roof structure and sheeting with and including ceiling boards including brandering and leave walls ready to receive new roof structure i.e. trusses, ceiling boards and brandering (New structure elsewhere measured)	m ²	338

SUPERSTRUCTURE

Brickwork of NFX(E) bricks (28 MPa minimum compressive strength) in class II mortar in loadbearing walls etc

188	Half brick walls in beam filling	m ²	273
189	270mm cavity stretcher bond externally and 110mm internally in Extra Hard Burnt Bricks to foundation brickwork	m ²	390

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190	<p><u>Miscellaneous</u></p> <p>154mm Wide ditto.</p>	m	272	
<p><u>PLASTERING</u></p>				
<p><u>PREAMBLES</u></p>				
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</p>				
<p><u>EXTERNAL PLASTER</u></p>				
<p><u>One coat 1:4 External plaster finished to a true and even surface with a steel trowel</u></p>				
<p><u>On brickwork</u></p>				
191	15mm thick plaster to walls	m ²	780	
<p><u>PAINTWORK, ETC TO NEW WORK ON</u></p>				
<p><u>ON PLASTER OR PLASTERBOARD</u></p>				
<p><u>Prepare, one coat acrylic filler coat primer, fill with interior polyfilla, sand and touch up filler coat, one coat universal undercoat and two coats non - drip enamel with approved anti-fungicide on</u></p>				
192	Plastered walls	m ²	780	
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STRUCTURAL STEELWORK

NOTE:

These preambles must be read with the Structural Engineers drawings and specifications which shall prevail and govern over this preamble. Where there is a conflict between these preambles and or bills and the Engineers drawings and specifications the latter shall prevail. The Contractor shall be deemed to have priced for all materials, methods and workmanship as indicated in the Engineers drawings and specifications

Steel mass will be calculated according to the tables issued by the SA Institute of Steel Construction.

EXTENT OF THE WORK:

Supply, fabrication, shop painting, delivering and off-loading, hoisting and erection complete of the structural steelwork including for making good after erection shall be strictly in accordance to the Structural Engineers Drawing . The Contractor must also include for supplying holding down bolts, etc. as specified or implied

SHOP DRAWINGS:

The Sub-Contractor will be required to prepare shop details for the work which must be submitted to the Engineers for approval before fabrication is started. Notwithstanding any approval of these details, the Sub-Contractor shall remain responsible for ensuring that the dimensions, details and workmanship result in the correct assembly of the work.

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**FABRICATION, WORKMANSHIP
AND SUBSTITUTION OF MEMBERS:**

The steelwork is to be fabricated from a grade superior to S355 steel for structural purposes. The whole of the fabrication and workmanship generally is to be in strict accordance with recommended SANS standards as amended i.e ALL STRUCTURAL STEELWORK TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH SANS 1921-3, SANS 10162-1: 2005, SANS 2001-CS1:2005 AND THE PROJECT SPECIFICATION.

Consideration will be given to any detail variations which the Sub-Contractor may wish to make with a view to the simplification of either fabrication, delivery or erection.

Substitutions must be made at the Sub-Contractor's own expense and must be accompanied by detailed calculations.

Tenderers shall state at the time of tendering whether they anticipate any difficulty in obtaining in time, any material shown on the drawings.

If at the time of fabrication, a particular section is no longer obtainable in the Eastern Cape in the time available, another section may be substituted after receipt of written permission from the Engineers from another Province. Such permission shall be given only on satisfactory evidence that the section is unobtainable. Costs of such substitution shall be at the Sub-Contractor's expense.

ERECTION:

The steelwork generally is to be fabricated in the Sub-Contractor's works having due regard to transport and erection facilities. He must supply all erection tackle, erect and plumb all steelwork, supply all steel wedges and packs as required and holding down bolts. If bolted connections are used for lattice girders then either high tensile "friction grip" bolts or close tolerance bolts must be used.

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FRICITION GRIP BOLTS:

When site connections of steelwork are made with high tensile "friction grip" bolts, the Sub-Contractor shall rigidly adhere to the following:-

- (i) Two case hardened washers, one flat or beveled under the head and the other flat or beveled under the nut shall be used with each bolt.
- (ii) Contract surfaces shall be painted and shall be thoroughly cleaned and freed of dirt, oil, loose scale, burrs and other defects which are liable to reduce frictional resistance between surfaces.
- (iii) At all times the correct torques shall be applied to the difference sizes of bolts.

WELDING:

Welding shall be in accordance with British Standard No. 1856 General Requirements for the Metal-Arc Welding of Steel. Mild steel electrodes shall comply with S.A.B.S. 455 Covered Electrodes for Metal-Arch Welding of Steel.

HOLDING DOWN BOLTS

Holding down bolts must be supplied as and when required to the Main Contractor. Pipe sleeves or pockets must be provided with all holding down bolts and steel plate templates provided on a scale of one template or more for every four groups of bolts, suitably marked to ensure easy identification.

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PRICES:

All masses of steelwork are based on measurements of nett length and size of all steel used and allowance must be made for all waste and rolling margin.

Prices must allow for all cutting and fitting to lengths, shapes and sizes, for the drilling of all holes and slotted holes, for all welding, bolting and riveting and for erection and fixing in position complete.

Prices must allow for all bolts and rivets .

Prices must allow for preparing and painting all components as specified before delivery to the site.

PREPARATION AND PAINTING
AT MANUFACTURER'S YARD:

GENERAL:

All paint work shall be executed by tradesmen skilled in this class of work, and in strict accordance with the manufacturer's recommendations as approved.

All steelwork after fabrication, before removal from the place of manufacture shall be cleaned of all adherent coatings by means of suitable solvents, and then cleaned by abrasive blast as described in S.A.B.S. 064 Code of Practice for the Preparation of Steel Surfaces for Painting and in accordance with Swedish Standard SIS 05/59/00. Surface preparation referred to by the abbreviation Sa followed by a number refers to the relevant part of the Swedish Standard.

PRIME COAT:

Steelwork shall be cleaned to Sa 2½ finish and within four hours of cleaning, be primed with alkyd resin based primer. Primed steelwork shall be kept covered and protected until erected in its permanent position. Any repairs to damaged paint work must be carried out prior to erection.

After erection paint work shall be washed down using nylon brushes and detergent to remove all adhering coating and dirt. It shall then be washed with clean water to remove all traces of detergent and painted as specified below.

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AFTER ERECTION:

All surfaces are to be finished with two coats of gloss alkyd resin based enamel paint.

PAINT:

The white lead, linseed oil, turpentine, driers and pigments are to be of the best quality obtainable, thoroughly ground and mixed together to the approval of the Engineers.

All materials, if and when required by the Engineers will be subjected to tests by the Government Analyst, at the Contractor's expense if found deficient.

COLOURS:

All colours and tints are to be submitted to the Engineers for approval. Each coat of paint is to be of a distinctive colour. Sample colours are to be prepared in all cases for the final coat and all work must be finished to colour approved by the Engineers.

READY MIXED PAINTS:

To be used exactly as supplied and in strict accordance with the manufacturers instructions. Thinners and other media must not be used except with the approval of the manufacturer.

Manufacturers representatives must be given access to the works. All ready mixed paints are to be exactly the types described or other equal approved by the Engineers.

PROTECTION AND CLEANING OFF:

All necessary precautions are to be taken for the protection of floors, walls, etc., during painting and all paint spots, etc. are to be cleaned off at completion.

STEEL CANOPY ROOF STRUCTURES

Hot Dip Galvanised Steel Column, Posts and Beams

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Rehabilitation, Renovations & Refurbishment of existing roofs

	<u>Beams, Plate Girders, Rafters, Columns etc in single lengths with and including connections, latticed assemblies, connections, splice materials, notches, stiffeners, cleats, purlin cleats etc. and haunch, bolted to steel where applicable</u>		
193	IPE 203 x 133 x 25kg/m I-section column	t	2.13
194	IPE 203 x 133 x 25kg/m I-section rafter	t	4.66
195	IPE 140 x 73 x 12.9kg/m I-section beams	t	1.69
196	IPE Ex 203 x 133 x 25kg/m I-section eaves / apex haunch	t	1.00
	<u>Hot Dip Galvanised Steel Purlins, Girts, Bracing, Etc.</u>		
	<u>These sections are either bolted or welded together</u>		
197	100 x 50 x 10 parallel flange channel	t	2.00
198	150 x 75 x 20 x 2.5mm cold-formed lipped channel purlins	t	5.46
199	150 x 90 x 10L cleat with 2 x 6mm stiffeners	t	2.34
200	80 x 80 x 8mm equal angle	t	1.00
201	70 x 70 X 6L x 6.38kg/m	t	1.32
202	30 x 50 x 4L x 3.77kg/m3 equal angle	t	1.22
203	60 x 60 x 10 equal angle	t	5.20
204	50 x 50 x 5mm equal angle	t	1
205	30 x 50 x 4mm equal angle	t	1.00

Hot Dip Galvanised Steel Gutters and Rainwater Pipes

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	<u>10mm Welded plate gutters</u>			
206	Box gutters, 185 x 165mm including necessary collared and sealed expansion joints, conical outlets, drop boxes etc and fixing to falls on and including steel gutter brackets bolted to fascia at 1,5m centres	m	130	
207	Downpipes, 150 x 150 x 10mm thick, including brackets	m	330	
208	Downpipe bends, 90 degrees	No	90	
209	Downpipe shoes	No	90	
210	Extra for stopped end	No	90	
211	Extra for 150mm x 150mm diameter down pipe outlet	No	90	
	<u>Hot Dip Galvanised Welded Plates, Bolts, Fasteners, Etc</u>			
	<u>Welded plate</u>			
212	8mm thick flat plate size approximately 150 x 100mm including pre drilled holes for fixing into existing beams	No	40	
	<u>High tensile bolts (class 8.8)</u>			
213	Y16 x 45mm Chemical anchor bolts, nuts and washers	No	325	
	<u>SUNDRIES</u>			
214	Hot Dip Galvanised Sundry steel sections, connector plates etc	t	1.00	
	<u>STAINLESS STEEL</u>			
215	Stainless steel cat ladder and metis grid landing with PFC 180 x70 overall bearer bars, spot welded to framing, catladder system size 2050 x 1050 x 8 500mm overall, with cage size 840 x 750 x 6 500m in part compromised of 20 Ø Rod Rungs x 510 Long plug weld to similar sized stringers, Safety cage hoops and verticals ex 50 x 8 Flat and all other necessary stainless steelwork, base plates, fixings etc fixed to existing floors and walls. as per drawing number S06-01 (Calculus Engineering)	t	3.00	
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BILL NO 2

ROOF COVERINGS ETC

PREAMBLES

For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles

KLIP-LOK 700™ PROFILED SHEETING AND ACCESSORIES

SHEETING

The roof sheeting shall be double-interlocking concealed-fix Klip-Lok 700™ profile roll-formed in continuous lengths and cut to length by a pneumatic cut-off process from certified Aluminium 0.8mm. A certificate verifying compliance shall be issued by the manufacturer, Global Roofing Solutions. The profile shall be roll-formed with four ribs at centers not exceeding 233mm and a cover width not exceeding 700mm. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 200mm apart to ensure minimum clipping areas on the side lap and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 41mm. Each trough shall incorporate two stiffener ribs. Klip-Lok 700™ shall be obtained from Global Roofing Solutions Tel. 011 898-2900

MATERIAL AND FINISH FOR KLIP-LOK 700™ ROOF SHEETING

Hulamin®

- Aluminium 3004 /4017 (H44/EzClad) Color-Tech G4 (Polyester G4) finish Aluminium coated finish colour coated to two sides

FIXING KLIP-LOK 700™

The Klip-Lok 700™ sheets shall be fixed to every purlin by means of patented KL700 clips having spurs which

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will securely hold the sheets in position and lock-in the side lap and both center ribs. The KL700 clips shall be manufactured from 1.2mm thick Aluminium and shall be fixed with the appropriate self-drilling/tapping screws to steel purlins OR with ZAP no. 10x45mm Wafer head screws type 17 to timber purlins where applicable (PC deemed to price for appropriate application)

KLIP-LOK 700™ FLASHINGS

Flashing's specifications shall be to the Global Roofing Solutions or other approved standards and fixed to the sheeting with S10 brackets or, Sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary. All these operations must be performed with special tools available from Global Roofing Solutions.

SAFETY

The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.

INSTALLATION

Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled, and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for

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preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, leveled and grouted.
- b. Purlins and girts are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square, and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
- e. All members to which roofing, and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.
- g. The contact faces between the purlins or the girts and the cladding are in the same plane. Should the alignment be inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.

PROTRUSION THROUGH SHEETED SURFACES

Protrusions such as pipes, ducts, and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs must be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting, and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.

GUARANTEE

The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Lok 700™ sheeting

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Rehabilitation, Renovations & Refurbishment of existing roofs

shall be laid in strict accordance with the manufacturer's specifications by a GRS approved contractor. A written and approved five-year guarantee of watertightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.

CLEANING OF ROOF, ETC.

All debris, swarf, etc arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners, sealants, mandrels from pop rivets, off-cuts of sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc.

All flashings to be AZ150 zincalme® 0.55mm steel with a ColorBOND® to match roof sheeting

0.8mm Aluminium roof sheeting with finish to both sides in double interlocking concealed profile roll formed in continuous lengths and cut to length by pneumatic cut-off process fixed to steel or timber purlins with and including 0.8mm Aluminium accessories with finish as specified by the Principal Agent

216	Roof coverings (colour by PA) with pitches to 30 degrees	m ²	758
217	Ridge Cap /Vent 3000mm girth 10 times bent and notched on site to suit roof profile.	m	65
218	Ditto but in side cladding	m ²	325
219	Cranking to 170 degrees (ridge)	m	65
220	Curving to a radius of 2500mm	m	65
221	Bend down troughs to form a drip	m	130

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Rehabilitation, Renovations & Refurbishment of existing roofs

Sundries				
222	Fire retardant industrial grade reinforced aluminium foil Sisalation double sided, durable, reflective foil laminate incorporating a fire retardant between the various substrates, bonded together with low density polyethene, tested for conformance with SANS 1381-4:2009 , with a Class 1 fire rating in accordance with SANS 10177 - 3:2005 and ASTME84 and BS 476 part 5, 6 and 7, with purlins spaced at greater than 1500mm centres drawn tautly across rafters with purlins spaced at greater than 1500mm centres and secured to each rafter with 38mm x 3,2mm x 1100mm hardboard counter batten strips positioned flush with the bottom edge of the material thus leaving 150mm overlap exposed at the top for the next layer and 150mm overlap thereafter on each 1250mm width roll.	m ²	758	
223	Sondor or other equally approved polyclosers to ends of roof sheets	m	260	
224	Counter flashing (Code FK77) to be GRS Klip-Lok 700 185mm girth, two times bent along girth. All to be fixed according to manufacturer's recommendations	m	65	
225	Ridge flash (Code FK73) Flash 550mm girth 4 times bent along girth and notched on site to suit roof profile. All to be fixed according to manufacturer's recommendations.	m	130	
226	External corner trim 1000mm girth 2 times bent	m	130	
227	Eaves flashing 550mm girth, three times bent along girth and notched on site to suit roof profile	m	130	
228	Drip Flash 231mm girth 3 times bent	m	130	
229	Barge flashings 1225mm girth, 3 times bent	m	48	
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Rehabilitation, Renovations & Refurbishment of existing roofs

230	Extra over roof sheeting for fixed louvre systems to match roof sheeting size 2000 x 2000mm overall including all necessary flashings, closures etc. Louvre material to match roof sheeting/side cladding to be pre-painted to external face steel louvre unit to match roof sheeting, fixed in accordance with the manufacturer's recommendations. Supply complete with rodent proof mesh and lugs for building in. Louvre to be supplied with blades fixed to outer frame as per manufacturers specifications. All reveals to get full jamb lining to match roofing material and to turn up/down 50mm on internal face. Refer to typical details.	No	6	
231	Ridge mounted ventilator unit to match roof sheeting with min. throat width dimension of 300mm x 2280mm or similar approved. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring	No	8	
232	Extra over ridge vent / cap for ridge mounted roof ventilator, overall size 1 712mm wide x 2450mm long with (600 x 2290mm) wide throat, fixed in accordance with roof suppliers recommendations. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring.	No	7	
233	Curvent CPT350 (or similar approved) from AZ150 zinculme® steel with ColorBOND® to match roof sheeting, fitted to roof sheeting as per sheeting manufacture's specifications. Install back flashing as per sheeting manufacture's details. Install additional purlins to support turbine ventilator as required	No	15	
<p style="text-align: center;">Carried to Abstract</p> <p>ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 5 BLOCK C</p>				R

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Item No	Quantity	Rate	Amount R
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<p><u>PREAMBLES</u></p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev Oct. 1993) as well as to the "Model Preambles for Trades" (1998) and Supplementary preambles below.</p>			
<p>Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.</p>			
<p>The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he should be asked for a decision before continuing with the work.</p>			
<p>The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.</p>			
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<p>ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 6 BLOCK D</p>			

Rehabilitation, Renovations & Refurbishment of existing roofs

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.

Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.

Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the workmen carrying out this work.

All materials in this section are measured as new except where old material is specifically mentioned as being re-used.

Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, bracing, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.

Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.

When pricing, Tenderers are to allow as follows:

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BLOCK D

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Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of Travertine facebricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.

Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.

Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.

The term "take out" includes all work taken out, taken up, taken down, taken off, etc ; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.

The term "make good" is to include all labour and material required to match existing work.

The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.

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Rehabilitation, Renovations & Refurbishment of existing roofs

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes. -----

The contractors unit rates must allow for disposal of disposal or carting away of material, fittings or fixtures so described to a prescribed dumping site as instructed by the Architect

Wire mesh were referenced shall be as follows:

Wire thickness = 3.0mm thick
 Strand width = 4.5mm thick
 Diamond size = 25mm x 50mm

DEMOLITIONS

234	Allow for cleaning and disinfection of existing roof space using suitable antibacterial and 99% germ eliminating surface disinfectant including in confined spaces and leave entire roof structure clean	m ²	685
235	Break out and remove existing 220mm thick reinforced copings	m ²	252
236	Carefully take out and remove roof structure and sheeting with and including ceiling boards including brandering and leave walls ready to receive new roof structure i.e. trusses, ceiling boards and brandering (New structure elsewhere measured)	m ²	685
237	Core drilling 200mm thick reinforced concrete opening size approximately 600 x 600mm	No	1

SUPERSTRUCTURE

Brickwork of NFX(E) bricks (28 MPa minimum compressive strength) in class II mortar in loadbearing walls etc

238	Half brick walls in beam filling	m ²	353
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239	270mm cavity stretcher bond externally and 110mm internally in Extra Hard Burnt Bricks to foundation brickwork	m ²	504	
<u>Miscellaneous</u>				
240	154mm Wide ditto.	m	340	
<u>PLASTERING</u>				
<u>PREAMBLES</u>				
For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles				
<u>EXTERNAL PLASTER</u>				
<u>One coat 1:4 External plaster finished to a true and even surface with a steel trowel</u>				
<u>On brickwork</u>				
241	15mm thick plaster to walls	m ²	1 008	
<u>PAINTWORK, ETC TO NEW WORK ON</u>				
<u>ON PLASTER OR PLASTERBOARD</u>				
<u>Prepare, one coat acrylic filler coat primer, fill with interior polyfilla, sand and touch up filler coat, one coat universal undercoat and two coats non - drip enamel with approved anti-fungicide on</u>				
242	Plastered walls	m ²	1 008	
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STRUCTURAL STEELWORK

NOTE:

These preambles must be read with the Structural Engineers drawings and specifications which shall prevail and govern over this preamble. Where there is a conflict between these preambles and or bills and the Engineers drawings and specifications the latter shall prevail. The Contractor shall be deemed to have priced for all materials, methods and workmanship as indicated in the Engineers drawings and specifications

Steel mass will be calculated according to the tables issued by the SA Institute of Steel Construction.

EXTENT OF THE WORK:

Supply, fabrication, shop painting, delivering and off-loading, hoisting and erection complete of the structural steelwork including for making good after erection shall be strictly in accordance to the Structural Engineers Drawing . The Contractor must also include for supplying holding down bolts, etc. as specified or implied

SHOP DRAWINGS:

The Sub-Contractor will be required to prepare shop details for the work which must be submitted to the Engineers for approval before fabrication is started. Notwithstanding any approval of these details, the Sub-Contractor shall remain responsible for ensuring that the dimensions, details and workmanship result in the correct assembly of the work.

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**FABRICATION, WORKMANSHIP
AND SUBSTITUTION OF MEMBERS:**

The steelwork is to be fabricated from a grade superior to S355 steel for structural purposes. The whole of the fabrication and workmanship generally is to be in strict accordance with recommended SANS standards as amended i.e ALL STRUCTURAL STEELWORK TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH SANS 1921-3, SANS 10162-1: 2005, SANS 2001-CS1:2005 AND THE PROJECT SPECIFICATION.

Consideration will be given to any detail variations which the Sub-Contractor may wish to make with a view to the simplification of either fabrication, delivery or erection.

Substitutions must be made at the Sub-Contractor's own expense and must be accompanied by detailed calculations.

Tenderers shall state at the time of tendering whether they anticipate any difficulty in obtaining in time, any material shown on the drawings.

If at the time of fabrication, a particular section is no longer obtainable in the Eastern Cape in the time available, another section may be substituted after receipt of written permission from the Engineers from another Province. Such permission shall be given only on satisfactory evidence that the section is unobtainable. Costs of such substitution shall be at the Sub-Contractor's expense.

ERECTION:

The steelwork generally is to be fabricated in the Sub-Contractor's works having due regard to transport and erection facilities. He must supply all erection tackle, erect and plumb all steelwork, supply all steel wedges and packs as required and holding down bolts. If bolted connections are used for lattice girders then either high tensile "friction grip" bolts or close tolerance bolts must be used.

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FRICITION GRIP BOLTS:

When site connections of steelwork are made with high tensile "friction grip" bolts, the Sub-Contractor shall rigidly adhere to the following:-

- (i) Two case hardened washers, one flat or beveled under the head and the other flat or beveled under the nut shall be used with each bolt.
- (ii) Contract surfaces shall be painted and shall be thoroughly cleaned and freed of dirt, oil, loose scale, burrs and other defects which are liable to reduce frictional resistance between surfaces.
- (iii) At all times the correct torques shall be applied to the difference sizes of bolts.

WELDING:

Welding shall be in accordance with British Standard No. 1856 General Requirements for the Metal-Arc Welding of Steel. Mild steel electrodes shall comply with S.A.B.S. 455 Covered Electrodes for Metal-Arch Welding of Steel.

HOLDING DOWN BOLTS

Holding down bolts must be supplied as and when required to the Main Contractor. Pipe sleeves or pockets must be provided with all holding down bolts and steel plate templates provided on a scale of one template or more for every four groups of bolts, suitably marked to ensure easy identification.

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PRICES:

All masses of steelwork are based on measurements of nett length and size of all steel used and allowance must be made for all waste and rolling margin.

Prices must allow for all cutting and fitting to lengths, shapes and sizes, for the drilling of all holes and slotted holes, for all welding, bolting and riveting and for erection and fixing in position complete.

Prices must allow for all bolts and rivets .

Prices must allow for preparing and painting all components as specified before delivery to the site.

PREPARATION AND PAINTING
AT MANUFACTURER'S YARD:

GENERAL:

All paint work shall be executed by tradesmen skilled in this class of work, and in strict accordance with the manufacturer's recommendations as approved.

All steelwork after fabrication, before removal from the place of manufacture shall be cleaned of all adherent coatings by means of suitable solvents, and then cleaned by abrasive blast as described in S.A.B.S. 064 Code of Practice for the Preparation of Steel Surfaces for Painting and in accordance with Swedish Standard SIS 05/59/00. Surface preparation referred to by the abbreviation Sa followed by a number refers to the relevant part of the Swedish Standard.

PRIME COAT:

Steelwork shall be cleaned to Sa 2½ finish and within four hours of cleaning, be primed with alkyd resin based primer. Primed steelwork shall be kept covered and protected until erected in its permanent position. Any repairs to damaged paint work must be carried out prior to erection.

After erection paint work shall be washed down using nylon brushes and detergent to remove all adhering coating and dirt. It shall then be washed with clean water to remove all traces of detergent and painted as specified below.

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AFTER ERECTION:

All surfaces are to be finished with two coats of gloss alkyd resin based enamel paint.

PAINT:

The white lead, linseed oil, turpentine, driers and pigments are to be of the best quality obtainable, thoroughly ground and mixed together to the approval of the Engineers.

All materials, if and when required by the Engineers will be subjected to tests by the Government Analyst, at the Contractor's expense if found deficient.

COLOURS:

All colours and tints are to be submitted to the Engineers for approval. Each coat of paint is to be of a distinctive colour. Sample colours are to be prepared in all cases for the final coat and all work must be finished to colour approved by the Engineers.

READY MIXED PAINTS:

To be used exactly as supplied and in strict accordance with the manufacturers instructions. Thinners and other media must not be used except with the approval of the manufacturer.

Manufacturers representatives must be given access to the works. All ready mixed paints are to be exactly the types described or other equal approved by the Engineers.

PROTECTION AND CLEANING OFF:

All necessary precautions are to be taken for the protection of floors, walls, etc., during painting and all paint spots, etc. are to be cleaned off at completion.

STEEL CANOPY ROOF STRUCTURES

Hot Dip Galvanised Steel Column, Posts and Beams

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Rehabilitation, Renovations & Refurbishment of existing roofs

	<u>Beams, Plate Girders, Rafters, Columns etc in single lengths with and including connections, latticed assemblies, connections, splice materials, notches, stiffeners, cleats, purlin cleats etc. and haunch, bolted to steel where applicable</u>		
243	IPE 203 x 133 x 25kg/m I-section column	t	2.00
244	IPE 203 x 133 x 25kg/m I-section rafter	t	5.20
245	IPE 140 x 73 x 12.9kg/m I-section beams	t	2.18
246	IPE Ex 203 x 133 x 25kg/m I-section eaves / apex haunch	t	1.00
	<u>Hot Dip Galvanised Steel Purlins, Girts, Bracing, Etc.</u>		
	<u>These sections are either bolted or welded together</u>		
247	150 x 75 x 20 x 2.5mm cold-formed lipped channel purlins	t	7.06
248	150 x 90 x 10L cleat with 2 x 6mm stiffeners	t	3.02
249	100 x 50 x 10 parallel flange channel	t	1.00
250	80 x 80 x 8mm equal angle	t	1.00
251	70 x 70 X 6L x 6.38kg/m	t	2.02
252	30 x 50 x 4L x 3.77kg/m ³ equal angle	t	1.53
253	60 x 60 x 10 equal angle	t	6.72
254	50 x 50 x 5mm equal angle	t	1
255	30 x 50 x 4mm equal angle	t	1.00

Hot Dip Galvanised Steel Gutters and Rainwater Pipes

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Rehabilitation, Renovations & Refurbishment of existing roofs

	<u>10mm Welded plate gutters</u>		
256	Box gutters, 185 x 165mm including necessary collared and sealed expansion joints, conical outlets, drop boxes etc and fixing to falls on and including steel gutter brackets bolted to fascia at 1,5m centres	m	168
257	Downpipes, 150 x 150 x 10mm thick, including brackets	m	352
258	Downpipe bends, 90 degrees	No	96
259	Downpipe shoes	No	96
260	Extra for stopped end	No	96
261	Extra for 150mm x 150mm diameter down pipe outlet	No	96

Hot Dip Galvanised Welded Plates, Bolts, Fasteners, Etc

Welded plate

262	10mm thick flat plate size approximately 110 x 200mm including pre drilled holes for fixing into existing beams	No	315
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High tensile bolts (class 8.8)

263	M12 x 45mm Bolts, nuts and washers	No	280
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SUNDRIES

264	Hot Dip Galvanised Sundry steel sections, connector plates etc	t	1.00
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ROOF COVERINGS ETC

PREAMBLES

For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles

KLIP-LOK 700™ PROFILED SHEETING AND ACCESSORIES

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SHEETING

The roof sheeting shall be double-interlocking concealed-fix Klip-Lok 700™ profile roll-formed in continuous lengths and cut to length by a pneumatic cut-off process from certified Aluminium 0.8mm. A certificate verifying compliance shall be issued by the manufacturer, Global Roofing Solutions. The profile shall be roll-formed with four ribs at centers not exceeding 233mm and a cover width not exceeding 700mm. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 200mm apart to ensure minimum clipping areas on the side lap and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 41mm. Each trough shall incorporate two stiffener ribs. Klip-Lok 700™ shall be obtained from Global Roofing Solutions Tel. 011 898-2900

MATERIAL AND FINISH FOR KLIP-LOK 700™ ROOF SHEETING

Hulamin®

- Aluminium 3004 /4017 (H44/EzClad) Color-Tech G4 (Polyester G4) finish Aluminium coated finish colour coated to two sides

FIXING KLIP-LOK 700™

The Klip-Lok 700™ sheets shall be fixed to every purlin by means of patented KL700 clips having spurs which will securely hold the sheets in position and lock-in the side lap and both center ribs. The KL700 clips shall be manufactured from 1.2mm thick Aluminium and shall be fixed with the appropriate self-drilling/tapping screws to steel purlins OR with ZAP no. 10x45mm Wafer head screws type 17 to timber purlins where applicable (PC deemed to price for appropriate application)

KLIP-LOK 700™ FLASHINGS

Flashing's specifications shall be to the Global Roofing Solutions or other approved standards and fixed to the sheeting with S10 brackets or, Sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be

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notched to the sheet profile where necessary. All these operations must be performed with special tools available from Global Roofing Solutions.

SAFETY

The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.

INSTALLATION

Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled, and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, leveled and grouted.
- b. Purlins and girts are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square, and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.

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- e. All members to which roofing, and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.
- g. The contact faces between the purlins or the girts and the cladding are in the same plane. Should the alignment be inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.

PROTRUSION THROUGH SHEETED SURFACES

Protrusions such as pipes, ducts, and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs must be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting, and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.

GUARANTEE

The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Lok 700™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS approved contractor. A written and approved five-year guarantee of watertightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.

CLEANING OF ROOF, ETC.

All debris, swarf, etc arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners, sealants, mandrels from pop rivets, off-cuts of sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc.

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Rehabilitation, Renovations & Refurbishment of existing roofs

	<u>All flashings to be AZ150 zinculme® 0.55mm steel with a ColorBOND® to match roof sheeting</u>			
	<u>0.8mm Aluminium roof sheeting with finish to both sides in double interlocking concealed profile roll formed in continuous lengths and cut to length by pneumatic cut-off process fixed to steel or timber purlins with and including 0.8mm Aluminium accessories with finish as specified by the Principal Agent</u>			
265	Roof coverings (colour by PA) with pitches to 30 degrees	m ²	1 092	
266	Ridge Cap /Vent 3000mm girth 10 times bent and notched on site to suit roof profile.	m	84	
267	Ditto but in side cladding	m ²	420	
268	Cranking to 170 degrees (ridge)	m	84	
269	Curving to a radius of 2500mm	m	84	
270	Bend down troughs to form a drip	m	168	
	<u>Sundries</u>			
271	Fire retardant industrial grade reinforced aluminium foil Sisalation double sided, durable, reflective foil laminate incorporating a fire retardant between the various substrates, bonded together with low density polyethene, tested for conformance with SANS 1381-4:2009 , with a Class 1 fire rating in accordance with SANS 10177 - 3:2005 and ASTM E84 and BS 476 part 5, 6 and 7, with purlins spaced at greater than 1500mm centres drawn tautly across rafters with purlins spaced at greater than 1500mm centres and secured to each rafter with 38mm x 3,2mm x 1100mm hardboard counter batten strips positioned flush with the bottom edge of the material thus leaving 150mm overlap exposed at the top for the next layer and 150mm overlap thereafter on each 1250mm width roll.	m ²	1 092	
272	Sondor or other equally approved polyclosers to ends of roof sheets	m	336	
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Rehabilitation, Renovations & Refurbishment of existing roofs

273	Counter flashing (Code FK77) to be GRS Klip-Lok 700 185mm girth, two times bent along girth. All to be fixed according to manufacturer's recommendations	m	56	
274	Ridge Flash (Code FK73) 550mm girth 4 times bent along girth and notched on site to suit roof profile. All to be fixed according to manufacturer's recommendations.	m	168	
275	External corner trim 1000mm girth 2 times bent	m	168	
276	Eaves flashing 550mm girth, three times bent along girth and notched on site to suit roof profile	m	92	
277	Drip Flash 231mm girth 3 times bent	m	168	
278	Barge flashings 1225mm girth, 3 times bent	m	47	
279	Extra over ridge vent / cap for ridge mounted roof ventilator, overall size 1 712mm wide x 2450mm long with (600 x 2290mm) wide throat, fixed in accordance with roof suppliers recommendations. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring.	No	13	
280	Extra over roof sheeting for fixed louvre systems to match roof sheeting size 2000 x 2000mm overall including all necessary flashings, closures etc	No	10	
281	Ridge mounted ventilator unit to match roof sheeting with min. throat width dimension of 300mm x 2280mm or similar approved. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring	No	12	
282	Curvent CPT350 (or similar approved) from AZ150 zinculme® steel with ColorBOND® to match roof sheeting, fitted to roof sheeting as per sheeting manufacture's specifications. Install back flashing as per sheeting manufacture's details. Install additional purlins to support turbine ventilator as required	No	15	
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Item No	Quantity	Rate	Amount R
<p><u>BILL NO. 7</u></p>			
<p><u>PREAMBLES</u></p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev Oct. 1993) as well as to the "Model Preambles for Trades" (1998) and Supplementary preambles below.</p>			
<p>Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.</p>			
<p>The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he should be asked for a decision before continuing with the work.</p>			
<p>The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.</p>			
<p>Carried to Abstract</p>			R
<p>ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 7 BLOCK E</p>			

Rehabilitation, Renovations & Refurbishment of existing roofs

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.

Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.

Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the workmen carrying out this work.

All materials in this section are measured as new except where old material is specifically mentioned as being re-used.

Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, bracing, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.

Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.

When pricing, Tenderers are to allow as follows:

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Rehabilitation, Renovations & Refurbishment of existing roofs

Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of Travertine facebricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.

Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.

Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.

The term "take out" includes all work taken out, taken up, taken down, taken off, etc ; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.

The term "make good" is to include all labour and material required to match existing work.

The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.

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Rehabilitation, Renovations & Refurbishment of existing roofs

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes. -----

The contractors unit rates must allow for disposal of disposal or carting away of material, fittings or fixtures so described to a prescribed dumping site as instructed by the Architect

Wire mesh were referenced shall be as follows:

Wire thickness = 3.0mm thick
 Strand width = 4.5mm thick
 Diamond size = 25mm x 50mm

DEMOLITIONS

283	Allow for cleaning and disinfection of existing roof space using suitable antibacterial and 99% germ eliminating surface disinfectant including in confined spaces and leave entire roof structure clean	m ²	704
284	Break out and remove existing 220mm thick reinforced copings	m ²	234
285	Carefully take out and remove roof structure and sheeting with and including ceiling boards including brandering and leave walls ready to receive new roof structure i.e. trusses, ceiling boards and brandering (New structure elsewhere measured)	m ²	704
286	Core drilling 200mm thick reinforced concrete opening size approximately 600 x 600mm	No	1

SUPERSTRUCTURE

Brickwork of NFX(E) bricks (28 MPa minimum compressive strength) in class II mortar in loadbearing walls etc

287	Half brick walls in beam filling	m ²	353
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288	270mm cavity stretcher bond externally and 110mm internally in Extra Hard Burnt Bricks to foundation brickwork	m ²	504	
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Miscellaneous

289	154mm Wide ditto.	m	340	
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PLASTERING

PREAMBLES

For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles

EXTERNAL PLASTER

One coat 1:4 External plaster finished to a true and even surface with a steel trowel

On brickwork

290	15mm thick plaster to walls	m ²	1 008	
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PAINTWORK, ETC TO NEW WORK ON

ON PLASTER OR PLASTERBOARD

Prepare, one coat acrylic filler coat primer, fill with interior polyfilla, sand and touch up filler coat, one coat universal undercoat and two coats non - drip enamel with approved anti-fungicide on

291	Plastered walls	m ²	1 008	
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STRUCTURAL STEELWORK

NOTE:

These preambles must be read with the Structural Engineers drawings and specifications which shall prevail and govern over this preamble. Where there is a conflict between these preambles and or bills and the Engineers drawings and specifications the latter shall prevail. The Contractor shall be deemed to have priced for all materials, methods and workmanship as indicated in the Engineers drawings and specifications

Steel mass will be calculated according to the tables issued by the SA Institute of Steel Construction.

EXTENT OF THE WORK:

Supply, fabrication, shop painting, delivering and off-loading, hoisting and erection complete of the structural steelwork including for making good after erection shall be strictly in accordance to the Structural Engineers Drawing . The Contractor must also include for supplying holding down bolts, etc. as specified or implied

SHOP DRAWINGS:

The Sub-Contractor will be required to prepare shop details for the work which must be submitted to the Engineers for approval before fabrication is started. Notwithstanding any approval of these details, the Sub-Contractor shall remain responsible for ensuring that the dimensions, details and workmanship result in the correct assembly of the work.

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**FABRICATION, WORKMANSHIP
AND SUBSTITUTION OF MEMBERS:**

The steelwork is to be fabricated from a grade superior to S355 steel for structural purposes. The whole of the fabrication and workmanship generally is to be in strict accordance with recommended SANS standards as amended i.e ALL STRUCTURAL STEELWORK TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH SANS 1921-3, SANS 10162-1: 2005, SANS 2001-CS1:2005 AND THE PROJECT SPECIFICATION.

Consideration will be given to any detail variations which the Sub-Contractor may wish to make with a view to the simplification of either fabrication, delivery or erection.

Substitutions must be made at the Sub-Contractor's own expense and must be accompanied by detailed calculations.

Tenderers shall state at the time of tendering whether they anticipate any difficulty in obtaining in time, any material shown on the drawings.

If at the time of fabrication, a particular section is no longer obtainable in the Eastern Cape in the time available, another section may be substituted after receipt of written permission from the Engineers from another Province. Such permission shall be given only on satisfactory evidence that the section is unobtainable. Costs of such substitution shall be at the Sub-Contractor's expense.

ERECTION:

The steelwork generally is to be fabricated in the Sub-Contractor's works having due regard to transport and erection facilities. He must supply all erection tackle, erect and plumb all steelwork, supply all steel wedges and packs as required and holding down bolts. If bolted connections are used for lattice girders then either high tensile "friction grip" bolts or close tolerance bolts must be used.

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FRICITION GRIP BOLTS:

When site connections of steelwork are made with high tensile "friction grip" bolts, the Sub-Contractor shall rigidly adhere to the following:-

- (i) Two case hardened washers, one flat or beveled under the head and the other flat or beveled under the nut shall be used with each bolt.
- (ii) Contract surfaces shall be painted and shall be thoroughly cleaned and freed of dirt, oil, loose scale, burrs and other defects which are liable to reduce frictional resistance between surfaces.
- (iii) At all times the correct torques shall be applied to the difference sizes of bolts.

WELDING:

Welding shall be in accordance with British Standard No. 1856 General Requirements for the Metal-Arc Welding of Steel. Mild steel electrodes shall comply with S.A.B.S. 455 Covered Electrodes for Metal-Arch Welding of Steel.

HOLDING DOWN BOLTS

Holding down bolts must be supplied as and when required to the Main Contractor. Pipe sleeves or pockets must be provided with all holding down bolts and steel plate templates provided on a scale of one template or more for every four groups of bolts, suitably marked to ensure easy identification.

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PRICES:

All masses of steelwork are based on measurements of nett length and size of all steel used and allowance must be made for all waste and rolling margin.

Prices must allow for all cutting and fitting to lengths, shapes and sizes, for the drilling of all holes and slotted holes, for all welding, bolting and riveting and for erection and fixing in position complete.

Prices must allow for all bolts and rivets .

Prices must allow for preparing and painting all components as specified before delivery to the site.

PREPARATION AND PAINTING
AT MANUFACTURER'S YARD:

GENERAL:

All paint work shall be executed by tradesmen skilled in this class of work, and in strict accordance with the manufacturer's recommendations as approved.

All steelwork after fabrication, before removal from the place of manufacture shall be cleaned of all adherent coatings by means of suitable solvents, and then cleaned by abrasive blast as described in S.A.B.S. 064 Code of Practice for the Preparation of Steel Surfaces for Painting and in accordance with Swedish Standard SIS 05/59/00. Surface preparation referred to by the abbreviation Sa followed by a number refers to the relevant part of the Swedish Standard.

PRIME COAT:

Steelwork shall be cleaned to Sa 2½ finish and within four hours of cleaning, be primed with alkyd resin based primer. Primed steelwork shall be kept covered and protected until erected in its permanent position. Any repairs to damaged paint work must be carried out prior to erection.

After erection paint work shall be washed down using nylon brushes and detergent to remove all adhering coating and dirt. It shall then be washed with clean water to remove all traces of detergent and painted as specified below.

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AFTER ERECTION:

All surfaces are to be finished with two coats of gloss alkyd resin based enamel paint.

PAINT:

The white lead, linseed oil, turpentine, driers and pigments are to be of the best quality obtainable, thoroughly ground and mixed together to the approval of the Engineers.

All materials, if and when required by the Engineers will be subjected to tests by the Government Analyst, at the Contractor's expense if found deficient.

COLOURS:

All colours and tints are to be submitted to the Engineers for approval. Each coat of paint is to be of a distinctive colour. Sample colours are to be prepared in all cases for the final coat and all work must be finished to colour approved by the Engineers.

READY MIXED PAINTS:

To be used exactly as supplied and in strict accordance with the manufacturers instructions. Thinners and other media must not be used except with the approval of the manufacturer.

Manufacturers representatives must be given access to the works. All ready mixed paints are to be exactly the types described or other equal approved by the Engineers.

PROTECTION AND CLEANING OFF:

All necessary precautions are to be taken for the protection of floors, walls, etc., during painting and all paint spots, etc. are to be cleaned off at completion.

STEEL CANOPY ROOF STRUCTURES

Hot Dip Galvanised Posts, Etc.

The following in 3.5mm thick sections

292	194mm diameter hollow section posts	t	4.10	
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Rehabilitation, Renovations & Refurbishment of existing roofs

	<u>These sections are either bolted or welded together</u>		
293	60 x 60 x 10 equal angle	t	2.72
	<u>Hot Dip Galvanised Steel Gutters and Rainwater Pipes</u>		
	<u>10mm Welded plate gutters</u>		
294	Box gutters, 185 x 165mm including necessary collared and sealed expansion joints, conical outlets, drop boxes etc and fixing to falls on and including steel gutter brackets bolted to fascia at 1,5m centres	m	73
295	Downpipes, 150 x 150 x 10mm thick, including brackets	m	48
296	Downpipe bends, 90 degrees	No	48
297	Downpipe shoes	No	48
298	Extra for stopped end	No	48
299	Extra for 150mm x 150mm diameter down pipe outlet	No	48
	<u>Hot Dip Galvanised Welded Plates, Bolts, Fasteners, Etc</u>		
	<u>Welded plate</u>		
300	10mm thick flat plate size approximately 150 x 150mm including pre drilled holes for fixing into existing beams	No	40
301	Y16 x 45mm Chemical anchor bolts, nuts and washers	No	240
	<u>SUNDRIES</u>		
302	Hot Dip Galvanised Sundry steel sections, connector plates etc	t	1.00

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<p>303</p>	<p><u>STAINLESS STEEL</u></p> <p>Stainless steel cat ladder and metis grid landing with PFC 180 x70 overall bearer bars, spot welded to framing, catladder system size 2050 x 1050 x 8 500mm overall, with cage size 840 x 750 x 6 500m in part compromised of 20 Ø Rod Rungs x 510 Long plug weld to similar sized stringers, Safety cage hoops and verticals ex 50 x 8 Flat and all other necessary stainless steelwork, base plates, fixings etc fixed to existing floors and walls. as per drawing number S06-01 (Calculus Engineering)</p> <p><u>ROOF COVERINGS ETC</u></p> <p><u>PREAMBLES</u></p> <p><u>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</u></p> <p>KLIP-LOK 700™ PROFILED SHEETING AND ACCESSORIES</p> <p>SHEETING</p> <p>The roof sheeting shall be double-interlocking concealed-fix Klip-Lok 700™ profile roll-formed in continuous lengths and cut to length by a pneumatic cut-off process from certified Aluminium 0.8mm. A certificate verifying compliance shall be issued by the manufacturer, Global Roofing Solutions. The profile shall be roll-formed with four ribs at centers not exceeding 233mm and a cover width not exceeding 700mm. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 200mm apart to ensure minimum clipping areas on the side lap and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 41mm. Each trough shall incorporate two stiffener ribs. Klip-Lok 700™ shall be obtained from Global Roofing Solutions Tel. 011 898-2900</p> <p>MATERIAL AND FINISH FOR KLIP-LOK 700™ ROOF</p> <p style="text-align: right;">Carried to Abstract</p> <p>ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 7 BLOCK E</p>	<p>t</p> <p>3.00</p>		<p>R</p>
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SHEETING

Hulamin®

- Aluminium 3004 /4017 (H44/EzClad) Color-Tech G4 (Polyester G4) finish Aluminium coated finish colour coated to two sides

FIXING KLIP-LOK 700™

The Klip-Lok 700™ sheets shall be fixed to every purlin by means of patented KL700 clips having spurs which will securely hold the sheets in position and lock-in the side lap and both center ribs. The KL700 clips shall be manufactured from 1.2mm thick Aluminium and shall be fixed with the appropriate self-drilling/tapping screws to steel purlins OR with ZAP no. 10x45mm Wafer head screws type 17 to timber purlins where applicable (PC deemed to price for appropriate application)

KLIP-LOK 700™ FLASHINGS

Flashing's specifications shall be to the Global Roofing Solutions or other approved standards and fixed to the sheeting with S10 brackets or, Sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary. All these operations must be performed with special tools available from Global Roofing Solutions.

SAFETY

The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.

INSTALLATION

Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced.

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Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled, and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, leveled and grouted.
- b. Purlins and girts are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square, and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
- e. All members to which roofing, and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is avoided.
- g. The contact faces between the purlins or the girts and the cladding are in the same plane. Should the alignment be inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.

PROTRUSION THROUGH SHEETED SURFACES

Protrusions such as pipes, ducts, and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs must be cut away to permit

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penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting, and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.

GUARANTEE

The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Lok 700™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS approved contractor. A written and approved five-year guarantee of watertightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.

CLEANING OF ROOF, ETC.

All debris, swarf, etc arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners, sealants, mandrels from pop rivets, off-cuts of sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc.

All flashings to be AZ150 zinculme® 0.55mm steel with a ColorBOND® to match roof sheeting

0.8mm Aluminium roof sheeting with finish to both sides in double interlocking concealed profile roll formed in continuous lengths and cut to length by pneumatic cut-off process fixed to steel or timber purlins with and including 0.8mm Aluminium accessories with finish as specified by the Principal Agent

304	Roof coverings (colour by PA) with pitches to 30 degrees	m ²	704
305	Ridge Cap /Vent 3000mm girth 10 times bent and notched on site to suit roof profile.	m	36
306	Ditto but in side cladding	m ²	420

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307	Cranking to 170 degrees (ridge)	m	36
308	Curving to a radius of 2500mm	m	36
309	Bend down troughs to form a drip	m	73
<u>Sundries</u>			
310	Fire retardant industrial grade reinforced aluminium foil Sisalation double sided, durable, reflective foil laminate incorporating a fire retardant between the various substrates, bonded together with low density polyethene, tested for conformance with SANS 1381-4:2009 , with a Class 1 fire rating in accordance with SANS 10177 - 3:2005 and ASTM E84 and BS 476 part 5, 6 and 7, with purlins spaced at greater than 1500mm centres drawn tautly across rafters with purlins spaced at greater than 1500mm centres and secured to each rafter with 38mm x 3,2mm x 1100mm hardboard counter batten strips positioned flush with the bottom edge of the material thus leaving 150mm overlap exposed at the top for the next layer and 150mm overlap thereafter on each 1250mm width roll.	m ²	704
311	Sondor or other equally approved polyclosers to ends of roof sheets	m	145
312	Counter flashing (Code FK77) to be GRS Klip-Lok 700 185mm girth, two times bent along girth. All to be fixed according to manufacturer's recommendations	m	30
313	Ridge Flash (Code FK73) 550mm girth 4 times bent along girth and notched on site to suit roof profile. All to be fixed according to manufacturer's recommendations.	m	73
314	External corner trim 1000mm girth 2 times bent	m	73
315	Eaves flashing 550mm girth, three times bent along girth and notched on site to suit roof profile	m	146
316	Drip Flash 231mm girth 3 times bent	m	73
317	Barge flashings 1225mm girth, 3 times bent	m	49

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Rehabilitation, Renovations & Refurbishment of existing roofs

318	Extra over ridge vent / cap for ridge mounted roof ventilator, overall size 1 712mm wide x 2450mm long with (600 x 2290mm) wide throat, fixed in accordance with roof suppliers recommendations. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring.	No	3	
319	Extra over roof sheeting for fixed louvre systems to match roof sheeting size 2000 x 2000mm overall including all necessary flashings, closures etc	No	2	
320	Curvent CPT350 (or similar approved) from AZ150 zinculme® steel with ColorBOND® to match roof sheeting, fitted to roof sheeting as per sheeting manufacture's specifications. Install back flashing as per sheeting manufacture's details. Install additional purlins to support turbine ventilator as required	No	12	
321	Ridge mounted ventilator unit to match roof sheeting with min. throat width dimension of 300mm x 2280mm or similar approved. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring	No	15	
<u>TIMBER ROOF STRUCTURE</u>				
<u>Prefabricated Connector Plate Roof Trusses at 1000mm maximum centres with a pitch of 25 Degrees and suitable for IBR roof sheeting or other with 50 x 76mm purlins (elsewhere measured) at 1050mm centres and Gypsum plasterboard ceiling (Gypsum plasterboard ceiling elsewhere measured) with and including brandering herein measured at 450mm centres</u>				
322	Truss size 5225mm span x 1500mm high with 650mm overhang both ends.	No	40	
<u>Structural Timber</u>				
<u>Sawn SA Pine tanalith treated Grade M4</u>				
323	38 x 38mm bracing and runners	m	290	
324	38 x 50mm purlins	m	212	
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Rehabilitation, Renovations & Refurbishment of existing roofs

325	38 x 114mm Wall plate bolted to brickwork	m	73
326	19mm quarter round cover strips as per H1 in specification	m	145
327	106 x 363mm beams plate bolted to galvanised steel posts at 3 000mm centres (posts elsewhere measured)	m	73

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Item No	Quantity	Rate	Amount R
<p><u>BILL NO. 8</u></p>			
<p><u>PREAMBLES</u></p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</p>			
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev Oct. 1993) as well as to the "Model Preambles for Trades" (1998) and Supplementary preambles below.</p>			
<p>Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.</p>			
<p>The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he should be asked for a decision before continuing with the work.</p>			
<p>The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.</p>			
<p>Carried to Abstract</p>			R
<p>ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 8 WALKWAYS</p>			

Rehabilitation, Renovations & Refurbishment of existing roofs

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.

Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.

Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the workmen carrying out this work.

All materials in this section are measured as new except where old material is specifically mentioned as being re-used.

Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, bracing, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.

Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.

When pricing, Tenderers are to allow as follows:

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Rehabilitation, Renovations & Refurbishment of existing roofs

Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of Travertine facebricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.

Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.

Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.

The term "take out" includes all work taken out, taken up, taken down, taken off, etc ; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.

The term "make good" is to include all labour and material required to match existing work.

The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.

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The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes. -----

The contractors unit rates must allow for disposal of disposal or carting away of material, fittings or fixtures so described to a prescribed dumping site as instructed by the Architect

Wire mesh were referenced shall be as follows:

Wire thickness = 3.0mm thick
Strand width = 4.5mm thick
Diamond size = 25mm x 50mm

DEMOLITIONS

328	Core drilling 200mm thick reinforced concrete opening size approximately 600 x 600mm	No	6		
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SUPERSTRUCTURE

Brickwork of NFX(E) bricks (28 MPa minimum compressive strength) in class II mortar in loadbearing walls etc

329	Half brick walls in beam filling	m ²	386		
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330	One brickwalls to recess into web of column with soft joint installed between steel and brickwork (Joint elsewhere measured)	m ²	120		
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331	270mm cavity stretcher bond externally and 110mm internally in Extra Hard Burnt Bricks to foundation brickwork	m ²	552		
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Miscellaneous

332	154mm Wide ditto.	m	340		
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333	10mm Thick Jointex expansion joint filler vertically between brick or steel surfaces not exceeding 300 mm high.	m	65		
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334	<p>Rake out 10mm wide expansion joint for a depth of 15mm, clean, prime and seal with an approved external quality polyurethane sealing compound applied with a pressure caulking gun.</p>	m	65	
<p><u>PLASTERING</u></p>				
<p><u>PREAMBLES</u></p>				
<p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</p>				
<p><u>EXTERNAL PLASTER</u></p>				
<p><u>One coat 1:4 External plaster finished to a true and even surface with a steel trowel</u></p>				
<p><u>On brickwork</u></p>				
335	15mm thick plaster to walls	m ²	1 104	
<p><u>PAINTWORK, ETC TO NEW WORK ON</u></p>				
<p><u>ON PLASTER OR PLASTERBOARD</u></p>				
<p><u>Prepare, one coat acrylic filler coat primer, fill with interior polyfilla, sand and touch up filler coat, one coat universal undercoat and two coats non - drip enamel with approved anti-fungicide on</u></p>				
336	Plastered walls	m ²	1 104	
<p>Carried to Abstract</p>				
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STRUCTURAL STEELWORK

NOTE:

These preambles must be read with the Structural Engineers drawings and specifications which shall prevail and govern over this preamble. Where there is a conflict between these preambles and or bills and the Engineers drawings and specifications the latter shall prevail. The Contractor shall be deemed to have priced for all materials, methods and workmanship as indicated in the Engineers drawings and specifications

Steel mass will be calculated according to the tables issued by the SA Institute of Steel Construction.

EXTENT OF THE WORK:

Supply, fabrication, shop painting, delivering and off-loading, hoisting and erection complete of the structural steelwork including for making good after erection shall be strictly in accordance to the Structural Engineers Drawing . The Contractor must also include for supplying holding down bolts, etc. as specified or implied

SHOP DRAWINGS:

The Sub-Contractor will be required to prepare shop details for the work which must be submitted to the Engineers for approval before fabrication is started. Notwithstanding any approval of these details, the Sub-Contractor shall remain responsible for ensuring that the dimensions, details and workmanship result in the correct assembly of the work.

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**FABRICATION, WORKMANSHIP
AND SUBSTITUTION OF MEMBERS:**

The steelwork is to be fabricated from a grade superior to S355 steel for structural purposes. The whole of the fabrication and workmanship generally is to be in strict accordance with recommended SANS standards as amended i.e ALL STRUCTURAL STEELWORK TO BE FABRICATED AND ERECTED IN ACCORDANCE WITH SANS 1921-3, SANS 10162-1: 2005, SANS 2001-CS1:2005 AND THE PROJECT SPECIFICATION.

Consideration will be given to any detail variations which the Sub-Contractor may wish to make with a view to the simplification of either fabrication, delivery or erection.

Substitutions must be made at the Sub-Contractor's own expense and must be accompanied by detailed calculations.

Tenderers shall state at the time of tendering whether they anticipate any difficulty in obtaining in time, any material shown on the drawings.

If at the time of fabrication, a particular section is no longer obtainable in the Eastern Cape in the time available, another section may be substituted after receipt of written permission from the Engineers from another Province. Such permission shall be given only on satisfactory evidence that the section is unobtainable. Costs of such substitution shall be at the Sub-Contractor's expense.

ERECTION:

The steelwork generally is to be fabricated in the Sub-Contractor's works having due regard to transport and erection facilities. He must supply all erection tackle, erect and plumb all steelwork, supply all steel wedges and packs as required and holding down bolts. If bolted connections are used for lattice girders then either high tensile "friction grip" bolts or close tolerance bolts must be used.

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FRICITION GRIP BOLTS:

When site connections of steelwork are made with high tensile "friction grip" bolts, the Sub-Contractor shall rigidly adhere to the following:-

- (i) Two case hardened washers, one flat or beveled under the head and the other flat or beveled under the nut shall be used with each bolt.
- (ii) Contract surfaces shall be painted and shall be thoroughly cleaned and freed of dirt, oil, loose scale, burrs and other defects which are liable to reduce frictional resistance between surfaces.
- (iii) At all times the correct torques shall be applied to the difference sizes of bolts.

WELDING:

Welding shall be in accordance with British Standard No. 1856 General Requirements for the Metal-Arc Welding of Steel. Mild steel electrodes shall comply with S.A.B.S. 455 Covered Electrodes for Metal-Arch Welding of Steel.

HOLDING DOWN BOLTS

Holding down bolts must be supplied as and when required to the Main Contractor. Pipe sleeves or pockets must be provided with all holding down bolts and steel plate templates provided on a scale of one template or more for every four groups of bolts, suitably marked to ensure easy identification.

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PRICES:

All masses of steelwork are based on measurements of nett length and size of all steel used and allowance must be made for all waste and rolling margin.

Prices must allow for all cutting and fitting to lengths, shapes and sizes, for the drilling of all holes and slotted holes, for all welding, bolting and riveting and for erection and fixing in position complete.

Prices must allow for all bolts and rivets .

Prices must allow for preparing and painting all components as specified before delivery to the site.

PREPARATION AND PAINTING
AT MANUFACTURER'S YARD:

GENERAL:

All paint work shall be executed by tradesmen skilled in this class of work, and in strict accordance with the manufacturer's recommendations as approved.

All steelwork after fabrication, before removal from the place of manufacture shall be cleaned of all adherent coatings by means of suitable solvents, and then cleaned by abrasive blast as described in S.A.B.S. 064 Code of Practice for the Preparation of Steel Surfaces for Painting and in accordance with Swedish Standard SIS 05/59/00. Surface preparation referred to by the abbreviation Sa followed by a number refers to the relevant part of the Swedish Standard.

PRIME COAT:

Steelwork shall be cleaned to Sa 2½ finish and within four hours of cleaning, be primed with alkyd resin based primer. Primed steelwork shall be kept covered and protected until erected in its permanent position. Any repairs to damaged paint work must be carried out prior to erection.

After erection paint work shall be washed down using nylon brushes and detergent to remove all adhering coating and dirt. It shall then be washed with clean water to remove all traces of detergent and painted as specified below.

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AFTER ERECTION:

All surfaces are to be finished with two coats of gloss alkyd resin based enamel paint.

PAINT:

The white lead, linseed oil, turpentine, driers and pigments are to be of the best quality obtainable, thoroughly ground and mixed together to the approval of the Engineers.

All materials, if and when required by the Engineers will be subjected to tests by the Government Analyst, at the Contractor's expense if found deficient.

COLOURS:

All colours and tints are to be submitted to the Engineers for approval. Each coat of paint is to be of a distinctive colour. Sample colours are to be prepared in all cases for the final coat and all work must be finished to colour approved by the Engineers.

READY MIXED PAINTS:

To be used exactly as supplied and in strict accordance with the manufacturers instructions. Thinners and other media must not be used except with the approval of the manufacturer.

Manufacturers representatives must be given access to the works. All ready mixed paints are to be exactly the types described or other equal approved by the Engineers.

PROTECTION AND CLEANING OFF:

All necessary precautions are to be taken for the protection of floors, walls, etc., during painting and all paint spots, etc. are to be cleaned off at completion.

STEEL CANOPY ROOF STRUCTURES

Hot Dip Galvanised Steel Column, Posts and Beams

Hot Dip Galvanised Posts, Etc.

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	<u>The following in 3.5mm thick sections</u>			
337	194mm diameter hollow section posts	t	4.10	
	<u>Aluminium Seamless Gutters and Rainwater Pipes</u>			
	<u>Gutters and Downpipes with 10 year guarantee with architect approved coloured finish 0,8mm thick including colour-coded rivet-fixed internal and external mitres and end caps internally sealed using silicone sealant, hung by screw fixed internal aluminium hangers at 600mm centres including expanded aluminium mesh leaf trap</u>			
338	200 x 200 x 200mm Rectangular pre-coated aluminium seamless gutter with 10 year guarantee with architect approved coloured finish to match roof sheeting 1,6mm thick, including colour-coded rivet-fixed internal and external mitres and end caps internally sealed using silicone sealant, hung by screw fixed internal aluminium hangers at 600mm centers.	m	162	
339	80mm round PVC down pipes, painted (Colour to match roof sheeting), fixed to walls with pre-painted downpipe cleats using nail-in anchor fixings and fixed to gutter outlets with domestic snap seals, including all necessary bends, elbows, etc. RWP to be secured to 144 x 144 x 19mm Meranti blocks with aris moulding. To be secured to wall with 4 x brass screws and plastic lugs, counter sunk- Finish with 3 x coats polyurethane sealer to architects approval.	m	96	
340	Downpipe bends, 90 degrees	No	62	
341	Downpipe shoes	No	62	
342	Extra for stopped end	No	62	
343	Extra for 150mm x 150mm diameter down pipe outlet	No	62	
	<u>Hot Dip Galvanised Welded Plates, Bolts, Fasteners, Etc</u>			
	<u>Welded plate</u>			
344	8mm thick flat plate size approximately 150 x 100mm including pre drilled holes for fixing into existing beams	No	56	
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	<p>High tensile bolts (class 8.8)</p>			
345	<p>M16 x 45mm Bolts, nuts and washers</p>	No	449	
	<p><u>SUNDRIES</u></p>			
346	<p>Hot Dip Galvanised Sundry steel sections, connector plates etc</p>	t	1.00	
	<p><u>STAINLESS STEEL</u></p>			
347	<p>Stainless steel cat ladder and metis grid landing with PFC 180 x70 overall bearer bars, spot welded to framing, catladder system size 2050 x 1050 x 8 500mm overall, with cage size 840 x 750 x 6 500m in part compromised of 20 Ø Rod Rungs x 510 Long plug weld to similar sized stringers, Safety cage hoops and verticals ex 50 x 8 Flat and all other necessary stainless steelwork, base plates, fixings etc fixed to existing floors and walls. as per drawing number S06-01 (Calculus Engineering)</p>	t	3.00	
	<p><u>BILL NO 2</u></p>			
	<p><u>ROOF COVERINGS ETC</u></p>			
	<p><u>PREAMBLES</u></p>			
	<p><u>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</u></p>			
	<p>KLIP-LOK 700™ PROFILED SHEETING AND ACCESSORIES</p>			
	<p>SHEETING The roof sheeting shall be double-interlocking concealed-fix Klip-Lok 700™ profile roll-formed in continuous lengths and cut to length by a pneumatic cut-off process from certified Aluminium 0.8mm. A certificate verifying compliance shall be issued by the manufacturer, Global Roofing Solutions. The profile</p>			
	<p style="text-align: right;">Carried to Abstract</p> <p>ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 8 WALKWAYS</p>			<p style="text-align: center;">R</p>

shall be roll-formed with four ribs at centers not exceeding 233mm and a cover width not exceeding 700mm. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 200mm apart to ensure minimum clipping areas on the side lap and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 41mm. Each trough shall incorporate two stiffener ribs. Klip-Lok 700™ shall be obtained from Global Roofing Solutions Tel. 011 898-2900

MATERIAL AND FINISH FOR KLIP-LOK 700™ ROOF SHEETING

Hulamin®

- Aluminium 3004 /4017 (H44/EzClad) Color-Tech G4 (Polyester G4) finish Aluminium coated finish colour coated to two sides

FIXING KLIP-LOK 700™

The Klip-Lok 700™ sheets shall be fixed to every purlin by means of patented KL700 clips having spurs which will securely hold the sheets in position and lock-in the side lap and both center ribs. The KL700 clips shall be manufactured from 1.2mm thick Aluminium and shall be fixed with the appropriate self-drilling/tapping screws to steel purlins OR with ZAP no. 10x45mm Wafer head screws type 17 to timber purlins where applicable (PC deemed to price for appropriate application)

KLIP-LOK 700™ FLASHINGS

Flashing's specifications shall be to the Global Roofing Solutions or other approved standards and fixed to the sheeting with S10 brackets or, Sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary. All these operations must be performed with special tools available from Global Roofing Solutions.

SAFETY

The contractor shall exercise special care when

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handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity.

INSTALLATION

Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duck boards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way, should be replaced. Care shall be taken to ensure that no sheeting or flashing will be cut with abrasive disc on roof surfaces to prevent steel particles from penetrating coated surfaces.

HANDLING AND STORAGE

The contractor shall ensure that all materials used on site for roofing/cladding, be transported, handled, and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will not generally be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.

INSPECTION PRIOR TO INSTALLATION

Before commencing installation, the contractor shall verify that the following items have been checked and accepted:

- a. The entire structure or the portion thereof to be sheeted has been correctly aligned, leveled and grouted.
- b. Purlins and girts are at the correct spacing and are within the specified tolerances.
- c. The corners of the roof are square, and the wall framework is perpendicular or as specified.
- d. No protrusions such as bolt heads, splice plates, cleats, etc. appear on the face of the framework.
- e. All members to which roofing, and cladding are to be fixed in aesthetically sensitive areas are true and square.
- f. Paint and any other materials that may be incompatible with the sheeting, have been painted over or, so dealt with that direct contact with the sheeting is

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- g. avoided.
The contact faces between the purlins or the girts and the cladding are in the same plane. Should the alignment be inadequate, the contractor shall request instructions from the engineer before proceeding with the fixing of the cladding.

PROTRUSION THROUGH SHEETED SURFACES

Protrusions such as pipes, ducts, and the like, shall be adequately flashed where they pass through the sheeting surface. Where ribs must be cut away to permit penetration, additional framing is to be installed as required to support the sheeting. Depending on the position of the penetration through the roof, special attention shall be given to back flashing the sheeting to the ridge or point of water entry. In all cases, all cutting, and flashings shall be so arranged that adequate provision is made for the drainage of all troughs and corrugations.

GUARANTEE

The manufacturer shall comply with ISO 9001:2008 Quality Management System. Klip-Lok 700™ sheeting shall be laid in strict accordance with the manufacturer's specifications by a GRS approved contractor. A written and approved five-year guarantee of watertightness shall be issued after approval of roofs by the manufacturer Global Roofing Solutions.

CLEANING OF ROOF, ETC.

All debris, swarf, etc arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners, sealants, mandrels from pop rivets, off-cuts of sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc.

All flashings to be AZ150 zincalme® 0.55mm steel with a ColorBOND® to match roof sheeting

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0.8mm Aluminium roof sheeting with finish to both sides in double interlocking concealed profile roll formed in continuous lengths and cut to length by pneumatic cut-off process fixed to steel or timber purlins with and including 0.8mm Aluminium accessories with finish as specified by the Principal Agent

348	Roof coverings (colour by PA) with pitches to 30 degrees	m ²	540
349	Ridge Cap /Vent 3000mm girth 10 times bent and notched on site to suit roof profile.	m	92
350	Ditto but in side cladding	m ²	420
351	Cranking to 170 degrees (ridge)	m	92
352	Curving to a radius of 2500mm	m	92
353	Bend down troughs to form a drip	m	184

Sundries

354	Fire retardant industrial grade reinforced aluminium foil Sisalation double sided, durable, reflective foil laminate incorporating a fire retardant between the various substrates, bonded together with low density polyethene, tested for conformance with SANS 1381-4:2009 , with a Class 1 fire rating in accordance with SANS 10177 - 3:2005 and ASTM E84 and BS 476 part 5, 6 and 7, with purlins spaced at greater than 1500mm centres drawn tautly across rafters with purlins spaced at greater than 1500mm centres and secured to each rafter with 38mm x 3,2mm x 1100mm hardboard counter batten strips positioned flush with the bottom edge of the material thus leaving 150mm overlap exposed at the top for the next layer and 150mm overlap thereafter on each 1250mm width roll.	m ²	540
355	Sondor or other equally approved polyclosers to ends of roof sheets	m	368
356	Counter flashing (Code FK77) to be GRS Klip-Lok 700 185mm girth, two times bent along girth. All to be fixed according to manufacturer's recommendations	m	92

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Rehabilitation, Renovations & Refurbishment of existing roofs

357	0.8mm x 230mm girth pre-painted cover flashing to match roof sheeting to slot between purlin and rafter top continuing over roof sheeting, all fixed in accordance with the manufacturer's recommendations	m	285
358	Steel 1,0mm galvanised steel Counter flashing 150mm girth, three times bent along girth. Counter flashing set into wall, with min saw cut of 12mm and fixed to wall with metal drive pins at 600 c/c. Counter flashing steps down with the roof slope	m	285
359	Galv. MS 1.2mm Structural Flashing, 970mm girth, bent once, positive fixing to occur behind laps in flashing, all laps to be sealed with 2 continuous beads of Sikalastic or similar approved adhesive sealant. All fixings to be concealed and done with galavinsed screws. Fixings to occur on vertical faces. Flashing to be cut in equal lengths of no more than 2450mm and fixed at equal centres of max 500mm centers.	m	145
360	Ridge Flash (Code FK73) 550mm girth 4 times bent along girth and notched on site to suit roof profile. All to be fixed according to manufacturer's recommendations.	m	184
361	External corner trim 1000mm girth 2 times bent	m	184
362	Eaves flashing 550mm girth, three times bent along girth and notched on site to suit roof profile	m	184
363	Head wall flashing 1225mm girth, three times bent along girth and notched on site to suit roof profile	m	143
364	Side wall flashing (Code FK79) 408mm girth, two times bent along girth. Flashing to be sealed with an approved sealant. All to be fixed according to manufacturer's recommendations	m	85
365	Raking valley gutter flashing 550mm, six times bent along girth. All to be fixed according to manufacturer's recommendations	m	68

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Rehabilitation, Renovations & Refurbishment of existing roofs

366	Extra over roof sheeting for fixed louvre systems to match roof sheeting size 2000 x 2000mm overall including all necessary flashings, closures etc. Louvre material to match roof sheeting/side cladding to be pre-painted to external face steel louvre unit to match roof sheeting, fixed in accordance with the manufacturer's recommendations. Supply complete with rodent proof mesh and lugs for building in. Louvre to be supplied with blades fixed to outer frame as per manufacturers specifications. All reveals to get full jamb lining to match roofing material and to turn up/down 50mm on internal face. Refer to typical details.	No	20
367	Barge flashing 1225mm girth, 3 times bent	m	53
368	Drip Flash 375mm girth 3 times bent	m	184
369	0.8mm x 154mm girth narrow or wide flute closure to match roof sheeting, all fixed in accordance with the manufacturer's recommendations.	m	485
370	Extra over ridge vent / cap for ridge mounted roof ventilator, overall size 1 712mm wide x 2450mm long with (600 x 2290mm) wide throat, fixed in accordance with roof suppliers recommendations. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring.	No	13
371	Ridge mounted ventilator unit to match roof sheeting with min. throat width dimension of 300mm x 2280mm or similar approved. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring	No	8
372	Curvent CPT350 (or similar approved) from AZ150 zinculme® steel with ColorBOND® to match roof sheeting, fitted to roof sheeting as per sheeting manufacture's specifications. Install back flashing as per sheeting manufacture's details. Install additional purlins to support turbine ventilator as required	No	12

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CARPENTRY AND JOINERY

PREAMBLES

For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles

TIMBER WALKWAY STRUCTURE

Monoplaner Prefabricated Connector Plate Roof Trusses at 1000mm maximum centres with a pitch of 25 Degrees and suitable for IBR roof sheeting or other with 50 x 76mm purlins (elsewhere measured) at 1050mm centres and Gypsum plasterboard ceiling (Gypsum plasterboard ceiling elsewhere measured) with and including brandering herein measured at 450mm centres

373	Truss size 4 350mm span x 1500mm high with 650mm overhang both ends.	m	21
374	Truss size 5050mm span x 1500mm high with 650mm overhang both ends.	No	7
375	Truss size 6380mm span x 1500mm high with 650mm overhang both ends.	No	7
376	Truss size 8780mm span x 1500mm high with 650mm overhang both ends.	No	15

Structural Timber

Sawn SA Pine tanalith treated Grade M4

377	38 x 38mm bracing and runners	m	909
378	38 x 50mm purlins	m	3 522

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Rehabilitation, Renovations & Refurbishment of existing roofs

379	106 x 363mm beams plate bolted to galvanised steel posts at 3 000mm centres (posts elsewhere measured)	m	182
<u>Sundries</u>			
380	Fibre cement fascia board's size 12mm thick x 225mm high with medium density plain finish, with 38 x 38/50mm splay cut sawn softwood battens to top and bottom edges with PVC H profile jointing strips and corner jointers. Complete with 38 x 38 x 114mm SA Pine rafter cleats skew nailed to rafter feet where rafters protrude to outer skin. Fascia's to have stop-ends at Expansion joints to building	m	355
381	Fibre Cement bargeboards size 12mm thick x 225mm high with medium density plain finish, with 38 x 38mm sawn softwood battens to top and bottom edges with PVC h profile jointing strips and corner jointers.	m	185

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Item No	Quantity	Rate	Amount R
<p><u>BILL NO. 9</u></p> <p>All demolition to be in line with latest Occupation Health and safety Act. WARNING: Under no circumstances shall any work of any nature whatsoever on any ASBESTOS material be undertaken unless the work is entrusted and mandated to a "REGISTERED ASBESTOS CONTRACTOR" in terms of the Asbestos Regulations. [CR 12(9)] (contact the Regional Manager's Office)</p> <p><u>PREAMBLES</u></p> <p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev July 2013 Part A and B) as well as to the "Model Preambles for Trades", SANS 10400 and other equally applicable state supplementary preambles</p> <p>For preambles the tenderer is referred to the "Model Specification of Materials and Methods to be used for Department of Roads and Public Works projects" (PW371, Rev Oct. 1993) as well as to the "Model Preambles for Trades" (1998) and Supplementary preambles below.</p> <p>Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done. The work is to be carried out in sections in accordance with the Architect's instructions in such a manner as to cause the minimum of nuisance and delay and the various sections are to be handed over for occupation as soon as they are completed and Tenderers must allow accordingly for this in their pricing.</p> <p>The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he should be asked for a decision before continuing with the work.</p>			
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<p>ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 9 GENERAL BUILDING WORKS</p>			

Rehabilitation, Renovations & Refurbishment of existing roofs

The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good at his own expense any damage that may occur.

Old materials described as "carefully take out, set aside for re-use and later refix in new position" are to be carefully removed, stored and protected from injury, made good as required and if broken or damaged through taking out, removing, storage, etc, are to be replaced by the Contractor at his own expense. Tenderers are advised to inspect these materials to ascertain their condition and allow accordingly for this in their pricing.

Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for watering the works sufficiently to prevent nuisance from dust.

Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc, and pay all fees in connection therewith and afford every facility to the workmen carrying out this work.

All materials in this section are measured as new except where old material is specifically mentioned as being re-used.

Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, bracing, fittings, etc and broken bricks and other similar material which may be used as filling and hardcore.

Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.

When pricing, Tenderers are to allow as follows:

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Rehabilitation, Renovations & Refurbishment of existing roofs

Where door and window openings, etc, are specified to be filled in, or where jambs, cills, etc are specified to be built up, brickwork shall be of hard burnt clay stock bricks in 5.1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of Travertine facebricks and pointed to match existing. Plaster is to be 5.1 cement plaster unless otherwise specified.

Where lintols are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintol with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintols. Lintols exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.

Where lintols are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintol with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.

The term "take out" includes all work taken out, taken up, taken down, taken off, etc ; the term "break up" includes all work broken up, broken down, broken off, etc and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.

The term "make good" is to include all labour and material required to match existing work.

The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.

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The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc and are to include for the cutting back and stopping off of supply and waste pipes. -----

The contractors unit rates must allow for disposal of disposal or carting away of material, fittings or fixtures so described to a prescribed dumping site as instructed by the Architect

Wire mesh were referenced shall be as follows:

Wire thickness = 3.0mm thick
Strand width = 4.5mm thick
Diamond size = 25mm x 50mm

All windows to have a plastic covering with a low-tak adhesive covering during building process for protection against scratches and other damage. To be removed on architects approval.

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General notes Record Galvanizing prior to painting to determine the starting point of the duplex coating system. Repair mechanical damage with the full paint system after installation if and where required. Adhere to the application instructions as per Sigma datasheets and general paint preamble. Paint shall not be applied in high wind and/or dusty conditions, nor when the steel surface temperature is less than 3° C above dew point, nor higher than that advised by the paint manufacturer, nor when relative humidity is greater than 85%, adhere to PDS for climatic requirements. Application shall be by brush, roller, spray, airless spray or other suitable method as appropriate for the surfaces to be coated and in accordance with Sigma's recommendations. Adhere to the min/max over coating intervals as per product data sheets. If the surface becomes contaminated between coats, the surface shall be washed thoroughly to remove all contamination, prior to application of further coats. A visual inspection for flaws shall be performed after each coat is applied. All flaws including pinholes, holidays, dry spray and sags shall be corrected before the next full coat is applied. The applicator is responsible to have an operational, audited and approved Quality Control and Assurance Program in place. The applicator shall have full time and identifiable supervision on site at all time. The DFT tests are to be conducted by the product manufacturer and are to conform to all requirements and regulations. Failure to achieve the required DFT test will be remedied at the contractor's expense. NB: Refer to annexures for full Sigma specifications. This specification is to be approved by all consultants and the client in writing before the products are ordered and abortive costs are necessary.

GENERAL ALTERATIONS

382 Allow for identification, inspection and making safe of all services (gas, water electricity etc) by Competent persons for the duration of the Contract

SUM

Breaking up and removing

383 Precast concrete copings and waterproofing to top portion of walls at height exceeding 3m high including making good with new plaster

m³ 14

384 Break-out pockets for steel columns stop and reinstate brickwork including making good plaster and paintwork

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 GENERAL BUILDING WORKS

<u>Carefully take out and remove</u>				
385	Brick pavers	m ²	120	
<u>REINFORCED CONCRETE</u>				
<u>Reinforced cement concrete (25 MPa - 19 mm stone) in</u>				
386	Slabs	m ³	24	
387	Beams.	m ³	12	
<u>High tensile steel reinforcement</u>				
388	In various bar sizes	t	3.00	
<u>Brick Up Openings etc</u>				
389	270mm cavity wall in building up opening size 2 400 x 2 400mm and make good including to plaster one side	No	14	
390	Half brick wall in building up opening size 900 x 2100mm and make good including to plaster one side	No	9	
<u>Sundries</u>				
391	Cement Mortar beam filling between tops of walls and u/s roof sheeting to internal skin and cut face bricks to exterior where applicable. Plaster smooth (top of walls) and apply one coat bituminous paint where roof sheeting to touch same	m ³	15	
<u>SITE ESTABLISHMENT</u>				
<u>The following to be fixed and subject to de-establishment and re-establishment to meet the phasing requirements as directed by the PA</u>				
392	Hoarding 2500mm high formed of timber boarding, blockboard sheeting or similar splinter free material painted one side with two coats PVA, including poles, bearers, bracing, etc. firmly secured, with and including taping hoardings all round to form a dust proof screen, all removed upon completion of sections of work and including making good floors and walls where applicable	m	200	
Carried to Abstract				
ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 9 GENERAL BUILDING WORKS				R

Rehabilitation, Renovations & Refurbishment of existing roofs

393	Extra on hoarding for single builders access door 1 m wide	No	1	
394	The contractor shall provide, maintain and remove a at achievement of final completion air conditioned office accommodation size 12 x 3m with suitable tables and chairs for meetings to be held on the site. Such offices shall be kept clean and fit for use at all times for the Duration of the contract			SUM
<u>Take out and remove</u>				
395	Damaged ceiling tiles	m ²	3 348	
396	Neatly remove existing taperceiling and light fittings. Light fittings to be removed by registered electrician and all electrical conduits in ceiling void made safe. Contractor to inspect existing branders and roof structure and notify the Architect of the condition thereof			SUM
397	Ceiling boards including brandering and leave trusses ready to receive new ceiling boards and brandering	m ²	714	
<u>Hack out and remove</u>				
398	Remove loose plaster and paint, expose all cracks and clean with compressed air and remove fine and loose material inside cracks, chisel out a V-shape, fix in grouting nipples in the V-groove on the surface of the concrete at 150-200 mm c/c, seal all cracks with 1:4 cement mortar, stop and allow mortar to gain strength, apply one coat Sika concrete repair and waterproofing compound, clean off dust and saturate concrete with water, stop, apply one coat plaster and leave surface ready to receive new paint (New paint elsewhere measured)	m ²	1 657	
<u>Cutting down and removing, grubbing up roots and filling in holes</u>				
399	Tree exceeding 500mm and not exceeding 1000mm girth	No	1	
400	Tree exceeding 1000mm and not exceeding 1500mm girth	No	3	
Carried to Abstract				R
ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 9 GENERAL BUILDING WORKS				

Rehabilitation, Renovations & Refurbishment of existing roofs

<u>Waterproofing concrete faces</u>				
401	Two coat approved bituminous emulsion coating to top and vertical face of concrete ceilings as the work proceeds.	m ²	400	
402	Sikaflex 11FC polyurethane flexible joint sealant to be applied at horizontal and vertical junctions internally and externally as per manufacturer's specification. Sealant to be paintable.	m	85	
403	Stepped Bitumen self-adhesive waterproofing Membrane DPC in Brickwork.	m ²	320	
404	Sika® RainTite® Kit DIY flexible UV resistant acrylic emulsion waterproofing system colour to architects approval applied in accordance with the manufacturer's recommendations including G1 non-woven polyester reinforcing membrane	m ²	165	
405	Carlisle SureSeal EPDM 45mil single ply membrane to be fully adhered to approved substrate using Carlisle Low VOC bonding adhesive. Perimeters to be mechanically fastened using Carlisle zinc alloy termination bars in conjunction with Carlisle LAP Sealant and Water cut-off mastic. All corners, termination through substrate and details to be done according to Carlisle spec using Carlisle pressure sensitive Elastoform flashing, HP-250 primer and LAP sealant. Seams of membrane to be done according to Carlisle spec using Carlisle 3 inch SecurTape and HP-250 Primer. The contractor is to engage with the above mentioned supplier to solicit the required 15 year guarantee on the materials and workmanship, which is to be provided to the client under the joint names of the contractor and the product supplier. The contractor is to ensure that the supplier inspects the works at regular intervals during the application process and is satisfied that the required application methodology is followed. Certificate in the joint names is to be issued to the PA and client on practical completion	m ²	330	
406	Penatron concrete additive	l	120	
<u>Approved flexible reinforced glass fibre waterproofing</u>				
407	Bandage cover flashing strip 200mm wide including sealing edges	m	220	
Carried to Abstract				R
ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 9 GENERAL BUILDING WORKS				

PAVING

408	Excavate in earth to reduce levels not exceeding 2 m deep.	m ³	48
409	Extra over all excavations for carting surplus excavated material from the site.	m ³	48
410	Scarify ground to a depth of 150 mm and re-compact to 93% Mod. AASHTO density.	m ²	120
411	Approved G5 material as filling compacted in 150 mm layers to 93% Mod. AASHTO density.	m ³	18
412	Approved G7 material as filling compacted in 150 mm layers to 93% Mod. AASHTO density.	m ³	12

220 x 110 x 60mm concrete brick paving with minimum longitudinal fall of 1% on a transverse fall of at least 2% on 25mm compacted sand bed with 10mm joints filled with 1:10 cement sand fine jointing sand swept and vibrated into joints.all laid on subgrade conforming to SANS 1200 D Degree of Accuracy 1 including inspection and re-sanding after 3 months.

413	Paving to Herringbone Bond pattern	m ²	120
414	Pointing only to edge of paving.	m	40
415	220mm Wide brick-on-flat tread including 10mm thick mortar bed and pointing to top and one face.	m	20

One Layer 250 Micron Waterproof Sheeting

416	One layer 250 micron polyethylene waterproof sheeting in accordance with SABS 952 Type C lapped 150 mm at joints and sealed with pressure sensitive tape and laying under paving.	m ²	120
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Sundries

417	Tricate or other approved weed killer in proportion 168kg to 1124 litres of water per hectare plus Agrol 90 sprayed onto surfaces of ground under floors, etc.	m ²	240
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Carried to Abstract

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418 Unreinforced concrete storm water channels in shapes as detailed, Class E 25Mpa/19mm stone. Cast in alternate panels of 2m lengths. Polyethylene foam joints every 3rd panel with same between walls and slabs with 10mm expanded polyethylene expansion joint fixed to walls at 400mm centres with 40mm galv. nails, joint to be primed with polyurethane foam sealing strip and sealed at slab level with 10 x 10mm poly-sulphide sealant. Apron to be finished with Broom finish, to architect's approval. Edges to be rounded with 20mm smooth nosing finish. m 80

419 400 x 600mm storm water grate & frame approx. 127kg ci No 12

NAILED UP CEILINGS

9.5mm plasterboard fixed to 38 x 38mm SAP battens with drywall screws at minimum 400 centres. All joints to be covered with 25mm x 6mm hardwood cover strip, fixed to ceiling board

420 Horizontal ceilings fixed with ivoryside downwards to and including 38 x 38mm sawn pine brandering at 400mm centres in one direction and behind all joints and with additional brandering at outer edges of rooms. m² 714

Sundries

421 102mm cavity bat insulation installed over ceilings m² 714

422 Extra for cutting opening not exceeding 150mm diameter through gypsum nailed up ceiling for down lighters No 120

423 75 x 75mm Coved cornice m 2 160

SUSPENDED CEILINGS

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	<u>OWA Constellation Acoustic panels on Donn pre-painted exposed tee suspension system including main and cross tees, and all necessary hangers, grids, etc.</u>			
424	15mm thick OWA Constellation acoustic mineral wool ceiling tiles size 1200 x 600 with square edge (finish colour: white) laid on OWA Acoustic Premium S3 pre-painted exposed T24 tee suspension system including galvanised main tees, cross tees, hold down clips, wedges, reinforcement splines, etc., all suspended with galvanised hangers at centres not exceeding 1200mm, with ceiling perimeter finished with OWAconstruct® Shadowline W trim plugged at 200mm centres, and all installed to manufacturer's instructions. Refer to ceiling plan for layout	m ²	3 348	
	<u>Fibre-reinforced cement ceilings</u>			
425	6 mm Nutec Fibre-reinforced cement medium density sheeting fixed to and including 38 x 38 mm Sawn S A Pine brander spacing spaced at 400mm centres one way or less as necessary and behind all joints, suspended 600mm high below timber rafters at 750mm centres and with joints between boards covered with and including H - Profile joining strips.	m ²	450	
	<u>Cornices</u>			
426	Donn M6 wall angle trim to match exposed tee system plugged to wall	m	1 512	
427	70mm Nutec Coved cornice plugged to wall.	m	1 080	
	<u>Sundries</u>			
428	Extra for cutting opening not exceeding 150mm diameter through suspended ceiling for extract air valve	No	80	
429	Ditto not exceeding 300mm diameter ditto for downlighters	No	185	
430	100mm Thick mineral wool or or equally approved blanket type fibreglass insulation laid on top of suspended ceilings.	m ²	2 589	
431	Extra for traps doors size approximately 600 x 600mm with and including forming openings etc	No	4	
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	ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 9 GENERAL BUILDING WORKS			R

	<p><u>Minor crack - width 0.5 mm to 5.0 mm</u></p>			
<p>432</p>	<p>Remove the plaster in the vicinity of crack exposing cracked brickwork, clean the crack with the compressed air ensure that fine and loose material inside the crack has been removed, chisel out a V-shape, fix in grouting nipples in the V-groove on the faces of the wall at 150-200 mm c/c, seal the crack on both faces of the wall with 1:4 cement mortar, stop and allow mortar to gain strength, clean off dust and saturate brickwork with water and leave brickwork ready to receive new plaster (New plaster elsewhere measured)</p>	<p>m²</p>	<p>324</p>	
	<p><u>Major crack - width more than 5.0 mm</u></p>			
<p>433</p>	<p>Remove the plaster in the vicinity of the crack (350mm width on each side of crack) exposing the brickwork and chisel out a V shape, clean the crack with compressed air and ensure that dirt, fine and loose material are removed completely, fix in grouting nipples in the V-groove on both faces of the wall at spacing of 150-200 mm c/c, seal the crack on both the faces of the wall with ABE epidermix 365 or other equally approved crack injection compound, nail fix a diamond wire mesh over the sealed crack (spanning at least 300mm diameter on either side of the crack) with and including holding it to the wall through spikes or bolts at 300mm c/c and leave surface ready to receive new plaster (Plaster elsewhere measured)</p>	<p>m²</p>	<p>324</p>	
	<p><u>Two Coat Plaster Composed Of 4.1 Cement Plaster Basecoat And 4.1 Cement Plaster Finishing Coat On</u></p>			
<p>434</p>	<p>Mesh covered brickwork (Brickwork and mesh elsewhere measured)</p>	<p>m²</p>	<p>194</p>	
	<p><u>ALUMINIUM DOORS ETC</u></p>			
	<p style="text-align: center;">Carried to Abstract</p> <p>ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 9 GENERAL BUILDING WORKS</p>			<p style="text-align: center;">R</p>

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	<p><u>Powder coating to be QUALICOAT SEASIDE with nominal 60/80 micron coating thickness, applied by an approved applicator and mark holders of SANS 1796 and QUALICOAT SEASIDE (application of powder) approved by the powder manufacturer. Powder to be in accordance with SANS 1578. Powder to be supplied by an approved powder manufacturer and mark holder of QUALICOAT SEASIDE (powder). Colour: TBC by Architect in writing</u></p>			
<p>435</p>	<p>1500 x 1620mm overall (including frame) Double Aluminium louvre panel door with Y-blade and vermin mesh, with double bottom rail kick plate complete with ironmongery. Suitable for coastal conditions to be manufactured and installed by AAAMSA members only. Plugged and screwed to brickwork, the aluminium frame to suite door, suitable for coastal conditions with cill for external door opening out. Cill to finish flush with internal floor finish</p>	<p>No</p>	<p>7</p>	
	<p><u>Colour :ANP 37030 - EXTERIOR STONE GREY MATT Powder coating to be 60/80 micron coating thickness, applied by an approved applicator and mark holders of SANS 1796. Powder in accordance of SANS 1578</u></p>			
<p>436</p>	<p>2000 x 850mm high purpose made TROX AWG Weather resistant Louvre with stainless steel insect-proof mesh, rodent-proof mesh and dust proof layer Where louvres are installed in brickwork, openings are to be lined with 114 x 32mm treated SA Pine timbers plugged and screwed into brickwork. Louvres to be fixed to timber linings. Where Louvres are installed in side wall cladding, louvres to be supported on sheeting and sag rails by engineer with material break installed between aluminium louvre and steelwork. The door complete with ironmongery. Suitable for coastal conditions to be manufactured and installed by AAAMSA members only.</p>	<p>No</p>	<p>5</p>	
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437	850 x 850mm high purpose made TROX AWG Weather resistant Louvre with stainless steel insect-proof mesh, rodent-proof mesh and dust proof layer Where louvres are installed in brickwork, openings are to be lined with 114 x 32mm treated SA Pine timbers plugged and screwed into brickwork. Louvres to be fixed to timber linings. Where Louvres are installed in side wall cladding, louvres to be supported on sheeting and sag rails by engineer with material break installed between aluminium louvre and steelwork. The door complete with ironmongery. Suitable for coastal conditions to be manufactured and installed by AAAMSA members only.	No	4	
<u>SCREEDS</u>				
<u>Screeds on concrete</u>				
438	30mm Thick on floors and landings	m ²	350	
<u>EXTERNAL PLASTER</u>				
<u>15mm 1:5 Smooth steel trowel cement plaster finish (externally in decorative patterns as per elevation). Prepare all blemishes - filled and sanded to approved finish. Galvanised wire chicken netting with 13mm hexagonal holes to be put over chased work in plaster</u>				
<u>On brickwork (small part on flush concrete surfaces)</u>				
439	Walls	m ²	550	
440	Parapet Walls	m ²	120	
441	Walls in narrow widths not exceeding 300mm wide	m ²	72	
<u>INTERNAL PLASTER</u>				
<u>1:4 Internal Crestone Gypsum skimmed plaster in two layers finished to a true and even surface with a steel trowel</u>				
<u>On brickwork (small part on flush concrete surfaces)</u>				
442	Walls	m ²	1 150	
443	Walls in narrow widths not exceeding 300mm wide	m ²	150	
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444	<p><u>On concrete</u></p> <p>Soffit of slab</p>	m ²	700	
<p><u>PAINTWORK, ETC. ON PREVIOUSLY PAINTED WORK</u></p>				
<p><u>ON PLASTER ETC.</u></p>				
<p><u>NB: Contractor to obtain written approval from the client and professional team of sample panels for the plastering and painting before proceeding. The plastering and painting is to conform to the highest possible standard, the adjudication of this will be strictly at the discretion of the architect and the client.</u></p>				
<p><u>Clean down to remove all loose paint, including sandblasting or wirebrushing where necessary, wash with sugar soap, rinse, make good where necessary and fill cracks with Polyfilla and sand down, apply one coat Dulux Trade Trade Ecosure Plaster Primer thinned 20% with mineral turpentine, two coats Dulux Easycare Matt, the final coat with fungicide additive on</u></p>				
445	Concrete ceilings	m ²	1 657	
<p><u>Clean down to remove all loose paint, including sandblasting or wirebrushing where necessary, wash with sugar soap, rinse, make good where necessary and fill cracks with Polyfilla and sand down, apply one coat Plascon Plaster Primer and two coats Plascon Double Velvet the final coat with fungicide additive on</u></p>				
446	Plastered ceilings	m ²	1 514	
<p><u>Two coats "Brixéal" bitumen emulsion waterproof coating</u></p>				
447	On brick walls	m ²	108	
<p>Carried to Abstract</p>				
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	<p><u>Clean down to remove all loose paint, including sandblasting or wirebrushing where necessary, wash with sugar soap, rinse, make good where necessary and fill cracks with Polyfilla and sand down apply one coat Dulux Trade Trade Ecosure Plaster Primer thinned 20% with mineral turpentine, two coats Dulux Easycare Matt, the final coat with fungicide additive on</u></p>	m ²	6 480	
448	Internal plastered walls			
	<p><u>Remove all loose plaster up till bare brick. Wash with sugar soap, rinse, make good where necessary and fill cracks with Polyfilla. Apply plaster binder and waterproofing sealant on bare brick, make good by re-plastering with a strong 3:1 cement sand mix. Smooth down to meet surrounds. Apply one coat Dulux Trade Trade Ecosure Plaster Primer thinned 20% with mineral turpentine, two coats Dulux Easycare Matt, the final coat with fungicide additive on</u></p>			
449	Internal plastered walls	m ²	820	
	<p><u>Prepare, apply one coat Plascon Merit Plaster Primer stop and apply two coats Dulux Pre-paint Dampshield applied to a minimum dry film thickness of 100 micron and apply two full coats Dulux Wall guard on</u></p>			
450	External walls	m ²	742	
	<p><u>ON WOOD</u></p>			
	<p><u>Sand and clean down to bare surface, remove all dust, stop and apply one coat varnish diluted 20% with mineral turpentine and two coats varnish lightly sanded on</u></p>			
451	Doors	m ²	533	
	<p><u>ON STEEL WORK</u></p>			
	<p style="text-align: center;">Carried to Abstract</p>			R
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The surface shall be thoroughly washed and cleaned to remove all contaminants. Use an industrial metal cleaner with scotch bright pads to degrease the entire area to achieve a "Water break free condition".

Primers : (Site or Shop application) Apply to bare steel 1 coat primer Sigmaprime 200 green (7416), NDFT 100um. Intermediate coat: (Site or Shop application) Stripe coat all welds, crevices and edges, prior to a full coat Sigmacover 350 lt grey / off white (7970), NDFT 100um. Finishing coat: (Site or Shop application) Apply 1 finishing coat of Sigmadur 550 (7537), NDFT 50um. Colour as per architect/engineer /asset owner.

452 General steelwork m² 2 450

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Item No	Quantity	Rate	Amount R
<p><u>BILL NO. 10</u></p>			
<p><u>SMME PACKAGES</u></p>			
<p><u>The following provisional sums are for work to be executed by the Small, Medium and Micro Enterprises, which will be regarded as direct domestic sub-contractors to the contractor. The contractor must call for quotations from firms approved by the Client in accordance with the conditions of contract and in conjunction with the Management Team for consideration. Tenderers are advised that it is a condition of the tender that where SMME's cannot be found, can not proceed or fail to complete the work, the Main Contractor will complete the work at his own tendered rates as per Section 2, 3 and 4. Tenderers to take note that a portion of the building works, excluding specialist work, are to be contracted to SMME's. Provisional Sums are provided for this purpose and bids will be called for after award for these packages on a domestic sub- contractor basis. The Tenderer is to price all associated administrative, supervision, mentoring costs, profit and attendance in the relevant sections of the Preliminaries as no claims for additional costs will be entertained. The portion is made up of all building works excluding the following:</u></p>			
<p><u>Preliminaries and General Provisional Sums</u> <u>Electrical Specialist Works</u> <u>Mechanical Specialist Works</u> <u>Escalation and</u> <u>Contingencies</u></p>			
<p><u>These are monetary provisions only and the use, value and payment thereof are subject to adjustment based on actual costs through contractually approved variation orders calculated in terms of the prescribed contractual directives</u></p>			
<p>Carried to Abstract</p>			R
<p>ANDRIES VOSLOO : RENOVATIONS AND UPGRADE Bill No. 10 SMME PACKAGES</p>			

SMME Domestic sub-contract packages to be implemented are below. The Bills of Quantities for the packages shall be provided to the successful bidder (Contractor) to obtain prices from SMME sub Contractors. The Employer to approve list of subcontractors and preferred sub-contractors prior to appointment of such SMME Domestic Sub-contractors
SMME CONTRACTS - DOMESTIC SUBCONTRACT PACKAGES. All envisaged costs related to SMME packages to the Contractor shall be priced under Preliminaries

The following provisional sums cover the complete supply and installation of material and equipment by firms of SMME contractors to be direct domestic sub-contractors and are NETT, that is the sum does not include for builders discount

The Contractor may allow under the "profit" item for any profit he considers necessary. If the Contractor allows an amount for profit, this amount will be adjusted in direct proportion to the final value of the SMME work

Each provisional sum in this bill is followed by an item under which the Contractor may allow for attendance on the specific SMME sub-contractor

Attendance on Domestic Sub-contractors
 The amounts of the items for "Attendance" are to allow for giving every facility to attending upon and making good in all trades after the SMME sub-contractors have completed their work, for providing the use of all water, electricity, storage space for materials, etc. the use of general amenities, i.e. latrines, etc., for the SMME sub-contractors and their workmen. For maintaining conduits, sleeve pipes, etc. in position during the building operations and providing the use of all ordinary scaffolding and plant. The Contractor is to leave erected scaffolding in position for the period required for work by the domestic sub-contractors under this contract

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The following provisional sums cover the complete supply and installation of material and equipment by firms of SMME contractors to be direct domestic sub-contractors and are NETT, that is the sum does not include for builders discount. The contractor must call for quotations from firms approved by the Employer in accordance with the conditions of contract and in conjunction with the Management Team for consideration. (at least three responsive quotations are required)

The Contractor may allow under the "profit" item for any profit he considers necessary. If the Contractor allows an amount for profit, this amount will be adjusted in direct proportion to the final value of the SMME work Each provisional sum in this bill is followed by an item under which the Contractor may allow for attendance on the specific SMME sub-contractor. Attendance on Domestic Sub-contractors

The amounts of the items for "Attendance" are to allow for giving every facility to attending upon and making good in all trades after the SMME sub-contractors have completed their work, for providing the use of all water, electricity, storage space for materials, etc. the use of general amenities, i.e. latrines, etc., for the SMME sub-contractors and their workmen. For maintaining conduits, sleeve pipes, etc. in position during the building operations and providing the use of all ordinary scaffolding and plant. The Contractor is to leave erected scaffolding in position for the period required for work by the domestic sub-contractors under this contract

COMMUNITY LIAISON OFFICER

- 453 Provide the sum of R 120 000 (One Hundred and Twenty Thousand Rand) nett for the employment, on a full time basis for the duration of the contract of a Community Liaison Officer, (R6,000.00 per month gross salary)
- 454 Allow for Profit.
- 455 Allow for Attendance

Item	120 000.00
Item	
Item	

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<u>LOCAL LABOUR INTENSIVE TRAINING</u>			
456	Provide the sum of R375,000.00 (Three Hundred and Seventy Five Thousand Rand) nett for formal training, administration, transport and accommodation of local labourers	Item	375 000.00
457	Allow for Profit.	Item	
458	Allow for Attendance	Item	
<u>APT COD STUDENTS</u>			
459	Provide the sum of R 220 000-00 (Two Hundred and Twenty Thousand Rand) for the employment and utilisation of 3 (Three) APTCOD tested and trained Artisans on the project	Item	220 000.00
460	Allow for Profit.	Item	
461	Allow for Attendance.	Item	
<u>GRADUATE</u>			
462	Provide the sum of R 160 000-00 (One Hundred and Sixty Thousand Rand) for the provision of experiential training and work opportunities for one built environment graduate (R 8 000 / Month)	Item	160 000.00
463	Allow for Profit.	Item	
464	Allow for Attendance.	Item	
<u>INTERNS</u>			
465	Provide the sum of R 220 000-00 (Two Hundred and Twenty Thousand Rand) for the provision of two interns (R 5 500 / Month x 2 Interns)	Item	220 000.00
466	Allow for Profit.	Item	
467	Allow for Attendance.	Item	
<u>PROJECT STEERING COMMITTEE</u>			
468	Provide the sum of R 60 000-00 (Sixty Thousand Rand) for the provision of monthly payments to a maximum of four (4) PSC members for the duration of the contract (R500 per month per PSC member)	Item	60 000.00
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469 Allow for Profit.

Item

470 Allow for Attendance

Item

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	Electrical and Mechanical Installations - Carried to final summary from Electrical Engineers bills of quantities annexed herewith (Refer to Electrical Engineers Bills of Quantities)		SUM
	Allow the sum of R 500 000 (Five Hundred Thousand) for Contingencies to be used or deducted in full at the Principal Agent's discretion.		R 500 000.00
	ESCALATION		
	Include the sum of R540 000,00 (Five hundred and forty thousand Rand) for Escalation	Item	540 000.00
	Sub Total		R
	<u>PLUS</u> : 15% V.A.T.		R
	TOTAL CARRIED TO FORM OF TENDER		R

C3 SCOPE OF WORK

C3.1 SCOPE OF WORKS

Andries Vosloo Hospital is located on erf 1332, in Worcester Street on the R63 as one enters Somerset East from the south. The site is effectively divided in 2 by the main access road which has controlled gates from both Worcester and Hospital Roads. The eastern portion of the site is where all clinical spaces and functions are housed whereas the western portion houses support facilities such as laundry, nurses college and housing. The site is effectively divided in 2 by the main access road which has controlled gates from both Worcester and Hospital Roads. The eastern portion of the site is where all clinical spaces and functions are housed whereas the western portion houses support facilities such as laundry, nurses college and housing.

The hospital has a number of leaking rooves to the extent that certain areas have been vacated. Those that are not yet vacated pose a serious health and safety risk from slipping and falling as well as mould build up which causes asthma and other related lung infections.

The proposed works comprises the repairs and replacement of rooves to all clinical buildings, kitchen and laundry. In addition to these roof works; limited ceiling repairs and replacement will take place where required. Ceiling work is limited to the top floor of each block.

The planned remedial work will be undertaken to the following blocks, Block A, B, C, D, E, walkway blocks F, G & H as depicted in the image below.

A number of the blocks are multistorey buildings and will entail working at heights. Furthermore, the buildings are occupied and careful consideration will need to be made to accommodate staff, patients and disrupted work flow. Decanting of spaces are proposed below but will be subject to final confirmation and coordination by the client and successful contractor prior to site handover.

The work will be phased and will embrace temporary decanting and sectional completions.



Image 1: Andries Vosloo Hospital, indicating blocks to be renovated

EXISTING ROOF TYPOLOGY AND PROPOSED REPLACEMENT METHODOLOGY

The existing rooves consist of 4 different typologies:

- 1) Reinforced concrete roof with waterproofing membrane,
- 2) Sheeted roofs on steel trusses with box gutters,
- 3) Sheeted roof on steel trusses with standard eaves gutters,
- 4) Sheeted roof on timber trusses with eaves gutters.

All blocks consist of 1 or a combination of the above-mentioned roof typologies.

The above roof types will be repaired and altered to comply with one of the following repair methods:

Type A-Concrete Roof:

Several services that are critical for the day-to-day functioning of the hospital run over these concrete rooves. It is impractical and costly to relocate/replace these services in order to reinstate the waterproofing. Furthermore, due to the hospital having to remain operational on the various floors below; the services cannot be altered or stopped for any extended period of time. These membrane waterproofing systems are costly and require specialist skill to maintain and repair with no specialist contractors available in Somerset East. In these circumstances a steel portal frame will be erected over the concrete roof. Steel columns will be cut and secured through the existing parapet walls. Once portals are in place new foil type insulation and concealed fix sheeting and gutters will be installed. Installation is to be completed with all flashings, trimmings, louvres and ventilators as per detailed drawings.

Type B- Sheeted Roof with Box Gutters:

Existing steel sheeting is secured with steel hook bolts onto steel purlins and supported on steel trusses. The sheeting is to be removed as well as the existing box gutters. The existing steel trusses are to be altered to allow water to fall over the parapet walls rather than into box gutters. Once trusses have been altered new foil type insulation and concealed fix sheeting and gutters will be installed. Installation is to be

completed with all flashings, trimmings, louvres and ventilators as per detailed drawings.

Type C- Sheeted Roof on Timber Trusses:

Existing steel sheeting is secured with steel roofing screws onto timber purlins on timber trusses. The existing sheeting is to be removed; new foil type insulation and concealed fix sheeting and gutters will be installed. Installation is to be completed with all flashings, trimmings, louvres and ventilators as per detailed drawings.

Type D-Concrete Roof 2:

In these circumstances a new timber truss will be erected over the existing concrete roof. New timber wall plates will be secured to the existing parapet walls. Once new timber trusses are in place new foil type insulation and concealed fix sheeting and gutters will be installed. Installation is to be completed with all flashings, trimmings, louvres and ventilators as per detailed drawings.

Type E- Sheeted Roof on Steel Trusses:

Existing steel sheeting is secured with steel hook bolts onto steel purlins on steel trusses. The existing sheeting is to be removed; new foil type insulation and concealed fix sheeting and gutters will be installed. Installation is to be completed with all flashings, trimmings, louvres and ventilators as per detailed drawings.

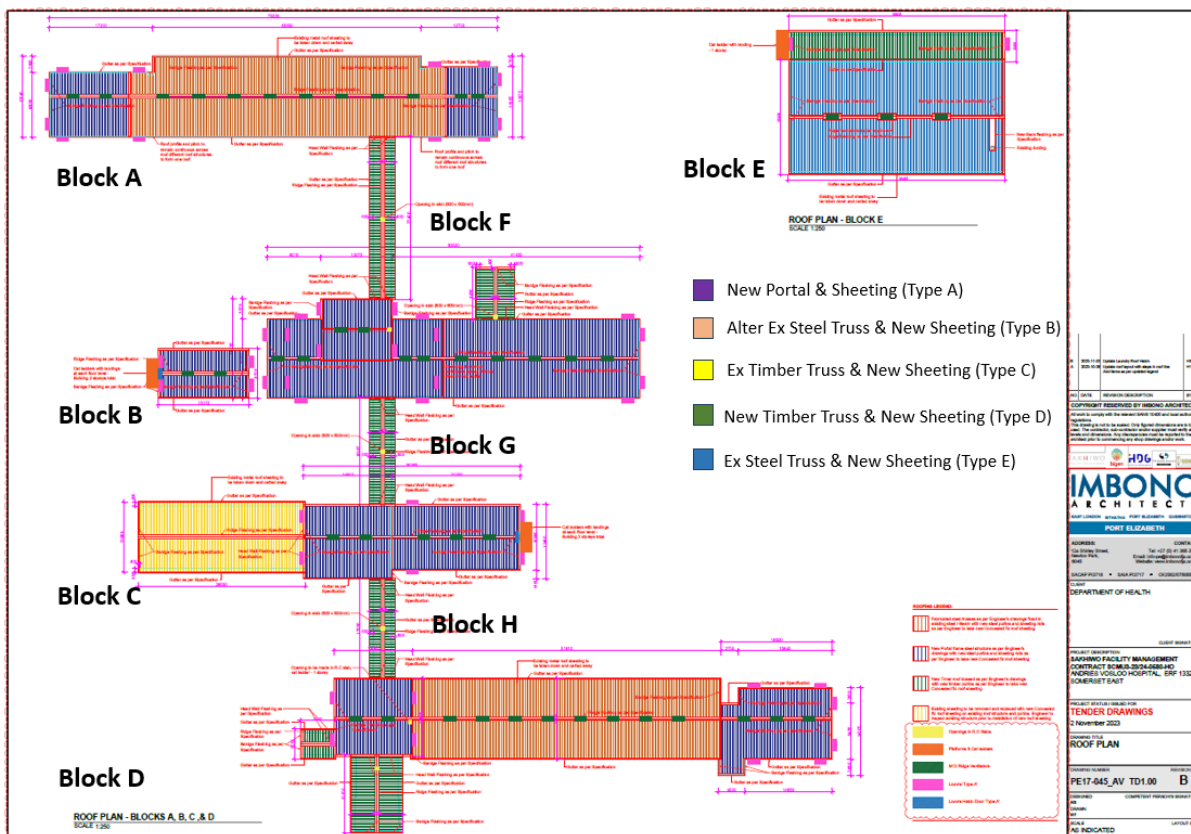


Image 2: Andries Vosloo Hospital, Drawing depicting Roof works required per block.

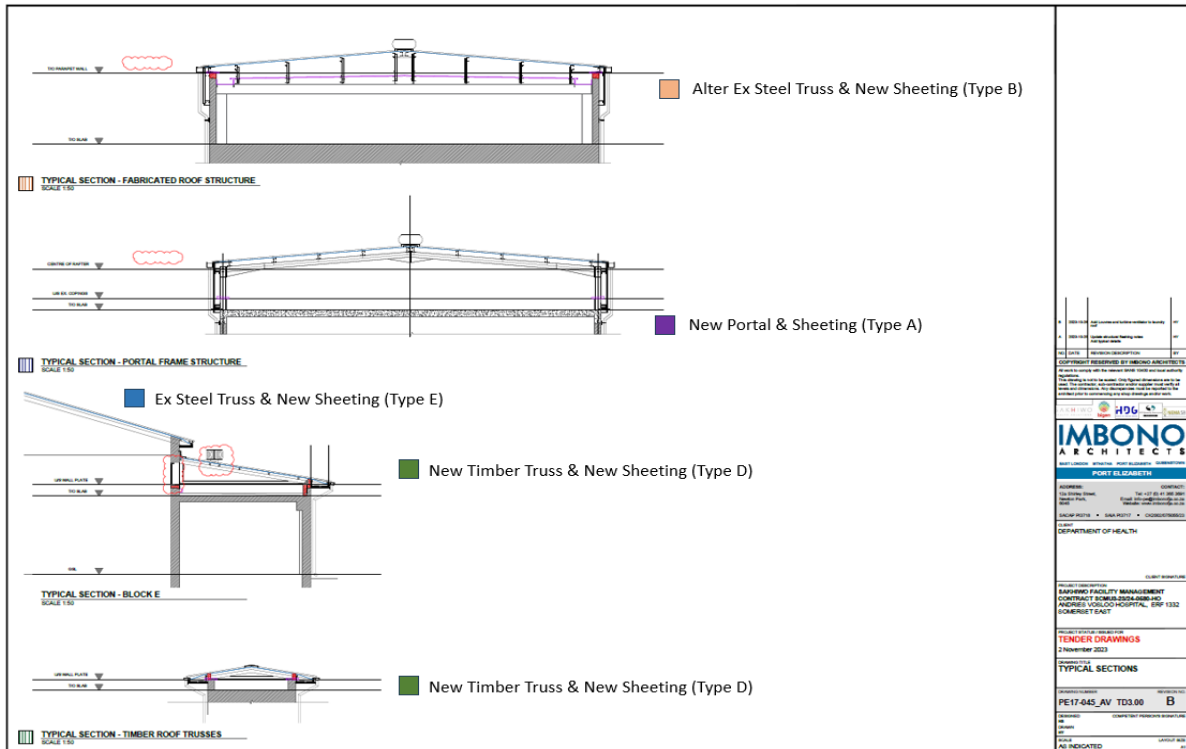


Image 3: *Andries Vosloo Hospital, Drawing depicting Roof Typologies.*

Access to Roof Spaces Post Construction:

Where existing service staircases do not allow free access to roof spaces once the new trusses are installed access to the remaining roof spaces will be via new galvanised cat ladders or through new hatches cut through the existing concrete slabs. In order to identify the ideal position for these new concrete slab hatches the slab will need to be x-rayed and the engineer will instruct the contractor accordingly. This x-raying of concrete slabs will need to be conducted within the first month of the contractor taking to site. The contractor is to then allow for a 6-week period for the engineer to inspect the reports and to issue instructions accordingly.

Shop drawings will need to be provided by the contractor for all steel installations including portal frames, trusses alterations, new steel and timber trusses and cat ladders etc.

EXISTING CEILING TYPOLOGY AND PROPOSED REPAIR METHODOLOGY

The existing ceilings consist of 3 different typologies:

- 1) Reinforced concrete soffit, plastered and painted,
- 2) 1200 x 600mm drop in ceiling tiles,
- 3) Nail up ceilings with cover strips. ,

All blocks consist of 1 or a combination of the above-mentioned ceiling typologies. Ceiling repairs will be limited to the floors directly below the roof level. No further ceiling repairs will be undertaken.

The above ceilings types will be repaired and altered to comply with one of the following repair methods:

CEILING TYPE A:

Concrete Soffit with plaster and paint finish:

- 1) Remove existing light fittings.
- 2) Loose and flaking paint, plaster and concrete to be removed and repaired.

- 3) Concrete repairs include limited repairs to rusted rebar in patches.
- 4) Make good all finishes to match existing.
- 5) Replace old light fittings as per electrical engineers' instructions.

CEILING TYPE B:

1200 x 600mm Drop in Ceiling Tiles:

- 1) Remove existing light fitting to affected area only.
- 2) Remove existing board from elsewhere and patch into areas where boards are to be replaced.
- 3) In limited areas existing ceiling T system is to be replaced.
- 4) Make good all finishes to match existing.
- 5) Replace old light fittings as per electrical engineers' instructions.

CEILING TYPE C:

Existing nail up type ceilings with cover strips.

- 1) Remove existing light fittings.
- 2) Remove boards that are damaged and replace to match existing.
- 3) Loose and flaking paint to be removed.
- 4) Make good all finishes to match existing.
- 5) Replace old light fittings as per electrical engineers' instructions.

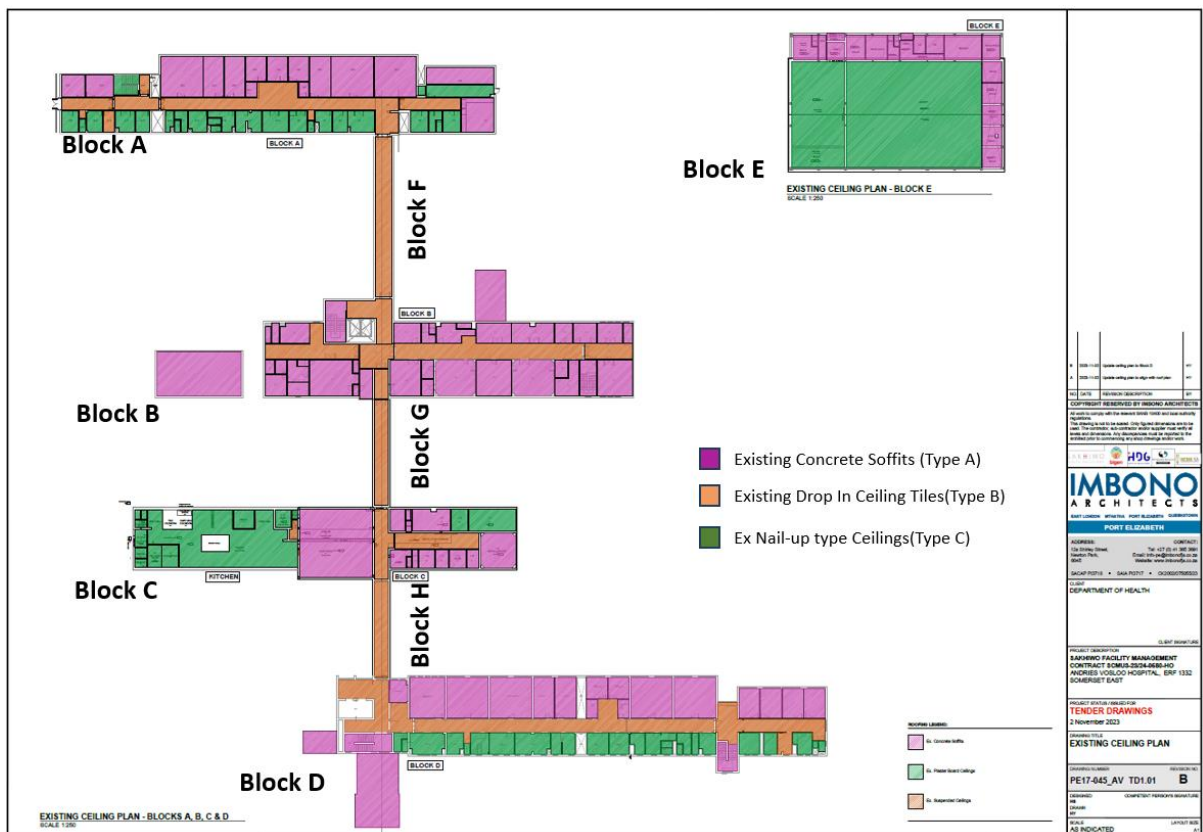


Image 4: Andries Vosloo Hospital, Drawing depicting Ceiling Typologies.

All blocks consist of 1 or a combination of the above-mentioned ceiling typologies.

The above roof types will be repaired and altered to comply with one of the following repair methods:

SCOPE OF WORKS PER BLOCK

BLOCK A:

Block A consists of 2 roof types:

- 1) exposed concrete roof with degraded membrane waterproofing and
- 2) existing steel truss with sheeting and box gutter.

Following the above- repair typologies Type A and Type B will be implemented.

Parapet walls are to be prepared to install new portal frames, new insulation and sheeting complete with gutters, trims, ventilators and cat ladders installed where required.

Existing lightning protection is to be neatly removed and reinstated as per engineers' details by specialist sub-contractors.

Ceilings will be repaired internally in limited areas.

BLOCK B:

Block B consists of 1 roof type:

- 1) exposed concrete roof with degraded membrane waterproofing

Following the above- repair typologies Type A will be implemented.

Parapet walls are to be prepared to install new portal frames, new insulation and sheeting complete with gutters, trims, ventilators and cat ladders installed where required.

Existing lightning protection is to be neatly removed and reinstated as per engineers' details by specialist sub-contractors.

Ceilings will be repaired internally in limited areas.

BLOCK C:

Block C consists of 2 roof types:

- 1) exposed concrete roof with degraded membrane waterproofing and
- 2) existing timber trusses with sheeting and eaves gutters.

Following the above- repair typologies Type A and Type C will be implemented.

Parapet walls are to be prepared to install new portal frames, new insulation and sheeting complete with gutters, trims, ventilators and cat ladders installed where required.

Existing sheeting on timber purlins is to be removed, purlins replaced and new concealed fix sheeting installed. New fascias and eaves will be replaced where damaged beyond economic repair.

Existing lightning protection is to be neatly removed and reinstated as per engineers' details by specialist sub-contractors.

Ceilings will be repaired internally in limited areas.

BLOCK D:

Block D consists of 2 roof types:

- 1) exposed concrete roof with degraded membrane waterproofing and
- 2) existing steel truss with sheeting and box gutter.

Following the above- repair typologies Type A, Type B and Type D will be implemented.

Parapet walls are to be prepared to install new portal frames, new insulation and sheeting complete with gutters, trims, ventilators and cat ladders installed where required.

Existing lightning protection is to be neatly removed and reinstated as per engineers' details by specialist sub-contractors.

Ceilings will be repaired internally in limited areas. Complete ceiling replacement to currently vacated east wing of block D. Drop in Ceiling boards that can be salvaged will be used to patch in other blocks.

BLOCK E:

Block E consists of 2 roof types:

- 1) exposed concrete roof with degraded membrane waterproofing and
- 2) existing steel trusses with sheeting and eaves gutters.

Following the above- repair typologies Type D and Type E will be implemented.

Parapet walls are to be prepared to install new timber trusses, new insulation and sheeting complete with gutters, trims, ventilators and cat ladders installed where required.

Existing sheeting on timber purlins is to be removed, purlins replaced and new concealed fix sheeting installed. New fascias and eaves will be replaced where damaged beyond economic repair.

Existing lightning protection is to be neatly removed and reinstated as per engineers' details by specialist

sub-contractors.
Ceilings will be repaired internally in limited areas.

DECANTING AND SECTIONAL COMPLETION

The works will be undertaken as one phase with various Sectional Completion milestones.

Section 1: Block B (Theatre and Radiology Block) Block G and Part Block D (East Wing only), 4 Months

Measuring for preparation of shop drawings can commence with taking to site and work can follow with priority to be given to repairing the roof over the theatres in order for daily operations to be reintroduced as soon as possible. Ceiling repairs commencing once roof is watertight. Block B will be decanted to Lilita Nursing College on the hospital grounds. Block D East wing is already vacated and access will be limited from outside the building only.

Section 2: Block A (Paeds Male and General Wards) and Block F, 4 Months

Block A is to be vacated and all patients and staff moved to Block D. Manufacture of portal frames can commence during Section 1 construction. Actual construction however can only commence after completion of section 1.

Section 3: Block C (Kitchen and Dentistry) and Block H, 4 Months

Measuring for preparation of shop drawings can commence with taking to site. Manufacture of portal frames can commence during Section 1 construction. Actual construction however can only commence after completion of section 2.
Block C is to be vacated and all patients and staff moved to an off-site clinic where services will be rendered.

Section 4: Block D (Wards & Allied Professionals) , 5 Months

Measuring for preparation of shop drawings can commence with taking to site. Manufacture of portal frames can commence during Section 3 construction. Actual construction however can only commence after completion of section 1.
Block D is to be vacated and all patients and staff moved to Block A.

Section 5: Block E (Laundry) 2 Months

Measuring of timber trusses over the Laundry can commence with taking to site.
Manufacture of trusses can commence during section 1 construction. Actual construction however can only commence after completion of section 3. Laundry services will need to be outsourced during this period.

Section 6 and Works as a whole: 1 Month

This section is anticipated to be limited to any external work that has not yet been completed. It will commence after Section 5 is completed and will allow the contractor to attend to any last defects or work that is incomplete over the entire site.

Each section will need to be hoarded to ensure safety of patients and visitors. Contractors staff may not have any access to patient areas that are operational. The laydown area of the contractor will be limited to zone A and limited time period to zone B for work on block E



Image 5: *Andries Vosloo Hospital, Aerial photo of Laydown Areas.*

3. SMME Sub Contract Requirement:

Tenderers to take note that 30% of the value of the building works, exclusive of specialist works, are to be contracted to SMME sub-contractors. Provisional sums are provided for this purpose and tenders will be called for after the award for these SMME packages on a selected sub-contractor basis.

Tenderers are to price all associated administrative, supervisory, mentoring cost, profit and attendance in the relevant sections of the preliminaries as no claims for additional costs will be entertained.

The 30% is made up of all building works excluding the following:

- Provisional sums
- Contingencies

These are monetary provisions only and the use, value and payment thereof are subject to adjustment based on actual costs through contractually approved variation orders calculated in terms of the prescribed contractual derivatives.

The SMME sub contract packages involve the following works:

4. Civil & Structural Scope of Works:

There is no formal civil work required for this contract, however rates have been included in the BOQ in event of this work having to be introduced to undertake repairs identified during construction.

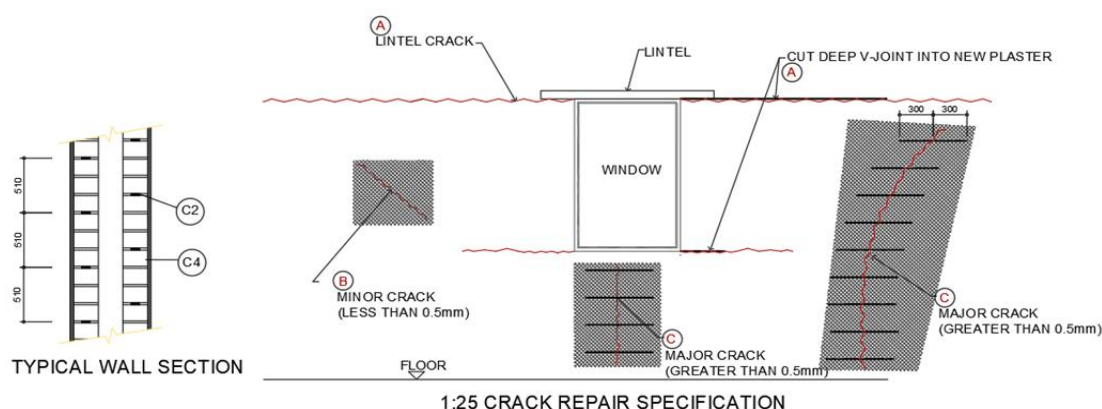
The Structural Steel roof trusses entails the design of portal frames over the existing concrete roofs

inclusive of removing of existing roof sheeting and replaced with new sheeting as per architectural specifications.

- Installation of timber trusses at some of the blocks like the passageways.
- Installation of cat ladders on the side of the building to give access to the plantroom roofs etc.
- All structural steel drawing Shop Drawings will need to be in 3D format submitted to be reviewed by the Engineer.

Cut out concrete slabs and to create a hatch to provide access to the plantrooms etc. These areas to be x rayed first to determine the location of reinforcing steel. On assessment carbon fibre strips can be provided to strengthen these areas. Requirement of carbon strips 1m apart in both directions around the openings being cut, using 100mm wide, 1,2mm thick uni-directional carbon fibre strips.

- New gutters and down pipes to be installed as per specifications and drawings.
- The steel gutters will be fixed to the structural steel members.
- Repairing of wall cracks where applicable as per specification.
- Repair cracking as detailed below



A) LINTEL CRACKS

CUT V-JOINT IN NEW PLASTER BOTH INSIDE AND OUTSIDE OF BUILDING AT THE LINE OF THE LINTEL

B) MINOR CRACKS

1. EXPOSE CRACK
2. APPLY SIKADUR AP IN CRACK
3. PLACE BIRD MESH INTO PLASTER SPANNING AT LEAST 300mm OVER THE CRACK AREA (10mm PLASTER)

C) MAJOR CRACKS

1. EXPOSE CRACK
2. OPEN MORTAR BED AND PLACE 40x10 GALVANISED FLAT BAR (600mm LONG) INTO MORTAR BEDS @ 255mm CENTERED - REGROUT TO SECURE. (ALTERNATE)
3. APPLY SIKADUR AP INTO THE CRACK
4. PLACE EXPANDED MESH OVER THE CRACK AND APPLY 10mm PLASTER.

GENERAL NOTE:

1. STRIP ALL WALLS OF ALL PLASTER EXPOSING BRICKWORK AND DEFECTS.
2. MIX SIKA 1 INTO PLASTER MORTAR FOR EXTERNAL USE.
ie. WATERPROOFING
3. WHERE SPALLING OF CAST IN SITU LINTELS HAS OCCURED EXPOSE THE REINFORCEMENT AND CONTACT THE ENGINEER BEFORE IMPLEMENTATION OF REHABILITATION.

5. Occupational Health and Safety

The occupational Health & Safety Act, 85 of 1993 with all its Regulations with specific emphasis and reference to Construction Regulations, Asbestos Abatement Regulations and relevant Standards must be fully complied with. Failure to comply will to lead penalties and/or breach of contract. The following are the key health and safety elements that should be taken into consideration on this contract.

The occupational Health & Safety Act, 85 of 1993 with all its Regulations with specific

emphasis and reference to Construction Regulations, Driven Machinery Regulations, The Design, Erection, Use and Inspection of Access Scaffolding Standard and other relevant Standards must be fully complied with. Failure to comply will lead penalties and/or breach of contract. The following are the key health and safety elements that should be taken into consideration on this contract.

- Work at heights at different height levels and roof shapes varying
- (Flat/Pitched) from 3m – approximately 20m/6 Storey Structure;
- Possible use of Lifting Equipment for heavy metal beams and sheeting;
- Contractor to strictly adhere to the phasing plan as directed by the client and as per the attached relevant phasing drawing;
- Clear hoarding between the construction area and the operational hospital should erected prior to commencement of any construction activities in consultation with the Principal Agent, Safety Agent, and Hospital Management;
- No construction work should be undertaken in the same area where hospital activities are in operation.

6. Electrical and Mechanical

The scope of the electrical and mechanical work is as follows:

- Replace all luminaires on the top floors with modern LED technology to comply with SANS 10114 for light levels.

The scope for the lighting projection as follows,

- The installations of 16mm² solid aluminium cable/conductor on roof pitches shall be allowed.
- The conductors shall be supported with fixing brackets space one meter apart.
- There to be solid 16m² aluminium conductor installed from roof pitches to earth rods.
- Two-meter-long copper earth rods knocked into the ground at four different location around each block per building/block.

C3.2 RESTRICTIONS AND CONSTRAINTS

- The completion of the project is urgent and work shall be executed during normal working hours i.e. 07h00 till 16h00 daily excluding weekends. Work required to be executed outside of these hours must be arranged with the Facilities Manager and Hospital Manager, in advance.
- Noise must be kept to a minimum and within acceptable levels at all times.
- All shut-offs and tie/cut-ins to existing services must be arranged in advance with the Facilities Manager and a methodology with appropriate mitigation of risks must be prepared by the contractor and submitted to the relevant Professional discipline in advance, for approval.
- Dust emanating from the work site must be controlled at all times.

C3.3 OPERATIONAL PROTOCOLS

- Security is a priority, and the site shall be kept safe at all times.
- The approved Health and Safety plan shall be adhered to at all times
- All staff members of the contractor shall wear PPE at all times
- All staff members of the contractor shall be specifically identifiable at all times and to this end shall wear a predetermined coloured overall to be able to enter and work on the site.
- Regular meetings, the frequency of which is to be determined, shall be held with the management of the hospital to always ensure a cohesive spirit of co-operation
- The successful contractor must take into account that other contractors may be busy with construction in close proximity to the works and allowance must be made in the contractor's submission to accommodate these parties.

C3.4 ACCESS AND SITE ESTABLISHMENT

- Prospective bidders are to fully familiarize themselves with the site and access to the site and restricted area for site establishment. Allowance for temporary construction access etc. shall be deemed to be included in contractor's price/bid. Prospective bidders are to familiarize themselves with the site as no additional costs shall be entertained.
- No Contractor's representatives or worker's are allowed to sleep at establishment area or with in Hospital complex.
- The Contractors are required to price for establishment, de-establishment and re-instatement in the Preliminaries section of the Bills of Quantities.

C3.5 ACCEPTANCE OF TENDERS

- The Employer is not bound to accept the lowest, or any tender, or any portion of any tender

C3.6 MINIMUM WAGE

- The Contractor shall adhere to "The national minimum wage determined by the Minister in accordance with the National Minimum Wage Act (NMWA)", and yearly pronounced increases for duration of contract.

C3.7 TEMPORARY WORKS

- All temporary work to comply with the Construction Health and safety Act (Act 85 of 1993) and its regulations.

C3.8 DESIGN DETAIL

- Refer to consultants detail design drawings.

C3.9 DESIGN BRIEF

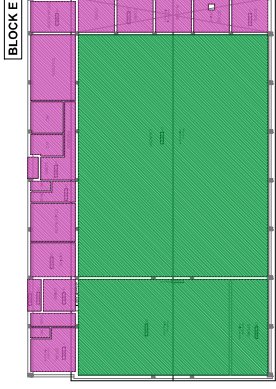
N/A

C3.10 DRAWINGS

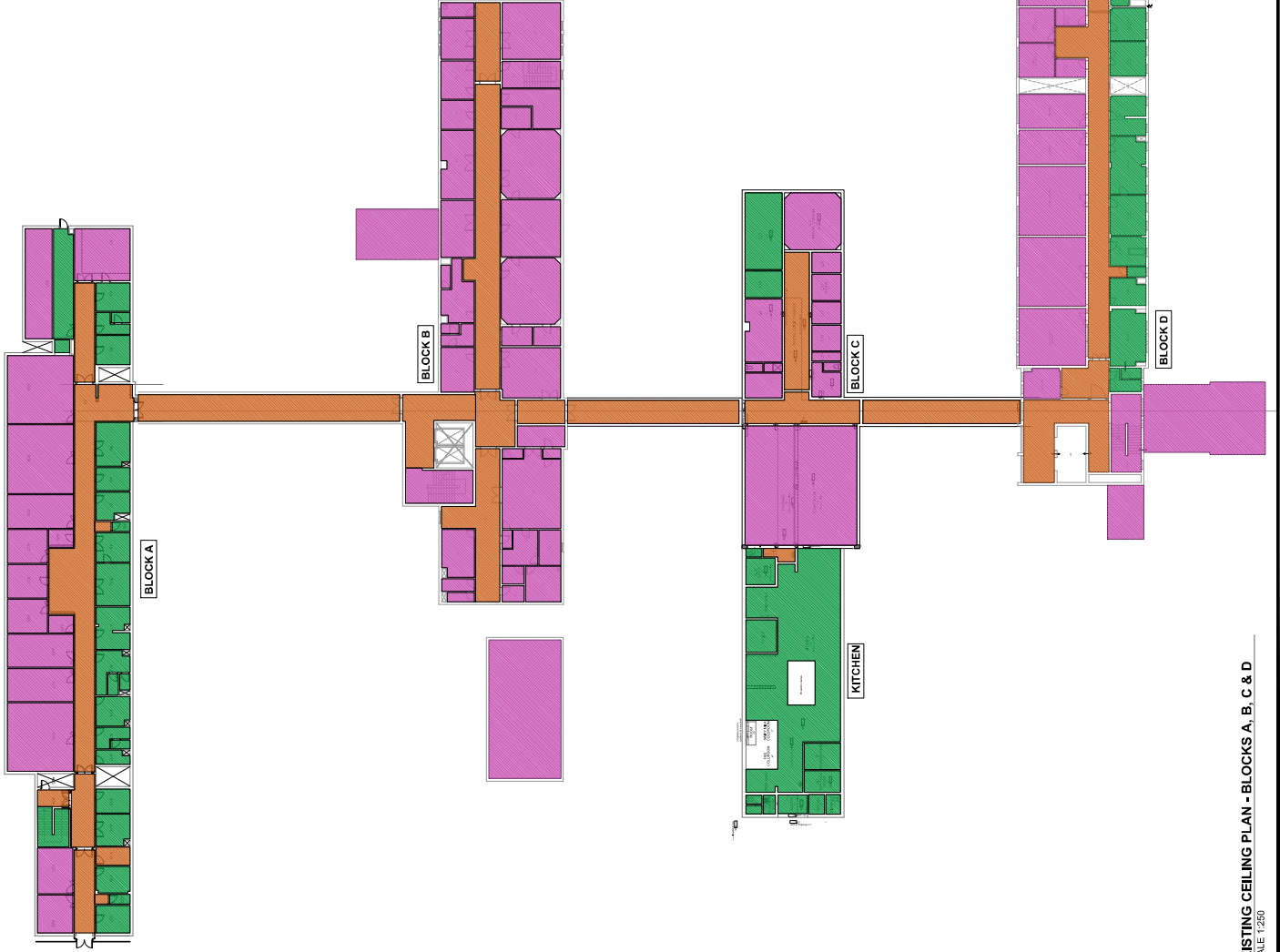
Contract drawings – ARCHITECTURAL	Number	Revision	Date
Roof Plan	TD1.00	B	2023-11-02
Existing Ceiling Plan	TD1.01	B	2023-11-02
Ceiling Plan – Remedial Work	TD1.02	0	2023-11-03
Typical Sections	TD3.00	B	2023-10-27
Typical Longitudinal Sections	TD3.01	0	2023-10-27
Schedules	TD6.00	0	2023-10-27
General Specification Document	TD_SS1.00	D	2023-11-03

Contract drawings – STRUCTURAL ENGINEER	Number	Revision	Date
ROOFPLAN BLOCK A ADDITIONS	S01	0	07/11/2023
ROOFPLAN BLOCK D ADDITIONS	S02	0	07/11/2023
ROOFPLAN BLOCK B & C	S03	0	07/11/2023
GUTTER DETAILS BLOCK B & C	S04	0	07/11/2023
STRUCTURAL ELEMENTS LAYOUT	S05	0	07/11/2023
TYPICAL CAT LADDER DETAILS AND ELEVATIONS	S06	0	07/11/2023
ADDITION TO SLAB FOR NEW MANHOLE OPENINGS	S07	0	07/11/2023

C3.10 DRAWINGS



EXISTING CEILING PLAN - BLOCK E
SCALE 1:250



ROOFING LEGEND:

- B1. Concrete Slabs
- B2. Flat/Beam Board Ceilings
- B3. Suspended Ceilings

EXISTING CEILING PLAN - BLOCKS A, B, C & D
SCALE 1:250

NO.	DATE	REVISION DESCRIPTION	BY
1	2023/11/02	Update ceiling plan to Block D	HY
2	2023/11/02	Update ceiling plan to Block A and B	HY

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IMBONO ARCHITECTS
PORT ELIZABETH

ADDRESS:
12a, Shiloh Street,
Port Elizabeth, 6001
SOUTH AFRICA
Tel: +27 (0) 41 395 3997
Email: info@imbono.co.za
Website: www.imbono.co.za

CONTACT:
Tel: +27 (0) 41 395 3997
Email: info@imbono.co.za
Website: www.imbono.co.za

CLIENT:
DEPARTMENT OF HEALTH

PROJECT DESCRIPTION:
SAKHWO FACILITY MANAGEMENT
CONTRACT SCMU3-23/24-0800-HO
ANDRIES VOSLOO HOSPITAL, ERF 1332
SOMERSET EAST

PROJECT STATUS/ISSUED FOR:
TENDER DRAWINGS
2 November 2023

DRAWING TITLE:
EXISTING CEILING PLAN

DRAWING NUMBER:
PE17-045_AV TD1.01

REVISION NO.:
B

DESIGNED BY:
HY

DRAWN BY:
AS INDICATED

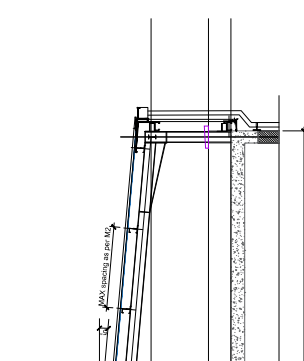
COMPETENT PERSON'S SIGNATURE:

LAYOUT SIZE:
A4

- ROOFING LEGEND:**
- Existing roof structure as per Engineer's specification
 - Existing roof structure to be removed and replaced with new roof structure as per Engineer's specification
 - New Dotted frame steel structure as per Engineer's specification
 - New Timber roof trusses as per Engineer's specification
 - Existing opening to be removed and reinstated with new Composite Decking as per Engineer's specification
 - Existing opening to be removed and reinstated with new Composite Decking as per Engineer's specification
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 - Existing opening to be removed and reinstated with new Composite Decking as per Engineer's specification



TYPICAL SECTION - FABRICATED ROOF STRUCTURE
SCALE 1:50



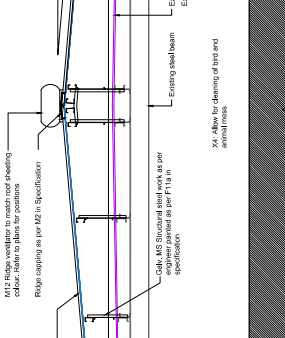
TYPICAL SECTION - PORTAL FRAME STRUCTURE
SCALE 1:50



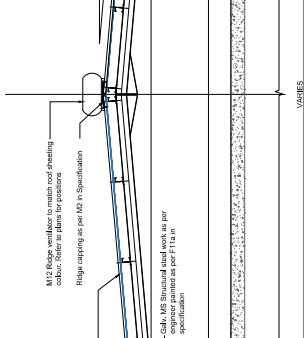
TYPICAL SECTION - BLOCK E
SCALE 1:50



TYPICAL SECTION - TIMBER ROOF TRUSSES
SCALE 1:50



TYPICAL FLASHING DETAIL TO STEEL STRUCTURES
SCALE 1:10



TYPICAL EAVES DETAIL TO TIMBER TRUSSES
SCALE 1:10

NO.	DATE	DESCRIPTION	BY
1	2023-08-28	Issue for construction	HW
2	2023-08-28	Issue for construction	HW
3	2023-08-28	Issue for construction	HW
4	2023-08-28	Issue for construction	HW
5	2023-08-28	Issue for construction	HW
6	2023-08-28	Issue for construction	HW
7	2023-08-28	Issue for construction	HW
8	2023-08-28	Issue for construction	HW
9	2023-08-28	Issue for construction	HW
10	2023-08-28	Issue for construction	HW

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IMBONO ARCHITECTS
EAST LONDON RHINATHA PORT ELIZABETH QUEENSTOWN

CONTACT:
12a Shipley Street,
Bishop Cleeve,
B80 9PH
SALISBURY WILTSHIRE

TEL: +44 (0) 1453 3891
EMAIL: info@imbono.co.uk
WEBSITE: www.imbono.co.uk

CLIENT:
DEPARTMENT OF HEALTH

PROJECT DESIGNER:
SAKHINO FACILITY MANAGEMENT
CONTRACT SCMSU-23240-680-HO
ANDRIES VOSLOO HOSPITAL, ERF 1332
SOMERSET EAST

PROJECT STATUS: ISSUED FOR
TENDER DRAWINGS
27 October 2023

DRAWING TITLE:
TYPICAL SECTIONS

DRAWING NUMBER:
PE17-045_AV TD3.00

REVISION NO.:
B

DESIGNED BY:
HW

CHECKED BY:
HW

DRAWN BY:
HW

AS INDICATED

LAYOUT SIZE:
A4

ROOFING LEGEND:

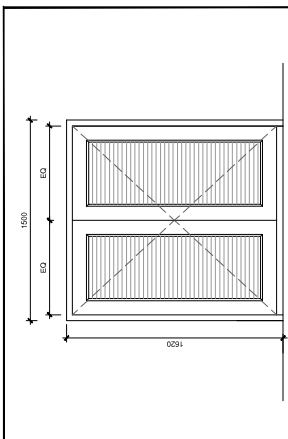
- Existing roof structure as per Engineer's specification
- Existing roof structure to be removed and replaced with new roof structure as per Engineer's specification
- New Dotted frame steel structure as per Engineer's specification
- New Timber roof trusses as per Engineer's specification
- Existing opening to be removed and reinstated with new Composite Decking as per Engineer's specification
- Existing opening to be removed and reinstated with new Composite Decking as per Engineer's specification
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TYPICAL FLASHING DETAIL TO STEEL STRUCTURES
SCALE 1:10

TYPICAL EAVES DETAIL TO TIMBER TRUSSES
SCALE 1:10

TYPICAL SECTION - BLOCK E
SCALE 1:50

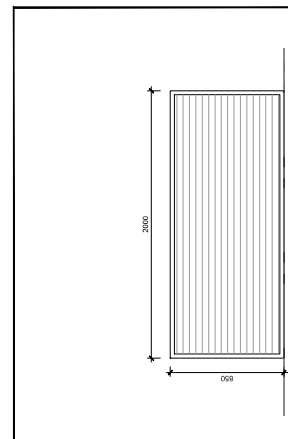
TYPICAL SECTION - TIMBER ROOF TRUSSES
SCALE 1:50



SCALE: 1:20
NOTE: EXACT DIMENSIONS TO BE TAKEN ON SITE AND EXACT HANDING TO BE CONFIRMED ON SITE PRIOR TO MANUFACTURE

DOOR TYPE	DESCRIPTION	FRAME
1500 x 600 x 600mm double hung window door with double hung window and double hung window.	Aluminium frame, double hung window, suitable for external or internal use. Suitable for use with double hung window.	Aluminium frame, double hung window, suitable for external or internal use. Suitable for use with double hung window.
FINISH	As per manufacturer's standard finish. Suitable for external or internal use. Suitable for use with double hung window.	As per manufacturer's standard finish. Suitable for external or internal use. Suitable for use with double hung window.
GLAZING	As per manufacturer's standard glazing. Suitable for external or internal use. Suitable for use with double hung window.	As per manufacturer's standard glazing. Suitable for external or internal use. Suitable for use with double hung window.
SECURITY	As per manufacturer's standard security. Suitable for external or internal use. Suitable for use with double hung window.	As per manufacturer's standard security. Suitable for external or internal use. Suitable for use with double hung window.

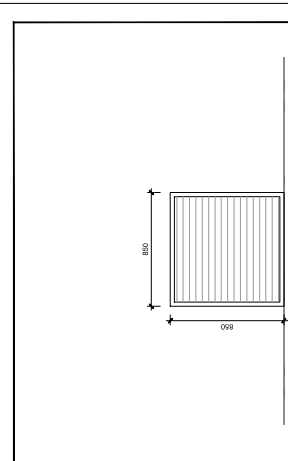
IMBONO ARCHITECTS
NEW DOOR SCHEDULE
ANDRIES VOSLOO HOSPITAL
ERF 1332 SOMERSET EAST
SCHUUR-23/24-0380-HO
DRAWN BY: [Signature]
DATE: 27 October 2023
PROJECT NO: PE17-045-3
TDS: 0



SCALE: 1:20
NOTE: EXACT DIMENSIONS TO BE TAKEN ON SITE AND EXACT HANDING TO BE CONFIRMED ON SITE PRIOR TO MANUFACTURE

DOOR TYPE	DESCRIPTION	FRAME
2000 x 600 x 600mm double hung window door with double hung window and double hung window.	Aluminium frame, double hung window, suitable for external or internal use. Suitable for use with double hung window.	Aluminium frame, double hung window, suitable for external or internal use. Suitable for use with double hung window.
FINISH	As per manufacturer's standard finish. Suitable for external or internal use. Suitable for use with double hung window.	As per manufacturer's standard finish. Suitable for external or internal use. Suitable for use with double hung window.
GLAZING	As per manufacturer's standard glazing. Suitable for external or internal use. Suitable for use with double hung window.	As per manufacturer's standard glazing. Suitable for external or internal use. Suitable for use with double hung window.
SECURITY	As per manufacturer's standard security. Suitable for external or internal use. Suitable for use with double hung window.	As per manufacturer's standard security. Suitable for external or internal use. Suitable for use with double hung window.

IMBONO ARCHITECTS
NEW DOOR SCHEDULE
ANDRIES VOSLOO HOSPITAL
ERF 1332 SOMERSET EAST
SCHUUR-23/24-0380-HO
DRAWN BY: [Signature]
DATE: 27 October 2023
PROJECT NO: PE17-045-3
TDS: 0



SCALE: 1:20
NOTE: EXACT DIMENSIONS TO BE TAKEN ON SITE AND EXACT HANDING TO BE CONFIRMED ON SITE PRIOR TO MANUFACTURE

DOOR TYPE	DESCRIPTION	FRAME
1500 x 600 x 600mm double hung window door with double hung window and double hung window.	Aluminium frame, double hung window, suitable for external or internal use. Suitable for use with double hung window.	Aluminium frame, double hung window, suitable for external or internal use. Suitable for use with double hung window.
FINISH	As per manufacturer's standard finish. Suitable for external or internal use. Suitable for use with double hung window.	As per manufacturer's standard finish. Suitable for external or internal use. Suitable for use with double hung window.
GLAZING	As per manufacturer's standard glazing. Suitable for external or internal use. Suitable for use with double hung window.	As per manufacturer's standard glazing. Suitable for external or internal use. Suitable for use with double hung window.
SECURITY	As per manufacturer's standard security. Suitable for external or internal use. Suitable for use with double hung window.	As per manufacturer's standard security. Suitable for external or internal use. Suitable for use with double hung window.

IMBONO ARCHITECTS
NEW DOOR SCHEDULE
ANDRIES VOSLOO HOSPITAL
ERF 1332 SOMERSET EAST
SCHUUR-23/24-0380-HO
DRAWN BY: [Signature]
DATE: 27 October 2023
PROJECT NO: PE17-045-3
TDS: 0

NO.	DATE	REVISION DESCRIPTION	BY

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SAKHUWO HD6
IMBONO ARCHITECTS
PORT ELIZABETH

CONTACT:
124 BISHOP STREET,
PORT ELIZABETH,
6054
SACAP 03176 • SAN-PB317 • 031203795622

CLIENT:
DEPARTMENT OF HEALTH

CLIENT SIGNATURE:

PROJECT DESCRIPTION:
SAKHUWO FACILITY MANAGEMENT
CONTRACT SCMSU-23/24-0380-HO
ANDRIES VOSLOO HOSPITAL,
ERF 1332 SOMERSET EAST

PROJECT STATUS: ISSUED FOR
TENDER DRAWINGS
27 October 2023

DRAWING TITLE:
SCHEDULES

DRAWING NUMBER:
PE17-045_AV TDS.00

REVISION NO.:
0

DRAWN BY:
[Signature]

COMPETENT PERSON'S SIGNATURE:
[Signature]

AS INDICATED

Imbono FJA Architects South CC
12a Shirley Street, Newton Park
PORT ELIZABETH, 6045
P.O. Box 34207, Newton Park, 6055
Tel: +27 (0)41 365 3691
Fax: +27 (0)41 365 1434
E-mail: info-pe@imbonofja.co.za
ck 2011/013012/23

Drawing Number: PE17-045-13_TD_SS1-00_Rev D

GENERAL SPECIFICATION DOCUMENTATION

PROPOSED

ROOF REPAIRS & ALTERATIONS TO

ANDRIES VOSLOO HOSPITAL

ERF 1332

SOMERSET EAST

SCMU3-23/24-0580-HO

BLUE CRANE ROUTE MUNICIPALITY

EASTERN CAPE

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• P. Jolobe B. Build & B.Arch (NMMU) Arch (SA) MIA Pr. Arch SACAP



CONTENTS:

1. SPECIFICATIONS
2. PROFESSIONAL CONSULTANTS
3. SCOPE OF WORK
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5. MEANING OF WORDS
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8. FORM OF PRINCIPAL CONTRACT
9. NOTES
10. WORK CODES AND SPECIFICATIONS
11. X CODES

1. SPECIFICATIONS

The pages of these Specifications have been numbered consecutively.

The tenderer shall check the numbers of the pages and should any be missing or duplicated, or the reproduction be indistinct, or if any doubt exists as to the full intent or meaning of any description, or these specifications contain any obvious errors, the Tenderer shall notify the Architect at once who shall promptly give a written directive. No liability whatsoever will be admitted in respect of errors to any tender due to the abovementioned

2. PROFESSIONAL CONSULTANTS

ARCHITECTS:

Imbono FJA Architects CC
12A Shirley Street
Port Elizabeth

Principal Contact: Hubert Sieg 082 878 9883
Project contact: Hymie Yspeert 079 713 30403
Tel: 041 365 3691
Fax: 041 365 1434

The works will be inspected from time to time at the discretion of the professional team. This does not relieve the contractor of his duty to his client and his responsibility for the works, but is merely for the inspection of quality and neatness of workmanship.

3. SCOPE OF WORK

The works are as detailed in the attached drawings. Refer to project data in the Bill of quantities for additional information.

4. DRAWINGS AND SCHEDULES

ARCHITECTURAL DRAWINGS

Drawings: 17-045-13_TD1.00, etc
Specification Document: 17-045-13_TD1.00/SS1-00_REV_0
Finishing Schedule: 17-045-13_TD1.00/FS1-00_REV_0

5. MEANING OF WORDS

Singular or plural

Words importing the singular only also include the plural and vice versa as the context requires. Words referring to persons shall include Bodies Corporate.

Standard specification

All references in these Specifications to the South African Bureau of Standards shall be deemed to be reference to the latest issues of such specifications, and any subsequent amendments thereto. All articles, materials or items described as to conform to SABS Specifications must bear the SABS mark.

All work to meet SANS 10 400 requirements and all other SABS requirements.

Definition of approved, etc.

The terms "approved", "directed" or "selected" shall mean approved, directed or selected by the Architect

6. TRADE NAMES

Where a particular brand of material or article is described by name, the Tenderer is to price on the material or article named and when the contract has been let the Contractor may submit to the Architect any proposals for substitution of materials or articles but no such substitution may be made without prior written approval of the Architect. All such articles or materials shall be used, mixed, applied, laid, fixed, etc. all in strict accordance with the manufacturer's printed or written instructions. Liability will remain with the Contractor.

Where articles other than of the manufacture specified are used, an adjustment of the prices will be made and Variation Orders issued to cover these adjustments.

7. MATERIALS AND METHODS TO BE USED

The following preambles to trades:

- 1) Standard Preambles for Trades 2017 Edition SA Quantity Surveyors.

form part of this document and can be viewed at the Architects Offices on Request. Should any item appear in this document, which is not relevant to the work as stated in other documentation, this shall not invalidate any item stated in the other documentation.

Any question of relevance shall be decided by the Architect. Provide for all items stated whether specifically referred to in any one or in the entire tender and contract documents.

All materials and workmanship to comply with the SANS 10400 and relevant SABS codes. Work shall be carried out by duly qualified persons in accordance with the relevant codes of conduct and codes of practice governing such works.

Tenderers are referred to the above-mentioned document for the full intent and meaning of each clause thereof.

8. FORM OF PRINCIPAL CONTRACT

The form of principal contract shall be the:

JBCC 2000 Principal Building Agreement Edition 6.2 May 2018 issued, approved and recommended by the JBCC Constituents, & Preliminaries Agreement May 2018.

The tenderer must allow, as he may consider necessary for the full intent and meaning of each clause of the Agreement particularly the Security Provisions that will be required.

A full copy of the documents will be available for viewing at the Architects offices during the tender period.

9. NOTES

- 1) It is the express responsibility of the contractor to ensure that all finishes meet with the best possible workmanship and conform to the highest standard of good building practice. To this end, the contractor is to submit samples for all finishes timeously and is to allow for, within his program, a 7 calendar day period for inspection per sample. This may not affect the contract period and no extension of time claims will be entertained in this regard. The adjudication of the finishes is at the sole discretion of the architect. Work that merely meets the minimum qualitative standards in terms of the regulations will not be accepted. The contractor is to ensure that there are no blemishes or imperfections in finishes.
- 2) The contractor is to submit proof of "Good Standing" with respect to "Workmen's Compensation Insurance" and must ensure that any of his staff or subcontractors has the same.
- 3) A safety report identifying any accidents that have occurred on site since the previous meeting is to be tabled by the Contractor at the Monthly Meetings.
- 4) The works will occur within an operational work area and special precautions will need to be taken to ensure that the construction area and delivery area are secured. The Contractor must take precautions to ensure that the area outside of the work areas are protected from excessive noise and dust and will be expected to provide screening to achieve this. Special note is to be taken of the limited workspace and all street edges are to be adequately protected to the satisfaction of the local authority and health and safety agent
- 5) The position of the existing services is unknown, care must be taken when excavating, demolishing work etc. in order to prevent damage.
- 6) All construction waste & rubble is to be removed from site and disposed of at an approved disposal site. A record of these sites is to be kept in the H&S file. The location of rubble storage while on site is shown on the drawings
- 7) The Contractors Risk Assessment is to identify prior to the commencement of any work any item of the works new or as specified that does not conform to the National Building Regulations. This is to be brought to the attention of the professional team for comment and action if required.
- 8) The contractor is to ensure that all fire escape routes remain accessible and all firefighting equipment is operational.
- 9) The contractor is to liaise with the Maintenance Manager regarding access and co-ordination of activities. Access to any part of the property will need to be at the convenience of the client and any disruption costs are to be included in the tender.
- 10) After hours and weekend work may be required as a result of item 8, above. Notice to be given to client 2 days before such work takes place.

-
- 11) Should PHRA or SAHRA be applicable: The buildings are protected under the PHRA legislation; the contractor is to take extreme care to protect all aspects of the works and all historical building elements such as mouldings etc. Costs incurred to repair damage by the contractor and penalties from authorities will be for the contractor's account. All joints, moulding etc. in/on walls, slabs and screeds are to be recorded in the site instruction book prior to demolishing, for use and locating of new joint positions.
- 12) All existing work to be altered to be made good so as to match existing.

WORK CODES AND SPECIFICATIONS

A		
Roads and infrastructure		
A1	New Works	Refer to engineer's drawings for all civil & structural information. Levels strictly as per engineer to be confirmed on site
A2	Existing Services	All existing services to be protected and maintained during the construction period. Any damage which occurs is to be made good by the contractor.
A3	Repairs to Pavement	Contractor to provide photographs of any damage to the existing pavements at site handover to the PA. Contractor is to protect existing pavement and roads and any damage caused during construction is to be repaired at the cost of the contractor. All repairs as per engineers specifications and approval.
B		
Paving & Stormwater		
B1	In-situ Storm Water Channels	Unreinforced concrete storm water channels in shapes as detailed, Class E 25Mpa/19mm stone. Cast in alternate panels of 2m lengths. Polyethylene foam joints every 3 rd panel with same between walls and slabs with 10mm expanded polyethylene expansion joint fixed to walls at 400mm centres with 40mm galv. nails, joint to be primed with polyurethane foam sealing strip and sealed at slab level with 10 x 10mm poly-sulphide sealant. Apron to be finished with Broom finish, to architect's approval. Edges to be rounded with 20mm smooth nosing finish. ENGINEER'S LEVELS, SPECIFICATION AND DESIGN TO TAKE PRECEDENCE.
B2	Storm Water Grating	Storm water gratings to be installed as per engineers drawings and specifications.
C		
Under floor finishes		
D		
Floors		
D1	Granolithic Screed	Prepare slab and apply 35mm un-tinted 2:0.5:1, granite, sand, cement granolithic screed as per PW371. External applications are to get broom finish to architect's approval. The material must be cured and tested between 30 and 35 Mpa.
D2	Plaster Screed	Prepare slab to take 35mm 3:1 cement plaster screed as per PW371. Note: The contractor is to ensure that the floor slab and screed levels have been coordinated and signed off by the professional team and the client prior to pouring the slab.
D3	Dividing Strips	Supply and install 3mm x 25mm stainless steel flat section dividing strips between different floor finishes set into screed finishing flush with floor finishes.
D4	SS Water Bars	Supply and install 3mm x 25mm st/steel water bars set into screed under all external doors.

D5	Stairs and External Thresholds	All stairs & external thresholds to be reeded with 100mm reeding tool. All thresholds to be sloped from the water bar to the outside with 15mm slope.
E	Skirting	Note: Skirting is to be read in conjunction with Power skirting layouts
F	Walls	
General Note:	Brickwork sample panels to be built on site for approval before commencing with the work. Moisture content of walls to be measured before the application of any paint finishes, and not to exceed 5%. The surfaces of all plastered walls and concrete as well as all other surfaces to be prepared in accordance with the specifications and requirements as per the paint manufacturers.	
F1	Clay Brick 270mm cavity	Walls to be generally in 270mm cavity stretcher bond externally and 110mm internally in Extra Hard Burnt Bricks to foundation brickwork (All brickwork to be 14Mpa below slab level and 7Mpa above slab level.) All brickwork to be laid in Class 2 Cement mortar (1:3 cement: sand). Facebrick bedding and perpend to be raked out 4mm recessed square joints.
F2	Stepped DPC	375 micron embossed stepped dpc built into inner skin and stepped outwards with one brick-course lower. End laps to be min 300mm and sealed with pressure sensitive tape. To drain outwards through weepholes every 4 th perpend with mortar fillet behind to form step. Area behind DPC to be backfilled with mortar fillet. perpend with mortar fillet behind to form step. Ensure that DPC extends to external face of brickwork. Through V-Joint at DPC level (below weep holes) on external plastered face.
F3	Lintels & Weep holes	Reinforced precast lintels size 140 x 90mm over all window & door opening. Plaster to be V-jointed at junctions between lintels and brickwork. Where bearing between two openings is less than 230mm then continuous lintels are to be used. To get 375 Micron stepped DPC to drain outwards through weepholes every 4 th perpend with mortar fillet behind to form step. Ensure that DPC extends to external face of brickwork. End laps to be min 300mm and sealed with pressure sensitive tape. Through V-Joint at DPC level (below weep holes) on external plastered face.
F4	Internal Skin	External face of the internal skin to be coated with bitumen based paint to all gable walls above floor level and around all door and window reveals.
F5	Beam Filling	Cement Mortar beam filling between tops of walls and u/s roof sheeting to internal skin and cut face bricks to exterior where applicable. Plaster smooth (top of walls) and apply one coat bituminous paint where roof sheeting to touch same.
F6	Plaster Junctions	All plaster junctions between concrete and brickwork to be through v-jointed.
F7	Smooth-Off-shutter Concrete	Class 1 smooth off-shutter concrete finish using new steel or resin lined shutters. Formwork and shuttering to be planned and arranged with ferrules and joints all to architects approval. Internal faces to receive siloxane sealant.
F8	Internal plastered walls	Make good where objects have been removed from the wall. All walls to be inspected, loose plaster chopped off, cleaned, filled and sealed with

		<p>approved sealant. Bonding liquid to be applied before painting. All existing internal walls to be cleaned and prepared to apply new paint as elsewhere described. Existing paint to be removed and surfaces cleaned and prepared as per Dulux's specifications. Refer to Dulux specification and methodologies. (Colour by architect)</p> <p>New internal plastered wall plaster to be 15mm 1:4 Smooth steel trowel cement plaster finish. Prepare all blemishes - filled and sanded to approved finish.</p> <p>Skim : Prepare and apply as per manufacturers specifications –Dulux Pre-Paint Smoothover Skimming Plaster Interior/Exterior</p> <p>Internal Walls Office : Prepare and apply as per manufacturers specifications – 1 coat Dulux Trade Trade Ecosure Plaster Primer followed with 2 coats Dulux Easycare Matt</p> <p>Ensure that plaster has cured completely prior to final coats of paint being applied. NB: Area's to be chopped off is to be marked out with chalk and approved by client and architect before chopping takes place.</p> <p>Contractor to obtain written approval from the client and professional team of sample panels for the plastering and painting before proceeding. The plastering and painting is to conform to the highest possible standard, the adjudication of this will be strictly at the discretion of the architect and the client.</p>
F9	Damp and cracks to existing internal walls	<p>All damp damaged plaster should be removed up till bare brick, cleaned and apply an approved waterproofing sealant. Apply plaster binder on bare brick, make good by re-plastering with a strong 3:1 cement sand mix. Smooth down to meet surrounds. Prepare surface and apply paint as elsewhere described. (Colour by architect) All as per Dulux specifications and methodologies.</p> <p>Replace existing plaster finish; by hacking off the existing plaster up till bare brick, wall surface to be cleaned, made wet, sealed with waterproofing (as elsewhere described)</p>
F10	Waterproofing of New Concrete	Reinforced concrete beams, columns, slabs and nibs covered by one layer external brick work; to have a 2 coat bituminous paint surface application, prior to laying of bricks. Perpend, every 4 th brick as weep whole, raked open.
F11	Painting To Structural Steel (Mild Steel)	<p><u>Mild steel, - structural steel –</u> <u>Surface preparation</u></p> <p>The surface shall be thoroughly washed and cleaned to remove all contaminants. Primary steel pre treatment to be finished before mechanical power tool cleaning the steel to ISO 8501-1 ST3.</p>


		<p><u>Primers : (Shop application)</u> Apply to bare steel 1 coat primer Sigmacover 350 aluminium / off white (7970), NDFT 100um.</p> <p><u>Intermediate coat: (Shop application)</u> Stripe coat all welds, crevices and edges, prior to a full coat Sigmacover 350 lt grey / off white (7970), NDFT 100um.</p> <p><u>Finishing coat: (Site application)</u> Apply to the intermediate, 1 finishing coat of Sigmadur 550 to min DFT 50um. Colour as per architect.</p> <p>Repair mechanical damage with the full paint system after installation if and where required. Adhere to the application instructions as per Sigma datasheets and general paint preamble.</p> <p>NB: Refer to annexures for full Sigma specifications. This specification is to be approved by all consultants and the client in writing before the products are ordered and abortive costs are necessary.</p> <p>Contactable Sigma Technical representative: FRANS VILJOEN Mobile 082 8070572</p>
F11a	Painting To Structural Steel (Hot Dipped Galvanized)	<p><u>Structural steel and equipment</u> <u>Surface preparation</u> The surface shall be thoroughly washed and cleaned to remove all contaminants. Use an industrial metal cleaner with scotch bright pads to degrease the entire area to achieve a “Water break free condition”.</p> <p><u>Primers : (Site or Shop application)</u> Apply to bare steel 1 coat primer Sigmaprime 200 green (7416), NDFT 100um.</p> <p><u>Intermediate coat: (Site or Shop application)</u> Stripe coat all welds, crevices and edges, prior to a full coat Sigmacover 350 lt grey / off white (7970), NDFT 100um.</p> <p><u>Finishing coat: (Site or Shop application)</u> Apply 1 finishing coat of Sigmadur 550 (7537), NDFT 50um. Colour as per architect/engineer /asset owner.</p> <p><i>Where coating and HDGI was damaged / removed for weld testing or where red rust is detected restore galvanizing with Sigmazinc 19 (1pk zinc rich</i></p>

		<p>primer) @ 35um NDFT</p> <p>General notes</p> <p><u>Record Galvanizing prior to painting to determine the starting point of the duplex coating system.</u></p> <p><u>Repair mechanical damage with the full paint system after installation if and where required. Adhere to the application instructions as per Sigma datasheets and general paint preamble.</u></p> <p>Paint shall not be applied in high wind and/or dusty conditions, nor when the steel surface temperature is less than 3° C above dew point, nor higher than that advised by the paint manufacturer, nor when relative humidity is greater than 85%, adhere to PDS for climatic requirements.</p> <p>Application shall be by brush, roller, spray, airless spray or other suitable method as appropriate for the surfaces to be coated and in accordance with Sigma’s recommendations.</p> <p>Adhere to the min/max over coating intervals as per product data sheets. If the surface becomes contaminated between coats, the surface shall be washed thoroughly to remove all contamination, prior to application of further coats.</p> <p>A visual inspection for flaws shall be performed after each coat is applied. All flaws including pinholes, holidays, dry spray and sags shall be corrected before the next full coat is applied.</p> <p>The applicator is responsible to have an operational, audited and approved Quality Control and Assurance Program in place. The applicator shall have full time and identifiable supervision on site at all time.</p> <p>The DFT tests are to be conducted by the product manufacturer and are to conform to all requirements and regulations. Failure to achieve the required DFT test will be remedied at the contractor’s expense.</p> <p>NB: Refer to annexures for full Sigma specifications. This specification is to be approved by all consultants and the client in writing before the products are ordered and abortive costs are necessary.</p>
F12	Sikaflex 11FC	Sikaflex 11FC polyurethane flexible joint sealant to be applied at horizontal and vertical junctions internally and externally as per manufacturer’s specification. Sealant to be paintable. Substrate to be prepared as per manufacturers specifications. Painting of flexible joint sealant as per Dulux specification.

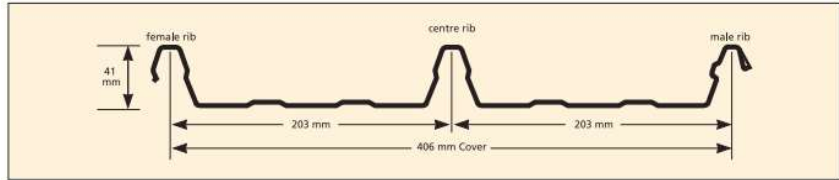
F13	Stepped Bitumen self-adhesive waterproofing Membrane DPC in Brickwork.	<p>Where brickwork rests on concrete beams DB300 self-adhesive waterproofing membrane stepped dpc to be used and built into inner skin and stepped outwards with one brick-course lower. End laps to be as per manufacturer's specification. To drain outwards through weepholes every 4th perpend with mortar fillet behind to form step. Area behind Dpc to be backfilled with mortar fillet. Surfaces to be primed as per Derbigum specification prior to installation.</p> <p>Ensure that DPC extends to external face of brickwork. Through V-Joint at DPC level (below weep holes) on external plastered face.</p>
F14	External Plaster	<p>External Plaster: 15mm 1:5 Smooth steel trowel cement plaster finish (externally in decorative patterns as per elevation). Prepare all blemishes - filled and sanded to approved finish. Galvanised wire chicken netting with 13mm hexagonal holes to be put over chased work in plaster, sheet sizes 300mm high x 50m Roll, 600mm x 50m Roll, 900mm x 25m Roll and 1200mm x 25m Roll.</p> <p>External Paint – Refer to Dulux specification:</p> <p>External Walls – Plastered - (Moisture Content 0% - 12%): Prepare and apply as per manufacturers specifications – 1 x coat Dulux Trade Moisture Tolerant Plaster Primer 2 x coats Dulux Wallguard</p> <p>External Walls – Plastered - (Moisture Content 12% - 50%): Prepare and apply as per manufacturers specifications – 2 x coats Dulux Pre-paint Dampshield applied to a minimum dry film thickness of 100 micron 2 x coats Dulux Wallguard</p> <p>External plastered horizontal / sloping surfaces (Parapet Walls and Ledges) (Moisture Content 0% - 12%): Prepare and apply as per manufacturers specifications – 1 x coat Dulux Trade Moisture Tolerant Plaster Primer 2 – 3 x coats Dulux Rainshield applied to a minimum dry film thickness of 600 micron 2 x coats Dulux Wallguard</p> <p>Existing external plastered walls with map-crazed cracking (Moisture Content 0% - 12%): Prepare and apply as per manufacturers specifications – 2 x coat Dulux Pre-paint Dampshield applied to a minimum dry film thickness of 100 micron 2 – 3 x coats Dulux Rainshield applied to a minimum dry film thickness of 600 micron 2 x coats Dulux Wallguard</p>

		<p>External Boundary Walls (Moisture Content 12% - 50%): Prepare and apply as per manufacturers specifications – 2 x coat Dulux Pre-paint Dampshield applied to a minimum dry film thickness of 100 micron 2 – 3 x coats Dulux Rainshield applied to a minimum dry film thickness of 600 micron 2 x coats Dulux Wallguard</p> <p>Existing External Concrete (Moisture Content 0% - 12%): Prepare and apply as per manufacturers specifications – 1 x coat Dulux Trade Moisture Tolerant Plaster Primer 2 x coats Dulux Wallguard</p>
G	Corner Protectors & Trims	
H	CEILINGS	
H1	6mm Fibre Cement Ceiling Boards	<p>6mm, 900mm wide fibre cement ceiling boards with 19mm half round SAPine cover strips. To be secured on 38 x 50mm on edge SAPine branders at max 400mm ccs with 32mm galvanised semi-clout nails at 150mm centres with cross brandering at joints, ends of sheets, cornices and light fittings.</p> <p>Prepare and apply in strict accordance with manufacturer's instructions: 1 x coat plaster primer, 2 x satin acrylic. Allow sufficient space for lighting and mechanical installation where specified. Nail heads to be stopped, sanded level & primed with Zinc chromate primer.</p> <p>69x19mm pine cornice with 10mm radius rounded bottom edge and slightly rounded back secured to wall with galv. Screw fixed counter sunk and pelleted at 400mm max centres properly stopped with wood putty and sanded smooth. Cornice to be in long lengths with neatly mitred joints and corners. Fill, knot, prime and then apply two coats of polyurethane non-drip enamel (colour by architect).</p>
H2	9.5mm RhinoBoard Flush Plastered Ceiling	<p>Neatly remove existing taperceiling and light fittings. Light fittings to be removed by registered electrician and all electrical conduits in ceiling void made safe. Contractor to inspect existing branders and roof structure and notify the Architect of the condition thereof.</p> <p>New 9.5mm thick taper edge RhinoBoard to be installed on existing branders. Contractor to check that existing branders are spaced at max. 400mm centres – If not, additional Treated SA Pine branders to match existing to be installed in order to comply with ceiling board manufacturer's specifications. RhinoBoard to be fixed with 32mm galvanized grabber screws spaced at max. 150mm centres. RhinoBoard to be fixed at right angles to branders. All joints to be covered with RhinoTape and ceiling then plastered with 3-6mm coat of RhinoLite Yellow 4 CreteStone all as per manufacturer's specification. Ceiling perimeter to be finished with</p>

		<p>Gypsum plaster coved cornice 75mm high fixed with 38mm galv. Clout nails at 300mm centres into brandering. Finish joints with paintable acrylic sealant. Allow drying time before over coating. Paint as per ceiling specification.</p> <p>Decision on if branders need replacing to be confirmed on site.</p> <p>Prepare and apply 1 x coat Plascon Plaster primer and with 2 x coats Plascon Double Velvet PVA. Colour to match existing and to be approved by Architect prior to painting.</p> <p>Allow sufficient space for lighting and mechanical installation where specified. Refer to M&E Engineer's and drawings.</p>
H3	Damp Plaster Ceiling	<p>All damp concrete soffit should be stripped up till bare concrete/plaster and cleaned. Prepare and apply Coprox Masonry waterproofing agent to negative side of surface in accordance with manufacturer specification. Prepare surface and apply paint as elsewhere described. (Colour to match existing).</p>
H4	Suspended Ceilings	<p>15mm thick OWA Constellation acoustic mineral wool ceiling tiles size 1200 x 600 with square edge (finish colour: white) laid on OWA Acoustic Premium S3 pre-painted exposed T24 tee suspension system including galvanised main tees, cross tees, hold down clips, wedges, reinforcement splines, etc., all suspended with galvanised hangers at centres not exceeding 1200mm, with ceiling perimeter finished with OWAconstruct® Shadowline W-trim plugged at 200mm centres, and all installed to manufacturer's instructions. Refer to ceiling plan for layout.</p> <p>NB: The contractor is to submit a sample for Architect's approval prior to ordering and before abortive costs are necessary.</p>
I	Internal Cills	
J	External Cills	
K	WINDOWS	
K1	Windows	<p>All windows to be as per schedule as per SANS 10400 codes. Windows to be installed to manufacturer's specifications and complete with stepped dpc. Aluminium to be manufactured and installed by A.A.A.M.S.A members only. To have stainless steel friction stays to suit window opening size. Window ironmongery to match window size.</p> <p>All external window frames to be continuously sealed against the surrounding structure.</p> <p>All windows to have a plastic covering with a low-tak adhesive covering.</p> <p>All bathroom/ablution windows to be fitted with obscure glass.</p> <p>Contractor to provide aluminium sample of colour specified and obtain written approval from the Architect before any fabrication can commence.</p> <p>All windows to have correct stainless steel friction stays.</p>
K2	Glazing	<p>All glazing as per SANS 10400. All glazing to windows to be marked safety glass unless otherwise required by SANS 10400. Glass in doors and side</p>

		lights to be marked safety glass as per schedule. All glass to bathrooms to be obscure frosted glass to architects approval. All frames to be sealed and pointed with polysulphide sealant (colour matched) around frame. Refer to XA calculations and door and window schedules.
K3	Covering During Building	All windows to have a plastic covering with a low-tak adhesive covering during building process for protection against scratches and other damage. To be removed on architects approval.
K5	Shopfront Sections	Patent and specialized aluminium shopfront sections as per schedule to include items K1 and K2
L	DOORS AND FRAMES	
L	Doors	All doors to be as per schedule as per SANS 10400 codes. Doors to be installed to manufacturer's specifications and complete with stepped dpc. Aluminium to be manufactured and installed by A.A.A.M.S.A members only. Doors to be painted or varnished to all sides and faces. All Alum doors to have a plastic covering with a low-tak adhesive covering.
L1	Door Stops	DORMA DDS-SS-017 stainless steel door stop.  Refer to Ironmongery schedule.
L2	Door Frames & Glazing	All door frames to be sealed and pointed with polysulphide sealant around frames. Glass in doors and side lights to be marked safety glass as per SANS 10400. All aluminium to be supplied and installed by AAAMSA members only.
L3	Weatherboards	All external timber doors to be fitted with Meranti weatherboard cut from 70 x 70mm timber, secured with approved waterproof wood glue and 4 x screw fixed to door with 40mm x 3mm dia brass screws to be pelleted. Finish to match door. Weatherboard to be primed prior to fixing.
L4	Cabin Hooks	All external doors to be fitted 150mm chrome plated brass cabin hooks per leaf mounted to 150 x 150 x 19mm Meranti blocks with aris moulded edges. Blocks to be 4 x screwed into walls with 65mm brass screws with plastic lugs, to be plugged and pelleted. Finish with 3 x coats approved polyurethane external quality sealer. Refer to Ironmongery schedule.
L5	Aluminium Shopfronts	All Shopfronts to be as per schedule and comply with NBR and SABS codes. Shopfronts to be installed to manufacturer's specifications, complete with stepped damp proof membrane and required sealant externally. Aluminium to be manufactured and installed by A.A.A.M.S.A members only.

		Glass in doors and side lights to be 6.5mm safety glass as per NBR. All frames to be sealed and pointed with polysulphide sealant (colour matched) around frame.
L6	Thresholds	External thresholds to be sloped from centre line of door towards outside at 15 degrees and to have built in st/steel weather bars. Refer to typical details.
M	Roof and Eaves	
M1	Roof Completion Certificate	<p>Timber roof trusses to comply with requirements of SABS Spec 0163 and to be constructed out of S.A Pine.</p> <p>Contractor to supply roof completion certificate from approved certifying agent in order for practical completion to be effected. The certificate is to cover the installation of roof sheeting, guttering and trusses. The certificate is to be supplied by an independent roofing inspector such as Mitek confirming that the trusses have been manufactured and installed to the governing SABS specifications and truss manufacturers instructions. In addition to this, confirmation from the roof sheeting manufacturer that the installation has been completed in terms of their instructions and governing SABS specifications is to be included</p> <p>Truss Shop Drawings to be submitted to the architect for approval. Allow 2 weeks for approval. To be approved by architect 4 weeks prior to truss orders been placed.</p>
M2	Kliplok Roof sheeting and side cladding	<p>ROOF SHEETING (Kliplok)</p> <p>The roof sheeting shall be double-interlocking concealed-fix Klip-Lok 700™ profile roll-formed in continuous lengths and cut to length by a pneumatic cut-off process from certified AZ150 zinculme® 0.58mm steel with a ColorBOND® finish to one side and a standard backing coat. Roof sheeting color to be color matched on site and a sample is to be provided for approval. Contractor to obtain written approval of roof sheeting colour from Architect prior to ordering. A certificate verifying compliance shall be issued by the manufacturer, Global Roofing Solutions. The profile shall be roll-formed with four ribs at centres not exceeding 233mm and a cover width not exceeding 700mm. These will include a male and female rib with capillary action breaks. The male rib shall incorporate spurs spaced no more than 300mm apart to ensure minimum clipping areas on the side lap, and stand proud of the rib for purposes of double interlocking action with adjacent sheets. When interlocked, the minimum sheet depth shall be 41mm. Each trough shall incorporate two stiffener ribs. Stop ending and lipping of sheets to be carried out as per sheeting manufacturer's installation manual and specifications. The contractor is to provide a 10 year guarantee from GRS on completion of the installation including a 5 year workmanship and installation guarantee.</p>



Flashings:

All flashings to be AZ150 zinculme® 0.55mm steel with a ColorBOND® to match roof sheeting

APEX FLASHING (Kliplok)

KLIP-LOK 700™ FLASHINGS

Flashings specifications shall be to the Global Roofing Solutions standards and fixed to the sheeting with S10 brackets or, Sliding brackets at apex where roof sheets are 30m or longer, to obviate any direct fixing perforations. Prior to flashings being fixed, all troughs at the apex shall be stop-ended to the full depth of the sheet in order to prevent any penetration of wind driven water. The trough shall be lipped at the eaves end to form a drip. Transverse flashing flanges shall be notched to the sheet profile where necessary. All these operations must be performed with special tools available from Global Roofing Solutions.

RIDGE CAPPING (Kliplok)

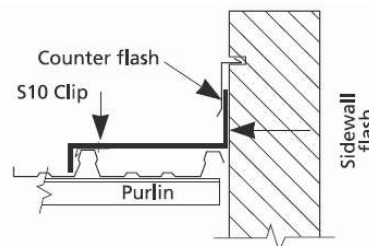
Ridge capping (Code FK73) to be GRS Klip-Lok 700 550mm girth, three times bent along girth and notched on site to suit roof profile. All to be fixed according to manufacturer's recommendations.

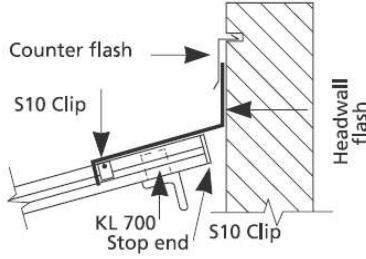
VALLEY FLASHING (Kliplok)

Raking valley gutter to be GRS Klip-Lok 700 (girth to be stated), six times bent along girth. All to be fixed according to manufacturer's recommendations.

SIDEWALL FLASHING (Kliplok)

Side wall flashing (Code FK79) to be GRS Klip-Lok 700 408mm girth, two times bent along girth. Flashing to be sealed with an approved sealant. Counter flashing (Code FK77) to be GRS Klip-Lok 700 185mm girth, two times bent along girth. All to be fixed according to manufacturer's recommendations.



		<p>HEADWALL FLASHING (Kliplok) Headwall flashing (Code FK78) to be GRS Klip-Lok 700 375mm girth, two times bent along girth and notched on site to suit roof profile. Counter flashing (Code FK77) to be GRS Klip-Lok 700 185mm girth, two times bent along girth. All to be fixed according to manufacturer's recommendations.</p>  <p>DRIP FLASHING (Kliplok) Drip flashing to be GRS Klip-Lok 700 375mm girth, three times bent along girth. All to be fixed according to manufacturer's recommendations.</p> <p>All to have manufacturer's 10 year warranty.</p>
M3	Profile Closure	0.8mm x 154mm girth narrow or wide flute closure to match roof sheeting, all fixed in accordance with the manufacturer's recommendations.
M4	Polyurethane Seal	Polyurethane seal to be put under all flashings as per manufacturers recommendation.
M5	Weatherproof Louvre Unit	<p>LOUVRE UNITS TO BE CONFIRMED BY MECHANICAL ENGINEER. Dimensions as per detail, material to match roof sheeting/side cladding to be pre-painted to external face steel louvre unit to match roof sheeting, fixed in accordance with the manufacturer's recommendations. Supply complete with rodent proof mesh and lugs for building in. Louvre to be supplied with blades fixed to outer frame as per manufacturers specifications.</p> <p>All reveals to get full jamb lining to match roofing material and to turn up/down 50mm on internal face. Refer to typical details.</p>
M6	Paint to Steel	Refer to Sigma specification.
M7	Cover Flashing	0.8mm x 230mm girth pre-painted cover flashing to match roof sheeting to slot between purlin and rafter top continuing over roof sheeting, all fixed in accordance with the manufacturer's recommendations.
M8	Counter flashing	Steel 1,0mm galvanised steel Counter flashing 150mm girth, three times bent along girth. Counter flashing set into wall, with min saw cut of 12mm and fixed to wall with metal drive pins at 600 c/c. Counter flashing steps down with the roof slope.
M9	Waterproofing membrane	Sika® RainTite® Kit DIY flexible UV resistant acrylic emulsion waterproofing system colour to architects approval applied in accordance with the manufacturer's recommendations including G1 non-woven polyester reinforcing membrane - Membrane size: 300mm x 20m long.
M10	EPDM Specification	Carlisle SureSeal EPDM 45mil single ply membrane to be fully adhered to

		<p>approved substrate using Carlisle Low VOC bonding adhesive. Perimeters to be mechanically fastened using Carlisle zinc alloy termination bars in conjunction with Carlisle LAP Sealant and Water cut-off mastic. All corners, termination through substrate and details to be done according to Carlisle spec using Carlisle pressure sensitive Elastoform flashing, HP-250 primer and LAP sealant. Seams of membrane to be done according to Carlisle spec using Carlisle 3 inch SecurTape and HP-250 Primer.</p> <p>The contractor is to engage with the above mentioned supplier to solicit the required 15 year guarantee on the materials and workmanship, which is to be provided to the client under the joint names of the contractor and the product supplier. The contractor is to ensure that the supplier inspects the works at regular intervals during the application process and is satisfied that the required application methodology is followed. Certificate in the joint names is to be issued to the PA and client on practical completion.</p>
M11	Penatron Concrete Additive	Penatron concrete admix as per engineers specifications. Refer to annexures for product data sheet.
M12	Ridge Ventilator	Ridge mounted ventilator unit to match roof sheeting with min. throat width dimension of 300mm x 2280mm or similar approved. Ridge ventilator unit to be weather tight and fitted with galv. MS vermin mesh. Contractor to get Architects written approval of ventilator unit prior to procuring.
M13	Sisalation	Fire retardant industrial grade reinforced aluminium foil Sisalation double sided, durable, reflective foil laminate incorporating a fire retardant between the various substrates, bonded together with low density polyethene, tested for conformance with SANS 1381-4:2009 , with a Class 1 fire rating in accordance with SANS 10177 - 3:2005 and ASTM E84 and BS 476 part 5, 6 and 7, with purlins spaced at greater than 1500mm centres drawn tautly across rafters with purlins spaced at greater than 1500mm centres and secured to each rafter with 38mm x 3,2mm x 1100mm hardboard counter batten strips positioned flush with the bottom edge of the material thus leaving 150mm overlap exposed at the top for the next layer and 150mm overlap thereafter on each 1250mm width roll.
M14	Structural Flashing	Galv. MS 1.2mm Structural Flashing, 970mm girth, bent once, positive fixing to occur behind laps in flashing, all laps to be sealed with 2 continuous beads of Sikalastic or similar approved adhesive sealant. All fixings to be concealed and done with galvinsed screws. Fixings to occur on vertical faces. Flashing to be cut in equal lengths of no more than 2450mm and fixed at equal centres of max 500mm centers.
M15	Gutter Flashing	Gutter flashing from AZ150 zinculme® 0.55mm steel with a ColorBOND® to match roof sheeting, 400mm girth bent 3 times along girth and notched on site to suit GRS Klip-Lok 700 profile. Flashing to be install under sheeting, with bent lip to prevent ingress from

		driven rain, and behind gutter brackets.
M16	Roof Turbine Ventilator	Curvent CPT350 (or similar approved) from AZ150 zinculme® steel with ColorBOND® to match roof sheeting, fitted to roof sheeting as per sheeting manufacture's specifications. Install back flashing as per sheeting manufacture's details. Install additional purlins to support turbine ventilator as required.
N	Sewerage, plumbing, drainage, sanitary fittings and catering equipment	
P	Rainwater goods, fascia's and barges	
<p>Timber with a painted finish must be primed - prior to fixing it in place. Timber with a sealed or vanished finish should at least get its first coats prior to fixing it in place. i.e. end purlins and branders, Meranti cabin hook and gutter blocks. All Fibre cement fascia and barge boards is to be primed all round before fixing.</p>		
P1	Gutters & Downpipes	<p>125mm Ogee pre-coated aluminium seamless gutter with 10 year guarantee with architect approved coloured finish 0,8mm thick including colour-coded rivet-fixed internal and external mitres and end caps internally sealed using silicone sealant, hung by screw fixed internal aluminium hangers at 600mm centres including expanded aluminium mesh leaf trap.</p> <p>80mm round PVC down pipes, painted (Colour to match roof sheeting), fixed to walls with pre-painted downpipe cleats using nail-in anchor fixings and fixed to gutter outlets with domestic snap seals, including all necessary bends, elbows, etc. RWP to be secured to 144 x 144 x 19mm Meranti blocks with aris moulding. To be secured to wall with 4 x brass screws and plastic lugs, counter sunk- Finish with 3 x coats polyurethane sealer to architects approval.</p>
P2	Gutters & Downpipes	<p>200 x 200 x 200mm Rectangular pre-coated aluminium seamless gutter with 10 year guarantee with architect approved coloured finish to match roof sheeting 1,6mm thick, including colour-coded rivet-fixed internal and external mitres and end caps internally sealed using silicone sealant, hung by screw fixed internal aluminium hangers at 600mm centers.</p> <p>80mm round PVC down pipes, painted (Colour to match roof sheeting), fixed to walls with pre-painted downpipe cleats using nail-in anchor fixings and fixed to gutter outlets with domestic snap seals, including all necessary bends, elbows, etc. RWP to be secured to 144 x 144 x 19mm Meranti blocks with aris moulding. To be secured to wall with 4 x brass screws and plastic lugs, counter sunk- Finish with 3 x coats polyurethane sealer to architects approval.</p>
P3	Fiber Cement Fascia Boards (225mm High)	Fibre cement fascia board's size 12mm thick x 225mm high with medium density plain finish, with 38 x 38/50mm splay cut sawn softwood battens to top and bottom edges with PVC H profile jointing strips and corner jointers. Complete with 38 x 38 x 114mm SA Pine rafter cleats skew nailed to rafter feet where rafters protrude to outer skin. Fascia's to have stop-ends at Expansion joints to building.

P4	Fibre Cement Barge Boards (225mm High)	Fibre Cement bargeboards size 12mm thick x 225mm high with medium density plain finish, with 38 x 38mm sawn softwood battens to top and bottom edges with PVC h profile jointing strips and corner jointers.
Q	Electrical and Lightning Protection	
All electrical to be carried out by duly competent and qualified persons in strict accordance with the NBR and as per engineers design and specs. See electrical layout.		
Lighting fixtures to be free issue to the contractor.		
Q2	Fire detection and alarm	As per Electrical engineers design.
Q3	Lighting	As per Electrical engineers design.
R	Structural	
All structural member sizes and positions to be checked and verified by the structural engineer. Columns and beams that are left exposed are to have 20mm fillet to all corners.		
R1	Structural	All structural member sizes and positions to be checked and verified by the structural engineer.
R2	Structural details	Details according to structural engineer.
R3	Structural timber	All Structural timber to be grade S5 and should be CCA treated. Exposed structural timber to have a clear finish (not green). Details according to structural engineer.
R4	Exposed Concrete	All exposed concrete to be class 1 concrete - to be finished with stadium grey. All hidden or plastered concrete to be class 2 concrete. Joints to be as per engineer's specification and to be sealed with an approved poly urethane joint primer and sealant, suitable for painting. Rule of thumb: All exposed concrete to have 20mm chamfers.
S	General	
S1	Balustrade	Balustrades to be installed by direct subcontractor, R&R Aesthetics. Balustrades and handrails to conform to all NBR's.
S2	Demolition	All demolition to be in line with latest Occupation Health and safety Act. WARNING: Under no circumstances shall any work of any nature whatsoever on any ASBESTOS material be undertaken unless the work is entrusted and mandated to a "REGISTERED ASBESTOS CONTRACTOR" in terms of the Asbestos Regulations. [CR 12(9)] (contact the Regional Manager's Office)
S3	Steel work	All external mild steel work to be hot dipped galvanised after welding. Prepare degrease prepare and apply paint as elsewhere described
S4	Temporary Hoarding	Contractor is to hoard off all street edges and allow for safe passage of pedestrians and transport. Minimum hoarding to be of corrugated sheeting material of 2100mm high. All scaffolding to supply with shadecloth barrier to

		be kept in neat and tidy condition and suitably secured to endure prevailing wind at all times.
T	Joinery/Shelving and Cupboards	
U	Signage	
X	X-Codes	
X1	Remove Existing Copings	Existing waterproofing to coping to be removed. Existing precast concrete copings to be removed. Top portion of wall where copings have been removed to be scabbled and loos plaster removed. Make good plaster with new plaster as specified elsewhere. Paint as specified elsewhere
X2	Break-out Pockets for Steel Columns	Pockets to be broken out for steel columns. Reinstate brickwork. New brickwork to recess into web of column with soft joint installed between steel and brickwork as specified elsewhere. Make good plaster with new plaster as specified elsewhere. Paint as specified elsewhere
X3	Allow for making good of brickwork	Allow for reinstating of brickwork and making good plaster and paint near top of parapet wall for roofs where fabricated truss structures are installed. Make good plaster with new plaster as specified elsewhere. Paint as specified elsewhere
X4	Allow for cleaning of bird & animal mess	Allow for cleaning of plant rooms and roof voids by specialist cleaning services.
X5	Neatly Demolish Existing Laundry windows	Neatly breakout existing laundry top light windows and make good existing plaster. Brick up openings. Soft joints to be installed between concrete and brickwork as specified elsewhere. Joints to be sealed and v-jointed as specified elsewhere. New plaster and paint as specified elsewhere.
X6	Tree trimming	Allow for trimming of tree encroaching onto roof of Block B
PC AMOUNTS		
1.		
2.		
PROVISIONAL SUM AMOUNTS		
3.	HVAC Ducting	Allow R75 000.00 for HVAC ventilation ducting
4.		
LIST OF SAMPLES REQUIRED		
	NB: All required samples are to be signed off by the PA and the Client. Failure to do so by the client could result in the works being rejected by the PA and client. In such case abortive costs will rest solely with the contractor. No extension of time claims will be entertained for remedial works due to the contractor's failure to get samples approved and signed off. The contractor is to allow for a 7day period for the client and PA to inspect and approve provided samples.	
1.	Plaster quality internally	
2.	Plaster quality externally	
3.	Concrete off shutter quality	

• EAST LONDON • PORT ELIZABETH • QUEENSTOWN • MTHATHA •

MEMBERS

- J.M.F Jordaan B. Build & B.Arch (UPE) Arch (SA) MIA Pr. Arch SACAP
- B.P Buss B. Build & B.Arch (UPE) Arch (SA) MIA Pr. Arch SACAP

- H.L Sieg B. Build & B.Arch (UPE) Arch (SA) MIA Pr Arch SACAP
- P. Jolobe B. Build & B.Arch (NMMU) Arch (SA) MIA Pr. Arch SACAP

GENERAL NOTES

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE SOUTH AFRICAN NATIONAL STANDARDS (SANS) AND THE INTERNATIONAL STANDARDS (ISO) REFERRED TO IN THE SPECIFICATIONS.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPLICABLE AUTHORITIES.

3. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE ENGINEER.

4. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL SERVICES AND UTILITIES AT ALL TIMES.

5. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SERVICES AND UTILITIES.

7. ALL WORK SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME.

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPLICABLE AUTHORITIES.

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15. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE ENGINEER.

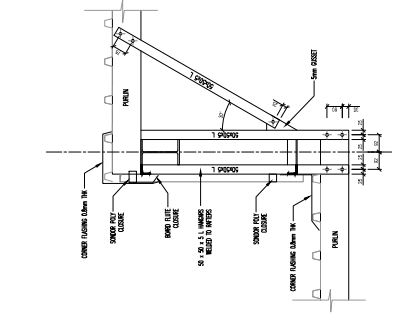
16. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL SERVICES AND UTILITIES AT ALL TIMES.

17. ALL DIMENSIONS ARE UNLESS OTHERWISE SPECIFIED.

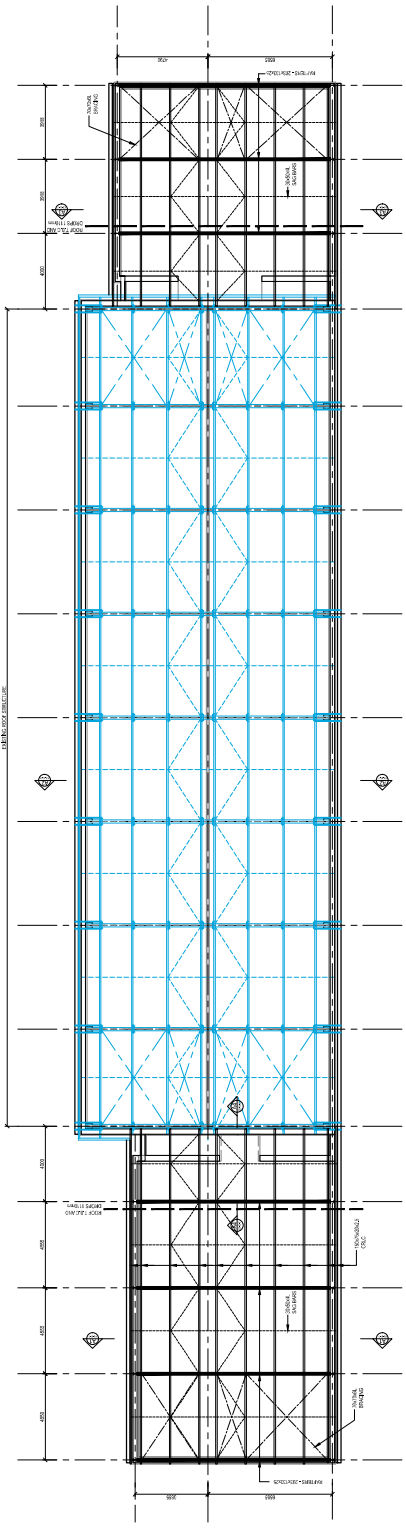
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SERVICES AND UTILITIES.

19. ALL WORK SHALL BE COMPLETED WITHIN THE SPECIFIED TIME FRAME.

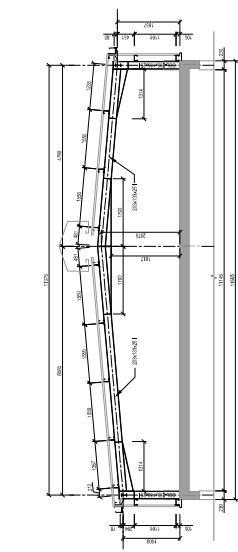
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPLICABLE AUTHORITIES.



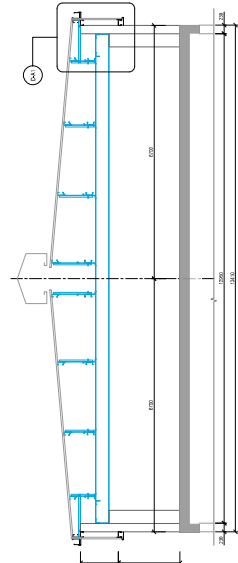
SECTION M-M4
SCALE 1:10



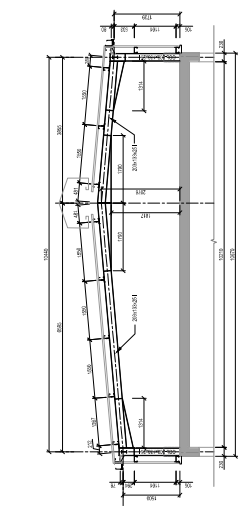
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SCALE 1:10



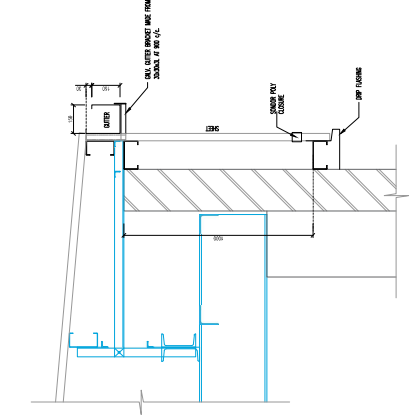
BLOCK A - SECTION A5-A3
SCALE 1:10



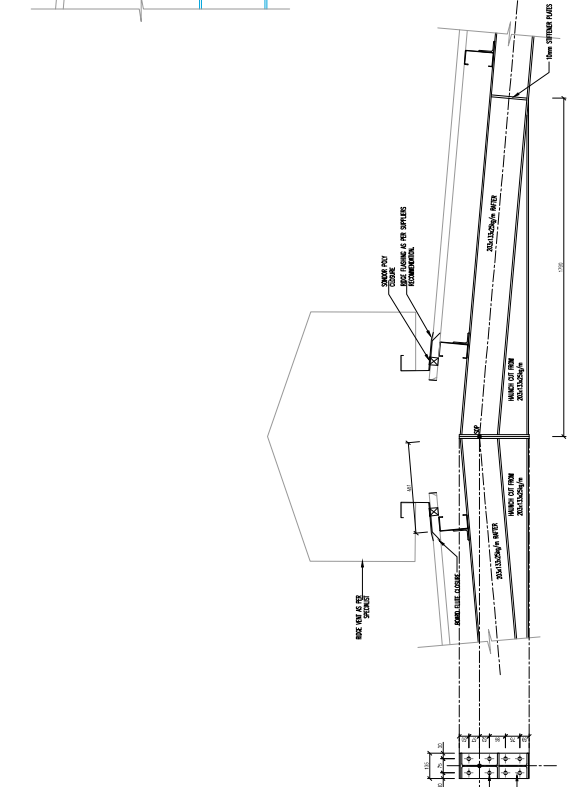
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SCALE 1:10



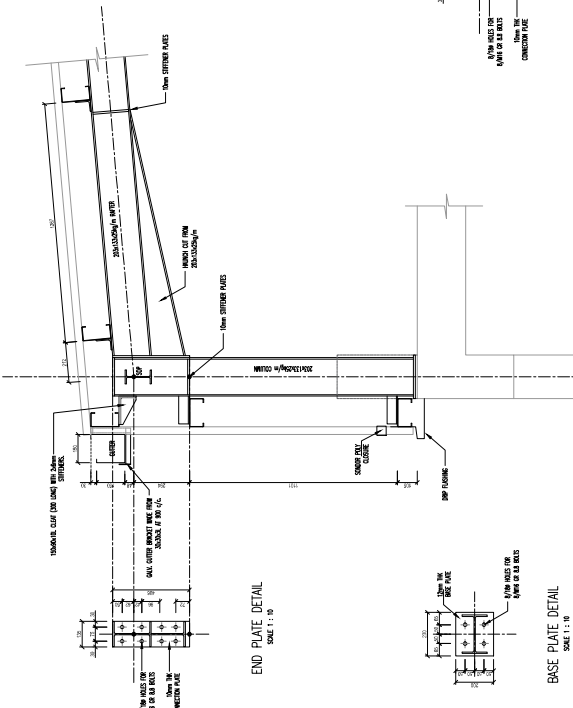
BLOCK A - SECTION A1-A1
SCALE 1:10



DETAIL D-A1
SCALE 1:10



RIDGE VENT DETAIL
SCALE 1:10



END PLATE DETAIL
SCALE 1:10

BASE PLATE DETAIL
SCALE 1:10

REFER TO COLUMN CONNECTION DETAIL
SCALE 1:10

PROJECT: SIKKIMO FACILITY
MANAGEMENT CONTRACT
ANDRIES VORBLOED HOSPITAL

CLIENT: DEPARTMENT OF HEALTH

FOR CONSTRUCTION

NO.	REVISION
1	ISSUED FOR CONSTRUCTION

calculus
CONSTRUCTION PROJECTS
111 PLOEGMANS
214 FARM ROAD
LINDSAY, EAST LONDON 6140

ROOF PLAN BLOCK A
ADDITIONS

DATE: 21 MAR 2024

PROJECT: 1812

REV: S01-01

0

GENERAL NOTES:
 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
 2. REFER TO THE RELEVANT PARTS OF THE DRAWING FOR DIMENSIONS.
 3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.
 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITIES.

FOR CONSTRUCTION
 SECTION
 1. FOR THE CONTRACTOR'S USE ONLY

PROJECT:
 SAKKINGO FACILITY
 MANAGEMENT CONTRACT
 ANDRÉS VORBLÖD HOSPITAL

CLIENT:
 DEPARTMENT OF HEALTH

DATE:
 15.03.2024

PROJECT NO:
 1812

REVISION NO:
 S06-01

SCALE: 1:1

SCALE: 1:1

SCALE: 1:1

SCALE: 1:1

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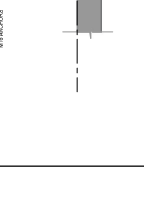
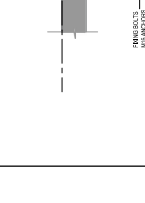
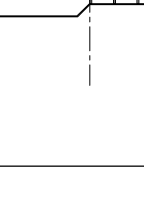
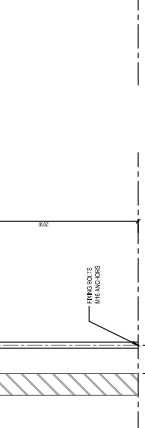
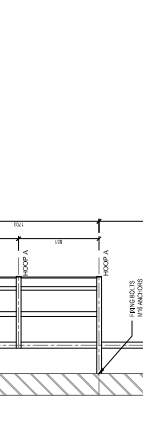
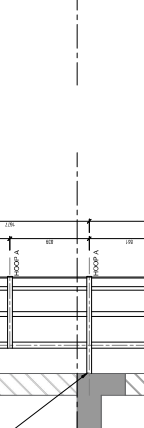
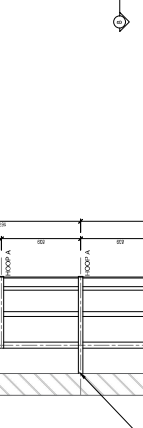
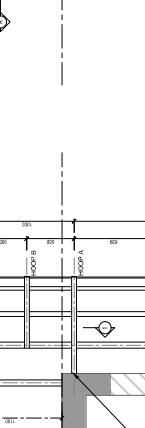
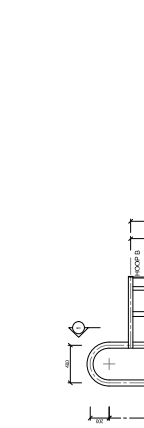
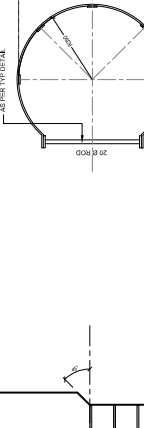
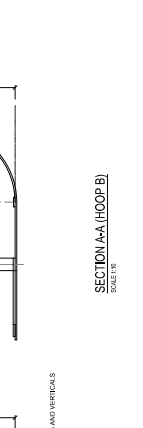
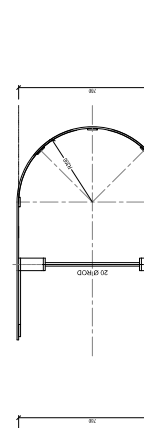
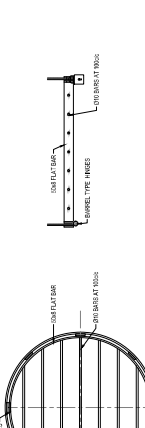
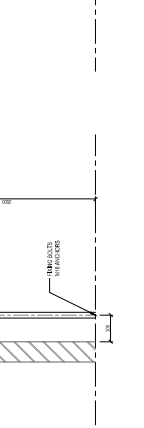
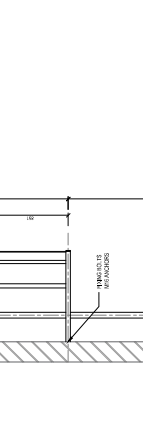
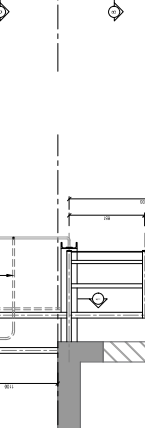
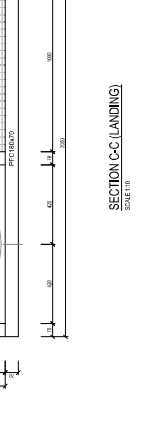
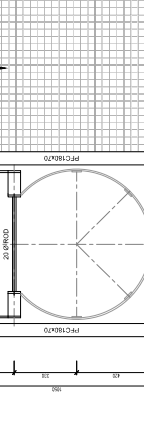
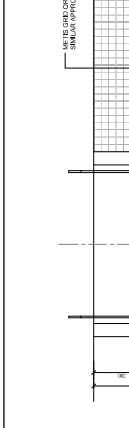
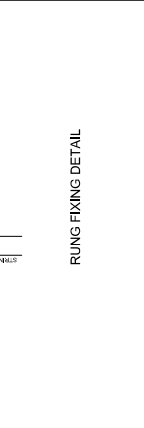
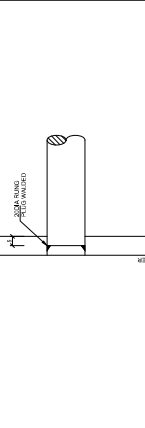
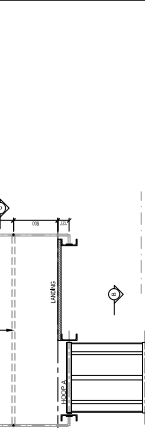
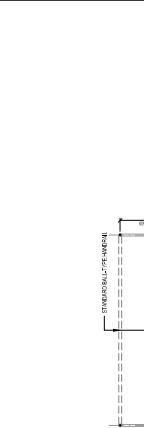
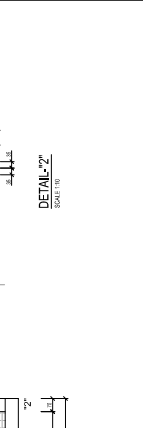
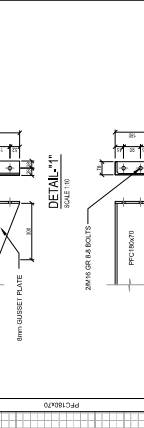
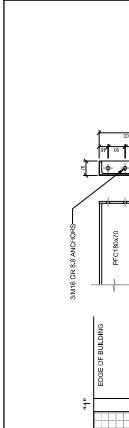
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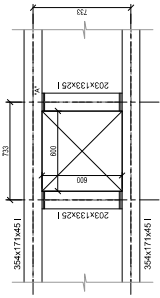
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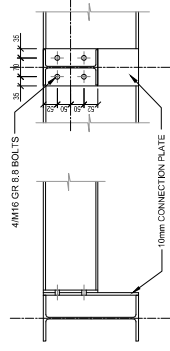
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GENERAL NOTES

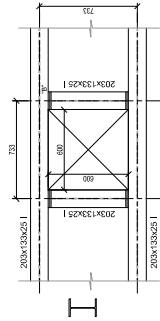
DIMENSIONS TO BE CONFIRMED ON SITE.
CUT LADDERS WITH LANDINGS, POSITIONS TO BE CONFIRMED.



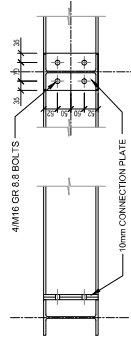
OPENING IN SLAB +/- 7m SPAN



DETAIL "A"



OPENING IN SLAB +/- 2.5m SPAN



DETAIL "B"

PROJECT:
SAKHWO FACILITY
MANAGEMENT CONTRACT
ANDRIES VOSLOO HOSPITAL

CLIENT:
DEPARTMENT OF HEALTH

STATUS:
FOR CONSTRUCTION

NO	DATE	REVISION
0	07/21/21	ISSUED FOR CONSTRUCTION

calculus
Engineering and Project Management
382 Mann Road
Burlington
Tel: +27 45 385 1100
Fax: +27 45 385 1102
Email: info@calculuslab.com

DRAWING:
**ADDITION TO SLAB FOR
NEW MANHOLE OPENINGS**

SCALE	DATE	DESIGNED BY	DRAWN BY
AS SHOWN	07/20/2021	P. O'KENNEDY	P. O'KENNEDY

CDR NO:	1812
DRAWING NO:	S07
REV:	0

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STRUCTURAL STEELWORK - COASTAL CONDITIONS

1. ALL STRUCTURAL STEELWORK SHALL BE GALVANNEALD TO SANS 10101 (ISO 14620) AND THE PROJECT SPECIFICATION.
2. WELDING SHALL CONFORM TO AWS D1.1 AS SPECIFIED IN SANS 10101 (ISO 14620) AND THE PROJECT SPECIFICATION.
3. BUTTWELDS SHALL DEVELOP THE FULL STRENGTH OF THE MEMBER AND BE WELDED TO THE FULL PENETRATION WELDING SPECIFICATION.
4. ALL WELDING TO BE DONE CONTINUOUSLY. WELDER SHALL BE QUALIFIED TO THE PROJECT SPECIFICATION.
5. WELDING ELECTRODE TO BE E70K UNLESS OTHERWISE NOTED.
6. A COMPLETE SET OF SHOP DRAWINGS SHALL BE SUBMITTED TO THE CLIENT FOR APPROVAL BEFORE FABRICATION COMMENCES.
7. ALL STRUCTURAL STEELWORK SHALL BE GALVANNEALD TO SANS 10101 (ISO 14620) AND THE PROJECT SPECIFICATION.
8. WHERE TEMPORARY PROPPING IS NECESSARY, THE PROPPING SHALL BE DESIGNED AND DIMENSIONED TO SUPPORT ALL LOADS APPLIED TO THE STRUCTURE.
9. ALL SPICES IN STEEL MEMBERS ARE REQUIRED FOR TRANSPORT TO THE FABRICATOR FOR APPROVAL. THIS WILL BE SUBMITTED TO THE CLIENT FOR APPROVAL.
10. BASE PLATES SHALL BE GALVANNEALD TO SANS 10101 (ISO 14620) AND THE PROJECT SPECIFICATION.
11. GALVANNEALD STEEL SHALL BE GALVANNEALD TO SANS 10101 (ISO 14620) AND THE PROJECT SPECIFICATION.
12. MEMBERS TO BE BENT SHALL BE BENT TO THE REQUIRED RADIUS AND TO BE BENT TO THE REQUIRED RADIUS AND TO BE BENT TO THE REQUIRED RADIUS.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF EXISTING SERVICES AND UTILITIES.
14. ALL EXISTING SERVICES AND UTILITIES TO BE PROTECTED SHALL BE IDENTIFIED AND PROTECTED BY THE CONTRACTOR.
15. ALL EXISTING SERVICES AND UTILITIES TO BE PROTECTED SHALL BE IDENTIFIED AND PROTECTED BY THE CONTRACTOR.

CORROSION PROTECTION

1. ALL STEELWORK SHALL BE GALVANNEALD TO SANS 10101 (ISO 14620) AND THE PROJECT SPECIFICATION.
2. ALL STEELWORK INCLUDING GALVANNEALD LAPPED CHANNELS & GALVANNEALD TO SANS 10101 (ISO 14620) AND THE PROJECT SPECIFICATION.
3. ALL STEELWORK SHALL BE GALVANNEALD TO SANS 10101 (ISO 14620) AND THE PROJECT SPECIFICATION.
4. ALL STEELWORK SHALL BE GALVANNEALD TO SANS 10101 (ISO 14620) AND THE PROJECT SPECIFICATION.
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8. ALL STEELWORK SHALL BE GALVANNEALD TO SANS 10101 (ISO 14620) AND THE PROJECT SPECIFICATION.
9. ALL STEELWORK SHALL BE GALVANNEALD TO SANS 10101 (ISO 14620) AND THE PROJECT SPECIFICATION.
10. ALL STEELWORK SHALL BE GALVANNEALD TO SANS 10101 (ISO 14620) AND THE PROJECT SPECIFICATION.

NOTE:

1. ALL DIMENSIONS TO BE COMPARED ON-SITE FOR FABRICATION.
2. TO BE READ IN CONJUNCTION WITH ARCHITECT'S LAYOUT.

PROJECT: **SAKHIWO FACILITY MANAGEMENT CONTRACT: ANDRIES VOSLOO HOSPITAL**

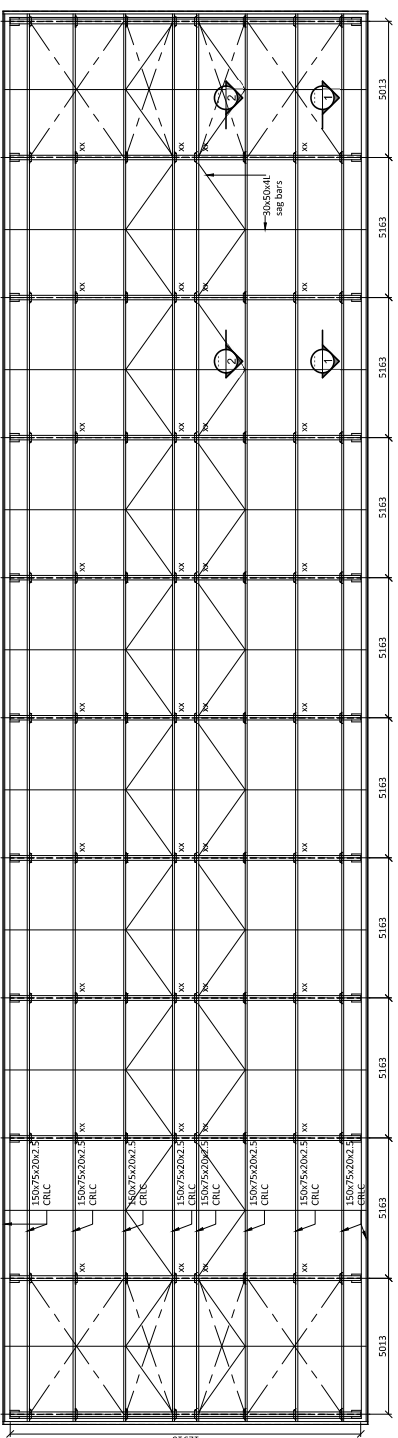
CLIENT: **DEPARTMENT OF HEALTH**

DESIGNED FOR: **FOR CONSTRUCTION**

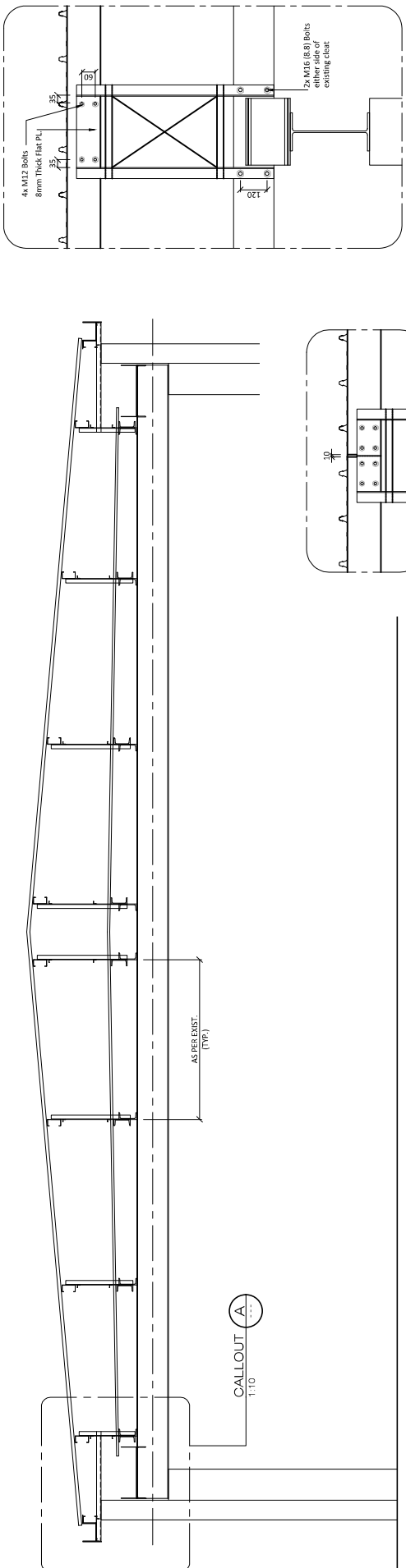
NO	DATE	REVISION
1	15-02-20	ISSUED FOR CONSTRUCTION

CONTACT DETAILS:
89 Vries Road
Pretoria 0001
E-mail: info@calculusem.com

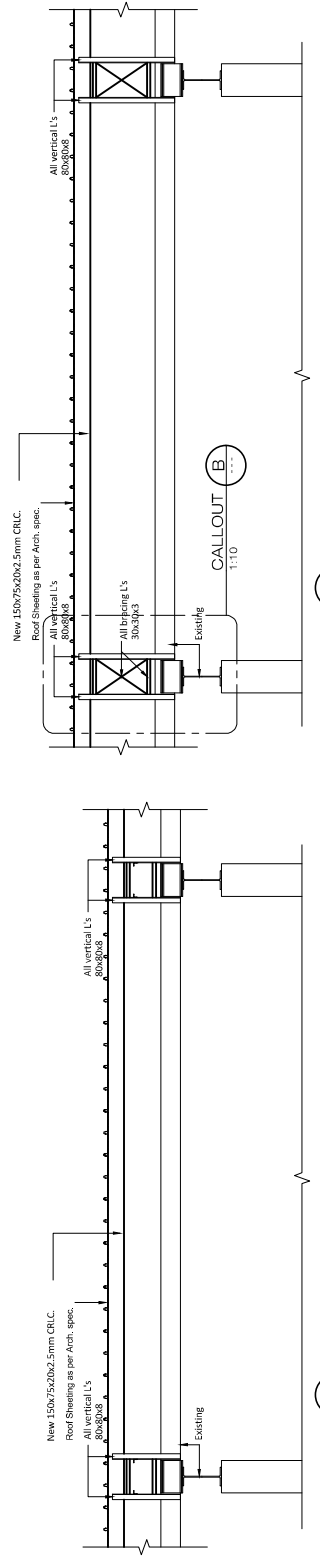
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DRAWN: A VAN DER MERWE
APPROVED: [Signature]
FOR NO: 1812
DRAWING NO: S02
REV: 0



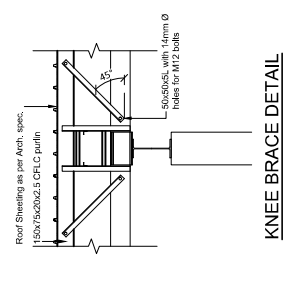
PLAN - BLOCK D
1:100



SECTION 1
1:25



SECTION 2
1:25



KNEE BRACE DETAIL
1:25

ALL DRAWINGS TO BE CHECKED BY THE CONTRACTOR FOR ACCURACY AND COMPLIANCE WITH THE SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE RELEVANT AUTHORITIES.

STRUCTURAL STEEL WORK - COASTAL CONDITIONS

1. ALL STEELWORK SHALL BE GALVANIZED TO SANS 1011 (ISO 14620:09).
2. ALL STEELWORK INCLUDING COLLAR/CLAMP JOINTS, WELDED JOINTS & BOLTS SHALL BE GALVANIZED TO SANS 1011 (ISO 14620:09).
3. ALL STEELWORK SHALL BE GALVANIZED TO SANS 1011 (ISO 14620:09) BEFORE ANY PAINTING OR OTHER FINISHES ARE APPLIED.
4. ALL WELDING TO BE PERFORMED BY QUALIFIED WELDERS IN ACCORDANCE WITH SANS 1012 (ISO 5817:2007) AND THE PROJECT SPECIFICATION.
5. ALL WELDING TO BE PERFORMED IN ACCORDANCE WITH SANS 1012 (ISO 5817:2007) AND THE PROJECT SPECIFICATION.
6. ALL WELDING TO BE PERFORMED IN ACCORDANCE WITH SANS 1012 (ISO 5817:2007) AND THE PROJECT SPECIFICATION.
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15. ALL WELDING TO BE PERFORMED IN ACCORDANCE WITH SANS 1012 (ISO 5817:2007) AND THE PROJECT SPECIFICATION.
16. ALL WELDING TO BE PERFORMED IN ACCORDANCE WITH SANS 1012 (ISO 5817:2007) AND THE PROJECT SPECIFICATION.

CORROSION PROTECTION

1. ALL STEELWORK SHALL BE GALVANIZED TO SANS 1011 (ISO 14620:09).
2. ALL STEELWORK INCLUDING COLLAR/CLAMP JOINTS, WELDED JOINTS & BOLTS SHALL BE GALVANIZED TO SANS 1011 (ISO 14620:09) BEFORE ANY PAINTING OR OTHER FINISHES ARE APPLIED.
3. ALL STEELWORK SHALL BE GALVANIZED TO SANS 1011 (ISO 14620:09) BEFORE ANY PAINTING OR OTHER FINISHES ARE APPLIED.
4. ALL STEELWORK SHALL BE GALVANIZED TO SANS 1011 (ISO 14620:09) BEFORE ANY PAINTING OR OTHER FINISHES ARE APPLIED.

PROJECT:
SAKHWO FACILITY
MANAGEMENT CONTRACT:
ANDRIES VOSLOO HOSPITAL

CLIENT:
DEPARTMENT OF HEALTH

DESIGNED FOR:
FOR CONSTRUCTION

NO	DATE	REVISION
0	01/08/18	ISSUED FOR CONSTRUCTION

calculus
Engineering and Project Management
CONTACT DETAILS:
Tel: +27 41 581 288
Fax: +27 41 581 289
Cell: 082 305 3402
WhatsApp: 082 305 3402
Email: info@calculus.co.za
Website: www.calculus.co.za

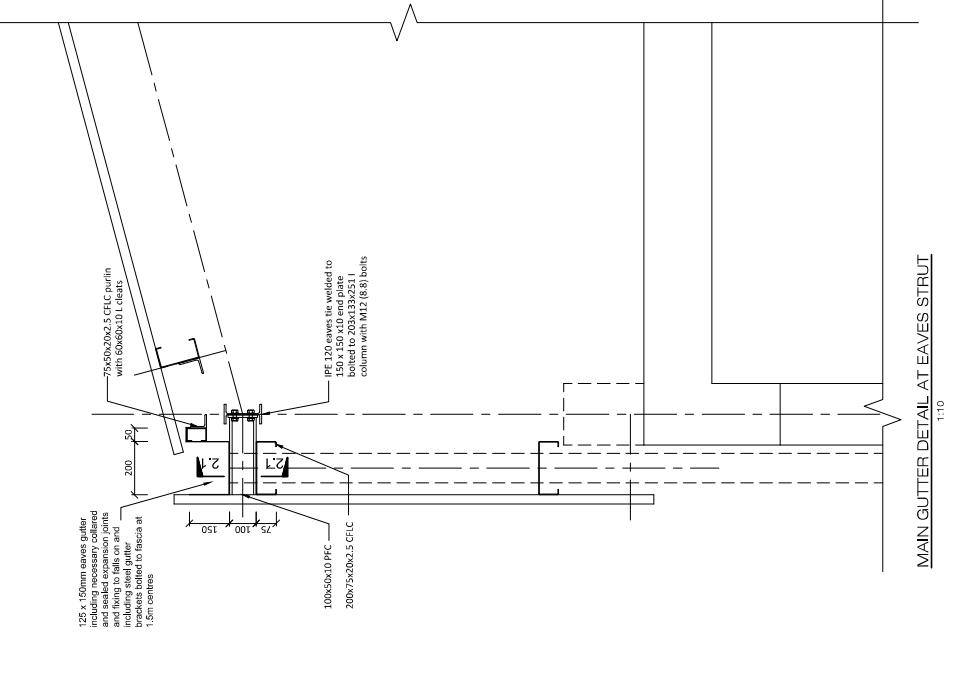
**GUTTER DETAILS
BLOCK B & C**

NO	DATE	REVISION
0	01/08/18	ISSUED FOR CONSTRUCTION

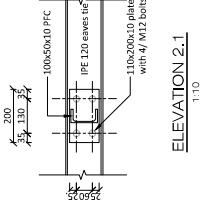
DATE: 01/08/18	BY: M. VAN DER MERWE	APPROVED: M. VAN DER MERWE
DATE: 01/08/18	BY: M. VAN DER MERWE	APPROVED: M. VAN DER MERWE

NOTE:

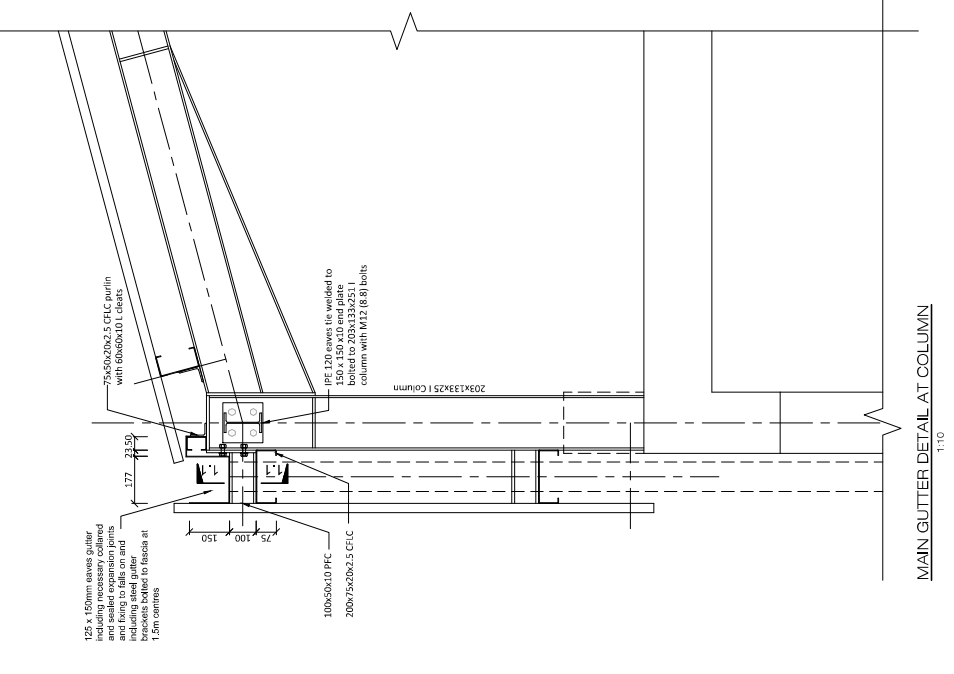
1. ALL DIMENSIONS TO BE CORNER ON UNLESS OTHERWISE NOTED.
2. TO BE READ IN CONJUNCTION WITH ARCHITECT'S LAYOUT.
3. SHOP DRAWINGS TO BE SUBMITTED FOR ALL STRUCTURAL STEEL.
4. 100 x 150mm GALVANIZED STEEL END PLATE WITH 4x M12 BOLTS TO BE WELDED TO THE END OF THE COLUMN.



ELEVATION 1.1
1:10



ELEVATION 2.1
1:10



ELEVATION 1.1
1:10

ELEVATION 2.1
1:10

- NOTE:**
1. ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO FABRICATION.
 2. TO BE USED IN CONJUNCTION WITH ARCHITECTURAL LAYOUT.
 3. ALL DIMENSIONS TO BE CONFIRMED WITH ARCHITECTURAL LAYOUT.
 4. 125 X 100MM GUTTERS INCLUDING NECESSARY COLLARED AND STEEL GUTTER BRACKETS TO BE INSTALLED AT 2000MM ON CENTRE LINE.
 5. CONCRETE FINISHES ALONG PERIMETER OF BALCONY, LOBBY PORTALS TO BE CONFIRMED ON SITE.

STRUCTURAL STEEL WORK - COASTAL CONDITIONS

1. ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO FABRICATION.
2. TO BE USED IN CONJUNCTION WITH ARCHITECTURAL LAYOUT.
3. ALL DIMENSIONS TO BE CONFIRMED WITH ARCHITECTURAL LAYOUT.
4. 125 X 100MM GUTTERS INCLUDING NECESSARY COLLARED AND STEEL GUTTER BRACKETS TO BE INSTALLED AT 2000MM ON CENTRE LINE.
5. CONCRETE FINISHES ALONG PERIMETER OF BALCONY, LOBBY PORTALS TO BE CONFIRMED ON SITE.

CORROSION PROTECTION

1. HOT DIPPED GALVANIZED TO SANS 1011 (ISO 14620:09)
2. ALL STEELWORK INCLUDING COLLARED JERRED CHANNELS & BRACKETS TO BE GALVANIZED TO SANS 1011 (ISO 14620:09)
3. HOT DIPPED GALVANIZED TO SANS 1011 (ISO 14620:09)
4. ALL BRACKETS AND COVERS TO BE GALVANIZED TO SANS 1011 (ISO 14620:09)

PROJECT:
SAKHWO FACILITY
MANAGEMENT CONTRACT:
ANDRIES VOSLOO HOSPITAL

CLIENT:
DEPARTMENT OF HEALTH

ISSUED FOR:
FOR CONSTRUCTION

NO	DATE	REVISION
0	26.10.23	ISSUED FOR CONSTRUCTION

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Pty Ltd

CONTACT DETAILS:
111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

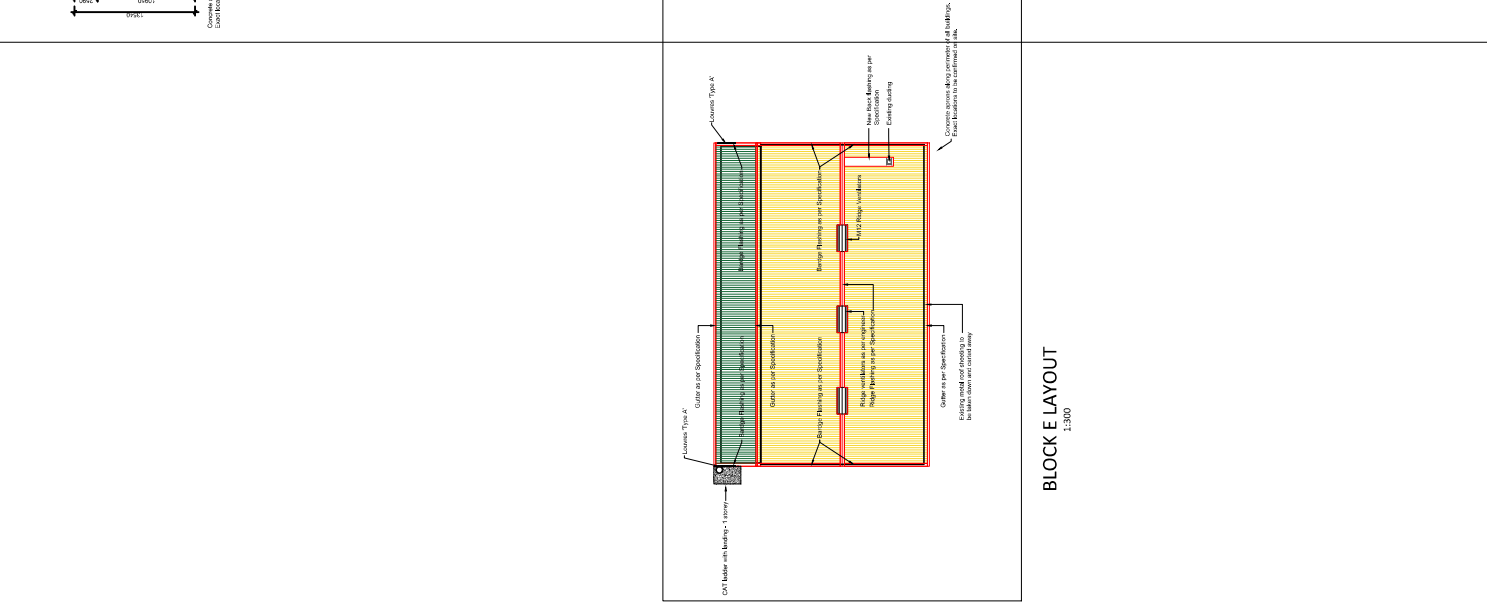
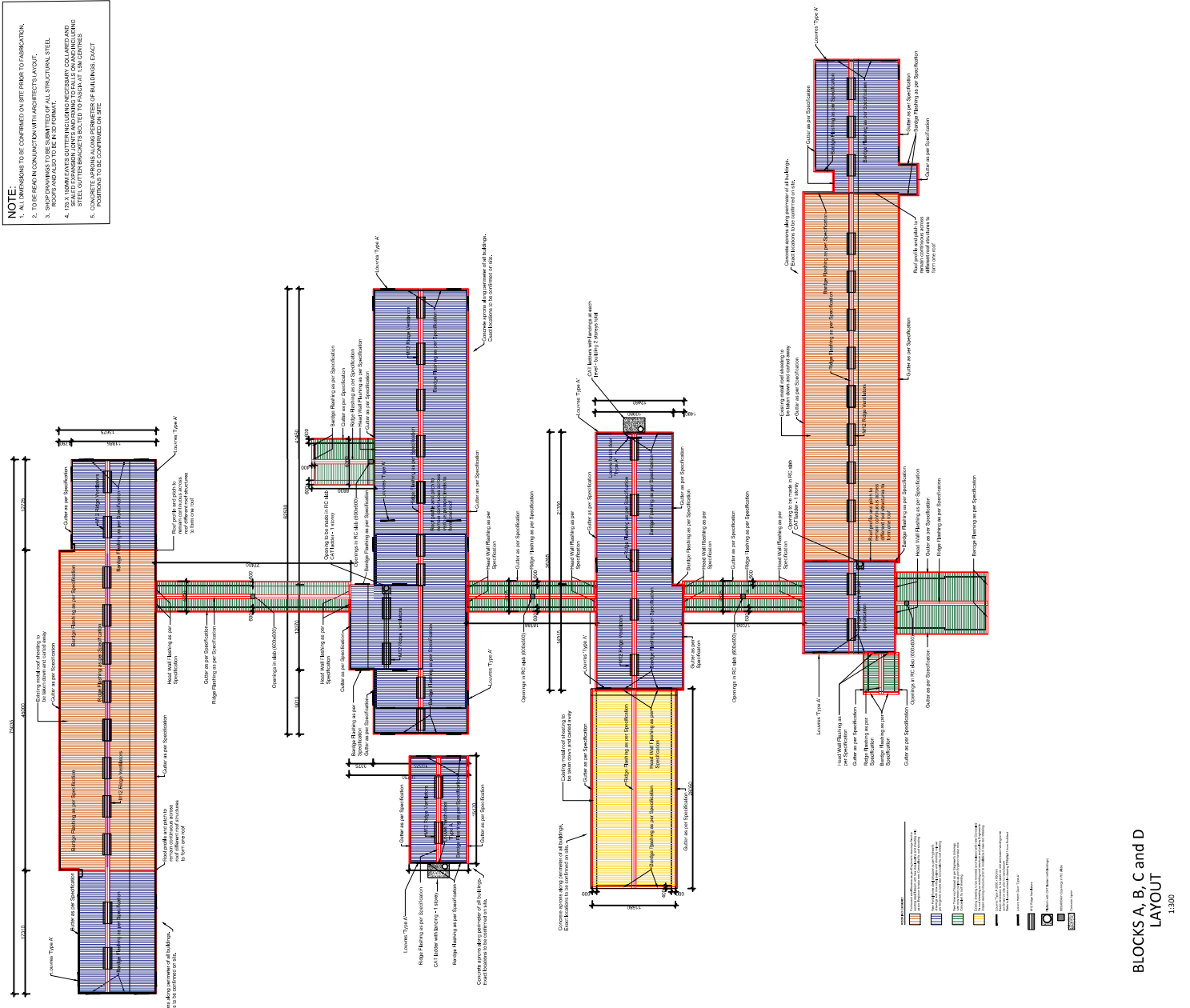
STRUCTURAL ELEMENTS LAYOUT

DATE	26.10.23	APPROVED	Z. ANDRIAN
DATE	26.10.23	APPROVED	Z. ANDRIAN
DATE	26.10.23	APPROVED	Z. ANDRIAN

1812

DRAWING NO: S05

REV: 0



**BLOCKS A, B, and C
LAYOUT**
1:300

BLOCK E LAYOUT
1:300

C3.11 OHS SPECIFICATION

Bid No.: SCMU3-23/24-0580-HO



Project Title- ANDRIES VOSLOO HOSPITAL- REHABILITATION, RENOVATIONS, AND REFURBISHMENT OF EXISTING ROOFS

**PROJECT SPECIFIC
CONSTRUCTION HEALTH AND SAFETY
SPECIFICATION**

Project title:	ANDRIES VOSLOO HOSPITAL – REHABILITATION, RENOVATIONS, AND REFURBISHMENT OF EXISTING ROOFS
Bid No:	SCMU3-23/24-0580-HO

October 2023
Version 1



ANDRIES VOSLOO HOSPITAL – REHABILITATION, RENOVATIONS, AND REFURBISHMENT OF EXISTING ROOFS AS STIPULATED IN THE TENDER DOCUMENT

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HEALTH AND SAFETY SPECIFICATION

1. INTRODUCTION AND BACKGROUND

The Construction Regulations No. 37305 of 7th February 2014 requires the Client to prepare a pre-construction Health and Safety Specification, with known and possible existing risks identified.

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

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.

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.

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

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.

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

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

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

2. KEY ROLE PLAYERS

2.1.1. Eastern Cape Department of Health (Client)

2.1.2. Principal Agent

2.1.3. Architect

2.1.4. Quantity Surveyor

2.1.5. Structural Engineer

2.1.6. Civil Engineer

2.1.7. Electrical Engineer

2.1.8. Mechanical Engineer

2.1.9. Clerk of Works

2.1.10. Health & Safety Agent

2.1.11. Contracts Manager



- 2.1.12. Construction Manager
- 2.1.13. Health & Safety Officer
- 2.1.14. Other

2 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
Doel	Department of Employment and 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

3 DEFINITIONS

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

- 3.1.1 **Client:**
The Superintendent General, Eastern Cape Department of Health.
- 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.

4.1.5 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.

4.1.7 Risk:

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

4.1.8 Regulation/s:

Shall mean the relevant regulation/s promulgated in terms of the Occupational Health and Safety Act, No. 85 of 1993 and any other legislated Regulation with the inclusion of the Construction Regulations No. 37305 of 7th February 2014.

4.1.9 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.

4.1.10 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 Joint Building Conditions of Contract (JBCC)
- 5.4 South African Roads Traffic Safety Manual (SARTSM) Chapter 2, Volume 13 of 1999.
- 5.5 Road Traffic Safety Act No. 93 of 1996 (as amended)
- 5.6 Construction Regulations No. 37305 of 7th February 2014.
- 5.7 Construction Specifications & Standards 6.0 for Southern Africa. Hans Wegelin 6th Edition 2010
- 5.8 SANS Code 10400 and others that are applicable.



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

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.

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.

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.

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.

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

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

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.

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

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

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.

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)

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.

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

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.

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

- The summary of risks is included in Section 18 of the PSHSS;
- The OHSA S.37.2 Mandatory Agreement must be fully completed by the PC, supplied by the Client;

No work may commence without written approval of the H&S plan by the H&S Agent, or the responsible person in the ECDoH. Should there be design changes, or change in the scope of works, an amended PSHSS may be issued. Where amended PSHSSs are issued, the PC will be required to ensure a resubmission of an amended H&S plan for approval.

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.

The H&S Agent will visit the project as deemed necessary by the Employer to ensure compliance and limit risk. All activities on the site and all appropriate documentation will be monitored and reported on to the Client and the Designer. 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. The Principal Contractor must forward a copy of the Health and Safety plan to all Contractors to enable them to prepare their own Health and Safety plans. 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.

8 APPLICATION

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. 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 are also required to comply with the conditions of this Health and Safety Specification. All staff and representatives of the Eastern Cape Department of Health at Adries Vosloo Hospital who visit the site are required to



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

9 REQUIREMENTS AT TENDER STAGE

Adequate pricing for H&S is required, and the appropriate section in the BoQ is to be completed. Failure to do so could result in the Tender being regarded as **non-responsive**.

10 GENERAL REQUIREMENTS

Summary of Risks identified during Design:

The intention of the summary of findings from the design risk assessment is to highlight the residual risks identified during the design phase. The full design risk assessment would be required from the successful bidder as the contract includes design as well. The summary of risks in a form of Baseline Risk assessment 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. The design risks and the management thereof should be included in the Principal Contractors (PC) risk assessments. Where there are other Contractors appointed to do work, the PC is to ensure that Contractors include such information in their risk assessments. 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.

10.1 Hazard Identification and Risk Assessment (HIRA)

At the Pre-Tender Site Inspection, the Principal Agent will identify any Project Specific hazards or risks that may affect the work. These hazards or risks are listed under section 18 of this Specification. Tenderers are also advised to notify the Principal Agent 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. 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.

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.

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

The Principal Contractor shall be responsible for ensuring that all persons who could be negatively affected by the operations are informed and trained according



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to the hazards and risks and are conversant with the safe working procedures, control measures and other related rules (toolbox talk strategy to be implemented).

The format used for the risk assessment must make provision for the following information:

- Reference Number;
- Project Name;
- Identification of task assessed;
- Date;
- Risk assessment team & designation;
- Approval of risk assessment team;
- Risk rating with matrix;
- Review date;
- Task steps;
- What can go wrong (Hazard);
- The result (Risk);
- Risk rating;
- Preventative Action (Control Measures).

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

10.2 Specified Hazardous Chemical Substances

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 conclusive and other products may be considered. 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/SUBSTANCES/RISKS	POTENTIAL HEALTH OR OTHER RISKS
Concrete/Mortar	<ul style="list-style-type: none"> • Handling of stone of various sizes for concrete mixing may occur, exposure to Silica dust is prevalent. • Overloading of wheelbarrows when transporting stone and sand must be monitored and managed.
Cement	<ul style="list-style-type: none"> • 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.
Exposure to Silica dust	Caused by cutting, grinding, sanding of any concrete/granite/tiled surface/masonry and/or sanding of damaged walls.
Heavy and sharp Steel Material handling	Handling of heavy & sharp steel products may lead to multiple & muscular injuries due to improper handling and lifting operation;



PRODUCTS/SUBSTANCES/RISKS	POTENTIAL HEALTH OR OTHER RISKS
	Improper stacking and storage of these materials could lead to unexpected collapse of materials which could lead to personal injuries and property damages.
Petrol/diesel/lubricants	Potentially a fuel bowser on site. Fire, spillage, fumes
Wood dusts	Caused by cutting, sanding, drilling wooden products treated
Oxy-acetylene Gas	Use of these gas bottles when using cutting torch and welding in confined spaces may cause lead to lack of oxygen and workers inhale gas fumes. Inhalation of these fumes in a confined space may lead to severe headaches, collapse, and/or fatality
Use of Paints/solvents/epoxy	Hazardous fumes caused by use of these products in confined spaces such as inside water tanks may lead to sever headaches, collapse, and/or fatality.

10.3 Hazardous and potential situations

The Principal Contractor shall immediately notify other 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

The Specification covers the requirements for eliminating and mitigating incidents and injuries during execution of works at these various sites. The scope addresses legal compliance, hazard identification, risk assessment, risk control, and promoting a Health and Safety culture on the project. The Specification also provides for the protection of those persons other than employees.

11.2 Scope of Works

Andries Vosloo Hospital is located in Worcester Street on the R63 as one enters Somerset East from the south. The site is effectively divided in 2 by the main access road which has controlled gates from both Worcester and Hospital Roads. The eastern portion of the site is where all Hospital’s spaces and functions are housed whereas the western portion houses support facilities such as laundry, nurses college and housing.

The hospital has a number of leaking rooves to the extent that certain areas have been vacated. Those that are not yet vacated pose a serious health and safety risk from slipping and falling as well as mould build up which causes asthma and other related lung infections.



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The proposed works comprises the repairs and replacement of rooves to all Hospital's buildings, kitchen and laundry. In addition to these roof works; limited ceiling repairs and replacement will take place where required. Ceiling work is limited to the top floor of each block. The planned remedial work will be undertaken to the following blocks, Block A, B, C, D ,E, walkway blocks F,G & H as depicted in the image below.

A number of the blocks are multistorey buildings and will entail working at heights. Furthermore, the buildings are occupied and careful consideration will need to made to accommodate staff, patients and disrupted work flow. Decanting of spaces are proposed below but will be subject to final confirmation and coordination by the client and successful contractor prior to site handover.

The work will be phased and will embrace temporary decanting and sectional completions.



Image 1: Andries Vosloo Hospital, indicating blocks to be renovated

EXISTING ROOF TYPOLOGY AND PROPOSED REPLACEMENT METHODOLOGY

The existing rooves consist of 4 different typologies:

- 1) Reinforced concrete roof with waterproofing membrane,
- 2) Sheeted roofs on steel trusses with box gutters,
- 3) Sheeted roof on steel trusses with standard eaves gutters,
- 4) Sheeted roof on timber trusses with eaves gutters.



All blocks consist of 1 or a combination of the above-mentioned roof typologies. The above roof types will be repaired and altered to comply with one of the following repair methods:

Type A-Concrete Roof:

Several services that are critical for the day-to-day functioning of the hospital run over these concrete roofs. It is impractical and costly to relocate/replace these services in order to reinstate the waterproofing. Furthermore, due to the hospital having to remain operational on the various floors below; the services cannot be altered or stopped for any extended period of time. These membrane waterproofing systems are costly and require specialist skill to maintain and repair with no specialist contractors available in

Somerset East. In these circumstances a steel portal frame will be erected over the concrete roof.

Steel columns will be cut and secured through the existing parapet walls. Once portals are in place new foil type insulation and concealed fix sheeting and gutters will be installed. Installation is to be completed with all flashings, trimmings, louvres and ventilators as per detailed drawings.

Type B- Sheeted Roof with Box Gutters:

Existing steel sheeting is secured with steel hook bolts onto steel purlins and supported on steel trusses.

The sheeting is to be removed as well as the existing box gutters. The existing steel trusses are to be altered to allow water to fall over the parapet walls rather than into box gutters. Once trusses have been altered new foil type insulation and concealed fix sheeting and gutters will be installed. Installation is to be completed with all flashings, trimmings, louvres and ventilators as per detailed drawings.

Type C- Sheeted Roof on Timber Trusses:

Existing steel sheeting is secured with steel roofing screws onto timber purlins on timber trusses.

The existing sheeting is to be removed; new foil type insulation and concealed fix sheeting and gutters will be installed. Installation is to be completed with all flashings, trimmings, louvres and ventilators as per detailed drawings.

Type D-Concrete Roof 2:

In these circumstances a new timber truss will be erected over the existing concrete roof. New timber wall plates will be secured to the existing parapet walls. Once new timber trusses are in place new foil type insulation and concealed fix sheeting and gutters will be installed. Installation is to be completed with all flashings, trimmings, louvres and ventilators as per detailed drawings.

Type E- Sheeted Roof on Steel Trusses:

Existing steel sheeting is secured with steel hook bolts onto steel purlins on steel trusses. The existing sheeting is to be removed; new foil type insulation and concealed fix sheeting and gutters will be installed. Installation is to be completed with all flashings, trimmings, louvres and ventilators as per detailed drawings.



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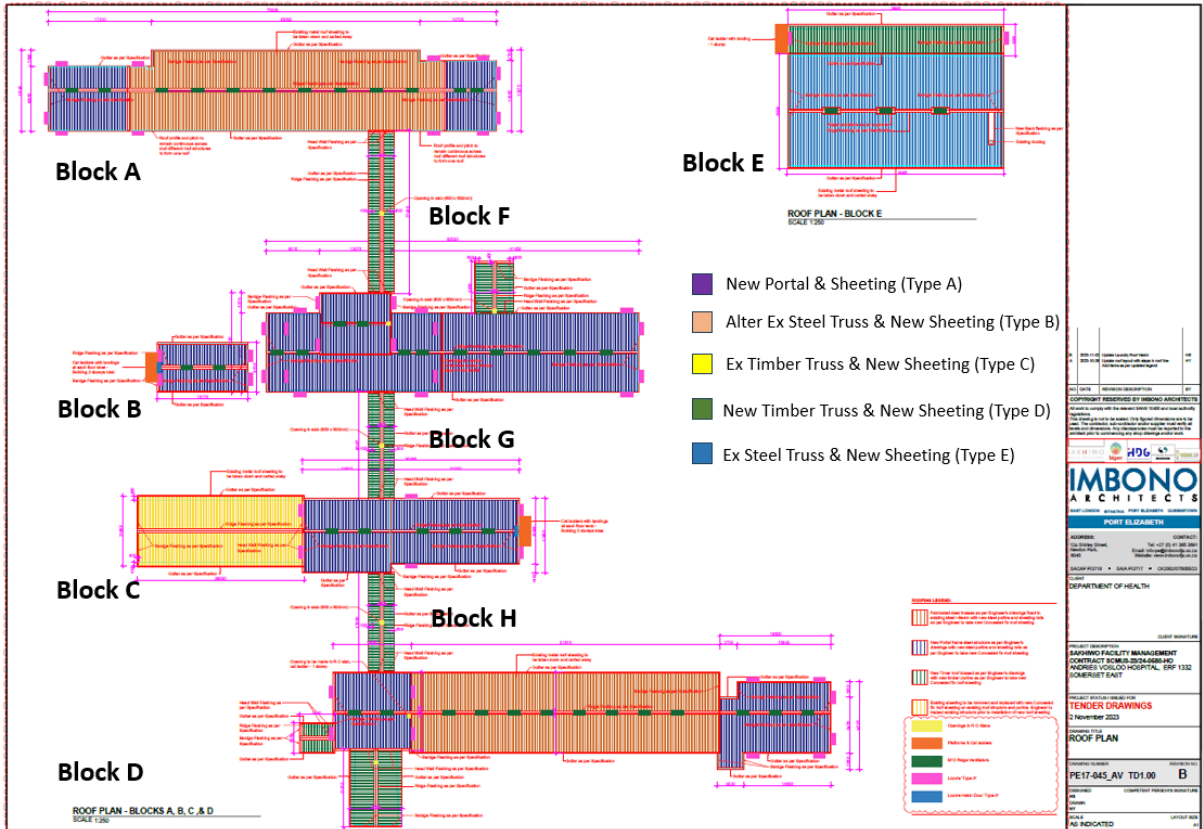


Image 2: Andries Vosloo Hospital, Drawing depicting Roof works required per block.

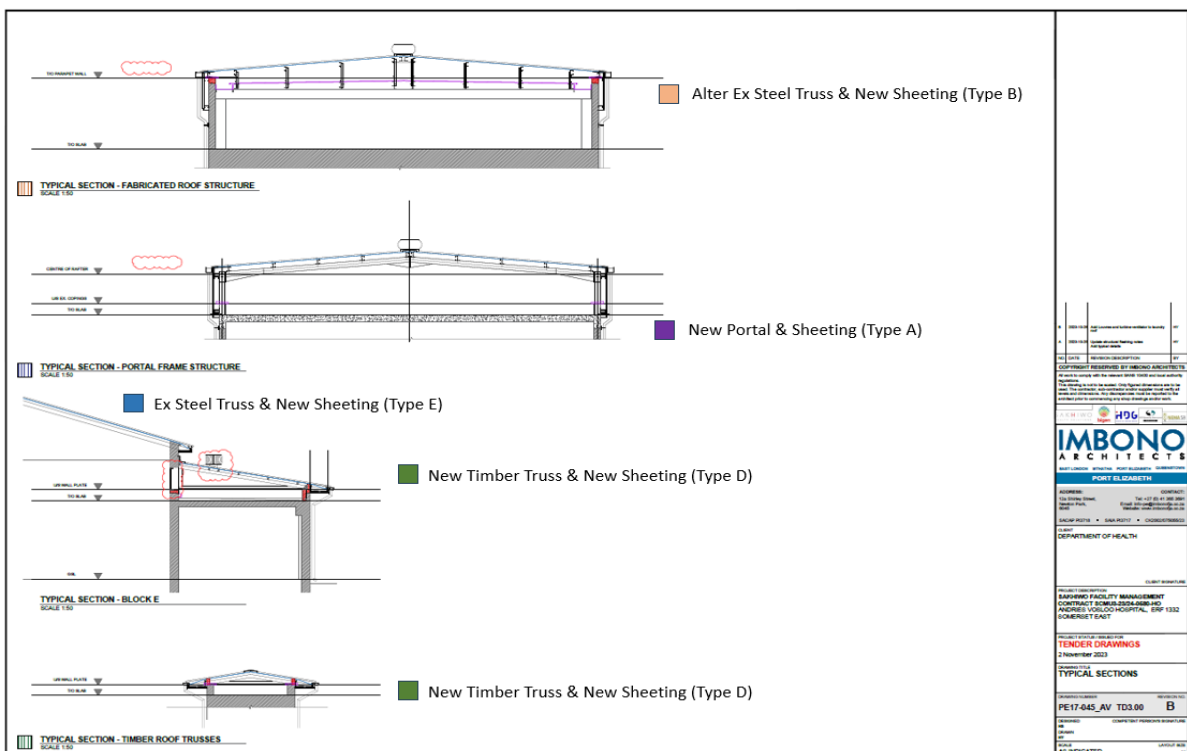


Image 3: Andries Vosloo Hospital, Drawing depicting Roof Typologies.



Access to Roof Spaces Post Construction:

Where existing service staircases do not allow free access to roof spaces once the new trusses are installed access to the remaining roof spaces will be via new galvanised cat ladders or through new hatches cut through the existing concrete slabs. In order to identify the ideal position for these new concrete slab hatches the slab will need to be x-rayed and the engineer will instruct the contractor accordingly. This x-raying of concrete slabs will need to be conducted within the first month of the contractor taking to site. The contractor is to then allow for a 6-week period for the engineer to inspect the reports and to issue instructions accordingly.

Shop drawings will need to be provided by the contractor for all steel installations including portal frames, trusses alterations, new steel and timber trusses and cat ladders etc.

EXISTING CEILING TYPOLOGY AND PROPOSED REPAIR METHODOLOGY

The existing ceilings consist of 3 different typologies:

- 1) Reinforced concrete soffit, plastered and painted,
- 2) 1200 x 600mm drop in ceiling tiles,
- 3) Nail up ceilings with cover strips. ,

All blocks consist of 1 or a combination of the above-mentioned ceiling typologies. Ceiling repairs will be limited to the floors directly below the roof level. No further ceiling repairs will be undertaken. The above ceilings types will be repaired and altered to comply with one of the following repair methods:

CEILING TYPE A:

Concrete Soffit with plaster and paint finish:

- 1) Remove existing light fittings.
- 2) Loose and flaking paint, plaster and concrete to be removed and repaired.
- 3) Concrete repairs include limited repairs to rusted rebar in patches.
- 4) Make good all finishes to match existing.
- 5) Replace old light fittings as per electrical engineers' instructions.

CEILING TYPE B:

1200 x 600mm Drop in Ceiling Tiles:

- 1) Remove existing light fitting to affected area only.
- 2) Remove existing board from elsewhere and patch into areas where boards are to be replaced.
- 3) In limited areas existing ceiling T system is to be replaced.
- 4) Make good all finishes to match existing.
- 5) Replace old light fittings as per electrical engineers' instructions.

CEILING TYPE C:

Existing nail up type ceilings with cover strips.

- 1) Remove existing light fittings.
- 2) Remove boards that are damaged and replace to match existing.
- 3) Loose and flaking paint to be removed.
- 4) Make good all finishes to match existing.



5) Replace old light fittings as per electrical engineers' instructions.

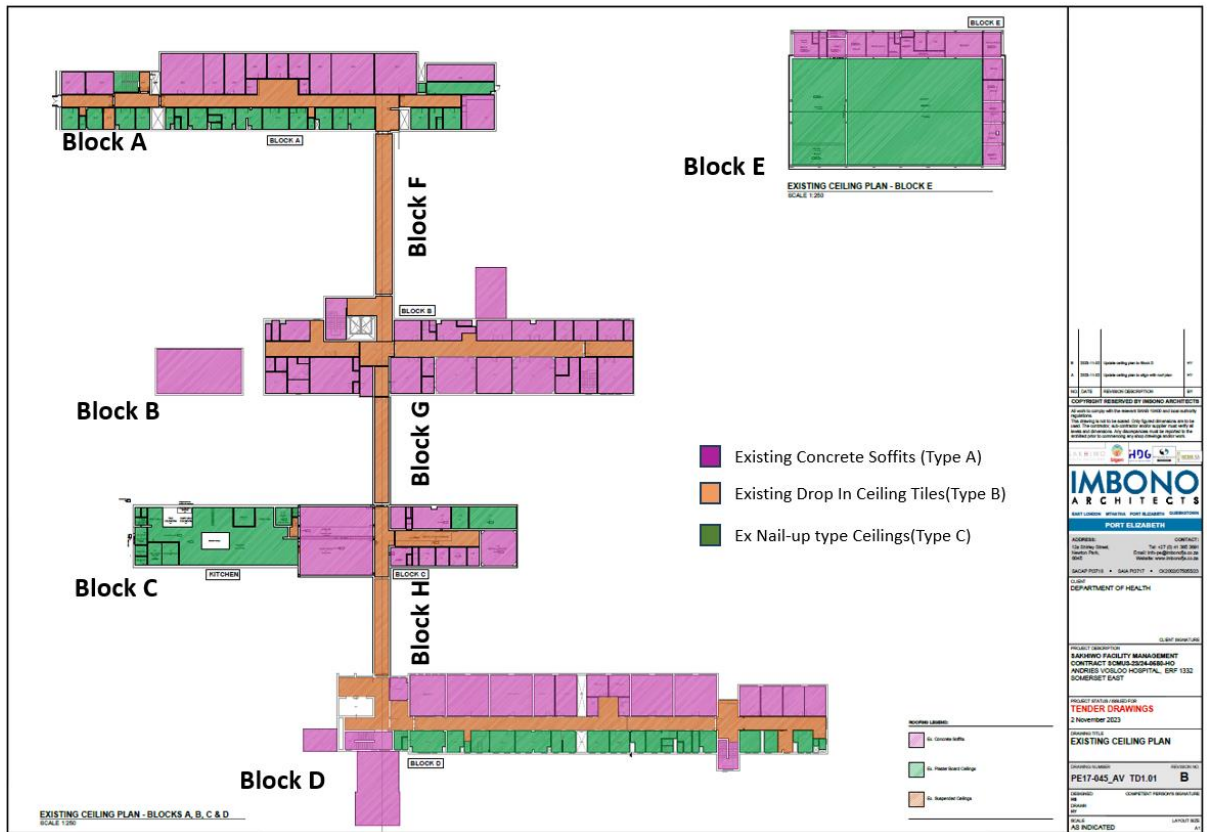


Image 4: Andries Vosloo Hospital, Drawing depicting Ceiling Typologies.

All blocks consist of 1 or a combination of the above-mentioned ceiling typologies.

The above roof types will be repaired and altered to comply with one of the following repair methods:

SCOPE OF WORKS PER BLOCK

BLOCK A:

Block A consists of 2 roof types:

- 1) exposed concrete roof with degraded membrane waterproofing and
- 2) existing steel truss with sheeting and box gutter.

Following the above- repair typologies Type A and Type B will be implemented.

Parapet walls are to be prepared to install new portal frames, new insulation and sheeting complete with gutters, trims, ventilators and cat ladders installed where required.

Existing lightning protection is to be neatly removed and reinstated as per engineers' details by specialist sub-contractors.

Ceilings will be repaired internally in limited areas.

BLOCK B:

Block B consists of 1 roof type:

- 1) exposed concrete roof with degraded membrane waterproofing



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Following the above- repair typologies Type A will be implemented. Parapet walls are to be prepared to install new portal frames, new insulation and sheeting complete with gutters, trims, ventilators and cat ladders installed where required. Existing lightning protection is to be neatly removed and reinstated as per engineers' details by specialist sub-contractors. Ceilings will be repaired internally in limited areas.

BLOCK C:

Block C consists of 2 roof types:

- 1) exposed concrete roof with degraded membrane waterproofing and
- 2) existing timber trusses with sheeting and eaves gutters.

Following the above- repair typologies Type A and Type C will be implemented.

Parapet walls are to be prepared to install new portal frames, new insulation and sheeting complete with gutters, trims, ventilators and cat ladders installed where required.

Existing sheeting on timber purlins is to be removed, purlins replaced and new concealed fix sheeting installed. New fascias and eaves will be replaced where damaged beyond economic repair.

Existing lightning protection is to be neatly removed and reinstated as per engineers' details by specialist sub-contractors.

Ceilings will be repaired internally in limited areas.

BLOCK D:

Block D consists of 2 roof types:

- 1) exposed concrete roof with degraded membrane waterproofing and
- 2) existing steel truss with sheeting and box gutter.

Following the above- repair typologies Type A, Type B and Type D will be implemented.

Parapet walls are to be prepared to install new portal frames, new insulation and sheeting complete with gutters, trims, ventilators and cat ladders installed where required.

Existing lightning protection is to be neatly removed and reinstated as per engineers' details by specialist sub-contractors.

Ceilings will be repaired internally in limited areas. Complete ceiling replacement to currently vacated east wing of block D. Drop in Ceiling boards that can be salvaged will be used to patch in other blocks.

BLOCK E:

Block E consists of 2 roof types:

- 1) exposed concrete roof with degraded membrane waterproofing and
- 2) existing steel trusses with sheeting and eaves gutters.

Following the above- repair typologies Type D and Type E will be implemented.

Parapet walls are to be prepared to install new timber trusses, new insulation and sheeting complete with gutters, trims, ventilators and cat ladders installed where required.

Existing sheeting on timber purlins is to be removed, purlins replaced and new concealed fix sheeting installed. New fascias and eaves will be replaced where damaged beyond economic repair.



Existing lightning protection is to be neatly removed and reinstated as per engineers' details by specialist sub-contractors.
Ceilings will be repaired internally in limited areas.

DECANTING AND SECTIONAL COMPLETION

The works will be undertaken as one phase with various Sectional Completion milestones.

Section 1: Block A and Block F, 4 Months

Block A is to be vacated and all patients and staff moved to Block B.
Block D East Wing will also commence in this phase.

Section 2: Block B and Block G, 4 Months

Measuring for preparation of shop drawings can commence with taking to site.
Manufacture of portal frames can commence during Section 1 construction.
Actual construction however can only commence after completion of section 1.
Block B is to be vacated and all patients and staff moved to Block A.

Section 3: Block C and Block H, 4 Months

Measuring for preparation of shop drawings can commence with taking to site.
Manufacture of portal frames can commence during Section 1 construction.
Actual construction however can only commence after completion of section 2.
Block C is to be vacated and all patients and staff moved to Block D and Block B. Kitchen services will need to be outsourced during this period.

Section 4: Block D, 5 Months

Measuring for preparation of shop drawings can commence with taking to site.
Manufacture of portal frames can commence during Section 3 construction.
Actual construction however can only commence after completion of section 1.
Block D is to be vacated and all patients and staff moved to Block C and Block

B.

Section 5: Block Laundry 2 Months

Measuring of timber trusses over the Laundry can commence with taking to site. Manufacture of trusses can commence during section 1 construction.
Actual construction however can only commence after completion of section 3. Laundry services will need to be outsourced during this period.

Section 6 and Works as a whole: 1 Month

This section is anticipated to be limited to any external work that has not yet been completed. It will commence after Section 5 is completed and will allow the contractor to attend to any last defects or work that is incomplete over the entire site.

Each section will need to be hoarded to ensure safety of patients and visitors. Contractors staff may not have any access to patient areas that are operational. The laydown area of the contractor will be limited to zone A and limited time period to zone B for work on block E



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Image 5: Andries Vosloo Hospital, Aerial photo of Laydown Areas.

11.2 Structure and Organization of H&S Responsibilities

Application Construction Work

This project's construction periods exceeds 12 months and therefore triggers the need for the Application of a Construction Work Permit. The Client in consultation with the appointed H&S Agent shall facilitate and provide the Principal Contractor with such permit once it is received from the Provincial Chief Inspector of the Department of Labour. Such Permit Number shall be displayed at the entrance of the construction area/entrance for easy reference by relevant parties.

11.3 Health and Safety Plan Framework

The H&S aspects related to the project outlined in the previous sections are to be considered when drawing up the H&S Plan. The PC is required to demonstrate competence by providing an H&S system that will address the requirements of the project. The current legislative requirements, SANS codes and any other standards that may guide practice are to be fully implemented as required.

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:

- 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;



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

- The positions of site offices of all Contractors, toilets, drinking water and Worker rest areas;
- Indicate the positions of emergency personnel and equipment (fire, first aiders, first aid posts);
- Protection of plant and pedestrians, indicate parking, and
- Storage areas (materials and equipment, waste etc.);
- Access and egress to site for deliveries and intended temporary traffic management;
- Emergency assembly points;
- Decanting Plan;

Appointment of Competent Site Personnel

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 Construction Manager (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. 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. 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.

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

11.5.1 Construction Supervision

Competent construction supervisors should be appointed to manage part or all the works and have training and/or experience around 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.). Construction manager (CR8.1) is to be full time on site, for a single site. Curriculum Vitae (CV) is to be submitted for approval by the Client or its appointed representative.

The Construction Supervisor shall be held responsible for the safety of working teams and subordinates, housekeeping and stacking and storage of materials.

11.5.2 Construction Health and Safety Officer

The PC will employ at least one competent, full-time H&S Officer who is registered with SACPCMP as a Construction Health and Safety Officer (CHSO) for the duration of the contract. The H&S Officer's CV is to be submitted for approval by the H&S Agent or the Client.



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The PC is to ensure adequate resources are provided to undertake all responsibilities (i.e., mobile phone, computer and internet access, vehicle etc.). Qualifications shall include at least Grade 12, SAQA approved training in Occupational Health and Safety, with exposure to building works that is appropriate, but at least of two year's duration given the level of project complexity preferably in an OHS capacity. The health and safety officer must provide proof of registration with the **SACPCMP**.

He should also have undergone training in the Act and Regulations. As it is envisaged that the sub-contractors will be employed, the H&S officer must have a competence to evaluate the sub- contractors Health and Safety plans and have access to reliable transport that will be available and enable him or her to visit both site during construction.

This person may not hold any other position on the site. The construction supervisor may not act as the H&S Officer. The H&S Officer/s will be held responsible for co-ordination of all H&S activities on the project. All staff members on site are to follow systems, instructions etc. given by the H&S Officer at all times. No new workers or sub- contractors may commence work without approval or following the H&S plan as submitted, and no inductions of Contractor staff until the H&S documentation is approved by the H&S Officer. The H&S Officer/s may not be removed or replaced without the approval of the H&S Agent, nor may the site be left unattended for more than 1 day without adequate, competent, and appointed Safety Officer.

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 Officer. An example of the monthly report is attached as an Annexure C. The H&S Officer will be responsible for collating the H&S documentation at the close out of the project in electronic format. A list of the typical aspects that should be provided is available as Annexure B to this document. 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. Failure to do so will be considered a serious offence and penalties applied.

11.5.3 Traffic Safety

The PC is to ensure that the route for Emergency Vehicles is always accessible. The H&S Officer will be responsible for ensuring that daily traffic management is adequately managed. No worker may be transported in, or on the rear of construction vehicles (bakkies included), or with plant and materials to, on, or from site. The number of passengers in any vehicle is limited to what is stated on the license disc. Vehicles used to transport workers to, from, or on site, shall have secure seats and be covered. No canopies may be used. Tenderers must indicate in their OHS plans what type of transport is envisaged and how this will be managed.



Construction Vehicles

Vehicles shall not enter site with:

- Defective exhaust systems;
- Serious oil or fuel leaks;
- Unsafe bodywork or loads;
- Non-standard equipment fitted;
- Improperly seated passengers;
- Any obvious mechanical defects.

All earth moving equipment (Mobile Crane) shall be operated in accordance with good safety practice to protect the safety of the operator and other workers or persons in the area. All earth moving equipment shall be equipped with a reverse siren and shall be inspected by the operator daily. 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.

11.6 Health and Safety Representatives and H&S meetings

H&S Representatives are to be full time employees of the Contractor on the project. Each site to appoint its own H&S Representative/s. 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. The appointed H&S Representatives will have the required competency training as a SHE rep. The 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. The H&S Officer shall further ensure that H&S is discussed at all internal production or progress meetings. Issues arising from the H&S Agent audits are to be discussed, as well as all H&S related issues. Minutes are to be kept for all H&S interventions and meetings. Failure to do so will be deemed to be a moderate offence.

11.7 Appointment of Competent Contractors

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

The Principal Contractor is responsible to ensure that competent sub-contractors are appointed to carry out construction work. The same H&S standards required of the PC are to be applied to all sub-contractors. An index of all Contractors and Suppliers is to be on file and kept updated at all times.

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



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the work being undertaken. The PC is to ensure there is sufficient funding for H&S compliance by each Contractor.

The following minimum aspects are applicable to any Contractor appointed:

- ✓ The H&S Officer is to ensure a Contractor's appointment and approval of H&S documentation at least seven (7) working days prior to commencing work;
- ✓ No sub-contractor may work under the PCs Compensation registration number;
- ✓ If required, the PC may assist SMMEs with their registration with the Compensation Commissioner. However, such sub-contractors will not be able to commence work until proof of registration or Letter of Good Standing has been received;
- ✓ No work may commence without Mandatory agreements between parties in place.

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

- ✓ Mandatory agreements in place;
- ✓ Letter of Good Standing;
- ✓ Method statements and risk assessments

Available information relative to:

- Load testing and registers for cranes or lifting devices;
- Medical certificates of fitness;
- Safety data sheets (SDSs).

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

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 sub-contractors) are to be included in the medical surveillance programme.

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

All workers (including those of sub- contractors) are required to be in possession of a valid medical certificate of fitness issued by an OMP (Occupational Medical Practitioner) prior to commencing work. Annual medical surveillance is required (unless identified as being required more frequently), as well as an exit medical. Arrangements for keeping medical records for the required time are to be noted.



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It is preferable that the PC has a medical surveillance plan. Full medical records are not to be placed in the H&S file. A procedure for managing the medical records which require safekeeping for prescribed periods are to be addressed.

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

- Full medical, surgical and occupational history;
- Full physical examination of all systems; and
- Referral if required for the management of identified health issues that may affect the worker.

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

- Audiometry (hearing tests);
- Lung Function Test; and
- Any other tests identified as relevant from chemical or specifically identified risks of exposure.

12.2 General Environmental Conditions

Compliance with the Environmental Regulations (as amended), among others is required. Environmental monitoring of ventilation, lighting and dusts may be deemed to be required by the Approved Inspection Authority used to measure the environment. Copies of the relevant reports and actions taken in respect of these are to be placed in the H&S file.

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

All plant from plant hire companies (suppliers) or that of the PC is to be compliant with the Noise Induced Hearing Loss Regulations. 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. Failure to do so within a reasonable time will result in such plant being removed from site.

Audiometric testing of all workers is noted as required in the medical surveillance programme for all permanent workers prior to work commencing. 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. Audiometry records are to be available in the H&S file. Suitable SANS approved hearing protective equipment shall be issued and worn where noise levels are identified as equal to or greater than 85 db. Failure to do so will be considered a serious offence.

12.4 Emergency Preparedness and Response Procedures

The Principal Contractor must prepare a detailed site-specific Emergency Preparedness & Response Plan for the site and submit for approval by the Client / Principal Agent prior to commencement of work on the site. It is advised that the system should be simple and easy for any worker to follow.



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The plan may be adapted should new information or risks are identified. The procedures for dealing with the emergency evacuation of staff must be agreed upon with Adries Vosloo Hospital Management Representatives.

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:

- Appointment of a competent emergency response coordinators and wardens; Lists of first aiders, and:
- Fire;
- Explosions;
- Public injury and motor vehicle accidents;
- Falls from heights;
- Serious injury to workers (medical or work-related); and
- Any other major risks identified during risk assessments

The emergency preparedness and response plan is to ensure the inclusion of local service providers where possible. Such arrangements should be made with these persons prior to the commencement of the project. The general principles of emergency management are to be applied as it applies to the hierarchy of control and management.

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

- Contact persons;
- Details of emergency services

Action to be taken in event of an emergency:

- Fire;
- Accident;
- Damage to Adries Vosloo Hospital services
- Hazardous substances.

Person to be notified in the event of an accident or emergency:

- ✓ Mrs. N Mcopele - Eastern Cape Department of Health
0833782014;



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12.5 First Aiders and First Aid Equipment

Competent, trained First Aiders are to be formally appointed for the project. At least 2 workers are to be trained to level 2 for each site. First aiders are to be available at all times and be able to cover each working team. Further first aiders from the community or SMMEs, If not already accredited, are to be sent for accredited first aid training.

Appointed Contractors are expected to ensure compliance and manage their own first aiders and equipment. Contractors are expected to ensure compliance and provide/manage their own first aiders and equipment. The number of First aiders will be determined by the complexity and exposed risks of the project, not numbers of workers. 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

Attention to emergency preparedness and response planning and procedures is very important. The full emergency preparedness and response plan must form part of the supporting documentation with the H&S Plan. The H&S Agents approval of all emergency preparedness and response plans and procedures is required prior to commencement on site. It is advised that the system should be simple and easy for any worker to follow. The plan may be adapted should new information or risks are identified. 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.

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:

- ✓ Appointment of a competent emergency response co-ordinator and wardens;
- ✓ Lists of first aiders, and
- ✓ Requirement in terms of identified risks:
 - Fire;
 - Explosions;
 - Falls from heights, and
 - Motor vehicle accidents.

The emergency preparedness and response plan is to ensure the inclusion of local service providers where possible. Such arrangements should be made with these persons prior to the commencement of the project.

The emergency preparedness and response plan is to include the risk of fire on site and related to any specific activities where gas, welding, cutting etc. occur. Fire extinguishers will be appropriate for the risk and in sufficient numbers to deal with the type of fires that could occur. All mobile plant is to have fire extinguishers.

Hot work permits are required for any such activities. Their position is to be shown on the sketch plan of the site.



12.7 Incident Management and Compensation Claims

The PC will ensure there is a management system to investigate all incidents. All serious incidents involving any form of disabling injury or fatality are to be reported to the Designer /Client /H&S Agent immediately. This shall be confirmed in writing following the incident. Full details are to be included in each site meeting or when the Client visits site. A summary of incidents is to be included in the monthly report. 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

The PC is to provide a procedure as an addendum to indicate how PPE is managed within the Company. The wearing of the identified SANS approved PPE at all times is non-negotiable.

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:

- Hard hats;
- Steel-Toe Protective footwear;
- Reflective jackets (no bibs);
- Overalls that ensure worker visibility
- Eye protection;
- Hearing protection;
- Safety Harnesses and any other required Fall Arrest Equipment when working at heights;
- Respiratory protection (minimum of FFP2), and
- Any other necessary PPE identified from SDSs and/or risk assessments.

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. The Contractor shall carry adequate stocks of Hi-visibility Jackets and hard hats for visitors. Any person (including Client, and Professional Team) found on site without the necessary PPE will be removed from site until the PPE is supplied and worn. Failure to comply will result in penalties being applied.

12.9 Occupational Health and Safety Signage

On-site H&S signage is required. Signage shall be posted up at fixed or temporary working areas, or other potential risk areas/operations. These signs shall be in accordance with the requirements of the General Safety Regulations or SANS requirements as amended.



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Signage is to be noted on the site drawings indicating where fixed/temporary signage is required. Temporary signage is to include (but not be limited to) the following:

- 'Report to site Office';
- 'Construction Work in Progress';
- Workmen Ahead/above
- 'Warning: Construction Site – Keep out' or similar;
- 'Site Office';
- 'Hard hat area' or other PPE requirements noted;
- First aid box positions (including vehicles);
- Emergency Assembly Point or Points;
- No Unauthorised Entry;
- Smoking Area; and
- Fire extinguishers.

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. The Contractor shall establish a system for controlling and recording entrance to the Site office and camp area. Failure to comply will result in penalties being applied.

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

A formal induction programme is to be submitted as an addendum for approval with the H&S plan. Inductions must be carried out for all workers and visitors (including Client, Professional Team, and Facility staff) to the site.

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. Such training is to be done at least daily. Records of inductions and pre-task training are to be kept in the H&S file. 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

The Principal Contractor shall ensure that every person/visitor working on or visiting the work areas, 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.

The Principal Contractor shall ensure that appropriate Health and Safety notices and signs are posted where required and at relevant strategic locations in the hospital precinct.

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. Visitors to site/work areas should at all times be accompanied by a member of staff on site.

Warning notices are to be provided at the main entrance gates to the Andries Vosloo Hospital notifying that construction work is taking place within the perimeter of the



facility. Further notices to should be place in the specific work areas inside the hospital as people are working.

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

Where required the site/work areas must be suitably hoarded/Fenced-off at all times with a limited number of restricted and controlled access points. Adequate notices are to be displayed. Hoardings/Fencing-off are to be inspected daily and gates monitored during working hours and locked at the end of each workday.

12.12 Awareness

The Principal Contractor shall ensure that, on site, periodic toolbox talks take place at least once per week. These talks should deal with risks relevant to the construction work at hand. A record of attendance shall be kept in the Health & Safety file. All Contractors must comply with this minimum requirement. At least one of the Toolbox talks shall include an environmental related issue.

The Principal Contractor is to ensure that the relevant staff at Andries Vosloo Hospital 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

Construction Plant" includes all types of plant including but not limited to, cranes, piling rigs, excavators, road vehicles, and all lifting equipment. The Principal Contractor shall ensure that all such plant complies with the requirements of the OHS Act 85/1993, Construction Regulations 2014, and all other relevant Regulations and Standards.

The Principal Contractor and all relevant Contractors shall inspect and keep records of inspections of the construction plant used on site. Only authorised/competent (certified) persons are to use machinery under proper supervision. Appropriate PPE and clothing must be provided and maintained in good condition at all times. Proof of medical certificate of fitness and proof of competency as required by the Construction regulations are available for inspection by the Client.

13.2 Plant & Equipment

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

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

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

All daily inspection records are to be kept in the H&S file where plant and equipment is brought on to site. Registers are not to be more than 1 week behind.

13.3 Operators

Only competent, fit plant operators are to be used. Medical certificates of fitness are required for all operators. Operators are to be adequately trained and certified to operate mobile cranes or crane trucks. Certificates and registers are to be placed in the H&S file. Failure to do so will be considered a serious offence.



13.4 Machinery and Power Tools

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

Appropriate PPE and clothing must be provided, used and maintained. No unsafe / dangerous equipment or tools may be brought onto, or used, on the site. 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. The Contractor may not use any machinery or power tools belonging to Adries Vosloo Hospital.

13.5 Portable Electrical Tools/Equipment and Explosive Powered Tools

The Principal Contractor shall ensure that use and storage of all explosive powered tools and portable electrical tools are in compliance with relevant legislation. The Principal Contractor shall ensure that all-electrical tools, electrical distribution boards, extension leads, and plugs are kept in safe working order.

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

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.

The Principal Contractor shall ensure the following:

- A competent person undertakes routine inspections and records are kept;
- Only authorised trained persons use the tools;
- The safe working procedures apply;
- Awareness training is carried out and compliance is enforced at all times;
- PPE and clothing are provided and maintained;
- Electrical cords must be free from any damage;
- Electrical tools & equipment may not be exposed to water;
- A register indicating the issue and return of all explosive round;
- Ensure that the cartridges and explosive tool is lock up separately;
- Signs to be posted up in the areas where explosive powered tools are being used. **(WARNING - EXPLOSIVE POWERED TOOL IN USE - KEEP CLEAR);**
- Ensure that prior arrangement is made with the Adries Vosloo Hospital Maintenance Supervisor or relevant manager before any explosive powered tools are used.



13.6 Hired Plant and Machinery

The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use. The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations (February 2014) shall apply. The Principal Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the health & safety file. This includes medical certificates of fitness to operate construction vehicles and appointment of the operator. All relevant Contractors must ensure the same.

Daily inspections must be recorded by each operator. A copy of the machines service logbook & planned maintenance schedule must be supplied with the machine.

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

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

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

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

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

Cylinders must be stored in rows with aisles in between for easy removal in event of a fire and should be properly chained. Different types of gasses will be stored separately in an upright position, separately secured and the type of gas displayed identified with appropriate signage. Knocking or falling of cylinders must be prevented when moved. Before a cylinder is moved without suitable truck or trolley, the cylinder valve will be closed, and the regulator removed. Only approved cylinder crates/cradles will be used. Cylinders may not be transported with magnet cranes.

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

Cylinders may never be exposed to electrical circuits, e.g. welding leads. Never strike an arc on a cylinder. Cylinders must be protected from direct sunlight or areas that could cause the cylinder to overheat.

Keep cylinders away from cutting work to stop sparks or hot slag from reaching them. As with compressed air only use oxygen for the purpose for which it is approved. May not be used for pneumatic tools or inflation of tires as an explosion could occur. Oxygen cylinders must be stored at least 5m away from other flammable gas cylinders. Flashback arrestors must be fitted to the torch and the cylinder. Empty cylinders must be marked as such and removed daily to a separate approved storage area.



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

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

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

No handmade or damaged tools may be used on site. The Principal Contractor needs to exercise control over all contractors on site. Hand tools may only be used for its intended purpose.

A competent person must be appointed to inspect hand tools monthly. Inspections need to be recorded on a register and each tool identified with a unique number.

13.9 Inspection of equipment and tools.

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

- First Aid dressing registers
- Fire equipment
- Lifting equipment
- Lifting Gear
- Slings and chains used for lifting
- Portable electrical equipment
- Stacking and storage inspections
- Explosive power tools
- Hazardous Chemical Substances (HCS)
- Materials hoists (where applicable)
- Pressure Vessels
- Ladders
- Excavations
- Safety harnesses
- Scaffolds - static and mobile.
- Pneumatic tools
- Construction vehicles and mobile plant.
- Health and Safety Representatives checklists.

13.10 Ladders and ladder work

The Principal Contractor shall appoint a competent person in writing to inspect all ladders monthly and record such findings in a register. Ladders are to extend one meter above a landing and must be secured at the top and have a secure, non-slip base. 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

Any form of lifting device or crane (fixed or mobile) used during the project for deliveries, moving of supplies or equipment, lifting of I-Beams for Structural Roof, the appropriate documentation must be made available. 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 (CR 20).

Method statements, risk assessments, safe work procedures and training are to be available prior to work commencing. A procedure for managing loads and lifting must be made available as an addendum to the H&S Plan.

There must be competent lifting machinery and tackle inspector who must inspect the equipment daily or before use, considering that all lifting machinery has a safe working load clearly indicated, are clearly marked with a unique number and safe working load.

Regular inspection and servicing is carried out as per the following timeframes:

- Lifting Machinery load test – every 12 months;
- Lifting Machinery Inspection & service – every 6 months;
- Lifting Tackle Load test – every 12 months;
- Lifting Tackle Inspections – every 3 months.

Ensure that records are kept of inspections and of service certificates. 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.

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. 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 Tower Cranes

Due to the scope of work at hand on this project, it is not envisaged that Tower Cranes will be required or used. Should there be a need an addendum to the Specification will be issued in order for the contractor to comply with.

13.13 Overhead Work & suspended loads

All overhead work & suspended loads must be safely executed and controlled under supervision. The area around suspended loads must be barricaded to prevent unauthorized entry of persons whom is not part of the task.

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

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

13.14 Temporary Works (Scaffolding, Support Work, Formwork)

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



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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. Temporary works must be properly designed and signed off by a competent person prior to each pour. Signing-off will serve as confirmation that shuttering/formwork/support work has been erected as per the approved design and it is safe to be used for the intended purpose.

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.

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

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.

Failure to do so will be considered a serious offence.

13.15 Batch Plants

Due to the scope of works, it is not envisaged that Batch Plant will be established nor used on this project.

14 WORKING PROCEDURES

14.1. Site Works and Excavations

A competent person is to be appointed in writing to supervise the Site Works and Excavations. A method statement on 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 where applicable. The Contractor is to ensure Risk Assessments & Safe Working procedures have been communicated to the workers before any work is commenced.

14.2. Excavations

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

Excavation method statements are to be approved by the Designer and associated risk assessments are required. All Excavations are to be properly barricaded and demarcated. 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.



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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.

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.

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.

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

- Daily, prior to each shift.
- After every blasting operation.
- After an unexpected fall of ground.
- After substantial damage to supports.
- After rain.

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.

Cause every excavation which is accessible to the public or whereby the safety of persons may be endangered, to be:

- Adequately protected by a barrier or fence of at least one meter in height and as close to the excavation as is practicable;
- Provided with warning illuminates or any other clearly visible boundary indicators at night or when visibility is poor;
- 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;
- 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;
- Cause warning signs to be positioned next to an excavation within which persons are working or carrying out inspections or tests.

Excavations should preferably not be open beyond what can be closed daily. Where excavations need to remain open, all excavations are to be



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properly protected. 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. Cognisance is required of the surrounding area and increased levels of protection are required as the work is within communities, health facilities. Work will be stopped, and penalties applied to any work in excavations that are not compliant.

14.3 Working at Heights

Various activities such as painting, removal of old and installation of new pitched/flat, and staged roofs shall take place on this project. Work at heights shall take place at various heights ranging from 1.5m up to 20m high(approximately Six Storeys).

A Fall Protection and Rescue plan is to be available and supplied as an addendum to the H&S plan. The fall protection and rescue plan must be appropriate for the project and be developed by a competent Fall Protection Developer. Method statements, appropriate risk assessments, safe work procedures and training are to be available prior to work commencing.

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

- SANS 10085: The Design, Erection, Use and Inspection of Access Scaffolding
- SANS 10333 (parts 1-3): Personal Fall-Arrest Systems

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

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

The plan is to be developed and work managed by a competent person for the duration of the project. Such plan should include rescue operation in case of a fall.

The following aspects must be included:

- The public is to be protected at all times by way of hoarding, barricading or fencing;
- Notices to be posted;
- Restrictions or stoppage when weather conditions are deemed hazardous;
- Permit system for working at heights
- Prevention of falling tools or equipment
- Link to emergency preparedness and response plan regarding rescue
- All workers are to be in possession of valid medical certificates of fitness that extend for the duration of the works.

Note the requirements in the section relating to medical surveillance.



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

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

14.4 Edge protection

The Principal Contractor must ensure that all edges and openings are guarded and barricaded at all times until permanent protection is erected. Special care and preventative measures must be implemented to prevent edge falls when removing Roof Sheeting.

14.5 Piling

It is not envisaged that piling will take place on these sites.

14.6 Asbestos removal/replacement of roof / sheeting

Based on the Project Scope of Works as well as Conditional Assessment Report as conducted earlier, no materials made of Asbestos related product are present in the work areas of this project. However should there be any found on site, then:

The Principal Contractor/Contractor shall comply with the Provisions of Asbestos Abatement Regulations as the works entails Removal of Asbestos Roof and related materials on the existing structures as outlined. Furthermore the removal and discarding of these materials should be conducted by Registered Asbestos Contractor as provided for in the said Regulations. The registered Asbestos Contractor shall prepare and submit to the Project Health & Safety Agent via the Principal Contractor a H&S Plan outlining how the work will be executed safely while ensuring full compliance of relevant requirements. An asbestos plan of work will be developed by the AIA and submitted to the Provincial Department of Labour office together with the Notification of Asbestos Work before any asbestos work commences on site.

All asbestos related materials shall be contained and stored in a closed container/skip while on site at all times. This material shall then be transported in a safe manner that prevents flying of Asbestos Fibres and disposed of at a Registered Waste Disposal Site registered to accept this type of materials. Waste Disposal Certificates shall be obtained and be submitted to the Principal Agent and Health & Safety Agent.

14.7 Mechanical installations

All mechanical installations are to be carried out in conformity with the manufacturer's instructions. Method statements and risk analyses must be compiled for each type of installation. A competent person must be designated to supervise the work. In cases where removal of existing equipment in the existing structure, Lock-out Procedure should be prepared, submitted for approval and further be implemented at all times.

14.8 Electrical work

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.

Leads must be properly and firmly connected. Plugs and sockets shall be in good and safe condition.



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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.

A “lock out” sign shall be displayed when the apparatus is not in use. Method statements and safe work procedures will be required for all work involving electrical apparatus. The electrical contractor prior to any connections to the mains shall communicate with the relevant Adries Vosloo Hospital Maintenance Representative & Engineer and arrange the necessary Shutdown or Isolation (Lock-out).

14.9 Demolition Works

It is not envisaged that any demolition work shall take place, however should it be required, All Demolition Work shall be conducted in accordance with the requirements of Construction Regulations 2014.

15 AUDITING

Frequency of external auditing by the H&S Agent or Client will be as agreed with the Client but will at least conform to the requirements of the Construction Regulations. The site will be inspected, and the documentation audited relative to the activities and H&S plan. The H&S Officer and the Construction Manager of the PC must accompany the Client, or the H&S Agent, on all audits and inspections. It must be noted that not all audits will be, or need be announced.

The PC will ensure that all their Contractors are audited at a frequency determined by the H&S Agent. Audit frequency may be increased if Contractors are not performing adequately. Audit results will be acted upon and non-conformances and penalties issued where deemed appropriate. The Client, or H&S Agent may act or require further outcomes if non-compliances are noted or unsafe acts are noted on site. Internal audits are to include site conditions as well as ensuring H&S files are appropriate, and compliant.

Comprehensive audit reports are to be made available, the format of the audit reports is to be acceptable by the H&S Agent. The PC will be audited using a template as supplied in the tender document. The audit template will be adjusted from time to time relative to the activities on site. A similar process is to be used by the PC when auditing their Contractors on site.

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

Full compliance is required. Time limits for corrective actions will be set and must be adhered to. Failure to address findings or non-conformances will be considered a serious offence.



16. OCCUPATIONAL HEALTH

16.1 Communication on Site

All H&S communication during the project between the H&S Agent and the PC will be done through the Principal Agent and be in writing, including the issue and responses to non-conformances and H&S audit results. Failure to address issues timeously will be considered a serious offence.

16.2 Care of Workers on Site (Welfare)

Adequate toilets, clean, safe drinking water and decent shelter will be provided for workers at all times. Existing Toilets Andries Vosloo Hospital are not for the use of construction workers. Toilets will be within reasonable distance of workers, or placed with each working team in safe, with reasonable privacy. Hand washing facilities will be provided. Failure to ensure compliance will be considered a serious offence. High levels of humidity and temperatures during the summer months may be experienced. Workers are at greater risk of heat exhaustion where the discomfort index rises above 100.

A weather station has been allowed for to monitor temperature and humidity specifically. Should the discomfort index rise above 105, work may be partially or totally stopped. Workers must be supplied with adequate protective clothing and shelters provided as necessary. Flooding may occur during the rainy season.

High winds may be experienced and to limit dust or danger when working at heights, a wind speed is set at maximum of 40km/h which work may be stopped or the workers in an affected area moved.

The emergency preparedness and response plan is to include how these and other weather extremes identified are to be managed. The general aspects as detailed in the Environmental Regulations will be applied.

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

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

16.3 Discipline, Alcohol and Substance Abuse

All employees (management included) are to follow instructions given in the interest of H&S. Disciplinary action is to be imposed on those who do not follow such instructions or company rules or policies. 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.

The PC is to have a drug and alcohol policy available to manage such instances. These requirements are applicable to any employee of any organization providing services on site. Penalties may also be imposed by the Client, OHS Agent, Engineer or Principal Agent.



16.4 Rules of Conduct.

- I. Workers MAY NOT partake, possess or sell drugs or alcoholic beverages on site or anywhere in the hospital precinct;
- II. Any employee or visitor whose action and demeanour show symptoms of possible narcosis or drunkenness shall be removed from site;
- III. Workers MAY NOT indulge in practical jokes, horseplay, fighting or gambling;
- IV. Workers MAY NOT destroy or tamper with safety devices, symbolic signs or wilfully and unnecessarily discharge fire extinguishers;
- V. Workers MAY NOT bring onto site or have in their possession a firearm or lethal weapon;
- VI. Workers MAY NOT assault, intimidate or abuse any other person;
- VII. Workers MAY NOT operate construction equipment (vehicles or plant) without the necessary training and authorisation;
- VIII. 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;
- IX. Workers MAY NOT enter any area where they have no business unless authorised to do so by the person in charge;
- X. Workers MAY NOT negligently, carelessly or wilfully cause damage to property of others;
- XI. Workers MAY NOT refuse to give evidence or deliberately make false statements during investigations;
- XII. Workers MAY NOT work on site without appropriate induction training & proof thereof;
- XIII. The Contractor MAY NOT start any task without performing a risk assessment & training of the employees who will be involved in the work;
- XIV. All workers are to display their identification tags at all times;
- XV. NO SMOKING will be permitted within 100 meters of the Andries Vosloo Hospital;
- XVI. Workers are NOT to interfere with the duties of the Andries Vosloo Hospital they are working in;
- XVII. The Principal Contractor shall keep and maintain Health and Safety records to demonstrate compliance with this Specification, with the Occupational Health and Safety Act, Construction Regulations 2014, and any other relevant Regulations or Standard;
- XVIII. 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;
- XIX. The Principal Contractor shall ensure that all Subcontractors maintain the Health and Safety file.

16.5 Compliance with the Rules of Conduct.



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The Principal Contractor, Contractors and all employees under their control, including any visitor brought onto site must adhere to the rules of conduct on site, as listed in this specification.

These Rules of Conduct must also be adhered to by any of the following who visit the Site:

- ✓ Professional Team
- ✓ Andries Vosloo Hospital's Management and Staff
- ✓ ECDoH Employees
- ✓ Direct Contractors
- ✓ Trade Representatives
- ✓ Any other visitors to the Site.

17 SAFETY RULES WITH RESPECT TO WORK TO HEALTHCARE FACILITIES

All persons on the premises shall obey the ECDoH & Facility's Health and Safety rules, procedures and practices. No smoking will be permitted within the buildings.

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.

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. Emergency / Firefighting equipment belonging to the premises is not to be interfered with. Emergency Exits and Escape Routes, including Temporary Escapes Routes are not to be obstructed.

No persons shall carry out or initiate an unsafe / unhygienic act or operation whilst on the premises. Workers are not to interfere with the duties of the Hospital Staff. The Contractor shall maintain good housekeeping standards in the areas being worked on throughout the duration of the contract.

All waste / scrap materials are to be removed from the work areas on an on-going basis and should not be allowed to accumulate. The ECDOH and Adries Vosloo Hospital 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.

The ECDOH and Adries Vosloo Hospital Officials 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. The Adries Vosloo Hospital reserve the right to search any person entering or leaving the Adries Vosloo Hospital premises. Persons who are not willing to permit such searches may not bring any such items or vehicles onto the premises.



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All workers must wear proper identification labels at all times – The Contractor will be asked to remove persons without identification from the premises. The Contractor will not be permitted to use any tools or equipment belonging to the Adries Vosloo Hospital. 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.

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

- Working in the existing Andries Vosloo Hospital's Yard and Building with operational and normal health care operations throughout the contract period;
- Working with and around existing known and unknown services;
- Exposure to Excessive Dust;
- Working at height during, roof work, painting etc.;
- Exposure to noise & vibration from construction activities;
- Working in confined spaces;
- Restricted Contractor's yard area;
- Restricted access in some facilities for construction vehicles and deliveries of materials;
- Work with Mechanical Lifting Equipment while hoisting heavy metal equipment & materials;
- Stripping and Installation of Electrical Equipment;
- Possible community unrest or strikes.

19 PROCEDURES TO MANAGE PROJECT RISKS

- Ensuring that all workers and facility staff are properly inducted;
- Ensure that all Social Facilitation requirements are met prior and during construction;
- Ensure that communication processes are clear to all affected and relevant stakeholders;
- The provision of temporary, dust proof, hoardings to isolate the work areas where necessary;
- Provision of Industrial Extractor Fans and Dust Screens when generating dust inside the building;
- The use of closed bin trolleys/chutes for the transport of materials and rubble;
- Ensuring that the Principal Contractor has proper site management, site security and control measures in place at all times;
- Ensuring that there is ongoing liaison between the Principal Contractor and the Facility Management.



20 HEALTH AND SAFETY PLAN & FILE

The documentation submitted and approved following the awarding of the contract will be used to form the H&S file.

The H&S file is required to be prepared in a logical manner, and documentation filed within the file is to be easily accessible.

The following completed information shall be included (but not be limited to) as part of the index:

1. The Project Specific Health and Safety Specification;
2. Scope of Works;
3. The H&S Plan and the approval by Client;
4. Appointment by Client with CR5(1)(k) appointment;
5. Mandatory agreement with Client;
6. Notification of construction work/Construction Work Permit;
7. A record of all working drawings, calculations and design where applicable;
8. Detailed list of Contractors with contact details, appointments, Mandataries etc., H&S specifications issued;
9. Record of Competencies (CVs) and appointments;
10. Training Records;
11. Permits;
12. Method statements;
13. Risk assessments;
14. Safe work procedures;
15. Emergency and injury management;
16. Safety data sheets
17. Medical surveillance records;
18. Registers;
19. Records of audits, minutes etc.
20. Plant lists
21. Temporary electrical installations
22. Employee records (who is on site).



21 NON-CONFORMANCES

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. In a case of repetitive non-conformance on site, penalties will be imposed against the Principal Contractor.

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	

Failure to Comply with Provisions

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:

- 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.
- 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.
- The site instruction shall state the agreed time, which shall be the time in hours for reinstatement of the defects.
- 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

The payment items for Occupational Health & Safety are contained in the Bill of Quantities. The same rules are applicable in respect of the pricing of these items as for every other payment item. Attention is drawn to the Pricing Instructions in this document.

22.3 Item and Unit

1. C.01 - Preparation of Contractor's Project Specific Health and Safety Plan. (Lump Sum (L.S))

22.3.1.1 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

2. C.02 - Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations. (Lump Sum (L.S))

22.3.2.1 The full amount will be paid in one instalment only when the Client's Agent has verified and approved the following:

22.3.2.1.1 The Principal Contractor has notified the Provincial Director of the Department of Labour in writing of the project, Annexure A to the Regulations.

22.3.2.1.2 The Principal Contractor has made the required initial Appointments of Employees and Contractors.

22.3.2.1.3 The Client has approved the Principal Contractor's project Health and Safety Plan.

22.3.2.1.4 The Principal Contractor has set up his Health and Safety File.

3. C.03 - Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations. (Month (Mth))

22.3.3.1 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.

22.3.3.2 Payment will be made when the Client's Agent has verified the Principle Contractor's compliance as part of the audit.

22.3.3.3 This will include the updating and administration of the Health and Safety file.

4. C.04 - Provision of Personal Protective Equipment (PPE) as listed in the Bill of Quantities. (Number (No))

22.3.4.1 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.

22.3.4.2 Subcontractors are responsible for their own costs in this regard.

22.3.4.3 Any items of PPE not included on the list will be paid for only after the Engineer has agreed to their acquisition.



22.3.4.3.1.1 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.

22.3.4.3.2 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.

22.3.4.4 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.

5. C.05 - Provision of Full Time Construction Health and Safety Officer (Month)

22.3.5.1 The Tender sum shall include for the cost of a Construction Health and Safety Officer on a fulltime bases.

6. C.06 - Costs of Medical Surveillance (Unit (No))

22.3.6.1 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 23(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.

22.3.6.2 Workers in the permanent employ of the Contractor will only be paid for if their certificates require updating.

22.3.6.3 C.06 a) Initial (baseline) medical examinations, including audiometric and lung function testing.

22.3.6.4 C.07 - Induction Training (Unit (No))

22.3.6.4.1 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.

22.3.6.4.2 Payment will be made on the figures contained in the induction section of the Health and Safety File.

22.3.6.5 C.08 - Provision of First Aid Boxes. (Unit (No))

22.3.6.5.1 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.

22.3.6.6 C.09) Establishment of noise levels (Unit (No))

22.3.6.6.1 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.

22.3.6.6.2 Where a zone has previously been established for a particular item of plant within the last two years, the test need not be



Project Title- ANDRIES VOSLOO HOSPITAL- REHABILITATION, RENOVATIONS, AND REFURBISHMENT OF EXISTING ROOFS

repeated but must be kept valid for the duration of the Contract.

22.3.6.7 C.10 - Submission of the Health and Safety File. (Lump Sum)

22.3.6.7.1 Expenditure under this item shall be made in accordance with the general conditions of contract.

22.3.6.7.2 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.

22.3.6.7.3 This must be done prior to the issue of a Certificate of Completion.

RESPONSIBILITY	SIGNATURE	DATE
H&S AGENT SIGNATURE:		26/10/2023
CLIENT SIGNATURE:		



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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 incident that has led to property damage, personal injury, and/or fatality. 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) Project Scope of Works
- c) Principal Contractor's OHS Plan(s)
- d) Organograms
- e) Legal Appointments
- f) List of all employees employed on a permanent or contractual basis over the duration of the contract
- g) Notification to Department of Labour of commencement of work
- h) Letters of Good Standing for the Project
- i) 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
 - Asbestos Waste Disposal Certificates
- j) Incident Records
- k) Non- Conformance records
- l) Agent's Audits
- m) Method Statements
- n) Risk assessments
- o) Safe work procedures
- p) Medical surveillance certificates of fitness. Medical records are to be kept according to the OH&S Act as amended
- q) All drawings for temporary structures (suspended beams/scaffolds etc.)
- r) All operating manuals for any systems that require on-going maintenance
- s) 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 Officer/Site Agent		
Signature: of H&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 Officer: _____ Signature: _____

Date: _____

Construction Manager: _____ Signature: _____

Date: _____

PROJECT		Andries Vosloo Hospital - Rehabilitation, Renovations, and Refurbishment of existing roofs												
BASELINE RISK ASSESSMENT														
DATE		24-Oct-23										low	med	high
		SCMU3-23/24-0580-HO										1	4	12
		Risk Rating multiplier: Low = 1; Medium = 2; High = 3										2	6	18
												3	8	27
Note, this HIRA is a guide only and does not cover all risks. It must be read in conjunction with the Site Specific OHS Specification in the Contract document. The Contractor must supply a full risk assessment for all activities on site					Baseline risk				Residual risk					
REF where appropriate	OPERATION	HAZARD	Design Risks identified as present	Describe the obvious control measures to be part of design	Likely consequences of an incident	Frequency of Exposure	Probability of harm	Risk rating and risk category	Extra control measures necessary to reduce risk / Redesign by Client and / or Designer	Likely consequences of an accident	Frequency of Exposure	Probability of harm	Risk rating and risk category	
SITE ESTABLISHMENT														
	Existing Services	Electrical	Contact with electrical cable overhead-causing electrocution	erect warning signs, inform workers	1	2	3	6	Experienced supervision by site staff and Engineer . Obtain As-built Drawings of Existing power lines.	0	2	2	0	
			Contact with underground cable	erect warning signs, inform workers	1	1	2	2	Experienced supervision by site staff and Engineer . Obtain As-built Drawings of Existing underground cables. Prepare a Issue-Based RA on Locating and exposing underground electrical services.	1	2	1	2	
			Use of equipment under cable	erect warning signs, inform workers no work under cable without permission and compliance with ESKOM requirements	1	1	2	2	Experienced supervision by site staff.	1	1	1	1	
		Telephone	Overhead cables	erect warning signs, inform workers	1	3	2	6	Experienced supervision by site staff and engineer . Physical Identification of Telecom lines prior to commencement of lifting activity.	1	1	1	1	
	Clear are for site container and storage	Use of substandard hand tools	May be broken or improperly used	check tools for quality regularly	2	3	3	18	Correct PPE, Trained supervision	2	3	1	6	

	Clear site		ergonomic risks	Rotate work	2	3	3	18	Ensure workers fit for work. Proper supervision	2	3	1	6
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		Use of substandard Mechanical plant (Cranes, TLB, etc.)	noise induced hearing loss	see above	2	2	3	12	Proper supervision, operator training, Establishment of noise zones by AIA. Correct PPE including ear defenders/plugs	2	2	1	4
			plant striking person		3	3	3	27	warning lights and reverse hooter, trained operator, trained supervision	3	2	2	12
			Plant striking object/overturning		3	3	3	27	Proper supervision, operator training, Establishment of noise zones by AIA. Correct PPE including ear defenders/plugs	3	2	2	12
Environmental and facilities Regs	Waste Management	Use of temporary toilets	Health Issues	Use of chemical Toilets, at least one per 20 workers male and female separated	2	2	3	12	No Formal dehyde in chemicals. Serviced and cleaned at least once weekly	1	2	1	2
		coming into contact with buried medical waste	personal injuries and exposure to HBA	Request possible information on any possible medical waste buried on site before.	1	1	1	1	Always be vigilant and look for possible clues of medical waste buried underground when excavating. In a case that such waste is found, stop the operation at that particular area, barricade and report it to the Client.	1	1	1	1
		Incorrect Waste disposal	Health and Environmental issues	All waste properly disposed of to certificated Waste Disposal Site	1	1	1	1	No burning of cement bags or other refuse on site. Site to be kept tidy. Removal of all waste at regular intervals. Waste Disposal Certificates to be kept on file.	1	1	1	1
	Erect Offices	Use of lifting equipment	load falling/ injury to persons	Ensure lifting gear tested and certificate supplied qualified. No work under load area	3	3	3	27	load tested lifting gear and crane. Competent operators, Warning light and reverse hooter. Medical surveillance for operator.	2	3	2	12
	Fencing	Excavation of post holes	Improper use of tools	Training of workers	2	2	2	8	Ensure workers fit for work. Proper supervision	2	2	1	4
		Erection of posts	Improper use of tools	Training of workers	2	2	2	8	Ensure workers fit for work. Proper supervision	2	2	1	4

		Wire straining/fixing	Wire breaking injury to persons	Training of workers	2	2	2	8	Ensure workers fit for work. Proper supervision	2	2	1	4
	Public access	Persons in dangerous areas	injury to persons	Separate general public from construction area	3	2	2	12	Spec to require: Access control. Induction for visitors. Security control. Safety Notices.	3	1	1	3
	Use of small electrical tools	Contact with electricity	Electric shock	Certificate of Compliance for electrical supply	3	2	2	12	Ensure all connections secure, no breaks in cable. Proper routing of cables on site	3	2	1	6
CONSTRUCTION MOBILE PLANT & EQUIPMENT													
CR 23	Use of Construction mobile plant & equipment	Struck by vehicle	Injury to persons	Vehicle fitted with acoustic warning devices, hooter and reverse warning	3	3	3	27	Competent supervision and adequate pre-task training will be required. Competent fit operators	3	2	2	12
		Vehicle overturns	Injury to persons. Damage to vehicle	proper operation of vehicle	3	3	3	27	Competent supervision and adequate pre-task training will be required. Competent fit operators	3	2	2	12
		untrained operator	Injury to persons. Damage to vehicle	Only employ competent operators	3	3	3	27	Competent supervision and adequate pre-task training will be required. Competent fit operators	3	2	2	12
		Unlicensed plant	noise induced hearing loss	Fit or repair silencer	2	3	3	18	Proper supervision, operator training, Establishment of noise zones by AIA. Correct PPE including ear defenders/plugs	2	2	1	4
N-IH I Regs	Exposure to noise	over 85 Db for long period:	Hearing Loss	Avoid prolonged exposure to noise where possible	2	3	3	18	Noise monitoring survey by AIA, then to require establishment of noise zones. Noisy activities must be programmed in such a manner that it does not cause nuisance to the daily operations of the particular Health Facility.	2	2	2	8
	Exposure to dust	If severe lack of clear vision; Breathing problems	Loss of Lung Function	Dust prevention	2	3	3	18	specification to include dust palliative requirements. Contractor to provide a Method Statement on Dust Control and fully implement all such control measures when required.	2	2	2	8

EXCAVATIONS 500cm-1,5 m														
	Excavation by machine	Use of mechanical plant	Striking person or object	Vehicle fitted with acoustic warning devices, hooter and reverse warning	2	2	3	12	warning lights and reverse hooter, trained operator, trained supervision	3	1	2	6	
			Untrained operator			2	2	3	12	excavation barricaded as required. Proper supervision	3	1	2	6
			machine fall into excavation			1	2	3	6	warning lights and reverse hooter, trained operator, trained supervision. Ensure that a trained backman is available to guide the	1	1	2	2
	Excavation	By Hand/ machine	Improper use of tools	Follow safe work procedures	2	2	2	8	Adequate supervision. Operator has certificate of competence and medical. Training of workers	2	1	1	2	
		Trench collapse	Persons engulfed	Refer to geotech report if available prior to excavating. Follow approved excavation method statement	2	2	2	8	Checks by competent person. Shoring if recommended. Training of workers. Adequate safety precautions I e. well placed ladders or other escape apparatus. Conduct inspections prior to work commencing.	1	2	1	2	
		Fall into excavation	injury to persons	proper training,	2	2	3	12	Adequate supervision. Training of workers. Proper demarcation with physical barricading.	2	2	2	8	
		Ergonomic risks	injury to persons	proper training, and supervision	2	2	2	8	Rotation of work type, rest periods as needed.	2	1	1	2	

CONCRETE WORK													
	hand mixing	use of small tools	contact with cement	care in opening cement bags	1	2	2	4	Ensure workers fit for work. Proper supervision	2	1	2	4
			inhale cement dust	care in opening cement bags	1	2	2	4	Ensure workers fit for work. Proper supervision	2	1	2	4
			ergonomic risks	Rotate work	1	3	3	9	Ensure workers fit for work. Proper supervision	2	3	1	6
													0
					2	2	3	12	Safe work procedures to be followed, toolbox talks	2	3	1	6
	use of concrete vibrator	injury to persons	noise, vibration, contact with vibrating head, contact with wet concrete	Operator training	2	2	3	12	Experienced supervision by site staff . Competent Inspection. Use of proper equipment	2	2	1	4
DEMOLITION OF WALLS & BRICKWORK													
	Delivery of materials by truck	struck by truck	Injury to persons	Vehicle fitted with acoustic warning devices, hooter and reverse warning	3	3	3	27	Experienced supervision by site staff	3	2	2	12
	Offloading of materials	Accidental Release of materials such as steel	Injury to persons and/or damage to property	Safe lifting gear to be used.	2	2	3	12	Experienced supervision by site staff . Use lifting equipment that confirms with the requirements of DMR 18. Use of lifting equipment that has the necessary certification. Only competent operators should be allowed to lift or lower loads.	1	2	1	2
	use of access scaffolding	collapse of scaffolding	minor to possible fatality	to SANS10085 and Fall Protection	3	3	3	27	Competent Scaffold Erectors, and Inspector should be appointed. Proper Scaffolding equipment should be provided, inspected and certified Safe for Work. All workers working at heights should be certified fit to work at heights. Fully implement the approved Fall Protection and Rescue Plan.	3	2	2	12
	Minor Demolition of Walls	collapse of Debris onto workers and other persons in the affected area	minor to possible fatality	Strictly adhere to Demolition Plan & Risk Assessment.	3	3	3	27	Prepare a Risk Assessment, Demolition Plan. Induct workers on RA & Demolition Plan. Ensure full implementaiton of the Plan.	3	2	2	12
PLUMBING													
ELECTRICAL INSTALLATION													
	Electrical Contractor	Unregistered, incompetent contractor	poor work, cost overruns, no municipal connection	Ensure appointment of registered, competent contractor	3	2	2	12	Proper procurement procedures On completion COC	3	2	1	6
TRAFFIC ACCOMMODATION													
	Accommodation of traffic	Traffic hazards	Person struck by traffic	adequate control of traffic	2	3	3	18	CHSO to act has Traffic Safety Officer. Proper signage	2	2	2	8

HAZARDOUS CHEMICALS													
HCS Regulations	Use/supply of hazardous Chemicals	improper use/storage of hazardous Chemicals	Fire, explosion poisoning of persons	Supply appropriate materials safety data information	3	2	3	18	component person appointed to check stores. Proper storage preferably in a steel cage with concrete flooring. Provision of fire extinguishers	3	2	2	12
	Wet Works	Cement	Used across the project for a range of tasks, 50kg bags delivered on pallets, ergonomic risk from handling, dust exposure	Avoid contact with cement. Supply SDS	3	3	2	18	Dust control, PPE(eye and respiratory) Use of distributor when stabilising road. Rotation of workers	2	3	1	6
	Possible Formwork/Supp	Use of shutter oil	Usually hand application prior to placing formwork in position. Volatiles present	Avoid contact with shutter oil. Supply SDS	1	1	2	2	PPE - gloves for skin protection, adequate supervision	1	1	1	1
	Operate vehicle Plant on site	Use of Petrol/diesel/lubricants	Storage tanks on site. Fire, spillage, fumes	Avoid contamination with PDL	2	2	2	8	Local supplier preferred for petrol. bund walls around diesel tanks, emergency plan, Hazardous chemical store for petrol and lubricants. Supervision	2	2	1	4
WORKING AT HEIGHT													
CR 10	Working at Heights	Scaffold not properly erected	Scaffold collapse	calculate load capacity of scaffold. Proper design of scaffold	3	3	3	27	Specification must ensure design is done by competent person Scaffolding to comply to SAN10085	3	2	2	12
		Scaffold not properly erected	Fall from height	Fall protection Plan by registered fall planner	3	3	3	27	Experienced supervision by site staff	3	2	2	12
		Scaffold not properly erected	Falling objects	Use of toe boards, proper decking, catch nets	3	3	3	27	Experienced supervision by site staff and Engineer. Competent Inspection	3	2	2	12
BIOLOGICAL HAZARDS													
	Working within medical facility	Exposure to contact and airborne diseases	Contracting /becoming ill	HIRA adequately done, Fitness to Work Medicals	2	3	3	27	Screening of employees, following protocols at medical facilities, Vaccinations where required (Especially withing TB Hospitals).	2	2	2	12

OCCUPATIONAL HEALTH & SAFETY RELATED ITEMS:Andries Vosloo Hospital: Rehabilitation, Renovations, & Refurbishment of existing roofs					
ITEM NO	DESCRIPTION	UNIT	QTY	RATE	TOTAL
1	Occupational Health & Safety Obligations				
1.1	Preparation of the Contractor's site-specific Health and Safety Plan & File	Sum	1		
1.2	Allow for the necessary Workman's Compensation Fund or FEM contributions for the duration of the project with and including renewals	Sum	1		
1.3	Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations and relevant & applicable Standards	Sum	1		
1.4	Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Month	20.0		
2	Provision of Personal Protective Equipment (PPE) Note: Tenderer to provide quantity for full component of staff for contract period				
2.1	Reflective vests with visible marking of contractor's name and proof of induction	Item	60		
2.2	Hard Hats (High Density polyethylene, & 6-point lining)	Item	60		
2.3	Safety boots/shoes (Steel-Toe)	Item	50		
2.4	Earplugs/muffs	Item	800		
2.5	Dust Mask (at least FF2 type)	Item	500		
2.6	Safety gloves	Item	250		
2.7	Overall/work suit	Item	100		
2.8	Personal Fall arrest and rescue equipment with and including lifelines and associated equipment	Item	10		
3	Provision of a Competent Construction Health & Safety Officer				
3.1	Provision of a Full time Construction Health and Safety Officer (SACPCMP Registered)	Month	20.0		
4	Cost of medical certificates and medical surveillance per employee Note: Tenderer to provide quantity for full component of staff for contract period	Item			
4.1	Initial (baseline) medical examinations	Item	60		
4.2	Periodic and exit examinations	Item	40		
4.3	Induction training inclusive of Environmental and HIV/AIDS Awareness Programmes	Sum	60		
4.4	Provision of First Aid Boxes to GSR requirements for each site i.e 2 sites	Item	2		
4.6	Level 2 First Aider/s	Month	20.0		
4.7	OHS Awareness Signage	Sum			
4.8	Fire and emergency prevention signage, extinguishers	Sum			
5	Adhoc: Any OHS related requirements not listed above				
5.1	Printer, Paper and Ink, consumables	Sum	1		
5.2	Waste bins	Item			
5.3	Under cover eating area	Item	2		
5.4	Close out H& S files scanned electronically with original files to CHSA.	Sum	1		
SUBTOTAL TAKEN FORWARD TO THE PRELIMINARIES					

PART C4 SITE INFORMATION

C4.1 SITE INFORMATION

Bid Description:	Andries Vosloo Hospital - Rehabilitation, Renovations & Refurbishment of existing roofs
Project Number:	SCMU3-23/24-0580-HO

GENERAL

Prospective bidders to familiarize themselves with the locality, access, any other “restrictions” (Refer to Scope of Works C3)

Andries Vosloo Hospital:
Erf 1332, Corner of Worcester Street & Hospital Road, Somerset East, 5850 Eastern Cape Province

Coordinates: 32°43'58"S 25°35'27"E / 32.73274°S 25.59075°E / -32.73274; 25.59075

GEOTECHNICAL INVESTIGATION

N/A